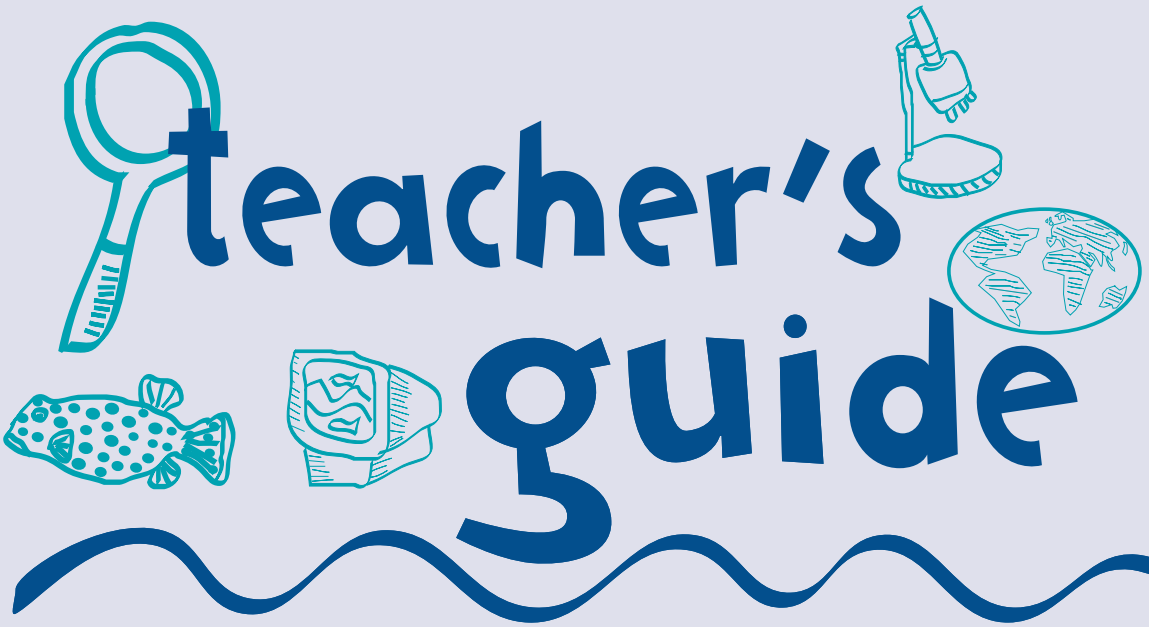

GENERAL INFORMATION

L'aquarium
BARCELONA

L'Aquàrium
BARCELONA

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L'AQUÀRIUM DE BARCELONA IS A WHOLE OTHER WORLD!

L'Aquàrium de Barcelona is a marine recreational and educational centre considered one of Europe's largest, as well as the most important Mediterranean-themed aquariums worldwide. It was founded with the intention of being a cutting-edge aquarium, and its fundamental objectives are to entertain, inform, and educate.

L'Aquàrium de Barcelona allows you to travel to another world. An unknown and surprising world. The beauty of the deep sea, the great diversity of colours, shapes, organisms and ecosystems on display, make *L'Aquàrium* a lively, wonderful spectacle. When you visit us, you'll find yourself surround by more than four and a half million litres of water, and you'll be able to take in 11,000 specimens of marine organisms from 450 different species. And…, just like that, you will have shared in a unique experience.

L'Aquàrium de Barcelona is also very eager to teach people about the marine environment. The twenty-one aquariums display the most characteristic marine communities of the Mediterranean and tropical seas, and visitors are given the chance to learn about the deep. In *Explora!,* there are more than fifty interactive stations that allow you to discover three different spaces: an underwater cave from the Medes islands, a beach from the *Costa Brava*, and the wetlands of the Ebro Delta. And in *Planeta Aqua*, different spaces allow you to observe a multitude of species adapting to extreme conditions, such as in *life in the cold*, with the lively and restless penguins; the *tropical universe,* where the piranhas and crocodiles live, and *the world of darkness*, among others. The reason behind all this is very clear: "learn to love and love to protect".

L'Aquàrium de Barcelona is also an educational centre. The Department of Education is charged with developing an educational program that responds to the needs of all schools, with the purpose of bringing the fascinating world of the sea to students.

In short, **L'Aquàrium de Barcelona is a whole other world!**

WHAT'S AT L'AQUÀRIUM DE BARCELONA?

L'Aquàrium de Barcelona is divided into three basic areas: the public area, educational area, and technical area.

PUBLIC AREA

L'Aquàrium offers a trip through twenty-one large-scale aquariums of spectacular beauty. They recreate the marine communities we might find at different depths of the Mediterranean, as well as the most representative tropical habitats from around the world.

To find out what each aquarium offers us, you can consult:

- The informative displays: each tank has lighted displays explaining the community represented in the aquarium, the relative depth profile, and the different organisms typical of the community, with the occasional oddity.
- Multimedia information: throughout the exhibits there are three interactive information points with computers that allow you to consult information on the different aquariums, get to know the distinguishing biological characteristics of the communities, and learn facts about the most representative marine organisms in each tank.

MINIACUARIA

Small aquariums designed to let you enjoy the little details of flora and fauna that might go completely unnoticed in the larger aquariums.

In these small aquariums you will find a series of interactive accessories (video, and quiz games) that can be used to better observe the small organisms found here.

They are divided into three panels under the titles:

- "What are marine invertebrates?"
- "The woods of Poseidon"
- "Fantastic underwater creatures"

"EXPLORA!", ENJOY DISCOVERING AND LEARNING

"Explora!" is an interactive recreational and educational space designed to teach the marine world to girls and boys. With a lot of interactive stations to touch, look at, listen to, investigate, and discover nature.

Three different Mediterranean coastal environments are represented at "Explora!": the wetlands of the Ebro Delta, an underwater cave from the Medes Islands, and an area of the Costa Brava.

PLANETA AQUA

Planeta Aqua is a space of more than 1300m^2 at L'Aquàrium de Barcelona, with three astounding settings devoted to the darkness of the abyss, the coldness of the southern waters, and the exotic fauna of the tropics. This space also has an open tank that allows you to observe different types of rays, with an interactive area, and even a visit to a bathyscaphe that takes you through the history of the conquering of the oceans. Planeta Aqua offers a little reflection on the importance of the aquatic environment in the development of life on our planet for over 3.5 billion years.

THE BARCELONA AUDITORIUM

With a 180-person capacity connected to a great aquarium, the Barcelona Auditorium is a space where you can watch movies or documentaries as bonus to your visit. It is also used to hold conferences, conventions, debates, and special projections.

CAFETERIA / SELF-SERVICE

To make your stay at our facilities more enjoyable, L'Aquàrium offers a cafeteria-restaurant service with excellent views of the fishermen's port. It also offers the possibility of holding lunches and snacks for school groups at special prices.

THE L'AQUÀRIUM SHOP

Designed as a trip through the deep sea, the shop's marine setting and theme are good reasons to visit, with a sunken galleon next to it, where you can find assorted "treasures". More than 3,000 different objects - decorations, souvenirs, themed products, etc.- make up the range of products on display.

EDUCATIONAL AREA

L'Aquàrium de Barcelona, with a clear commitment to education, offers programs for schools designed to introduce the deep sea to different age groups. For these activities, L'Aquàrium has three workshop rooms: "Antedon", "Bonellia" and "Captain Aquarium's Cove". All of the rooms contain laboratory equipment, audiovisual equipment, and small aquariums that act as points of reference for the different content dealt with.

L'Aquàrium also contains a small theatre set in a marine background, designed for shows by the TIC (Interactive Scientific Workshop).

Access to the educational area is by advance reservation only.

TECHNICAL AREA

Behind the aquarium exhibits is an entire team of professionals from the Maintenance and Biology departments, who make it possible for us to enjoy the beauty of the deep sea without getting wet.
This area, closed to the public, is made up of the technical area where the immense aquarium filters are housed; the laboratory, where water tests and research are performed; and the quarantine room, where animals new to the L'Aquàrium go through the proper adaptation processes.

L'AQUÀRIUM IN-DEPTH

THE AQUARIUMS

L'Aquàrium de Barcelona has twenty-one aquariums on display: fourteen of them represent Mediterranean communities, and seven of them stage settings from different tropical seas.

AQUARIUM MEDITERRANEAN 1 — shallow rocky coastal community

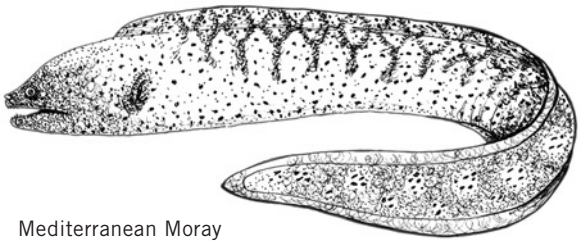
TECHNICAL DATA:

VOLUME: 90.56 m^3
LIGHT: High
TEMPERATURE: 14-18 ºC
ZONE: Mediolittoral-Infralittoral

This area is characterized by its highly oxygenated transparent waters, where green, dark brown, and limestone algae are abundant. In general it is an area with a high degree of biological diversity.

We find animals that developed defence mechanisms such as spines connected to poisonous glands, or the adoption of different colours as camouflage. There is also an abundance of animals that seek refuge in the hollows and holes in rocks, such as the well-known **Mediterranean Moray** (*Muraena helena*).

Among the variety of marine invertebrates that live on top of the rocks or hidden within them, we find the **Snakelocks Anemone** (*Anemonia sulcata*), from the well-known jellyfish group, and therefore containing the same defence system: cnidocytes, cells filled with a stinging liquid that discharge when touched, and penetrate the skin.



Mediterranean Moray

AQUARIUM MEDITERRANEAN 2 — shallow sandy coastal community

TECHNICAL DATA:

VOLUME: 8.04 m^3
LIGHT: High
TEMPERATURE: 14-18 ºC
ZONE: Mediolittoral-Infralittoral

The sandy coastal areas, with their desolate appearance, are home to a large amount of organisms that have adapted by remaining buried in the sand. This is the case of shellfish and the well-known **Greater weever** (*Trachinus draco*), which has a defence system of spines connected to poisonous glands.

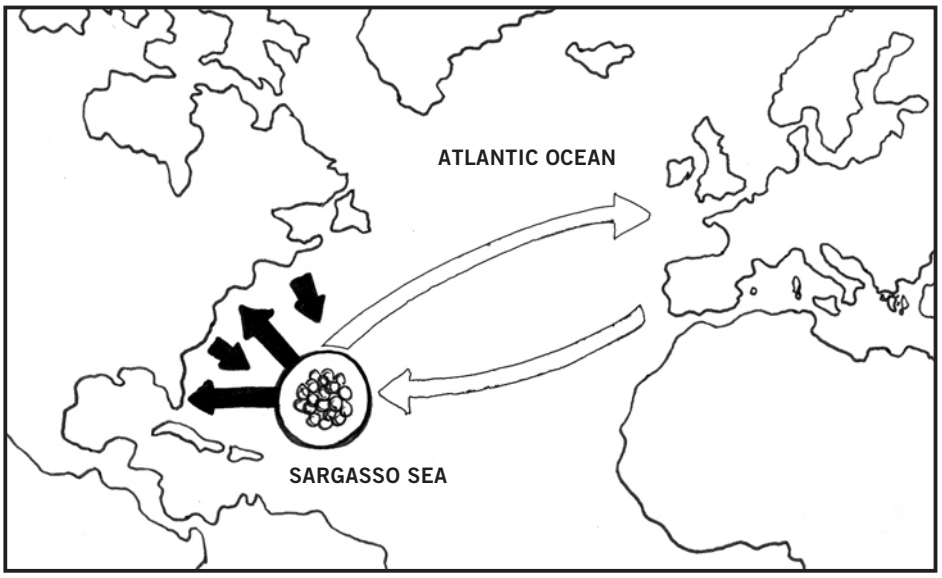
This is also the habitat of **flatfish**, which, thanks to pigmented epidermal cells, called chromatophores, can change their colour and camouflage themselves.

TECHNICAL DATA: VOLUME: 110.84 m^3 TEMPERATURE: 16-23 ºC
LIGHT: High

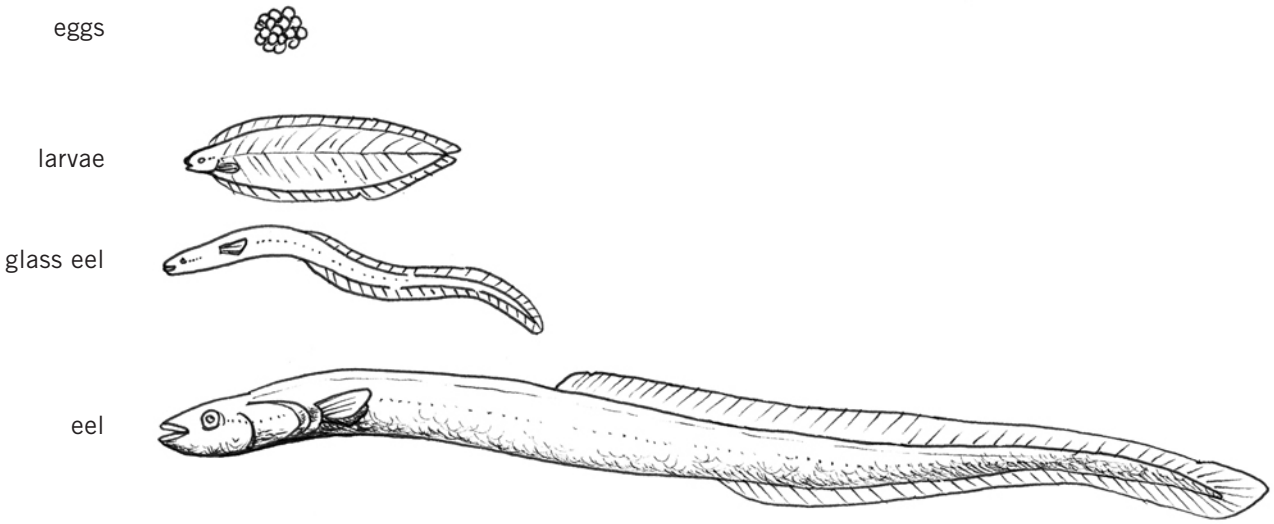
The Ebro Delta, located in the far southeast portion of Catalonia, extends over approximately 350 km^2 and represents the transition between marine and terrestrial environments. This natural space is considered a natural reserve, due to its singular habitat of both marine organisms and the numerous migratory sea birds that stay here temporarily.

The delta is the halfway step between the fresh water (brought by the Ebro River) and the sea water, where we find a series of environments with intermediate, fluctuating salinities that don't make life easy at all for the organisms that inhabit it.

The different species that live in the delta can withstand relatively steep drops or increases in salinity, thanks to the effective regulation of their internal fluids. But there are some that don't confine themselves solely to the transition or mixed water areas, but rather experiment with total insertion into one area and another. These are species that participate in the aforementioned migrations; such as, for example, the **European eel** (*Anguilla anguilla*), which generally lives in rivers, and moves to the sea to reproduce.



The migratory pattern of the European eel (white arrow) and American eel (black arrow).



Development phases of the European eel.

AQUARIUM MEDITERRANEAN 4 cave and crevice community

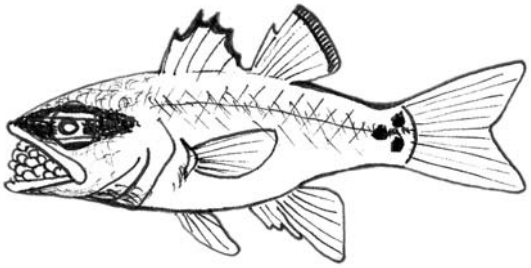
TECHNICAL DATA:

VOLUME: 16.46 m^3
LIGHT: Low
TEMPERATURE: 14-18 ºC
ZONE: Infralittoral

Generally, water erosion forms a series of tunnels and corridors that create a very peculiar landscape with a general poverty of organisms. These are known as underwater caves. In these corners, the little existing light hinders the growth of plant life, and as one advances deeper into its interior, the fauna on its walls becomes increasingly sparse, until finally it almost disappears. The same thing happens with other parameters deeper into the interior: oxygen, temperature, and nutrients.

One fish that can be found in the crevices is the **cardinalfish** (*Apogon imberbis*). In the reproduction period the female releases her eggs, which are then inseminated by the male, who gathers them and keeps them in his mouth until the offspring are born, after eight to ten days. This often means that the father must fast completely, which can even lead to his death.

The **grouper** is also an inhabitant of the crevices and hollows. Its eyes are located more towards the frontal area than in the majority of fishes, which allows it to observe its surroundings while remaining hidden in its lair.

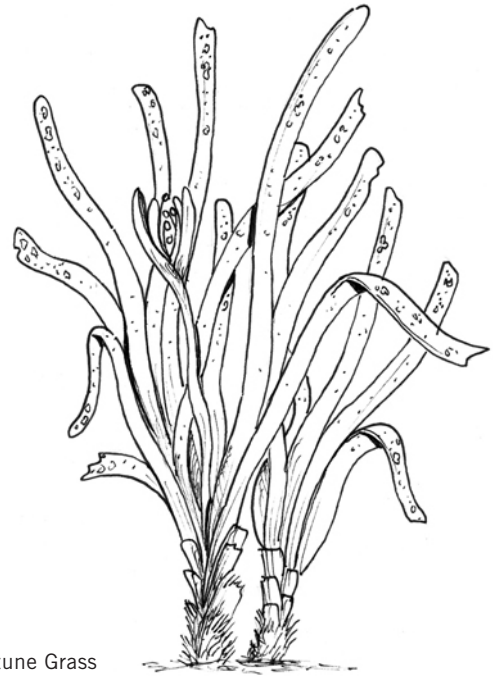


Cardinalfish

AQUARIUM MEDITERRANEAN 5 the neptune grass community

TECHNICAL DATA:

VOLUME: 5.85 m^3
LIGHT: Medium-High
TEMPERATURE: 14-18 ºC
ZONE: Infralittoral



Neptune Grass

Neptune Grass (*Posidonia oceanica*) is a seagrass endemic to the Mediterranean Sea that has ribbon-like leaves and forms extensive underwater meadows.

Its presence is important because it produces large amounts of organic material, food, and oxygen - 1m^2 of the leaves provide about 10 litres of oxygen/day -, thus enriching other ecosystems considerably. It also forms reefs that prevent the erosion and extinction of many bays and beaches.

It is currently in a state of severe regression due to the continuous dumping of contaminants, port construction, illegal trawling, aquafarming, anchoring of vessels, and the invasion of exotic species.

This community contains a whole series of fishes and invertebrates that feed on the Neptune grass leaves, or that find sufficient shelter there in order to mate and reproduce. Some of the species that inhabit it include the purple sea urchin, sea cucumbers, mother of pearl, salps, wrasses, and crustaceans.

AQUARIUM MEDITERRANEAN 6 shallow algae community

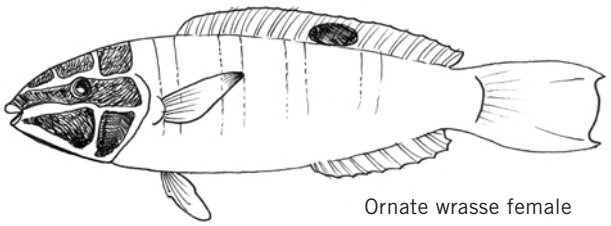
TECHNICAL DATA:

VOLUME: 7.02 m^3
LIGHT: High-Medium

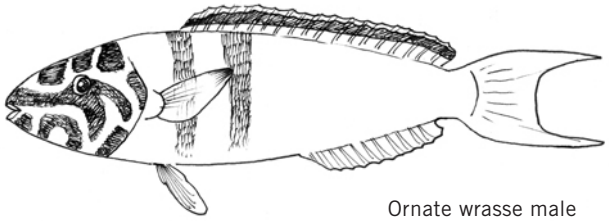
TEMPERATURE: 14-18 ºC
ZONE: Infralittoral

The shallow zones, up to 15 m, are well-lighted areas and therefore the ideal place for many plants that require more light. Here we find green algae that colonize it thanks to the rhizoids or small roots that keep them stuck to the seabed. The accumulation of its leaves or foliage that fall and decompose makes the floor muddy. We also find seagrass here, such as Neptune grass, that make up very biologically rich areas.

There are around fifty species of fish linked to this plant community, including **gobies**, whose ventral fins form an adhesive disc used to stick to the rocks, and the **striped red mullet** (*Mullus surmuletus*), which has two feelers resembling a beard used to locate and dig up food from the sediment. Another species that lives in this community is the **ornate wrasse** (*Thalassoma pavo*). The male and female of this species have different colours (sexual dichromatism). They are sequential hermaphrodites, which means that the females transform into males.



Ornate wrasse female



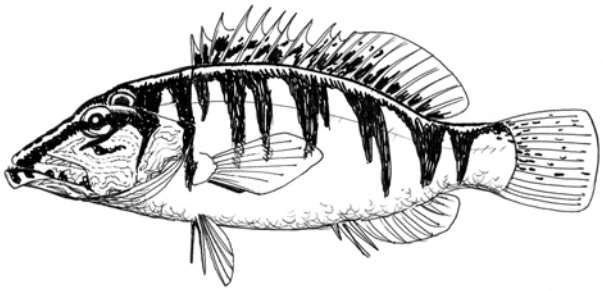
Ornate wrasse male

AQUARIUM MEDITERRANEAN 7 pre-coralline community

TECHNICAL DATA:

VOLUME: 5.85 m^3
LIGHT: Medium-Low

TEMPERATURE: 14-18 ºC
ZONE: Infralittoral-Circumlittoral



Painted comber

The dwellings that give way to the coralligenous community are called **pre-coralligenous.** They are considered transition areas and are characterized by great biological richness.

As the depth increases, between 15 and 25 metres, the light gradually decreases, and the plant community changes. The plants and green algae that require more light are progressively substituted by other, less demanding ones, and by colonies of encrusting animals, making up a singular habitat. Red colourings are the most predominant here.

The species of this community include the **painted comber.** Its scientific name, *Serranus scriba*, makes reference to the print on its head reminiscent of Arabic writing.

AQUARIUM MEDITERRANEAN 8 the coralline community

TECHNICAL DATA:

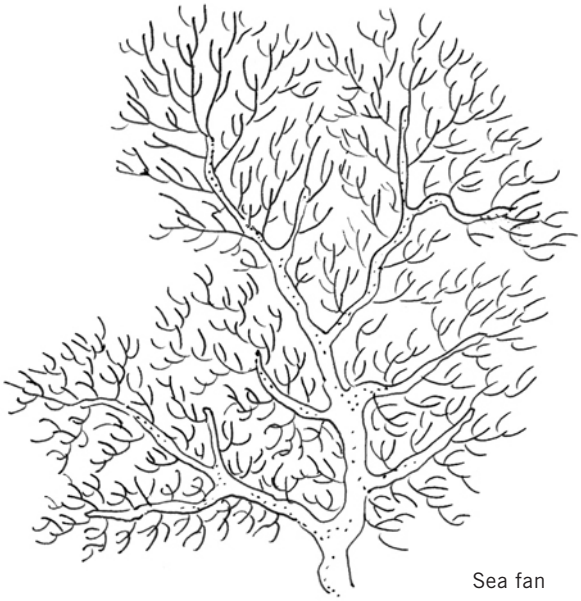
VOLUME: 7.02 m^3
LIGHT: Medium-Low

TEMPERATURE: 14-18 ºC
ZONE: Infralittoral-Circumlittoral

In the Mediterranean, between 25 and 45 metres, the so-called **coralline area** is characterized by its colonization by a large number of lime algae, within which other invertebrate filter-feeding organisms develop: sponges, ascidians, bryozoans, and sea fans (gorgonians), in a discreet collection of reds, yellows, pinks, and oranges.

When the light penetrates the water, it is progressively absorbed, quickly dying out as it goes deeper. The organisms that inhabit this area display reddish colours that allow them to be camouflaged in an environment that red light does not reach. The low light that reaches it causes the algae that inhabit it to compete for it.

The standouts are the **sea fans** (gorgonians), colonies of individuals called polyps that form tree-like structures perpendicular to the currents in order to ensure oxygen and food (generally plankton) for all members of the colony.



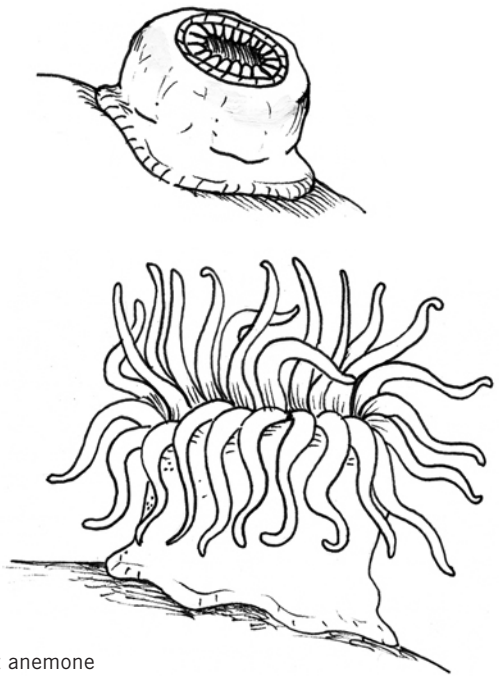
Sea fan

AQUARIUM MEDITERRANEAN 9 intertidal zone community

TECHNICAL DATA:

VOLUME: 90.20 m^3
LIGHT: High

TEMPERATURE: 14-18 ºC
ZONE: Intertidal (mediolittoral)



Beadlet anemone

The intertidal zone stands out for being the tidal area of influence, although in the Mediterranean they are quite low (20cm maximum).

On certain occasions due to the sea's dynamics (waves, generally), these areas go momentarily without water. The invertebrates that inhabit them have adapted to this situation, and they are able to retain water in their bodies, thus surviving until their next contact with water. On the other hand, fish are forced to move periodically with the arrival and departure of the waves.

A typical invertebrate from this community is the **beadlet anemone** (*Actinia equina*). It received this name because when it is disturbed it hides its tentacles and retracts, making it look like a tomato. It has highly stinging bright blue spots just below the tentacles, which are used to distance members of the same species who get too close.

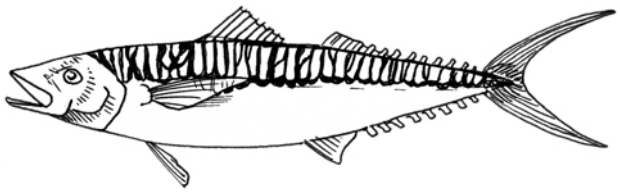
AQUARIUM MEDITERRANEAN 10 a little bite of the sea

TECHNICAL DATA: VOLUME: 39.28 m^3 TEMPERATURE: 14-18 ºC
LIGHT: High-Medium

If we look at any part of the Mediterranean, we might find both benthic and pelagic organisms. The benthos depend on the seabed, and at this aquarium we have two benthic organisms in the form of two species of sharks: the **lesser spotted dogfish** and the **nursehound.** Their brown colour tones help them to blend in with the seabed.

A pelagic community refers to groups of marine organisms that swim or float in open waters or on the continental shelf. Generally, fish from this community display silvery colours, marked shapes, and strong musculature that allows them to swim very fast. It is also common for them to have dark colouring above and light colouring below, in order to be confused with the seabed or with the sunlight. Scads, halibuts, sardines, and mackerel are a few examples of pelagic fish.

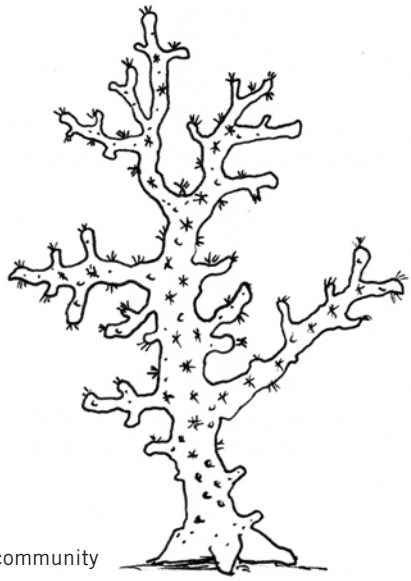
Some pelagic species live in large schools in order to protect themselves from their enemies and to hunt more efficiently. These are the gregarious species. Other species, however, live alone, occasionally associating with individuals from their own species and carrying out attacks alone.



Mackerel

AQUARIUM MEDITERRANEAN 11 red coral community

TECHNICAL DATA: VOLUME: 2.61 m^3 TEMPERATURE: 14-18 ºC
LIGHT: Low ZONE: Infralittoral-Circumlittoral



Red coral community

The precious **red coral community** (*Corallium rubrum*) extends over the entire Mediterranean Sea and has become a species almost exclusive to this sea. It is found at intermediate depths, between 50 and 200m, in areas of permanent tides, dark caves, and crevices.

For centuries it has been a highly prized and unknown species. It was believed to be a mineral or a plant. For example, the Romans used it as a lucky charm to combat different diseases; the Christian religion used the colour red as a symbol of the blood from Christ's sacrifice; and in the Middle Ages it was customary to wear coral in a bag around your neck in order to scare off evil spirits and witches.

Currently, the colonies of red coral are practically destroyed and in complete regression, due to the overwhelming exploitation they've been subject to, and the slowness of their growth. Red coral is a protected species in Catalan territory.

AQUARIUM TROPICAL 12 tropical sharks

TECHNICAL DATA:

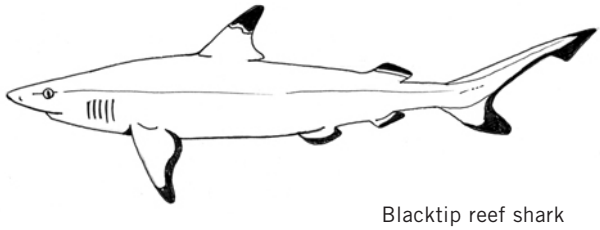
VOLUME: 156.85 m^3
LIGHT: High

TEMPERATURE: 23-27 ºC
ZONE: Infralittoral

Sharks inhabit almost all the seas of the world, from the warm waters of tropical seas to the cold polar waters.

The tropical seas house a great diversity of sharks, some of them spending the majority of their time among the coral reefs, such as the **whitetip reef shark** or the **nurse shark.** Others tirelessly navigate open waters in search of food, such as the **blacktip reef shark.**

Its skeleton is made of cartilage, unlike the bone skeleton of other fishes, and therefore, together with manta rays and rays they make up the chondrichtytes, or cartilaginous fish.



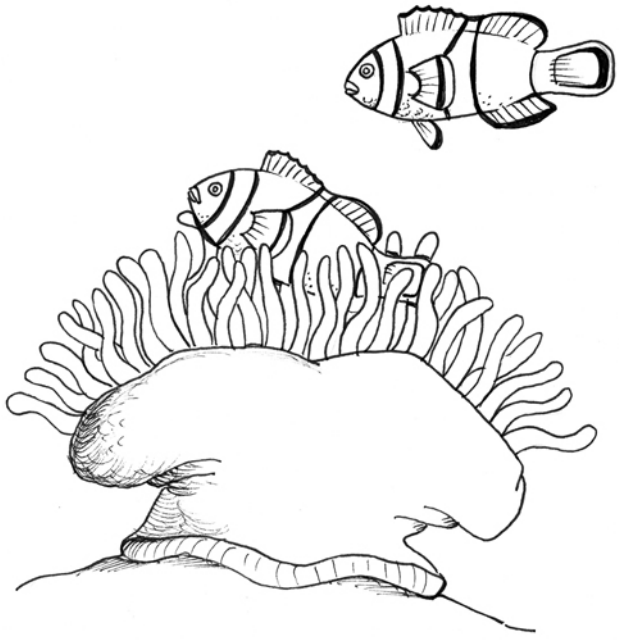
Blacktip reef shark

AQUARIUM TROPICAL 13 tropical coral reefs

TECHNICAL DATA:

VOLUME: 2.61 m^3
LIGHT: High

TEMPERATURE: 23-27 ºC
ZONE: Infralittoral



Clownfish and anemone

From a biological point of view reefs are structures made of living organisms with a plant-like appearance, and they modify the physical and ecological characteristics of the place where they develop. In a certain sense they act as dikes or barriers, creating areas of intense splashing and areas of calm.

They constitute one of the most productive ecosystems on Earth, and perhaps one of the most complex, since they allow multiple relationships to be established among the different ecological niches.

Some of the organisms that live in these reefs are the **clownfish** and the **anemones,** which have established a symbiotic relationship: the anemones protect the clownfish within their poisonous tentacles, while the clownfish clean the anemones (freeing them of parasites), provide them with food (using the leftovers that fish drop while feeding), and fan them in order to increase the water circulation around them, thus providing them with oxygen.

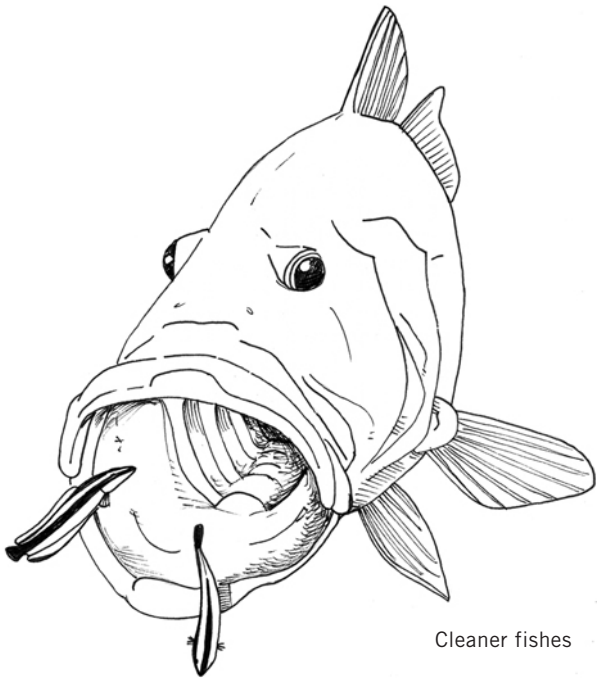
AQUARIUM TROPICAL 14 the caribbean sea

TECHNICAL DATA: VOLUME: 11.48 m^3 TEMPERATURE: 23-27 ºC
LIGHT: High ZONE: Infralittoral

The most representative Atlantic reefs are without a doubt the ones in the Caribbean Sea. They rise above the seabed like a mountain, but they never reach the surface and they grow in the direction of the open sea.

A multitude of species inhabit the reefs, and there are also *cleaning stations,* where we find **cleaner fish,** who offer their cleaning services in exchange for food. The fish that visit the cleaning stations form long lines of "customers" waiting to be cleaned.

We might also find **angelfish,** with very eye-catching colours. The colours of the youthful shapes of the angelfish are completely different than those of the adult fish. This way the youth are still not considered rivals against those who have to compete for territory.



Cleaner fishes

AQUARIUM TROPICAL 15 the great barrier reef. australia

TECHNICAL DATA: VOLUME: 11.48 m^3 TEMPERATURE: 23-27 ºC
LIGHT: High ZONE: Infralittoral

Butterflyfish

Australia, the giant island located between the Pacific and Indian oceans, is considered a continent due to its size. With a width of 4,000 km from east to west, and 3,200 km from north to south, to its northeast lies the "Great Barrier Reef". Extending over 2,000 km, it is the only living structure that can be observed from the moon. It is not a single reef, but rather a collection of 2,000 coastal reefs of 8 km^2.

One of the most abundant types of fish in the tropical reefs is the **butterflyfish.** It often has a spot in the shape of an eye close to its tail, and a real eye camouflaged by a dark band. They probably have this colouring pattern in order to confuse possible predators about the location of their head, thus making it easier to escape more quickly.

AQUARIUM TROPICAL 16 red sea

TECHNICAL DATA:

VOLUME: 11.48 m^3
LIGHT: High

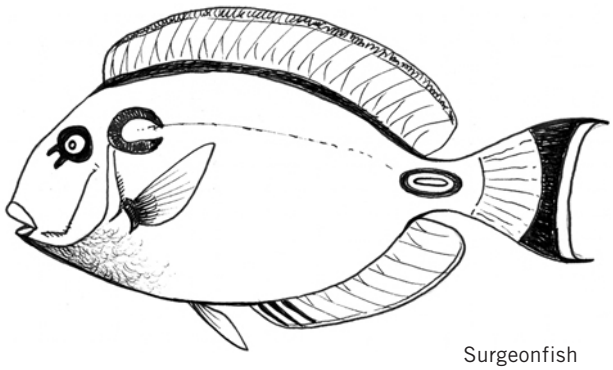
TEMPERATURE: 23-27 ºC
ZONE: Infralittoral

The Red Sea, with a surface of 430,000 km^2, got its name from the presence of floating red algae, *Trichodesmium erythraeum,* which often appears grouped together in red and pinkish plates on the surface of these waters.

Located between Africa and the Middle East, it has a very high salt concentration, at 42%. This is due to the lack of fresh water brought in by rivers and the high levels of evaporation the surface experiences.

The fauna represented in this sea is extraordinarily rich and diverse. The **masked butterflyfish** (*Chaetodon semilarvatus*) is a small reef fish that lives in the Red Sea. It is characterized by a stain around its eye to confuse and dissuade other fish from possible attacks, making their enemies think the fish is very large because its eye is large.

Other interesting fish include the **surgeonfish,** which has a sharp spine close to its tail, called a "scalpel", which they use to defend themselves.



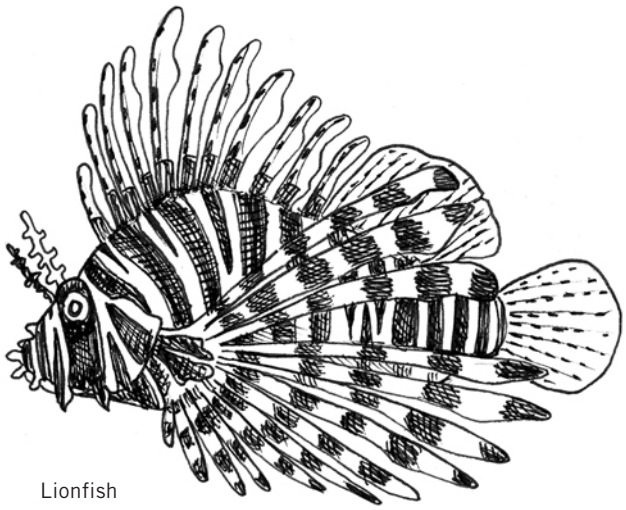
Surgeonfish

AQUARIUM TROPICAL 17 poisonous and aggressive tropical fishes

TECHNICAL DATA:

VOLUME: 11.48 m^3
LIGHT: High-Medium

TEMPERATURE: 23-27 ºC
ZONE: Infralittoral



Lionfish

Among the multitude of organisms that inhabit coral reefs, many of them have acquired different adaptations for active defence, which can often accidentally pose a threat to human beings, in spite of appearing to be peaceful, singularly beautiful organisms.

The **stonefish** (*Synanceia verrucosa*) is a good example. Its body is covered in warts and stained in such a way that it cannot be distinguished from its surroundings. It allows algae and anemones to grow on its skin to contribute to its camouflage. To defend itself, it raises the spines along its back, with which it can inject one of the strongest poisons. This poison can badly wound and even kill a person in only 20 minutes.

Other examples of poisonous fish include the **blowfish** and the **lionfish.**

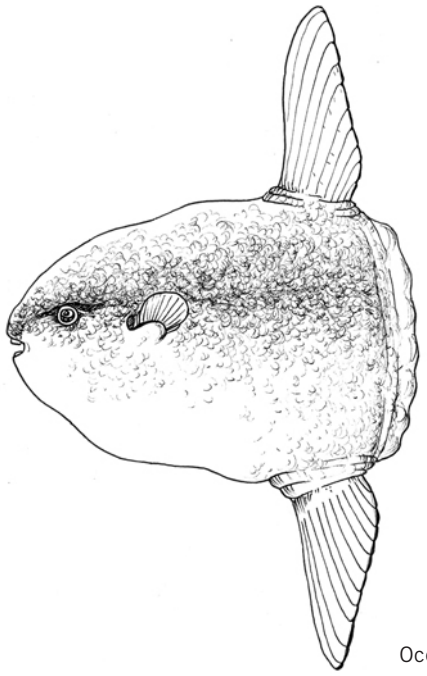
AQUARIUM MEDITERRANEAN 18 the oceanarium

TECHNICAL DATA:

VOLUME: 3,700 m^3
LIGHT: High
TEMPERATURE: 14-18 ºC

The Mediterranean Sea is one of the largest peripheral seas on the planet, and it houses a large diversity of ecosystems and species, in spite of being considered a poor sea due to lack of nutrients (oligotrophic). With a longitude of 3,800 km, around 800 km of maximum width, an average depth of 1,500 m, and elevations of up to 4,000 m, the Mediterranean Sea is closed off by two natural straits: the Bosporus and Gibraltar.

At this aquarium we can see sharks, which, together with rays make up a group of fishes called chondrichthyes, or cartilaginous fish. The shark species present here are the **sand tiger shark** (*Carcharias taurus*) and the **sandbar shark** (*Carcharhinus plumbeus*). There are around 800 different species of fish cohabitating with them in this oceanarium, including the **ocean sunfish**, groupers, guitarfish, and bream, among others.



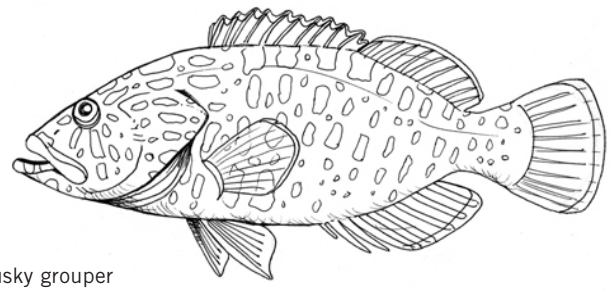
Ocean sunfish

AQUARIUM MEDITERRANEAN 19 the medes islands

TECHNICAL DATA:

VOLUME: 125.32 m^3
LIGHT: Medium-Low
TEMPERATURE: 14-18 ºC
ZONE: Infralittoral-Circumlittoral

This collection of islands off the Northern coast of Catalonia offers rich biological diversity, leading them to be declared marine reserves. Thanks to the protections this offers, its depths contain a wide array of species that are threatened in other unprotected places.



Dusky grouper

This marine reserve off the coast of Catalonia is an exceptional place to observe fishes. Once human exploitation is gone, the number, variety, and size of the fishes rapidly increase. On the other hand, a protected zone faces the problems that come from an excess of scuba divers.

One typical inhabitant of this area is the **dusky grouper** (*Epinephelus marginatus*), which can reach up to 2 metres in size. Among the fishes hidden in the coralligenous structure are the **scorpionfish** (*Scorpaena scrofa*) and the **European conger** (*Conger conger*). The conger can weigh up to 65 kg and measure up to 3 m long. The females lay their eggs –between 3 and 8 million- to the east of the Atlantic at a depth of 3,000 to 4,000 m. Afterwards, many of the larvae penetrate the Mediterranean Sea through the Strait of Gibraltar.

AQUARIUM MEDITERRANEAN 20 the benthos community

TECHNICAL DATA:

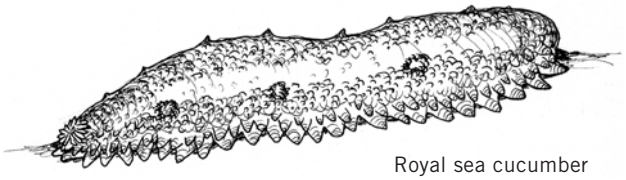
VOLUME: 5.83 m^3
LIGHT: Low
TEMPERATURE: 14-18 ºC
ZONE: Bathyal

The **bathyal zone** extends from 200 to 3,000 m deep. It has a soft, muddy, and quite compact bed.

This zone is characterized by the absence of light, low temperatures, shortage of oxygen, lack of food, and high pressure, so that the marine organisms that inhabit it have developed certain adaptation strategies, highlights of which include the adoption of uniformly dark colours, extensive eye development (telescopic, pedunculated, etc.) or the absence of eyes altogether, the presence of enormous mouths with trick appendages to attract other organisms, bioluminescent shapes, sound production, etc.

Compared to the Atlantic Ocean, the population of organisms in the deep Mediterranean Sea is quite poor. The **royal sea cucumber** (*Stichopus regalis*) is one of the animals we might find in this community, since it lives in shallow coastal areas of up to 800m deep. It is the most gastronomically prized sea cucumber (its gonads are eaten).

The aquarium will house different temporary and monographic exhibitions over the course of the year. Therefore at certain times the previously described ecosystems may not be represented.

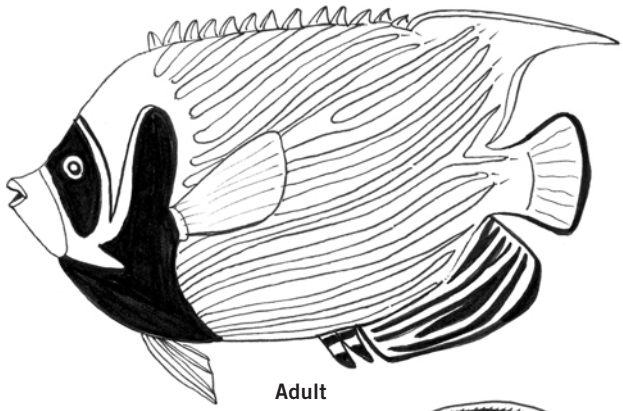


Royal sea cucumber

AQUARIUM TROPICAL 21 the tropical atoll

TECHNICAL DATA:

VOLUME: 76.36 m^3
LIGHT: High
TEMPERATURE: 23-27 ºC
ZONE: Infralittoral



Adult

Emperor angelfish

Juvenile

The tropical atoll represents the most popular and well-known coral reef due to its characteristic ring shape, with a central warm water lake with depths between 30 and 80 m. This lake normally connects to the open sea through canals where the water driven by the waves circulates.

The origin and formation of the atolls have been the focus of studies and disputes among numerous scientists, but currently it is generally accepted that the structures were formed millions of years ago from other volcanic structures that melted over time, while the coral reefs grew over it.

One of the fishes we might find here is the **emperor angelfish** (*Pomacanthus imperator*), characterized by the colour change the males experience when they reach puberty. The youthful shapes are navy blue with concentric white stripes, while adult male bodies have parallel yellow and blue lines.

PLANETA AQUA

Would you like to see how penguins move in and out of the water?
Have you ever see a piranha eat?
Do you want to go into the depths of the sea?

You'll find the answer to all of these questions and many more at ***Planeta Aqua:*** the other face of the Earth.

Planeta Aqua, with a surface of over 1,300 m^2, presents three astounding scenarios devoted to the darkness of the abyss, the cold southern waters, and the exotic plant life of the tropics. This space also has an open tank that allows you to observe different types of rays, with an interactive area, and even a visit to a bathyscaphe that takes you through the history of the conquering of the oceans.

LIFE IN THE COLD

An amphitheatre was designed specially to maintain the natural climate conditions of the stars of this setting: the Humboldt penguins. This spectacular setting allows you to see these animals even when they're swimming below water.

SOME ODD FACTS REGARDING PENGUINS

Penguins are birds that don't fly. Their wings are adapted for swimming. The 18 species of penguins live only in the southern hemisphere, and the majority live in temperate or tropical climates.

Living on ice is no problem for them, since they are perfectly adapted to it and their skin is insensitive to cold. They have small, overlaying and narrowly grouped feathers. At the base of their tails they have a gland that produces grease that, using their beaks, they spread on their feathers to make them waterproof. This creates a layer of insulation that keeps warm air between the skin and the feathers. Penguins shed their feathers in a process that lasts two weeks. During this time they are not waterproof, they cannot enter the water to feed, and they nourish themselves from the layer of grease beneath their skin.

They feed on the plankton made up of different fish, squid, and crustaceans similar to shrimp. Their spiny tongues allow them to hold their prey, which they swallow whole due to the lack of teeth.

Their bellies are clear and their backs are dark, a system of camouflage that allows them to be confused with sunlight or the darkness of the deep.

The majority of penguins build nests between the male and female. In cases in which they cannot build it, they carry the egg above their feet for 6 weeks. A fold on the skin of the belly covers the egg or the chick to protect it and keep it warm. While one of the parents protects the chicks, the other goes to the sea to feed, and they take turns in this way. Penguins spend the majority of their time in groups called colonies. For example, when they fish, a few adults take care of the youngest, and the rest of them fish together as a group. Species of penguins include: the emperor, chinstrap, yellow-eyed, Magellanic, Adelie, and Humboldt (present at L'Aquàrium de Barcelona), among others.

BE SURPRISED

Using computer games, informative displays, small aquariums, and interactive tools, you can discover the evolution of different mammals, reptiles and fish that have adapted to the marine environment. All located in a circular loft, where you can observe living fossils, phenomena such as camouflage, symbiosis and environmental aspects, among others.

THE BATHYSCAPHE, A PENDING INVESTIGATION

Entering the bathyscaphe allows us to discover the history of the conquest and knowledge of the oceans, as well as opening our eyes to everything else still left to discover.

THE WORLD OF DARKNESS

Inside a sperm whale you can see how some marine animals have adapted to living under extreme conditions: darkness, high pressure, lack of oxygen and food...

The darkness and high pressure make the depths of the sea an almost impenetrable and unknown space. In this environment there is a scarce and interesting fauna that is able to survive at 10,000 m under the sea.

CHARACTERISTICS OF THIS ZONE:

TEMPERATURE:
Apart from the perpetual darkness, the waters at the depths of the sea are always cold: in large oceans the temperature of the seabed fluctuates between 2ºC and 4ºC. In the Mediterranean the temperature of the seabed is higher, at about 12ºC.

PRESSURE:
Pressure is another factor that changes according to depth. Every 10 m deep, the pressure increases by 1 atmosphere (1 kg per each cm^2). In the abyssal pits of the ocean the pressure reaches up to 1,100 atmospheres.

AMOUNT OF FOOD:
Another limiting factor of these zones is the lack of food, which forces its inhabitants to take advantage of the organic material that falls from the upper layers, which includes dead organisms, leftovers from predators' meals, algae, and aquatic plants. In order to take full advantage of the occasion, fishes on the seabed are equipped with enormous mouths.

ADAPTATIONS OF THE ORGANISMS THAT INHABITAT IT:
Other adaptations of fishes that live at very low depths include: dark colourings, dorso-ventrally flattened bodies, large or tubular eyes or the lack of eyes altogether, bioluminescent organs (photophores), and very large mouths, often with long teeth curved towards the throat to keep prey from escaping. Some have appendages (ray-fins or beards) that they use as hooks to capture prey (such as the monkfish or ratfish). They have a well-developed sense of smell and some of them have structures that anchor them to a soft surface and keep them away from the seabed.

THE TROPICAL UNIVERSE

A setting that displays the development of life in all three courses of a tropical river: the upper course, middle course, and lower course. Here you'll find species as exotic as piranhas, arowanas, iguanas, discus, and angelfish, among others.

UPPER COURSE
The upper course of tropical rivers is characterized by fast, clean waters, with lower temperatures and more oxygen than downriver. There isn't much aquatic plant life and rocks are abundant on the riverbed. This section is normally short, and immediately begins a long trajectory over plains. In the final stretch we find fish such as discus, neon tetras, angelfish, and tiny cichlids.

MIDDLE COURSE
Tropical rivers run over thousands of kilometres through mostly flat areas. During the rainy season the rivers rise and flood large areas of the jungle. Many fish take advantage of this time to find food and reproduce, thanks to the abundance of resources the jungle offers. Some spectacular fish inhabit this section, such as the elephant fish, the knifefish, piranhas, and the giant gourami.

LOWER COURSE
In the lowest section of tropical rivers, the waters move very slowly and form numerous meanders. During the rainy season they flood jungles and wetlands inhabited by numerous crocodiles and a large number of fishes such as the strange lungfish and the intriguing arowana.

Mangroves are the forests typically found at the mouths of tropical rivers, housing a large number of animal species, such as the mudskipper, the archerfish, and the four-eyed fish. These are communities of great biological value because the roots of the mangroves provide shelter and food to the offspring of many different fishes, and they also retain sediments, thus avoiding erosion.

AND...

An open 20,000-litre tank allows you to observe how rays swim and behave. Different types of rays are on display, such as the stingray, the eagle ray, and the starry skate.

EXPLORA!

Would you like to know what a frog sees from his pool and listen to the sounds of the inhabitants of a wetland?
Would you like to hear from up close how a wave breaks?
Would you like to learn which animals live in underwater caves?

You'll discover all of this and more at Explora!, an interactive space designed to introduce the marine world to boys and girls of all ages. With a lot of interactive stations to touch, look at, listen to, investigate and discover nature.

Three different Mediterranean coastal environments are represented at Explora!

THE WETLANDS OF THE EBRO DELTA

These lakes of shallow, brackish water make up an important habitat for many animal species, especially migratory birds. Explora! invites you to learn about the wetlands in many ways, using magnifying glasses, analysing mud prints, and more...

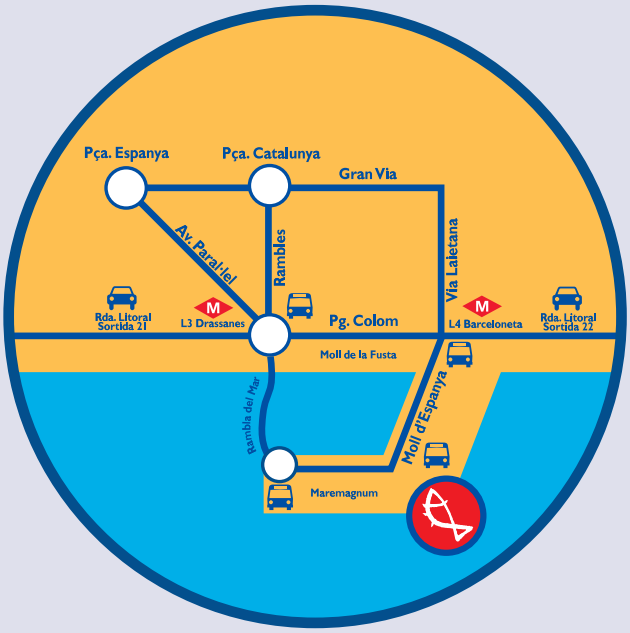
THE COSTA BRAVA

Along the Catalan coastline there are sandy beaches situated at isolated points along the Costa Brava, often protected by spectacularly steep cliffs that drop into the sea. At Explora! you can watch from under the waves and see how they break.

THE UNDERWATER CAVE OF THE MEDES ISLANDS

In this marine reserve of the Catalan coast you'll be able to explore the reef and the wreckage of a ship, refuges for many organisms. Come discover them!

L'Aquàrium
BARCELONA



BUS: 14, 17, 19, 36, 38, 40, 45, 57, 59, 64, 91, 157, TOURIST BUS (Blue South Rute)
UNDERGROUND: L3 Drassanes, L4 Barceloneta
RONDA LITORAL: Junctions 21 i 22

OPENING HOURS

Opening: 9:30 h

Closing:	
Of Monday though Friday	21:00 h
Weekend and public holidays, and the months of June and September	21:30 h
July and August	23:00 h

Ticket Office opens up to one hour before closing.

ASPRO

L'aquàrium BARCELONA

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