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MEDITERRANEAN ACTION PLAN

Tenth meeting of the Focal Points for SPAs

Marseille, France, 17-20 May 2011

Proposal for inclusion in the SPAMI List: Marine Protected Area of Porto Cesareo

UNEP
RAC/SPA - Tunis, 2011

Note : The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of UNEP and RAC/SPA concerning the legal status of any State, Territory, city or area, or of its authorities, or concerning the delimitation of their frontiers or boundaries.

Mediterranean Action Plan
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Executive summary

❖ General and management aspects

The Porto Cesareo MPA, instituted by the Minister of the Environment with a Ministerial Decree dated 12/12/97, is a Marine Reserve of the State, entrusted to a Society of Direction constituted by the Towns of Porto Cesareo and Nardò, in which territory there is the Reserve and the Province of Lecce. The MPA is the unique State Marine Reserve of Salento, the biggest of Puglia and the third for its size among those instituted recently in Italy. The instituted purposes of the MPA are the protection of the sea environment, the promotion of social-economic eco-compatible development, the realization of environment educational projects for interested people without age limit as well as promotions and realizations of projects of scientific research.

In the sea protected area by the Porto Cesareo MPA, there are three SIC sites (sites of Common Importance), instituted by M.D. n. 5 of 05 March 2005 (GU – Official Gazette- of the Italian Republic n. 157 del 21/07/05. at the senses of directive n. 92/43/CEE, with a total of 6400 ha of sea included in the MPA and at the same time in the marine SIC.

Porto Cesareo has got a very important marine activity, formed by 130 professional naval unity of fishing with permission and 250 professional fishermen. The whole activity of professional fishing is concentrated into the MPA. The coast of the MPA, that counts not more of 10.000 inhabitants in winter, while in the Summer time, there is a great flux of tourists: about 100.000 visitors per year recorded by hoteliers and tour operators. If you count also the tourists owners of sea-side properties, they become 1.374.000. Great part of this kind of tourism is bathing and submarine, with its 10 diving-centre opened for the whole summer season and hundreds of submarines every year, 3000 naval moored unity and thousands of sporting fishermen doing their activity in the MPA.

See Annex 1: Marine Protected Area "Porto Cesareo": geographic and environmental framework

❖ Naturalistic aspects

In the 1972, Prof. Pietro Parenzan, director and fonder of the Station of Marine Biology of Porto Cesareo, talked about the need to preserve the depths of Porto Cesareo’s coast-line, proposing the institution of a “Zone of biological rest”, before the creation of the Italian MPAs. During his researches, done in the area for many years, Parenzan knew by intuition the power of the sea “that goes from Tower Lapillo to Tower Inserraglio”.

Porto Cesareo, with its 5000 inhabitants, is a little marine locality set on the Ionian Sea, 28km from Lecce, opened and set in the West of the Salento Peninsula.

Porto Cesareo has coasts rich of outcropped rocks and little islands, among which, the western islands have particularly sizes. The greatest islands of this side are:

1. the Big Island (today known as The Island of Rabbits), is from about 500m from the coast and has more than 200 botanical species, representing the only station of the association of vegetation inula-limonium-salicornia. During the 1950s, was object of reforestation with Aleppo Pine-tree and acacias by the State Forestry Corps, financed by the Fund of the South.
2. The island of the Mallow, is on the left of Tower Chianca. Its name is a reference to the growing of Lavaterea Arborea, the arboreal mallow.

3. The island of Chianca is named from the Tower opposite it.
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The coast of the MPA is very irregular: you can go from calcareous esplanades to sandy beaches, where the coastal dune has a vegetation of shrubs among the gulf.

The dunes’ cord, that delimits Porto Cesareo’s beaches, is very high and large. In this particular habit, there are various species of thyme, grass-star, cyst, sea-lily, polygon of sands, the weed of sands, the calcatreppola of the sands, the sea bindweed, the perpetuini of Italia, the poppy of sands, the bindweed of sands, the ravastrello, the sea fennel, the euphorbia of the sands. On the dunes grows up the shrubs like the cuddly juniper, the mastic, the myrtle. The real “Mediterranean undergrowth” develops near the dunes, where the original sandy element is gradually substituted or covered by a more fertile but with less salinity ground. In this site there are arboreal species and shrubs together, like maquis scrubland olive and mastic.

The coast-line of the MPA is characterized by outcropping of low carbonates at the sea level. This rocky coast is interested by karst phenomenon as the “Spunnulate” (form like sinkholes fallen) and real caves.

Karsts phenomenon, characteristic of the whole Salento, has caused the development of several underwater caves and are also interesting naturalistic environment, where you can find populations of sciaphilous of hard subtratum. At the entrance of the caves, there are seaweeds like the *Peyssonnelia*, (coralligenous), and other green seaweeds like *Flabellia petiolata, Halimeda tuna, Palmophyllum crassum*.

The caves have got populations characterized by the presence of fauna: protozoa, porypherous, molluscs, cnidarians, anellids, arthropods, bryozoans, brachiopods, echinoderms, tunicates and vertebrates. Porypherous are the major group for their specific richness. The species more abundant in the zones near the entrance are of incrust type: *Agelas oroides*, *Aplysina cavernicola*, *Oscarella Iobularis*, *Chondrosia reniformis* and *Clathrina* sps. In the internal part there are incrust species: *Aaptos aaptos*, *Erylus euastrum*, *Diplastrella bistellata* and *Spirastrella cunctarix*, and also sub-massive form like *Petrosia ficiformis*, *Ircinia pipetta*, *Geodia Cydonium*. There are also *Clionia* species. The Myrmechioderma spelaea species is in the caves. The *Petrobiona massiliana* is a relict species, an archaic species survived during the geological eras thanks to the refuge into the caves. There are anthozoa in great number (*Parazoanthus axinellae, Leptopsammia pruvoti*), the hydrozoans (*Halecium labrosum, Eudrendrium racemosum, Amphinema dinema) and the bryozoans (Schizobrachiella sp., Myriapora truncata*). Among the molluscs the date mussel (*Lithophaga lithophaga*) for its use to make a hole in the rock, is frequent in this caves of calcareous origin.

In annex 1 there is the table with a list of taxa come out by the monitoring of the sea-caves of Porto Cesareo MPA.

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The peculiarity of the coralligenous in the Ionian Sea is the low deep into the which it grown up, at 12m deep. This peculiarity has got strong effects over the underwater tourism, because

this habit becomes more accessible also to inexpert subs. This is the reason why there must be more attention and care in relation to this particularly habit.

The organic concreting is made by red seaweeds (*Peyssonnelia* sp.). Among the seaweeds there are also other organisms: bryozoans, anthozoa, madreporaria like the Clodocora coespitosa, (the bigger colonist madreporaria of the Mediterranean), and other anthozoa like gorgons *Eunicella* sp., the *Gerardia savaniglia*, (the false black coral), polychaetes, tubicolous and sponges like the Axinellae. The UE is receiving the requests from the Mediterranean scientific community (http://www.rac-spa.org/site/default/files/pacoralligene.pdf) in order to include the great number of marine habits among those of the Directive 92/43/CEE, where there are the majority of ground habits. Nowadays, the rocky depth are represented in the Reef habitat (cod.1170), but the idea suggested to the scientific community is that to put the "coralligenous" habitat among those of priority.

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In addition to the coralligenus and the caves, one of the most important habitat of this MPA is the grassland of *Posidonia oceanica*, between Punta Prosciutto and Porto Cesareo. In some zones, the depth covered by the "matte" becomes rocky and with basins next to rocks, together they represent the marine variant of the "spunnulate", residues of ancient caves now underwater. Here there are the corvine (*Sciaena umbra*), grouper brown (*Epinephelus marginatus*) and many other big fish.

Recently, also in Italy, the Italian Society of Marine Biology has suggested a series of changes at the distribution of Sites of community Importance, underlining among the new ideas also the urgency to put in the coralligenous.

An interesting habit, in the Enclosed I (habit directive cod. 8330) is formed by **underwater marine caves**, with their calcareous origin of the subsoil. The Society of Direction of Porto Cesareo MPA has recently financed the monitoring of caves' populations, with particular relevance to the valuation of impact because of the presence of tourists. (Fraschetti *et al*, 2009).

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(http://www.ciesm.org/online/monographs/porto:html) that is the first step toward the Afrodite Project over all Italian MPA.

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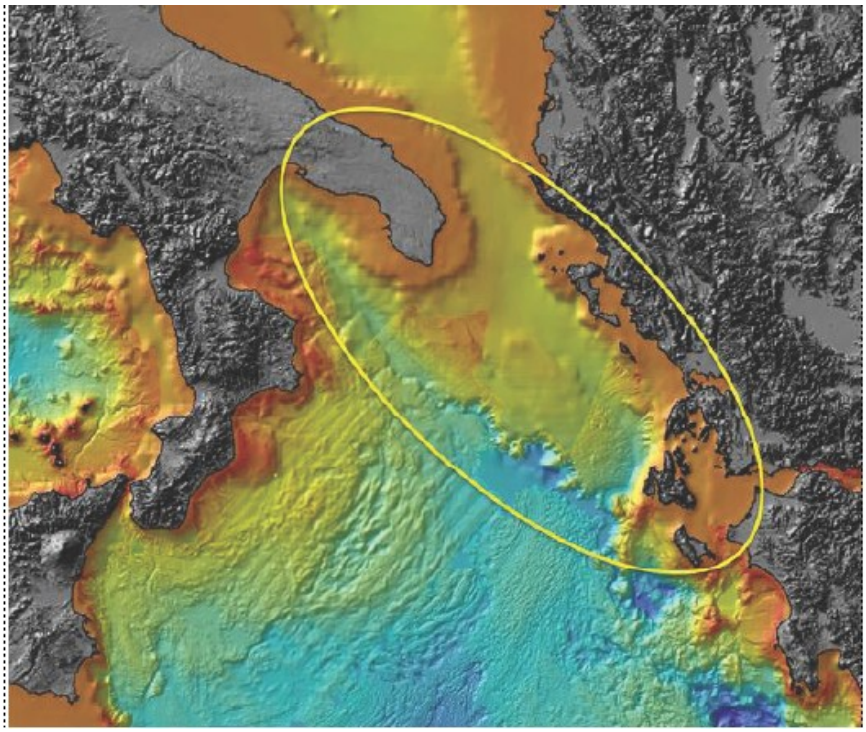

Image 1: Peace park Area “North Ionian”

BIBLIOGRAPHY:

- Fraschetti S., Guarnieri G., Bevilacqua S., 2009 – Progetto “Attività di Monitoraggio su habitat prioritari (Direttiva Habitat) nell’Area Marina Protetta Porto Cesareo. Sintesi delle attività svolte negli ambienti di grotta dell’Area Marina Protetta Porto Cesareo. Relazione Finale. CoNiSMa – Antheus.
- Sarà M. 1968 - Un coralligeno di piattaforma lungo il litorale pugliese. Arch. Ocean. Limnol., 15 (Suppl.), 139-150.

Presentation report submitted

1. AREA IDENTIFICATION

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

Italy

1.2. ADMINISTRATIVE PROVINCE OR REGION

Regione puglia, Apulia Region
Provincia di Lecce,Province of Lecce
Consorzio tra i Comuni di Porto Cesareo, Nardò e la Provincia di Lecce

1.3. NAME OF THE AREA
Area Marina Protetta Porto Cesareo
Marine Protected Area of Porto Cesareo

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 Porto Cesareo MPA is in the East of the Gulf of Taranto, Northern Ionian, 28 km from Lecce, and it is located in the centre of Ionian coast, between Taranto and Gallipoli. The MPA takes care of Porto Cesareo and Nardò, both of Lecce's Province. The coast of the MPA is limited in the North by Punta Prosciutto and in the South by Tower Inserraglio, with a total of 33km coast. In the North of Porto Cesareo, the coast is rocky with sandy beaches and the presence of Mediterranean scrub, outcropping of waters-bearing and presence of channels and artificial backdunal basins, derived from the reclamation of marshes.

In the MPA there are two large bordered marine areas; the first, of about 1km long and 500 metres large, is partly closed by the Big Island in the South-west, and by a series of other little islands and little rocks; the second bordered area, 2500m long and 1000m large, is closed in the South-west by the peninsula "La Strea", 1500m long and bordered in the South by two little creeks localized at Tower Squillace sides.

Next to the creek, in the South of Tower Squillace, there is about 1 km of coast nearly rectilinear, in NW-SE direction, and a series of little creeks until Tower S. Isidoro Bay, 500m long, opened in the NW and partly closed in the West by a little island of about 200m long.

A series of little creeks and promontories with rocks at short distance from the cost is the characteristic of the South coast until Tower Inserraglio.

Backdunal basins handmade made give mild waters through a series of superficial and underground channels. The characteristic of the landscape is the presence of seven towers built in order to defend from Turkish invasions.

In the MPA we can find three marine SIC: "Porto Cesareo" pSCI (Cod: IT9150028), in the C Zone of the MPA with a total of 21,8 ha; "Palude del Capitano" pSCI (Cod: IT9150013), in C and B Zone, with a total of 1.676 ha. "Palude del Conte and Dunes of Punta Prosciutto" (Cod: IT9150027), in C Zone, with a total of 3659,5 ha and in A Zone with 1047,6 ha.

Along the coast of the MPA, there are two Regional Protected Areas: the Regional Directed Preserve "Palude del Conte and coastal Dune- Porto Cesareo", given to the Town of Porto Cesareo and the Regional Natural Park "Portoselvaggio-Palude del Capitano" given to the Town of Nardò, into the which there are 5 SIC earth's sites, three of them include the already said marine parts.

1.5 SURFACE OF THE AREA (total)

16.654 ha (in national unit)

1.6. LENGTH OF THE MAIN COAST (Km)

32,707

2. EXECUTIVE SUMMARY (maximum 3 pages)

General and management aspects:
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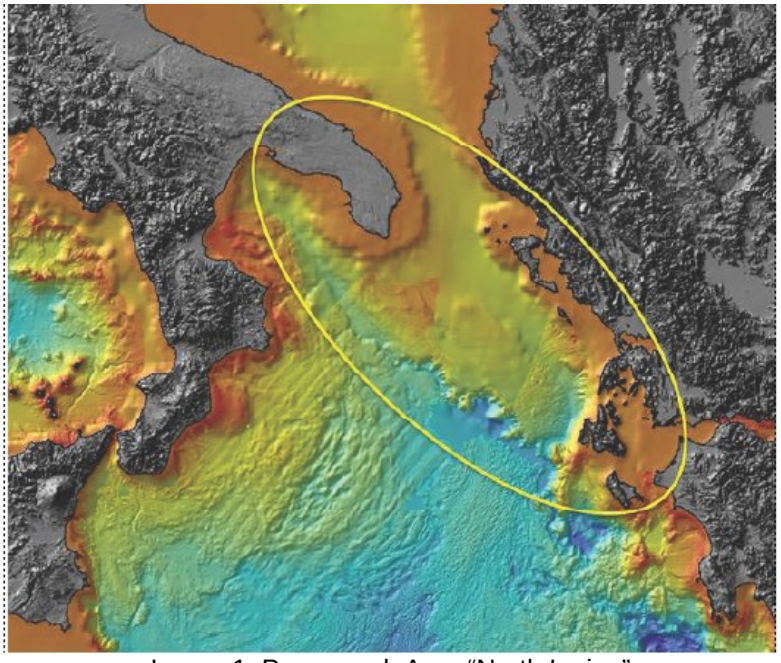

Image 1: Peace park Area "North Ionian"

BIBLIOGRAPHY:

- Fraschetti S., Guarnieri G., Bevilacqua S., 2009 – Progetto "Attività di Monitoraggio su habitat prioritari (Direttiva Habitat) nell'Area Marina Protetta Porto Cesareo. Sintesi delle attività svolte negli ambienti di grotta dell'Area Marina Protetta Porto Cesareo. Relazione Finale. CoNiSMa – Antheus.
- Sarà M. 1968 - Un coralligeno di piattaforma lungo il litorale pugliese. Arch. Ocean. Limnol., 15 (Suppl.), 139-150.

3. SITE DESCRIPTION

3.1. TYPOLOGY OF THE SITE

3.1.1. Terrestrial surface, excluding wetlands (ha): 18ha Isle

3.1.2. Wetland surface (ha): Not applicable to the proposed area

3.1.3. Marine surface (ha):

Marine internal waters: Not applicable to the proposed area

Territorial sea: 16,654 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 region of Puglia is the southern emergent part of the Apennines-dinaric country. The structure of this region is represented by a carbonate succession of margin-platform of the Jurassic-cretaceous era, many km long. The different lithologic unities of this succession are indicated in literature with the name of the Limestone of Murge and Salento (Ciaranfi *et al.*, 1988).

Salento is formed by two marine ingressions in the Pliocene inferior interval – at the beginning of Pliocene medium and Pliocene medium – the end of Pliocene superior. During the first marine infringement, breccias and conglomerates were covered by sediments of deep sea. During the second marine infringement calcarenites marly were sedimentary, containing *Cancer Sismondai* Meyer (Vanola, 1965; Bossio *et al*; 1987).

Another succession referred to terraced marine Deposit outcrops along the southern ionic coast. (D'Alessandro and Massari, 1997). This succession leans almost completely on the marls of the inferior Pleistocene and is made from down side to up by calcarenites of medium Pliocene, by silty sands of medium Pleistocene, by a limestone algal of superior Pleistocene. Near the coast there is a conglomerate and some deposits of dune both attributed to superior Pleistocene.

At least, we can remember the unities referred to the marine terraces outcropping along the coast between Gallipoli and Taranto: they are put at the bottom of Medium Pleistocene and the beginning of the Superior Pleistocene. (Dai Pra & Stearns, 1977; Dai Pra, 1982; Hearty & Dai Pra, 1985; Hearty et alii, 1986; Dai Pra & Hearty, 1988).

The presence of Senegalese faunas could be indicated by the "*Strambus bubonius* " in the zone between Gallipoli and Taranto during the Tyrrhenian Age with its sediments.

Between the end of the Cretaceous and the Miocene, late relating the collisional regimen Africa-Europa, the southern part of Puglia was interested by a tectonic of including type.

During the Miocene Age the not homogeneous behaviour of apula plaque became more noticeable, in fact, while wide northern sectors of Puglia remaned over the sea level, in Salento happened an important sedimentary cicle. (Palmelonta & Vignola, 1980; Guarrichio & Zezza, 1982; Tozzi,1993).

During the Pliocene-Pleistocene interval, the region was interested by a prevalent relaxing tectonic type.

During this interval, the main tectonic periods are in the Medium Pliocene and at the bottom of Pleistocene and they would be accompanied by a move towards NE-SW (Aurox et alii, 1984; Bossio et alii, 1987; Tozzi, 1993). Coastal area is constituted by a series of terraces in steps modelled by the sea during the Medium Pleistocene, thanks to the combination of glacial- eustatic variations of the sea level and the general folding that interested the region. Over some of these surfaces, there are dune cordons of Pleistocene Age. (Mastronuzzi & Sansò, 2002).

The inland shows some surfaces probably related to the Pleistocene depth sea or to a Pleistocene surfaces of marine abrasion. (Palmentola, 1987).

In the examined area, the most evident proof of sea- action is formed by a succession of terraced surfaces, situated on gradually decreasing altitudes till the shore-line.

During the Medium and the Superior Pleistocene, in fact, the folding of the area, with the glacial-eustatic variation of sea level, produced the conditions to model the wide surfaces. Six levels of marine terraces were recognised, some of these just abrasive, other just accumulated and another abrasive and accumulated together.

The karst erosion phenomenon (with an ancient genesis of the earth) has got many effects recently mixed up, more or less modified under the marine-erosive action. Many caves and ravines aren't listed in the official logbooks because they haven't the morphologic characteristics of the cave, and many caves wasn't surveyed despite their characteristics.

The phenomenon of karst has been determining the development of several submerged caves that constituted places of high naturalistic value.

Porto Cesareo has got a very indented coast: there are limestone levels of terraces and sandy beaches, where the coast dune shows a dense vegetation of shrub among gulfs, creeks, rocks and little islands.

The coast of the MPA is characterized by carbonate outcroppings over the sea level. This is a part of rock strongly interested by the karst phenomenon, evident in the "Spunnulate" (like doline collapsed) and in the caves.
From Punta Prosciutto to Porto Cesareo, the coast is low and sandy with shapes of windy origin, represented by string of dunes, outcropping groundwater and docks.

In the SE of Porto Cesareo, the coast is slightly above sea level originating cliffs and creeks.

The coast of Porto Cesareo is rich of cliffs and island with a great naturalistic value.

The little islands on the west side are very important thanks to their size.

In particular, the bigger islands are: The Island of Cesareo or The Big Island, (known also the Island of Rabbits). It's only 500 far from the coast and is covered by a thick pinewood of Aleppo tree and by acacias, planted by the Corp of Forest about 40 years ago.

The Island of Mallow is on the left of Tower Chianca. Its name is referred to the vegetation of mallow, *Lavaterea arbaorea.*

The Island of Chianca is so named because it is situated in front of the Tower.

The Island of the Rock, The Island of Middle and of Head are lined up back Tower Cesarea.

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

The tree main masses of water in the Ionian Sea are: Modified Atlantic Water (MAW) from the Strait of Sicily on the surface; Levantine Intermediate Water (LIW), from the North-East part of the eastern basin and it go into the Ionian Sea through the Canal of Crete; the Eastern Mediterranean Deep Water (EMDW), its main source of water is the Adriatic Deep Water (ADP). Between the LWI and the EDW, we find a mass of water of intermediate transition.

The Ionic circulation of the surface is generally cyclonic and largely influenced by the seasoned interact with the Adriatic Sea. During Winter and Spring, the Ionic water, very salty, takes part in the Gulf of Taranto and in the South of the Adriatic Sea, involving these areas in the Ionic Circulation with a cyclonic verse. During Summer and Autumn, the surfaced flux is dominated by water coming from the North-adriatic, influencing a coastal current toward the coasts of Puglia and it goes from Santa Maria of Leuca to the Gulf of Taranto, where it has a cyclonic circulation again.

Close to Porto Cesareo, the typical surfaced speeds are sized in 15cm/s, in the cases of a strong baroclinic, speed of the same order of size was been found close to the depth, particularly near the entrance of submarine canyon.

The calcareous and calcarenitic nature of the ground favours the creation of up and underwater caves and other typical forms like sinkholes collapsed. The main caves in the AMP are underwater or in the depths quite low. They aren't very big and have a reduced high and suspensive sediment. (Fraschetti *et al*. 2099).

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

a) Length of sandy beaches: 11 Km
b) Length of pebble or stony beaches: 21 KM
c) Length, height and depth of active sand-dunes: 6,5 Km, 7m, 20-30 m

3.3. FRESHWATER INPUTS

3.3.1. Mean annual precipitation (in mm): 605 mm

3.3.2. Main water courses (permanent and seasonal):

Not applicable to the proposed area

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
From Punta Prosciutto to Porto Cesareo, the coastline is low and sandy with outcropping of waters and the presence of calals toward sea

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)

Main Habitat in the Porto Cesareo MPA:
I. 2. 1 Biocenosis of supralittoral sands
I. 2. 1. 1. Facies of sands without vegetation, with scattered debris
I. 2. 1. 5. Facies of phanerogams which have been washed ashore (upper part)
I. 4. 1. 2. Pools with variable salinity (mediolittoral enclave)
II. 1. 1. Biocenosis of muddy sands and muds
II. 1. 1.1 Association with halopytes
II.1. 1. 2 Facies of saltworks
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. 1. Association with Lithophyllum lichenoides (= entablature with L. tortuosum)
II. 4. 2. 4. Associazione a *Ceramium ciliatum* e *Corallina elongata*
II. 4. 2. 6. Association with *Enteromorpha compressa* (*Ulva compressa*)
II. 4. 2. 8. *Neogoniolithon brassic*a-florida concretion
II. 4.2.10. Pools and lagoons sometimes associated with vermetids (infralittoral enclave)
II. 4. 3. Mediolittoral caves
III. 2. 3. Biocenosis of superficial muddy sands in sheltered waters
III. 3. 1. Biocenosis of coarse sands and fine gravels mixed by the waves
III. 3. 2. Biocenosis of coarse sands and fine gravels under the influence of bottom currents (also found in the Circalittoral)
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. 5. 1. 4. Association with *Caulerpa prolifera*
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. 3. Facies with Vermetids
III. 6. 1. 14. Facies with *Cladocora caespitosa*
III. 6. 1. 25. Association with Cystoseira compressa
III. 6. 1. 27. Facies with large hydrozoa
III. 6. 1. 32. Association with *Flabellia petiolata* and *Peyssonnelia squamaria*
III. 6. 1. 35. Facies and Associations of Coralligenous biocenosis (in enclave)
IV. 2. SANDS
IV. 2. 2. Biocenosis of the coastal detritic bottom
IV. 2. 2. 10. Facies with large Bryozoa
IV. 3. 1. Coralligenous biocenosis
IV. 3. 1. 7. Association with *Lithophyllum frondosum (Lithophyllum stictaeforme)* and *Halimeda tuna*
IV. 3. 1. 10. Facies with *Eunicella cavolinii*
IV. 3. 1. 11. Facies with *Eunicella singularis*
IV. 3. 1. 13. Facies with *Paramuricea clavata*
IV. 3. 1. 14. Facies a *Parazoanthus axinellae*
IV. 3. 1. 15. Coralligenous platforms
IV. 3. 2. Semi-dark caves (also in enclave in upper stages)

Other biocoenosis are:
III. 1. 1. Euryhaline and eurythermal biocenosis
III. 6. 1. 8. Association with *Dasycladus vermicularis*
III. 6. 1. 21. Association with *Dictyopteris polypodioides*

Cladophora prolifera meadow (see the text for explanation, 3.4.3 Paragrah), included in III.3.2 habitat.

The most abundant habitat among those listed above, represented in the map biocenotic (**Annex 2**), whose coverage percentages are given for approximate excess, are:

CODE	Habitats	Percentage of coverage
III. 2. 3.	Biocenosis of superficial muddy sands in sheltered waters	0,3
III. 2. 3. 4.	Association with Cymodocea nodosa on superficial muddy sands in sheltered waters	0,1
III. 3. 1.	Biocenosis of coarse sands and fine gravels mixed by the waves	0,8
III. 3. 2.	Biocenosis of coarse sands and fine gravels under the influence of bottom currents	55,6
III. 5. 1.	Posidonia oceanica meadows	26,6
III. 5. 1. 3.	Facies of dead “mattes“ of Posidonia oceanica without much epiflora	0,8
III. 6. 1.	Biocenosis of infralittoral algae	2,9
III. 6. 1. 1.	Overgrazed facies with encrusting algae and sea urchins	4,4
IV. 3. 1. 15.	Coralligenous platforms	8,4
IV. 3. 2.	Semi-dark caves (also in enclave in upper stages)	0,1

Terrestrial Habitat (Appendix F in SDF):
I Coastal and Halophytic communities
I.1 Saltmarshes, salt steppes, salt scrub
I.1.1.1 Glasswort swards
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.2.2.1.1 Embryonic dunes
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

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:

a) its relative abundance as Common (C), Uncommon (U) or Occasional (O),
b) Its global status as rare (r), endemic (e) and/or threatened (t), and
c) 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			
Aplysina spp. (aerophorba)	(C)	(t)	(R)
Axinella cannabina	(C)	(t)	(R)
Axinella polypoides	(C)	(t)	(R)
Geodia cydonium	(O)	(t)	(R)
Hippospongia communis	(C)		(R)
Ircinia foetida (Sarcotrachus spinosulus)	(C)	(t)	(R)
Spongia agaricina	(U)		(R)
Spongia officinalis	(U)		(R)
Tethya spp.	(C)	(t)	(R)
CNIDARIA			
Corallium rubrum	(O)		(R)
Gerardia savaglia	(O)	(t)	(R)
ECHINODERMATA			
Paracentrotus lividus	(C)		(R)
MOLLUSCA			
Ranella olearia (Argobuccinum olearium, A. gigenteum)	(O)	(t)	(R)
Charonia tritonis (Ch. Seguenziae)	(O)	(t)	(R)
Dendropoma petraeum	(O)	(t)	(R)
Lithophaga lithophaga	(C)	(t)	(R)
Luria lurida	(U)	(t)	(R)
Mitra zonata	(U)	(t)	(R)
Pinna nobilis	(C)	(r) (t)	(R)
Tonna galea	(U)	(t)	(R)
Zonaria pyrum	(O)	(t)	(R)
CRUSTACEA			
Homarus gammarus	(C)		(R)
Maya squinado	(C)		(R)
Palinurus elephas	(C)		(R)
Scyllarides latus	(U)		(R)
Scyllarides arctus	(U)		(R)
BRYOZOA			
Myriapora truncata	(C)		(R)
Sertella septentrionalis	(C)		(R)

PISCES			
Epinephelus marginatus	(U)	(t)	(R)
Hippocampus hippocampus	(U)	(t)	(R)
Prionace glauca	(U)		(M)
Sciaena umbra	(C)		(R)
Thunnus thynnus	(O)		(M)
Umbrina cirrosa	(O)		(R)
Xiphias gladius	(U)		(M)
REPTILES			
Caretta caretta	(C)	(t)	(M)
Dermochelys coriacea	(O)	(t)	(M)
Chelonya mydas	(O)	(t)	(M)
MAMMALIA			
Tursiops truncatus	(O)	(t)	(M)
Stenella coeruleoalba	(C)	(t)	(B)
Grampus griseus	(O)	(t)	(B)
MARINE PLANTS			
MAGNOLIOPHYTA			
Posidonia oceanica	(C)	(e) (t)	(R)
PHAEOPHYTA			
Cystoseira amentacea (stricta)	(C)	(t)	(R)
Cystoseira barbata	(C)	(t)	(R)
Cystoseira compressa	(C)	(t)	(R)
RHODOPHYTA			
Lithophyllum bissoides	(C)	(t)	(R)
Schimmelmannia schousboei	(U)	(t)	(R)

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

The surface rocky coastline is characterized by a strong hydro dynamism and by a great quantity of light. These variability cause the development of community dominated by seaweeds. Particularly, the populations lining in the rocky sub-stratum that are in the first meter of depth are characterized by the presence of canopy of algae of Genus C*ystoseira*, among them we can remember: *Cystoserea amentacea, C.barbata, C. Compressa.*

These three species are very frequent and they are continuously monitored because of their importance in relation to environmental point of view and to a situation described in scale of Mediterranean Sea. (Perkol-Finkel & Airoldi, 2010). Also the seaweeds like those of *Laurentia* and *Corallinales* species are very frequent in the superficial subtidal: *Amphiroa rigida, Corallina elongata e C. officinalis, Haliptilon* spp.

In the eutrophic and rich of organic substances waters (harbor- area), the substratum of superficial rock is colonized by nitrophilous green algae belonging to the *Ulva* and *Chaetomorpha* genus.

In areas not concerned with high hydrodynamism as close to the small islands and/or in the inner deep between 1 and 3 metres, the substratum, characterized by a fine grain colonized by a rich population of

Caulerpa prolifera.

You can find the *Caulerpa* prolifera in the depths of the sea on “dead matte”.

The phanerogam *Cymodocea nodosa* (Ucria) Asch, is a plentiful both in the inner of Strece’s peninsula and, cloe to the Rabbits’ Island and in the Tower Chianca’s Island, and along the sandy shores between 0.5 and 3 metres.

Peopling of photophilous algae that you can find on the deeper rocks, good lighted and subject to a short hydrodynamism are dominated by green algae belonging to *Acetabularia* and *Dasycladus* genus, from brown algae of *Padina*, *Dictyopteris* genus to the red algae of *Gelidium* and *Liagora* genus.

Among the vegetal species that generally prefer short lighting conditions, dominate algae belonging to *Flabellia, Halimeda, Peyssonelia, Sphaeroccoccus* genus.

A typical biotic AMP was described for the first time by Prof. Prenzan, like “bottom to *Cladophora plorifera”*, that develops between 25 and 40 metres of deep, on soft sea-bottoms of detrital nature, making big floating masses.

A common population in the MPA is represented by the “facies ad *Arbacia*”, characterized by encrusting coralline algae as calcareous red algae in thallus and sea-urchin; sessile organism dominating are those few animal species able to resist against sea-urchin’s browsing like *Chondrilla nucula* sponge, and the species with a calcareous skeleton like the madrepores *Caryophillia* sp. and *Balanophyllia europaea* and mollusks (Vermetids). It is a population of inferior diversity that was extensively studied in this area.

Also in this case the monitoring of the extension of this population is continuous as to find convenient management strategies to a possible rescue. At present, in Porto Cesareo, this population, also defined barren, is in the continuous band in the area near to Strea peninsula until Squillace Tower at deep between 2 and 15 metres.

The abundance of *Posidonia oceanica* is confermed by the presence of three SIC marine sites included in the preserve. Grasslands of *Posidonia oceanic*a extend from 10 to 30 metres of deep, and they are the cause of a formation of important coastal habitat like the banquette, that in the winter and autumn grew along the coast, creating high deposits.

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

The particular conformation of rock outline of the MPA Porto Cesareo coast aids the formation of ravines with intrusions, also in low waters, of typically population sciaphilous. The animal component is in fact characterized by anthozoa domination (*Parazoanthus axinellae, Leptopsamnia pruvoti),* bryozoans (*Schizobrachiella* spp., *Myriapora truncata, Sertella septentrionalis)* and sponge (*Aplysina* sp., *Sargotagus* sp., *Petrosia* sp., *Crambe crambe, Chondrosia reniformis, Dysidea avara*).

The typical biotic of hard substratum of deep sciaphilous ambient (from the bathymetric of about 20 metres), under the condition of soft light, is the **coralligenous of platform**. Such biotic is particularly developed in the open sea, at 2 miles of distance from Lapillo Tower.

Sponges of *Axinella* Genus are most common in comparison with the association to **gorgonians** and madreporans, typical instead of other areas.

The organogenics stratum of corals make an ambient with a complex structure. On it the installation of many animals like sponge, cnidarians (in particular gorgonians, corals like *Maasella edwardsi* and madreporans) polychaetes, bivalves, echinoderms, tunicates (like the characteristic tunicate *Halocynthya papillosa).*

The passage zone between photophilous and coralline ambient is called **precoralligenous**, and its characteristics are similar to coralline, but its covering and its concretion are less develop, particularly plentiful is the *Cladocora caespitosa,* the biggest madreporan bioconstructor of the Mediterranean Sea.

3.5. HUMAN POPULATION AND USE OF NATURAL RESOURCES

3.5.1 Human population

a) Inhabitants inside the area:

	Number	Date of data
Permanent	ca 5,000	2011
Seasonal number (additional to permanent)	100,000	

Description of the population

Population of Porto Cesareo is mainly constituted by operators of the primary sector (fishing) and in the tertiary (commerce, public services, tourism, transport, credit and/or insurance, public administration). Secundary sector, mainly composed by construction industries, is not so develop.

Main human settlements and their populations

Main human settlement is constituted by the Commune of Porto Cesareo (between the two Communes included in the MPA is the only one coastal), with a population of 5000 inhabitants.

3.5.2 Current human use and development

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

The Commune of Porto Cesareo has an ecomony mainly founded on the fishing and on bathing tourism, underwater and for sport., as declared by a Regional Determination n.660 of 24.11.2008, that enumerates the Commune of Porto Cesareo, the heart of AMP, in the list of **" Locality with touristic economy and City of Art" of Puglia (Annex 4).**

In general, social- economic context round that rise Marine Preserve is extremely complex, and in its there is the whole community which economy is historically based on tourism and professional fishing.

The Commune of Porto Cesareo, particularly, has an important Seamanship, composed by 130 naval unites of little professional fishing with license and 250 professional fisherman. The whole fishing activity of this fleet is concentrated on the inner of Preserve Marine, for two reasons:

1- in the AMP is include a free zone corresponding to the little natural harbour of the coast, in which the boats of the fisherman are anchored.
2- the extension of the protection area (16.654 ha of sea) keep the fishermen from fishing.

This fishing activity, must be prescribed and managed with the direct involving of the stakeholders, essential to the correct governance of this MPA.

The Porto Cesareo MPA has drawn up and activated his **Regulation of Execution and Organization** (**Official Gazette** n.1 of 02.01.2010).

The second resource of the territory is the tourism, originally constituted exclusively by mass and seasonal tourism, with the consequent presence of a consistent number of touristic operators in addition to the other linked activities (commerce, hotels, services). In the same way handicraft participates to these principal sectors developed in the area.

The presence of an MPA, on the contrary, constitutes a strong attraction to the quality tourism, more careful to the environment and to the ecologic impact of his services.

The share of the protection aims with the community is certificated by the existence of a **Environmental Quality Mark for the Touristic Operators** of the MPA, project started in the 2008 and grew in the subsequent years. This Quality Mark, is an efficacious instrument to create a net not only for the touristic operators of the area but also among them and the Subject Administrator of the Preserve, making share with the common aim to make use of the Environment in the ecologic way.

The presence and the real efficiency of this instrument, strongly suggested by the same MATTM, is reason of pride from AMP, and at present is one of the Guarded Marine Areas provided of this instrument, since several season active.

Therefore, MPA, thanks to a good administration, is trying to making a hard but progressive process of

touristic fluxes not only in the summer season, through the creation of alternative services active all the year (Environmental Quality Mark to the touristic operators; incentives to convert fishing-boat to tourism fishing, events in the autumnal and spring seasons, touristic packages low-cost promote at international level thanks to the tour operators.

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 Socio-economic	Conserv. Impact	Estimated No. of Users	Seasonality
FISHING				
Subsistence	3	3	250	
Commercial, local	3	3		
Commercial, non-local	0	0		
Controlled recreational	2	2	unknown	
Un-controlled recreational	2	2	unknown	
Other				
TOURISM				
Regulated	3	2		Highly seasonal: Summer frequentation (July and August)
Unregulated	1	1		
Indicate the type of tourism				
Bathing turism	3	3		
divers	2	2		
boating-yachting.	3	3		
.				
Tourism facilities	3	3		
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	2	2		
Stockbreeding	1	1		
Aquaculture	0	0		
EXTENSIVE STOCK GRAZING				
Subsistence	0	0		
Commercial, local	0	0		
Commercial, non-local	0	0		
OTHER ACTIVITIES				

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.

In the area there are a traditional vocation to fishing and it is one of the most important marine side of Italy concerning the little artisan fishing. Porto Cesareo, particularly, has got an important marine side, made with 130 naval unities for the little professional fishing with licence and 250 professional fishermen.

The whole fishing area is concentrated into the Marine Reserve, for two reasons:

1- In the MPA there is a “free Zone” in front of the little natural port of the coastline, in which there are the fishermen’s boats;

2- The size of the protected area (16.654 ha of sea) doesn’t allow to fishermen going out for their own fishing activities

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).

Main Habitat in the Porto Cesareo MPA:

I. 2. 1 Biocenosis of supralittoral sands
I. 2. 1. 1. Facies of sands without vegetation, with scattered debris
I. 2. 1. 5. Facies of phanerogams which have been washed ashore (upper part)
I. 4. 1. 2. Pools with variable salinity (mediolittoral enclave)
II. 1. 1. Biocenosis of muddy sands and muds
II. 1. 1.1 Association with halopytes
II.1. 1. 2 Facies of saltworks
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. 1. Association with Lithophyllum lichenoides (= entablature with L. tortuosum)
II. 4. 2. 4. Associazione a *Ceramium ciliatum* e *Corallina elongata*
II. 4. 2. 6. Association with *Enteromorpha compressa* (*Ulva compressa*)
II. 4. 2. 8. *Neogoniolithon brassic*a-florida concretion
II. 4.2.10. Pools and lagoons sometimes associated with vermetids (infralittoral enclave)
II. 4. 3. Mediolittoral caves
III. 2. 3. Biocenosis of superficial muddy sands in sheltered waters
III. 3. 1. Biocenosis of coarse sands and fine gravels mixed by the waves
III. 3. 2. Biocenosis of coarse sands and fine gravels under the influence of bottom currents (also found in the Circalittoral)
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. 5. 1. 4. Association with *Caulerpa prolifera*
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. 3. Facies with Vermetids
III. 6. 1. 14. Facies with *Cladocora caespitosa*
III. 6. 1. 25. Association with Cystoseira compressa

III. 6. 1. 27. Facies with large hydrozoa
III. 6. 1. 32. Association with *Flabellia petiolata* and *Peyssonnelia squamaria*
III. 6. 1. 35. Facies and Associations of Coralligenous biocenosis (in enclave)
IV. 2. SANDS
IV. 2. 2. Biocenosis of the coastal detritic bottom
IV. 2. 2. 10. Facies with large Bryozoa
IV. 3. 1. Coralligenous biocenosis
IV. 3. 1. 7. Association with *Lithophyllum frondosum (Lithophyllum stictaeforme)* and *Halimeda tuna*
IV. 3. 1. 10. Facies with *Eunicella cavolinii*
IV. 3. 1. 11. Facies with *Eunicella singularis*
IV. 3. 1. 13. Facies with *Paramuricea clavata*
IV. 3. 1. 14. Facies a *Parazoanthus axinellae*
IV. 3. 1. 15. Coralligenous platforms
IV. 3. 2. Semi-dark caves (also in enclave in upper stages)

Other biocenosis are :
III. 1. 1. Euryhaline and eurythermal biocenosis
III. 6. 1. 8. Association with *Dasycladus vermicularis*
III. 6. 1. 21. Association with *Dictyopteris polypodioides*
Cladophora prolifera meadow (see the text for explanation, 3.4.3 Paragrah)

Percentage of coverage are in 3.4.1 Paragraph.

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.

III. 5. 1. *Posidonia oceanica* meadows *(Posidonia oceanica, Pinna nobilis, Tonna galea)*
III. 6. 1. Biocenosis of infralittoral algae (*Lithophaga lithophaga, Luria lurida*)
III. 6. 1. 2. Association with *Cystoseira amentacea (Cystoseira amentacea)*
III. 6. 1. 35. Facies and Associations of Coralligenous biocenosis (in enclave) (*Ircinia foetida, Tethya spp., Erosaria spurca, Luria lurida)*
IV. 3. 1. Coralligenous biocenosis (*Axinella cannabina, A. polypoides, Ircinia foetida, Tethya spp., Gerardia savaglia, Erosaria spurca, Luria lurida, Epinephelus marginatus, Hippocampus hippocampus*)
IV. 3. 1. 15. Coralligenous platforms
IV. 3. 2. Semi-dark caves (also in enclave in upper stages) (*Dendroxea lenis, Merlia normanii, Tethya spp., Luria lurida)*

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 2006, (year of starting the Consortium of Management of MPA), activities of environment education have been realized for students, for inhabitants and for tourists, in order to increase the awareness and the active participation to the protection of the Area.

Every year, there are **didactic projects with Porto Cesareo and Nardò schools,** with a growth course involving scholars, teachers and parents. Every year, the MPA suggests a **cleaning campaign of the sea and beaches (Sea's Friends),** including scholars and freewill skindiver, in order to stimulate the citizenship.

In the 2006, the MPA financed with Ministerial funds the adaptation to tourist transport of 10 fishing boats. At the same time, the previous fishermen became “tour operator” promoting their activity. In this way, the MPA wants to create a net among the stakeholders, in order to make various and sustainable the tourist offer.

The **tourism-fishing**, born to erase the difficulty of fishing, is an opportunity eco-sustainable to use the sea and as a way to valorise the local culture linking the respect to the environment to the traditional fishing.

One of the first project realized by the MPA is a slipway for the storage of the numerous boats cruising in this area. **It has realized detailed campaign of information and awareness about proper disposal of oils and used battery.**

In the PIC Interreg IIIA “Tur. Sea Adr.”, it has been found and showed three diving trails in the most important sites of the MPA. In the same project it has been realized a train course to the diving centre operators, in order to give them the competences to protect the sea environment, doing their activities with awareness. In the Interreg IIIA “Tur. Sea Adr.” Project there is a specific didactic equipment for the skindivers, in order to make more safety the underwater activity.

In the 2009, the MPA was included into the **MAC National Project** and representing the Italian Reef-check project involving the skindivers that record the target species during their recreational activity. At the same time, the MPA adopts the MAC-beaches project, revolt to the schools in order to control the environmental status of beaches with the recognition and qualification of target organisms of beach.

In cooperation with the Oriented Regional Reserve “Palude del Conte and Coast Dune of Porto Cesareo, it is realized National Fields of Voluntary in Nature, in order to chose a way of tourism more awareness and more instructed. These fields represents a moment to realize the activity of environmental education.

In the summer time, the MPA realizes, with the MATTM funds and with the environmental associations (Marevivo, FIPSAS), awareness **Campaign “E...state nei parchi!”**, where there is running stands for all the coast, involving also children in playful activities.

The management society has stipulated a **Memorandum of Understanding with the Town of Porto Cesareo (Subject Management of the Oriented Regional Reserve “Palude del Conte and coast dune-Porto Cesareo”) and with the National Association “LIBERA contro le mafie” (Annex 5),** for the joint management of a coast dunes confiscated to the mafia and given to the Town of Porto Cesareo. The Protocol has, among the objectives, the joint management of the coast dunes and the realization of actions protecting the environment, the education for the respect of environment and legality.

The MPA has stipulated a **Memorandum of Understanding with the Town of Porto Cesareo and with the Station of Marine Biology of Porto Cesareo (Annex 6)**, to restructuring one of the 7 tower situated on the coast, (Tower Chianca), and the realization, in its intern, of a virtual museum about sea.

The MPA has signed a **Memorandum of Understanding with the University of the Study of Salento (Department of Science and Biology and Environmental Technology), the Town of Porto Cesareo and the Province of Lecce, for the common administration of the Museum of Marine Biology “Pietro Parenzan”,** important centre for the scientific, environmental information, with over 10.000 visitors per year. This Memorandum is attending the signature of the President of the Province of Lecce.

In the 2008, the MPA realized a **disciplinary for the concession of its own ensign as Quality Environment Mark for the Tour Operators**, over apposite Lines Guide given by the Minister of the Environment in the 2004. This document, required by law, 394/91 and suggested again by the according Program among MATTM, Confturismo, Federturismo-Confindustria of 29.07.2009, is an instrument to realize a net linking all the tour operator of the territory, and to consolidate the feeling with the Subject Manager of the Reserve, thanks to the sharing of a only one object: to use the environmental good in a way ecological sustainable. The presence of this instrument, strongly suggested by the MATTM, is reason of pride for the MPA, that, today is one of the few Marine Protected Areas to have this instrument active.

In the 2009, the MPA obtained the accreditation for the **National Civil Service**, by the Presidency of the Council of the Ministers. Thanks to this, and to the project presented every year, the Management Society of the MPA has the possibility to accommodate for a year young people to work into the communicative, administrative activity of the Society, improving their own competences over the Environment.

Finally, the MPA is the office to conduct **Degree Thesis, PhD Thesis, Stage and training**, in collaboration with the universities, first of all, that of Salento

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 MPA of Porto Cesareo covers a great scientific interest due to the presence of a rich and various marine community of high biological value and it was the reason for the proposal of institution of the "zone of biological repose" formulated in the 1972.

The MPA of Porto Cesareo is one of the few Areas that is able to claim the realization of the **mapping of the seabed**, with methods and technology (geo-acoustic systems and ROV) that give real information about typology, distribution and size of the habitat. The result of this mapping corresponds to the discovery of over 15 habitat over the seabed of the MPA. It's a very important result putting in evidence the MPA that includes the representativeness of the habitat.

A fundamental characteristic is the percentage of cover by the *Posidonia oceanica,* (presence in the MPA of three **SCI sites**),by Coralligenuos, by Underwater Caves, three habitats documented in the Annex of Directive CEE, and in the SPAMI Memorandum.

The surrounding hinterland of the MPA is characterized by 4 SCI sites earthly (three of them are also in part marine), and 2 Regional Protected Areas (Regional Oriented Natural Reserve "Palude del Conte and coast dune-Porto Cesareo", given to the Town of Porto Cesareo and the Regional Park "Portoselvaggio – Palude del Capitano", given to the Town of Nardò).

Endemic to this part of coast are the karst caves linking the sea with other waters into the "**spunnulate**", creating numerous ecosystems rich of biodiversity and also habitats acted to host most numerous migratory species of avifauna.

4.3.3. Aesthetic Interest (B-3 in Annex I)
Name and briefly describe any outstanding natural features, landscapes or seascapes.

The MPA of Porto Cesareo is characterized by a various coast (sandy coast with long beaches and high dunes, and rocky coats), and indented (rich of coves, little islands and reefs) that improves the aesthetic value of the territory and cruising is very suggestive.

Along the coastline, the two sites named "Spunnulate of Tower Castiglione" (in the Regional Oriented Reserve Palude del Conte and Coast Dune- Porto Cesareo) and "Palude del capitano (in the Regional Park "Palude del capitano – Portoselvaggio",in the A Zone in the south of the MPA), offer an exMPAle of natural and characteristic phenomenon of the territory named "Spunnulate".

The submarine ground is extremely attractive thanks to the presence of three habitats:
- large zones covered by ***Posidonia Oceanica*** **shallow***,* into the which you can find various species of fish and the *Axinella cannabina* and with *Pinna Nobilis*, the bigger mollusc bi-valve of the Mediterranean Sea;
- great **formation of coralligenous**, structured in rich bio-concretion of bio-diversity, they grow at 12cm in depth. This characteristic interest the touristic sector of skindiver, because it is accessible also to the inexpert;
- numerous **underwater marine caves**, many of which are very little and it is difficult to go in, they are on the rocky depth, many miles from the coast in 10m of depth, give to the skindivers the possibility to visit a fascinating site, rich of bio-diversity, adding to the suggestive light entering in the caves.

Far from the coast, where the depth is completely covered by the coralligenous, there are also many relicts: the most important is at three miles far from the coast in a depth of 30m. It is a relict of a military American navy (Neuralia), that took part in the First and Second World War, and in its enterprise has got the landing in Normandy. Today, this relict is kept in bad conditions and attracts on the tree and on the bulkheads, sea lilies (*Antedon maditerranea),* bryozoans, tunicates, gorgonians, amberjacks, tunas, dolphinfish and bluefish. There are also lobsters, crabs and morays.

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.

Porto Cesareo, in ancient times named "Cesarea romana", stand on the site opposite the ancient Sasinae, but, this site presents also the testimony of human settlement of about 18th century and 17th B.C., in locality "Scala di Furno". This is attested by the remain things of a village, like emporium, attended by greek mariners. There was found a site to the goddess Thana, votive statues and ceramic pieces.

From Porto Cesareo to Tower Lapillo, during the period of roman domination, there was a great port, compared to the agro-pastoral activity of Aneo and near Traiana Street and Sallentina Street.

Wetlands and raids by pirates impeded during the centuries a demographic increase.

In the second part of the 16th century, thanks to the fortification of all the territory with coastal towers, it was possible to start that gradual process of fishermen frequency come from surrounding areas, especially from Taranto. Close to this fishermen, that started to remain, came to habit also families from the hinterland.

It become to install cabins next to the tower, and by the time, also walling construction.

In this years it were built two "tonnare" (for tuna fish), that gave am important help to the economy of that period.

With the drainage of Arneo, in fascist time, the demography increasing got up rapidly. The centre, named Porto Cesareo, became meta of qualified handmade.

At the same time, it became to show a first form of beach tourism, while, the inhabited part grown up along the northern coast for 3km long.

At the end of the 1950s, the fishing increased and the Town of Porto Cesareo became a centre of bathing most important in the whole Salento. For this reason, the inhabitants asked the autonomy from the Town of Nardò, whose Porto Cesareo was hamlet, obtain it in the May 20th 1975.

Nowadays, Porto Cesareo is an important centre for the fish and a tourist country among the most qualified in Italy, as officially certified in the determining Regional Management n. 660 dated November, 24th, 2008, by which Porto Cesareo, heart of the MPA is in the list of the "**Sites with touristic economy and city of art" of the Region of Puglia**. (See Par. 3.5.2)

5. IMPACTS AND ACTIVITIES AFFECTING THE AREA

5.1. 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.

Among the most evident signs, caused in the past, there are also that caused to the cliffs, because of the collection of date mussel, practiced along the coast of Puglia during the past two decades. This rude action, today eradicated in the MPA thanks to controls done by the law enforcement, has left evident tracks of damn along the coastline. There are signs of damns over the 2,7 % of the sea bed, as long as 448,5 ha of rocky sea bed till to 5m of depth. (AA.VV., 2002; Fanelli *et al.*, 1994, Fraschetti *et al.*, 2001).

As described in 3.5.2, Porto Cesareo counts one the bigger **professional boat for small fisheries** of Italy, its activity is done at the interior part of the MPA.

Nevertheless, the MPA has reduced the activity of fishing in this part of sea, allowing the activity only to the fishermen of Porto Cesareo. In the MPA, it isn't allowed to fish with the practice of the trawling(practiced out of the perimeter). The type of fishing in the MPA allow the use of nets with mesh n.20,

more selective despite the Communiy Rules (Rule CE) n. 1967/2006 of the Council dated December 21st, 2006, with management measures for the sustainable exploitation of the Mediterranean fish with amending regulation (CEE)n. 2846/93 abrogating the regulation (CE)n. 1626/94).

Despite the greater selectivity of fishing mesh, used in the MPA, there is however a large catch of fish sub-size. (Guidetti *et al.* 2008).

This activity of fish represents one of the most evident form of exploitation of natural resources of the MPA with a impact study done by the CoNISMa (Consortium Inter-University for the Science of Sea). (Guidetti *et al.*, 2009).

The 32km of Reserve's coast are subject to a **beach tourism pressure**, from July to August, with over 100.000 tourist per year. This number rises adding to the tourist accommodated in hotels, B&B, that coming from the surrounding areas: in this case they become about 1.000.000 people per year, for a research not published by the Institute Tagliacarne (Ianne, 2006). Great part of this tourist practices others activity like **sport fishing with Hundreds of skindivers and thousands of boaters**.

The coastline marine state property interesting the MPA has about 60 concessions, 32 of which for the recreational-touristic activities.

The MPA has developed programs to gather a better understanding of ecological processes regulating biodiversity within the area, and to asses and monitor the health of marine habitats and the impact of human activities. Data are being collected and analysed using Geographic Information System (See **Annex 12**).

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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.

The main threat is represented by the excessive pressure of fishing.
It exists in minor quantity the alien species of *Caulerpa racemosa*.

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.

The area is already strongly populated and built, a part of the intense tourist frequentation. There isn't an expected increase of the human pressure linked to the increase of infrastructures and tourism.

5.1.4. Historic and current conflicts

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

The institution of MPA, in 1997, caused very strong conflicts between the Minister of the Environment and the local community, that, consisting in great part of fishermen, adverted the effect “NIMBY”(not in my backyard). The main reasons of this conflict were two:

1- The first design of the MPA included into the C zone also the little natural port in front of Porto Cesareo(the stretch of water between the coast and the Island of Rabbits), used also by the local fishing fleet like port for their boats. This conflict has been solved by erasing the design of the Reserve, and by leaving a stretch named “Open Zone”, like port for the little fishing boats.
2- The institution of the MPA, imposed without progress information, was perceived by the inhabitants as a subtraction or the stretch of water to the population, whose economy was founded over the fishing. This conflict has been solved, from the date of the activation of the Society with the settlement of Director (2006) with a continuous and widespread campaign of information and the involvement of the stakeholders during the decisional processes of the Consortium.

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.

The Town of Porto Cesareo hasn’t a sewerage system compensating with wells black. After the beach season of 2010, by the legislative Decree dated May, 30th 2008, n. 116 and by the successive publishing of the Ministerial Decree dated March 30th 2010, Italy has received the European Directive 2006/7/CE about Bathing Waters. The ARPA Puglia performed during the beach season 2010, from April to September, a monitoring for determining the two micro biologic parameter, *Eschirichia coli* and intestinal Enterococcus, in 22 sites of the MPA of Porto Cesareo of sMPAling in the MPA of Porto Cesareo. It’s important to say that during these sMPAlings, all the waters are bathing. Just some monitoring stations are contaminated, but with values highly under the minimum consented by the law.

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.

Scientific researches over the coastline of Salento (AA. VV., 2001) show the exposition of marine organisms used like bio indicators of pesticides and carbamates in the areas exposed at human impact, but of naturalistic interest (Tower Inserraglio, Porto Selvaggio), probably in relation to the agricultural activities diffused into the Hinterland of Salento.

Bibliography:

AA: VV, 2001. Rete di monitoraggio delle acque del basso adriatico e dello ionio - programma di ricerca “BIOINDICATORI E BIOMARKERS”. PIC Interreg II Italia-Grecia. Relazione finale.

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 social economic contest in which there is the MPA, is interested to protect the area without leaving

aside the individualization of new social- environmental balance. The whole management activity is realized in the view of politics of sustainable development.

The most import instrument of governance of the MPA of Porto Cesareo is represented by the Implementing **Regulation and Organization** (GU n.1 02.01.2010) that enables to the subject to control and to manage the using activity in the stretch of Water in a eco-sustainable way, acquiring dates of using (Adaptive Governace) the territory. The Consortium is doted of an informative **platform SIAP** (Informative System Protected Areas) realized for this reason, to manage the authorizations of the Reserve.

Among the first initiatives of the MPA in order to promote the growth of the area, there is the financing of 2006, with Ministerial founds to adapt **fishing boats to welcoming tourists**. The Consortium helps fishermen in the course of promoting and selling tour packs of Tourist Fishing. This is one of the most important strategy for the sustainable development of the territory with two natural vocations:the little professional fishing and the tourist welcome.

One of the most important enterprises consists of the realizations and actuation of the **Mark of Environment Quality for the Tour Operators of the MPA,** already described in this text.

Finally, the MPA is beneficiary of the **PON Security Project** (Fortified Tower look-out of Legality), financed by the Minister of Interior, and in step of actuation. The project is acted to give back the Saracen Towers, the ancient function of “look-out” for the territorial security, through a system of advanced video surveillance, with day and night views and radar.

The system will be used the monitor the illegal activities in the A zone of the MPA and in its Regional terrestrial Reserves surrounding the MPA. This system, finally, will be managed by the operators of the MPA and the law enforcement, to improve the security of territory.

6. EXPECTED DEVELOPMENT AND TRENDS[1]

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 listed driving forces (touristic fruition, marine state property fruition and professional fishing), there is the purpose of acting the follow objects.

Touristic fruition:

[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.

- Maintenance of vessels in conformity to the regulation in order to minimize the impacts (thanks to the use of the already realized slipway);
- Predisposition of a register for the underwater activities; for every guited visits it must indicate the date, the immersion site the names of the participants and of the guides;
- Emanation of settlement way of the underwater activity:
  - the immersion must be done in order to ensure the Regulation of performance and organization of the AMP.
  - it is not allowed to touch the sea bed during the immersion.
- Actuating of training courses organised by the Subject Governing finalized to the awareness of marine habitats, to the respect and to the fruition of the MPA.
- Mapping the sea bed of the area end introducing strategy of defence to important sites (marine caves, coralligenous, *Posidonia oceanica*), for example through the introduction of limits to the daily flux.
- Creation of a net economically and ecologically sustainable of services and structures to welcome tourists among the dealer of the Mark of Quality of the MPA.

Marine state property fruition:

- Environmental restoration of dunes zone and closed access (there are already projects of redevelopment of dunes);
- Activity of awareness to the way of fruition of the MPA;
- Controlling activity by the harbour Master;
- Integrative control by the MPA;
- Minimizing the abusive parking on the marine state property;
- Conference service with the member organs at the check of territory to improve the controlling activity of waste disposal.
- Involving the Civil Protection to manage the car traffic during summer time;
- Acting the Mark of Quality for the tour operators with a great expansion of them over the area;
- Variation of seasonal time for the touristic fruition;

Professional fishing:

- Coordination (already approved with Memorandums of Understanding) with the law enforcement to control the area;
- Awareness and information about the regulation of the AMP over all the Local marines;
- Changing by the professional fishermen to the touristic fishing to minimize the difficult to fish;
- Introduction and actuation, through the execution and organization Regulation, of a more restricting rule for the minimum size of net mesh, in order to delete the accidental capture of sub-size fish;

Sea pollution:

- Information and awareness to the correct disposal of oils and used batteries;
- Cleaning beaches and sea beds with the help of volunteer operating in the MPA;
- Awareness through the fruition of the reserve;
- Analysis of product type concerning the Ronchi Decree about waste over the sea beds and over the state property zone;
- Realization of Memorandums with ARPA Puglia (Regional Agency for environment of Apulia Region) for monitoring the sea pollutions.

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.

After the institution of the MPA, there was a strong conflict between local stakeholders and the institutions. Since 2006, year of Director settlement, these conflicts were managed involving the local population into the gesture aspects and in the Regulation of organization of the MPA. This relationship of trust grow up through meetings with the stakeholders. There are projects to improve the sustainability of local economy and for the creation of nets among the tour operators, in order to minimize the internal conflicts between users and the site.

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

The territory feels an unplanned development and an indiscriminate use of the coast and of the marine resources, happened in the 1970s.

Aware of the previous causes of human pressure listed before (professional fishing, tourism, underwater activity), and aware of the effort done by the Subject managed the MPA, to minimize the source of impact and to address the growth of territory though a bigger sustainability, today, the territory begins a course of environmental recovery to valorise the cultural and ecological development

7. PROTECTION REGIME

7.1. 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 action to institute the marine protected area “Porto Cesareo” became in 1966 by Prof. Pietro Parenzan, director and founder of the Station of Marine Biology of Porto Cesareo in partnership with the University of Puglia, based on naturalistic researches done in this area during decades. In the stretch of sea in front of Porto Cesareo, the researches done by Parenzan underlined the presence of a rich marine community with a great geological value, so important that it took part in the proposal about a “zone of biological repose” published on the “GAZZETTA UFFICIALE N 045 SERIE GENERALE PARTE PRIMA DEL 24/02/1998” (Official gazette n. 45 of 24.02.1998).

The Consortium of Management of The Marine Protected Area Porto Cesareo was instituted the 25th October, 2002 and to it ii given the gesture of the AMP with MD dated 04.04.2003.

The Regulation of Execution and Organization, drawn after numerous meetings between stakeholders, was approved by the MATTM and published on the GU n.1 (Official gazette n. 1) dated 02.01.2010.

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.

- Law 31 December 1982, no. 979
  Provisions for defence of the sea
  (G.U. – official gazette – of the Italian Republic no. 16 – Ordinary Supplement - of 18 January 1983)
- Law 8 July 1986, no. 349
  Institution of the Ministry of the Environment and regulations regarding damage to the environment
  (G.U. – official gazette – of the Italian Republic no. 45 – Ordinary Supplement no. 59 - of 15 July 1986)

- Law 6 December 1991, no. 394
  Framework law on protected areas
  G.U. – official gazette – of the Italian Republic no. 292 – Ordinary Supplement - of 13 December 1991)
- Interministerial decree 12 December 1997
  Institution of the MPA Porto Cesareo (G.U. – official gazette – of the Italian Republic no. 45 of 24 February 1998) **(Annex 7)**
- Law 8 October 1997, no. 344
  Provisions for the development and qualification of interventions and occupation in the environment sector (G.U. – official gazette – of the Italian Republic no. 239 of 13 October 1997)
- Art. 8 Law 31 July 2002, no. 179
  Provisions regarding the environment (G.U. – official gazette – of the Italian Republic no. 189 of 13 August 2002)
- Ministerial Decree n. 5 of 05 March 2005 (GU – Official Gazette- of the Italian Republic n. 157 del 21/07/05. "Regulament of protection and use of coste" List of proposed sites of Community importance for the Mediterranean biogeographical region – Directive n. 92/43/CEE".
- Regional regulation n. 17 of 23 June 2006 (GU - Official Gazette – of Apulia Region n. 79 of 27 June 2006). "Regulament of protection and use of coste"
- Regulation of Execution and Organization of the Reserve; Ministerial decree (G.U. – official gazette – of the Italian Republic no. 1 – Ordinary Supplement - of 02 January 2010) **(Annex 8)**

Other important documents:
- Convention for the delivery of the Porto Cesareo MPA to the Consortum of Mangement (**Annex 9**)
- Statute of the Consortum of MPA Mangement (**Annex 10**)

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 Marine Protected Area of Porto Cesareo, born to valorise the marine environment and the biological resources, has the follow proposals:

a. Environmental protection of the marine area;
b. Safe and valuation of biological resources and re-population of sea-animals;
c. Diffusion of ecological and biological knowledge of the marine habitats, of the coastline and of the reserve with important characteristics of the zone;
d. Acting educational programs in order to improve the ecology and marine biology culture;
e. Realization of study and research programs about ecology, marine biology to ensure the systematic knowledge of the zone;
f. Promoting a social-economic development linked to the naturalistic-landing importance of the area, elevating local traditional activities; to promote a compatible development in relation to the tourist flux and guided visits it must be easier to have collective transport services managed by Porto Cesareo and Nardò citizens.

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 Porto Cesareo 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.).

The MPA includes three SIC sites (sites of community interest), instituted with M.D. 157 dated 21/07/2005 directive n. 92/43/CEE, with a total of 6400 ha of protected sea by the SIA and present in the MPA.

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 AMP is divided in three zones with different grade of protection, A zone (No take Zone), B zone (zone of Reserve) and C zone. In each of these zones, there are specific prohibitions. See the 12/12/1997 institutive decree annex.

The delimitation of the Porto Cesareo MPA as well as its division into the areas A, B and C are established by the Decree issued by the Department of the Environment, enclosing cartography, on 31th December 1997, and published by the G.U. n. 45 of 24 February 1998.

The total Porto Cesareo MPA has a surface of 16,654 ha, and it is divided in three zones, according to the different protection:

-Two A ZONES (no entry-no take zone), that represent the 1% (about 200 ha) of the MPA. Yellow buoys delimit the A Zones.

-Two B ZONES, (General Reserve).

- One C ZONE (Partial Reserve).

In the B and C zones human activities (the swimming, scuba diving, yachting, fishing activities, etc…) are regulated according to the "ENFORCEMENT AND ORGANISATION REGULATIONS OF THE MPA OF PORTO CESAREO" (see attached document). Recreative fishing is monitored.

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.

Regulation of Execution and Organization of the Reserve (see Annex 8)

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 Porto Cesareo MPA has been established with the law of the Department of the Environment (Ministery of the Environment) of 31th December 1997 and includes the Municipalities of Porto Cesareo and Nardò.

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 Porto Cesareo MPA Portofino areas are both the safeguard of the sea biodiversity (very rich in this zone) 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 (see 7.1.3 section)

The Management Consortium is formed by Municipality of Porto Cesareo, Municipality of Nardò, and Province of Lecce.

The harbour Master is delegated by the Minister of the Environment and by the Minister of Safe of the Territory and the Sea to survey.

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.

Other Legal Provisions:

- Regional Law of the Region Puglia n. 17 dated June, 23rd 2006 “Discipline and safe of coastline wealth”, want to realize a Regional Plan for the shores;
- M.D. 157 dated 21/07/2005 to institute SIC sites into the MPA, with directive n. 92/43/CEE;
- To discipline for the concession to the AMP kike Mark of Environmental Quality for the Tour Operator, based on lines guided emanated by the Minister of the Environment in 2004 and emanated by Law 394/91 and then suggested by Accord of Program among MATTM, Confturismo, Confcommercio, Federturismo-Confindustria dated 29.07.2009.

Stakeholders:
Tourist operators
Professional and recreative fishermen
Representatives of corporate body of Professional fishermen
Scuba diving operators
Representatives of sailors, nautical and maritime operators
Representatives of the scholastic Institutions, of working associations and of the recognized environmental associations
Representatives of corporate body and working associations in the sector of the maintenance and exploitation of the artistic-cultural patrimony

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 organs of the MPA are the Board of Governors, the Director, the Reserve Commission. The responsible of the MPA is a Consortium constituted by the Municipalities of Porto Cesareo and Nardò, and the Province of Lecce.

8.1.2. Other participants in the management body
Such as other national or local institutions, as stated in Section D6 in Annex I.

(L. n. 979/82 art. 28 and L. N. 426/98 art. 2 co. 16). The Reserve Commission next to the Society delegated, in the gesture of the reserve, giving proposals and suggestions about the execution of the reserve itself. Particularly, the commission gives its though about the proposal of the executive regulation of the institutive decree and of the reserve organization, with prevision about manage costs, formulated by the society delegated. It's instituted it the Gesture Society based on what is showed by the art. 2, co. 339, L. December 24th 2007, n. 244:

- a responsible of Minister, with function of President
- an expert designed by the Region itself, with function of vice-President
- an expert designed in relationship among the coastal Municipalities
- an expert of the Minister of the Environment and of the Safe of Territory and Sea
- a responsible of the Coast Guard, proposed by the Minister of Marine Environment
- an expert designed by the Superior Institute for Safe and Environmental Research (ISPRA)
- an expert designed by the environmental associations known by the Minister of the Environment.

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.

Each year, the Reserve organises technical meeting involving various public local institutions, to present the programme activities. The scientific activities are supervised by the Department of Biology of University of Salento and the CoNISMA (Interuniversity National Consortium for Science of the Sea).
In addition, the Reserve has excellent relations with the Coast Guard and the marine farming and fishing consortia in terms of management of local marine resources.

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:
Satisfactory

b) Quality of involvement by the public, local communities, economic sectors, scientific community:

Very satisfactory

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 managing body draws up a annual programme of management activities that meet the goals of the founding decree and related circulars from the Environment Ministry

The most important provision governing the Area is the attached Regulation of Execution and Organization of the Reserve.

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 Regulation of Execution and Organization of the Reserve was formulated by the MPA with a representative body of the stakeolders. The proposed regulation was modified ed approved by Board of Governors.

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	2
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	3
Education and Training	YES	3
Research and Monitoring	YES	3
Services and Concessions	YES	3
Fund raising activities	YES	3
Periodic revisions of the MP	YES	1

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 marked, both on land and in the sea:
Signs mark the perimeter, the different zones in wich the MPA is divided, and also describe the bans that have to be respected, in accordance with the Ministry for the Environment requirements. The signs are distributed at all the perimeter of the Area, and at the principal points of access.
A buoy inernational system adequately marks the A Zones of the MPA, both on land and in the sea.

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 co-ordination is pursued.

Porto Cesareo MPA institutional collaboration
Scientific and monitorino activity
- University of Salento – Biology Dept
- University of Salento – Archeology Dept
- University "La Sapienza" of Roma
- University of Bari
- CoNISMA (Consorzio Nazionale Interuniversitario per le Scienze del Mare) - (Interuniversity National Consortium for Science of the Sea)
- ISPRA – Istituto Superiore per la Protezione e la Ricerca Ambientale - (Central Institute for Scientific and Technological Research Applied to the Sea)
- SIBM – Società Italiana di Biologia Marina (Italian Society for Marine Biology)
- ARPA – Puglia (Agenzia Regionale per l'Ambiente) (Regional Agency for the Environment)
- SBM (Stazione di Biologia Marina di Porto Cesareo) (Marine Station of Porto Cesareo)
- Comune di Porto Cesareo – Riserva Naturale Orientata Regionale "Palude del Conte duna costiera – Porto Cesareo"
- Comune di Nardò – Parco Naturale Regionale "Palude del Capitano – Portoselvaggio"
- FederParchi – Federazione delle aree protette italiane (Federation of protected areas of Italy)
- Faculty of Engineering, University of Salento
Communication, Governance
- Apulia Region
- Porto Cesareo Municipality – offices for environment and education on the environment
- Nardò Municipality – offices for environment and education on the environment
- Province of Lecce - offices for environment and education on the environment; offices for fisching and hunting
- Ministry for Agricultural and Forest Policy – Dept Fishing and Aquaculture
- Ministry for Environment and Protection of the Territory and Sea
- School head offices and Porto Cesareo and Nardò schools
- State Forestry
- Financial Police
- State Police - Marine Team
- Gallipoli Port Authority
- Environmental Association

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 Porto Cesareo MPA has one rubber boat and one boat that are used daily for surveillance.
The surveillance is made daily by:
-the Italian Coastal Guard and other military forces act inside the MPA;
-n. 2 wardens of the MPA.
Porto Cesareo MPA is implementing a project (PON Sicurezza "Le Torri Fortificate: vedette della legalità") for the installation of a video-surveillance intelligence network operated by "Web-cameras" and Radar: images will be made available on the internet both to the Port Authority Police and to MPA

personnel.

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.

Porto Cesareo MPA has a Regulations for organisation of the Reserve approved with Ministerial decree (G.U. – official gazette – of the Italian Republic no. 1 – Ordinary Supplement - of 02 January 2010).
Porto Cesareo MPA keeps the recording of sanctions and fines operated by the Port Authority Police:

The total number of administrative sanctions carried out by the Port Authority Police in the year 2010 is 56: 12 of which are relative to the navigation within the protect area, 5 for improper underwater activity inside of the MPA, 6 for improper activity of professional fishing within the MPA, 33 for improper activity of underwater sport-fishing.

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.

The Porto Cesareo MPA staff is constituted by:
The director
n. 1 administrative responsible
n. 2 employer
n. 2 workmen
n. 2 wardens

The staff include two Biologists, one expert in Geographical Cartography, one doctor in Environmental Science, one accountant, one surveyor, one Doctor in Politics Science and one OTS (Technician Diving Operator).

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 Part time	3
Field Experts (scientific monitoring)	YES	2 part time	3
Field Technicians (maintenance, etc)	YES	2 part time	3
Wardens	YES	2 part time	3
Of which marine wardens	YES YES	2 part time	3
Guides	YES	2 part time	3
Other		2 part time	2

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 MPA is supported by:

- The Station of Marine Biology of Porto Cesareo concerning didactic and environmental awareness;
- The University of Salento (ex University of the Study of Lecce) and the CoNISMA for the scientific-ecologic sector;
- Coordination of Environmental Associations of Porto Cesareo and the others Regional Marin Protected Areas to aware the users at the environment respect;
- The Association “LIRERA- contro le mafie” against the environmental criminality.

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 Consortium Societies annually give €51,000.00 to cover the gesture costs.

The finance and the accounting activities of the MPA area are carried out according to the directives established by the Department of the Environment, in the respect of the current law in force on Local Authorities. Monitoring and other projects are funded by the Ministero dell’Ambiente (Italian government). Research projects are funded directly by the University of Salento, University of Rome or other Research Agencies (CoNISMa). The funding derives also from autonomous incomes from the gesture of the Mark of Quality of the AMP and by the execution and organization Regulation.

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 MPA provides constantly to research others financing funds both private and publish (Provincial, Regional, National, Municipality) through the presentation of coherent projects in order to give institutional scopes (Projects SEE, Interreg, Life, PON, etc).

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	3
Signs on the main accesses	YES	3
Guard posts on the main accesses	NO	0
Visitors information centre	YES	2
Self guided trails with signs	YES	3
Terrestrial vehicles	YES	3
Marine vehicles	YES	3
Radio and communications	YES	3

Environmental awareness materials Capacity to respond to emergencies	YES YES	3 3
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 MPA is quite known and studied by an ecological point of view and there is the disposition of habitats and population mapped: it is known in particularly the size of the habitats and their moves of change, the species living in and their main ecological processes. There are researches about evolution processes of the coastline, about geologic and sediment aspects. It is acting studies monitoring the bio-scientific indicators. Finally, there are researches about the artisan little fishing of Porto Cesareo and about the system of this kind of activity and about its impact on the species. There are many studies done by young people about the tourism in the MPA of Porto Cesareo.

9.3.2. Data collection

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

At the moment in the MPA Porto Cesareo MPA has completed the mapping and several studies are carried out:

- Biodiversity
- Processes of sedimentation and erosion
- Water physical-chemical parameters
- Fish communities
- Use of land and sea in the surrounding areas
- Fishing effort
- Bio-indicators of human impacts

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.	Medium

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

Researcher of CoNISMa (Interuniverity Consortium for Science of the See), researcher of University if Salento, researcher of University of Roma and Researcher of ARPA (Regional Agency for Environment) are carrying out monitoring programmes. Also Porto Cesareo MPA personnel is carrying out the monitoring programme.

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

All dates in the AMP are used to plan the manage activities with the local stakeholders (gesture of state property concessions, gesture of the underwater activities in threatened habitats like coralligenous and sub-marine caves), to plan the anchorage and the moorage areas, to define standards of professional fishing(technique of fishing, instruments, mesh and fish -look size.

Other information, if any

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

12. DATE

24th March 2011