



*“What if we set off  
to visit the lagoons ? ”*



A respectful discovery of

the Mediterranean lagoons



” You’re coming just at the right time!

*This is where I live during the summer.* “

> Welcome to the lagoons!

“ I’d like to introduce myself. My name is *Sterna Albifrons* (Little Tern) but some people also call me “Sea Swallow”. During the breeding season, my bill is very yellow with a black tip and my forehead is white in contrast with the top of my head and the black stripe on my eye.

” Follow me, I’m going to show you where I live: in the lagoon. “

You’ll see! It’s very pleasant to live here. Located between land and sea, it’s made of dunes, salt meadows, brackish marshes, tidal marshes, magnificent reed beds and ponds. I share my habitat with humans, plants and other animals that you could discover all along your visit.

Like us, humans have always used this space for many activities. There are about 232 bird species here, which is more than 70% of the species found in France! However, for us, waterbirds, only these spaces can provide for us! That’s why it’s important to protect them.

During your walk, stay quiet and leave no trace of your presence. Think of my family, don’t take any plants from my habitat; take photos instead! If your dogs are kept on a leash and you are quiet, my chicks will grow peacefully on their sand islands.

> Let's continue our visit...



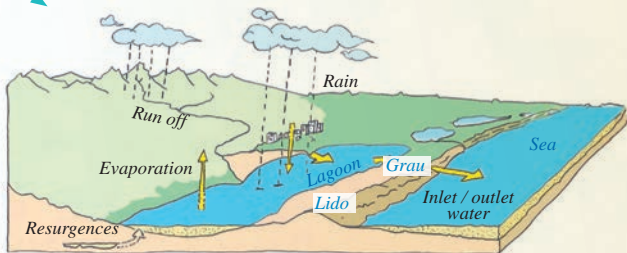
French Mediterranean lagoons were created about 2000 years ago by the isolation of marine water masses due to the accumulation of sand and pebbles brought by rivers and water ways.

There are 22 large lagoons and many coastal marshes that are present along the Languedoc-Roussillon, Provence-Alpes-Côte d'Azur and Corsica coasts. Like all wetlands, Mediterranean lagoons are known for their incredible biological diversity and numerous services they provide us: among other things, they protect the peripheral urbanized areas from floods, purify water, and provide leisure space...

But, by the way,

> do you know what a lagoon is?

It's a shallow coastal body of water (less than 10 metres deep) separated from the sea by a sand dune called "lido". The lagoon communicates with the sea under the influence of weather conditions through one or several passages called "grau". It is also supplied with freshwater coming from rivers and stormwater runoff upstream, that's why the lagoon water is more or less salty.



After «Les lagunes languedociennes» - les Écologistes de l'Euzière

„ So

let's go for a walk? „

If you don't see me, follow my tracks...



*Sterna albifrons*

# ” Human activities in the Mediterranean lagoons “

## ➤ Fishing

Fishing (Atherina, eel, wolfish...) is the oldest activity undertaken in the lagoons. Several hundred professional fishermen use the lagoons based on a traditional know-how.



## ➤ Shellfish farming

By the end of the 19<sup>th</sup> century, shellfish farming appeared in the “Bassin de Thau” and was then developed in some lagoons. Nowadays, the production represents 10% of the French oyster production. This activity, as fishing, depends on the environmental quality.



## ➤ Rice farming

It is common in Camargue (98% of the national rice production) Because of environmental constraints (soil salinity), rice producers use various techniques, especially soil irrigation.

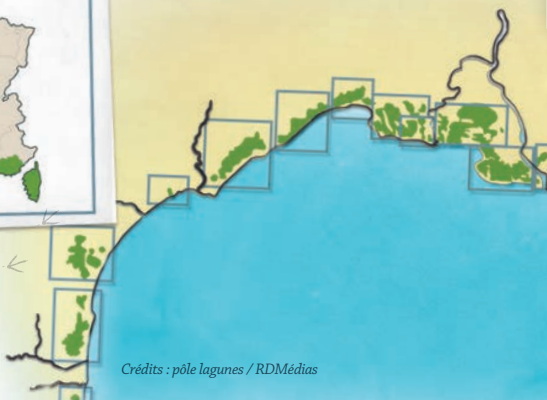


## ➤ Salt production

Since Antiquity, salt is exploited along the French Mediterranean coasts. Today, the “Salins du Midi” harvest about 700 000 tonnes of salt every year in Aigues-Mortes and Salin-de-Giraud in Camargue.



## French Mediterranean lagoons





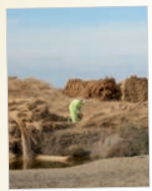
### > Waterfowl hunting

Previously reserved for the nobility, it's now a traditional leisure activity with approximately 15 000 hunters in the Mediterranean Lagoons.

### > Reed harvest

Appeared in the Middle Ages, the reed was cut during the summer for horse forage and during the winter, for the construction of traditional homes.

Today, the preservation of old reed beds allows some bird species like the Eurasian Bittern and the purple Heron to reproduce.



### > Extensive grazing

Along the lagoons, there are Camargue bulls and Camargue horses. They live in herds called "Manades". This type of extensive grazing plays an important role for the environment. When it is applied, it takes part in the conservation of biodiversity and maintains the landscape quality. Livestock are primarily bred for traditional bull games.

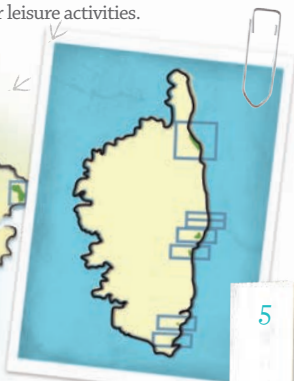
### > Viticulture

There are many "Vins des Sables" (sand wines), produced on the back dunes, and also "Vins de Pays" (local wines) and "AOC" (controlled designation of origin) produced in the peripheral lagoon areas. These cultures characterized by original grapevines, have been preserved from the most threatening parasites by winter flooding and sandy soils.



### > Open air activities

Hiking, windsurfing, horseback riding, and mountain biking are the most popular leisure activities.



# ”The lagoon, an incredible biological biodiversity“



The European Beachgrass

The European beachgrass fixes the dunes made by the wind. Its thick and coated leaves allow it to resist the aridity of the sand hills.



The Sea Daffodil



The Spanish Psammmodromus

Look attentively at this lizard. Can you see it in the sand of the dune? Of course it's not easy; the color of its scales is the same as the sand of the dune!

It's the phenomenon of camouflage. It allows this lizard to escape from its predators.

From the sea to the land, landscapes change according to t

> The sea

> The dune



The Eel



The Spiral Tasselweed



The Greater Flamingo

Often observed in the lagoons, this slender bird has beautiful pink feathers because it feeds on pink shrimp, called brine shrimp.



The Avocado

The soil of the coastal marsh is extremely salty. Plants have adapted to evacuate the excess salt. Look at the red color of the stems and the crystals on the inner surface of the Sea Lavender leaves. Nothing is better than the long neck and the long legs of the Black-winged Stilt and the long-necked Avocet to fish in the shallow waters of the lagoon.

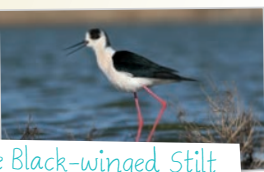
The salinity:

> The lagoon

> The glass



The Salicornia



The Black-winged Stilt



The Sea Lavender



et

Marshes is adapted to salt. Salicornia is a part of the diet! Long legs, long bill of the Black-winged Stilt are adapted to shallow waters.

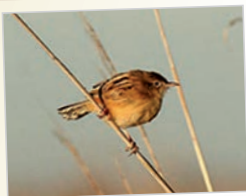
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The Tamarix



The Sea Rush



The Zitting Cisticola

> The salt meadow



The P

> The re



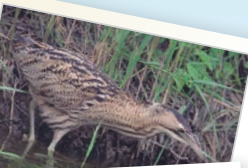


The Common Reed or Phragmites



The European Pond Turtle

Easy to recognize because of the yellow spots on its head, you can observe the European pond turtle sunbathing on the bank. But do not mistake it for the red-eared slider. It would be upset!



The Eurasian Bittern

In the heart of the old reed beds, the Bittern is hard to observe with its similar to the reed color. However, it is possible to hear it because its call is like a foghorn.



The Yellow Flag Iris



The Mediterranean Tree Frog

and its Corsica cousin



The Sardinian Tree Frog



The Purple Heron

Reed bed

> The marsh



# Game page

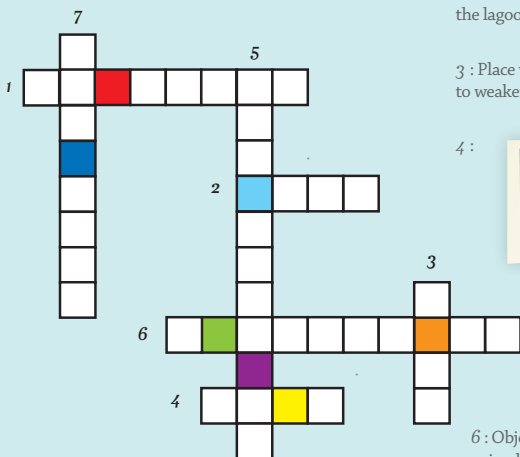


> Can you fill in my ID card?



Answers:  
My name is *Sterna albifrons*, the Little Tern. Distinctive signs: a yellow bill with a black tip and a black stripe on my eye.

> Find the family to which I belong, solve this crossword puzzle!



## Tern's Family

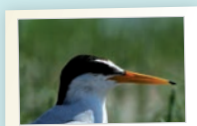


1 : Containing a mixture of seawater and fresh water.

2 : Dune ribbon separating the sea from the lagoon.

3 : Place where you must walk so as not to weaken the natural environment.

4 :



5 : Plant with mauve flowers living on salty soils, which eliminates the salt excess absorbed by its leaves.

6 : Object that allows you to observe animals without bothering them.

7 : Green amphibian, I have suction cups under my feet that allow me to climb on branches.

Answers: 1: Brackish - 2: Lido - 3: Path - 4: Tern - 5: Sea Lavender - 6: Binoculars - 7: Tree Frog - The tern belongs to the family LARIDAE like gulls.



## ”Yummy recipe“

> This visit open my appetite,  
are you hungry too?

Discover a delicious dish... a recipe made with lagoon products:

### Oysters au gratin

**Preparation time:** 30 mins - **Baking time:** 20 mins

#### Ingredients (for 4 persons):

- Two dozen large Mediterranean oysters
- Two shallots
- Local dry white wine
- Breadcrumbs

#### Preparation:

Open the oysters, drain the water and cut the "tendon".  
Finely chop the shallot and then put it on the oysters.  
Sprinkle with breadcrumbs and wet with the white wine  
without flooding the shell. It has to stay damp and not wet.

Bake in the oven at 200°C for approximately 10 minutes and  
broil another 10 minutes until breadcrumbs are brown.

Serve hot.



# Useful contacts



You would like to know more?

Do not hesitate to contact your "visitor centre".

It could help you to do guided nature tours and discover amazing areas, according to the seasons and their particularities.

## Websites:

Education structures for the coastal environment of:

- Languedoc Roussillon : [www.grainelr.org](http://www.grainelr.org)
- Provence-Alpes-Côte d'Azur : [www.reseautour.org](http://www.reseautour.org) and [www.grainepaca.org](http://www.grainepaca.org)
- Corsica : [www.oec.fr](http://www.oec.fr)

## To know more about the Mediterranean lagoons:

[www.pole-lagunes.org](http://www.pole-lagunes.org), [www.lifelagnature.fr](http://www.lifelagnature.fr) and [www.lagunesettourisme.org](http://www.lagunesettourisme.org)

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