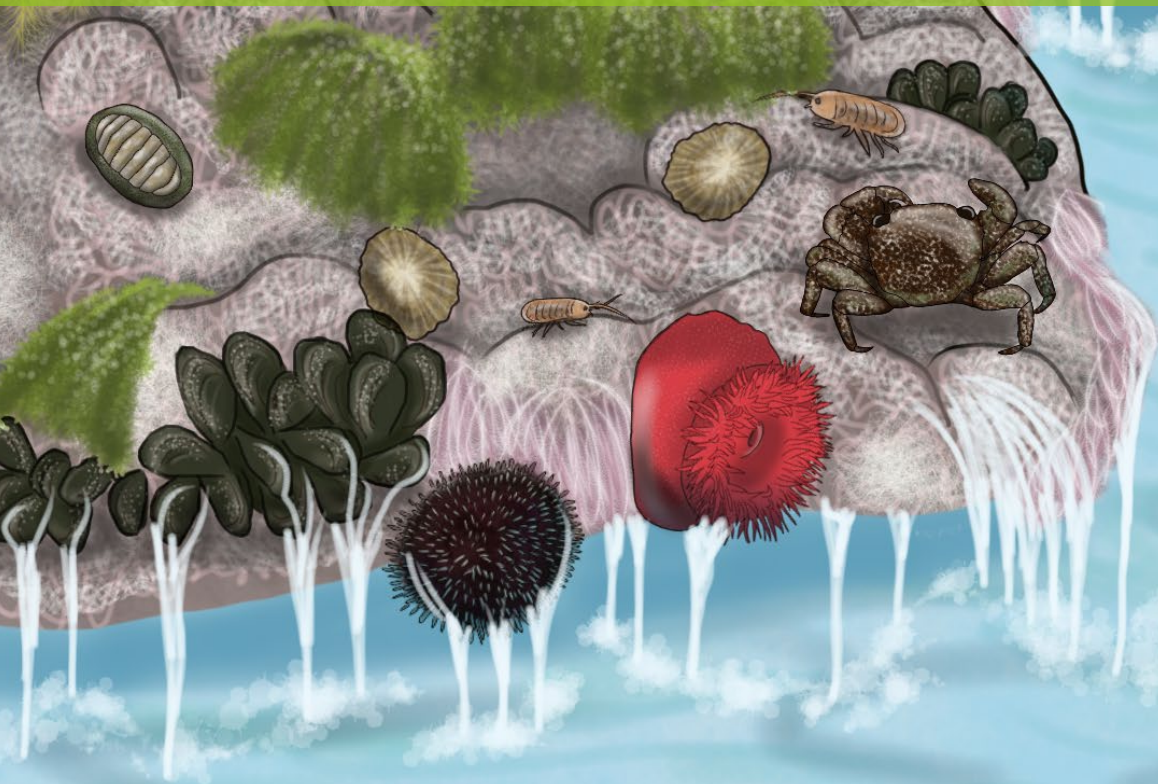


# GUARDIANS OF THE SEA





## THE GUARDIANS OF THE SEA

There are many organisms that do not stand out for their shape or their colours: they aren't particularly beautiful, or majestic, or colourful, but they do all play a key role in maintaining the balance of marine ecosystems.

Starting with the posidonia, which provides large amounts of oxygen, to small detritivore organisms such as hermit crabs that recycle the remains of organic matter, and even us, the divers, when we participate in restoration projects and conduct studies of marine habitats, we are all The Guardians of the Sea.

## CLEANING, FILTERING AND RECYCLING, THE LESS VISIBLE PROTAGONISTS

There are many organisms which recycle matter that others have accumulated, generating oxygen, cleaning the sea, but we rarely stop to observe them, and when we occasionally look at them, we are often not aware of their role.

**Detritivores** are animals that eliminate dead organic matter, from both animals and plants. They form a great team of rubbish collectors, which include many species, although surely among some of the best known are the sea cucumbers, with their continuous work in the sand, and hermit crabs, which arrive early to eliminate the remains of dead animals which have sunk down to the seabed.

However, this group includes other species that we don't classify as seabed cleaners, such as starfish, mullets, spiny lobsters or prawns, among others.



**Sea cucumbers**  
*Holothuria tubulosa*



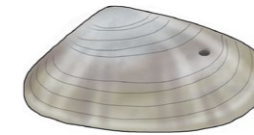
**Striped hermit-crab**  
*Pagurus anachoretus*

The **filtrators** are essential organisms to maintain the balance of marine ecosystems and we highlight bivalves: mussels, cockles, clams or wedge shells, among others.

In fact, these molluscs have a such a powerful role in filtering the impurities that reach the sea, they can even become toxic when they are located where waste waters flow as a result of human action.



**Rayed trough clam**  
*Maetra corallina*



**Wedge clam**  
*Donax trunculus*

**Oxygen generators.** Both algae and marine plants, and especially posidonia, are large generators of oxygen and they are essential in maintaining marine biodiversity. They also protect the coastline and provide a refuge to a huge amount of biomass, true guardians of the sea.



**Neptune grass**  
*Posidonia oceanica*

## DID YOU KNOW THAT:

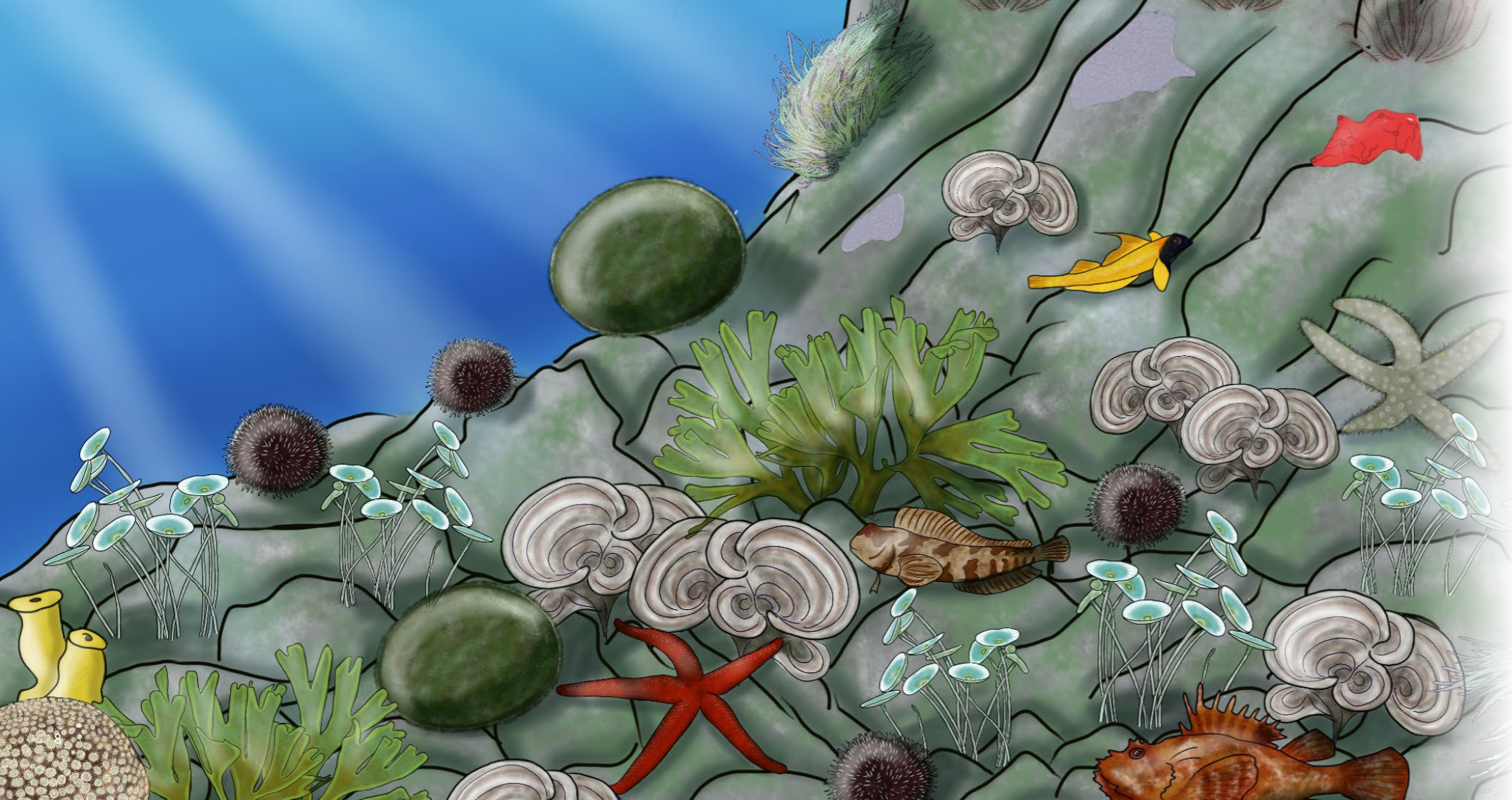
Provided that they have diverse and complex communities to maintain good health, marine ecosystems have a great capacity for regeneration when they are disturbed. It is especially necessary that the decomposer organisms are able to exert their ability. Habitats where decomposers are not able to properly recycle all organic matter, quickly collapse, affecting the whole community and losing the capacity for regeneration.

Organisms that feed on dead animals and decaying organic matter are intrinsically linked to the life cycle of other animals and often need to have nomadic behaviour to find their source of food or sometimes focus their food strategy on grazing the sandy bottoms to find areas which are rich in organic matter.



**Rough cockle**  
*Acanthocardia tuberculata*





## THE RECORD-BREAKING ORGANISM

The organism that beats all records with regards its impact on the seabed and its habitats is undoubtedly human beings.

Overfishing, discharges, the destruction of coastal habitats, global warming... an accumulation which is reaching unsustainable limits and that is leading many species towards a critical situation.

Divers, as actors in aquatic life, must undertake actions that help reduce waste and help restore marine habitats, to try, if not reverse, at least alleviate the situation in everything that is in the power of our hand.



**Royal sea cucumber**  
*Parastichopus regalis*

## WHAT CAN I DO?

1. Ensure that sustainability criteria is maintained at all times when carrying out the dives: with knowledge, respect and preservation.
2. Choose centres that can verify good environmental practices.
3. Practice good habits in everyday life too: minimising spending on energy, reducing water consumption, recycling or reusing as much as possible.
4. Participate in underwater and coastal cleanups. Collaborate in civic initiatives with this objective.
5. Participate in research projects and have a proactive attitude against uncivilised behaviour.

The diving centres will inform you of all the initiatives that are undertaken, actively participate in them and spread the word, so you can be a guardian of the sea too.





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