PORTOFINO (ITALY) MARINE PROTECTED AREA

PRESENTATION REPORT

FOR THE INCLUSION IN THE SPAMI LIST

FOR MORE INFORMATION, PLEASE CONTACT: www.riservaportofino.it

OBJECTIVE

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

CONTENTS

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

SUBMISSION OF REPORTS

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

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

The requested annexes should be submitted on paper and, if possible, also in electronic form. They are the following:

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

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

1. AREA IDENTIFICATION

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

ITALY

1.2. ADMINISTRATIVE PROVINCE OR REGION

Regione Liguria
Ligurian Region
Provincia di Genova
Province of Genoa

1.3. NAME OF THE AREA

Area Marina Protetta Portofino
National Marine Protected Area Portofino

1.4. GEOGRAPHIC LOCATION

The Promontory of Portofino (Ligurian Sea, Mediterranean), with its roughly quadrangular shape, stretches itself into the sea for more than 3 kilometers and represents one of the most interesting aspects of the Ligurian Riviera, extending itself along the coast for about 13 kilometers.

The coastal line is characterized from Punta del Faro to Punta Chiappa by a rocky spur of about 200 m. The Promonotry is characterised by several small inlets like the bays of Cala dell'Oro, San Fruttuoso, Portofino, and Paraggi which are covered, in their inner part, by beaches formed by the deposits of small streams.

The southern coast, dominated by submerged cliffs rapidly reaching the 40-50 meters of depth, is made of the so-called "puddinga di Portofino", a characteristic Oligocene pudding-stone with mainly calcareous clasts. On the contrary, on the two sides, both towards Camogli and towards Rapallo, the limestone of Mt. Antola outcrops with its stratified sedimentary rocks.

The geomorphological features of the Promontory have determined an underwater environment very rich in crevices, roofs, and small caves favoring the development of a rich and very diversified benthic fauna and flora.

In the stretch of sea between Punta del Faro and Santa Margherita Ligure, the bottom is considerably muddy for the high sedimentation levels given by the fluvial deposits brought by the stream Boate (in Rapallo) and by the river Entella (the second one in Liguria for flow and width of the catchment basin).

The sea currents (average superficial speed of 25 cm/sec), generally in the direction E-W, ensure a good change of water, preventing the formation of polluted backwater near the coast.

The southern cliffs, exposed to strong sirocco and libeccio winds, are characterized by a strong hydrodynamism.

1.6. LENGTH OF THE MAIN COAST (Km)

13,295 km

2. EXECUTIVE SUMMARY (maximum 3 pages)

Portofino Promontory is famous in the world for the extraordinary beauties of its coasts and for its general views. It is also goal for tourists coming from all part of the world. The main centers inside or immediately close the MPA are: Santa Margherita Ligure, Camogli e Portofino, all in the Province of Genoa.

The MPA Portofino has been established with the law of the Department of the Environment of 26th April 1999 and includes the Municipalities of Camogli, Portofino, and S.Margherita Ligure.

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

The aims of MPA 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.

The Management Consortium is formed by Province of Genova, Municipality of Camogli, Municipality of Portofino, Municipality of S. Margherita Ligure, University of Genova.

The MPA Portofino represents one of the most important marine sites in the whole Mediterranean for the abundance of the red coral populations and the luxuriant coralligenous community. This community flourishes on the submerged cliff and on the rocks, while coralligenous platforms develop off the rocky bottoms, at a depth of 60 to 100 m. Few other sites in Italy are so rich in species and in gorgonian populations as Portofino.

Small *Posidonia* meadows fringe most of the eastern and western coastlines and within creeks and coves, but along the south coast they never cover an important extension.

Moreover, Portofino is the northern limit of distribution of many rare or interesting thermophylic species, such as *Centrostephanus longispinus* and *Ophidiaster ophidianus*. Other interesting species, such as *Gerardia savaglia* and *Antipathes* sp., are comparatively well represented at Portofino and virtually absent in other Ligurian Sea sites.

Portofino hosts a rich fish population: using visual methods, about 80 species were recorded recently. It is frequented by many important economical fish such as *Dentex dentex, Seriola dumerili, Sphyraena sphyraena, Epinephelus marginatus.*
From a geomorphological viewpoint, the puddingstone cliffs are unique at a Mediterranean scale.

Brief description of the Portofino benthic populations

The emerged reef is characterized by the typical communities of the western Mediterranean. In the splash area there are only a few species which have adapted themselves to live in a condition which is only exceptionally interested by submersion after sea-storms or rare tides. According to the different local conditions of moistening and exposure, large population of cirripeds develop (*Chthmalus depressus, Cht. stellatus,* and *Cht. montagui*) can completely cover the rock together with the *Verrucaria symbalana* and the gastropod *Melaraphe neritoides*.

The superficial stretch interested by the tide is limited to a few decimeters of height and is characterized in its upper part by the *Rissoella verruculosa*, a calcifuge seaweed developing during the spring-summer in very evident belts and, in its lower part by *Lithophyllum lichenoides,* a red algae with a calcareous thallus which can form wide calcareous frames, above all along the southern front of the Promontory, often accompanied by the actinia *Actinia equina*.

In the immediately underlying tide area, the big brown algae *Cystoseira stricta* forms a seasonal belt in the areas characterized by a greater hydrodynamism, while the *Cystoseira compressa* also grows in the most sheltered points. The algae populations of the submerged reefs are characterized by the development of *Dictyopteris membranacea* and *Sargassum vulgare,* while in the most sheltered areas *Stypocaulon scoparium, Padina pavonica* and, sometimes, *Acetabularia acetabulum* develop.

Thanks to the presence of such a marked cliff, the *Posidonia oceanica* bed can develop almost exclusively within the bays and along the sides of the Promontory (from Porto Pidocchio towards Camogli and between Punta Cervara and Punta Pedale towards Santa Margherita) where the slope of the seabed is gentler and in any case never reaches considerable extensions. Sparse *Cymodocea nodosa* beds grow around the 10-15 m of depth in the stretch of sea towards Santa Margherita Ligure.

The typical biocoenosis of the southern slope of the Promontory are the **precoralligenous** where there is often the gorgonian *Eunicella singularis* and which is dominated by Zoantharia (*Parazoanthus axinellae*), solitary Madreporaria (*Leptopsammia pruvoti, Balanophyllia italica*) and colonial Madreporaria (*Cladocora caespitosa*) and the **coralligenous** with the different facies characterized, according to the local conditions, by different species of gorgonaceans (*Paramuricea clavata, Eunicella cavolinii)* and red coral (*Corallium rubrum*).

The coralligenous is a very complex biogenic structure given by the continuous overlapping of calcareous strata mainly deriving from the building activity of algae, the so-called coral algae. This organogenic structure is an environment which is continuously developing because of the presence of building elements (macroalgae, Madreporaria, Bryozoa) depositing sodium carbonate and destroying elements (clionid Porifera, bivalve molluscs) eroding it. The prevailing of one of the two activities favors its development or determines its destruction. Along the southern slope of the Promontory of Portofino, the building activity prevailed without a doubt for million of years and as a consequence along the cliffs between the 20 and the 50 m of depth, concretions of considerable thickness formed; they represent one of the most spectacular underwater landscapes of the Mediterranean area. Together with the sciaphilous red algae (*Mesophyllum lichenoides* and *Lithophyllum expansum, Peyssonelia squamaria*) forming the basic stratum of this seabed, a rich animal community develops: it is dominated by organisms producing calcareous concretions, such as the Bryozoa (*Sertella*

septentrionalis, Pentapora fascialis, Smittina cervicornis, Rhynchozoon pseudodigitatum, Myriapora truncata) and the Madreporaria (*Leptopsammia pruvoti, Madracis pharensis, Hoplangia durotrix*).

The coralligenous of Portofino is also characterized by a rich population of sponges (*Phorbas tenacior, Oscarella lobularis, Petrosia ficiformis, Chondrosia reniformis, Agelas oroides, Acanthella acuta, Axinella verrucosa, Axinella damicornis, Aplysina cavernicola, Dictyonella incisa, Dysidea fragilis*), Cnidaria (*Parazoanthus axinellae, Gerardia savaglia, Cerianthus membranaceus*) and Ascidia (*Halocynthia papillosa*).

The upper strata is made by big sponges (*Spongia agaricina, S. officinalis, Cacospongia scalaris, Ircinia foetida*) some of which are interesting from an economic point of view, by the red coral (facies of *Corallium rubrum*) and by gorgonians (*Eunicella cavolinii, Paramuricea clavata*).

The facies of *Paramuricea clavata* represents one of the most spectacular environments of the Promontory and, probably, of the whole western part of the Mediterranean area. Along the southern slope this gorgonian reaches between the 30 and the 50 m of depth considerable dimensions (also more than a meter of height) and a density of population of more than 20 colonies/m2. During the last years, both because of the blights which stroke the populations of Portofino and of the action of the nylon fishing lines abandoned on the seabed and provoking tears difficult to heal, this population has shown evident signs of suffering.

The situation of the red coral, thickly present in Liguria only along this stretch of coast, is different. In Portofino, between the 20 and 45 meters of depth, the colonies find the ideal conditions for their development and reach very high densities (more than 400-600 colonies/m2) even if the dimensions remain reduced. Thanks to its high capacity of recruitment, this population does not seem to have demonstrated changes in the structure in the last 30-40 years, although it has been often parasitized by perforating sponges (Clionidae), gathered in large quantities by divers as a souvenir, and severely struck by the blights of 1999.

The situation regarding the colonies lying on the rocky outcrops scattered on the Promontory beyond the 80-90 m of depth is different. Here the colonies presented greater dimensions, but the banks have been heavily exploited by professional coral fishermen until the end of the Eighties, and nowadays we do not precisely know their density nor thickness.

In Portofino, the seabed at the basis of the cliff is mainly formed by detritus deriving from the erosion and the weathering of the rocky coast and enriched by the calcareous remains of the organisms of the above-lying coralligenous.

In the stretch of sea between Punta del Faro and Santa Margherita Ligure, it is considerably muddy for the high sedimentation levels given by the fluvial deposits brought by the stream Boate (in Rapallo) and by the river Entella (the second one in Liguria for flow and width of the catchment basin). The seabed is characterized near the coast by the gorgonian *Leptogorgia sarmentosa* forming sparse beds at about 15 m of depth, while towards the open sea also beyond the 100 m of depth, a detrital and muddy seabed is common: here you can easily find the *Alcyonium palmatum* and the gorgonian *Eunicella verrucosa*.
Beyond the 100 m, on modest rocky outcrops, the facies of *Lytocarpia myriophyllum* develops: it is a hydroid of great dimensions (more than one meter) accompanied by the *Anthipathes subpinnata*, one of the few Mediterranean representatives of the Anthipatharia, to which the tropical black corals belong.

3. SITE DESCRIPTION

3.1. TYPOLOGY OF THE SITE

3.1.1. Terrestrial surface, excluding wetlands (ha):		not applicable to the
3.1.2. Wetland surface (ha):		not applicable to the
3.1.3. Marine surface (Sq. Km):	Marine internal waters	
	Territorial sea	**385 ha**
	High sea	not applicable to the

PAY ATTENTION: A GIS SYSTEM OF THE MPA IS IN PROGRESS

3.2. MAIN PHYSICAL FEATURES

3.2.1. Geology/Geomorphology

The coastal line is characterized from the eastern end of the Promontory (Portofino Faro) to Punta Chiappa by a rocky spur of about 200 m. Several bays are present along the coast like Cala dell'Oro, San Fruttuoso, Portofino, and Paraggi which are covered, in their inner part, by beaches formed by the deposits of small streams.

Along the south coast, the Portofino Promontory is characterised by high rocky cliffs made by Oligocoenic puddingstone with mainly calcareous clasts, the so-called "puddinga di Portofino". On the contrary, on the two sides, both towards Camogli and towards Rapallo, the limestone of Mt. Antola outcrops with its stratified sedimentary rocks dominates.
Underwater cliffs reach about 40-50 m depth and leave place to large rocks and then to partly biogenic sands and mud. Small caves open within rocks, harbouring a peculiar fauna sand flora.

All around the Promontory, at the basis of the cliff, the seabed is mainly formed by detritus deriving from the erosion and the weathering of the rocky coast and enriched by the calcareous remains of the organisms of the above-lying coralligenous.

In the stretch of sea between Punta del Faro and Santa Margherita Ligure, the bottom is considerably muddy for the high sedimentation levels given by the fluvial deposits brought by the stream Boate (in Rapallo) and by the river Entella (the second one in Liguria for flow and width of the catchment basin).

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Bossolasco M. e I. Dagnino, 1957. Sulle correnti costiere nel Golfo di Genova. *Geofisica Pura Appl.*, 38 (3): 123-140.
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Fanucci F., Fierro G., Firpo M., Mirabile L. e M. Picazzo, 1979. La piattaforma continentale della Liguria Appenninica. *Conv. Scient. Naz. P.F. Oceanografia e fondi marini*: 1275-1289.
Giammarino S., Nosengo S. e G. Vannucci, 1969. Risultanze geologico-paleontologiche sul conglomerato di Portofino (Liguria orientale). *Atti dell'Ist. di Geologia dell'Università di Genova*, 7 (2): 306-327.
Pellati A., 1934. La penisola di Portofino. Note geomorfologiche. *Natura*, Milano, 25: 12-34
Picazzo M., 1986. Caratteristiche geologiche e sedimentologiche della piattaforma continentale ligure ad Est di Genova. *Quaderni Ist. Geol. Univ. Genova*, Anno 7, n.3: 91-105.

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

The geomorphological features of the Promontory have determined an underwater environment very rich in crevices, roofs, and small caves favoring the development of a rich and very diversified benthic fauna and flora.

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

a) Length of sandy beaches: not applicable to

b) Length of pebble or stony beaches: 1.5 km

3.3. Length, height and depth of active sand-dunes FRESHWATER INPUTS

c) :

not applicable to

3.3.1. Mean annual precipitation (in mm)

100 mm/year

3.3.2. Main water courses (permanent and seasonal)

From the Promontory only small seasonal streams run at sea.

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

In the coastal stretches, very small supplies of freshwater are present

3.4. BIOLOGICAL FEATURES (B2, Annex I)

The main biocoenosis present inside the MPA Portofino are:

II. 4. 1. 3. Association with *Nemalion helminthoides* and *Rissoella verruculosa*
II. 4. 2. 1. Association with *Lithophyllum lichenoides (*= entablature with *L. tortuosum)*
II. 4. 3. Mediolittoral caves
III. 5. 1. Posidonia oceanica meadows (= Association with *Posidonia oceanica*)
III. 6. 1. 2. Association with *Cystoseira amentacea (* var. *amentacea,*
III. 6. 1. 14. Facies with *Cladocora caespitosa*
III. 6. 1. 25. Association with *Cystoseira compressa*
III. 6. 1. 35. Facies and Associations of Coralligenous biocenosis (in enclave)
IV. 2. 2. Biocenosis of the coastal detritic bottom
IV. 2. 2. 10. Facies with large Bryozoa
IV. 3. 1. 1. Association with *Cystoseira zosteroides*
IV. 3. 1. 9. Association with *Rodriguezella strafforelli*
IV. 3. 1. 10. Facies with *Eunicella cavolinii*
IV. 3. 1. 11. Facies with *Eunicella singularis*
IV. 3. 1. 12. Facies with *Lophogorgia sarmentosa*
IV. 3. 1. 13. Facies with *Paramuricea clavata*
IV. 3. 1. 15. Coralligenous platforms
IV.3. 2. Semi-dark caves (also in enclave in upper stages)
IV. 3. 2. 2. Facies with *Corallium rubrum*

Other important biocoenosis are:

I. 2. 1. Biocenosis of the supralittoral sands
II. 4. 1. Biocenosis of the upper mesolittoral rocks
III. 3. Coarse sand with mud
IV. 1. 1. Biocenosis of the terrigenous coastal muds
IV. 2. 1. Biocenosis od the detrical muddy bottoms

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			
SPONGES			
Aplysina sp. plur.	C		*R*
Axinella cannabina	*R*		*R*
Axinella polypoides	*C*		*R*
Hippospongia communis	*C*	*T*	*R*
Ircinia foetida (Sarcotragus)	*C*		*R*
Ircinia pipetta	*U*		*R*
Petrobiona massiliana	*U*		*R*
Spongia agaricina	*C*	*T*	*R*
Spongia officinalis	*C*	*T*	*R*
Spongia zimocca	*U*	*T*	*R*
Tethya sp. plur.	*C*		*R*
CNIDARIANS			
Parazoanthus axinellae	*C*		*R*
Gerardia savaglia	*R*	*T*	*R*
Leptopsammia pruvoti	*C*		*R*
Cladocora caespitosa	*C*		*R*
Eunicella cavolinii	*C*		*R*
Eunicella singularis	*C*		*R*
Eunicella verrucosa	*U*		*R*
Leptogorgia sarrmentosa	*C*		*R*
Paramuricea clavata	*C*		*R*
Corallium rubrum	*C*		*R*
Pennatula sp. p.	*U*	*T*	*R*
Veretillum cynomorium	*U*	*T*	*R*
Antipathes sp. plur	*R*	*T*	*R*
BRYOZOANS			
Hornera lichenoides	*U*		*R*

Myriapora truncata	*C*		*R*
Sertella sp. p.	*C*		*R*
Pentapora fascialis	*C*		*R*
MOLLUSCS			
Ranella olearia	*R*	*T*	*R*
Charonia lampas	*R*	*T*	*R*
Erosaria spurca	*U*		*R*
Lithophaga lithophaga	*C*		*R*
Luria lurida	*U*		*R*
Pinna nobilis	*U*	*T*	*R*
CRUSTACEANS			
Homarus gammarus	*R*	*T*	*R*
Maja squinado	*U*		*R*
Palinurus elephas	*U*	*T*	*R*
Scyllarides latus	*U*		*R*
Scyllarus arctus	*U*		*R*
Plesionika narval	*C*		*R*
ECHINODERMS			
Centrostephanus longispinus	*R*	*T*	*R*
Ophidiaster ophidianus	*U*		*R*
Paracentrotus lividus	*C*		*R*
Hacelia attenuata	*U*		*R*
FISHES			
Epinephelus marginatus	*C*	*T*	*R*
Hippocampus ramulosus	*U*		*R*
Hippocampus hippocampus	*U*		*R*
Corvina nigra	*C*		*R*
MARINE VERTEBRATES			
Caretta caretta	*R*	*T*	*M*
Eretmochelys imbricata	*R*	*T*	*M*
Tursiops truncatus	*R*	*T*	*M*

MARINE PLANTS		*T*	
Posidonia oceanica	*C*		*R*
Cymodocea nodosa	*C*		*R*
MACROALGAE			
Cystoseira amentacea	*C*	*T*	*R*
Cystoseira zosteroides	*C*		*R*
Lithophyllum byssoides	*C*		*R*
Cystoseira compressa	*C*	*T*	*R*
Nemalion helminthoides	*C*		*R*

Rissoella verrucolosa	*C*		*R*
Sargassum sp.	*R*		*R*

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

On the sandy seabed, along the western and eastern slopes of the Promontory, there are the *Posidonia* beds, a sea plant that has a great ecological importance in the Mediterranean area, since it plays an active role in the consolidation process of the seabed, in the defense of the coast, and by housing a very rich fauna. Among its leaves, several species find shelter and nourishment. We can consider these grasslands real marine nurseries.

Due to the presence of marked cliffs, the *Posidonia oceanica* bed can develop almost exclusively within the bays and along the sides of the Promontory (from Porto Pidocchio towards Camogli and between Punta Cervara and Punta Pedale towards Santa Margherita) where the slope of the seabed is gentler and in any case never reaches considerable extensions.

Sparse *Cymodocea nodosa* beds grow around the 10-15 m of depth in the stretch of sea towards Santa Margherita Ligure.

In the coastal stretches where there are supplies of freshwater, the green algae *Enteromorpha* spp. and *Ulva* spp. develop: they are gauges of high concentrations of nourishing elements, and they grow together with the *Mytilus galloprovincialis*.

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

The emerged reef is characterized by large population of cirripeds which can completely cover the rock together with the *Verrucaria symbalana* and the gastropod *Melaraphe neritoides*. The mesolittoral fringe (few decimeters of height) is characterized in its upper part by the *Rissoella verruculosa*, a calcifuge seaweed developing during the spring-summer and, in its lower part by *Lithophyllum lichenoides.* Immediately underlying tide area, the brown alga *Cystoseira stricta* forms a seasonal belt in environments characterized by a greater hydrodynamism, while the *Cystoseira compressa* also grows in the most sheltered points. The algae populations of the most well-lit submerged reefs are characterized by *Dictyopteris membranacea* and *Sargassum vulgare*, while in the most sheltered areas *Stypocaulon scoparium, Padina pavonica* and, sometimes, *Acetabularia acetabulum* develop.

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The typical biocoenosis of the southern slope of the Promontory are the **precoralligenous** characterised by *Eunicella singularis, Parazoanthus axinellae*, *Leptopsammia pruvoti* and *Cladocora caespitosa*, and the **coralligenous** with the different facies characterized, according to the local conditions, by different species of horny corals (*Paramuricea clavata, Eunicella cavolinii)* and red coral *(Corallium rubrum*).

The facies of *Paramuricea clavata* represents one of the most spectacular environments of the Promontory and, probably, of the whole western part of the Mediterranean area. Along the southern slope this gorgonian reaches between the 30 and the 50 m of depth considerable dimensions (also more than a meter of height) and a density of population of more than 20 colonies/m2. During the last years, both because of the blights which stroke the populations of Portofino and of the action of the nylon fishing lines abandoned on the seabed and provoking tears difficult to heal, this population has shown evident signs of suffering.

The situation of the red coral, present in Liguria only along this stretch of coast - is different. In Portofino, between the 20 and 45 meters of depth, the colonies find the ideal conditions for their development and reach very high densities (more than 400-600 colonies/m2) even if the dimensions remain reduced.

In the stretch of sea between Punta del Faro and Santa Margherita Ligure, it is considerably muddy for the high sedimentation levels given by the fluvial deposits brought by the stream Boate (in Rapallo) and by the river Entella (the second one in Liguria for flow and width of the catchment basin). The seabed is characterized near the coast by the gorgonian *Leptogorgia sarmentosa* forming sparse beds at about 15 m of depth, while towards the open sea also beyond the 100 m of depth, a detrital and muddy seabed is common: here you can easily find the *Alcyonium palmatum* and the gorgonian *Eunicella verrucosa*.
Beyond the 100 m, on modest rocky outcrops, the facies of *Lytocarpia myriophyllum* develops: it is a hydroid of great dimensions (more than one meter) accompanied by the *Anthipathes subpinnata*, one of the few Mediterranean representatives of the Anthipatharia, to which the tropical black corals belong.

3.5. HUMAN POPULATION AND USE OF NATURAL RESOURCES

3.5.1 Human population

a) Inhabitants inside the area:

	Number	Date of data
Permanent	556	2003
Seasonal number (additional to permanent)	2000	2003

Description of the population

The educational level of the population living inside the MPA Portofino in high.

Main human settlements and their populations

The Portofino Promontory is characterised by the small village (Portofino, with 600 inhabitants) and the San Fruttuoso Abbey in which a small community lives.
The Abbey was built in 984 A.C. and reached the greatest splendour during XIII century under the Doria family protection.
Immediately close the MPA, two town are present: Camogli (5,741 inhabitants) and Santa Margherita Ligure (10,593 inhabitants).
It is important underline that around the MPA (in a radius of 40 km) 1,000,000 inhabitants live.

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 main activity of the residents is the tourism.
At Camogli and Santa Margherita Ligure a small professional fishermem community lives.

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	0	0		
Commercial, local	1	1		
Commercial, non-local	1	1		
Controlled recreational	1	1		
Un-controlled recreational	0	0		
Other				
TOURISM				
Regulated	3	2		
Unregulated	3	2		
Indicate the type of tourism				
Yachting	3	2		
Scuba diving	3	1		
Hotels and second houses	1	1		
.				
Tourism facilities	3	2		
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	0	0		
Stockbreeding	0	0		
Aquaculture	1	1		
EXTENSIVE STOCK GRAZING				
Subsistence	0	03		
Commercial, local	0	0		
Commercial, non-local	0	0		
OTHER ACTIVITIES	0			
	0			

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.

Inside the MPA the traditional activities regards the tourism, mainly yachting. A small comunity of professional fishermen is present at Santa Margherita Liguiure and Camogli.

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).

III. 5. 1. Posidonia oceanica meadows

III. 6. 1. 2. Association with *Cystoseira amentacea*

IV. 3. 1. 10. Facies with *Eunicella cavolinii*

IV. 3. 1. 11. Facies with *Eunicella singularis*

IV. 3. 1. 12. Facies with *Lophogorgia sarmentosa*

IV. 3. 1. 13. Facies with *Paramuricea clavata*

IV. 3. 1. 15. Coralligenous platforms

IV. 3. 2. 2. Facies with *Corallium rubrum*

Up to date it is impossible to give an absolute value of coverage

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.

Inside the MPA Portofino are endangered the following species:

Spongia agaricina for mass mortalities
Spongia officinalis for mass mortalities
Spongia zimocca for mass mortalities
Gerardia savaglia
Corallium rubrum for mass mortalities and illegal fishing
Antipathes sp. plur.
Ranella olearia
Charonia lampas
Erosaria spurca
Pinna nobilis for fishing
Homarus gammarus for fishing
Palinurus elephas for fishing

Centrostephanus longispinus
Ophidiaster ophidianus
Hacelia attenuata
Epinephelus marginatus for fishing

Caretta caretta
Eretmochelys imbricata
Tursiops truncatus

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

The MPA Management has several projects regarding the education inside the primary and secundary shool of the zone

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.

Portofino is a site with an high marine biodiversity: probably the highest of Italy.
Its communities were studied since XIX century.
Portofino hosts a complex array of benthic communities, unique in the Ligurian Sea.
It is necessary to remember the coralligenous community, in which biodiversity reaches really high values.

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

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

Portofino Promontory is famous in the world for the extraordinary beauties of its coasts and for its general views. It is also goal for tourists coming from all part of the world. The main centers inside or immediately close the MPA are: Santa Margherita Ligure, Camogli e Portofino, all in the Province of Genoa.

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.

The Christ of Abyss

The Christ of Abyss, by the sculptor Guido Galletti, was plunged into San Fruttuoso Bay on 29 August 1954 at 18 m depth. The statue can be seen from the surface and it is the goal of thousands and thousands divers all around the year.

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.

The number of professional fishermen working inside the MPA is small: less than 20 people.

The activity of professional fishing is reserved to the fishermen living in the Municipalities of Camogli, Portofino, and Santa Margherita Ligure. It is forbidden in zone A, while it is allowed in zones B and C where the following tools are admitted:

encircling gill net, at bathymetries not inferior to 50 meters, except on the median main route external to Cala dell'Oro;

gill net bottom set, placed perpendicularly with respect to the coastline,

long-lines, with a maximum of 200 hooks, with a length not inferior to 22 mm, at a minimum distance of 80 meters from the coast,

Professional fishing with trawl net is allowed exclusively for the fishing of the transparent goby (*Aphia minuta*), in some traditional sites. (Porto Pidocchio and Punta Cannette)

In zone C, some traditional fishing activities, like the Tonnarella (tuna fish net) and another small fixed net (Mugginara), are allowed during the summer period, in the traditional sites in front of Porto Pidocchio, Camogli.

It is important to underline that the Tonnarella is present in Porto Pidocchio waters from XVII century

The Managing Authority, also on the base of the scientific results, can, if the Reserve commission expresses a favorable opinion, take temporary or permanent measures aimed at prohibiting or limiting the fishing typologies, the fishing procedures and period, in order to guarantee a correct management of the resource.

Quantitatively speaking, the sport fishing (using long-lines, downriggers, and fishing floating baits) is more important inside the MPA Portofino. It is popular activity, reaching a wide range of users, without limits of age, physical or economic limits: a discipline involving every social group.

Sport fishing is forbidden in the zone A and it is regulated in the zones B and C:

Managing Authority issues authorizations for this activity: in any case it cannot issue more than a total of 120 simultaneously operative authorizations, of which 80 nominal ones and 40 to the sport fishing associations. The authorizations issued to the latter must establish a limit of 20 exits each.

Sport fishermen cannot catch fish for a total weight of more than 3 kilograms in one day, a limit which can be passed for the capture of a single specimen;

Sport fishing competitions are forbidden.

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 danger comes from mass tourism taking in account that about 200,000 tourists are present montly in Liguria and a large part of them visit Camogli, Portofino and Santa Margherita Ligure.
Yachting activities seem have a strong impact mainly on coralligenous biocenosis, taking in account that a around the MPA 10,000 boat berths are available.
The diving activities are impressive: about 60,000 dive/year.
39 Diving Center have the permission to operate inside the MPA. The impact of this activity is monitored by the MPA Authority.

The *Posidonia* beds lying on the eastern side of the Promontory has also been seriously endangered by the dumping activity of earth material in the area of the Covo of the North-East, and although the dump has been idle for a long time, it does not seem possible to recover in a short time the damages it caused.

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.

No significant increase in the tourism flux is expected.
Up to date, it is at the maximum level.
The flux of divers (60,000 years) is impressive and it has to be regulated as well as the yachting, taking in account that around the MPA 5,000 boat berths are available.
Yachting and diving impacts are monitored by the MPA Authority.

5.1.4. Historic and current conflicts

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

No conflicts are running today inside the civil communities.
It is important to underline that diving activities and fishing are not compatible and consequently the MPA Authority plays an important role to avoid conflicts.

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.

A ligth urban pollution is present in front of Camogli and Santa Margherita town, but waste water treatments are in function with submarine pipelines with diffuser.
The current regime is favourable and the southern coast of the MPA is practically untouched by pollution.
The *Posidonia* beds lying on the eastern side of the Promontory has also been seriously endangered by the dumping activity of earth material in the area of the Covo of the North-East, and although the dump has been idle for a long time, it does not seem possible to recover in a short time the damages it caused.

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.

In the last decades, several episodes of mass-mortality affected benthic communities in the Ligurian Sea. These catastrophic events struck several sessile species belonging to anthozoans (*Cladocora caespitosa*, *Corallium rubrum* and several species of gorgonians), sponges (mainly horny sponges), bivalves (*Spondylus gaederopus*) and ascidians (*Microcosmus*) on February 1985, October, 1993, September 1999, and July 2003.
The recover capacity of the gorgonians is monitored.

5.2.3. Sustainable development measures

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

The Area is not yet covered by an integrated coastal management

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,

[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.

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

MPA Portofino belongs to the Ligurian Region in which the demographic development is pratically nihil.
Economically speaking, the Portofino area lives on tourism and the life style is high.

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.

Up to date, no real socio-economic conflicts are running in the area.
It is important to underline that diving activities and fishing are not compatible and consequently the MPA Authority plays an important role to avoid conflicts.

6.3. EXPECTED DEVELOPMENT AND TRENDS OF THE NATURAL LAND ENVIRONMENT AND LANDSCAPES OF THE AREA: as expected arising from the evolution of the pressures

not applicable to the proposed area

6.4. EXPECTED DEVELOPMENT AND TRENDS OF THE MARINE ENVIRONMENT AND SEASCAPES OF THE AREA: as expected arising from the evolution of the pressures

No real changes are waited in the area, considering the high economic level reached by the population.
The fishing, diving and yachting activities and their impact on the environment are yearly monitored by the MPA Authority.

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 MPA Portofino has been established with the law of the Department of the Environment of 26th April 1999 and includes the Municipalities of Camogli, Portofino, and S.Margherita Ligure.

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

The aims of MPA 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.

The management consortium is formed by Province of Genova, Municipality of Camogli, Municipality of Portofino, Municipality of S. Margherita Ligure, University of Genova.

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.

See the annexed "ENFORCEMENT AND ORGANIZATION REGULATIONS OF THE MPA OF "PORTOFINO"

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 aims of 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.

In particular:
To preserve the natural equilibrium and the biological and ecological values, maintaining the biodiversity at all levels (genetics, specific richness and communities) and avoiding external impacts.
To avoid the loss or the introduction of organisms, substances or manufactured structures that, somehow, can alter the natural equilibria.
To favour the restoration and protection of intensely exploited fish stock
To use the MPA as site of analysis and control of the environmental quality
To maintain and valorize the compatible productive activities with the natural equilibrium, promoting the sustainable use of the resources
To favour the scientific research
To stimulate correctly the fruition of the environment (recreation and tourism), favoring the environmental education and promoting an eco-compatible tourism
To seek the agreement between the local communities and the MPA Authority for a correct compatible management with the local socio-economic reality

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 Portofino 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.).

not applicable to the proposed area

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 delimitation of the MPA Portofino 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 26th April 1999, and published by the G.U. of 7th June 1999, n° 131.

Yellow buoys delimit the different zones.

The total MPA Portofino has a surface of about 372 ha. The no entry no take zone (A zone) represents the 3.7 % (about 10 ha).

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

A ZONE (no entry-no take zone) the bay so called “Ca’ dell’Oro”.

B ZONE, the General Reserve: from Punta del Faro di Portofino to Punta Chiappa, excluding the access to S. Fruttuoso Bay.
In this zone, the swimming, scuba diving, yachting and fishing activities are regulated according to the “ENFORCEMENT AND ORGANISATION REGULATIONS OF THE MPA OF PORTOFINO” (see attached document)

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.

SEE THE ATTACHED

“ENFORCEMENT AND ORGANISATION REGULATIONS OF THE MPA OF PORTOFINO”

7.4.3. Legal competencies

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

The MPA Portofino has been established with the law of the Department of the Environment (Ministery of the Environment) of 26th April 1999 and includes the Municipalities of Camogli, Portofino, and S.Margherita Ligure.

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

The aims of MPA 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.

The Management Consortium is formed by Province of Genova, Municipality of Camogli, Municipality of Portofino, Municipality of S. Margherita Ligure, University of Genova.

7.4.4. Other legal provisions

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

Tourist operators
Professional and Sport fishermen
Scuba divings
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 technical-scientific Committee.

The responsible of the MPA is a Consortium constituted by the Municipalities of Santa Margherita Ligure, Camogli and Portofino, the Province of Genoa and the University of Genoa

8.1.2. Other participants in the management body

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

The Reserve Commission

The Reserve commission established for the Managing Authority supports the latter in the management of the marine protected area, by elaborating proposals and suggestions related to its functioning and management. In particular, it states its opinion:
about the enforcement and organization regulations of the marine protected area and any proposal of change regarding them;
about the annual management programs;
about the budget and the final balance;
about the annual report on the functioning of the marine protected area;
about the request of change in the perimeter of the marine protected area and in the relative discipline of safeguard suggested by the Managing Authority;
any time it is required by these regulations.

Technical-scientific Committee

According to article 7, subsection 2 of the Decree issued by the Department of the Environment on 26th April 1999, the technical-scientific Committee has been established in order to support the Managing Authority and the organs of the marine protected area when dealing with technical-scientific issues.
The technical-scientific Committee is appointed by the Managing Authority, and it consists of:
the Director, who is at the head of it;
a qualified expert appointed by the Managing Authority;
a qualified expert appointed by the Ministery of the Environment.
The members of the technical-scientific Committee remain in office for no more than three years. The office can be renewed.

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.

PORTOFINO MPA COUNCILS
Tourist operators Council
Professional fishermen Council
Leisure fishermen Council
Scuba divings and scuba associations Council
Maritime Council, composed by representatives of sailors, nautical and maritime operators
Educational Council, composed by representatives of the scholastic Institutions, of working associations and of the recognized environmental associations
Cultural Council for the maintenance and exploitation of the artistic-cultural patrimony (composed by representatives of corporate body and working associations in the sector of the maintenance and exploitation of the artistic-cultural patrimony)

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:

small

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

Very low for public institutions, high for scientific ones.

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).

SEE THE ATTACHED

"ENFORCEMENT AND ORGANISATION REGULATIONS OF THE MPA OF PORTOFINO"

8.2.2. Formulation and approval of the Management Plan

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

The MP was formulated by the Board of Governors and approved by the Reserve Commission

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	0 1 **2** 3
Zoning	YES	0 1 2 **3**
Regulations for each zone	YES	0 1 2 **3**
Governing body(ies)	YES	0 1 **2** 3
Management programmes as:		
Administration	YES	0 1 **2** 3
Protection	YES	0 1 **2** 3
Natural resource management	YES	0 **1** 2 3
Tourism and Visitation	YES	0 1 2 **3**
Education and Training	YES	0 **1** 2 3
Research and Monitoring	YES	0 1 2 **3**
Services and Concessions	YES	0 1 **2** 3
Fund raising activities	NO	**0** 1 2 3
Periodic revisions of the MP	YES	0 **1** 2 3

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.

A buoy system adequately marks the different protected zones in which the MPA is divided

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.

The surveillance is made daily by:
n. 2 seasonal wardens (during the summer)
Occasionally, the Italian Coastal Guard and other military forces act inside the MPA.

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 Portofino MPA has n. 2 rubber boat. They are used daily for surveillance.
Portofino MPA has also a boat to collect floating rubbish and debris (working during the summer).

8.3.4. Enforcement

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

The politics of the MPA is to avoid sanctions, but in case of illegal activities carried out according to authorizations issued by the Managing Authority, the Managing Authority itself can, after ascertaining the violation of the provisions established by the regulations and by the authorization measures, suspend or cancel the above-mentioned authorization, independently from the application of penal and administrative sanctions by the law in force.

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 Portofino MPA staff is constituted by:
The director
n. 1 administrative employer
n. 1 technician
n. 2 secretaries
n. 2 wardens

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		0 1 **2** 3
Field Experts (scientific monitoring)	YES		0 1 2 **3**
Field Technicians (maintenance, etc)	YES		0 **1** 2 3
Wardens	YES		0 1 **2** 3
Of which marine wardens	YES		0 1 **2** 3
Guides	NO		0 1 2 3
Other	NO		0 1 2 3

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.

A staff of the Dipartimento per lo Studio del Territorio e delle sue Risorse (DIPTERIS), University of Genoa, works in full time in monitoring research programs

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 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 projects are funded by the Ministero dell'Ambiente (Italian government)
Research projects are funded directly by the University of Genoa or other governative Agencies (ICRAM - Rome)

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.

It is difficult to consider other possible alternative sources of funding (except institutional)

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	0	1	**2**	3
Signs on the main accesses	NO	0	1	2	3
Guard posts on the main accesses	NO	0	1	2	3
Visitors information centre	YES	0	**1**	2	3
Self guided trails with signs	NO	0	1	2	3
Terrestrial vehicles	NO	0	1	2	3
Marine vehicles	YES	0	1	**2**	3
Radio and communications	NO	0	1	2	3
Environmental awareness materials	NO	0	1	2	3
Capacity to respond to emergencies	YES	0	1	2	**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.

0	1	2	**3**

c) 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 early studies on the benthic populations of Portofino date back to Raffaele Issel (1911-1918) who was a poineer of the marine biology in Italy. He mainly studied the Posidonia distribution and its associate fauna.

At the end of the sixties, Enrico Tortonese, Director of the Genoa Natural Hystory Museum, carried out several researches on the coralligenous community, which were followed from the Seventies onwards by a series of works carried out above all by the University of Genova.

In appendix you will find the most significant scientific contribution for the knowledge of this area.

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 several studies are carried out:

First of all, the biodiversity and particularly the following taxa: macroalgae, sponges, hydroids, molluscs, echinoderms, fishes.
Attention is paied to the structure and dynamics of benthic communities (Cystoseira belt, coralligenous biocoenosis) to evaluate the protection effect.
Other researchs are conducted to study the carbonate cycle in benthic organisms to evaluate the C02/carbonates balance.
Due to several episodes of mass-mortality affecting benthic communities occurred in the last years in the Ligurian Sea, the dynamics of some key species (madreporarians, gorgonians and horny sponges) are checked periodically.
The structure and abundance of fish populations are recorded periodically too, and the spill over effect evaluated.
The main physical and chemical parameters of the water column are checked periodically (see monitoring)

9.3.3. Monitoring programme

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

a) Is there a monitoring programme?	**YES**	NO
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.	adequate	

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

The University of Genoa- DIPTERIS

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

Since ’90 years, a set of data on the water column physical and chemical characteristics are recorded every 15 days in two fixed sites (Portofino Faro and Ca dell’Oro) to a depth of 80 m.
The main variables analysed are:
temperature, salinity, oxygen, nitrates, phosphates, C02, POM.

Other information, if any

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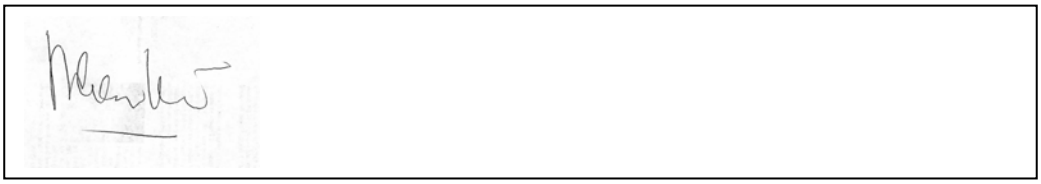
10. SIGNATURE(S) ON BEHALF OF THE STATE(S) PARTY/PARTIES MAKING THE PROPOSAL



11. DATE 20th March 2005