

WHAT IS A Biosphere Reserve?



'Biosphere Reserves: a worldwide network of protected areas in which research can be conducted on sustainable relationships between people and nature'

Placed under the jurisdiction of the country in which they are located, Biosphere Reserves were first established by UNESCO in 1971. They are specific areas in which a programme is implemented that fosters economic and social development based on the conservation and wise use of natural resources.

FACT SHEET

Number of communes:

20

Number of inhabitants:

105,000 to more than 200,000 in summer Area:
346,210 ha
(176,260 ha
in marine ecosystems)

Departments:

BOUCHES DU RHÔNE GARD

Region:
OCCITANIE PYRÉNÉESMÉDITERRANÉE
SUD PROVENCE-ALPESCÔTE D'AZUR

Date created:

1977

Last renewed:

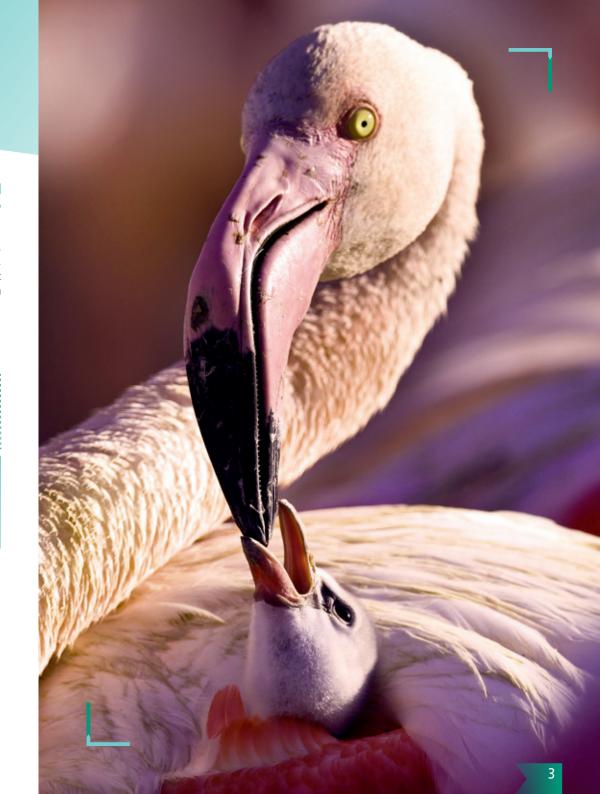
2016

Coordinating organisations

PARC NATUREL RÉGIONAL
DE CAMARGUE
AND SYNDICAT MIXTE
POUR LA PROTECTION
ET LA GESTION
DE LA CAMARGUE GARDOISI

BIOSPHERE RESERVES are made up of three areas:

- ➤ The core area is reserved for conservation and benefits from statutory protected status within Nature Reserves, land owned by coastal protection agencies, and biotope protection areas.
- ➤ The buffer area benefits from contractual and voluntary engagements that take account of the environmental stakes and sustainable development as defined in local territorial management policies.
- The transition area makes it possible to develop activities aimed at environmental education, awareness-raising and the issues found in specific Biosphere Reserves.



Reserve (Rhone Delta)

Between the Rhone River and the Mediterranean Sea, since the 2006 update, the Camargue Biosphere Reserve covers the entire biogeographic delta of the Rhone. It is a huge natural area located between two very densely populated regions at the entrance of the cites of Montpellier, Nîmes, Avignon and Marseille, and of the Fos-sur-Mer industrial site.

Essentially a horizontal landscape, the Camargue features nonetheless numerous undulations that create geographic diversity: from the alluvial ridges of the former and current branches of the Rhone to the dune cordons created by sea currents and by the historical shores of the Mediterranean Sea.

INTERNATIONAL partners

The charter of the Camargue Regional Natural Park aims to define a strategy for exchange and cooperation with other Mediterranean areas. In line with that goal, the transfer of experience within UNESCO Biosphere Reserves, the Natura 2000 network, and I









UNESCO Biosphere Reserves, the Natura 2000 network, and Ramsar Convention sites are encouraged and contribute to promoting these international networks.

ACTIONS undertaken

Two partnership agreements signed:



In 2000, with the Doňana National Park and Biosphere Reserve in the Guadalquivir Delta, in Spain, to support livestock breeding and the development of ecotourism (horse trails).



In 2016, with the Danube Delta Biosphere in Romania for the protection of natural resources, the promotion of socio-economic activities, such as reed harvesting, fishing and river tourism. In 2019, a partnership agreement was signed by the cities on the mouths of the Rhone (Arles, Salin-de-Giraud, and Port-Saint-Louis-du-Rhône) and the Danube (Sulina). *This partnership will receive financial support from the Veolia Foundation.*



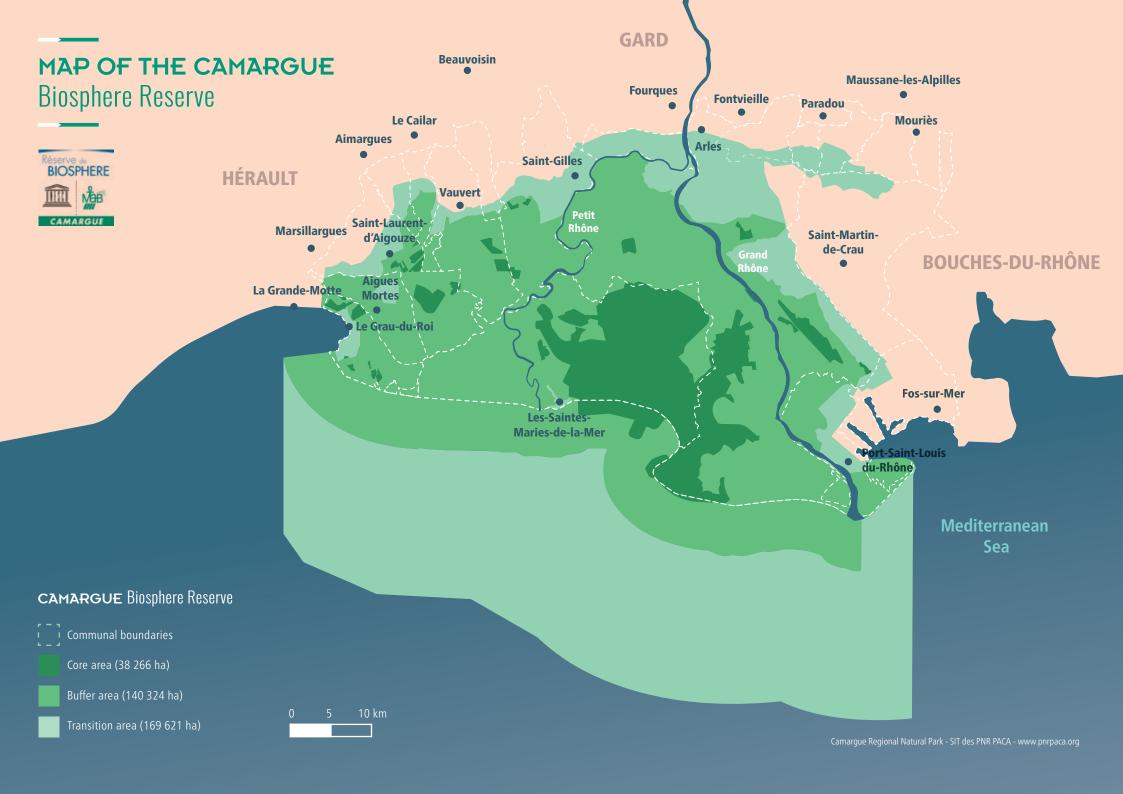
A partnership linked to the agricultural competition for flowering meadows was made between the Camargue and Doňana (2013 and 2018), and the Camargue and the Danube Delta (2019).





European projects (LIFE, INTERREG) are also promoted between the partners for activities linked to the conservation and wise use of wetlands and how they can help us adapt to climate change.





from the river to the sea

THREE TYPES OF LANDSCAPE

Between freshwater and seawater



The Camargue Biosphere Reserve features a great variety of natural habitats that are linked to the deltaic origin of the territory and the exchanges between the freshwater of the Rhone and seawater.

While its geomorphological features are inherited from its deltaic period, the diking of the Rhone and the sea in sectors in which erosion was strong in the mid-19th century has resulted in the artificial management of water based on pumping stations. Sedimentary inputs are nearly inexistent except in the estuaries and during the rare periods when the Rhone floods.





THE FLUVIOLACUSTRINE Camargue

It features natural and farm landscapes linked to inputs from the Rhone (sediments and water pumped from the Rhone). It extends approximately from Aigues-Mortes to Mas-Thibert and runs through the marshes of the Tour Carbonnière and of the lower valley of the Vistre, Chamier and Scamandre, Grand Mar, Rousty and Meyranne, as well as the Vigueirat marshes. The Baux marshes at the foot of the Alpilles massif can also be included in this area.

The landscape is structured by lagoons, reedbeds, ditches, riverine woodlands, temporary marshes, wet meadows, saline prairies, sansouires, the Rhone, the Little Rhone, canals, and roubines, as well as rice fields, grazed prairies and hunting marshes.



THE LAGOON-MARINE and coastal Camargue

It is still characterised by landscapes linked to salt and interactions with the Mediterranean Sea. It extends from the Gulf of Aigues-Mortes in the west to the Gulf of Fos to the east, and runs through the sandy points of Espiguette, Beauduc, and Flèche de la Gracieuse, as well as Anse de Carteau, the Vaccarès Lagoon, and the dune massifs in the Little Camargue.

The lagoons, saline grasslands, sansouires, stands of rush, pine groves, beaches, and natural or artificial dunes are common features of these landscapes. Along with the salt marshes in Aigues-Mortes and Salin-de-Giraud, vineyards on sandy land, and coastal lighthouses, they bear witness to the changing Camargue coastline.

THE MARITIME Camargue

It is indissociable from the delta and the lagoons with which it still communicates via graus* that remain more or less functional today. Sandy or muddy sandy bottoms predominate all the way to the Gulf of Lion where small fishing boats and trawlers engage in professional fishing.



* grau: an inlet that connects lagoons to the sea.

8

A WIDE RANGE of socio-economic and cultural activities

Some of the traditional socio-economic activities like salt farming have shaped the Camargue since medieval times. They still contribute in various ways to water management today in a delta in which dikes are omnipresent.



Hunting is very common and often plays a major role in water management in fluviolacustrine marshes. Two types of hunting exist: hunting in public and communal areas, and fee-based hunting on large private estates.

Salt farming in salt evaporation ponds is still practiced today on nearly 20,000 hectares of ponds in Aigues-Mortes and Salin-de-Giraud by the Salins du Midi company. Harvested in early autumn, the salt is used for food, road salting, and the chemical industry. While the lagoons were set up for the purposes of salt farming, they are also preserved and play an important role for specific fauna and flora such as the iconic Greater Flamingo.





Professional fishing is practiced in the lagoons and on the open sea. The small fishing boats found near the coast are mainly based in Le Grau-du-Roi, with some in Saintes-Maries-de-la-Mer and Port-Saint-Louis-du-Rhône. These fishers also fish on foot for shellfish like tellins and clams. A trawler fleet is based at Le Grau-du-Roi, the second largest fishing port on the French Mediterranean.

Wine making declined significantly in the Rhone delta during the 20th century, but remains a major activity on some sandy ridges in the Little Camargue where they cover a surface area of 4,000 hectares and produce PGI 'Sables de Camargue' wine. It is also a very widespread activity along the Reserve on the plateau near Nîmes where PDO 'Costières de Nîmes' wine is made.





A network of 'eco-actors' was created in 2015 in the Camargue Biosophere Reserve, making it possible for local stakeholders to engage in progressive sustainable development actions that protect the Reserve, as part of their commercial or non-profit activities.

Rice farming (combined with cereal growing) is an essential farming activity in the Camargue, where it covers 15,000 hectares. Although it is practiced at the northern limit, it is the main activity linked to the management of the hydraulic network in the Camargue which is used to irrigate farms and natural areas with water from the Rhone. It has official PGI 'Camargue Rice' certification.





Bull and horse breeding are also activities intimately associated with the Camargue for two specific breeds in this territory of wetlands where livestock live on the open range with very little human intervention. Ranches are also key links in the cultural traditions of the Camargue, particularly those related to 'bull races', and contribute to the management of open habitat areas such as saline prairies. The 'Camargue Bull' PDO certification, which guarantees that the bulls are bred in the Camargue wetlands, was created in 1996.

Reed harvesting is linked to the conservation status of the fluviolacustrine reed beds, and is also very important for the highly specific biodiversity found in these flooded areas. This harvesting used to be carried out manually during the summer until the mid-20th century; however, today is has become mechanized. It takes place almost only in the winter, when the dry reed stalks are harvested to be used for thatched roofs and for home decoration items such as doormats.



Tourism is the most recently developed activity, but also the one that has the most greatly expanded over the last few decades. On the sea or on the sprawling sandy coastal beaches, linked to the environment, biodiversity, and bird-watching, or related to cultural heritage, it was driven by the construction of major tourist infrastructure on the Languedoc coast in the 1970s. The development of wisely planned and sustainable tourist activities is one of the top priorities in the Biosphere Reserve.

It is important to remember that while the wide range of human activities and the water management linked to them ensure a hydrological balance between freshwater and saltwater, they are also responsible for a seasonal reversal in the water levels that are high in the summer and low in the winter.

10 11

Our institutional partners:







Other partners:

With financial support from:







Contact information of the co-managers and eco-actors of the Camargue Biosphere Reserve:

Parc naturel régional de Camargue

Mas du Pont de Rousty - 13200 Arles Stéphan Arnassant: s.arnassant@parc-camargue.fr

Syndicat Mixte pour la Protection et la Gestion de la Camargue gardoise

Centre du Scamandre - Les Iscles – Gallician 30600 Vauvert Nicolas Bonton: nicolasbonton@camarquegardoise.com



Photo credits:

Page 1 Cover page: Plan du Bourg Ranch © Opus Species / Page 2: European Pond Turtle © S Baudouin-SMCG / Page 3: Greater Flamingo © Helio et Van Ingen / Page 5: Sea Lavender © S Baudouin-SMCG / Page 8: Watercolour of Mediterranean Iagoons © C Girard, riverine forest on the Little Bhone © S Annassant-PINEC, wet meadow © S Baudouin-SMCG / Page 9: Purple Henon © S Baudouin-SMCG, Western Spadefoot Toad © T Gendre, Short-snouted Seahorse © PLouisy / Page 10: Northern Pintails © S Baudouin-SMCG, Salins d'Aligues-Mortes © Groupe Salins, tellin fisherman © PNRC PGI Sables de Camargue' grapevines © G Bauer / Page 11. Rice fields © Ray Wilson, Camargue Foult race © S Colombaud-SMCG, cowboy hut © Fotolia / Page 12: Camargue horses © Fotolia