



Àrea Metropolitana
de Barcelona

Invasive, alien and nuisance plants in the area are dunes

Native species.

There are four species with this characteristic, they are *Eryngium maritimum*, *Echinophora spinosa*, *Eryngium campestre* and *Salsola Kali*. The first two do not represent a major problem, as they are very localized in the dune topographies.



Eryngium campestre.

It is a native plant but not specific to dune systems, it can be removed by brushing, like the rest of the nitrophilous vegetation. As it is very widespread, we remove it from the edges of walkways, showers and other equipment.



Kali salt.

It has sharp spines and it is a common complaint from beach users. In this case we can focus on removing it from the edges of boardwalks, showers and other beach equipment; without the need for its total elimination.

Invasive species.



Xanthium sp.

It is a plant of American origin with thorny seeds that can reach 1.5 – 2 m in height on our beaches. It produces a large amount of seeds in spring, summer and autumn.

It is very invasive due to the quantity and ease of dispersion of the seeds. It has occupied extensive areas in Les Botigues de Sitges, Castelldefels and Viladecans. It must be removed manually, as the brush scatters the seeds, exacerbating the problem.

After removing the plant it is advisable to pass the palm tree in order to remove all the seeds that you can.

It is best to remove the vegetation when it is green and has not yet produced seeds. Spring (around May) and autumn (September – October) are the ideal times.

It has to be done manually for years until the seed bank is exhausted.



Cenchrus incertus

It is a grass of American origin, from arid subtropical areas. It is also known as "punishment of the Pampa". Due to the small height (about 10 - 20 cm in Castelldefels) and appearance similar to the gram, it goes unnoticed. The main problem is that it produces continuously throughout its vegetative period, which with our climate is practically all year round, some very sharp thorny seeds that are easily pierced. They even puncture bicycle wheels.

It is currently located in the dune areas of Castelldefels and causes a lot of inconvenience to users.

The selective elimination of this species, being a grass of small size but with a lot of dispersion is very complicated, no more could be done with a large investment of time and personnel, even so it would be complicated.



Carpobrotus sp.

This plant of South African origin is not annoying, because it does not make spikes, and its appearance is green almost all year round. It is low-cut and does not make it difficult to clean the green areas. Nor does it represent any inconvenience to beach users.

On the other hand, it is a very aggressive invader, able to cover the entire surface of the sand, becoming an almost monospecific cover in areas.

It must be removed manually, it is difficult to do because the dead stems form a very firm framework under the sand. It is slow work to be effective. You can't leave any remains in the sand because the stems take root easily and quickly.



***Arctotheca calendula*(i*Gazania sp.*)**

It is also a plant that does not bother users, with a showy flowering. It is quite widespread in the dune areas of Prat de Llobregat and Viladecans. Although it competes with native vegetation, it does not form monospecific masses. Its size (small) and dispersion by

then it makes it difficult to remove. It has to be done manually for years until the seed bank is exhausted.



Gomphocarpus fruticosus

It is a species of South African origin that appeared a few years ago on the beach of Les Botigues in Sitges. It has spread rapidly over the past two years. In the south of the peninsula it is very invasive. It is a toxic plant.

They must be removed by cutting the feet individually.

Other cases

Arundo donax ***Coniza canadensis*** (or ***C. Bonariensis***). They are two invasives of agricultural land and appear in areas of the beach with more organic contributions. Their removal is very complicated, they can be treated like other nitrophils, with maintenance through brushing.



Coniza Sp.



Arundo donax

Other non-native species such as **the agave, cassava, aloe, myopore**, etc. They are commonly used in gardening in urban areas bordering beaches but do not behave as significant invasives. They are basically limited to growing in those areas where they were initially planted. The dune areas of Castelldefels and north of Gavà are where they are most abundant.



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