# Nature Jourisny Junior Guide

🚺 visit Algarve Portugal



# Nature Jourism Junior Guide

## Hello, explorer!

#### Your expedition through the Algarve's nature is about to start.

With your feet firmly planted on the earth, your nose sniffing high, hands anxious to discover different textures and eyes wide open to take in your surroundings, you'll set forth towards the Algarve's natural environments, a radiant place filled with magic (inexplicably, you'll be able to fly on the back of a winged reptile or teleport across the stars.)

Around you, you'll find endless dunes, zigzagging mountain ranges, free-flowing rivers, protected areas (protected by gnomes and fairies?), plants of all kinds and so many species of animals you won't have enough fingers to count them.



Along the way, there are several missions for you to complete. If you complete all of them, you'll be able to request your "Nature Explorer" certificate in one of the 20 tourism offices of the Região de Turismo do Algarve\*. How does it work? Every time you see this **symbol**, you must open the "Missions" tab. After you finish the challenge we give you, you place the corresponding sticker. And so forth until you're out of stickers and tasks to complete.

But we have a mission of our own: to get you moving the whole year across the Algarve, getting you to know the natural heritage of your favourite vacation spot. Its protected areas, the wildlife, the countryside, the main cycling and hiking trails. It's all here. So there's no excuse. Stretch out those legs and go hike, as many times as you can!

This guidebook offers you entry – to you and you alone, you Darwinin-the-making you! – to the "Ciência Viva" Centres of the Algarve (Faro) and Lagos. It also gives you access to an educational game in the "Ciência Viva" Centre in Tavira. Just present it to take advantage of these offers.

\* View the list of tourism offices at the end of this guidebook.

#### Now you just can't wait to go outside, right?

But just before you go, fill out your identification card. Done? Read the "Nature Explorer's Code" carefully. Place your hand on your chest, cross your fingers and swear to follow the code with all your heart. Now turn the page, commune with the spirit of the earth (buzz, roar, croak...) and become the greatest natural scientist of the Algarve, the galaxy and beyond!

"Somewhere, something incredible is waiting to be known."

Carl Sagan

## Nature Explorer

Name

Surname

Date of birth

Nationality

GLUE YOUR PHOTO HERE

Signature

Recognized by the World Society of Explorers

### Nature Explorer's Code

To be a Nature Explorer (notice the caps), there's a set of principles you must get to know, and promise to follow, during the 365 days it takes for the Earth to complete its orbit around the sun. Learn them by playing, and before you know it you'll be ready for your field trips.

I promise to respect the Earth, in all its diversity

- I promise to always hike on signposted trails
- I promise to be quiet, avoiding shouting or talking loudly so as to not disturb the animals
- I promise not to walk on the dunes, so as not to damage the vegetation
- I promise not to pick plants or hurt animals
- I promise to treat all living beings with love and understanding
- I promise to respect the people, traditions and ways of life of the villages I pass through
- I promise not to litter, and to place any trash in the appropriate containers
- I promise to remain curious regarding my surroundings
- I promise to convey these values to my family and friends





## The Alzarve

## Protected areas

## Landscapes

Water

Rocks

Plants

Animals

Trails

## Missions

## Go well-equipped

We don't want you to lack for anything when you're out strolling around the Algarve, so we're giving you a list of equipment you should take with you. Double check if you've got everything (including an adult to accompany you) and, as they say, chop-chop!

- Hat, sunglasses and sunscreen
- Appropriate footwear for the hiking trail you've picked
- Light clothing suitable for the current season, including rainwear
- Small backpack to carry water and light, energy-dense meals
- First-aid kit
- Compass
- Flashlight
- Binoculars
- Magnifying glass
- Camera
- Bag for rubbish
- Notebook and pencil to list what you see
- This guidebook



Welcome to the *al-gharb*! Al...what?! The *al-gharb* (nothing wrong with your eyes), a word of Arabic origin that means «west» and refers to this region. With a little over 540 000 hectares, divided into 16 municipalities, the Algarve is the most popular region in Portugal. "Because of the beaches, duh", you're thinking. There's that, yes. And there's also the stunning natural vistas capable of rending even the most experienced tourists speechless. Then you've got 300 days of sunlight per year, to give your walks that perfect golden glean. They'll be sure to drag you out under the open sky and whisper: shake the laziness away and travel to what's beyond the horizon, and beyond that, and beyond you.



We could start by saying it's... In the Milky Way, one of the 100 million thousand galaxies in the Universe. Just follow our reasoning: the Milky Way is where our solar system is, and our solar system has a sun, eight planets, many moons, dwarf planets and asteroids. One of those planets – the third, counting from the sun – is Earth, our cosy little corner. As any atlas will show us, the Earth has five continents, but let's focus on the European one. Europe has more than 40 countries, and Portugal is among them. Portugal is divided into 18 districts; the southernmost one is Faro, the capital of the Algarve. There, you've arrived at your destination (aboard a supersonic aeroplane which has abridged millions of years of history).

#### The three musketeers of the Alzarve

The Algarve's territory is geologically split into three great strips: the Serra, the Barrocal and the Litoral.



and greywacke cliffs forming great escarpments.

#### Serra

Mountain range with three mountains: Espinhaço de Cão, Monchique and Caldeirão. The landscape is mainly schist and greywacke, with oak forests and groves of strawberry trees and cistus. This is where the Algarve's «greenery» is.



#### What's the climate like? Nice and warm

Let us explain you why through a simple sum.

The Algarve's geographical location + mountains protecting it from the harsh northern winds + the Mediterranean's influence + proximity to North Africa = short periods of rainfall, maximum temperatures between 15 to 31 degrees Celsius, wet and mild winters, long, dry and hot summers brimming with sunlight.

#### Natural borders? Tell me which

The Algarve is the southernmost region of mainland Portugal. In the north it is bounded by two mountain ranges: Monchique and Caldeirão. In the west and south, it is bounded by the sea. In the east, you have the Guadiana river, separating the Algarve from Spain. Make a splash!

when you hear someone talk about barlavento (windward) and sotavento (leeward), impress them by revealing that you know the former is the western region of Algarve (from Albufeira to the west) and the latter is the eastern part of Algarve (from Albufeira to the east). And we tell you more: eolically speaking, windward is from where the wind blows and leeward is to where it is blowing.





The Algarve is green. Not pigment-wise, but in that 40% of its territory is protected. What does that mean? Well, it means a big part of its area is protected by laws, decrees and directives (and gnomes and fairies) which help to preserve the region's biodiversity. Get ready to see tufts of rosy fuzziness, piles of snow (made of salt), maritime cliffs unfit for those prone to vertigo, but above all wild landscapes that will make you want to go "camping" and never pack your tent again.

#### Southwest Alentejo and Vicentine Coast Natural Park

The name is almost as large as its area, and its vistas are stunningly beautiful. The things that might impress you the most are the **steep cliffs**, perhaps, which can reach up to 156 metres of altitude. Or perhaps the park's incredible land and marine biodiversity, which combines Mediterranean, Atlantic and Northern African species along its 60 km. A biological parade that would stun any crowd, and in its committee are rare plants and migratory birds that cross the skies over this rocky, wind-beat plateau. Ionopsidium acaule, a plant restricted to PNSACV territory

Area

Municipalities Aljezur and Vila do Bispo (Algarve); Odemira and Sines (Alentejo)

131000 hectares

+ Information www.icnf.pt

Northern gannet, one of the numerous migratory birds of the PNSACV SEE OO

Sagres Peninsula (page 32)Cape St. Vincent (page 33)

#### Ria formosa Natural Park

As a "Natural Park", it was created in 1987, to preserve the ria (which is actually a lagoon). As to "Formosa", the area was formed about 18 000 years ago, according to the experts. And why is it so important? Because it has beaches and dunes protecting a lagoon zone with more habitats than the ten fingers on your hands. Barrier islands, salt marshes, sand and silt banks, dunes, salt ponds, freshwater and salt water lagoons, watercourses, scrubland and agricultural areas give shelter to hundreds of animals and plants. This, along with a million other things, is why it has so much ecological and scientific value.

Area 18000 hectares Municipalities Loulé, Faro, Olhão, Tavira and Vila Real de Santo António + Information www.icnf.pt

#### Salt Marsh Natural Reserve of Castro Marin and Vila Real de Santo António

Near the mouth of the Guadiana, there's a capricious landscape of salt marshes, salt ponds, salt meadows, normal ponds, agricultural fields and creeks waiting for you. It was the first **Natural Reserve of Portugal**, created in 1975, a beacon for botanists, ornithologists and ichthyologists (experts in fish), who wander around in wanderlust looking for unique species. In these salty and flooded territories, your eyes will trip over mounds of salt so tall you'll want to climb them. But don't. Just imagine yourself doing it.



Area 2300 hectares Municipalities Castro Marim and Vila Real de Santo António + Information www.icnf.pt



# Rocha da Pena Protected Area

"Pena" means "Feather", which is a pretty funny name for a **rocky block** almost 2 km long, isn't it? And what if we tell you that if you climb atop its highest point you get to pretend to be a 479-metre-tall giant? A one-eyed, limestone giant with an extremely long skeleton. And also, you're home to 500 species of plants and 122 birds. That's Rocha da Pena, a sleepy plateau where timid animals like the blackbird and the garden dormouse laze about every day. With any luck, you'll be able to find them and laze about with them.



of Salir and Benafim) + Information www.icnf.pt www.cm-loule.pt

Loulé (civil parishes

Municipality

637 hectares

Area

in Rocha da Pena there's a type of cave carved by rain or flowing water: the Algar. Th Moors took shelter in one of them, during the Reconquista of Portugal by D. Afonso III. That's Why it's called Algar dos Mouros (Moors' Algar).

# fonte Benémola Protected Area

This place is so enchanting it almost makes you feel like it should be called Benevolent, and not Benémola. The marulho (the noise the sea makes, look it up!) of the waters can be heard all year round, reminding us that the Menalva riverlands are teeming with frogs, freshwater turtles, salamanders and newts. You can smell fresh stalks and logs, and see the tracks of creatures like the otter. You'll see norias: that's normall Just as normal as the 12 metre high caves. There's something for everybody in this river valley. Well, everybody except the lazy.

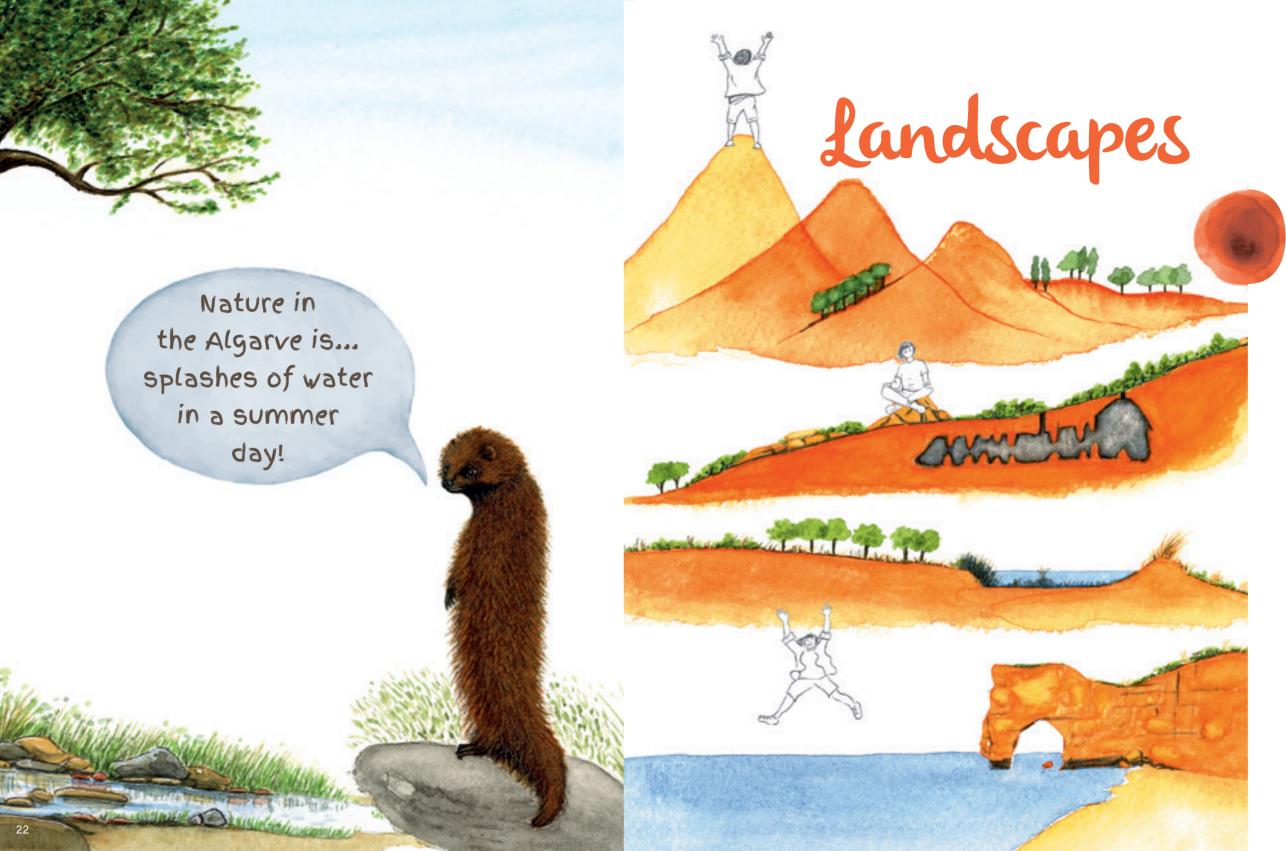


Area

• Fonte da Benémola (page 52) • Otter (page 128)

390 hectares Municipality Loulé (civil parishes of Querença and Tôr) + Information

www.icnf.pt www.cm-loule.pt



Vitamins are good for you. And well, the landscapes of the Algarve are an explosion of vitamins A, B, C, D, E and K, which will be sure to spur your gears into movement. Imagine our mountains as fruit, the marine caves as green vegetables and the beaches as cereal. Every time you cross them, you're filling yourself up with energy and giving your body grams of healthy joy. *Ingest* how much of it you want, it won't make you feel sick. After all, as we said: vitamins are good for you. Nature in the

Algarve is...

dreaming when

everyone is

awake!

## Beach



#### Municipalities

all, except Monchique and São Brás de Alportel

#### To visit

the beaches of Monte Clérigo, Beliche, Porto de Mós, Dona Ana, Meia Praia, Vau, Carvoeiro, Armação de Pera, Salgados, Castelo, Belharucas, Garrão, Faro, Armona, Fuzeta, Barril, Altura, Monte Gordo and Três Pauzinhos

+ Information www.visitalgarve.pt Olha a boliiinha de Berlim! You'll hear this a lot when you go to the beach, so just go ahead and try the Bola de Berlim, the best fried cake around. The beach is holidays, water mattresses, the whooshing of rackets, the smell of sunscreen, and algae wrapped around your legs. And geologically speaking, the beach is a portion of land bounded by the sea, covered in pebbles, gravel or grains of sand. Whatever the case, the Algarve has more than 130 rocky beaches, with starfish and crabs peeking out of the tide pools, and sandy beaches, where you can follow the birds by the tracks they leave on the sand. When your bare toes land on an Algarvian beach, remember this: you're stepping on a habitat rich in fauna, and the best European beach destination. It's so cool! The sand dances with the wind. When the wind blows strong, it drags the sand in from the sea and makes it float in the air like a ballerina. And then the sand lands, trips on some thorny plant like the sea holly and mounds up. If there's vegetation, like the seagrass, to help keep the mound in place with its roots, then the dune grows taller. If there's no vegetation, it'll whirl away with the wind again. Whether they're as big as ten of you (on top of each other) or smaller, the dunes are masses of shifting sand, always being born and growing until the end of time.

## Dunes

#### Municipalities

all, except Monchique, São Brás de Alportel and Alcoutim

#### To visit

Ria Formosa barrier islands and beaches of Barril, Grande, Carrapateira and Amoreira

+ Information www.visitalgarve.pt

SEE Oo ALSO · Sand (page 69) · Seagrass (page 87)

Life's a beach.

But beach water doesn't have to be just sea water. In Alcoutim, the Cadavais river was transformed into a river beach with clear sand and fresh water for summer swimming. It's called the Pego Fundo beach.



• Atlantic Ocean (page 64)

· Sand (page 69)



Sea holly

Nemoptera bipennis, called Duende in Portuguese, on a Helichrysum stoechas flower

## Barrier islands

A barrier island is... an island. Or a piece of land surrounded by water. That said, the five narrow, sandy isles of Ria Formosa form a natural barrier between the sea and the Ria itself. Here's the kind-of-scientific explanation of this fancy name. These barrier islands are separated by six sandbars that open the way to the sea, allowing for water to flow between the lagoon and ocean. It's like the lagoon was saying: "have a little bit of my nutrients, Atlantic" and the Atlantic, thankful, replied: "Have a little bit of my water, Ria". Municipalities Faro, Olhão and Tavira

To visit Barreta, Culatra, Armona, Tavira and Cabanas

+ Information www.visitalgarve.pt

## Armona Island



It's where the idyllic village of Armona is located, and also a camping ground with bungalows, a beach named **Fuzeta** (in front of the fishing town with the same name) and Armona beach, perfect for those who like quiet walks or nautical activities.

#### Barreta Island

More like *deserted* isle. Because it only has a beach, a restaurant, two little sets of houses for the fishermen and the beach staff, boundless beauty and a man-shaped "fox" that catches fish. Don't believe us? Go there and see for yourself.

#### Culatra Island

An isle with three beaches that borrow their name from the villages they belong to: Farol, Hangares and Culatra. One of the beaches has a lighthouse to aid the sailors. Another has an old bunker and barbed wire, from the time the Navy's seaplanes landed there. The third has a community of fisherman, and you can see boats and shellfish catchers on the ria.

Cacela Peninsula

#### Ancão Peninsula

#### Cabanas Island

It's the smallest of the five. Its beach is in front of Cabanas, a village of fishermen who bring fresh grilled fish, octopus, clam, and oysters to your table, straight from the surrounding breeding grounds. After you've filled your belly, you can take a nap in this relaxing spot (in the shade, of course, and lathered with sunscreen from head to toe).

#### SEE ÕÕ • Ria Formosa Natural Park (page 18) Barrier islands (page 28)

Ancão and Cacela Peninsulas

If you still remember anything you learned at school, a peninsula is a piece of land surrounded by water, connected to the mainland by a "little arm" we call an isthmus. Without that it'd just be an island, right? Well, Ria Formosa has two peninsulas - Ancão and Cacela which bound the lagoon system. They are the romantic end and beginning of the Ria, two elongated ends of dune systems and beaches fit for a king.

> Municipalities Faro and Vila Real de Santo António

+ Information www.visitalgarve.pt

It's the longest of the five islands and it has three beaches: Barril. Terra Estreita and Tavira island beach. Between two great anchors in the sand, there's a scrubland of maritime pines where the chameleon camouflages, piers on the ria to let you dive into the water, and the most popular camping ground around. The choice is yours.

#### Tavira Island



Cacela Peninsula





You know you're in Sagres when the sea salt spreads in the wind. You'll probably be able to taste it if you stick out your tongue. It's because the Atlantic's influence is bigger in the peninsula of Sagres than it is anywhere else in the Algarve, which makes this one of the **most exposed areas in all of Europe**. That doesn't stop plants and animals from living here. The plants are thick and bushy, to protect themselves from the wind (cheeky little daredevils!). And the birds seem to like this harsh habitat, making it a spot of migration. We bet you an almond cake that if you look at the skies of Sagres between September and November you'll be able to identify more than 100 species of birds in one day. Do you dare to count them?

SEE ÕÕ ALSO

• Southwest Alentejo and Vicentine Coast Natural Park (page 17)

## Cape St. Vincent



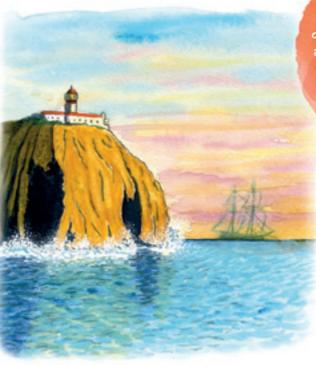
No need to adjust your compass or coordinates. You really are in the southwesternmost point of Europe! In ancient times, people thought the Earth ended here. Like there was nothing beyond the cape. And we can understand why. Even if you turned your head like an owl, you'd only see infinite space around you. This place is inhabited by gods and legends, and it has a strong connection to the Age of Discovery, the period of history when Portuguese sailors explored uncharted seas and new lands. The St. Vincent Lighthouse (a 38 metres tall bright tower, you can't miss it) helped guide them to sea and back. Pretend you and your parents are sailors, going to the Americas. Just don't abandon ship. But don't pretend too much. Or it might come true, and you'll find yourself sailing on board of a caravel (after all, this is the most magical cape in all of Portugal).

As the crow flies. Google the legend of the crows of St. Vincent and learn about the connection between these black-feathered birds, the patron saint of Lisbon and the first king of Portugal.

> Municipality Vila do Bispo + Information www.cm-viladobispo.pt

#### Municipality Vila do Bispo + Information





## Cliffs

What happens when the sea waves crash against the cliffs for thousands of years? Answer 1: the rocks become worn and their residue slides down to the cliff's base, where sometimes a beach is then formed. (There's an appropriate Portuguese idiom that goes: *Water dripping day by day wears the hardest rock away*). Answer 2: the rocks become shaped in curious ways because the sea and the rain carve **algares**, **caves**, **sea stacks and arches** on the coast, giving the tourists new, rocky ways to go to the Algarve, and it won't be hard to find a landscape for your postcard (sorry, we like to rhyme).

#### Municipalities Albufeira, Lagoa, Portimão, Lagos, Vila do Bispo, Aljezur

#### To visit

Ponta da Piedade, Carvoeiro, Algar Seco, Arrifes beach, Ponta João de Arens

+ Information www.visitalgarve.pt

Sin Call



Arch along Lagoa's coastline

Municipalities Albufeira, Lagoa, Portimão and Lagos To visit Marinha beach (Lagoa) + Information www.visitalgarve.pt

## Arches

There many types of bows: the bow to shoot arrows with (you know, from Robin Hood). The bow made from horsehair, which musicians use to play instruments like the violin or the cello. And the perfect bow-shape of the natural arch, which makes us fall in love with the Algarvian coastline and their many and big and ochre and dandy arches. Just like the sea stacks and the caves, arches are a result of the sea waves' mechanical force against the cliffs, as well as the rainwater slowly dissolving the limestone. So thank the sea and the rain for having gifted the Algarve with so many arches to cross and admire.

\* \* \* \* \* \* \* \* \* \* \*







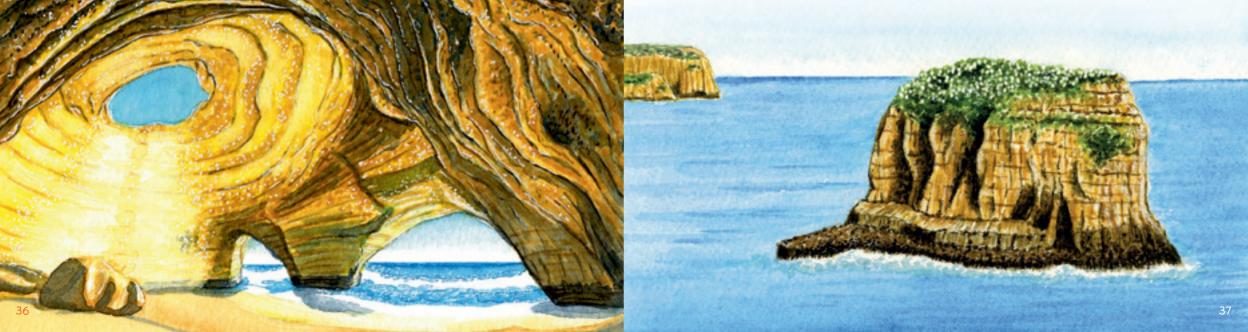
Municipality Lagoa + Information www.cm-lagoa.pt Cough. We're clearing our throats to announce that this is the **most beautiful cave of all time**, as stated by people from all over our round world. The sea sculped this natural cave so well that Michael Angelo himself (Italian painter and sculptor) would have been envious. And the cave is about 20 million years old! To visit it, you have to take one of the small-scale-fishing boats anchored in, or nearby, Benagil beach. When you get to the cave, if words aren't enough to express how it makes you feel, then take a picture. Or many. That's what everyone else does, after they're left wide-eyed, making it one of the most photographed spots in the region.

## Sea Stack

O sea stack, sea stack... When I go, I'll have to come back. Was it the sea that managed to carve you? It was, and the sea stack resisted, contrary to what happened to the cliffs it used to be a part of, which receded due to the maritime erosion and let the Sea Stack all alone in the ocean. Its nature as a **rocky islet**, isolated from nosy humans, is what attracts so many birds to rest or even nest. In the spring these birds pile up on top of the sea stack, covering it with the whites of their feathers. It's mostly herons, but also seagulls, cormorants and rock doves, shoving each other for a piece of the 50 metres of this rock, which is visible from Ponta do Altar's lighthouse or from Caneiros beach.



SEE OO ALSO •Snowy egret (page 122)



## Cabeça Hill

The Lumière brothers invented cinema. Thomas Edison invented the lamp. But nature invented the most incredible thing of all time, the Cabeça Hill (and other cool geographical features of the Algarve!). About 155 millions of years ago, during the Jurassic period of those biggy dinosaurs, Cabeça was just a rock, a limestone massif. As time went

#### Municipality Olhão Maximum Altitude 249 metros + Information www.cm-olhgo.pt

by, the process of karst erosion (read about it below) turned it into what's before your eyes: **limestone pavements**, segmented by fissures where small, shade-loving plants grow. You should know these are the most famous limestone pavements of the region, and that below your feet there's more air than rock. To sum it up, this is the most solid place of Algarve on the surface, and the most hollow place right below it. If this was a Swiss cheese, water would be the mouse who bore the holes. Got it?

#### Municipality Olhão Maximum Depth 100 metres + Information www.natural.pt

Cerro da Cabeça viewpoint



Apparently, during our whole life we have about 105 thousand dreams as we slumber between our bedsheets. If one of yours is to know the underground

Sinkhole
 Cave

of Algarve, don't go too far. In fact, there's dozens of algares in the Barrocal (c'mon, you remember what the Barrocal is...), and in Cabeça Hill there's more than 30, and some of the deepest ones! With appropriate footwear, helmet, light and an accredited guide, you'll be ready for your first **speleological** and **fabulicious** (this one we made up) mission in the Algarve's subsurface. Columns, stalactites, stalagmites, bats (those cutsie "rats with wings") and even the petrified jawbone of an animal will welcome you.



Heigh-ho, Heigh-ho, it's caves from home we go! If you want to visit the continental Algarvian caves, contact the "Centro de Estudos Espeleológicos e Arqueológicos do Algarve" or the "Geonauta".

It's not just bats beneath the ground

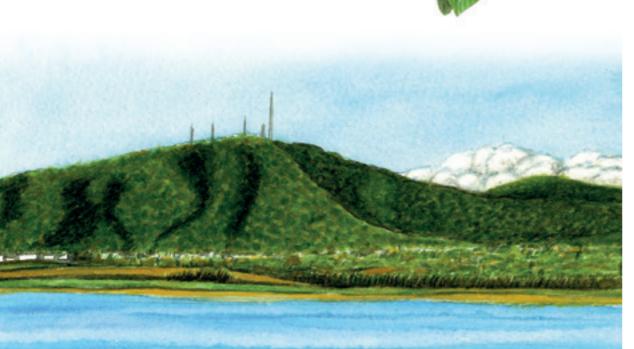




You can see the whole world from here! From the sea to the Caldeirão mountain range, in a field of view not unlike that of the chameleon, who can look in two directions at the same time and rotate its eyes 360 degrees. To the Greeks, this was a sacred mountain. To you, it might offer **one of the best viewpoints of Portugal**. Up top, besides the view, you'll also find honey-coloured calcite (mineral that forms limestone) and the fresh breeze of the highlands. Around you there will be carob, olive and fig trees, which provide you with sweet figs and the mountain with a second name: Monte Figo, which means Fig Hill, of course.

Municipality Olhão Maximum Altitude 410 metres + Information www.cm-olhao.pt





## Monchique Mountain Ranze

It's the tallest, mistiest, rainiest and most everything of Algarve. It stands out due to its rich soils, where farmers create terraces to grow corn, greens and other produce. It stands out due to its trees and **nepheline syenites**, igneous rocks you'll only find in this mountain. It stands out due to its rare plants (hiding in the vegetation), and water springs, some with medicinal properties (almost as miraculous as Getafix's magic potion, which made the Gauls who drank it invincible). The expression "garden of the Algarve" fits like a glove.

SEE Õõ ALSO •Nepheline Syenite (page 72)

> Municipality Monchique Maximum Altitude 902 metres + Information www.cm-monchique.pt

#### A volcanic chimney on the beach

The Monchique massif is not the only igneous formation in Algarve. We also have the volcanic basalt chimney in Luz beach, in Lagos. This dark igneous rock is known as... "The Dark Rock", and it's all that's left of a volcano active 70 million years ago. 80 metres large and 40 metres tall, the rock stands out in the colourful scenery around it. Here and there it is covered in some kind of bubbles, a vestige of the (you guessed it!) air bubbles that would get trapped in the magma.



The Monchique oak (Quercus canariensis) is a rare and iconic species of this Serra



## Caldeirão Mountain Ranze

Municipalities Silves, Loulé, São Brás de Alportel, Tavira and Alcoutim

Marsh fritillary

> Maximum Altitude 590 metres

+ Information www.in-loco.pt www.visitalgarve.pt



Tell me what you make, and I will tell you who you are.

There are many raw materials in this mountain. Cork, arbutus fruit, honey, cheese, mushrooms, medicinal and aromatic plants are produced by the population as a form of income.

There's our imagination referencing comic books again. There's a reason for it: the Caldeirão mountain is also called **Mu**, which is the name of the lost continent that Corto Maltese is searching for in three fantastic comic book issues. We're certain that if Hugo Pratt, the author, knew this mountain, Corto's adventure would take place in the Algarve. That said, Caldeirão is covered in cork oaks, strawberry trees, cistus, gorse and heathers. The wildcat and the Euphydryas aurinia butterfly particularly like it. The Iberian Lynx also used to like it, but now this emblematic species exists only in the Silves breeding centre.

SEE OO ALSO • Iberian Lynx (page 145)



Municipalities Aljezur, Vila do Bispo, Lagos and Monchique

Maximum Altitude 297 metres

+ Information www.minhaterra.pt/ vicentina www.visitalgarve.pt "What a strange name!" You'd think, if you knew Portuguese. Because it literally means "Dog's Vertebral Column Mountain". It isn't, of course. And for many it isn't a mountain range either, but a **series of lowaltitude hills**. Let's call it a mountain range, anyway. It has some nice spots of oaks and strawberry trees, much appreciated by the forest birdies that fly from branch to branch. Great tits, nightingales, larks and robins are part of this list. Rabbits also frolic on these rolling landscapes. Why don't you do like them? Stretch out your ears, put on a pompom tail (or don't) and hop all over this mountain that gets covered in the white of cistus during the winter.



Beehive

Sea mountains. Millions of years ago, seismic activity pulled mountain ranges out of what once were oceans. But how? Like this: the tectonic forces altered the planet's distribution of continents and oceans. As the continents neared each other, the rocks between them folded like paper and rose, creating the Algarve's mountains of schist and greywacke.

# Shood

You grow like a tree. You grow taller, and you grow larger. You just don't do photosynthesis, and neither do you have cuckoo nests on your head or roots for feet. But someone has. Who? The happy woods of Algarve.

On the coast, the maritime pines look like a green sea with crowns. Not just crowns: vaulted crowns, which means they're very round and very close to each other. The leaves (almost always green, almost always covering the trees) are needle-shaped and when they fall to the ground we call them "caruma". In these woods terrestrial birds sleep, eat and play, birds like the azure-winged magpie, the great spotted cuckoo, the chaffinch, the great tit (loooots of them) and also cheeky rabbits and lazy chameleons. In the mountains, oak forests (mostly holm and cork oaks) give shelter and shade to other plants and animals, under their large, evergreen leaves which fall at different times, never leaving the mother-tree naked.



est undergrowth





# Municipalities

Alcoutim, Faro, São Brás de Alportel, Loulé, Monchique and Aljezur

## To visit

Aljazur riverlands, and Barranco dos Pisões riparian woods in the Foupana, Vascão and pine forests between Ludo and Quarteira, and Marmelete, oak forests in Bordeira, Bengado, oak forests between Alferce park, cork oak forests in Alportel and Bordeira pine forest, Castelejo leisure

# + Information

www.quercus.pt/areas-tematicas/floresta www.florestacomum.org

Short, cool autumn days are a treat in these native woods of the Algarve. The leaves crinkling under your shoes, dew glistening on the head of some creature, chewing on acorns or the arbutus fruit.

show you that nature dresses for the season! In these alone you'll notice In the Algarve's riverlands grow the only deciduous trees in the region. The riverland woods, with its poplars, ash trees, willows and alders, the change of green to winter-gold.



Nature in the Algarve is... feeling like shouting "Eureka"!



## Water

Water is everywhere. On the planet: 70% of the Earth's surface is covered in water. In you: more than 60% of your body is water. In a tomato (95%). Even in the tiniest bacteria (75%). The same happens in Algarve, and you won't miss a single drop of its water after you dive into the next pages. You'll follow the current of the great river in the South, and you'll feel like a Merman in the depths of the Atlantic, blub-blub in ponds, rivers and estuaries. Attention, crew: put on your scuba fins and breathing mask, because you're about to dive into the most fantastic watercourses in Algarve. 3, 2, 1, splash!

## Quarteira River

In the water, mullets and eels swim. Outside the water, dryland trees grow, which attract golden orioles and little owls. At the river mouth lies the biggest continuous area of reed beds in the south of Portugal, the **reed beds of Vilamoura**, with 29 hectares, where the western swamphen hides. If there's a bit of a botanist in you, listen to his: on the riverlands grows the only known population of the Narcissus willkommi. A rarity in yellow.



Municipalities Albufeira and Loulé + Information www.cm-albufeira.pt

Reed (Phragmites australis)

A bit of trivia: in one of Albufeira's beaches there are eyes made of water that peek at you from under the sand. It's true, we swear! The Olhos de Água (meaning Water Eyes) Beach got its name from the waterholes under the sand, which in Portuguese are named "olheiros", or "eyes". You can see them, and they you, right by the water during low tide.

> SEE OO ALSO • Western Swamphen (page 121)

reshwater

## Temporary ponds

Can you guess why they're temporary? Precisely because they have water during part of the year (during the flooding period) and other times they're dry. These little ponds are **supplied by rainwater or the surrounding streams**, when the latter overflow. And its inhabitants are happy anyway, because they're very well-adapted to the ecological conditions of this habitat. Mammals use it to quench their thirst, storks and herons use it to feed, and amphibians and dragonflies use it to breed. And there are even a few beautiful white flowers growing here, protected by fairy-shrimps. So much life in such a small and shallow space.

Tadpole shrimp, Triops vicentinus



#### Municipality

all over the Algarve, mainly in the Vicentine Coast

+ Information www.lifecharcos.lpn.pt

#### There's the Cyclops... and the triops The Cyclops may have only one eye, but the Triops vicentinus tadpole shrimp has three (and so pairs of appendages that help him feed, move and breathe). This crustacean has been living for so many millions of years without any evolutionary alterations that we call it a "living fossil". Unique in the world, it chose these ponds to live in, shaking his body frenetically while swimming all over the water.

## Seixe River

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It's not every day that a little river that flows into a beach gets to be one of the **7 Wonders – Beaches of Portugal**. This only happens to the Seixe River, with its mouth in Odeceixe Beach. You can choose to swim in the sea or in the river! In the surrounding wetlands people plant sweet potatoes, peanuts and corn. See them (and covet them!) during a canoe tour, just don't get distracted with the blue arrow-like bunches of feathers that'll sometimes shoot out of the water: it's the cheeky kingfishers living in this habitat.



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Municipalities Monchique and Aljezur + Information www.cm-aljezur.pt

## Benémola fountain

This name is familiar to you. We're coming back to the Benémola Fountain due to the  $H_2O$  chemical formula: this is an exceptional place in the Algarvian Barrocal. It's never dry, due to the existence of weirs (structures that preserve water for irritation of supply) and various springs. Plainly speaking, its watercourse maintains a flow of around 60% even in the summer. Well, and there's also the water mills, norias and ruins of another water mill that once was used to grind cereal. So that's it, you've got water, humidity and freshness in general.



Protected Area (page 21)

## fonte férrea

Despite the number of fountains spread around the Algarve, the Fonte Férrea (meaning Ferrous Fountain) steals the show. It's got everything: biological importance, check. Picnic park with stone tables to snack away with your family, check. A wooden bridge over the river, check. A fountain from which flows ferrous water, which helps your body produce haemoglobin and supplies your cells with oxygen, check. And doves cooing away over your head, final check.



Municipality São Brás de Alportel + Information www.cm-sbras.pt





## Gilão River

Gilão or Séqua? Both. When it flows freely down the Caldeirão mountain range it's called Séqua, when it enters the city of Tavira it's called Gilão. The locals have a legend to explain this: sometime during the almost five centuries of Arab occupation in Algarve, the Moorish princess Séqua fell in love with the Christian knight Gilão. And he fell in love with her. Every day they met in secret, until they were found. In despair, they threw themselves down the river, and fell on opposite sides of the bridge. And so came to be the **only Algarvian river with two names**. Remember this legend and when you stop by the Gilão, into which flow the streams of Alportel and Asseca, declaim words of love out loud. Who knows who might catch them on the other shore?

## Asseca Stream

Many animals are attracted to this little watercourse. The otter might be the main one among them, but it shares the stream with the Iberian green frog, the Mediterranean pond turtle, the scarlet dragonfly, the freshwater snail and other species that are sometimes bothered by the woodpecker's ceaseless woodpecking. It's one of the Algarve's most interesting geological areas, and if that wasn't enough it also has **natural waterfalls**. Torre, Pomarinho and Pego do Inferno (this one forms a lagoon in which you can swim).

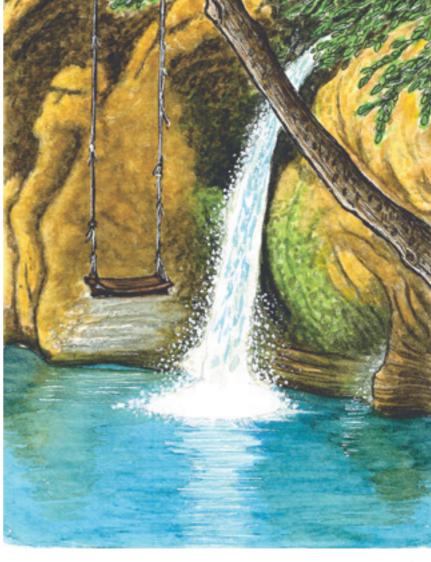
Municipalities São Brás de Alportel and Tavira

+ Information https://snirh.apambiente.pt



Spring Caldeirão Mountain Range Mouth Quatro Águas (Formosa ria)

Span 232 kilometres + Information https://snirh.apambiente.pt



## Guadiana river

Do you believe the Romans, the Moors, the Portuguese and even the Spanish influenced its name? Guadiana: thus was named **the most navigable of Portuguese rivers**, which joins the Algarve to the Alentejo. For centuries, it worked as a road to transport merchandise like wheat, honey, ores and olive oil. Don't tell anyone, but it also served to smuggle Spanish sugar, coffee and soap in boats that alighted on Portugal during the dead of night. Nowadays, you can float on it on a leisure boat that will guide you through its waters like a noble captain. Drift away and imagine you're one of the smug little lampreys living in the riverbed.



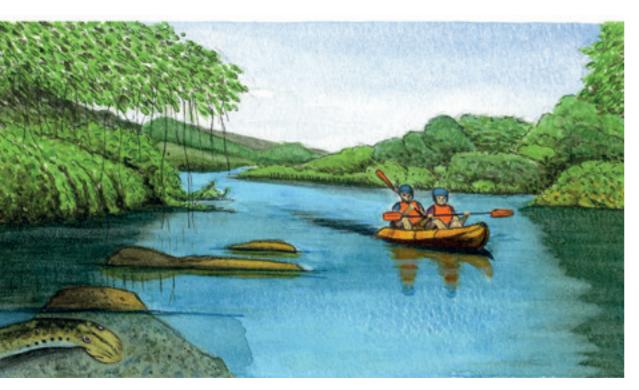
#### Spring Campo Montiel (Spain) Mouth

Vila Real de Santo António (Algarve)

#### Span

810 kilometres (260 of which in Portugal)

+ Information https://snirh.apambiente.pt



River lamprey

It's small, but after the Guadiana it's the most important, high-flowing river. History says its superglued to the commercial and cultural capital of the Moorish Algarve: Silves. Once navigable, this river has three tributaries or springs flowing into it – Boina (not Bono), Odelouca and Arade – and a great environmental value, with 500 species of butterflies and over a 100 fishes.





#### Municipalities Portimão and Lagos

+ Information www.cm-portimão.pt www.cm-lagos.pt Boys and girls, behold 1500 hectares of wetlands, mostly made up of flooded terrain like salt marshes. The waters are fresh due to the four streams that flow in here – Odiáxere, Arão, Farelo and Torre –, but mostly they're salty, due to the influence of the Atlantic. Just like Ria Formosa, the Ria de Alvor is a **Wetland of International Importance** (Ramsar Site) and it looks like a zoo under the open sky. You want insects? There's more than 600 species of moths and butterflies. A few bats use them to make dinner, of course. Just as more than 150 species of birds like to snack on the young fish and mollusc and crustacean larvae here. It's a bit animalistic, the animal world.

## Ria formosa

Elegant, pleasant, harmonious. The ria is so nice that you could describe it with a lot of adjectives. This lagoon is the most important wet zone in the south of Portugal and every decent person in the Algarve will brag about it. It's supplied by the sea's salt water and the temporary streams' freshwater any time these flow into the ria. It's like a supermarket for the many species feeding here, and as a maternity for the others that grow in its warm, calm and shallow waters. Separated from the sea by a long stretch of sand, consisting of five barrier islands and two peninsulas, the Ria Formosa has an amazing ecological role: it repopulates the region's oceanic zone. And it's so *beautiful*, making it one of the **7 Natural Wonders of Portugal**.



#### Municipalities Loulé, Faro, Olhão,

Tavira and Vila Real de Santo António

+ Information www.icnf.pt

- Ria Formosa Natural Park (page 18)
- Barrier islands (page 28)
- Ancão and Cacela
   Peninsulas (page 31)

#### Coastal lagoor







Ria Formosa shellfish catcher catching grooved carpet shells

## Salzados Lazoon



The coastal lagoons are like natural swimming pools, which reveal to you nature's most intimate secrets. Even if they're a bit on the smaller side, like the Salgados' one. Separated from the sea by a long dune system, lined with reeds to give some privacy to the birds that live here, this lagoon is **classified as an IBA – Important Bird Area**. Pretend you're an ornithologist and hunt (with your eyes only) flamingos, spoonbills and coots.

Swamp vegetation: bulrush, reed and sedge

## Almargen Mouth

You could compose the soundtrack to this coastal lagoon with a quintet consisting of the red-crested pochard, the black-winged stilt, the great cormorant, the purple heron and the mallard, the most interesting birds that fly over this natural spot. A couple steps away from the lagoon, which opens up to the sea during winter, stands a little pine forest with other kinds of beaks and feathers on the branches: azure-winged magpies, warblers and nightingales.



Municipality Loulé + Information www.cm-loule.pt

ardınıan varbler

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## Arade, Alvor and Guadiana Estuaries



The inhabitants of the estuaries either live here all year, or just long enough to go up the rivers or down the sea

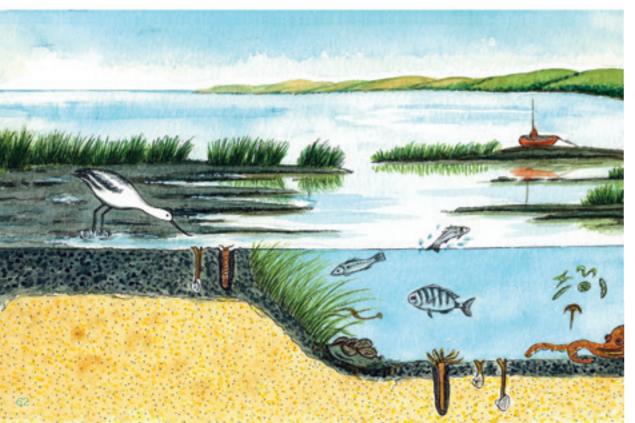
#### Municipalities

Lagos, Portimão, Lagoa, Silves, Vila Real de Santo António, Castro Marim and Alcoutim

+ Information snirh.apambiente.pt What are they? Flooded zones of transition between river and sea. In other words, it's where freshwater mixes with salt water, creating a "soup" with so many nutrients for fish that the estuaries are 30 times more productive than sea areas of the same size. Affected by the tides, the estuarine animals are more than adapted to life in the silt (during low tide) and water (during high tide). During high tide, the water spills over the shores, flooding the sand and silt banks. However, the feast happens during low tide. Birds like the dunlin and the Kentish plover hop on the silt, picking for crustacean snacks.

SEE OO

Guadiana River (page 56)
Arade River (page 57)
Alvor Ria (page 58)



Kentish plover

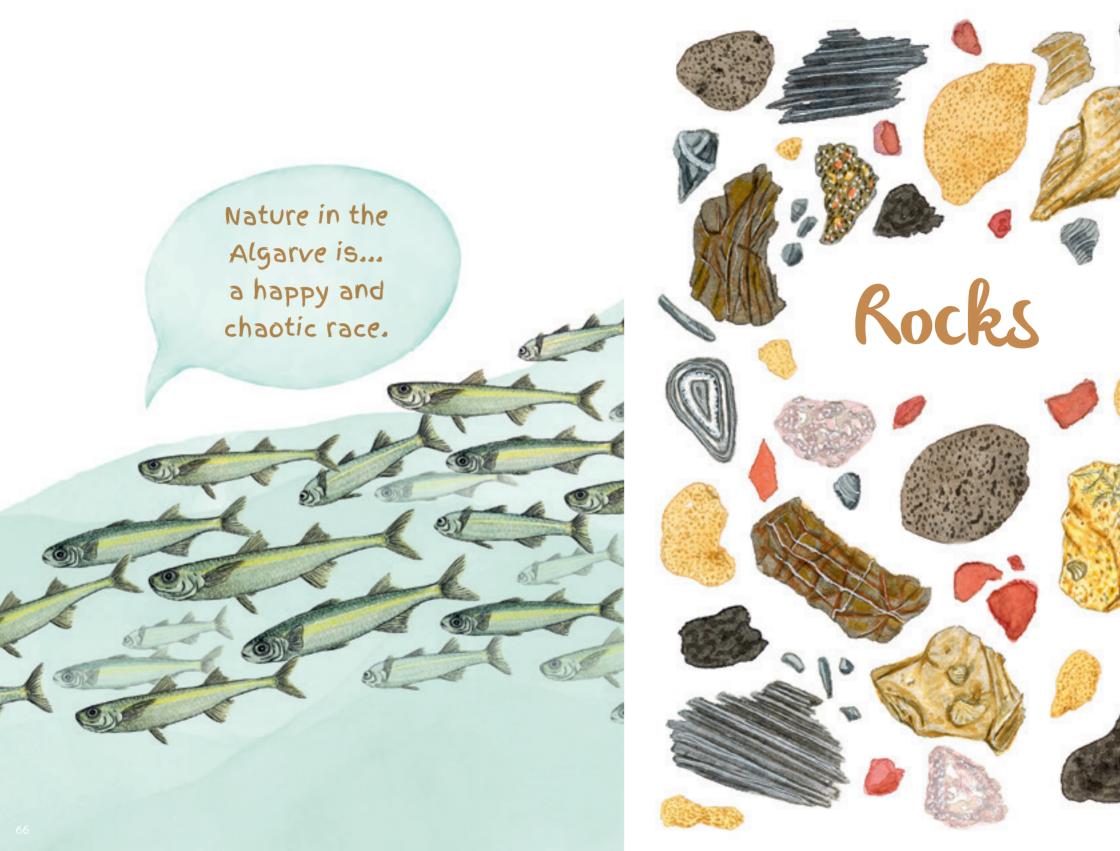
# Atlantic Ocean

ocean around Portugal and, elementary my dear Cousteaul, also the hero Atlas, sentenced by Zeus (the "king" of Greek gods) to forever carry the Earth and its skies on his shoulders. But you know what else? Go to tion to the Algarve. Just be careful with your marine acrobatics, because you're going to be swimming in an ancient ocean more than 175 millions You know it well. It's the second biggest ocean on the planet. It's the 200km of Algarvian coast. Its name comes from the Greek mythology the Algarve's beaches, walk into the turquoise-blue and emerald-green waters, and sway on the salt water waves. There's no better introducof years old.

Municipalities all, except Alcoutim, Monchique and São Brás de Alportel + Information

https://snirh.apambiente.pt

"Atlantirranean". Due to the influence of the Mediterranean sea, marine currents cross the Atlantic's wate nd bring new species to the Algarv coast, enriching this marine habit with typically Mediterranean species. "Atlantirranean" species. we like to say.



It's said that the Earth's history is written in its rocks. And it's true. If today we know that since its formation (4600 millions of years ago) its lithosphere, atmosphere and forms of life have changed, it's because of rocks. Oh! And the living beings who left vestiges in them. Now turn the sands of time and travel through billions and billions of sediments, geographical features, rocks and even dinosaur fossils. Dinosaurs? In the Algarve? Damn! I'll check them out right now! (Well, I'll read about them).

## Sand

Have you ever stopped to think what material sand's made of? Before you sink your backside in the Algarve's beaches, it's better you learn that sand is nothing more than a sediment made of particles of much older rocks. The loose grains that make it up come from the erosion of the mother-rocks, which crumble to pieces along thousands of years. In general, the very fine, golden grains of the Algarvian beaches are almost all alike, which means that the sand must have come from a single type of rock. With it, you can build castles with drawbridges (which you can't draw), starfish and all the other shapes of your beach toys; transform your parents into chicken nuggets by covering them with sand after they come out of the water (don't tell them we suggested this) and just chill, breathing in and breathing out while the sea comes and goes, comes and goes...

#### Properties

made up of tiny detritus (grains) between 0,02 and 2 millimetres small; permeable rock; light colour (in the Algarve)



- Beach (page 26)
- Dunes (page 27)
- Fossils (page 78)



# Limestone

This sedimentary rock is (almost) everywhere in the Algarve. You look at the coastline and you'll find it on the hills of the Barlavento, from Cape St. Vincent to the Olhos de Água. You look at the Barrocal and the same thing happens, because there's no hill without its lime, so to speak. Without this rock, easily sculpted by the sea or rainwater, there would be no karst landscape, maybe the most striking in the Algarve. And without it the traditional Portuguese pavement wouldn't be very paved: the white rock you're walking on is limestone. How about that?

### Properties

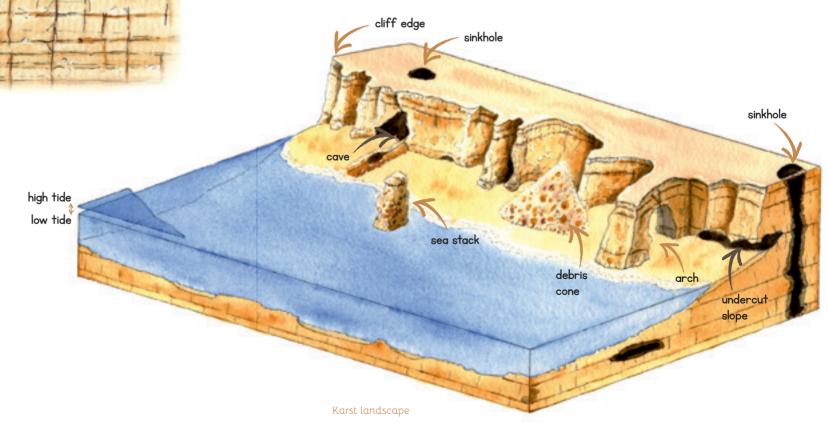
light colour; hard; compact or very fragmented texture; variable permeability

# > Marinha Beach, Lazoa

We know it's a busy world, so if you want to see everything, all in one go, Marinha beach is the answer to your rush. From atop the limestone hills surrounding the beach you'll see not one, not two, not three, but four landforms: arches, sea stacks, sinkholes and caves.

# Malhada Velha, Loulé

If you want to feel like a dwarf in the kingdom of carbonate rocks (yummy, reminds us of *spaghetti carbonara*) visit Malhada Velha in the Varejota Mountain. While in Cabeça Hill the limestone pavements are almost at ground level, in here they transform into mega limestone pavements, standing in fantastical and colossal shapes, vertically moulded by the rain. We'll give you a minute to find the elephant, eagle and sphinx rocks. Starting... now!





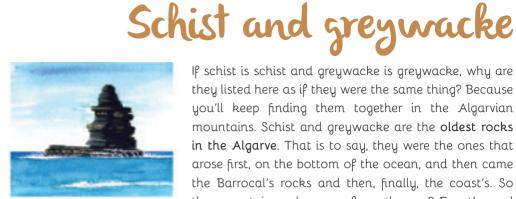
"What rock is this that I've found?" Well, if you're in the Monchique mountain range the most likely answer is *monchiquito* or nepheline syenite. This mountain range has a great variety of rocks. Most (about 90%) are the syenites, which are now hard, but were **fuid and doughy 72 million years ago**. Ew. There is an explanation: they come from magma deep in the Earth, which solidified when it was still in the crust and was later on pushed out by the planet's tectonic movements. On top of the Fóia you can step on it, see it, touch it and smell it (it has a smell of its own, doesn't it?) better than anyone else. We're not bragging when we say it's the most special of special things. In all of Portugal, it only emerges here!

### Properties

dark colour, with light-coloured visible crystals; heavy; hard; made of nepheline (hence the name)



• Monchique mountain range (page 41)



Pedra da Agulha (sea stack of schists and greywackes), Aljezur



Detail of the schist-greywacke complex – a succession of schist layers and greywackes - in the cliff

If schist is schist and greywacke is greywacke, why are they listed here as if they were the same thing? Because you'll keep finding them together in the Algarvian mountains. Schist and greywacke are the oldest rocks in the Algarve. That is to say, they were the ones that arose first, on the bottom of the ocean, and then came the Barrocal's rocks and then, finally, the coast's. So the mountain rocks came from the sea? Exactly, and proof of that are the marine fossils within them. All of this happened more than 350 million years ago. The Earth's inner activity was in such turmoil that the rocks submersed between the continents folded and rose until they emerged out of the water, away from the sea. You'll find preserved marine creatures sleeping a very deep sleep in the mountains' rocky world, like Sleeping Beauty. Wake them slowly as you go, to hear what they have to say after so many years of stony silence.





### Properties

schist is a metamorphic rock which comes from a dark (grey, brown) clay rock; not very hard; chips easily. Greywacke is also a metamorphic rock, but it comes from a sandstone rock of fine grains; variable colour, depending on other minerals present (green, yellow, red...)

Cliff at Monte Clérigo beach



This story begins like many others you know. Once upon a time there was a rock, and before it was a rock it had been many loose particles of other, pre-existing rocks. Millions of years ago, some of the Algarve's rivers started flowing towards tectonic depressions, carrying with them those particles and clay sediments. From the mixture of clay and sand was born a sedimentary rock with very special characteristics, which came to accumulate on top of schist and greywacke – the red sandstone, or *grés de Silves*. It decided to hang out between the Barrocal's limestone and the Serra's schist and greywacke. It's like a meddlesome strip, crossing the other ones and screaming for your attention: "Hooo look at me, pretty and non-sticky, all dressed in red!"

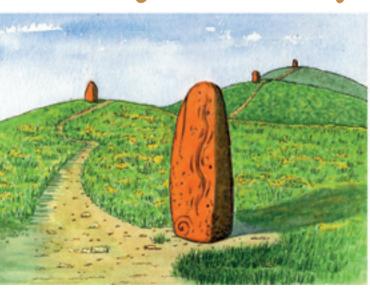


# Properties sedimentary rock of sand and clay; reddish; rough Grés de Silves wall, Silves Castle

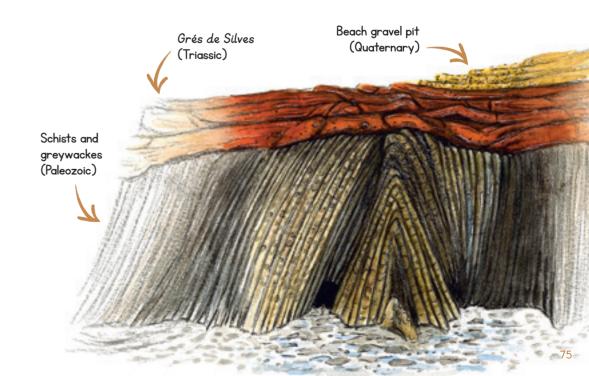
# The most spectacular angular unconformity in fortugal

It's within walking distance (or your parents-driving-you-there distance). In Telheiro Beach (Vila do Bispo), you can find different geological strata – the Massivo Antigo's schist and greywacke, arising in the Vicentine Coast, with the sandstone and rosy clay of *grés de Silves* – without any parallelism between them. Some will be vertical wrinkles, others smooth and horizontal. In practical terms, what you see is a 100 million year's jump in geological history, a result of tectonic phenomena that sunk, altered, folded and wrinkled (phew!) the oldest rocks in the landscape (Massivo Antigo – Old Massif), on top of which is the *grés de Silves* formation.

Our very own Stonehenze



In the archaeological circuit of Vilarinha, in Vale Fuzeiros, stand four menhirs in grés de Silves, sculpted by our Neolithic ancestors for social and religious purposes. This alignment of vertical rocks is the best example of these megalithic monuments in the Algarve, which reminds us of a smaller, humbler Stonehenge (in the United Kingdom).



# Rock salt

There's nothing immutable in nature. There's a reason why Lavoisier said that in nature nothing is created, nothing is lost, everything changes. That's exactly what happened to rock salt, over 230 to 150 millions of years. The marine waters on the small warm and salty ponds of the time evaporated, and left behind the salts that would result in evaporites like the rock salt. Hence its salty taste (just touch it with the tip of your tongue).

In Loulé, this rock is 230 metres deep, in the Campina de Cima mine. There are descent trips to this subterranean salt dome, where darkness is only breached by the miners' flashlights.

### Properties

sedimentary rock made of halite (salt crystal) and other salts deposited through evaporation; extremely water-soluble; the colour depends on its impurities, ranging from white to orange, red, rose, grey and brown

# Teach your eyes to see... the city rocks

"If you can look, see. If you can see, notice." This quote is from José Saramago, the first Portuguese-language writer to win the Nobel Prize, in 1998. We're showing it to you so you know that stones (pieces of rocks) are everywhere, not just in nature, but you have to really look out for them. Monuments, streets, churches, buildings and urban equipment need them to exist in villages, towns and cities. Right under your nose are stones of various ages, shapes, colours and sizes. Try to discover which type of rock they belong to and in which geographic area of the Algarve you can find them in their raw state. Are they from the Serra? The Barrocal? The Litoral? **Notice**. And answer.

Rock salt mine in Loulé



tious onds: des: Guias teontologia aro e Tavira.

A help more precious than diamonds: check these guides: Guias de Geologia e Paleontologia Urbana de Lagos, Faro e Tavira. We get the feeling they'll help you notice the city rocks that have come from the "wilderness".

Portuguese pavement in limestone and basalt



Just so you don't get confused, fossils aren't rocks. They're remnants, marks or vestiges of petrified living beings (that's what!) in rocks or other natural materials, like amber. You can see them everywhere in the Algarve: up there, along the curve, on the road, in the wilderness, as long as you're open to the stimuli that touches your nose, eyes, ears, tongue and skin. After all, your mind is an open (and multi-sensorial) door to the knowledge of things that exist the material world (and in the fantasy world).

# fossil guide for little-great palaeontologists

Aljezur, Amoreira Beach

> 2 Vila do Bispo, Salema Beach and Santa Beach

Coast between Albufeira and Lagos, Carvalho Beach (Lagoa) São Brás de Alportel, Geoponto da Mesquita

### +1. Dunes

In time, the loose sand on the dunes can transform into a consolidated, cemented rock, in a process that lasts thousands to millions of years. When this happens, we get a fossil dune. In Amoreira beach there're **vestiges of an old dune**, now fossilised, with plants that don't exist anywhere else in the world and have weird names like: *Biscutela vicentina* and *Diplotaxis vicentina*. These dunes are part of the biggest stretch of fossil dunes in Europe!



Endemic plant of the Costa Vicentino fossil dunes

### X3. Shell Midden

Carvalho beach is a hotspot for this type of rocks, which mix in their limestone grains of sand and fossils of marine species. You get to the beach through a tunnel that was manually dug in the rock, and that's where you can see marine fossils. Some even call it a shell midden, because it's a good natural deposit of husks and shells of ancient animals.

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Concheiro (fossil shell mound) with sea urchin, shark tooth and oyster fossils

## ×4. Coral reef

The reddish breach in Mesquita is a limestone from the Jurassic period, with many fossilised remnants of marine animals. Remnants of sponges, urchins, starfish and coral reefs that existed in the warm waters of the Jurassic have gathered on the bottom of the ocean and cemented into a limestone rock. From this phenomenon were born the rocks you see today in Mesquita's quarries, from where they are extracted for decoration or construction. If you want to understand the breach's geomorphological richness (every once in a while we need fancy words like these), go to the geoponto da Mesquita, an interpretation point that will explain to you, step by step and stone by stone, what the breach is like and how it came to be and evolve.

# on S

11

Mission

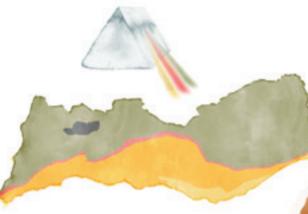
with the site

## 2. Dinosaur footprints

At a distance, safely in the present, these are the animals that amaze us the most. But if they were here in the flesh, they'd be the most feared, and you'd be running before they could even blink. The dinosaurs that inhabited the earth around 150 to 250 millions of years ago also lived in the Algarve. The presence of these reptiles in the region is recorded in the rocks through ichnofossils (fossils that show activity of living organisms, such as footprints, eggs or animal excrement - ew!). The best places to see them are on Salema beach and Santa beach, where you can find large areas with footprints of carnivorous dinosaurs and large herbivores. These animals "survived" during these last millions of years thanks to their footprints on the rock (it's good that they had such big feet).

# So much colour, so much love!

With an optical prism in hand, the British physicist, mathematician and astronomer Isaac Newton discovered that white light can divide itself into the colours of the rainbow, or that white light is made up of many colours. Now imagine that you're holding a glass prism and that it is showing you the colours of the most abundant rocks in the Algarve. The result would be this:



Sands and clays of the coastal sedimentary plain

- Limestone (Jurassic, Cretaceous and Myocene)
- Grés de Silves (fine Triassic sandstones)
- Schists and Greywackes (Maciço Antigo)
- Syenites (Maciço intrusivo de Monchique)

The geologists' colour tones:

geology experts also use colours to identify rocks, but according to how old they are. Search the internet for a geochronological table, so you can learn how to think like them (and see how old each rock is).

# Plants

# The Olympic podium of Alzarvian rocks

If Algarvian rocks competed to determine which is more common in the region, the three winners would be: 1) sedimentary rocks (limestone, sandstone, grés de *Silves*, rock salt); 2) metamorphic rocks (schist, greywacke); 3) igneous rocks (syenites, basalt). Drum roll, confetti in the air, trumpets – sedimentary rocks have won the gold! Trees, bushes, weeds. No matter how curious you are, the Algarve has a plant for you. In moderately dry soils, very dry soils, wet soils and in the water. Some are more than two thousand years old and some were just born. Flowery and smelling good (a treat for your nose) or just green (a treat for fans of Sporting CP... sorry, we couldn't resist). This kingdom produces the oxygen you breathe and you'll certainly need it to identify all the species listed here. Open up those nostrils and go explore: there's an amazing new world of roots, stalks and leaves waiting for you.

# Sweet chestnut

### Castanea sativa

It loses its large leaves in the Autumn (it's a deciduous tree) so it doesn't have to keep replacing the leaves burned by the cold. It grows new leaves during the first warm days of Spring. Among its lush crown are these carb-rich fruits, which fill the belly of gluttons everywhere – chestnuts, enveloped in a thorny husk. The boldest sweet chestnut trees can live up to 1500 years.







### Armeria pungens

peduncles.

If you were a plant you would perhaps pick the same place to grow: in the sand and coastal dunes, sometimes on pine wood undergrowth. That's right, it lives in the beach all year, in front of the angry sea. Near the ground, it's nothing but a small mound of green. But when it flowers, we have to take our hats off to how cute it looks with its tiny rosy heads peeking out of the sand, atop its



Height 25 to 30 centimetres

Flowering period

March to May Habitats dunes along the coast





### Pancratium maritimum

The name says it all: this plant lives next to the sea, in dunes and beaches, mostly in primary dunes. Full stop (or almost). It grows from a bulb well-dug in the dunes, to resist the shifting of sand. Its seeds are very dark, like coal.

# Curry plant

### Helichrysum italicum

You'll almost certainly see this plant on the beach, where

Height up to 60 centimetres

Flowering period May to September Habitats dunes and pine woods in the Litoral

it's beached (joking!) on the dunes by the sea, proud of its cushioned branches covered in hairy, silver leaves. This shrub grows golden flowers, small and button-like, and releases a smell of curry on hotter days, a reaction to avoid losing too much water.

# Mediterranean thyme

### Thymbra capitata

Subshrub (means it's an "almost"-shrub) with branches. This thyme has a lot of branches, and is abundant in clearings, and sunny rocky grounds. It's usually hairy, with small rosy-purple flowers, and it smells so good (you won't get enough of it).

Height 40 centimetres

Flowering period June to September

Habitats Litoral and Barrocal

# European beachgrass

Ammophila arenaria

### Height I metre

Flowering period May to June Habitats dunes along the coastline This plant is so adapted to the dune habitat that it resists the shifting of sand, the dryness and the strong, salt-filled winds. All thanks to a flexible stem and roots that grip into the soil and the grains of sand themselves, consolidating the dune and forming ridges. Cool!



### Pistacia lentiscus

It's a shrub, not a tree. Helpful tip: a tree has only one, robust stem, which you know as the trunk; a shrub has many stems growing directly from the ground. Back to the mastic, it forms great thickets which shelter rabbit holes and partridge nests. It grows round, berry-like fruits which the birds occasionally peck at. It's what you'd call a "good neighbour".



# Broom heather

### Erica scoparia

We could use this broom-looking plant to sweep the floor, but this heather is more useful in its natural state, growing in fresh and somewhat wet places. Only there will you be able to appreciate this narrow-leaved bush, needle-shaped like the pine and with small, yellowed-green leaves.

Height

Habitats

up to 2 metres

Flowering period February to July

Vicentine Coast and Serra



### Height up to 8 metres

Flowering period November to February

Habitats Litoral, Barrocal and Guadiana valley



Juniperus turbinata

For you, it looks like every other bush. But look closely and you see it's not. The plump little stems are covered in scaly flowers whose amazing job it is to protect the plant from the strong, salty wind of the coast. It's also the wind that makes it look bent (getting blasted with wind every day isn't an easy job).

### Mediterranean dwarf Height fan palm up to 4 metres

### Chamaerops humilis

With its fan-shaped leaves, divided into sharp, narrow strips, you can make hats,

baskets and other unique pieces designed by the artisans' thick fingers, as they patiently braid the leaves as it they were hair. This traditional activity is called "palm work". And this palm is also the only palm native to Continental Europe.

Flowering period March and May

Habitats

dry and rocky places in the Litoral and Barrocal

# European centaury

hellingt men wither Solard

### Centaurium erythraea

In Portuguese this plant is called "fel", meaning "bile", and no plant deserves to be associated to such a bitter taste. But if it fits, that's how it should be, no? The taste contrasts with its fragile, bright pink flowers and its rosette-shaped leaves. The people use it in homemade tinctures and ointments to treat lack of appetite, abdominal cramps and hives.



### Height 4 to 5 metres

Flowering period May to September

### Habitats river banks and gravelly riverbeds of the region



### Nerium oleander

This shrub, native to the Mediterranean region but found in all municipalities of the Algarve, is very ornamental. It resists long droughts and needs sunlight. Its pink or white flowers attract insects. And they'd better not attract you: the leaves are poisonous.

# Mirror orchid

### Ophrys speculum

The Earth has an impressive number of orchids: 25 thousand species. Of course, 29 are from the Algarve. This is one of them, as fragile as it is beautiful. A master of camouflage, it can fool you at a distance, making you think it's a bee. It grows in clearings, in rocky soils.



### Flowering period March to June

### Habitats

mostly the Serra and Vicentine Coast (acid soils); there's another species endemic to the south-east that also colonises sand over limestone soil: a *Cistus palhinhae* 



Height 10 to 40 centimetres

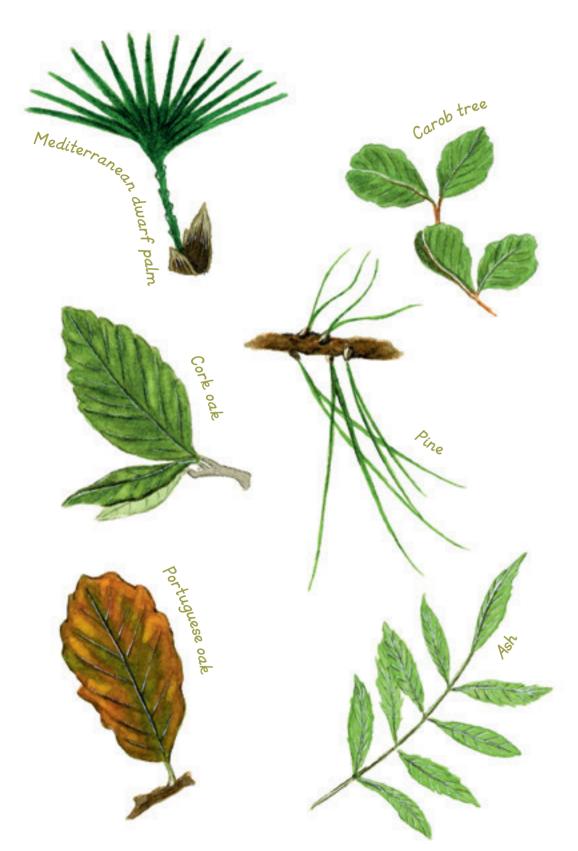
Flowering period March to June

Habitats Litoral and Barrocal

# Gum rockrose

### Cistus ladanifer

Who would have thought that between these chaotic stems – a stem goes left, a stem goes right, without even asking nature for permission – blooms such a delicate flower? If you walk by this bush during the winter, you'll barely recognise it. But during spring it gets covered in big, distinctive, white flowers. You can also let your nose guide you to it, because it emanates a strong aroma of laudanum, its aromatic resin.





### Height 2 metres

Rosemary Rosmarinus officinalis

Flowering period almost the whole year

Habitats from the Litoral to the Serra, in exposed, dry places Rosemary, rosemary, so sweet before our eyes (and noses, so happy when you touch it with the tip of your fingers and smell the fresh aroma). Bees love its pollen and, buzzing, make it one of the most important melliferous plants. Its Latin name has a poetic meaning: "sea dew". Why would that be...?

# french lavender

### Lavandula pedunculata

One of the five species of *Lavandulas* which grow spontaneously in Portugal. They are all colourful when in bloom and smell better than the best perfume in your closest perfume shop. This hairy-leaved, aromatic subshrub grows in dry, exposed areas, frequently clearings, in poor and acid soils.

Height up to 1,70 metres

Flowering period January to June

Habitats throughout the region (except in the Barrocal, because of its limestone)



# Strawberry tree

### Arbutus unedo

Some plants demand sandy, limestone or specifically clay soils. The strawberry tree isn't fussy: it loves all of those. Its fruit, a berry that's yellowish in the beginning and reddish when it matures, can be eaten directly or fermented and transformed into a strong firewater which is known as the "mata-bicho", or "critter-killer" (because it does a number on any microbe).

Height up to 10 metres Flowering period Autumn or beginning of Spring

Habitats Barrocal and Serra

Cork oak

Quercus suber

Height 29 metres Flowering period April to June

Habitats coastal pine woods and Serra



It's one of the most beloved trees in all of the Algarve, or even Portugal. It's not because of its height, colour, shape of the crown, type of leaf or fruit. It's because of its bark – cork, which makes our country the biggest producer of cork in the world. In São Brás de Alportel are made the best corks in the world (for bottles) and cork bags so stylish that even Madonna uses them.

# Carob tree

### Ceratonia siliqua

The traditional Algarvian dryland orchard has fig, almond and carob trees, which are more than adapted to the blazing sun and the lack of water. Very resistant to droughts, carob trees can celebrate up to 300 birthdays. And mankind is thankful, because its fruit – the carob – is used in numerous ways by the food, cosmetic, textile and pharmaceutical industries. We like to call it the cherry on top of the carob.

Height 15 metres Flowering period September to January Habitats the throughout the region



Height up to 10 metres Flowering period May and June Habitats Olive tree, the wild-olive's

throughout the region, mainly rocky and dry soils

Portuguese oak

Quercus faginea

Holm and cork are both oaks. So naturally they have a few things in common. One of them is the gland, or acorn, the fruit that grows hidden in its branches and thick crown, until it falls. But the Portuguese oak has a special feature, its marcescent leaves. In the winter they dry on the branches, gain a reddish tone and only fall during the next spring, when the new leaves start to bloom.

# Wild olive

### Olea europaea var. sylvestris

This bush is characteristic of the Mediterranean. It is common in the Algarve and was part of the old natural forests of the region, when the green of thick crowns of holm oaks, cork oaks, carob trees and the wild olive trees themselves cast shade over the ground and sheltered land and flying animals. Its branches were used in ancient times to award the athletes who won the Olympic Games (when you beat your friends at some game you know what to do: stick a wild olive crown on your own head).





# Common rhododendron

### Rhododendron ponticum

Single leaf bush and evergreen (new word, it means it has leaves all year). Its life cycle usually lasts longer than 100 years: one whole century to grow, flower, grow fruits and keep living. Monchique mountain is one of the few places in Portugal where it grows, with large, very ornamented lilac-to-rose flowers.



mountainous places, usually wet and dark, in acid soils. It only exists in Monchique and Caramulo (Viseu)



up to 40 centimetres

Flowering period March to June

### Habitats

Barrocal and Serra, on the edge and undergrowth of forests and tall scrublands

# Western peony Paeonia broteri

It's neither a tree nor a bush. It's a perennial herb with a beautiful flower. This flower unfortunately doesn't live long, which means we have to choose the right time if we want to see it blooming. It prefers dark and rocky places. You can only find it on the Iberian Peninsula. Trivia (or, those plants you didn't even drean existed and that have really icky names)

# Common eelgrass

### Zostera marina

It's not an alga, because it has a stem, leaves, flowers and fruits, which makes it a seagrass. It usually grows in the sand or silt, creating a large grassland in one of the most productive systems of the biosphere. There's more: seagrasses are the only plants that have successfully adapted to a permanent life in salt water. The seahorse likes to wear them (probably thinks it looks pretty...)

### Height 150 centimetres

Flowering period very rare Habitats Ria Formosa

# Penny-pies

### Umbilicus rupestris

As if the shape of its succulent leaves wasn't different enough – it's just like a chubby bellybutton –, this plant also likes to grow on roofs, walls and crevices in the walls or rocks. So, if you want to see it, look high and not low. Height 15 to 30 centimetres

Flowering period March to July

### Habitats

entire region (ground, beds of gorse, rocky crevices, tree trunks, old houses...)



This plant is so weird that we're still not sure if it reminds us of goose barnacles (crustaceans) or of some carnivore plant. Check it out: thick stem, fleshy leaves (which can be scarlet, yellow or orange) whose juice is used to treat dysentery (really?!).





If there's an obsession we understand, it's the one with animals. They're so furry, feathery and sometimes feety that we just can't resist them. Even the ones with scales or fins have some cute *je ne sais quoi*. Depending on your perspective, you'll find these animals with claws, wings and beaks either silly or majestic. As for the ones with bare skin, you might call them brave. They're all in the Algarve, either passing by or paying rent. It's now time for you to jump, fly, walk, crawl and swim with them. Grab your "animalish" dictionary and chop chop! Buzzzz. Chirp.

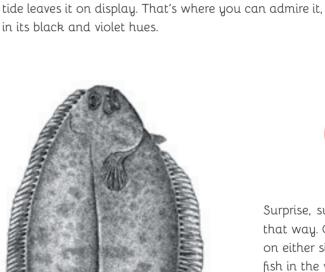
# Common mussel

Mytilus edulis

### Class MOLLUSCS

OccUrrence cliffs and rocky platforms of the Vicentine Coast





The mussel doesn't move much. On the contrary, it keeps quiet in its corner, clinging to the rocks that exist between the tides, up to 10 metres deep. Often, the low

# black sole

### Solea solea

Surprise, surprise: this flatfish is not born that way. Cylindrical at first, with one eye on either side and swimming like all other fish in the water column, only weeks later does its transformation begin, ending up like you know it (flat body, with two eyes close together).





Occurrence muddy and sandy coastal banks, as well as in rias and estuaries (during its breeding and juvenile stages)



### Balaenoptera physalus

### Class MAMMALS

### Occurrence

sometimes close to the coastline, especially off the coast of Sagres It is the second largest animal on the planet\*, reaching up to 27 metres in length. This heavyweight champion of the seas, weighing more than 70 tons, is only a visitor to Algarvian waters, which it crosses in its migrations along the European coast. It's a member of the Cetacean group of mammals, it has warm blood, a bony skeleton and its nose is a hole in its head –the blowhole –, responsible for those fountain-like jets of water where you wouldn't mind to do a bit of water skiing one day. C'mon, tell us we're wrong!

> \*the first, FYI, is the blue whale

# Northern Gannet

### Morus bassanus

Its name is a bit silly, though the northern gannet is anything but. It is the largest seabird in our waters and thousands of them pass through the Algarve during their migration. The gannet comes down from the sky at great speed, plunging hard into the oceanic waters to catch the unaware fish, who do not expect an attack as fast and accurate as this arrow-like bird.

### Class BIRDS

### Occurrence Carrapateira, Ponta da Atalaia (Aljezur), Cape St. Vicent, Ponta da Piedade, Santa Maria Cape (Ria Formosa)

# White Seabream

Diplodus sargus

### Class ETSHES

### Occurrence

the schools of young fish occur in estuaries and coastal lagoons (also in watery ravines near the beach); the adults in coastal zones, mostly on the riptide There's two pieces of gossip we have to tell you about. One: it tends to be a hermaphrodite (belongs to both sexes), and it can change its sex during its life. Two: it's an omnivore when young, and a carnivore when it becomes an adult.



Class FISHES Occurrence oceanic zones, sometimes near the coast

# Leatherback sea turtle

Dermochelys coriacea

It lives in the sea, and its rubber-like shell helps it slide in the water, but prevents it from hiding its head in it when it's afraid There is no other turtle as big as this one in the whole world: there are records of leatherback turtles two metres-long and over 900 kilos in weight! Can you imagine such a feat? The only descendant of a family of turtles that existed more than 100 million years ago, the leatherback turtle plunges up to 1200 metres-deep, and is able to eat jellyfish without being stung.

# and

emps

allips

Just look at that name – SHARK – to get an idea of how scary it can be. But don't worry, because it doesn't hunt humans. At least, not on purpose. The shark only attacks people if it mistakes them for a seal or a big fish. Now that you have breathed a sigh of relief, this is one of the more than 500 species of sharks identified in the world and one of the most abundant in the Atlantic. Blue in colour, it has 5 pairs of gills and sharp triangular teeth.

### Class REPTILES

### Occurrence

Atlantic area and occasionally along the coastal strip, as it traverses migration routes between high-latitude feeding areas and tropical nesting beaches

# Short-beaked common dolphin

### Delphinus delphis

This is the most abundant species of cetacean along Algarve's coast, which is ultra-useful information for any pelagic outings. Though there are cetaceans with beards instead of teeth that feed on plankton, this is not one of them. It really likes its fish, especially sardines (we can't really blame it). It's the ocean's "Mr. Nice": clever, playful, drawing smiles wherever it goes during its short dives, far more than its cousins – porpoises, whales, sperm whales and killer whales.

# Biz-scale sand smelt

Atherina boyeri

In Portuguese we call it "peixe-rei", a fish-king, but it has neither kingdom nor throne. A common species in the Algarve, it lives in large shoals. If you're asking yourself what it eats, we answer: mainly small crustaceans. While it eats them, it also risks being eaten, as it is one of the favourite targets of the seabass.

### Class MAMMALS

OccUrrence oceanic zone and coastaline, mainly off Sagres

# Common pravn

Palaemon serratus



### CLass CRUSTACEANS

### Occurrence

estuaries and coastal areas, in sandy and rocky bottoms; also in the tide pools in Olhos de Água, Arrifes, Oura, São Lourenço, Luz - Porto de Mós, Monte Clérigo

Common or not, it's a prawn. As such, nighttime is its best friend, which is when it is more active and protected from its predators (which are practically blind in the dark). Its body is not white, but rather pale pink and greyish with dark stripes.

Class FISHES

### Occurrence

coastal lagoons, estuaries and contiguous coastal strips



### Ostrea edulis

Class MOLLUSCS

OccUrrence estuaries, lagoons and shallow coastal waters

# European shaz

Phalacrocorax aristotelis

### Class BIRDS

OccUrrence Vicentine Coast and Ponta da Piedade

Besides the obvious – the obvious being its dark body, long neck and elegance –, we can tell you that this crow is a resident species of the Algarve. That means it is here all year round, in marine areas, where it likes to land and dive, putting its skills as an excellent swimmer to good use.

Touch it, and feel the roughness of its lamellar shell (no, we're not calling it lame; lamellar just means the shell is divided into small blades). It feeds on microalgae, larvae and detritus, keeping its valves half-open to draw in large amounts of water through its gills, which it also uses for breathing. That's how it absorbs nutrients, while it eliminates the least interesting particles in a very curious way – through pseudofaeces.

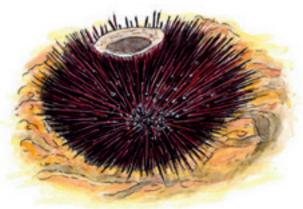






### Marthasterias glacialis

What would you do if you had five arms? This smallish star, without its own sparkling light, uses them to know the world around itself. The whole body's basically just arms: it might not have a brain, but it's smart enough to regenerate itself. When it loses one of these arms, another one is born in its place, just like a gecko's tail.



### Class ECHINODERMS

Occurrence tide pools, in holes dug by themselves (mainly in the Vicentine Coast)

### Class ECHINODERMS

Occurrence Olhos de Água tide pools, Arrifes, Oura,

de Mós, Monte Clérigo

São Lourenço, Luz - Porto

Purple sea urchin

### Paracentrotus lividus

Don't grab it, you'll hurt yourself. The spines to ward off predators are more than many. In spite of this, there are still those who find it tasty – it is the law of any ecosystem, ruled by predators and prey that are both filling their belly and someone else's. It has a habit of "masking" itself with shells, stones and seaweed to defend itself and to avoid strong light.

# Green shore crab

### Carcinus maenas

If you see it in the mud of some estuary or lagoon shaking its claws at you, it's saying hello to you in its crude manner. It's a tiny little creature – about seven centimetres wide – greenish or sometimes reddish, it walks sideways because its knees bend to the side, something that would be very useful to it if it wanted to try ballet.

Class CRUSTACEANS

### Occurrence

estuaries, Ria Formosa and Ria de Alvor, tide pools in Olhos de Água, Arrifes, Oura, São Lourenço, Luz -Porto de Mós, Monte Clérigo

Goose neck barnacle

### Pollicipes pollicipes

Legistric The most immediately apparent bit of this barnacle is the

CLass CRUSTACEANS

Occurrence coastal cliffs of the Vicentine Coast nail or *capitulum*. The dark brown peduncle that holds it to the rock is only visible if we stick our nose really close to it. This strange animal lives amidst the rocky zone between tides, in the company of mussels, limpets and reddish algae. A dense pile of barnacles is called a "fixture" (get it?).

# Little tern

Sterna albifrons



Class MOLLUSCS

Occurrence

coastline, in deep

in cold waters

and especially

# Common squid

### Loligo vulgaris

The light attracts not only insects, but also squids. They are drawn to it like bears to honey. Its little big-eyed head ends in ten tentacles, the two largest of which have four rows of sticky suction cups with which its grabs its prey. It migrates both daily and seasonally, moving by jet propulsion.

### Class BIRDS

### Occurrence

Ria de Alvor, Almargem estuary, Quinta do Lago, Ludo, ria inlets between Olhão and Cacela Velha, salt ponds of Santa Luzia and Tavira, Castro Marim salt marsh

The name is a bit of a giveaway: a bird so small that it is the smallest of all the terns you can see in Portugal. A migratory species, most of its population nests in the Algarve between April and September, and winters in Africa. Its white forehead and fishing technique (every dive means a fish) are the best clues to identify it.

Yellow-legged gull

### Larus michahellis

Do you see that cloud of birds and feathers hanging over the boats and the fishing ports? It is made up of yellow-legged seagulls, which find easy food there to sate their hunger (like the boats and harbours were fast-food restaurants of fresh fish). A resident maritime species, it's been around the Earth for 60 million years, lives in colonies and frequents coastal biotopes, including beaches, harbour areas and rocky coastlines.



Salgados lagoon, Ludo

# Common cuttlefish

Sepia officinalis 🚙

Class MOLLUSCS OccUrrence estuaries, rias, and the entire coastline

Scuttling around much, cuttlefish? Probably so, around a vast oceanic bed with sandy and rocky bottoms, its favourite habitat. It has a rough head sur-

rounded by tentacles, the "arms" with which it touches the world around itself. It's a peculiarity it shares with other cephalopod molluscs, like the octopus and the squid. Its skin contains pigmented cells (chromatophores) that change in colour and are responsible for its fantastic and psychedelic mimicry.

Sand zoby Pomatoschistus minutus

It can grow up to 6 metres in length. Lie! This "pygmy" of the seas doesn't exceed 6 centimetres. It eats things smaller than itself, with crustaceans, bivalves and gastropods at the top of its list. Sandy tide pools – which form at low tide – keep it in place for a moment. This is a good opportunity to see it.

### Class FTSH

### Occurrence

estuaries, rias, coastal areas, sandy and muddy bottoms; Olhos de Água tide pools, Arrifes, Oura, São Lourenço, Luz – Porto de Mós, Monte Clérigo

The ray's huge fins work like a bird's wings: flapping and flapping some more, it's as if they were flying through the air when they're actually swimming in the seas. Full of cartilage, it breathes through gills located on the underside of its body or through the holes in its head, which it uses only when lying on the sand... on its gills.

100

Cuckoo ray

Class FISHES

OccUrrence along the coastline, in the deep





### Class MOLLUSCS

Occurrence especially in Southeast Algarve, in the Ria Formosa and along the coast



### Bolinus brandaris

Twists, twists and more twists, with long spikes, in a shell 110 millimetres tall and 55 in diameter. Such is the appearance of the purple dye murex, which eats its cousins, uncles, and grandmothers from other classes of molluscs, piercing their shells with its radula (a rough tongue common to most molluscs) to reach the soft parts within, which it then feasts on.

# Dunlin

Calidris alpina

### Class BIRDS

### Occurrence

estuary of the Arade, Ria de Alvor and Ria Formosa, Santa Luzia salt ponds, Castro Marim salt marsh

The dunlin might just be the smallest wader in the region (along with other species of dunlin around these parts). Well adapted to its habitat - marshes and coastal areas - it has developed feet with three fabulous toes, all of them forward-facing, ideal for running.

# Common octopus

### Octopus vulgaris

People find it to be the most intelligent invertebrate of

all, and it may just be. It changes its colour in order to blend with the surrounding environment, mocking its prey and predators; it expels a jet of water that causes it to move quickly in the opposite direction and even to jump out of water; it sprays dark ink to confuse its attackers; it uses its eight arms full of brain cells to grab its food and taste it. And, as if that wasn't enough, it has three hearts pulsating in its body.



### **ECHINODERMS** Occurrence

Class

Olhos de Água tide pools, Arrifes, Oura, São Lourenço, Luz - Porto de Mós, Monte Clériao and contiguous coastline; in the Ria Formosa and Ria de Alvor

An adult sea cucumber filters 20 pounds of sediment per year. How neat and tidy!

Class MOLLUSCS

Occurrence

along the coastal strip, as long as it can find shelter (natural

shelter - rocks and shells:

artificial shelter - coves)

# Sea cucumber

Holothuria spp.

With the shape and appearance of a cucumber (yes, that one, the fruit of the cucumber plant), this invertebrate is the best water bottom sweeper you'll ever meet. Only, instead of a broom, it has a mouth surrounded by very short tentacles that it uses to clean the sand. That is, it eats the sand, from which it draws the organic particles it needs to live. And by so doing, it raises the quality of the water and sediments of its marine environment.

# Grooved carpet shell

### Ruditapes decussatus

There it is on your dinner table, cooked and steamy, served with coriander and garlic as an entrée. The poor clam, invertebrate and soft-bodied like all molluscs, tastes great but doesn't have much of a great fate in store (luckily, it is not aware of it). It belongs to the class of bivalves which, as you cleverly infer, have a shell made up by two pieces or valves.

In Portugal, it practically only exists in the Ria Formosa. It slowly disappeared from other estuaries and lagoons with the arrival of the invading Japanese carpet shell.

### Class MOLLUSCS

OccUrrence silt and sand banks (uncovered at low tide) of the Ria Formosa

# Mottled sea hare

Aplysia fasciata

According to what they tell us, its swimming ability is second to none. Maybe because it's so small – 400 millimetres-long, at best – or because it has only a sole, internal shell to weigh it down. Who knows? One of the more than 150 species of sea slugs in the Algarve, this one is black or dark-brown and can release a purple secretion if something annoys it (which is cute, but not so cute when you think about what the poor thing is feeling when it releases that pretty inky wave of purple).

### Class MOLLUSCS

### Occurrence

estuaries and rias, tide pools in Olhos de Água, Arrifes, Oura, São Lourenço, Luz – Porto de Mós, Monte Clérigo and its coastine

# Long-snouted seahorse

### Hippocampus guttulatus

A vertical fish which brings together rare qualities of other animals. Just picture it: a head like a horse's, a prehensile tail like a monClass FISH OccUrrence wetlands of the Ria Formosa

key's (to cling to the algae in the strong waves), a belly pouch like a kangaroo's (in which the male takes care of the eggs). Its colour changes depending on the marine substrate in which it lives, and its body has two skeletons – one inside, the other, crunchy, outside. It's an extraordinary animal, and Ria Formosa used to have its largest community in the world.

# Western swamphen (or sultana bird)

Porphyrio porphyrio

### Class BIRDS

### Occurrence

Ria de Alvor, Salgados lagoon, Vilamoura, Almargem estuary, Dunas Douradas lagoon, Quinta do Lago, Ludo, Castro Marim salt marsh

We understand that it is beautiful, with a blue plumage that contrasts with is red beak and feet. We understand that it is special: 20 years ago it was one of the rarest birds in Portugal, though today it occurs a little bit everywhere in the Algarve, where it is most abundant. What's hard for us to comprehend is its trumpet-like vocalization (or its cracked voice), which does not stop it from being one of the most coveted birds by birdwatchers, or the symbol of the Ria Formosa Natural Park.



### Egretta garzetta

Immaculately white feathers and a slim body are the most beautiful combination of this animal, which has important colonies in the Algarve. The S-shaped neck reminds us of a small flamingo (only if it were covered in snow, because the egret is white as quicklime and the flamingo is pink). It walks slowly around, along the silt banks of coastal lagoons, rias and estuaries.



### Occurrence

estuary of the Alvor, Dunas Douradas lagoon, Ria Formosa and Castro Marim salt marsh; nesting colonies at Ponta da Piedade and Gaivota sea stack

### Class BIRDS

Occurrence

Salgados lagoon, Ria Formosa and Castro Marim salt marsh



Platalea leucorodia

You might think you're standing before a white egret. We assure you, you're not. The proof's in its beak: long, flattened at the tip, much like a spatula or, you know, a spoon, which the spoonbill stirs around in watery bottoms and silt in search of grub – molluscs, crustaceans and fresh fish! Just don't expect to hear it, at all. Unlike other birds, the spoonbill makes no sound.

Greater flaminzo

The sound coming out of the flamingo resembles that

of a toad (perhaps a toad with a cold). Fortunately, it

looks a lot nicer than it sounds, and it's hard not to be

embarrassed by its huge stature, its long, thin legs, and

especially its pink colour (from eating so much shrimp!)

in adults. Though once rare in Portugal, it is

now a common sight in our wetlands,

and you can spot it all year round.

### Phoenicopterus roseus

### Class BIRDS

### Occurrence

Ria de Alvor, Arade estuary, Salgados lagoon, Ludo, Santa Luzia salt ponds, Castro Marim salt marsh

# Grooved Razor Shell

### Solen marginatus

This bivalve mollusc is extremely easy to identify, due to its long, rectangular shell which is shaped like a razor (hence the name). It's very common in the Algarve, both in sandy riverbeds and the local seafood markets, where it's bought to make the incredibly tasty *arroz de lingueirão* (grooved razor shell rice).

### Class MOLLUSCS

OccUrrence rias and estuaries, mainly in Ria Formosa

# Common cockle

### Cerastoderma edule

MOLLUSCS OccUrrence Ria de Alvor and Ria Formosa

Class

Any mollusc – though maybe not the sea slug – is a tempting, salty snack. The cockle is no exception to the rule and it is one of the most abundant species of bivalve in the Ria Formosa. Similar in appearance to the clam, although with a smaller shell, it lives up to a few inches deep (not too deep, because of its poorly developed foot).

# black-winzed stilt

Himantopus himantopus

### Class BIRDS

### Occurrence

Lagos bogland, Odiáxere salt flats, Ria de Alvor, Arade estuary, Salgados lagoon, Quinta do Lago, Ludo, Olhão and Santa Luzia salt ponds, Castro Marim Nature Reserve

Stilts or stiltless? Does it have long legs? Then stilt it is. But its long legs are not in vain. Because it is a wader, feeding on morsels in the silt, these "natural stilts" come quite handy. It looks like a miniature stork and is the legitimate representative of the Salt Marsh Natural Reserve of Castro Marim and Vila Real de Santo António.



### Class BIRDS

### Occurrence

open fields near the coastline: Carrapateira, Rogil plateau, Sagres, Boca do Rio, Lagos bogland, Ria de Alvor, Salgados lagoon, Castro Marim salt marsh

It's a small brown bird with a thick beak, observable all year round. It becomes more noticeable during springtime, however, since that's the season in which males sing countless times to attract females (that's their way of asking them out on a date). It often lands on telephone poles and wires.

# European eel

Anguilla anguilla

### Class FISHES

Occurrence

ocean and all river basins and coastal lagoons that flow into the sea Its influence on our body isn't pleasant at all. Unless you like slimy fish, with serpentine bodies more than a metre long and the physical features of a moray. The European eel is a contortionist

- it moves like a snake and its blood has a toxin harmful to its potential predators.

Corn bunting

Emberiza calandra



# European Otter

### Lutra lutra

128

Nothing beats these Olympic swimmers, because of their hydrodynamic body that makes them slide like a torpedo in the water. And they're better at fishing than a long-time fisherman. There are animals like that, with enough skills to make the brightest humans envious. Its coat is very dense, it leaves its burrow at dusk, returning at dawn after a night of adventures in its territory. It eats fish, fish and... have we said fish? (Well, and some amphibians as well, and plants and kilos upon kilos of red crawfish, for variety.)



Class

MAMMALS

Occurrence

in the main rivers

and streams, from

spring to mouth

# Red-veined darter

### Sympetrum fonscolombii

These dragonflies have existed on Earth for 300 millions of years. Its pre-historical ancestors flew with wings that were 70-centimetres-long! Nowadays, the biggest species we know don't even reach 20 centimetres... But what they lack in length, they have in aerial charm: 4 independent wings that beat at 20 to 40 movements per second, which allow it to reach flying speeds of around 60 kilometres per hour. Agile acrobats, they can stay still on the air or fly backwards. The Algarve has about 50 species of dragonflies.

# Spanish minnowcarp

### Anaecypris hispanica

Exclusive to the Iberian Peninsula, the Spanish minnowcarp is one of the most endangered freshwater species in Portugal. It is classified as "Critically Endangered", a status it shares with the Iberian lynx. Here's how a single goldfish can make us think about our relationship with nature and the planet we inhabit. It is necessary that we preserve (and respect) it.

### Class FISHES

OccUrrence basin of the river Guadiana (especially the Vascão and Foupana rivers) and the Odeleite river

### Class INSECTS

OccUrrence temporary ponds, depths

and streams with a weak current (Serra, Baixo Guadiana and Vicentine Coast river basins)



Pyrrhocorax pyrrhocorax

It chooses the most inhospitable and unlikely places to lay its eggs, from which its young will be born. Mountains with crags and ravines? Steep coastal cliffs? Because that's where it nests, defying luck and altitude. Which is why Sagres has one of the main populations of red-billed choughs in the country. It is often compared to an agile airplane pilot because of its acrobatic flights: it spins, it dives and then rises again, hissing wildly through the air.



Class BIRDS Occurrence Cape St. Vincent, Sagres

# Mediterranean tree froz

### Hyla meridionalis

CLASS

Occurence

BIRDS

The "suckers" on its legs make it a great climber, a detail which distinguishes it from toads. However, they have many things in common with them, among them the absence of a tail and hind legs larger than their front ones, always tucked in. They make it look more sedentary than it actually is, since it appears to be constantly seated.

### Class AMPHYBIANS

### Occurrence

throughout the region, in wet habitats (temporary ponds, ponds and streams) and surrounding vegetated areas

### Class AMPHYBIAN

### Occurrence

in altitude, in the mountains of the Algarve; sometimes in wet and well-vegetated places of the Barrocal and Vicentine Coast



### Salamandra salamandra

There are those who use a stick or a grumpy face as a defence mechanism. This salamander opts for toxic secretions from its cutaneous glands. It works! Predators avoid eating it because its bright yellow spots on a black background are a sign of the salamander's toxicity and, to be fair, no one likes to get a tummy ache after a meal (not even snakes). It is only active at night and instead of singing or reciting poems for its mating partners, it dances for them like Fred Astaire (google him).

It dives so much that we call it a "diver" in Portuguese. It disappears suddenly, sinking into the water to reappear elsewhere, as if it were playing hide-and-seek. "Coocoo!" it says in its noisy call. This aquatic species is the largest and most common diver in most of Europe.

# Great crested

Podiceps cristatus



Of all the birds, it is the most talkative. It always seems to be chatting, and its song is as cheerful as the colours of its plumage. Very common in the Algarve.

### Class BIRDS OccUrrence across the region, especially glong coastal

wetlands

# White stork

### Ciconia ciconia

You'll recognise its famous silhouette in the blink of an eye: 100 to 125 centimetres tall and a wingspan of 155 to 165 centimetres, the stork is no small matter. Common among us, some even dwell here, although most of them are migratory (spring is therefore the ideal season to spot it, when it goes back to its nest). About its nest: it builds it on aerials, rocky islets and sea stacks, electricity poles, trees and belfries, and can reach immense dimensions, up to 800 kilos.

# European zoldfinch

Carduelis carduelis

# Mallard



### Anas platyrhynchos

The ancestor of the domestic ducks, it announces its presence with a noisy, nasal croak. "Quack-quackquack", that's what you'll hear when a mallard is nearby. The best known of all the ducks comes with a metallicgreen head and a white ring around its neck, for males. Resident species. Class BIRDS

Occurrence

in all types of aquatic habitats, even artificial ones (urban lakes and water treatment plants)

Class BIRDS

- States

### Occurrence

Salgados lagoon, mouth of the Almargem, Dunas Douradas lagoon, Quinta do Lago

الاعمدو كواستجادي الجاهي أنجا القريا الارتجاري فالمواقع المواجع الاستدارية المالية والوالان والمارية والمنالة

# Red-crested pochard

Netta rufina

Mother duck said "Quack, quack, quack, quack", but only four little ducks came back – probably because her voice scared the other duckling away. Combine that disharmonious voice with a golden crown and an intense coral-red beak, for males, and we have a bird who's an expert at making itself the centre of attention.

Class BIRDS

### Occurrence

Vicentine Coast (Rogil plateau) and in proximity to wetlands, for example in Lagos and Alvor, in the Arade estuary, in the Ria Formosa and in the Castro Marim salt marsh

# Iberian midwife toad

### Alytes cisternasii

This toad spends the summer asleep, a nap it shares with frogs. But after the rains, on spring and autumn nights, a new cycle begins for this toad. It blows up its vocal sac to sing sappy songs to females, croaking as finely as possible to try and charm one and mate with it. It then reproduces on land, unlike most other amphibians of our fauna.

### CLass AMPHYBTANS

### Occurrence

forests and scrublands of the Serra and the Barrocal, preferably in close proximity to streams, ponds and temporary puddles

The males wrap the eggs on their hind legs and carry their children piggybacking until they hatch. Such cool parents!



# European bee-eater

### Merops apiaster

Beauty isn't measured in centimetres. If it were, it'd be only slighter larger than 20 centimetres, the size of a magnificent European bee-eater. Its gaudy plumage makes it look exotic, like it's asking for you to take a picture or draw it. Very common in the Algarve, this insectivore (loves to eat bees!) lays its eggs on slopes and mounds of earth to keep the nest safe from predators.

# Mediterranean chameleon

Chamaeleo chamaeleon

It looks like a prehistoric little monster (notice the bony crests of its head or its stereoscopic eyes that move independently). Among the more than 150 species of chameleons worldwide, this is the only one which occurs in Portugal, and only in the Algarve. So respect it and do not take it out of its habitat if you find it walking along in its slow and hesitant step. By the way, its skin changes colour because of temperature, its health or mood, and not so much because of its surroundings. Class BIRDS

Carrapateira, Sagres, mouth of the Almargem, Ria Formosa, Castro Marim Natural Reserve

> 15 Missi0N

Class

coastal pine forests, coastal dunes with vegetation

# European pond turtle

### Emys orbicularis

### Class REPTILES

### Occurrence

along the coast - Lagos bogland, mouth of the Almargem river, lagoons of Dunas Douradas and Garrão, Ludo; in the countryside -Vicentine plateau, Guadiana basin, reservoirs in the mountains Using its hard shell as armour, this tortoise with daytime habits can be seen practically all year round. What does "practically" mean? Well, in the hottest areas, such as the Algarve, it's likely to sleep in the summer. It's one of the most abundant freshwater turtles, especially in the large temporary puddles.

# European hedzehoz Erinaceus europaeus

This little ball of spikes is an abundant species in the Algarve, and the only Algarvian mammal with its body covered with spines. Six thousand spines, in fact. When it feels threatened, the hedgehog wraps around itself to protect its small paws and soft areas of the body. It prefers the summer and its meals include grasshoppers, flies, earthworms, snails, eggs and wild berries.



### Occurrence

throughoutthe region, especially scrubland, pastures and meadows with hedges, secondary dunes; in the countryside, it can be easily spotted near backyards or crossing roads

Ezyptian monzoose

Herpestes ichneumon

### CLass MAMMALS

Occurrence

in the countryside, throughout the region; mainly in tall scrubland, wet reeds and cultivated fields

Egyptian mongoose and ichneumon in English, sacarrabos, magusto, manguço, or escalavardo in Portuguese. Any of these names is correct. It has daytime habits, which means you might suddently be surprised by one of them. Its quick reflexes are excellent for hunting snakes: it jumps high in the air, avoiding their bites. It was considered a sacred animal in Ancient Egypt.



### Ruten huten

There's no in-between for this bird. Its plumage is either very dark or very light. It's special in that it's more vocal than other birds of prey; it's not-so-special in that it's the most numerous bird of prey in Europe, together with the hawk. Unlike the other 20 birds of prey that only fly over the Algarve on their migratory trips, the common buzzard lives here and you can frequently see it.



### CLASS BTRDS

Occurrence throughout the region, including

urban areas

# House sparrow

### Passer domesticus

You've most probably passed by one of these, perched on a branch above your head or lurking on a roof tile. Because it established itself in urban environments, it occurs regularly in the Algarve. It is the common bird (or passerine, to be specific), and has all the hallmark characteristics: it is small in size and it has a thick triangular beak, typical of granivores.

# Horseshoe whip snake

### Hemorrhois hippocrepis

It's part of our personal list of creepiest animals on earth. It snakes on the ground, sinuously crawling. It hisses, a whistle that penetrates your ears. It has a forked tongue and scales, in a strong body almost 2 metres long if it was stretched out. Agile and a good climber, there's only one good thing about it: its bite is harmless to us (not

venomous).

# Iberian hare

### Lepus granatensis

It's not a rabbit. It certainly looks like one, what with its large eyes and long ears, and most of its habits. Distinguishing one from another is, how shall we put it, like pulling a real rabbit out of a real hat (or rather, as difficult as finding a needle in the haystack). However, the hare is larger, has a yellowish-brown coat (the rabbit has a greyish one), and its hind legs and ears are also longer than the wild rabbit's. Given the window of time you'll have to detect these slight differences - both are faster than your brain, and scaredy like rats - we wish you good luck.

### CLASS MAMMALS

Occurrence throughout the region, in marshes, groves, open fields and dunes

Occurrence dry and exposed zones, sparse scrubland and rocky places

# Conehead mantis

### Mantis religiosa

Pray to God, the Virgin Mary, or to any saints you want, if you're a believer. Its colourful name derives from the position it adopts to hunt: with its fore claws folded and together, as if in prayer, and with its chest raised, this insect waits for flies, butterflies, grasshoppers and lizards camouflaged in the vegetation. Of the more than two thousand species of mantis on the planet, 12 live the Algarve. It has strong jaws and will give anyone who grabs it a decent bite. So be careful!

### CLass INSECTS

### OccUrrence in sunny places in the countryside, among

dry herbaceous

vegetation

European badzer

It's a natural digger. Its short, powerful

paws, with five strong, sharp claws, are

perfectly adapted to this function. Which is good, as it needs them to dig its tunnels

deep. How to avoid mistaking it for other animals? It's a piece of cake! Just make

sure it has two black longitudinal

stripes on each side of its white

Meles meles

head

### Class MAMMALS

### Occurrence

throughout the region, mainly wooded areas and cultivated fields

Class

**TNSECTS** 

Occurrence

in the countryside, especially in broom shrubs

### Class MAMMALS

OcccUrrence Caldeirão mountain range and Baixo Guadiana



Capra aegagrus hircus Algarvian race

With a very limited geographical distribution in Portugal – it exists mainly in the Algarve and, to a lesser extent, in the Baixo Alentejo – this goat is burly, as heavy as two or three of you: up to 50 kilos for females and up to 80 males. With its short white hair dappled brown, she is a real stunner! It's even been part of a collection of Portuguese Postal Service stamps...

A stick out in the sticks. This little stick of an insect sticks it to voracious predators by becoming invisible. It is so perfectly adapted to the surroundings that it is easily mistaken for a tree branch. A six-legged herbivore – all insects have six legs, never forget; it's a bit of a sticking point –, it dresses in green, for females, and brown in males.

Stick insect

Leptynia attenuata

# Common kestrel

#### Falco tinnunculus

It has all the characteristics of a bird of prey: a strong and sharp beak to perfectly rip the flesh of its prey, like field mice, and paws with long claws. If you spot this hawk gliding in the skies, its tail wide open like a fan, you'll know it's looking for food. Observable all year round.



#### Occurrence

Vicentine plateau, Cape St. Vicent, Ponta da Piedade, estuary of the Arade, Salgados lagoon, Castro Marim salt marsh

# Class REPTILES

## Occurrence

throughout the region, in sunny places with plenty of shelter (vegetation or rocks)



Timon lepida

The ocellated lizard is one spotty lizard. With dark spots on a green and yellow back, this lizard is the largest of all Portuguese lizards, even though it's not even 30 centimetres long. It ditches its tail when threatened and regenerates it later, a trait it shares with our friends the geckos. It loves insects, places with good sun exposure and taking shelter in thick shrubs, stones and walls. It is active from March to October, hibernating for the rest of the year.

# Tanny owl

#### Strix aluco

You may have heard the melancholy song of an owl. If not, it sounds like this: hoo, hoo, hoooo. Seeing it, we could swear it has an extra pair of white eyebrows on the back of its crown. For this forest species, there is nothing like an old deciduous cork oak or an oak tree with large holes for nesting, sleeping, or breeding. The song "Corujinha" ("Little Owl") by the Brazilian composer Vinicius de Moraes must have been inspired by it...

Red fox

Vulpes vulpes

## Class BIRDS

Occurrence Espinhaco de Cão and Caldeirão mountain ranges, Rocha da Pena

#### Class MAMMALS

### Occurrence

throughout the region, in forests, scrublands, coastal dunes and in the vicinity of agricultural fields

In spite of its sly reputation, the fox isn't fooling anyone. It swims, jumps, walks in an agile trot, wagging its thick tail to and fro (it belongs to the canine family, after all), but it's not much of a climber. For it, everything that shines, or, moves, is gold, or rather, meat. Mammals, invertebrates, birds, reptiles, amphibians fill this carnivore's belly, a protagonist in La Fontaine's fable "The Fox and the Crow". Its coat is shorter in summer and long and dense in the winter

# European rabbit

## Oryctolagus cuniculus

It's so cute we just want to pet it. With a plump body, a small puffy tail, very large ears and short brown whiskers, this rabbit native to the Iberian Peninsula has a preference for thick scrublands. It lives in a hole and follows a diet of herbaceous plants, roots, stems, grains and tree bark. Even though you might see it during the day, it's a nocturnal animal and it's always in a rush. If it spoke like us, or like the white rabbit in "Alice in Wonderland", we'd hear it say: "Oh my God, oh my God! I'm so late!"

# Class MAMMALS Occurrence in the field, mostly scrubland, clearings, meadows and on the edge of agricultural fields or forests

# foxy emperor

#### Charaxes jasius

Can you see it fluttering around you? That's only possible because it has gone from being a mere egg to a caterpillar, then the pupa (wrapped in the cocoon like a mummy) and finally the butterfly, visible from March to October. This is the biggest diurnal butterfly in Europe, and its Portuguese name, the "strawberry tree butterfly", is justified by the fact that it likes the strawberry tree a lot, and exclusively: as a caterpillar, it munches on its leaves; as an adult, it eats its ripe fruits.



# Lynx pardinus

This sharp-toothed feline with a brownish-yellow, black-speckled coat is related to the wild cat and the genet. One of the four species of lynx in the world, it is currently endangered. This is why it's protected by law and why it's the target of a project for its recovery and reintroduction into the wild in the Iberian Peninsula. This bearded relic lives only in a few places in Portugal and Spain. Its favourite dish is wild rabbit (the cute bunnies we've told you about here. \* Sigh \*).

# Class

MAMMALS

#### Occurrence

only in captivity, in the Iberian lynx breeding centre in Silves

+ Information http://areasprotegidas.icnf.pt/lince





The strangest animal of all we've listed so far. This Tasmanian mammal could very well be considered a bird, because of the tiny little wings on its furry back. It could also be a fish, maybe, because of the scales that cover its head. On the other hand, it does have six legs, so it would fit perfectly among the insects. Its whiskers measure the same as two big hands, dragging on the ground, because the gambozino itself is only eight fingers tall. To conclude the ensemble, blue eyes occupy half its face. They're wide open to its habitat, in which its moves with impressive speed. It is believed that those who see it are granted ten years of luck. Run, go look for it!

Class MAMMALS Occurrence

throughout the region, hidden behind thickets and bushes, trees, rocky blocks



Ing an Alin an José



#### Class BIRDS

OccUrrence Monchique and Caldeirão mountain ranges, Alvor river, Rocha da Pena and Quinta do Lago It can boast of being the greatest of all Portuguese tits. And also daring, to the point of letting you feed it from your hand. You'll be able to attract it with insects and seeds. It has white cheeks and a colourful plumage, and it is present in woods, forests and very close to you, in the parks and gardens of the city.

A small rodent that, with a little bit more creativity, could be called "the Mask", what with the black contours around its eyes. It feasts on insects, snails, eggs, honey, wild berries and acorns when awake. During the remaining time, it sleeps. Or rather, it goes into hibernation during winter and aestivation for much of the summer, when it needs reserves of fat to cope with so much lethargy.

#### Class MAMMALS

Ocurrence

coastal pine forests and woods with *Quercus* (hence its scientific name); especially in the Barrocal and Baixo Guadiana Garden dormouse

Great tit

Parus major

Eliomys quercinus



# MAMMALS

### Occurrence

caves and mines. An exclusively cave-dwelling bat, protected by law, so it's not easy to observe



## Miniopterus schreibersii

The word "nocturnal" applies both to the habits of this bat, which only comes out at dusk or late at night, and to the soundtrack that would faithfully accompany his life, if the composer Chopin didn't mind we use it as a soundtrack for this creepy mammal's routine and flapping wings. It eats butterflies, mosquitoes and beetles, which it hunts using echolocation, a sense that helps it detect where and how far away the insects are, without needing to see them. It is one of the 16 species of bats that occur in the Algarve.



#### Carduelis chloris

Handsome and vegetarian like the goldfinch (it feeds on grains and fruits), the greenfinch nests in trees, shrubs or even in the eaves of the windows. Even so, and even with a song reminiscent of the canary's, it is shy and very cautious.

# Class BIRDS

## Occurrence

agricultural fields, groves and urban gardens; in the Monchique mountain range and in wetlands along the coast



INSECTS OccUrrence in the fields, throughout the region

# Wild boar

Sus scrofa

It lives all across Europe (so does the domestic pig: they rather look alike). Strong body, not to say heavy, and short legs, but it runs like a train when it needs to. The lower canines – its "defences" – are big and facing up. It's an omnivore: both acoms and rats are fair game.

# Class MAMMAL

Occurrence

entire region, mostly scrublands and woods in the Barrocal and the Serra



# Megistopus flavicornis

In Portuguese, it's called "formiga-leão", or antlion. It doesn't roar, it doesn't have a mane, and it's not the queen of the jungle. But they decided to call it that for looking like a lion in its larval state (does it?!). Any entomologist (insect specialist) will tell you that it has very veiny wings as an adult, and a mouth with long jaws to eat other insects.



Has a boar been through here? If you happen to hike on Rocha da Pedra or Cabeça Hill, for instance, see if you can find marks of its snout or trapezoidal footprints on the earth, made by the boar when it is looking for rhizomes or bulbs. If you see any of these, then a boar has absolutely walked on where you stand.

# Eurasian collared dove

Streptopelia decaocto

# Class AVES

#### Occurrence

throughout the region, especially in Sagres, in close proximity to wetlands and urban gardens

Class AMPHIBEANS

# Occurrence

wet zones, from ponds to streams, lagoons and artificial water surfaces Nobody would blame you if you mistook it for an owl because of its trisyllabic call (a kind of roo, roo, roo). But there's a catch: the owl sleeps by day to enchant at night, while the collared dove's routine is the other way around. On the other hand, it is easy to spot; the owl is more elusive. With a pale brown or brownish plumage, this bird became a neighbour to the inhabitants of the villages and towns of the Algarve.



Rana perezi

Frogs, toads, salamanders, tree frogs, these are all amphibians, animals that are bom in the water – like tadpoles, legless, breathing through gills – and end up living on land, after a metamorphosis gives them a nice pair of lungs and four legs to hop around. So what makes an Iberian green frog different from other amphibians? Its physical features, and the fact that it's the most abundant amphibian in our ponds, rivers and streams.





### Class BIRDS

Cicada barbara

OccUrrence Cape St. Vincent, Quinta do Lago, Vilamoura, Ludo and urban areas of Faro, Portimão and Silves, Caldeirão mountain range

# Cicada barbara in the co

# Class they to INSECTS The Occurrence and in the countryside, throughout the region

If you are a good tree climber, you will be lucky to see it, since this noisy insect shelters itself on top of them. During the hottest hours of the day, between June and October, it makes one hell of a racket, to the point of affecting the communication of birds. The sound of the cicada is produced by the vibration of special membranes – the tymbals.

# Common blackbird

# Turdus merula

"Unmistakable!", we'd say. With its black plumage and orange beak (in males), it's impossible to get it wrong. Noisy, it sings perched on the trees or on the rooftops and aerials of the city. Insectivorous – it eats insects, worms and berries–, it's a resident bird in the Algarve. Deolinda, a Portuguese music group, sing about how they have one, and how it's a rare finding and "of its feathers it makes/ beautiful poems/ to fall asleep to".

> Cicadas climb trees during mating season. That's also when they make noise (the males, to attract the females). The rest of the time, they are half buried in the ground or in small trunks





«You're always barefoot, Tom Sawyer/ Walking by the river, Tom Sawyer/ The adventure will give you what you want/ Many emotions/ Eternal loves». Or so goes the song by Francisco Ceia....Imagine yourself in Tom Sawyer's shoes, a character created by the American writer Mark Twain, and trek along the trails of the south with your own naked feet (or a bicycle). Four great routes, with miles upon miles to explore, is what we offer you. And if somewhere along the way it occurs to you that you're feeling happy, don't be surprised. The nature of the Algarve has the power to draw smiles, even from frogs.

Nature in the Algarve is... feeling tickling on the soles of your feet.





Length 300 kilometres Starting point Alcoutim (by the quay) Ending point Vila do Bispo (Cape St. Vicente)

+ Information www.viaalgarviana.org This is a Great Pedestrian Route because... it's really great, as in, big; almost like going from Faro to Lisbon without stopping. Think of it perhaps as an epic, a loooong 14-day poem of grandiose adventures in 11 municipalities of the Algarve, because that's how long you need to go from end to end: 14 days.

Before you roll your eyes at the thought of how much work that'll be, you can also just try a single day, in a single stage. Take as much time as you want to decide. But know that between stages you can take a break to take off your shoes (as long as they are not smelly), and cool your feet in the waters of a stream. The duration of the journey depends on your willpower alone.

Having said that, put on your hiking shoes and march through forests, hills and villages. *Dá de vaia* (that means, say "hello"!) to the locals and, before you know it, you'll be sitting at their table. Carry the Guadiana in your eye, along with wood stoves, windmills, norias, vegetable gardens, cork oaks, strawberry trees, orchids, mountains, streams, beaches. In your ears, carry the symphony of birds all around you. In your chest, carry a throbbing heart, for not wanting to miss any stage after completing the first.





# TRAIL 1 Pedra do Galo

TYPE Circular trail LENGTH 6,1 km DIFFICULTY Easy RECOMMENDED SEASON September to June

LOCATION Lagos



#### STARTING POINT

Intersection at the Mata Nacional de Barão de São João

#### DESCRIPTION

You're in one of the most typical rural villages of the county of Lagos (the traditional one-story houses with their Algarvian chimney are a dead give-away). From there you will continue to the Mata Nacional de Barão de São João, where you can open your picnic basket and stuff your belly with food. Always climbing up, you'll find modern-day windmills, which produce electricity instead of grinding grain. Shortly afterwards, you'll come face to face with the "Pedra do Galo" (Rooster's Stone), the Paleolithic menhir which gives the trail its name. Put your ear to the stone. Do you hear the rooster crowing?

#### FAUNA

Robin, Sardinian Warbler, European Greenfinch. Pay close attention, and you'll be able to spot the "tracks" left by wild boars who live in the area and search for food when the sun goes down.

### FLORA

Pine trees, strawberry trees, heathers and even some exotic (eucalyptus) or invasive (acacias) species.

## + INFORMATION

http://www.viaalgarviana.org/index.php/the-track/ pequenas-rotas/pr1-lgs-pedra-do-galo/

# At the whin of the tide

TYPE Circular trail LENGTH 4,7 km DIFFICULTY Easy RECOMMENDED SEASON September to May LOCATION Portimão



### STARTING POINT Alvor fishing harbour

## DESCRIPTION

You'll start at the fishing harbour, but the scene quickly changes to the beach (which will make you rub your hands in contentment, no doubt). You'll walk along a walkway which goes all the way around the Ria de Alvor, then along the sands of Alvor beach, and then up the walkway again over the dunes, at the whim of the wind and tides. And so you'll understand, being as smart as you are, the importance of the dune system and of this ria, listed under the Ramsar Convention.

### FAUNA

In the dunes: birds - little tern, kentish plover, common kestrel, common crested lark, European greenfinch, European goldfinch; reptiles – ocellated lizard, Montpellier snake; mammals – European hedgehog, wild rabbit, fox. In the salt marshes: great egret, kentish plover, dunlin; whimbrel, common redshank.

In the estuary: **birds** – sanderling, oystercatcher, great cormorant, little egret, little tern; **fish** – seabream, gilt-head bream, seabass, flounder; **mammals** - otter.

# FLORA

In the dunes: eryngo, sand couch, sea daffodil, European beachgrass.

In the salt marshes: small cordgrass and glasswort (submersed during the high tide); rushes and grasses (in higher grounds); cistanche.

## + INFORMATION

http://www.viaalgarviana.org/index.php/the-track/ pequenas-rotas/pr2-ptm-ao-sabor-da-mare/

# TRAIL 3 São Bartolomeu de Messines cultural trail

### TYPE

Circular trail

LENGTH

DIFFICULTY

Somewhat difficult

RECOMMENDED SEASON October to May

LOCATION Silves

# STARTING POINT

Next to the São Bartolomeu de Messines primary school

### DESCRIPTION

At the foot of the Caldeirão mountain range lies the village of São Bartolomeu de Messines. There's a lot to see there. How much is "a lot", you ask? Well, for starters, a hill of the Penedo Grande, chock-full of grés-de-Silves (you already know this rock, don't you?), two rivers (Gavião and Arade), a dam (Funcho), a hill of Agulha, and the cool and narrow streets of the village, with a lot of heritage for you to visit. Satisfied?

# CULTURAL HERITAGE

Parish Church of São Bartolomeu de Messines, hermitage of São Sebastião, hermitage of São Pedro, hermitage of Sant'Ana, House-Museum João de Deus, Museum of Costume and Traditions.

## + INFORMATION

http://www.viaalgarviana.org/index.php/the-track/ pequenas-rotas/pr1-slv-s-b-messines/ Nature in the Algarve is... travelling to a separate planet, all yours!

# Ecovia do Litoral/ Eurovelo 1

# Length 214 km Starting point

Vila do Bispo

Ending point Vila Real de Santo António

+ Information http://euroveloportugal. com/pt/route/eurovelo-l There's no trail like this one! The ECOvia is ECOlogical, constantly smelling of sea and seagulls as it runs along the coast of the Algarve. And it's for you, if you're one of those people who can't even sleep without their bike on the pillow next to them, snoring tires and roller chains all night.

Well then, you and your inseparable bike will journey through 12 municipalities. The idea is for you to sit in the saddle and follow the speed of your own legs down this corridor, waving to the animals and people as you pass them by. In villages, cities and areas of pristine and preserved nature you'll collect emotions like album stickers: Imagine yourself, happy, hair in the wind. Imagine yourself as the sun sets on the horizon. Imagine yourself delighted as you take a selfie at the wheel of your "wheels".

Do you want the huge cherry on top of the cake? Ecovia is part of the European Atlantic route EuroVelo 1, which means that if, you get excited, you can simply continue to pedal across the European continent, singing I want to ride my bicycle, I want to ride my bike, Freddie Mercury-style \*.

\* lead singer of one of the most famous rock bands of all time: Queen.





# TRAIL 1 Over curves and salt ponds

# TYPE

Linear trail

LENGTH 9,8 km DIFFICULTY

Easy

RECOMMENDED SEASON September to June

LOCATION Tavira, Olhão



# STARTING POINT

Luz de Tavira – Fuzeta

# DESCRIPTION

Salt ponds, dunes and salt marshes snake along this trail (no wonder these words have so many S's in them). You too will also snake along with your bike, without making noise, because there are birds around these parts that don't enjoy being disturbed. From Luz de Tavira to the village of Fuzeta it's only a short hop. But before you take your helmet off your head, you'll want to try the fish. *Móce*, as they'll call you here, you're in a land of fishermen!

# FAUNA

Little egret, lark, azure-winged magpie, dartford warbler, bee-eater.

# FLORA

Small cordgrass.

# CURIOSITIES

Salt ponds, flower of salt, cooper *cataplana*, oysters, clams, razor clams and other bivalves.

Did you know that Tavira is the "capital" of the Mediterranean Diet?

# + INFORMATION

https://euroveloportugal.com/pt/route/eurovelo-1/ seccao-01



TYPE Linear trail LENGTH IO,9 km DIFFICULTY Easy RECOMMENDED SEASON September to June LOCATION

Faro, Loulé



Parque Ribeirinho de Faro - Quinta do Lago

# DESCRIPTION

You are in Faro, so go on and pass through the historic city centre. And only after seeing the Arco da Vila, the Cathedral and the Museum will you have green light to start pedalling on this trail that starts next to the Teatro das Figuras. Assuming you're not too tired of seeing salt ponds and salt marshes, you'll find both of them here, too, with two extras: 1) the fiddler crabs raking the silt with their thick claws and 2) a golf course where you'll see the ball land on the green. Fooore!

# FAUNA

Kentish plover, little tern, little egret, diver, white stork.

# FLORA

Small cordgrass, sea thrift, pine, glasswort.

# CURIOSITIES

Riverside park, Faro beach, Ludo salt ponds, bird watching at Quinta do Lago and Quinta do Lago beach.

# + INFORMATION

https://euroveloportugal.com/pt/route/eurovelo-1/ seccao-01

# TRAIL 3 from beach to beach along Vilamoura's bicycle paths

### TYPE

Linear trail

LENGTH 7 km

DIFFICULTY

Average

RECOMMENDED SEASON September to June

LOCATION Loulé, Albufeira

# STARTING POINT

Quarteira beach – East Rocha Baixinha beach

## DESCRIPTION

It is only a few hours from Quarteira to Albufeira, and you wish you'd have a plane (you have your bike) to just go there more often. We're basically singing the classic song "Maria" by Xutos & Pontapés as you ride along this trail (look it up) that will take to some of the Algarve's best-known beaches and a marina as big as the stars: the marina of Vilamoura. Shall we go?

## FAUNA

Birds: gull, azure-winged magpie, nightingale, kingfisher, mallard, great cormorant, purple heron. Sweetwater fish: eels and mullets.

## FLORA

Various tree and decorative plant species.

## CURIOSITIES

Dune's Walk; Vilamoura Environmental Park; Vilamoura reed beds.

## + INFORMATION

https://euroveloportugal.com/pt/route/eurovelo-1/ seccao-02 Nature in the Algarve is... spinning yourself dizzy like a windmill.

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# Great Guadiana Route

# Length 65 km Starting point Vila Real de Santo António Ending point Alcoutim

+ Information www.baixoguadiana.com The Guadiana is king in this route. Going up this river (by the way, and to put some wind in your sails for the trip, listen to the album **Por este rio acima**, by the Portuguese singer and composer Fausto Bordalo Dias), you will pass through three municipalities of the far east of the Algarve. Here you will court the ladies (*Corte das Donas*), you'll call up the warriors of the river (*Guerreiros do Rio*) and climb the *Montinho das Laranjeiras* – all names of places to tick on the map after you get to know them.

Are there any historical villages here with "hi-story-cal" tales to tell? Yes indeed. And lost villages for you to find with a magnifying glass? Yes as well. There's an Enlightenment town, too, Vila Real de Santo António, which doesn't mean exactly that it'll be loaded with lit lamps spending Watts and Watts of electricity.

Of the four routes of the Algarve, this one's the shortest. But get ready to rush and use some of the 31.7 million seconds you have in a year, because you'll feel the urge to defend the castles, to plunder the secrets of museums, to submerge like a submarine on a river beach and to fill, fill, FILL your lungs with as much fresh air as you can get, (almost) always with the great river of the South rushing close by.



# TRAIL 1 Guadiana in sight

TYPE Linear trail

10,3 km

DIFFICULTY

Average

RECOMMENDED SEASON October to May

LOCATION Castro Marim STARTING POINT Azinhal - Alcaria

## DESCRIPTION

Here you can visit typical villages. At Azinhal, try the fresh Algarvian goat cheese in the Queijaria and also the sweet, sweet traditional confections. Keep going until you reach a golden alma – the picturesque Almada d'Ouro village. From here to Alcaria, you have magnificent views over the Guadiana to enjoy.

# FAUNA

Partridge, great egret, lark, azure-winged magpie, Dartford warbler, bee-eater.

# FLORA

Cistus, lavender, rosemary, holm oak, olive tree, carob tree, mulberry tree, cork oak, stone pine, mastic tree.

# CURIOSITIES

Traditional bobbin lace; Algarvian goat cheese; Mata Nacional Terras da Ordem; old windmill.

# + INFORMATION

http://baixoguadiana.com/cultura-desporto-lazer/ percursos/gr-15-grande-rota-do-guadiana/

# TRAIL 2 Side by side with the Guadiana

TYPE Linear trail LENGTH 5.5 km DIFFICULTY Easy RECOMMENDED SEASON October to May

LOCATION Alcoutim

# STARTING POINT - DESTINATION

Corte das Donas - Montinho das Laranjeiras

# DESCRIPTION

Side by side, almost swimming with the Guadiana. That's how you do this trail. Take your time to see the river's typical flora and fauna, but also its fish community. At the Museu do Rio learn about traditional fishing techniques and about the smuggling that used to happen at the border.

# FAUNA

Partridge, lark, azure-winged magpie, wild rabbit.

# FLORA

Gorse, lavender, cistus, rosemary, holm oak, olive tree, carob tree. almond tree.

# CURIOSITIES

Museu do Rio; Núcleo Museológico do Montinho das Laranjeiras; old windmill.

## + INFORMATION

http://baixoguadiana.com/cultura-desporto-lazer/ percursos/gr-15-grande-rota-do-guadiana/



# LENGTH

# TRAIL 3 The raia across borders

TYPE Linear trail

LENGTH 4,7 km DIFFICULTY Easy RECOMMENDED

SEASON October to May

LOCATION Alcoutim STARTING POINT - DESTINATION Marmeleiro-Alcoutim

#### DESCRIPTION

It's time to get to know the sister towns united by the Guadiana: Alcoutim in Portugal and Sanlúcar de Guadiana in Spain. If you hike this trail in March, be sure to visit the Festival do Contrabando, during which a pedestrian bridge over the river connects the two banks. For an adrenaline rush, try a cross-border zip line at 70 kilometres per hour!

#### FAUNA

Wild rabbit, partridge, boar, lark, Dartford warbler, bee-eater.

### FLORA

Cistus, lavender, holm oak, olive tree, stone pine, eucalyptus, riverside vegetation (oleander, silver poplar, ash).

## CURIOSITIES

Historical village of Alcoutim; village of Sanlúcar de Guadiana; river beach; Alcoutim Castle; Archaeological Museum; cross-border zip line (http://www.limitezero. com/en/).

### + INFORMATION

http://baixoguadiana.com/cultura-desporto-lazer/ percursos/gr-15-grande-rota-do-guadiana/ Nature in the Algarve is... a goldfinch flapping its wings.

# Rota Vicentina

# Length 740 km Starting point Lagos (Algarve)

Ending point Santiago do Cacém (Alentejo)

+ Information www.rotavicentina.com Start it where we tell you it ends. No, wait. End it where we tell you it starts. Wow, what a mess! Do whatever you want, as long as you keep in mind that you can go from the Algarve to the Alentejo or from there to the Algarve in this network of 49 hiking trails that seems woven by the skilful legs of a spider.

Are you a fan of heights? We're sure you'll be jumping for joy – *poing-poing-poing* (no you won't; keep your feet on the ground, jumping is dangerous) on the Fisherman's Trail. With the sea invading your eyes and nostrils, you will walk along cliffs where hawks nest, along paths just a little wider than your thin body, carved by fishermen as they headed towards their fishing spots, several metres high.

Fine, you prefer legends, discovering villages and hamlets, have a bit of a chinwag with the affable locals and hear goats and sheep bleating at their shepherds. Then the **Historical Path** is the most appropriate for you.

But if you make it a point of going around like a Mobius strip, starting in one point and returning to it, you can go through the **24 circular trails** of this project, which is part of the South West Alentejo and Vicentine Coast Natural Park, one of the best-preserved coastal areas of southern Europe (according to experts; we're parroting it).





(or the bes

KEY
Circular trails
Historic trails
Fishermen trails

# TRAIL 1 Endiabrada and the hidden lakes

#### TYPE

Circular trail

LENGTH 7 km

DIFFICULTY Somewhat hard

RECOMMENDED SEASON September to June

LOCATION Aljezur

#### STARTING POINT

Largo da Bordeira (in the stretch which coincides with the Historical Path, towards Arrifana).

#### DESCRIPTION

You'll start and finish your hike in the village of Bordeira, where it would be a shame if you did not enjoy a walk through its narrow streets, stopped at the local cafe (to eat a traditional *pirulito* lollipop?) and entered the small and charming church of Nossa Senhora da Encarnação, built in 1746. The altarpiece is made of Baroque gilded wood, with regional motifs of the Algarve.

#### FAUNA

Look at the tracks on the side of the road, made by mammals, very active around these parts during nighttime. On these tracks you will find footprints or (stinking) faeces of the animals that use them: wild boars, foxes, Egyptian mongooses, badgers, beech marten and genet.

## FLORA

Aromatic plants such as the mastic tree, lavender, cistus and the *Helichrysum stoechas*. Other common shrubs are the dwarf gorse, the kermes oak, the arbutus, the lentisc, the purple phlomis and the sea squill. Along the riverside you'll find tamarisk, willows, laurestine and the cork oak.

## TAKE NOTE

This trail has two versions: one of 7 and one of 16 kilometres. To go for the shortest, follow the yellow and red signs around Samouqueira, at kilometre 3,7.

### + INFORMATION

http://pt.rotavicentina.com/etapa-endiabrada-e-oslagos-escondidos-2786.html

# TRAIL 2 Aljezur-Arrifana historical path

TYPE Linear trail LENGTH 12 km DIFFICULTY Easy RECOMMENDED SEASON September to June LOCATION

Aljezur

# STARTING POINT

In Aljezur: next to the market, going towards the municipal museum, where you then turn left, go around the church on the right and down to the dirt road, turning left again.

In Arrifana: next to the parking lot at the top of Arrifana beach, following the asphalt road, towards Vale da Telha and Aljezur, until you enter the dirt road, turning left.

# DESCRIPTION

Streams cut across these fields. Butterflies rival flowers during the colourful springtime. And you'll skip and jump around like birds in a field of sweet potatoes, the legendary castle of Aljezur (one of the seven represented on the flag of Portugal) and the river valley of Aljezur, which will make you imagine what Aljezur would've been like in the 15<sup>th</sup> century, when the whole valley was navigable.

## FAUNA

Aljezur's local communities have lived in harmony with nature. The result of this relationship is a very diverse stage of agricultural landscape when it comes to insects, birds, amphibians and mammals.

## FLORA

Before you get close to the coast, you'll cross mountainous areas covered in eucalyptus. Educational moment: this is the tree where paper comes from, and therefore it is grown more and more. But the eucalyptus diminishes biodiversity, both above and below ground; it spends enormous amounts of water, contributes to soil erosion and leads to the depletion of mineral nutrients. Lesson learned?

### + INFORMATION

http://pt.rotavicentina.com/etapa-aljezur-arrifana-2. html

# TRAIL 3 Luz-Lagos fishermen's trail

TYPE Linear trail LENGTH II km DIFFICULTY Easy RECOMMENDED SEASON

September to June

LOCATION Lagos

## STARTING POINT Luz beach

## DESCRIPTION

Between Luz beach and Lagos, the rocks will walk with you to tell you curious stories. You'll feel torn between the blue of the sea and the aromatic green of the Mediterranean vegetation, but the stones will speak louder. The white limestone will contrast with the blackness of the volcanic rocks. And the organised geometry of all the different strata will contrast with the unexpected shapes sculpted by erosion.

### FAUNA

The stone bass is one of the most important fishes around. You'll never look one in the eyes. However, we want you to know that it makes loud grunts generated by the abdominal muscles in its swim bladder wall. This makes it a "grunting fish", a very useful sound for the fishermen trying to catch it.

## GEOLOGY

In the cliffs between Luz beach and the tip of Piedade there's a rich sequence of information about a period of the Earth's history called the Mid-Cretaceous, just before the mass extinction of the dinosaurs.

+ INFORMATION http://pt.rotavicentina.com



You have naturalist superpowers hidden inside you. Your very first mission will be to rehearse your own Tarzan yell to rescue them. Only with them can you overcome the following challenges. Even though you have no villains to face, your heart will beat a thousand beats a minute in the open air – we promise as Algarvians! You will journey across three natural elements – air, water and earth – in 16 superhero-worthy experiences. Get your senses sharp and clear, this Algarve is for those without fear. Oh look, it rhymed!

# float like soap bubbles

Municipality Castro Marim Starting point Salina da Barquinha Type of mission Interpretative swimming

In the only saline spa in the Algarve, in the heart of the Salt Marsh Natural Reserve of Castro Marim and Vila Real de Santo António, even the heaviest elephant is able to stay afloat. Take your clothes off and get wet: the strong concentration of mineral salts will make you float effortlessly, just like a ball of soap. *Bloc*!

1. After your saltwater bath, choose 5 words which describe how you felt.

# Surfin' Alzarve

Municipality Portimão Starting point Rocha beach Type of mission Surf 2 Mission

Aloha! Get yourself ready: put on your surfing suit, get that board under your arm, run your hand through your hair and run to the sea of the famous Rocha beach.

- 1. Between a few gulps of seawater and a lot of fun, try to stand balanced on the board.
- 2. Every time you avoid falling you win 10 points.

How many points have you finished the mission with?\_\_\_\_\_

# Snorkeling (bless you!) in the Alzarve



Municipality Olhão Starting point Armona Island Type of mission Snorkeling Necessary materials Swimming goggles, tube, flippers

The island of Armona has warm and crystalline waters, with a very rich ecosystem. One way of looking at the bottom of the sea without scaring away the fish or flapping around too much is snorkelling, a type of diving that does away with the heavy equipment of scuba diving.

1. What do you see under the water? Write down what impressed you most.

# I'm a Conquistador!

Municipality Lagos Starting point Lagos Ciència Viva Science Centre Type of mission Scientific field trip



At the Ciência Viva Centre of Lagos you'll be a navigator sailing towards great discoveries, and a real Conquistador of incredible activities!

- 1. Learn to use an astrolabe in the exhibition "From the astrolabe to the GPS".
- 2. In the "Life on Board" room, see for yourself how hard it was to row a galley in the fifteenth century.
- 3. In the Lightouse Garden, keep the lighthouse... lit.

# Natural treasure hunt

Municipality Lagoa Starting point Benagil beach Type of mission Boat ride



Shhh... This is a secret mission on the waters of Southwest Algarve.

- 1. Go to the cave of Benagil.
- 2. At the entrance of the cave, utter the magic words: *Open, Sesame!* Your voice will echo on the walls and you'll instantly be facing the greatest natural treasure of the Algarve.
- 3. When you leave, don't forget to close the cave with the magic words: *Close, Sesame*!
- 4. Draw the treasure you found. Was it made of pearls and rubies?

# Natural quiz

Municipality São Brás de Alportel Starting point Fonte Férrea Type of mission Interpretative field trip



How to have a healthy mind in a healthy body? It's easy, little reader. By playing this quiz.

- 1. **Mini-level question:** to get to the Fonte Férrea and the challenge overcome, through the mountain's trees you'll have to pass, and only then you will be done. What mountain are we talking about?
- 2. Medium-level question: for fauna and flora to get to know, a Great Route you'll have to follow. What route are we talking about?

3. Super-level question: for this guiz to win, two types of birds you must spot. The name of one starts with "T", and six letters it does have; the other starts with "D" and has four letters (and none of them with a dot!). What birds are we talking about?



Starting point Tavira Ciência Viva Science Centre Type of mission Field trip with a bike tour

There's a lot of positive energy in the air at Tavira's Ciência Viva Science Centre. Catch the buzz and let yourself be enlightened by knowledge.

- 1. Pedal on a gym bike and make a wind generator spin.
- 2. Pedal on another gym bike and light the floodlights on a football field.
- 3. Now cycle away from the centre to visit the charming town of Tavira, following the curve of the river Gilão.

# Rowing is growing!

MUNICIPALITY Alcoutim Starting point Cais de Alcoutim Type of mission Kayaking tour



You know that song, "Row, row, row your boat"? Sing it while going up or down the Guadiana river in this kayak experience, which depends entirely on the strength of your arms (and whether or not you have eaten spinach at lunch).

- 1. Near the river bed, enjoy the most common birds around singing just for you.
- 2. Say goodbye to the fresh-water sailors you meet along the way.
- 3. And ... simply enjoy the beauty of this little corner of the Algarve.

# Dive into science

MUNICIPALITY Foro Starting point Algarve Ciência Viva Science Centre Type of mission Scientific field trip



You're like an island: you are surrounded by water on all sides. Because water will be all around you, with an acrobatic scientific dive in the first Ciência Viva Science Centre of the country, located right by the Ria Formosa.

- 1. Learn how the oceans evolved, from Pantalassa to the current oceans.
- 2. Discover a seahorse in an aquarium in the centre.
- 3. Touch the inhabitants of the "apalpário" and feel their different shapes and textures.
- 4. Before you leave, check the time on the sundial of the traditional roof terrace (açoteia).

# Paint with the colours of the earth

Municipality Silves Starting point Penedo Grande hill, in São Bartolomeu de Messines Type of mission Interpretative trip Necessary materials Small bags for samples, fine gauze, mortar, palette, small spatula, olive oil, transparent glue, watercolour paper, brushes



You have two special veins in your body: the vein of Picasso (painter) and a vein of a petrologist (a rock specialist). Put the two together to reveal the secrets of the colours of the past and to draw - from the rocks - the landscapes of Penedo Grande.

[continues in the next page]

- 1. Collect small samples of rocks and dirt during the trip.
- 2. When you've gathered some different shades of *grés*, keep them in your bags.
- 3. At home, crush the samples with the mortar and pestle and grind them to dust.
- 3. Filter the powder with the gauze and store it again.
- 4. Separate the tonalities in the palette, adding a few drops of olive oil and a drop of glue to each. Mix everything well with the spatula. *Voilá*! Here are your own natural paints!
- 5. At the end, make a painting with the colours of the earth.

# My name is Detective. Jurassic Detective.

Municipality Vila do Bispo Starting point Salema beach Type of mission Interpretative trip



Wipe the dust off your hat, your mackintosh, and your magnifying glass. A self-respecting detective is always ready to put them to use. Don't make a sound, or you'll wake the giant dinosaurs, because although it is claimed that they disappeared millions of years ago there's always hope that we might see them passing by...

Find the footprints of carnivorous biped dinosaurs in the "eastern" deposit.
 Find the footprints of an herbivorous dinosaur in the "western" deposit.

- 2. The die poolphiles of all herbivorous allosadi in the western
- 3. Draw the footprints you saw in your notebook.

Hey, did you just hear a roar??

# ferfurned donkey ride

Municipality Aljezur Starting point Carriagem beach Type of mission Donkey ride



Have you ever ridden a donkey? That's what this mission asks of you. Pet it, braid its short mane, climb onto its back and travel at the pace of this placid four-legged friend. His calm demeanour will be useful to you.

1. Along the way, you will have to find three aromatic plants: cistus, *thymus camphoratus*, *Helichrysum stoechas*. But pay attention! You need to search for them with your eyes closed, with only the aid of your nose. *Hmmm, that smells so good!* – this is the sign that will alert you to their presence.

# follow the otter's clues

Municipality Loulé Starting point Fonte da Benémola Type of mission Mammal watching

The playful otter moves almost always in the dark of night and seldom lets itself be seen (though it sees you). So instead of looking for it, you're going to follow its clues in nature, okay? With a bit of luck- and a keen sense of smell - you might even spot one in the distance.



- 1. Are there footprints along the water's edge? The otter's footprint has five toes and a pad.
- 2. Do you see any faeces on top of the rocks of the river? The otter "deposits" them there in little mounds to mark its territory. In the middle of the mounds are shells of chewed crawfish, the main diet of the otter on the Algarve's banks.

# BBC Wildlife



Municipality Albufeira Starting point Salgados beach Type of mission Bird watching Necessary materials Binoculars

Make an incredible journey to the secret world of birds, where you'll see the most beautiful and rare species in a paradise for the curious and the adventurous.

- 1. Walk along the walkways of Salgados beach, heading west.
- 2. When you arrive at Salgados lagoon, watch your surroundings closely.
- 3. Can you find the mallard? And the domestic duck?

# Knock on the chameleon's door



Municipality Vila Real de Santo António Starting point Mata Nacional das Dunas Litorais Type of mission Reptile watching

Knock-knock. Who's there? It's you, visiting the chameleon.

In this forest lives a large population of these delicate reptiles, and your mission is to spot them in (and not take them from) their natural habitat.

1. What colour were the chameleons you found? Just green?

# One, two, eight monumental trees

Municipality Monchique Starting point Monchique Tourist Office (São Sebastião square) Type of mission Hike Necessary materials Map of the town (ask for it in the Tourist Office), notebook, pencils and mathematical superpowers

The monumental trees are very old, very large and usually very rare, set apart from other specimens of the same species. They are living monuments, made of roots, trunks, side branches and canopy. Your goal is to find them, add them and name them in this short circuit through the town of Monchique.

1. Look for the signs of the Via Algarviana.

- 2. With the help of your map, visit the following points marked by the Via: Tourist Office, Quinta da Vila and Pools, Firemen, Health Centre, Social Security, Convent, Church of São Sebastião.
- 3. How many monumental trees can you count? Write their names in your notebook.

 $\mathbf{Mission}$  6: 1. Caldeirão | 2. Via Algarviana | 3. Common blackbird and Eurasian collared dove

Missin

<sup>2.</sup> What were they doing? Were they walking? Sleeping? Or were they sunbathing?





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### Silves

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# Alte

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