

# Portofino

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|----------------------------------|--|
| Legal status                     | Marine Protected Area  |
| Foundation year                  | 1999   |
| Foundation text                  | Ministerial Decree   |
| Management body                  | Consortium between the Municipalities, Province of Genoa and the University of Genoa |
| Superficy                        | 385 ha   |
| Management category (IUCN, 1994) | IV   |



## Territory

The Promontory of Portofino (Ligurian Sea), with its roughly quadrangular shape, stretches itself into the sea for more than 3 km, extending itself along the coast for about 13 km. The Promontory is characterised by several small inlets like the bays of Cala dell'Oro, San Fruttuoso, Portofino, and Paraggi.



Portofino has been a SPAMI since 2005 thanks to its spectacular environment of coralligenous formations, the high knowledge of its biodiversity and an efficient management of activities.



## Physic features

The coastal line is characterized from the eastern end of the Promontory by a rocky spur of about 200 m. Several bays are present along the coast 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 with calcareous clasts. On the contrary, on the two sides, the limestone of Mt. Antola outcrops with its stratified sedimentary rocks dominates.

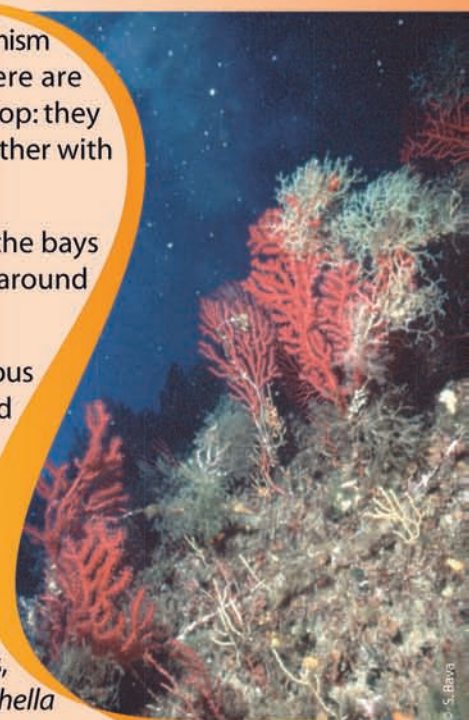
Underwater cliffs reach about 40-50 m depth and leave place to large rocks, then to partly biogenic sands and mud.

## Specificities and Importance

Immediately underlying tide area, a belt is formed by *Cystoseira spp.* where hydrodynamism is great and in the most sheltered points. 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*.

On the sandy seabed, there are the *Posidonia* beds, almost exclusively within the bays and along the sides of the Promontory. Sparse *Cymodocea nodosa* beds grow around the 10-15 m of depth in the sea.

Typical biocenoses 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 different facies characterized, according to the local conditions, by different species of horny corals (*Paramuricea clavata*, *Eunicella cavolinii*) and red coral (*Corallium rubrum*). Between the 20 and 45 meters of depth, coral colonies find the ideal conditions for their development and reach very high densities even if the dimensions remain reduced. The seabed is characterized near the coast by the gorgonian *Leptogorgia sarmentosa* forming sparse beds at about 15 m of depth. Beyond the 100 m, on modest rocky outcrops, the great hydroid *Lytocarpia myriophyllum* develops, accompanied by the *Antipathella subpinnata*, one of the few Mediterranean representatives of the Anthipatharia, to which the tropical black corals belong.





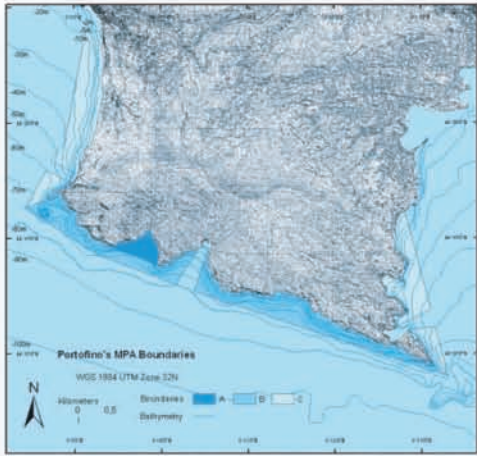
## Threats and pressures

The main danger comes from mass tourism taking in account that about 200,000 tourists can be present monthly in the summer.

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 and 34 Diving Center have the permission to operate inside the MPA.

The Posidonia beds 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.



## Management

A "enforcement and organization regulations" was adopted with the establishment of the MPA.

The delimitation of the MPA Portofino is divided into the 3 areas:

- Zone A: No take zone
- Zone B: General Reserve where swimming, scuba diving, yachting and fishing activities are regulated
- Zone C: Partial Reserve where the transit and the diving are free and the sport fishing is checked.

The Portofino MPA staff is constituted by 7 members. The finance and the accounting activities of the MPA area are carried out according to the directives established.

A surveillance is assured during the summer by 2 seasonal wardens, helped by a staff from the University of Genoa, in monitoring research programs.

Portofino is a site with a high marine biodiversity: probably the highest of Italy. At the moment in the MPA several studies are carried out, on the biodiversity, some specific taxa, the structure and dynamics of benthic communities to evaluate the protection effect. Other researchs are conducted to study physical and chemical parameters at different level.

The educational level of the population living inside the MPA Portofino is high. The MPA Management has several projects regarding the education inside the primary and secondary school of the zone.

