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Date declared a Nature Reserve:
16 October 1989
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(Plan for Governing Usage and Management)
16 May 1995

The Desert de Les Palmes, which was declared a Protected Natural Area of the Valencian Community on 16th October 1989 (DECREE 149/1989 D.O.G.V. 1.173. 1989 10 31). It is located in the province of Castellón and forms part of five municipal areas: Cabanes, Benicàssim, la Pobla Tornesa, Borriol and Castellón de la Plana. The protected surface area covers a total space of 3200 ha and its highest point is the Pico del Bartolo (729 m), from which you can see the Columbretes Island Marine Nature Reserve on clear days.

This coastal mountain range offers great natural, historical and social wealth, there being many treasures hidden among its ravines, which were determining factors for being declared a natural beauty spot.

The climate of the reserve is clearly Mediterranean, but its proximity to the sea gives it some special weather features, due to the Levante winds from the east, which come in heavy with humidity and cause mists that allow damper microclimates to form.

The landscape that can be seen today is in a recovery stage after the fires of 1985 and 1992.
**History**

The origins of the Valencian word “Desert” are actually nothing to do with geography, as “desert” was the term used by barefoot Carmelite monks for lonely places far from the madding crowd, to which they retired to devote themselves to contemplation and prayer. And since in this zone there were and still are plenty of fan palms (Chamaerops humilis) the whole area began to be called Desert de les Palmes.

The area of the Desert de les Palmes has been populated since the Neolithic age, though its history really starts with the arrival of the Carmelite monks. One of the founders and most emblematic characters of the Desert was Brother Bartolomé, of whom it is said that he enjoyed going up the mount of San Miguel so much that it is today universally known as “El Bartolo”.

The presence of Carmelites has left us two of the reserve’s most emblematic constructions: the old monastery, of which only the ruins remain, through being destroyed by heavy rainfall and the new monastery, where the monks live today. Other religious buildings, in this case humbler ones, that can also be seen in the park are the chapels and caverns.

The nature reserve also has a number of ruins and buildings of particular interest such as the Miravet castle, Montornés castle and the Castell Vell, as well as the chapel of Les Santes and La Magdalena.
Miravet castle
Located in the municipal area of Cabanes and conquered from the Arabs by El Cid Campeador in 1091.

From its etymology “Miravet” is thought to have been a monastery of Moslem warrior monks dedicated to the holy war. Its good state of repair is an important feature of this castle.

Castell Vell and La Magdalena chapel
King Jaume I conquered this area in 1233 and a few years later authorised the people’s settlement on the plain, a date which marked the birth of a new city known as Castellón de la Plana. Each year since 1378, the birth of this city is commemorated with the “cane procession” when the people walk out from the city on the Plain to La Magdalena chapel, carrying cane staffs.

Montornés castle
Located in the municipal area of Benicàssim, this was one of the most important Arab domains in this area. It is a tenth century building, inhabited until the late 15th century and has borne witness to such important historical events as the possible encounter between King Peter I of Aragon and the undefeated knight Rodrigo Díaz de Vivar, “El Cid Campeador”, around 1094.
Les Santes chapel

“Les Santes” chapel is located in Les Santes ravine, about 7 kilometres from Cabanes.

The bishop of Tortosa ordered the faithful of Cabanes to rebuild the old ruined chapel and in 1617 the image of Santa Lucía and Santa Águeda was set on the altar. Later on bishop Francisco Gavaldá y Guasch donated the image of Our Lady of the Rosary which was proclaimed Patron Saint of the Town, known as Nuestra Señora del Buen Suceso.

At present Les Santes chapel is presided over by the three aforementioned saints.
Aquifers

The source of these springs lies in the different types of ground forming the reserve: plentiful sandstones and limestones which favour the absorption and channelling of its waters, creating aquifers.

The Desert can be said to be an outstanding setting, in which water is one of its greatest assets, the springs here - Les Santes, Miravet, El Perelló, Roc, San Jose, La Teula, La Mola, “Font Tallà”, etc. - being numerous and very much appreciated.

Geology

In the Desert de Les Palmes, the intense colour of the red sandstone (Triassic), along with the greyish colour of the limestone (Jurassic and Cretaceous) and the black of the slates (Palaeozoic) give the reserve an easily visible chromatic variety. It is precisely the presence of slates and red sandstones which gives this zone a special status in the Valencian geology, favouring the existence of remarkable plant communities. Another geological characteristic of the area is the presence of a clearly defined fault in the area by Montornés castle.

You can fully appreciate the effect of the Montornés fault, and see Montornes castle at the top of the mountain.

The Font del Roc spring is one of the many water sources that you can find in the reserve.
Vegetation

The plant-life at present found in the Desert de les Palmes nature reserve is the sort proper to Valencian coastal ecosystems on siliceous ground. All over the nature reserve this reflects the result of years of human activity which have left a trace of ancient transformation processes stemming from shepherding, farming and charcoal-making.

In spite of the area having undergone devastating forest fires, the vegetation has a great ability to regenerate after the ravages of a fire.

As for the tree strata, the main species to be seen on the sandstone areas are the Mediterranean pine (*Pinus pinaster*) along with cork oaks (*Quercus suber*), in some of the shadier areas; while in zones with limestone coming to the surface it is more common to find Aleppo pines (*Pinus halepensis*) and holm oaks (*Quercus ilex sub. rotundifolia*). In damp zones there are prominent specimens of elms (*Ulmus minor*) and scattered around the shadier zones in the park the gall oak (*Quercus faginea*). In les Santes ravine one can find two large specimens of *Quercus cerrioides*, a very rare species in the Valencian Community.

The bush strata, at present covering a large part of the reserve, has species such as the strawberry tree (*Arbutus unedo*), laurustine (*Viburnum tinus*), fan palm (*Chamaerops humilis*), the only palm autochthonous to the continental part of Europe; *Cytisus villosus*, a sort of broom with scanty distri-
Palmes nature reserve there are over 300 species of fungi, which are associated in some way or another with almost all plants. This fact is a good indicator of the space’s high biodiversity. Some of the most common species easiest to find are saffron milk cap (*Lactarius deliciosus*), sickener (*Russula sp.*), mousy tricholoma (*Tricholoma terreum*), yellow-footed chanterelle (*Cantharellus lutescens*). There are very eye-catching species such as the earth stars (*Astraeus hygrometricus*, *Geastrum sp.*), or the lattice stinkhorn (*Clathrus ruber*), as well as rare species: Cortinarius ayanamii; *Boletus junquilleus*; *Melanoleuca oreina*; *Mycena algeriensis*. And of course one should mention some toxic species such as *Omphalotus olearius*, which gives off a strong smell of oil.

Along with these species there are others of no less significance such as the Juniper (*Juniperus oxycedrus*) and the Lentisc (*Pistacia lentiscus*), as well as aromatic species such as: rosemary (*Rosmarinus officinalis*), thyme (*Thymus vulgaris*), Spanish lavender (*Lavandula stoechas*) and Winter savory (*Satureja montana*) as well as species adapted to withstanding fires such as broom-like kidney vetch (*Anthyllis cytisoides*), gorse (*Ulex parviflorus*), kermes oak (*Quercus coccifera*), heathers (*Erica multiflora* and *E. arborea*) and diverse species of rockrose (*Cistus sp.*).

A typical stratum of coastal Mediterranean vegetation are the lianas, found in the Desert de les Palmes in the form of ivy (*Hedera helix*), sarsaparilla (*Smilax aspera*), Mediterranean honeysuckle (*Lonicera implexa*) and wild madder (*Rubia peregrina*).

Lastly, in the grass stratum, there are species easily identifiable such as the Blue Aphyllanthies (*Aphyllanthes monspeliensis*), wild senna (*Globularia alypum*) and fescue grass (*Brachypodium retusum*).

As rare, endemic or threatened species we should point out *Erodium aguilellae* and *Leucojum valentinum*, which are what led to the microreserves in the Desert.

It is important to point out the ecological role of fungi in ecosystems, through being the plants which transform dead organic matter into nutrients which plants can make use of, thus contributing to the maintenance of the woods. In the Desert de les Palmes nature reserve there are over 300 species of fungi, which are associated in some way or another with almost all plants. This fact is a good indicator of the space’s high biodiversity. Some of the most common species easiest to find are saffron milk cap (*Lactarius deliciosus*), sickener (*Russula sp.*), mousy tricholoma (*Tricholoma terreum*), yellow-footed chanterelle (*Cantharellus lutescens*). There are very eye-catching species such as the earth stars (*Astraeus hygrometricus*, *Geastrum sp.*) or the lattice stinkhorn (*Clathrus ruber*), as well as rare species: *Cortinarius ayanamii*; *Boletus junquilleus*; *Melanoleuca oreina*; *Mycena algeriensis*. And of course one should mention some toxic species such as *Omphalotus olearius*, which gives off a strong smell of oil.
Fauna

There is a wide range of fauna coming to find food and shelter in the Desert de les Palmes nature reserve, though not always easy for visitors to catch sight of.

As regards birds we should stress the elusive warblers (Sylvia sp.), the cheeky robin (Erithacus rubecula) and the black redstart (Phoenicurus ochruros). Amongst the pines it is easy to detect small families of tits such as great tits, white coat tits and blue tits (Parus major, P. ater, P. caeruleus) or long-tailed tit (Aegithalos caudatus), as well as the not so plentiful common crossbill (Loxia curvirostra).

Perched on some crag one may observe the blue rock-thrush (Monticola solitarius), northern wheatear (Oenanthe oenanthe) or stonechat (Saxicola torquata).

The spring will surprise you with the presence of the barn and red-rumped swallow (Hirundo rustica and H. daurica) and swifts (Apus apus) always flying around after insects. Their bright colours also make it easy to distinguish the European bee-eater (Merops apiaster) in the noisy groups that these form.

The group of birds of prey, both day and night also have their place in the reserve. In the day it is not hard to see the common kestrel (Falco tinnunculus), the peregrine falcon (Falco peregrinus), or some of the different species of eagles such as the resident Bonelli’s eagle (Hieraetus fasciatus), or the short-toed eagle (Circaetus gallicus) in summer. At night one can hear the song of night hunters like the
scops owl (*Otus scops*), tawny owl (*Strix aluco*) and little owl (*Athene noctua*) amongst others.

As for **mammals**, the one of largest size is the boar (*Sus scrofa*) which, free from any natural predators, lives in a paradise among fruit and roots here. One can also find the fox (*Vulpes vulpes*), rabbit (*Oryctolagus cuniculus*), hare (*Lepus capensis*), genet (*Genetta genetta*), red squirrel (*Sciurus vulgaris*) and hedgehog (*Erinaceus europaeus*).

There are several species of bats flying around in search of insects, and most of these are protected. The most plentiful ones are the common bat (*Pipistrellus pipistrellus*) and the grey long-eared bat (*Plecotus austriacus*).

**Reptiles** and **amphibians** are represented by the Iberian green frog (*Rana perezi*), midwife toad (*Alytes obstetricans*), ocellated lizard (*Lacerta lepida*), Iberian wall lizard ibérica (*Podarcis hispanica*), Montpellier’s snake (*Malpolon monspessulanus*), ladder snake (*Elaphe scalaris*) and horseshoe whip snake (*Coluber hippocrepis*).

As for **insects**, the most extensive fauna group as regards the number of species and individuals, one should stress the Albertine rift butterfly (*Charaxes jasius*), burnet moth (*Zygaena rhadamantus*), damselflys (*Agrion sp.*) and bee (*Apis mellifera*).
Routes

1. **Round trip from the Information Centre to El Bartolo**
   Duration: 2 h - Ascent: 328 m - Distance: 5 km
   This climbs up to the highest point in the reserve, "el Bartolo", with its altitude of 729 m.

2. **Round trip from the Information Centre to El Bartolo, along the crests**
   Duration: 2 h 30’ - Ascent: 330 m - Distance: 5.5 km
   This is one of the most difficult routes, as the way up is fairly hard, but the views to be had of the mountain make it well worth it.

3. **Round trip by: the Information Centre, El Bartolo and Les Santes**
   Duration: 5 h - Ascent: 450 m - Distance: 13.5 km
   A round trip around a good deal of the nature reserve, which enables you to get to know both the coastal and inland areas of the protected space.

4. **Route from the Information Centre to Pobla Tornesa**
   Duration: 1h 30’ - Ascent: 250 m - Distance: 5.7 km
   From the information centre, the route goes through tracks and forest paths to the pretty village of Pobla Tornesa.

5. **Route from the Information Centre to Montornes castle**
   Duration: 1h - Ascent: 30 m - Distance: 2 km
   You can enjoy the 10th century Arab ruins with a view of the Mediterranean shoreline.

6. **Route from El Perelló spring to Miravet castle**
   Duration: 1h - Ascent: 160 m - Distance: 2 km
   This is one of the castles in best state of repair in the whole reserve, with lovely views of the shoreline.

7. **Round trip around the springs in the Desert**
   Duration: 3h - Ascent: 200 m - Distance: 7 km
   A round trip which takes the visitor around three of the springs in the Desert de les Palmes.

8. **Route from Benicàssim to Font Tallà**
   Duration: 2h - Ascent: 300 m - Distance: 5.3 km
   From the town of Benicàssim this route lets you see one of the most emblematic spots around here, which is the spring known as “Font Tallà”

9. **Round trip around Les Santes chapel**
   Duration: 1h 15’ - Ascent: 150 m - Distance: 3.5 km
   Round trip around one of the coolest ravines in the whole nature area.
Places of interest

Places of interest in the protected area:
La Bartola information centre
Mas de les tortugues. Centre for recovery of the Mediterranean tortoise. Closed at hibernation time.
Carmelite Monastery
Castles and chapels in the nature area

Places of interest in the municipalities in the area:
Carmelite wine cellars (Benicàssim)
Municipal theatre (Benicàssim)
Planetarium and Information Centre of the Illes Columbretes Nature Reserve (Grau de Castelló)
Espai d’Art Contemporani (Castelló)
Roman arch in Cabanes.

"La Bartola" Information Centre and right at the top of the mountain, the Porteria Vella
How to get here

Access to the Nature Reserve is by the N-340 trunk road, heading towards Barcelona. By Castellón take local road CV-147, which links La Magdalena Chapel with Benicassim town.

To get here from Benicassim, you can take the same local road CV-147, from this town.

From the A-7 motorway, take exit 46 (Castellón Norte-Benicassim) and follow the signs to Desert de les Palmes.

An alternative route to head into the Desert de les Palmes is the CV-10, from this town taking the CV 148 from Cabanes – Oropesa. From this point you can get to the information centre by a narrow country path.

Walk without leaving any trail behind you

Leave the place cleaner than when you arrived, deposit your own rubbish and if possible any other waste you may find in the nearest bin.

Respect the path, go by the signs on the tracks, or taking short cuts, and you will be doing the ecosystem a great favour.

Fire is the greatest enemy of the mountains, do not light bonfires nor smoke. Breathe in fresh air.

Look at the plants without destroying them, do not pull up plants or flowers - take notes or photos.

Observe animals without bothering them, hunting is forbidden in the whole nature reserve.

Use hotel and tourist facilities in nearby towns and villages, as you cannot camp in the reserve.

Take care of the springs, as these are the most valuable asset of our mountains, and do not contaminate them.

Forget all about motor vehicles, and enjoy the silence, noise is another form of pollution.

Respect our historical and cultural heritage, avoid any actions which may deteriorate the terraces or buildings.

The dogs must go tied, can cause inconveniences(troubles) to the avifauna

If you do noise or speak fort, you will get lost the sounds of the forest

In the event of any emergency call 112.