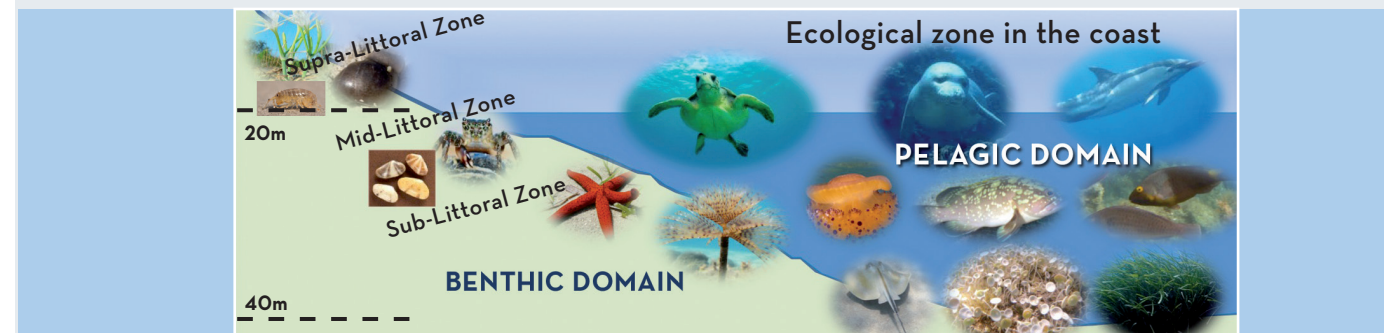




The marine fauna and flora of the N.M.P.Z. expands from the shallower to the deeper parts of the seabed and it is characterized by a large variety of life forms, colors and formations. Both the shore and the seabed are divided to zones according to the particular ecological conditions which are known to occur therein.



Supra-Littoral Zone

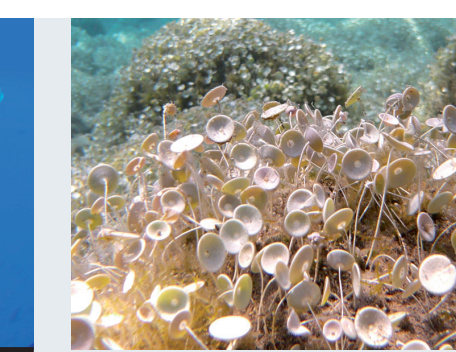
Supra-Littoral zone is situated between the upper limit of the sea tide and the upper limit in which the wave spray can reach. Since it is permanently located above the high water level, organisms thriving therein are subjected to severe and frequent changes of humidity, temperature and salinity.

Mid-Littoral Zone

Mid-Littoral zone is located between the low and the high water line. The organisms living therein are well adjusted to tolerate the intense variation in humidity, temperature, salinity and wave action.

Sub-Littoral Zone

Sub-Littoral zone is situated from the lower sea tide level up to deepest point where the Neptune grass *Posidonia oceanica* (Posidonia meadows - 40m depth) or the photophilic macroalgae are spreading in sandy and rocky bottoms, respectively.



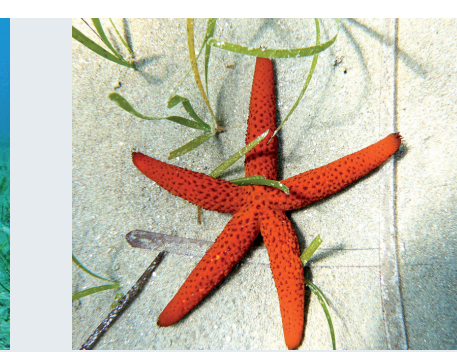
Acetabularia acetabulum

It belongs to green algae which are considered to be one of the most primitive forms of floral organism on earth. It is a photosynthetic organism with a characteristic umbrella-shaped cap at the top of its body. It can be found attached on rocks or other hard substrates of the sublittoral zone usually forming dense colonies (Acetabularia phase).



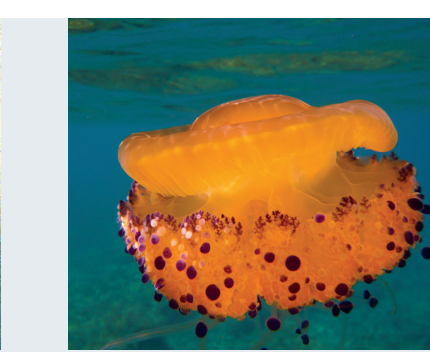
Pinna nobilis

The noble pen shell is an endemic to the Mediterranean bivalve mollusc which can be found in sandy bottoms and *Posidonia* meadows. It has a lifespan of 20 years and it can be bigger than 1 meter in length. Their populations have been dramatically reduced over the last decades due to overfishing, bottom trawling, anchoring and pollution). Therefore, it is an endangered species under a strict protection status (92/43/EC Directive).



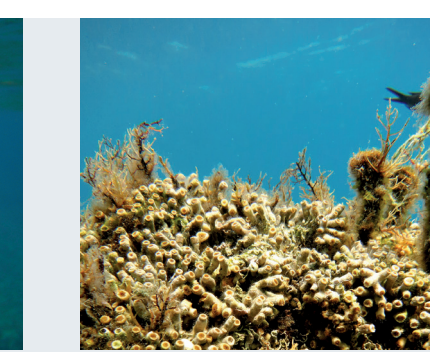
Echinaster sepositus

The red starfish belongs to the group of Echinoderms. It has a wide bathymetric distribution (1-250m of depth) and is commonly found in rocky or sandy areas, seagrass meadows and reefs. The mouth of the red starfish is located at the lower part of the body and it feeds on other invertebrates. A complex system of channels (ambulacral system) is also found in its body which serves both for moving and breathing.



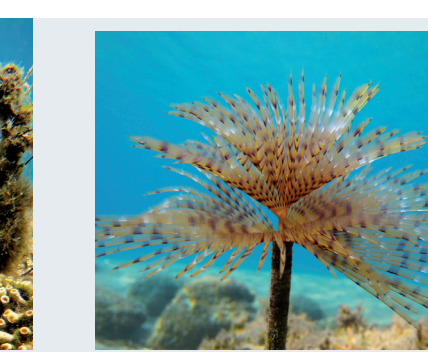
Cotylorhiza tuberculata

The Mediterranean jellyfish belongs to the class of Scyphozoa. It has a characteristic shape that looks like a fried egg and a lifespan of about 6 months. It may reach the size of 50 cm and feeds on zooplankton. Among the Mediterranean jellyfish's natural predators the loggerhead sea turtle *Caretta caretta* is included while the species is known for its population explosions in coastal areas to the end of summer. This jellyfish is not dangerous to humans.



Cladocora caespitosa

The pillow coral (Class of Anthozoa, Phylum Cnidaria) is known to be the only reef building colonial coral of the Mediterranean Sea. The complex structure of the colony offers new habitats for many small invertebrates and therefore it has been characterized as an 'Ecosystem Engineer'. It is protected by both National legislation and International conventions (e.g. CITES).



Sabella spallanzanii

The Mediterranean fan-worm belongs to the group of the Polychaete Annelids. It is characterised by an elongate tube and a colourful crown of feeding tentacles which can be retracted into the tube when it feels threatened. The tentacles are trapping planktonic organisms and suspended particles of organic matter which are the main food of the fan-worm.



Caretta caretta

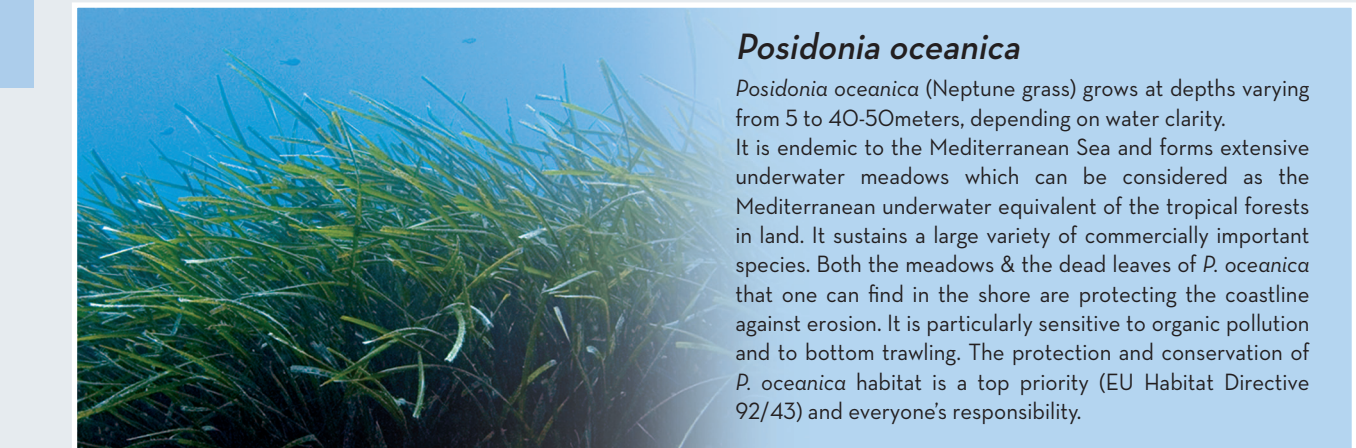
The loggerhead sea turtles *Caretta caretta* migrate across long distances to reach their breeding grounds and lay their eggs, usually, in isolated sandy beaches. This process is repeating seamlessly over millions of years, even before the appearance of man on earth. The protected area of the Marine Park is one of the most important breeding and nesting areas for the loggerhead in the Mediterranean. It is an endangered species and thus protected by the National and International Law.

Delphinus delphis

The common dolphin (cetacean) lives in temperate and tropical waters of the continental shelf (0-250m), mostly feeding on epipelagic and mesopelagic fish shoals and squids. In the Mediterranean, population of the common dolphin has experienced a major decline during the last 30-40 years and, therefore, it is protected by the Convention on Migratory Species of Wild Animals. Several individuals of this species have been recorded in the N.M.P.Z.

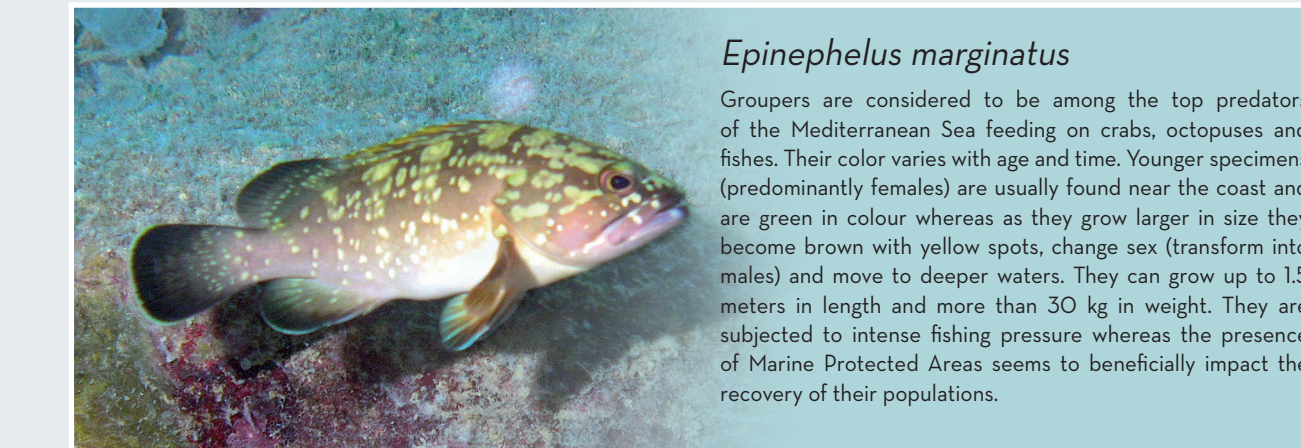
Monachus monachus

The Mediterranean Monk Seal (mammal) feeds mainly on Molluscs, Decapod and Fishes. It can reach a length of 3m and a weight of 300kg. It is characterized as a critically endangered species directly threatened with extinction and thus it is protected by both National and International Legislations. In the Eastern Mediterranean, the total population size is calculated to 300-350 individuals (>60% of the global population) while less than 15 individuals inhabit the area of the N.M.P.Z. It should not be harassed in any way by visitors.



Posidonia oceanica

Posidonia oceanica (Neptune grass) grows at depths varying from 5 to 40-50meters, depending on water clarity. It is endemic to the Mediterranean Sea and forms extensive underwater meadows which can be considered as the Mediterranean underwater equivalent of the tropical forests in land. It sustains a large variety of commercially important species. Both the meadows & the dead leaves of *P. oceanica* that one can find in the shore are protecting the coastline against erosion. It is particularly sensitive to organic pollution and to bottom trawling. The protection and conservation of *P. oceanica* habitat is a top priority (EU Habitat Directive 92/43) and everyone's responsibility.

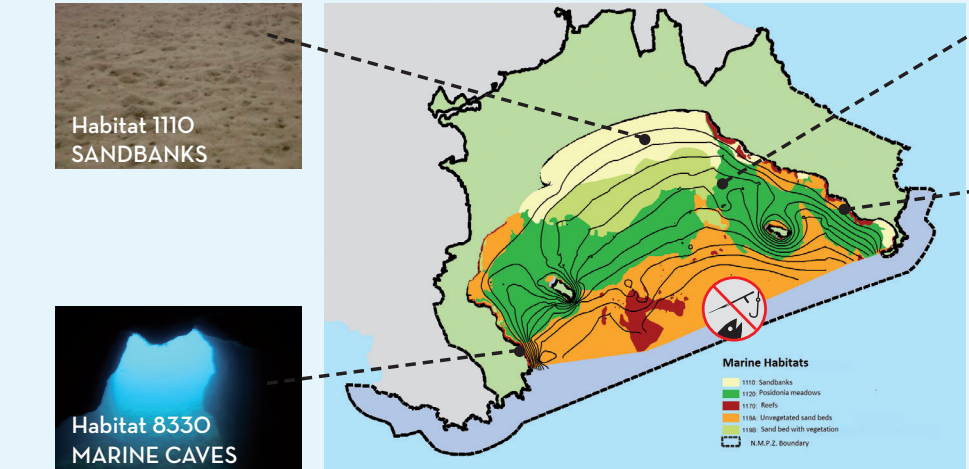


Epinephelus marginatus

Groupers are considered to be among the top predators of the Mediterranean Sea feeding on crabs, octopuses and fishes. Their color varies with age and time. Younger specimens (predominantly females) are usually found near the coast and are green in colour whereas as they grow larger in size they become brown with yellow spots, change sex (transform into males) and move to deeper waters. They can grow up to 1.5 meters in length and more than 30 kg in weight. They are subjected to intense fishing pressure whereas the presence of Marine Protected Areas seems to beneficially impact the recovery of their populations.

MARINE HABITAT TYPES - 92/43/EC Directive

Four types of Marine Habitats of Community Interest according to the 92/43/EC Directive are found within the marine protected area of N.M.P.Z. These habitats are considered as Special Areas of Protection and Conservation.



RECREATIONAL FISHING AND SPEARFISHING ARE FORBIDDEN WITHIN THE MARINE LIMITS OF THE N.M.P.Z.

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Κάνουμε τις πράξεις,
ζούμε το αποτέλεσμα

Με τη συγχρηματοδότηση της Ελλάδας και της Ευρωπαϊκής Ένωσης

Marine Flora



Posidonia oceanica



Cymodocea nodosa

PHANEROGAMS

Chlorophytes



Caulerpa prolifera



Acetabularia acetabulum



Halimeda tuna

Phaeophytes



Cystoseira sp.



Padina pavonica



Dictyota dichotoma

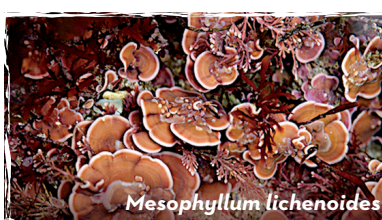
Rhodophytes



Pegsonnelia squamaria



Jania rubens



Mesophyllum lichenoides

MACROPHYTES

Marine Fauna

Sponges



Agelas oroides



Chondrilla nucula

Cnidarians



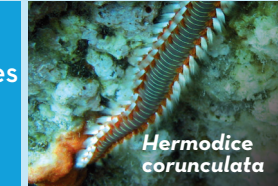
Rhizostomia pulmo



Anemonia viridis

Eunicella cavolini

Polychaetes



Hermodice corunculata

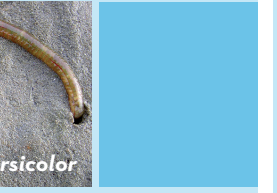


Serpula vermicularis

Bryozoans



Myriapora truncate



Sertella septentrionalis

INVERTEBRATES

Molluscs



Hypselodoris picta



Charonia variegata

Crustaceans



Octopus vulgaris



Venus verrucosa



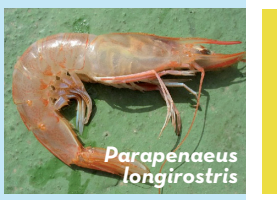
Eriphia verrucosa



Palinurus elephas



Dardanus calidus



Parapenaeus longirostris

Echinoderms



Sphaerechinus granularis

Ascidians



Halocynthia papillosa

VERTEBRATES

Epinephelus costae



Epinephelus costae

Scorpaena scrofa



Scorpaena scrofa

Epinephelus marginatus



Epinephelus marginatus

Diplodus sargus



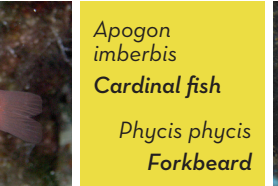
Diplodus sargus

Dasyatis pastinaca



Dasyatis pastinaca

Mulus sermulletus



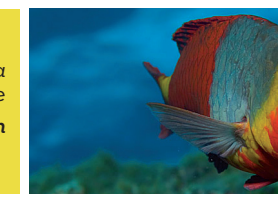
Mulus sermulletus

Sarpa salpa



Sarpa salpa

Sparisoma cretense



Sparisoma cretense

Dentex dentex



Dentex dentex

Diplodus vulgaris



Diplodus vulgaris

Muraena helena



Muraena helena

Mediterranean moray

Allochthonous species Marine Biological Invaders

As 'Allochthonous', 'Alien' or 'Exotic' species can be identified those species that are occurring beyond the natural limits of their geographical expansion either as a result of natural processes (e.g. sea currents) or human activities (e.g. shipping, aquaculture). Sea temperature rise due to climate change as well as degradation of marine ecosystems due to pollution seem to contribute towards the acceleration of the natural spread of new alien species in the Mediterranean, mainly through the Suez Canal ('Lessepsian Immigrants'). "Biological Invaders" are classified as one of the major threats to biodiversity and ecological balance in the Mediterranean. Today, more than 900 alien species have been recorded in the Mediterranean with an exponential rate of occurrence. More than 250 invasive species have been identified in the Greek seas whereas 4 plant species (*Caulerpa racemosa*, *Ganonema farinosum*, *Lophocladia lallemandii* and *Halophila stipulacea*), 3 invertebrate species (*Percnon gibbesi*, *Phallusia nigra*, *Pinctada radiata*) and 6 fish species (*Siganus luridus*, *Enchelycore anatina*, *Alepes djedaba*, *Sphoeroides pachygaster*, *Lagocephalus sceleratus*, *Stephanolepis diaspros*) are known to occur within the marine limits of the NMPZ.



Lophocladia lallemandii



Caulerpa racemosa



Percnon gibbesi



Siganus luridus



The Marine Fauna and Flora



The National Marine Park of Zakynthos (N.M.P.Z.) hosts a considerable amount of marine fauna and flora species. Several endangered or protected species such as the loggerhead sea turtle *Caretta caretta*, the Mediterranean monkseal *Monachus monachus* and other species of vertebrate and invertebrate species are also found in the N.M.P.Z. Their protection and sustainable management is a high priority for the Management Body of the N.M.P.Z.

