

'Ran de mar', from ses Covetes to es Marquès

(Parc Natural Maritimoterrestre des Trenc-Salobrar de Campos)

Take a walk along this hiking trail by the sea and enjoy the unsurpassed beach views and the different types of coastal landscapes.

Along the way, we will discover how dunes are formed and spot the local wildlife that inhabits the nearshore ecosystems, which can be very sensitive. Feeling the bracing sea breeze and the waves in front of us, we will peek at the different marine organisms washed ashore after storms.

Route difficulty: Low
Route length: 3.866 m (one way)
Time: 2 hours

WALK BY THE SEASHORE AND RESPECT THE CORDONED OFF AREAS THAT PROTECT THE DUNES.

1. BEACH-DUNE SYSTEM

The trail begins at the S'Arenal d'en Tem beach. Park the car in the public parking lot of Sa Barralina and follow the 500 m walking path that leads to the urban center of Ses Covetes. Once there, turn left to pass through an area under restoration, where several old buildings were demolished in 2013. Soon enough, we will reach the beach and be ready to start our hike along the shoreline.

We refer to the «beach» when we mean the patch of sand where we stretch the towel out in the summertime. But from an ecological point of view, the beach cannot be taken in isolation, it must be considered a part of a beach-dune system instead.

This system can be understood as if we had three connected boxes: one box in the sea, another between sea and land, and the other one inland. Between them, there is a constant flow of sediment that changes depending on wind and wave energy. The loss of one of these three compartments makes beaches more vulnerable to erosive events such as storms. Hence the importance of the Natural Park being both terrestrial and maritime.



2. MACHINE GUN SHELTERS



After a 500 m walk, we will notice an ensemble of machine gun shelters built after the Civil War between 1940 and 1942. These defensive fortifications were known as the Tamarit Line, in reverence of General Ricardo Fernández de Tamarit, Inspector of Fortifications and Military Engineering in the Balearic Islands.

In her recent book 'Esclaus oblidats. Els camps de concentració a Mallorca' (Forgotten slaves. Concentration camps in Majorca), Maria Eugènia Jaume i Esteva estimates a total of 160 machine gun shelters were built and provides their location in different coastal areas. Along the coast of Es Trenc, we will find up to eight shelters.

They were originally built in hidden spots behind the dunes, camouflaged in the sand, but nowadays, some of them are right by the sea. They are a testament to the history and evolution of the coastline. In 2014 they were painted by a group of Boa Mistura artists at ArtNit (Catalan for The Night of the Arts) in Campos, who inscribed in the walls the words from the poem "Cala Gentil" by Miquel Costa i Llobera.

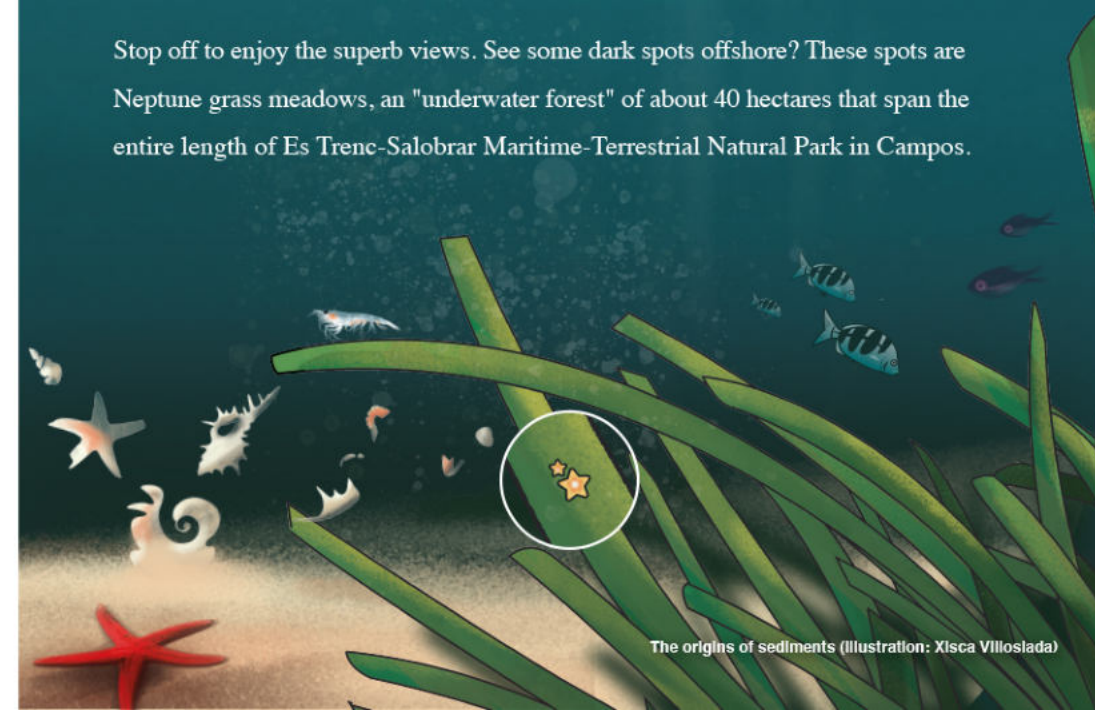
3. THE ORIGIINS OF SEDIMENTS

We mentioned earlier that the coast is a unique area consisting of three compartments: the shoreface, the beach and the dune field. These three connected environments are in a constant exchange of materials. But where does this sediment come from?

About 92% of the sand from Es Trenc is of bioclastic origin, so it comes from the remains of marine organisms. If we picked up a magnifying glass to look at the sand, we would find the remains of animals, small fragments of skeletons of crabs, crows, starfish, hedgehogs and foraminifera, tiny organisms with a calcareous shell that live on Neptune grass meadows.

Neptune grass is a seagrass species endemic to the Mediterranean Sea living on sandy beds. Because it is a deciduous plant, Posidonia sheds its leaves in late summer. These leaves, loaded with organisms, are detached from the plants and washed ashore, where they form berms or banquettes. The berms are not only a huge contribution of sand to the beach but also protect the beach against storms.

Stop off to enjoy the superb views. See some dark spots offshore? These spots are Neptune grass meadows, an "underwater forest" of about 40 hectares that span the entire length of Es Trenc-Salobrar Maritime-Terrestrial Natural Park in Campos.



4. THE DUNE SYSTEM



Sand dunes constitute one of the Park's most valuable assets. Sustained winds of relative intensity blow in a fairly constant direction and carry sand grains, forming these accumulations of sand.

Vegetation plays a major role in the development of the dune, as plants trap sand on their base and help build up the dunes as they grow. As the dune forms, species diversity increases and different environments are generated. Thus, the plant species on these ecosystems have a fundamental ecological function, as they are responsible for dune stability. The common species present are marram (*Ammophila arenaria*), sand couch-grass (*Elymus farctus*), sea daffodil (*Pancratium maritimum*) and sea holly (*Eryngium maritimum*).

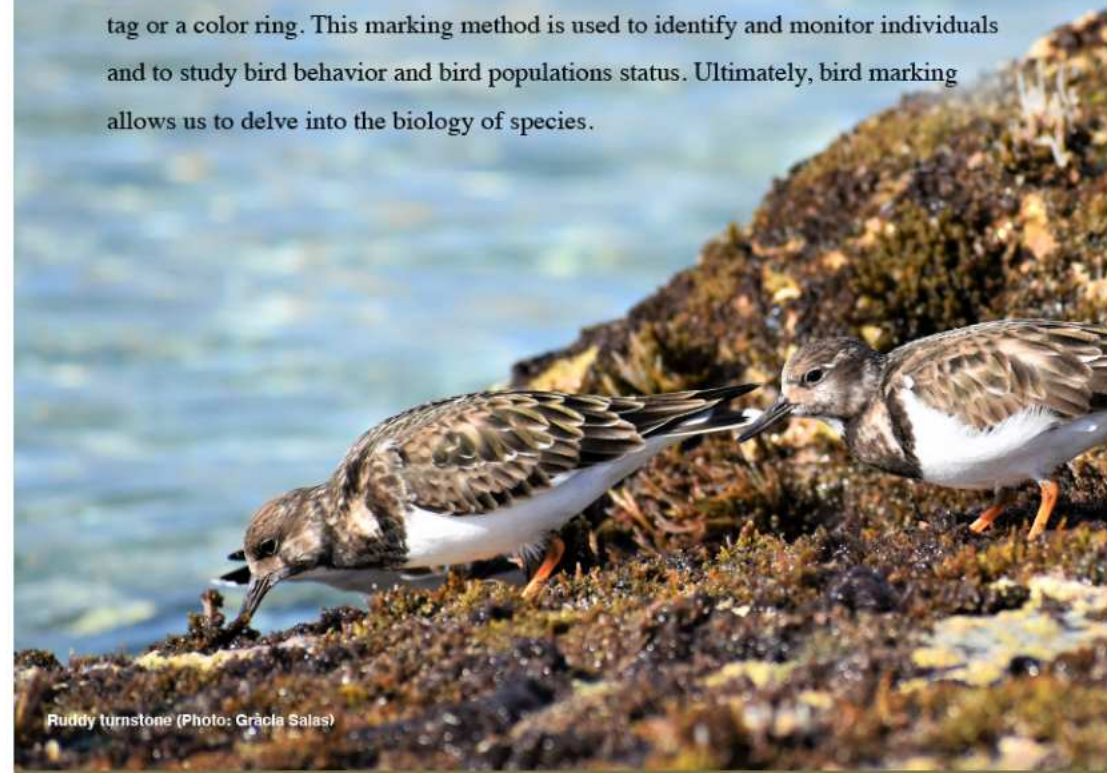
Although this landscape may seem static and invariable, the fact is that dunes are very dynamic systems that constantly change due to natural causes or human interference. Over the last decades, the beach and the dune system have been severely affected by a progressive regression. Given this scenario, several years ago a project was conducted to restore the coastal dune areas by using wind sensors, revegetating and placing information panels.

5. RUDDY TURNSTONE

During winter, the ruddy turnstone (*Arenaria interpres*) is easy to find in this area. This small wading bird of orange legs and mottled plumage presents a short wedge-shaped beak that allows him to turn over small stones or miscellaneous objects such as dead fish and catch any invertebrates hiding below: spiders, crustaceans, mollusks, etc. A curious fact is that a group of ruddy turnstones gather to turn over large objects.

The ruddy turnstone breeds in northern latitudes across the Holarctic, in arctic tundra landscapes, and withstands adverse weather conditions. After a long-distance migration, they winter on Spanish coastlines and in here, in Es Trenc-Salobrar Natural Park, where he feeds mainly on small invertebrates that swarm in the pebbles and algae along the beach.

Look closely. You might see a marking ring on the turnstone's leg, either a numbered tag or a color ring. This marking method is used to identify and monitor individuals and to study bird behavior and bird populations status. Ultimately, bird marking allows us to delve into the biology of species.



6. «THE ENGINE HOUSE»



About halfway through the hike the trail joins the Engine House. It owes its name to the engine or pump that conducts seawater through a conduit into to a set of artificial ponds, where salt will be harvest. This flood usually occurs around the month of April.

Ses Salines' productive activity facilitates an optimal habitat throughout the year for many birds to breed, to spend the winter, and to migrate. This saline soil, together with Ses Salines, is key to maintaining and guaranteeing the regular presence of most animal species in the area, such as the black-winged stilt (*Himantopus himantopus*), the pied avocet (*Recurvirostra avosetta*) and the unmistakable flamingo (*Phoenicopterus ruber*).



7. ES TRENC TOPONYM



A little further on, we will reach s'Estany d'en Pedreres. Es Trenc beach owes its name to this zone, because water from the salt pond follow its natural outflow, break through (in Catalan trencar) the dune system and open its way to the sea. Another version, according to oral tradition, states that in the middle of the 8th century a tsunami, caused by the Lisbon earthquake, broke the sand dunes that separated the sea from the wetland.

The area around this wetland is characterized by the presence of species adapted to living in saline soils, such as the perennial glasswort (*Sarcocornia fruticosa*) and the *Arthrocnemum macrostachyum*. Both plants are easy to recognize because of their fleshy, articulated stems and tiny scale-like leaves.

As we walk by the sea, we will reach the Peregons Grans beach and the Peregons Petits beach. In this area we can look for species that live in the supralittoral zone, such as the periwinkle (*Littorina neritoides*), the turbinate monodont (*Monodonta turbinata*) or limpets (*Patella spp.*). Now that we have made it to sa Colònia de Sant Jordi, it is time to hike back to where we started. Follow the path towards the urban center of Ses Covetes.

