

YOUTH
EXCHANGE
D O S S I E R



**PROTECTED AREAS:
A PLAYGROUND FOR THE INCLUSION
OF YOUNG PEOPLE**



PROTECTED AREAS: A PLAYGROUND FOR THE INCLUSION OF YOUNG PEOPLE

Outcomes of the Youth Exchange realised in Roseto degli Abruzzi (Abruzzo, Italy) from 16 till 25 September 2024

Project realised by
ARCI Chieti and Istituto Abruzzese per le Aree Protette



In cooperation with



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per la Gioventù

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INTRO

One of the results of the strong economic and social crisis that are affecting all Europe is that more and more young citizens are living in a condition of mistrust in the future increasing marginalisation and disregard for the society. In this framework, Nature can serve as a fruitful “playground” in which to stimulate young people’s practical activities in order to increase their opportunities for citizenship, community inclusion and active involvement. For this reason, in the last few years we focused big part of our work in supporting the development of all kind of protected areas in the Abruzzo Region starting and/or consolidating interaction paths between the Natural Capital and young people by developing with them a set of good practices, modules and learning/working tools linking various aspects of Sustainable Development. The general aim of this 3 years activities is to realize an educational, cognitive, training and experiential path able to promote sustainable, inclusive and participatory development of young people and local communities.

Main idea is to interact with 4 Nature Reserves and 2 National Parks in order to ensure the active involvement of young people in the management of protected areas under an infrastructural (signposting for routes, information panels, gardening, beekeeping), educational (manuals, dossiers, modules, dynamics) and communicative (audio-visual and graphic products, social media) point of views involving in this process the whole local communities and its different stakeholders (youth and youth organisations, municipalities, social enterprises, schools, environmental NGOs and Institutes, etc.). During the whole process, seven different activities (from Seminars to Youth Exchanges) will take place both in Abruzzo and abroad involving directly almost 200 participants and 10 countries (Italy, United Kingdom, Bulgaria, Bosnia and Herzegovina, Albania, Romania, Slovak Republic, Spain, Serbia, Portugal) in order to achieve the several goals planned (e.g. to learn technical skills, increase eco life styles and responsible behavior, develop critical thinking and new educational modules, support local community and Protected Areas).

The project is realised within the Erasmus+ Programme of the European Commission and the Agenzia Italiana per la Gioventù with the support of the Abruzzo Institute of Protected Areas.



THE YOUTH EXCHANGE

The Youth Exchange took place on the Adriatic coast of Abruzzo Region, in the community of Roseto degli Abruzzi nearby the Regional Nature Reserve “Borsacchio” (www.guidedellariservaborsacchio.it/), where dune system and green cliffs have been our main landscape. To the Youth Exchange participated 37 young people coming from Italy, Albania, Portugal, Bosnia Herzegovina, Bulgaria, Slovak Republic and United Kingdom. The overall aim of the project was to give directly to young people the opportunity to be actively involved in the management of a protected area under an infrastructural, educational and communicative point of views. Consequently, participants acquired new competences, skills and methodologies through an educational path in direct contact with the Nature and the Roseto surrounding areas thanks to the development of Non Formal Education methods.



To achieve these goals, core part of the educational path during the Youth Exchange has been represented by both practical activities and workshops: during first couple of days, participants realised, guided by the team of “Borsacchio”, some practical activities of maintenance able to let the group discover and observe the Nature Reserve; during last couple of days, 3 environmental practical workshops (Environmental Educational Path, Tutorials and Communication, Visual identity of the Nature Reserve) have been settled in order to improve a sustainable community development and enounce their full citizenship. In order to make explicit the skills acquired within the practical workshops, a specific moment of sharing with the local community of the educational path and its results has been realised in Roseto with the participation of the Mayor of Roseto degli Abruzzi, the volunteers and educators of the Association “Guide del Borsacchio”, the representatives of the Abruzzo Institute for Protected Areas, other local associations and a good representation of citizens and in particular of young people of Roseto. Moreover, in couple of specific working sessions, it was established a set of possibilities on how to exploit knowledge and competences acquired in local and international contexts.

International partners of the youth exchange were:

ARCI Chieti (Italy)

Urban Organic CIC (United Kingdom)

Estestvoizpitateli (Bulgaria)

Zdravo da Ste and Center for Environment (Bosnia and Herzegovina)

EDEN Centre (Albania)

Environmental Education Center Dropie (Slovak Republic)

Aventura Marao Clube (Portugal)

Enjoy your reading!



THE REGIONAL NATURE RESERVE

“BORSACCHIO”

The Borsacchio Regional Nature Reserve is located in Roseto degli Abruzzi, in the province of Teramo, and currently extends over an area of 25 hectares, following a re-organisation that significantly reduced the protected area compared to its original establishment. The Reserve, established in 2005, initially had an extension of 1,100 hectares between the Adriatic coast and the surrounding hills. Its main objective was to protect an environment of great ecological value, characterised by sand dunes, wetlands, agricultural fields and Mediterranean scrub. Over the years, several discussions and boundary revisions followed, leading to the reduction of the protected area. The history of the reserve is marked by environmentalist battles and the constant commitment of local associations to the conservation of biodiversity and the enhancement of the area.



The Borsacchio Reserve is home to a rich variety of plant species, many of which are typical of coastal ecosystems. Among the most representative species are the Sea Lily (*Pancratium maritimum*), a plant characteristic of sandy dunes, Helichrysum (*Helichrysum italicum*), with its characteristic intense scent, Broom (*Spartium junceum*), which colours the hillsides yellow in spring, Tamerice (*Tamarix gallica*), important for stabilising coastal soil, and Salicornia (*Salicornia europaea*), which grows in wet and brackish areas. Thanks to the variety of its environments, the Reserve is home to numerous animal species, including the Kentish Plover (*Charadrius alexandrinus*), a small wader symbol of the Reserve and at risk of extinction, the *Caretta caretta* sea turtle, which has chosen the Reserve's beach for nesting, the Fox (*Vulpes vulpes*) which finds refuge among the hills and vegetation, the Porcupine (*Hystrix cristata*), a nocturnal rodent that roams the wooded areas, the Grey Heron (*Ardea cinerea*), which can be observed in the wetlands during migration, and the Common Tern (*Sterna hirundo*), which nests along the coast.

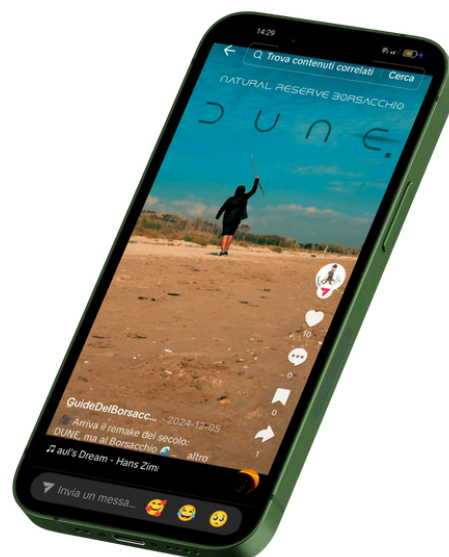
Guide del Borsacchio association is a group of volunteers committed to the protection and enhancement of the Reserve. They organise excursions, environmental education activities and awareness-raising campaigns for the protection of the local flora and fauna. In addition, they manually clean the beaches to preserve the ecosystem and collaborate with organisations and associations to promote biodiversity conservation. Thanks to their efforts, the Borsacchio Reserve is now a place of great natural and cultural interest, open to all those who want to discover and respect nature.



OUTCOMES FROM THE

WORKSHOPS

During six working sessions, 3 environmental practical workshops (Environmental Educational Path, Tutorials and Communication, Visual identity of the Nature Reserve) have been developed in order to acquire new competences, skills and methodologies through an educational path in direct contact with the Nature and the Roseto surrounding areas in which to use Non Formal Education methods. Having the Natural Capital as perfect playground and using Non Formal Education methodologies and approaches, the workshops developed their educational path realising several outcomes and results in terms of educational modules, communication products and infrastructural artefacts able to improve the quality and efficiency of the activities carry out by each partner in the different communities involved.



ENVIRONMENTAL EDUCATIONAL PATH

Facilitator: Branislav Ristic





INTRO

The Environmental Educational Path (the EEP) is a route in natural areas that is equipped with interactive educational dynamics and different types of activities. The workshop used an already existing path and settle it with games and exercises in order to sensitize kids and young people to a more sustainable and healthy lifestyle, to develop new approaches about natural resources and to create an opportunity to improve the inclusion and participation of the local community. The EEP exploited to the optimum the present natural and cultural resources at the venue, developing activities associated with different aspects of the area and the natural ecosystem services there, and their connection to mankind.



OUTCOMES

Hiking Guide

Total lenght: 6.06 km

Total average time: 2h

Difficulty: T

(basic hiking knowledge/ no basic training needed)

Water needed: Summer 1,5 l

Winter 1l



Gran Sasso e Monti



Cantina Mazzarosa Devincenzi

Beach

1st CheckPoint

-Cantina Mazzarosa Devincenzi

The farm and winery cover 540 hectares (about 1,334 acres), with 37 hectares (92 acres) of vineyard. They grow local Abruzzo grape varieties such as Montepulciano, Trebbiano, and Sangiovese, along with international varieties like Cabernet Sauvignon and Merlot.

1km from the start to the winery.

Total time : 15 mins

Difficulty: Easy

Simple path for those who want to go to winery.



Game to play!!!



Next checkpoint: Distance: 1.19 km Difficulty: intermediate

Height difference: 95m Time: 25 mins

2nd CheckPoint

-Il Pozzo

Home to the Apennines' Highest Peak: The Gran Sasso d'Italia, located in Abruzzo, is the highest mountain in the Apennines, reaching 2,912 meters.



Game to play!!!



Next checkpoint: Difficulty: easy Distance: 0.72 km

Height difference: 22m Time: 15 mins Height: 113 m

3rd CheckPoint -Colle Magnone



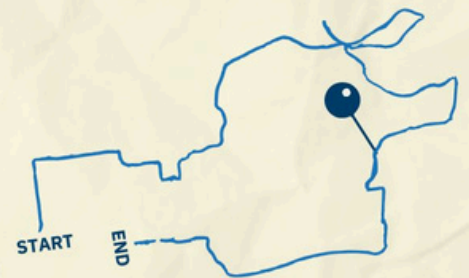
Colle Magnone is a mountain located in the Abruzzo region of central Italy, known for its rugged landscapes and natural beauty. The mountain is part of the Apennine range and is a lesser-known peak compared to some of the more famous mountains in the region, such as Gran Sasso.

Game to play!!!



Next checkpoint: Distance **1 km** Difficulty **easy**
Time **25 mins**

4th CheckPoint - Olivo Monumentale



Protected areas are crucial for conserving biodiversity, preserving ecosystems, and safeguarding endangered species. They help maintain natural resources, combat climate change, and support sustainable livelihoods, including eco-tourism. These areas also protect water sources, prevent habitat loss, and contribute to overall environmental health and resilience.

Game to play!!!

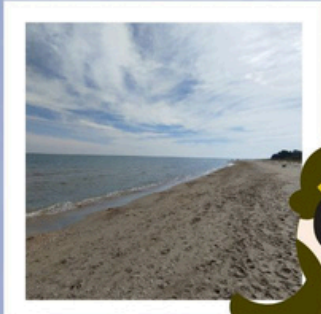


Fauna **Olive**

Next checkpoint: Difficulty **easy**
Distance **1 km** Time **15 mins**

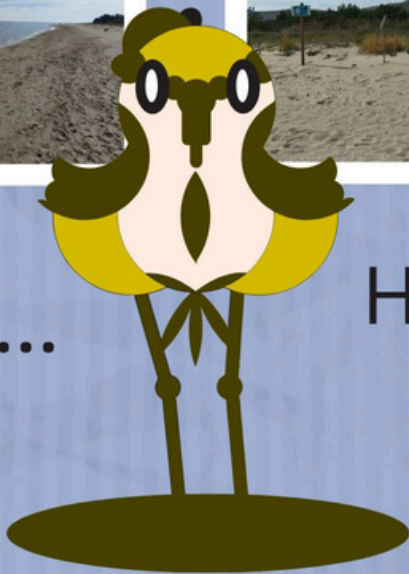
5th CheckPoint

- Dune system (beach)



This
is ...

My
Home



Game to play!!!



Fratino is the most iconic species in the area of Borsacchio. The Fratino is a small shorebird weighing only about 35 grams, can migrate thousands of kilometers between breeding and wintering grounds.

To the end: Distance: 0,51 km
Time 10 mins

“Protected Areas: a playground for the inclusion of young people” Roseto degli Abruzzi (Italy) – 16th – 25th September

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Done by: Alice Caprari, Bruno Mancik & Andrija Cvetkovic



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Erasmus+



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Picking Shells

ACTIVITY



Activity - Picking Shells

Target Audience - Single or Groups, All ages

Place - Beach

Educational Purpose - Teaching about Biodiversity

Type of Activity - Observation

Picking Shells

ACTIVITY

①

Participants will be divided into groups and will have 15 minutes to explore the beach and collect as many different species of shells as possible. At the end of the time, everyone must return and present the shells they collected.

③

After returning, each group will compare the shells they gathered with the available information about different species. This activity will allow everyone to learn more about the biodiversity of shells found on the beach.

②

The winner will be the group that collects the largest number of different shell species. In case of a tie, the group with the rarest or most interesting shell will receive extra points.

④

At the end of the activity, there will be a discussion about the importance of marine conservation and the diversity of coastal ecosystems. Participants will be able to share their experiences and learnings from the activity.

Raccogliere conchiglie

ATTIVITÀ

①

I partecipanti saranno divisi in gruppi e avranno 15 minuti per esplorare la spiaggia e raccogliere il maggior numero possibile di specie diverse di conchiglie. Alla fine del tempo, tutti devono tornare e presentare le conchiglie che hanno raccolto.

③

Dopo il ritorno, ogni gruppo confronterà le conchiglie raccolte con le informazioni disponibili sulle diverse specie. Questa attività permetterà a tutti di apprendere di più sulla biodiversità delle conchiglie trovate sulla spiaggia.

②

Il vincitore sarà il gruppo che riuscirà a raccogliere il maggior numero di specie diverse di conchiglie. In caso di pareggio, il gruppo con la conchiglia più rara o interessante riceverà punti extra.

④

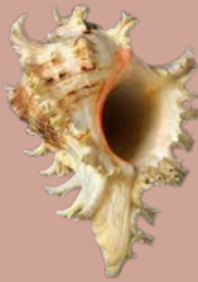
Alla fine dell'attività, ci sarà una discussione sull'importanza della conservazione marina e la diversità degli ecosistemi costieri. I partecipanti potranno condividere le loro esperienze e apprendimento durante l'attività.

Raccogliere conchiglie

TYPES OF SHELL



Razor Clam



Muret



Scallop Shell



Turkey Wing Ark



Common Shell

Raccogliere conchiglie

TYPES OF SHELL



Mussel



Tellin Clam



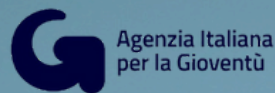
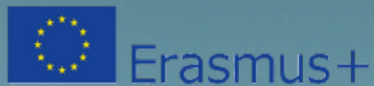
Neverita Josephinia



**Gaper or
"Donkey Hoof"**



Common Clam



LET'S PLAY THE GAME:

RUN, FRATINO, RUN!



Activity - Game

Target Audience - Families, Groups, Children

Place - Beach

Educational Purpose - Teaching Fratinos' lifestyle

Type of Activity - Playful

RUN, FRATINO, RUN!

GAME

DO YOU KNOW WHAT THE FRATINO (KENTISH PLOVER) EATS?

This small bird feeds on tiny creatures like mollusks, crustaceans, and remains of other animals found along the coastline. The fratino uses its sharp eyes to spot food on the beach, but it has to be quick because the waves can wash it away. To survive, the fratino carefully searches for food and rushes back before the waves come crashing in!



Now, you can play a game that mimics how the fratino behaves when it's looking for food!

1

You will need shells, sticks, or small stones to represent the fratino's food;

2

Stand at the edge of the water with the group. When the leader says "Go!", the players must throw the shells, sticks, or stones into the water;

3

As soon as the leader gives the signal, players start collecting as many objects as possible, taking them to the sand before the waves reach them, without touching the water.



Ready? Get set... Go!

CORRI, FRATINO, CORRI.

GIOCO

SAPEVI COSA MANGIA IL FRATINO (CHARADRIUS ALEXANDRINUS)?

Questo uccellino si nutre di piccole creature come molluschi, crostacei e resti di altri animali trovati lungo la costa. Il fraterno usa i suoi occhi acuti per individuare il cibo sulla spiaggia, ma deve essere veloce perché le onde possono portarlo via. Per sopravvivere, il fraterno cerca attentamente il cibo e corre indietro prima che le onde arrivino!



Ora puoi giocare a un gioco che imita il comportamento del fraterno quando cerca cibo!

1

Avrai bisogno di conchiglie, bastoni o piccole pietre per rappresentare il cibo del fraterno.

2

Stai in riva al mare con il gruppo. Quando il leader dice "Via!", i giocatori devono lanciare le conchiglie, i bastoni o le pietre in acqua.

3

Non appena il leader dà il segnale, i giocatori iniziano a raccogliere il maggior numero possibile di oggetti, portandoli sulla sabbia prima che le onde li raggiungano, senza toccare l'acqua.



Pronti? Posizioni... Via!



ACTIVITY NATURE THEATRE



Activity - Nature's Theatre

Target Audience - Groups, All ages

Place - Cantina Mazzarosa

Educational Purpose - Connecting with Nature

Type of Activity - Icebreaker

NATURE THEATRE

ACTIVITY

The group sits down in the yard, closes their eyes, takes a deep breath, and counts as many sounds as possible.

1

2

After counting sounds and noises, both natural and artificial, each person chooses one and reproduces/mimes it.

A guide or the narrator of the group starts to invent a tale, including each person in the group who has to mimic the sound or subject they chose.

3

4

The outcome is that everyone has fun, loosens tension, and plays together.



TEATRO DELLA NATURA

ATTIVITÀ

Il gruppo si siede nel cortile, chiude gli occhi, fa un respiro profondo e conta quanti più suoni possibile.

1

2

Dopo aver contato i suoni e i rumori, sia naturali che artificiali, ciascuno sceglie uno e lo riproduce o lo mima.

Una guida o il narratore del gruppo inizia a inventare una storia, includendo ogni persona del gruppo che deve mimare il suono o l'elemento che ha scelto.

3

4

Il risultato è che tutti si divertono, sciolgono le tensioni e giocano insieme.





Fratino's Family

THEATRE

Activity - Fratino's Family
Target Audience - Groups, All ages
Place - Beach, Dune System
Educational Purpose - Teaching Fratino Lifestyle
Type of Activity - Educational



Fratino's Family

THEATRE



There must be at least 4 people to play but the more the merrier! The roles are: Storyteller, Fratino mum, Fratino dad, chick(s) and a predator.

Once everyone's role is set, the storyteller starts guiding the players.



FloridaNaturePhotography
Michael Wolf



The story should be as it follows: A male Fratino lands on the beach after a long flight and starts to dig a nest with his tail on the sand. A female Fratino sees the nest, likes it and starts embellishing it with sea wood, rocks and anything she likes. Once the nest is set, they become a couple and the female lays the first egg in the nest. If a predator is coming, the female Fratino puts up a scene, limping away the nest while being followed by the predator. Once they're far enough, she flies off and returns to the nest. In the next few days she lays another 2 eggs that hatch at different times. The newborn chicks are held by the male Fratino under his wings for the first hours of their lives. Then, the parents feed and take care of the chicks until they're old enough to fly and migrate all together.

La Famiglia del Fratino

TEATRO



Devono esserci almeno 4 persone per giocare, ma più siamo, meglio è! I ruoli sono: Narratore, mamma Fratino, papà Fratino, pulcini e un predatore.

Una volta assegnati i ruoli, il narratore inizia a guidare i giocatori.



FloridaNaturePhotography
Michael Wolf © 2017



La storia dovrebbe essere la seguente: un maschio Fratino atterra sulla spiaggia dopo un lungo volo e inizia a scavare un nido con la coda nella sabbia. Una femmina Fratino vede il nido, gli piace e inizia ad abbellirlo con legnetti, pietre e tutto ciò che le piace. Una volta sistemato il nido, diventano una coppia e la femmina depone il primo uovo. Se si avvicina un predatore, la femmina Fratino fa una messa in scena, zoppicando lontano dal nido mentre viene seguita dal predatore. Una volta che sono abbastanza lontani, lei vola via e torna al nido. Nei giorni successivi depone altre 2 uova che si schiudono in tempi diversi. I pulcini appena nati sono tenuti dal maschio Fratino sotto le sue ali per le prime ore di vita, poi i genitori nutrono e si prendono cura dei pulcini fino a quando non sono abbastanza grandi per volare e migrare insieme.



FINDING SPECIES

This game is aimed at all ages.

The goal is to find the species of fauna and flora on the cards, and marking with a cross the ones you manage to find.

We also suggest taking a photo when you find them and send it to this email: guidedelborsacchio@gmail.com
This way, it will be possible to make a better analysis of the period of day and year when the species are present.

And you can also participated in a Photo Contest.

GOOD LUCK !



FINDING SPECIES

Questo gioco è rivolto a tutte le età.

L'obiettivo è trovare le specie di fauna e flora sulle carte, e segnare con una croce quelle che si riescono a trovare. Ti consigliamo anche di scattare una foto quando le trovi e di inviarla a questa email:

guidedelborsacchio@gmail.com

In questo modo, sarà possibile fare una migliore analisi del periodo del giorno e dell'anno in cui le specie sono presenti.

E puoi anche partecipare a un concorso fotografico.

BUONA FORTUNA !

Find the Animals

1

☐

5

☐

2

☐

6

☐

3

☐

7

☐

4

☐

8

☐

9

☐

Find the Plants

10

☐

16

☐

11

☐

17

☐

12

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18

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13

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19

☐

14

☐

20

☐

15

☐

21

☐

1



DO YOU WANT TO KNOW
MORE ABOUT THE KENTISH
PLOVER (FRATINO) ?

be careful, they get scared

The Kentish plover (it. Frattino, lat. *Charadrius alexandrinus*) is a small bird of the family Charadriidae that breeds on the shores of saline lakes, lagoons, and coasts, populating sand dunes and tundra. These birds create simple nests by scraping small holes in the sand and lining them with shells, pebbles, grass, and leaves.

Facts:

- **Classification:** aves
- **Appearance:** It has a pale plumage with a white underside, grey/brown back, dark legs, and a dark bill. Males have distinctive dark markings on their heads and incomplete breast bands.
- **Size:** 15 - 17.5 cm
- **Weight:** 32 - 58 g
- **Lifespan:** Up to 11 years
- **Habitat:** Kentish Plovers are found in a variety of coastal and inland habitats. They breed on sandy beaches, dry mudflats, salt ponds, and the shores of saline lakes and lagoons²¹. During the winter, they migrate to coastal regions in Africa, India, and the Mediterranean.
- **Diet:** insects and other small invertebrates

2



WHICH ANIMAL IS KNOWN
FOR ITS REDDISH-BROWN
CARAPACE ?

IT'S NOT EASY TO FIND THEM

The loggerhead sea turtle (it. tartaruga marina comune, lat. caretta caretta) is a large marine turtle known for its reddish-brown shell and powerful jaws.

Loggerheads are carnivores, feeding on crabs, mollusks, and jellyfish. They nest on sandy beaches, with females laying around 100-120 eggs per clutch. Hatchlings' sex is determined by temperature, and they face numerous threats, including habitat loss and fishing bycatch.

Listed as Vulnerable, loggerheads can live over 50 years and are known for long oceanic migrations. They play a key role in marine ecosystems.

Facts:

Classification : reptile

Size: 70-110 cm (28-43 in) in shell length.

Weight: up to 135 kg

Appearance: The loggerhead has a large, broad head and strong jaws. Their carapace (shell) is reddish-brown in color, while the plastron (underbelly) is yellowish.

Habitat: coastal areas, subtropical oceans worldwide

Lifespan: 70-80 years

Diet: carnivorous



3



DISCOVER WHICH IS THE
ELEGANT AND
ADAPTABLE BIRD

I can tell you that it's white

The little egret (it. Garzetta ,lat. Egretta garzetta) is a small white heron species found across various regions. Overall, Egretta garzetta is an elegant and adaptable bird. They are social birds, often seen feeding in groups, and nest in colonies near water. Little egrets feed on fish, crustaceans, and insects in shallow waters. They are skilled hunters, using their feet to stir up water to flush out prey. Classified as Least Concern, they have a stable population but face threats from habitat loss and pollution. Facts: Classification: aves Size: 55-65 cm in height, with a wingspan of 88-106 cm Weight: 300-600 g Appearance: distinctive all-white plumage, long black legs, yellow feet, and a slender black bill. During the breeding season, they develop long plumes on their back and chest. Habitat: wetlands Lifespan: 10-15 years Diet: carnivorous

4



CAN YOU FIND ME ?

You're lucky if you find it

The common blue butterfly (it. farfalla blu comune, lat. *Polyommatus icarus*) is a small butterfly found across Europe, North Africa, and parts of Asia. The common blue butterfly plays an essential role in pollination and maintaining biodiversity.

Facts:

Classification: insect

Appearance: Males: bright blue wings

females: brown with orange

spots

Wingspan: 2.5 -3.5 cm

Habitat: meadows, grasslands, and gardens.

Diet: Caterpillars feed on clover and trefoil

adults drink nectar from wildflowers.

Life Cycle: Multiple generations per year, active from spring to early autumn.

Conservation: Currently stable and not threatened.

5



WILL YOU BE ABLE TO
SEE A DOLPHIN?

this one is difficult

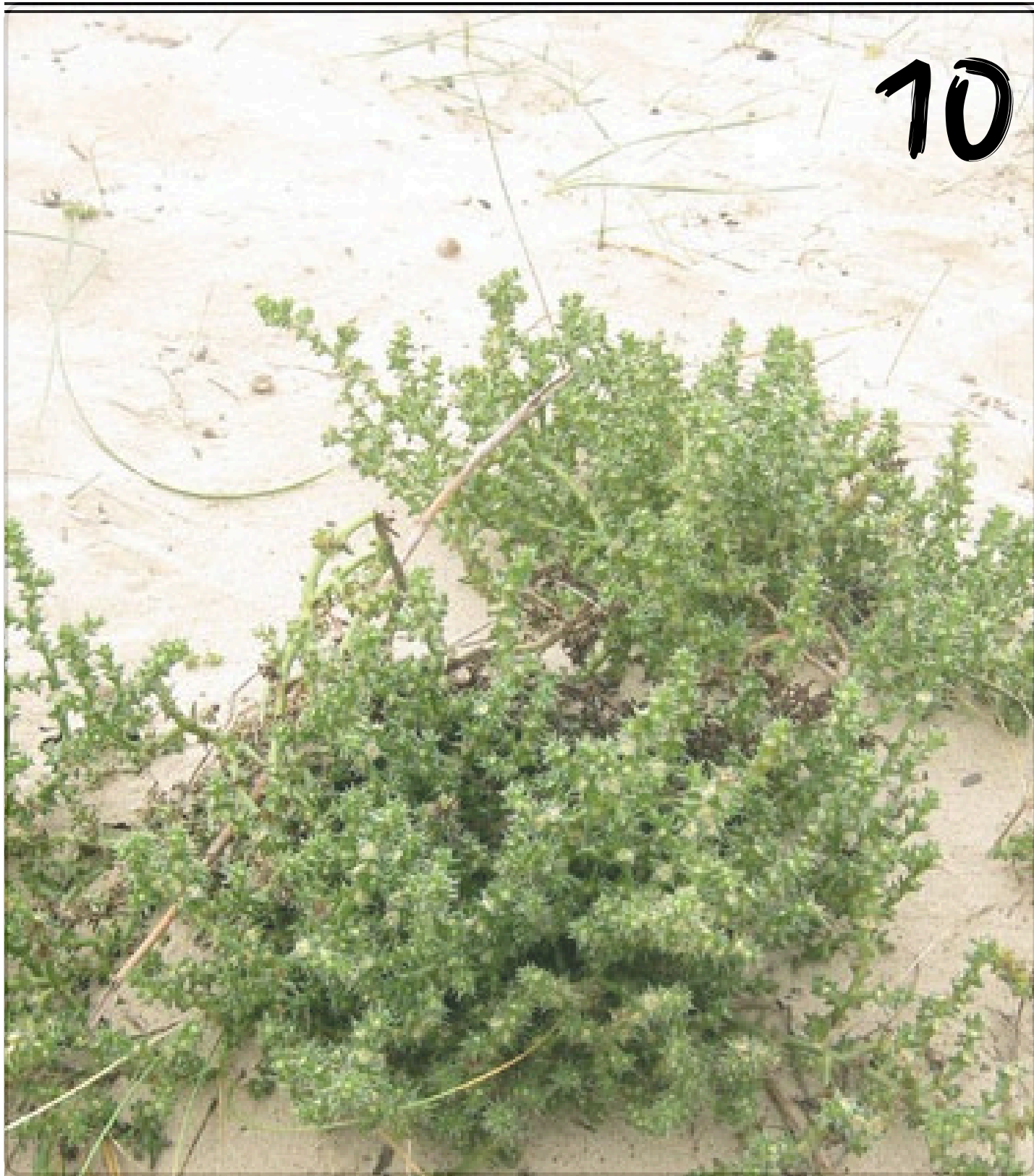
~~Bott~~tlennose dolphins (it. Tursiope, Tursiops) are highly social animals, often living in groups called pods. These pods can range from a few individuals to over a hundred. They communicate using a variety of sounds, including clicks, whistles, and body language.

Bottlenose dolphins are known for their high intelligence

Facts:

- classification: mammalia
- weights: 150 - 650 kg
- size: 2 - 4 meters
- Habitat: Temperate and tropical oceans worldwide, except polar waters.
- Lifespan: 40 - 60 years.
- Diet: Fish, squid, shrimp, and eels, consuming 6.8-13.5 kg of food daily.

10



I THINK YOU CAN EASILY
SEE THIS SALSOLA KALI

Pay attention to the dunes

- English Name: Saltwort or Prickly Russian Thistle Latin Name: *Salsola kali* Italian Name: Barba di Frate Habitat: Saline soils, coastal regions, and disturbed areas.
- Appearance: A spiny, bushy annual plant with fleshy, cylindrical leaves that reduce water loss. Uses: In some regions, young shoots are eaten or used in salads. It also helps stabilize coastal soils. Interesting Fact: It is highly salt-tolerant and has adapted to survive in environments where salt levels are too high for most plants.
-

6



CAN YOU RECOGNIZE THIS
COLORFUL KING?

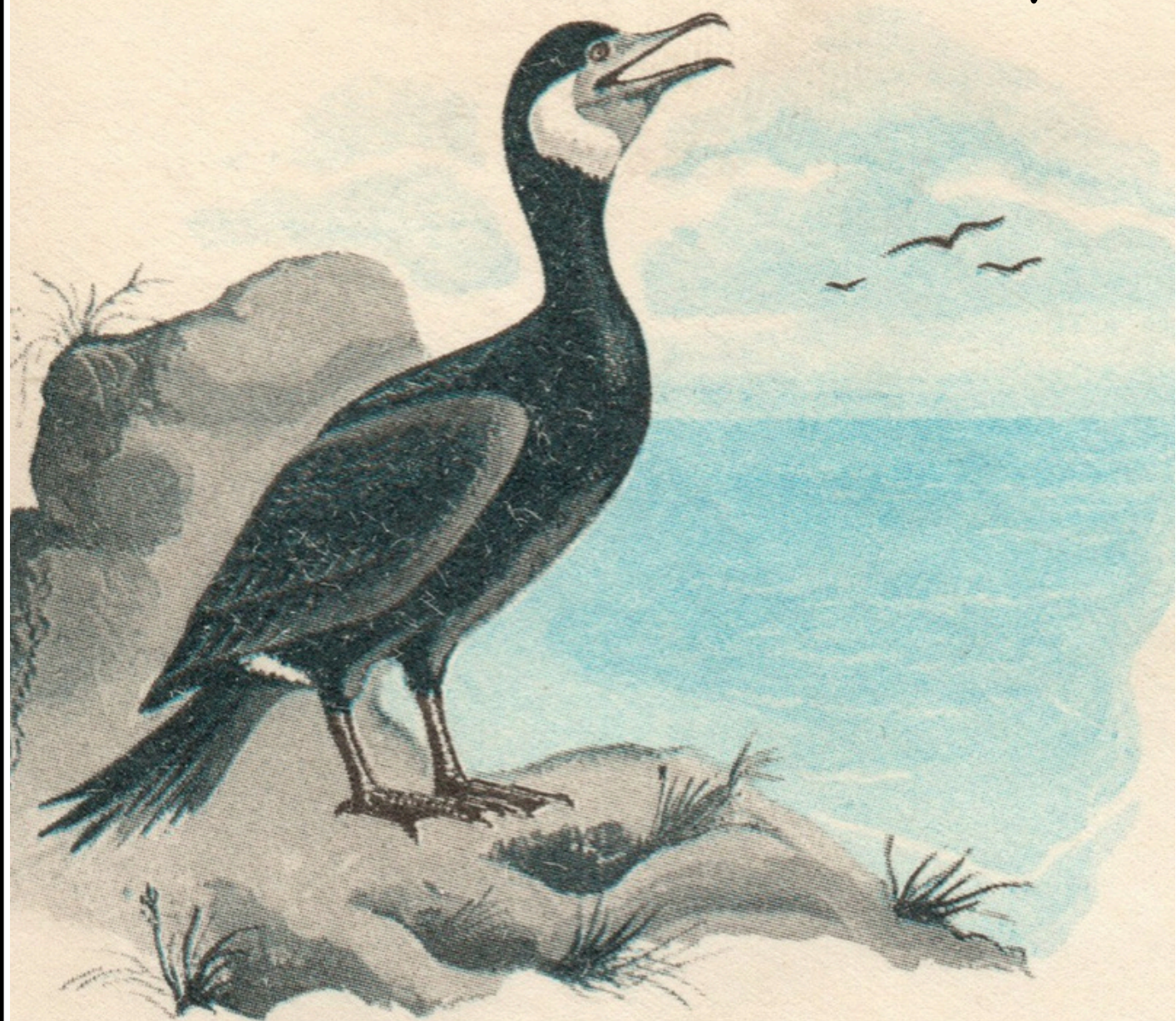
Pay attention to the dunes

Kingfishers (it. Alcedinidi, lat. Alcedinidae) are fascinating birds known for their vibrant colors and unique hunting techniques. They belong to the family Alcedinidae and are found in various regions around the world, including Africa, Asia, Oceania, Europe, and the Americas.

Facts:

- classification: aves
- Weight: 30 - 45 gr
- Size: 10 - 16 cm
- ~~Habitat~~ Habitat: While many kingfishers associated with water bodies like rivers and lakes, some species live in forests and feed on insects and small invertebrates¹
- Lifespan: 15 years
- Hunting: Kingfishers are known for their impressive hunting skills, often diving from a perch to catch fish or other prey².
- Nesting: They usually nest in cavities, often ~~digging~~ digging tunnels into riverbanks or arboreal termite nests.

7



DO YOU WANT TO MEET THIS
PROFESSIONAL DIVER?

These birds are known for their distinctive black plumage and their ability to dive for fish. They have webbed feet, which make them excellent swimmers. They can dive as deep as 45 meters (150 feet) and use their feet and wings to propel themselves underwater. facts:

- classification: aves
- Size: 84 -90 cm ,wingspan 130 - 160 cm
- Weight: 1.5 kg - 5.3 kg
- Lifespan: 11 years
- Appearance: dark feathers, often black or dark brown, and a long, thin, hooked bill.
- Habitat: coastal areas, inland waters, nest in colonies on cliffs, trees, or islets
- Diet: fish

8



DO YOU WANT TO LEARN
A GAME THAT THIS BIRDS
PLAY WITH WAVES ?

Sandpipers (it. Piovanelli, lat. *Calidris ferruginea*) are fascinating shorebirds belonging to the family Scolopacidae. Their plumage often blends in with their surroundings, providing excellent camouflage against predators. They exhibit a distinctive bobbing motion.

Facts:

- classification: aves
- Size: 11 cm - 66 cm
- Weight: 18 g- 1.3 kg
- Lifespan: 4 years
- Appearance: Long bodies and legs, narrow wings, sensitive bills.
- Diet: Small invertebrates
- Behavior: Known for bobbing movements, like the Spotted Sandpiper.
- Habitat: Near water—streams, rivers, ponds, lakes, beaches.



DO YOU KNOW WHY IT IS
BETTER TO WATCH ME THAN TO
TOUCH ME?

Pay attention to the dunes

The crested porcupine (it. Istrice, lat. *Hystrix cristata*) has a diverse habitat range. It is found in Italy, North Africa, and sub-Saharan Africa. In Italy, it is common in many regions, including mainland Italy and the island of Sicily. Their bodies are covered with coarse bristles that are dark brown or black. When threatened, they raise and vibrate these quills to make themselves appear larger and to produce a rattling sound.

Facts:

- Classification: mammal
- Weight: 13 - 25 kg
- Size: 75 - 95 cm
- Lifespan: 20 - 28 years
- Diet: wide range of plants and animal elements
- Habitat: They thrive in wooded areas.

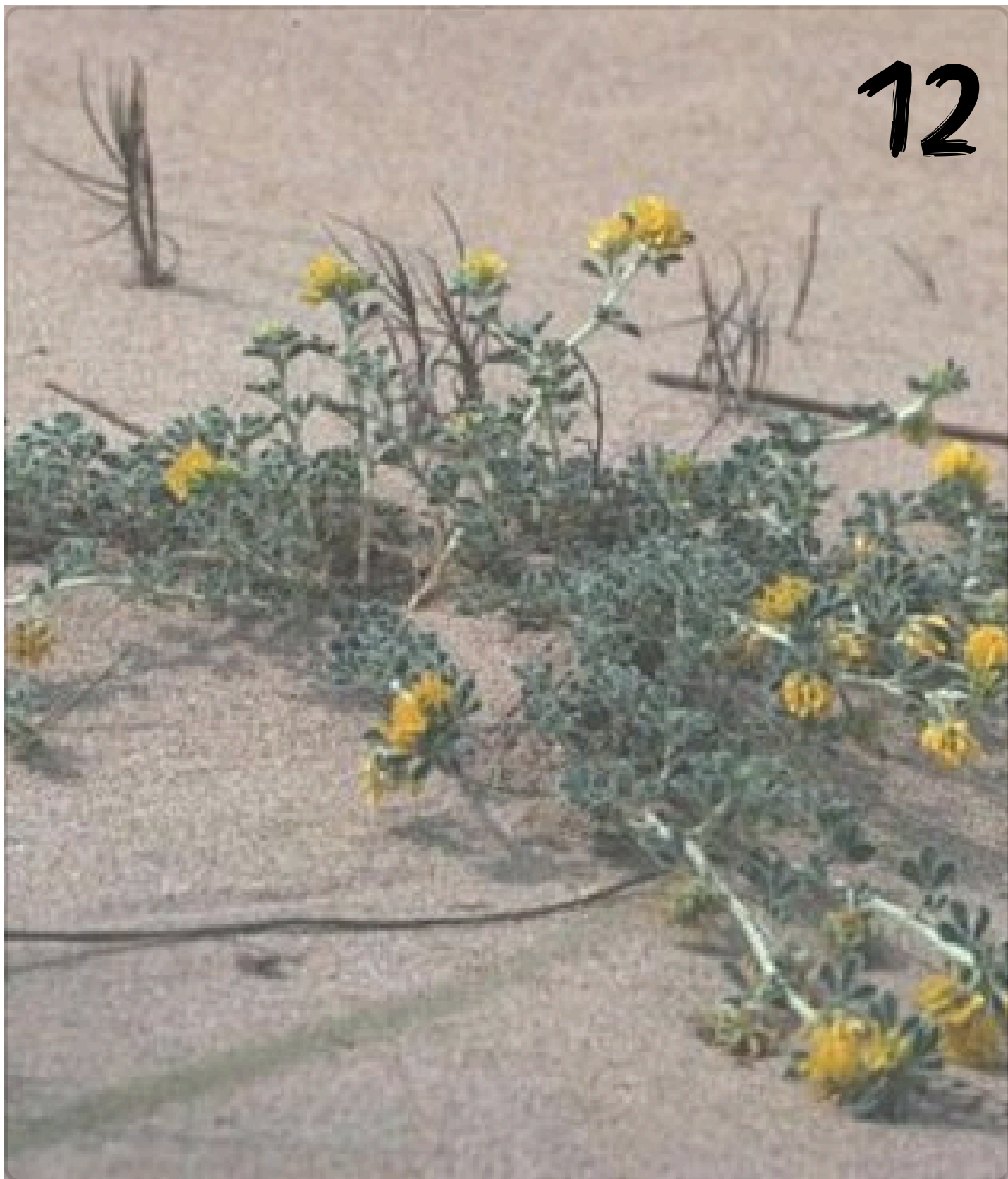
11



DO YOU KNOW WHY I CAN
THRIVE WHERE FEW
OTHER PLANTS SURVIVE?

- English Name: Sand Couchgrass
- Italian Name: Gramigna delle Dune
- Latin Name: *Elytrigia juncea*
- Habitat: Coastal dunes and sandy soils near the sea.
- Appearance: A perennial grass with tough, wiry stems and long creeping rhizomes. Leaves are thin and often curled to conserve water.
- Uses: Helps in stabilizing sandy soils and dunes, reducing erosion.
- Interesting Fact: It has deep roots that help it thrive in harsh coastal environments where few other plants survive.

12



DO YOU WANT TO LEARN
WHY MY LEAVES LOOK
SILVERY?

- English Name: Coastal Medick
- Italian Name: Erba Medica Marina
- Latin Name: *Medicago marina*
- Habitat: Coastal dunes and sandy habitats near the Mediterranean Sea.
- Appearance: A creeping herbaceous plant with yellow flowers and trifoliate leaves. The leaves are silvery due to dense hair coverage.
- Uses: It is a nitrogen fixer and improves soil fertility, often used to stabilize sandy dunes.
- Interesting Fact: Its ability to thrive in saline and dry conditions makes it vital in coastal ecosystems for reducing erosion.

13



DO YOU KNOW PEOPLE
USE ME IN CULINARY?

- English Name: European Sea Rocket Italian
 - Name: Ravastrello Marino Latin Name: *Cakile*
 - *maritima* Habitat: Coastal sands and dunes,
 - typically found on the upper beach zone.
- Appearance: A succulent annual plant with
- fleshy, irregularly lobed leaves and purple to white flowers.
- Uses: Its leaves are sometimes used in salads, and it plays a
- role in stabilizing beach sands. Interesting Fact: *Cakile maritima* stores water in its fleshy leaves, helping it survive dry and
 - saline conditions near the sea.



14

CAN YOU SPOT ME IN THE
DUNES?

- English Name: Sea Bindweed
- Italian Name: Vilucchio delle Spiagge
- Latin Name: Calystegia soldanella
- Habitat: Coastal dunes and sandy beaches.
- Appearance: A creeping perennial plant with thick, kidney-shaped leaves and large, funnel-shaped pink or white flowers.
- Uses: Primarily a dune stabilizer, though in some cultures, its root is used medicinally.
- Interesting Fact: This plant helps in stabilizing dunes, with its trailing stems forming a mat that protects the sand from wind erosion.



15

DO YOU KNOW PEOPLE
DECORATE THEIR HOMES
WITH ME?

- English Name: Sea Holly Italian Name: Eringio
- Marino Latin Name: Eryngium maritimum
- Habitat: Coastal sands and dunes, particularly in the Mediterranean region.
- Appearance: A spiny perennial with bluish-green leaves and striking, pale blue flowers surrounded by spiny bracts.
- Uses: Traditionally used for medicinal purposes and as an ornamental plant.
- Interesting Fact: Sea holly was once believed to have aphrodisiac properties and was popular in 16th-century England for culinary and medicinal uses.

16



DO YOU WANT TO KNOW
WHY I CONSERVE WATER?

- English Name: Spiny Sea Fennel
- Italian Name: Finocchio Spinoso
- Latin Name: Echinophora spinosa
- Habitat: Sandy coasts and dunes.
- Appearance: A spiny, bushy plant with pale green leaves, divided into thin segments, and small white flowers.
- Uses: In traditional medicine, its essential oils are used for digestive issues.
- Interesting Fact: Its spiny structure helps it conserve water, making it highly drought-tolerant in its coastal habitat.



CAN YOU SPOT THE
SMALL YELLOW FLOWERS
IN THE BUSHY LEAVES?

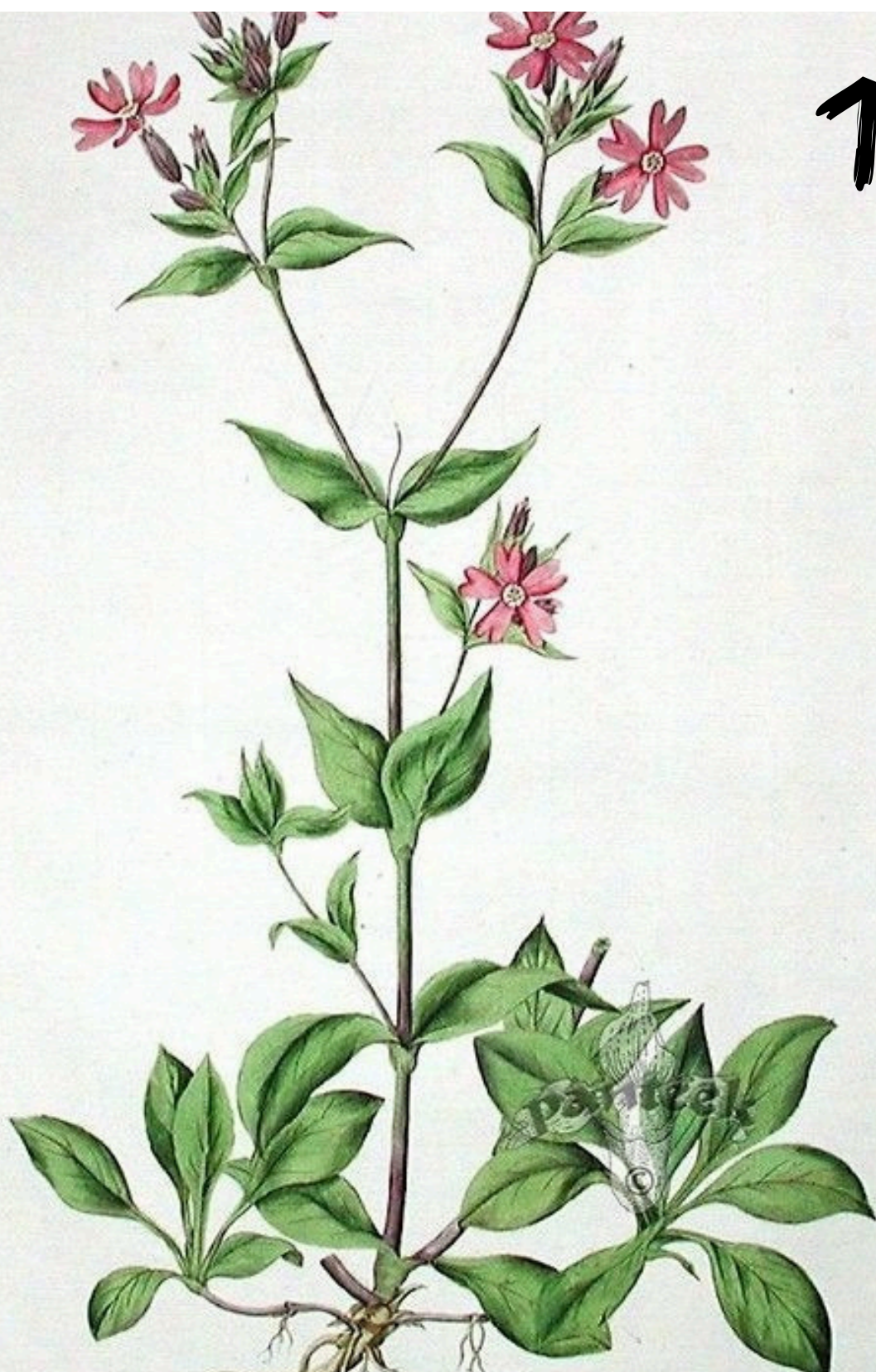
- English Name: Cretan Trefoil
- Italian Name: Ginestrino di Creta
- Latin Name: *Lotus creticus*
- Habitat: Sandy coasts and dunes, primarily around the Mediterranean.
- Appearance: A small, bushy perennial with silvery leaves and bright yellow flowers in small clusters.
- Uses: Used in dune stabilization and soil improvement due to its nitrogen-fixing abilities.
- Interesting Fact: The plant helps enrich the nutrient-poor sandy soils where it grows, making it important for coastal ecosystems.



DO YOU KNOW HOW I
SPREAD MY SEED
EFFECTIVELY?

- English Name: Oriental Cocklebur
- Italian Name: Crespigno Orientale
- Latin Name: *Xanthium orientale*
- ~~Habitat~~ Habitat: Riverbanks, coastal roadsides, and disturbed soils. It thrives in areas with well-drained, sandy or gravelly soils.
- Appearance: A coarse, annual herb with lobed, rough-textured leaves and small, greenish flowers that develop into spiny, burr-like fruits. These fruits are covered in hooks that cling to animals and clothing for seed dispersal.
- Uses: Considered an invasive species in many regions, it's often a nuisance to agriculture and natural habitats. Some species of **xanthium** have been used in traditional herbal remedies for skin disorders and inflammation, but *x. orientale* has limited medicinal use.
- ~~Interesting~~ Interesting, ~~Facts~~ Like other *xanthium* spreads effectively by attaching its spiny fruits to passing animals, which help it disperse seeds over large distances. The plant can also be toxic to livestock due to certain compounds in its seeds and seedlings.

19



DO YOU KNOW HOW MANY
PETALS MY FLOWERS
USUALLY HAVE?

- English Name: Pink Catchfly
- Italian Name: *Silene Colorata*
- Latin Name: *Silene colorata*
- Habitat: Sandy and coastal areas, particularly in Mediterranean regions. It thrives in dry, well-drained soils and open spaces.
- Appearance: A small annual herb with delicate, pink to pale purple five-petaled flowers. The leaves are narrow and hairy, forming a low rosette at the base. The plant often blooms in the spring.
- Uses: Primarily ornamental, valued for its charming flowers in wildflower gardens and for attracting pollinators like bees and butterflies.
- Interesting Fact: *Silene colorata* is a pioneer species in coastal habitats, meaning it often colonizes bare or disturbed ground, helping to stabilize soils and prevent erosion in sandy environments



WHAT DO I REMIND YOU
OF?

- English Name: Hare's Tail Grass or Bunny Tails
- Italian Name: Coda di Lepre
- Latin Name: *Lagurus ovatus*
- Habitat: Coastal dunes, sandy soils, and grasslands, especially around the Mediterranean and temperate coastal regions. It thrives in dry, well-drained soils.
- Appearance: An annual grass growing up to 30-60 cm tall, known for its distinctive, fluffy, oval flower heads that resemble a hare's tail. The flower heads are soft, pale, and covered in fine hairs, making them highly ornamental. The leaves are narrow and grass-like.
- Uses: Commonly grown as an ornamental plant in gardens and floral arrangements due to its soft, fluffy flower heads. It is also used in dried flower arrangements.
- Interesting Fact: *Lagurus ovatus* is often called "Bunny Tails" because of the soft, woolly texture of its inflorescences, which resemble a rabbit's tail. It is highly popular in both fresh and dried flower arrangements, adding a unique texture to bouquets and displays.

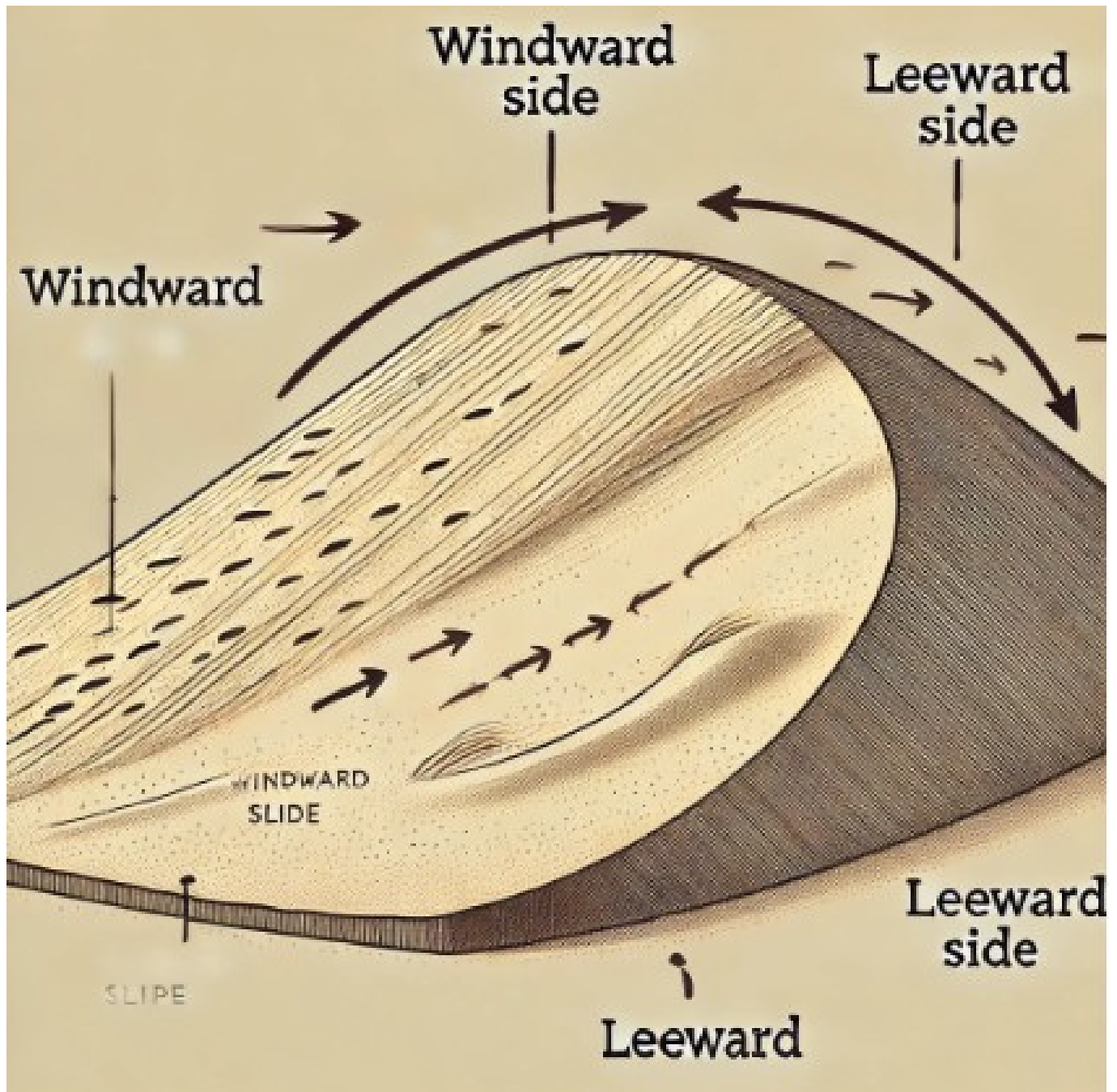


DO YOU KNOW I'M USED
FOR FLAVORING SALADS?

Pay attention to the dunes

- English Name: Costmary or Balsam Herb
- Italian Name: Erba di San Pietro
- Latin Name: *Tanacetum balsamita*
- Habitat: Native to temperate regions of Europe and Western Asia, it grows well in gardens, meadows, and on the edges of forests. It prefers well-drained soils in sunny locations.
- Appearance: A perennial herb growing up to 90 cm tall with large, oval, grey-green leaves that have a strong, balsamic scent. It produces small, yellow, daisy-like flowers in clusters on tall stems.
- Uses: Traditionally used in herbal medicine for its digestive and anti-inflammatory properties. The leaves have been used as a flavoring in salads, teas, and as a natural air freshener. Historically, it was also used as a bookmark in Bibles, giving it the nickname "Bible Leaf."
- Interesting Fact: *Tanacetum balsamita* was a popular medicinal herb in medieval monasteries, where monks used its leaves in culinary preparations and for medicinal purposes. Its aromatic leaves were also laid between pages of books to repel insects, particularly moths.

Dune



- windward side: This is the front side of the dune where the wind blows and carries sand up the slope.
- Leeward side: This is the back side of the dune where the sand accumulates and slides down, forming a smooth slope.

What are dunes?

Dunes are natural accumulations that form primarily in deserts or coastal areas as a result of constant winds and large amounts of sand.

Where does the sand that forms dunes come from?

The sand originates from the mechanical or chemical breakdown of rocks or from marine sediments.

Why do dunes accumulate?

There are so-called obstacles that can lead to the formation of a dune. These obstacles include plants, rock fragments, or even the topography (relief) of a particular area, which halt the movement of sand, causing it to accumulate and form a dune.

Types of dunes:

- Linear dunes: Parallel to the direction of the wind.
- Crescent-shaped (arc-shaped) dunes: Move with the wind (typical desert dunes).
- Star-shaped dunes: Form in areas with variable wind direction, resulting in several ridges spreading in different directions.
- Transverse dunes: Perpendicular to the wind direction, with a wavy structure (similar to the sea floor in some places).

Can dunes move?

Yes, they constantly change and are not static. The wind moves sand grains from the windward side of the dune to the leeward side, causing the dune to slowly shift in the direction of the wind. Dunes can move at different speeds, depending on wind strength and the type of sand. In some cases, dunes can move by tens of meters per year.

TUTORIAL AND COMMUNICATION

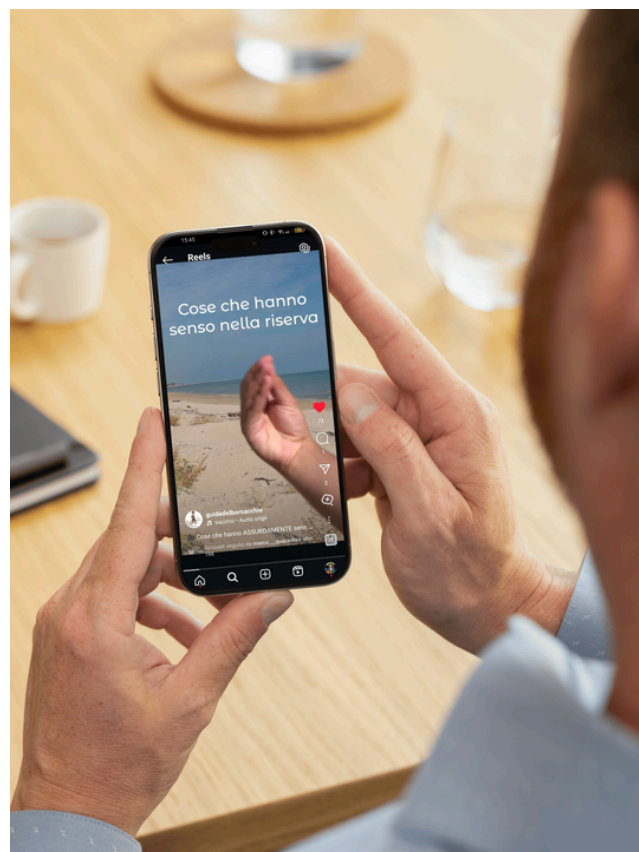
Facilitator: Alan Hulme and João Pinheiro





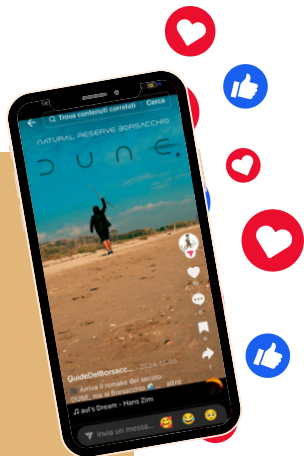
INTRO

The workshop focused its activities on the creation of different kind of Tutorials and Communication tips (how to do it, why to do it, when to do it) connected with the biodiversity of the Nature Reserve and its maintenance and conservation, that have been prepared by participants and facilitators. The main aim was to generate condensed, powerful, easy to understand positive messages and behaviors capable to help the relationship between Nature and citizens in order to facilitate and improve the common living together within the protected area.





OUTCOMES



> TIK TOK TRENDS



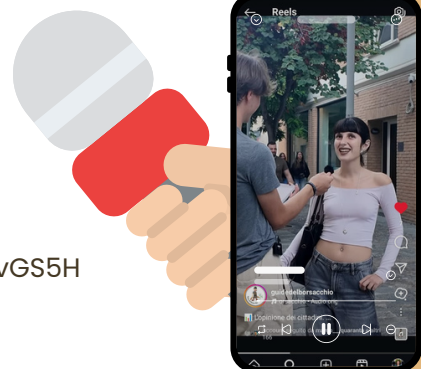
<https://shorturl.at/47Zji>



> INTERVIEWS



<https://shorturl.at/vGS5H>



> BENEFITS OF PROTECTED AREAS



<https://shorturl.at/SpiiT>



> BORSACCHIO'S PILLS



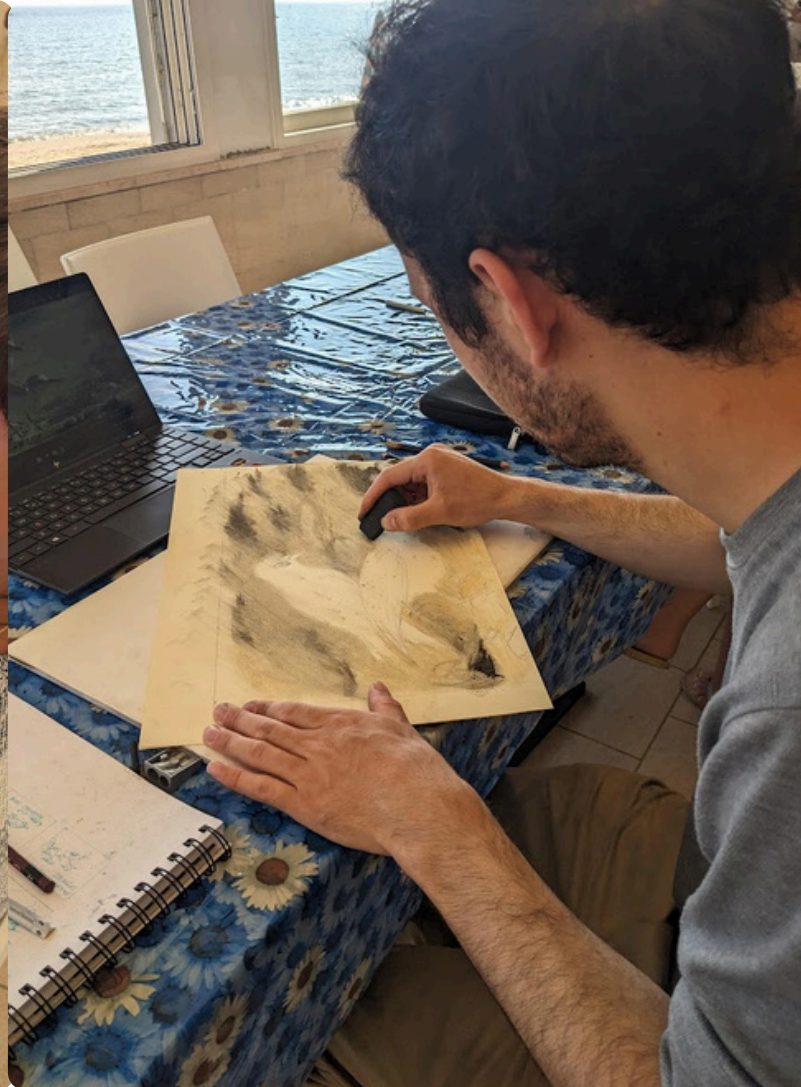
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VISUAL IDENTITY OF THE NATURE RESERVE

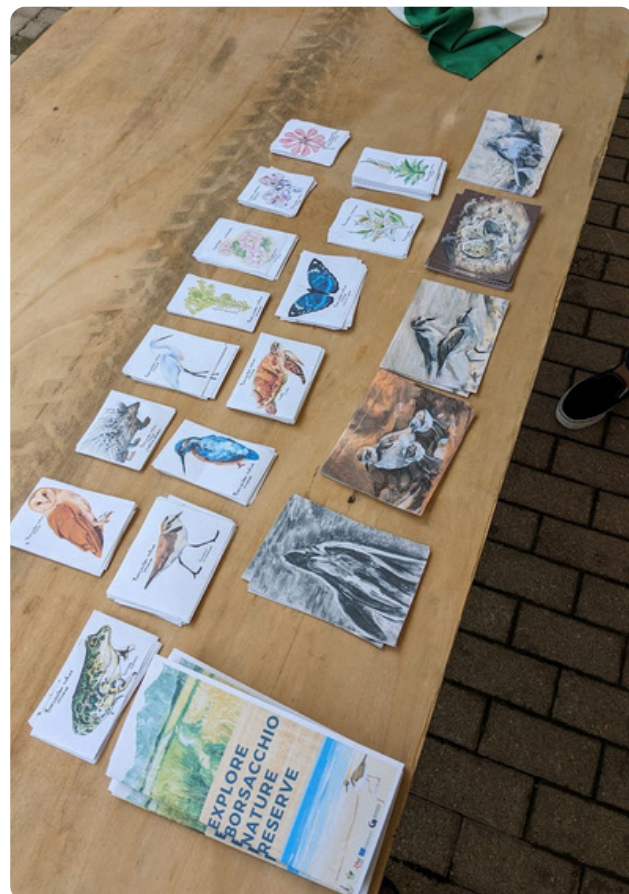
Facilitator: Polina Stoyanova





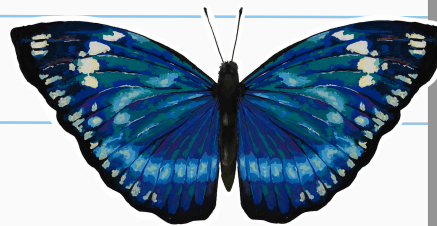
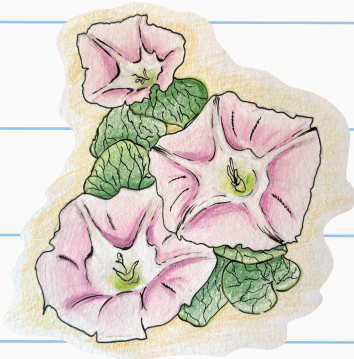
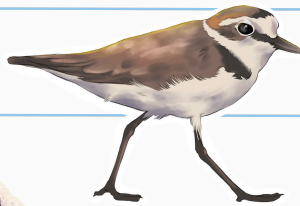
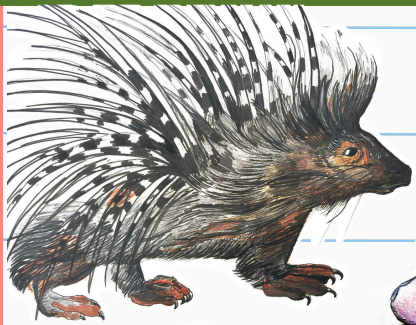
INTRO

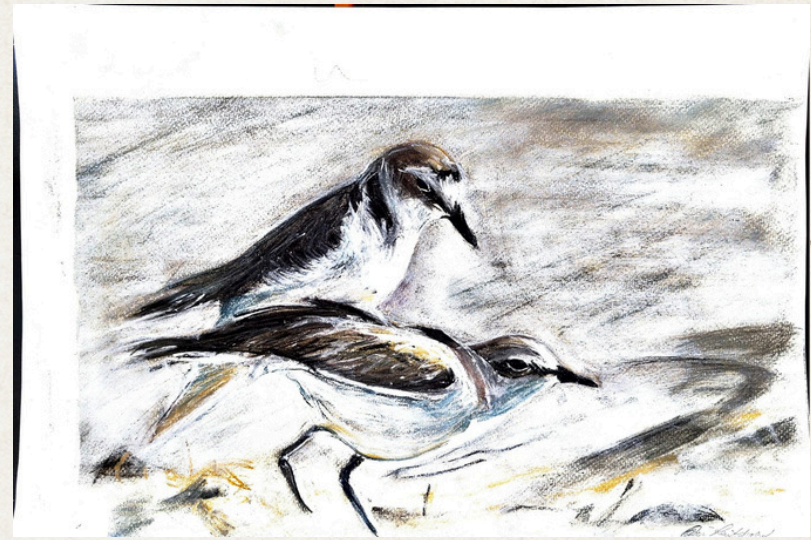
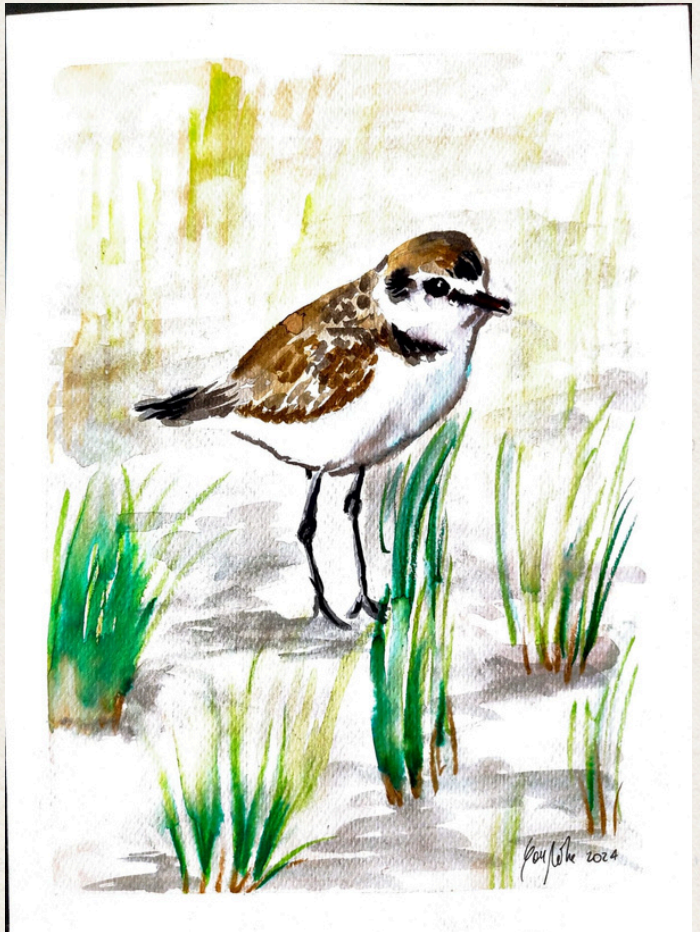
The workshop was focused on the infrastructural and communicative needs of the Nature Reserve. The general aim was to generate condensed, powerful, easy to understand signposting for routes, information panels, posters, maps, flyers, postcards capable to support the visual identity of this protected area. Participants had the possibility to dwell into an “investigation” around the interesting spots and facts (both environmental and historical) and then visualise this precious “collection” using their artistic talents.





OUTCOMES





A stylized, sepia-toned illustration of a bottle and two glasses. The bottle is positioned at the top, tilted slightly to the left. Below it are two glasses, one on the left and one on the right, both containing a dark liquid. The illustration is done in a simple, sketchy style with cross-hatching for shading.

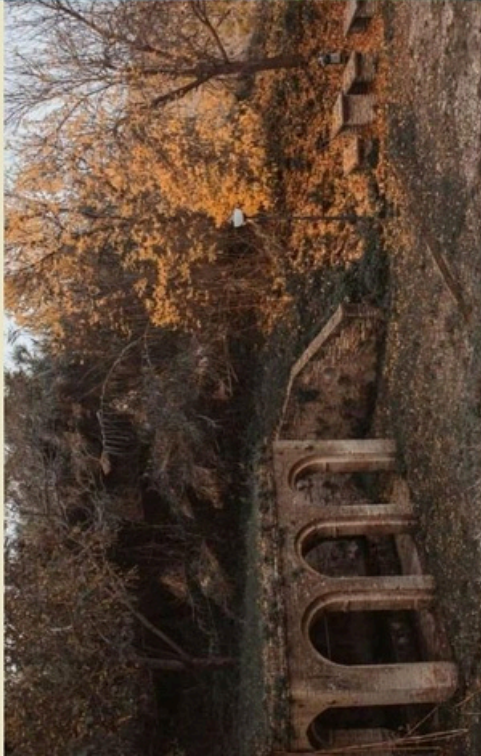
An aerial photograph showing a coastline. A wide, light-colored sandy beach runs along the shore. Behind the beach is a dense green forest covering a hillside. A small town or village is visible at the base of the hill, near the water's edge. The water is a deep blue-green color. The image is oriented vertically on the page.

WE AWAIT YOU!

This abstract painting is oriented vertically. On the left side, there is a large, dark green, textured shape that resembles a rock or a piece of bark. To its right is a vertical band of yellow and green, possibly representing a path or a stream. The right side of the painting is dominated by horizontal brushstrokes in shades of yellow, green, and white, creating a sense of movement and texture. The overall composition is divided into three main vertical sections, each with distinct colors and textures.



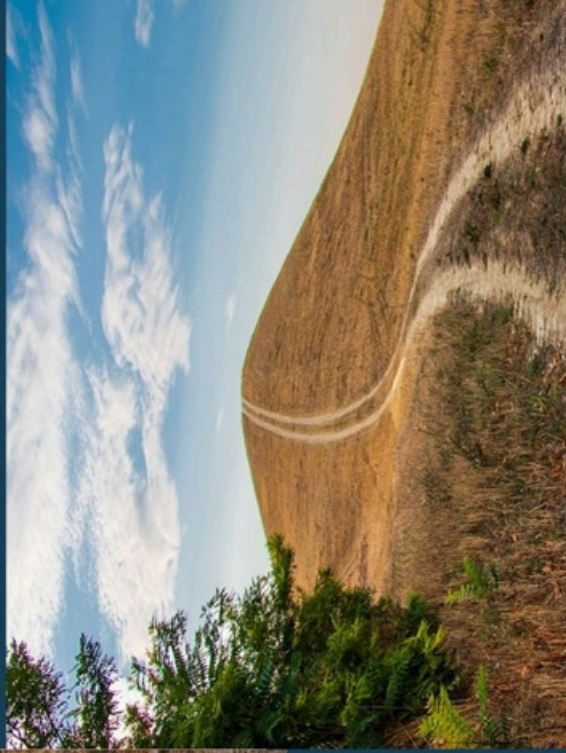
FONTE DELL'ACCOLLE



Fonte dell'Accolle is a charming historic fountain, steeped in the medieval history of the region. With its classic stone architecture, it has served as a vital water source for the local community for centuries. There is an ancient legend that says the water from this fountain improves women's fertility. The fountain stands as a symbol of the area's rich cultural heritage, drawing those who appreciate both history and scenic views.



COLLE MAGNONE HILL AND THE ANCIENT OLIVE TREE



Colle Magnone is a picturesque area celebrated for its rolling hills and vibrant agricultural landscape. The area is ideal for outdoor enthusiasts, offering opportunities for hiking and exploring the area. The highest hill offers the best panoramic views of the sea on one side and of the mountains on the other. If you are taking a walk in the area pay attention so you don't miss one of the symbols of the reserve - The ancient olive tree.

MONTEPAGANO

Montepagano is a quaint village that captures the essence of traditional Italian rural life. Its narrow, winding streets are lined with medieval architecture, inviting visitors to explore its charming corners. The village boasts stunning vistas of the surrounding hills and the Adriatic Sea, creating a perfect backdrop for leisurely strolls.



Visitors can savour local cuisine, witness stunning views like Porte del Sole's and learn more about the culture and traditions of the town at the local museum. Montepagano's serene atmosphere and rich history provide an ideal retreat for those seeking a peaceful escape into the heart of Abruzzo.



Riserva Naturale del Bor sacchio

... Osserviamo la Fauna



BARBAGIANNI

[IT] L'urlo **Barbagianni** è frequente in ambienti antropizzati quali parchi e giardini, nonché caseggiati rurali in zone di campagna coltivata. Ama cacciare nei prati incolti e zone exotonali ricchi di siepi e corsi d'acqua. Nel bosco, predilige le zone marginali, mentre evita le fasce più ricche di vegetazione.

[EN] The **Barn Owl** is a nocturnal, sedentary bird of prey. It frequents anthropized environments such as parks and gardens, as well as rural blocks of flats in cultivated countryside areas. It loves to hunt in uncultivated meadows and ecotonal zones rich in hedges and watercourses. In the woods, it prefers marginal areas, while it avoids the richest vegetation zones.



MARTIN PESCATORE

[IT] Il **Martin Pescatore** è una specie protetta dalla Direttiva Uccelli. Particolare il plumaggio, brillante, sfumato di turchese e verde smeraldo..

[EN] The **Kingfisher** is a protected specie under the Birds Directive. Its plumage is distinctive, bright, shaded in turquoise and emerald green.



VOLPE

[IT] La **Volpe** è diffusa in tutto il territorio. Ricerca cibo in posti impensabili come la pineta litoranea.

[EN] The **Fox** is widespread throughout the territory. It searches for unthinkable places of food like the coastal pine forest.



ISTRICE

[IT] L'**Istrice** è una specie che si adatta anche se frequenta zone boschive e cespugliose, che si alternano a campi coltivati. L'attività è principalmente notturna, ma in primavera anche diurna. Tenzionalmente vegetaria si nutre di tuberi, radici, erbe, semi e frutti caduti a terra. L'Istrice è una specie elencata nell'allegato IV della direttiva Habitat (92/43/CEE). Protetta dalla legge italiana 157/92.

[EN] The **Porcupine** is a specie that adapts very well even if it frequents wooded and bushy areas, which alternate with cultivated fields. The activity is mainly nocturnal, and in spring also diurnal. Listed as a vegetarian it feeds on tubers, roots, herbs, seeds and fruits fallen to the ground. The Porcupine is a species listed in Annex IV of the Habitats Directive (92/43/EEC). Protected by Italian law 157/92.



AIRONE GUARDABUOI

[IT] **Airone Guardabuoi** si muove nei campi alla ricerca di cibo. Spesso su pecore e buoi per cibarsi di parassiti.

[EN] **Cattle Egret** moves through the fields in search of food. Often on sheep and oxen to feed on parasites.



CARETTA CARETTA

[IT] La specie **Caretta** della famiglia *Cheloniidae*, è la tartaruga marina comune d'acqua salata più diffusa nei mari ed oceani temperati di tutto il mondo, compreso il mare Adriatico. Nidifica anche sulla spiaggia di Roseto degli Abruzzi.

[EN] The specie **Caretta Caretta**, from the family *Cheloniidae*, is the most common sea turtle in temperate seas and oceans around the world, including the Adriatic Sea. Nesting also on the beach of Roseto degli Abruzzi.



ROSPO SMERALDINO

[IT] Il **Rospo Smeraldino** presenta una colorazione del dorso chiara, con macchie verdi scure bordate di nero. Si nutre di invertebrati *chironomidi*, *trichopteri*, *crustacei* e *anfibi*. È crepuscolare e notturno, frequenta prati erbosi. Nella fase riproduttiva si rinvia in pozze d'acqua temporanee. Questo rospo marmorizzato è diffuso in ambienti sabbiosi, anche con umidità moderata.

[EN] The **Emerald Toad** presents a coloring of the back clear, with dark green spots edged in black. It feeds on invertebrates such as annelids, insects and snails. Mainly crepuscular and nocturnal, it frequents meadows grassy. In the phase reproductive it is found in temporary pools of water. This marbled toad is widespread in sandy environments, even with moderate humidity.

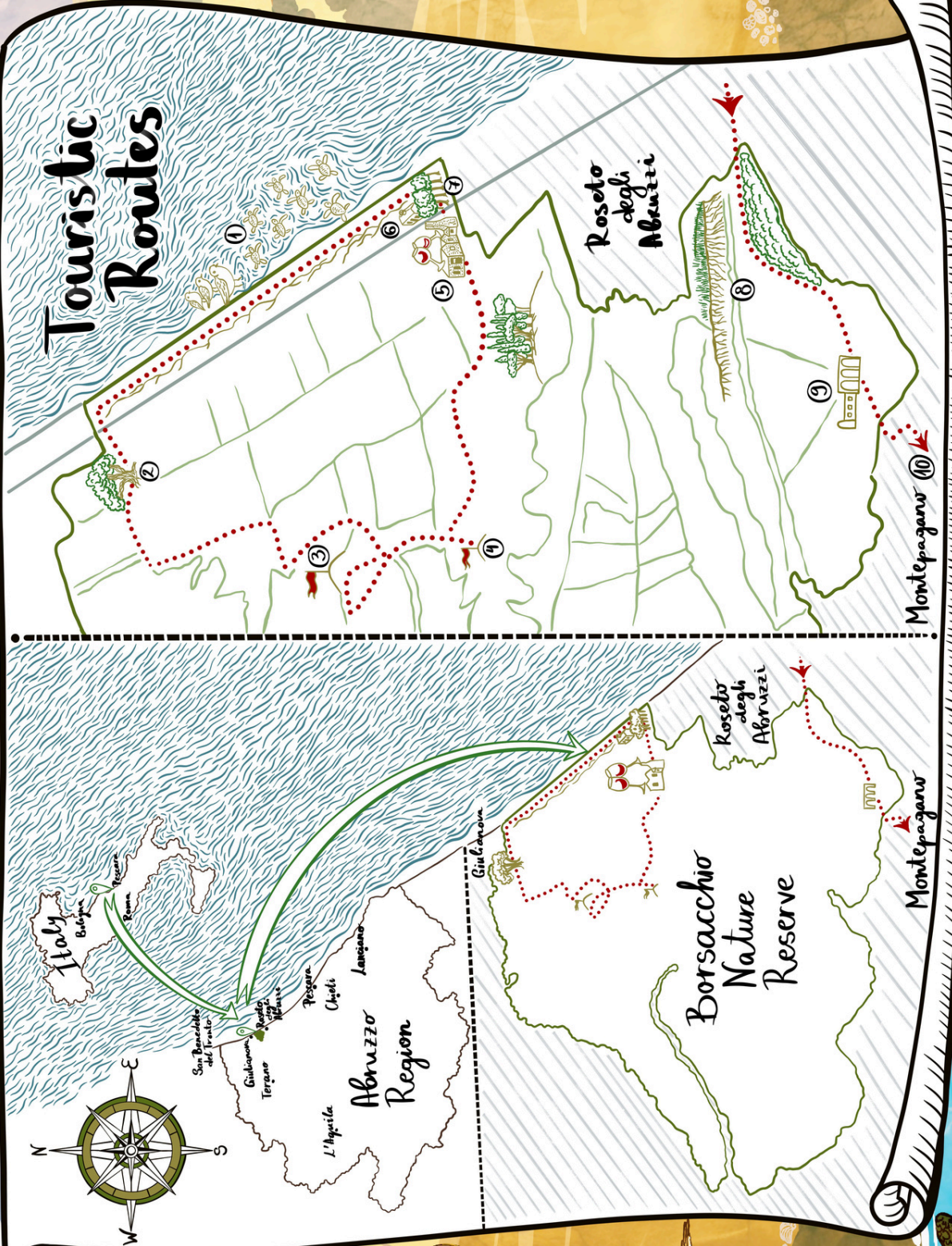


FARFALLA BLU

[IT] La **Farfalla Blu** (*Polyommatus icarus*) è una piccola farfalla che si trova in tutta Europa, Nord Africa e parti dell'Asia. Svolge un ruolo essenziale nell'impollinazione e nel mantenimento della biodiversità.

[EN] The **Blue Butterfly** (*Polyommatus icarus*) is a small butterfly found across Europe, North Africa and parts of Asia. It plays an essential role in pollination and maintaining biodiversity.

Riserva Naturale del Bor sacchio



Legend

- ① Dunes
- ② Ancient olive tree
- ③ Colle Magnone
The Highest hill in the reserve
- ④ View point
- ⑤ Cantina Mazzarosa
- ⑥ L'antica Stazione
Democrazia Transtazione
- ⑦ La Pineta Mazzarosa
- ⑧ Calanchi di Diodoro
- ⑨ Fonte dell'Accole
Fountain
- ⑩ Montepagano village
- ... Touristic routes
- Borders of the Nature reserve

Montepagano

Montepagano

Borsacchio
 Nature
 Reserve

Roseto
 degli
 Abruzzi

Touristic
 Routes

Riserva Naturale del Bor sacchio

... Osserviamo la Flora



CENCRUS INCERTUS CURTIS

[IT] Planta annuale, 1030 cm, con culmi ascendenti o prostrati. Foglie per lo più glabre, pelose solo vicino alla ligula, con lamina mediamente convoluta larga 45 mm. Particolarità – usi officinali

Questa specie è diventata un'infezzante sulle nostre spiagge. Appartenente alla famiglia delle graminacee è causa di grossi problemi a chi incautamente passeggia in prossimità della duna. Questa pianta, infatti, è provvista di aculei portati sulla capsula seminfera che, se da un lato, assicurano una sicura disseminazione epizoochora, dall'altro, se pestati, provocano forti dolori.

[EN] Annual herb, 1030 cm, featuring either ascending or prostrate stems. Leaves predominantly smooth, with hairiness only near the ligule, possessing a medium convoluted blade 45 mm wide. One peculiarity is its therapeutic application. This species has turned into a nuisance on our beaches. As a member of the grass family, it poses significant challenges to those who carelessly stroll near the dune. This plant is, in fact, armed with prickles found on the seed capsule which, while facilitating effective epizootic spread, can inflict intense pain if stepped on.



PANCRATIUM MARITIMUM

[IT] Il genere *Pancratium* comprende circa 15 specie di piante erbacee bulbose e perenni, distribuite dalla regione mediterranea fino all'Asia e all'Africa tropicale. Il *Pancratium maritimum* L. è una specie a grandissimo rischio di estinzione. Particolarità – usi officinali

[EN] The genus *Pancratium* includes about 15 species of bulbous, perennial herbaceous plants, distributed from the Mediterranean region to Asia and tropical Africa. *Pancratium maritimum* L. is a species at great risk of extinction. Particularities – medicinal uses.



SILENE COLORATA

[IT] Planta erbacea annuale, alta 10-40 cm, con fusto eretto ramificato alla base, ricoperto di peli riflessi. Le foglie sono lanceolate-spatolate e i fiori sono disposti in infiorescenze racemose con petali rosa di 6 mm. Il frutto è una capsula di 7-9 mm, con 6 denti e semi dotati di ali ondulate. Applicazioni terapeutiche.

[EN] Annual herbaceous plant, 10 to 40 cm tall, with an erect stem branched at the base, covered in reflexed hairs. The leaves are lanceolate-spatulate, and the flowers are arranged in racemose inflorescences with pink petals measuring 6 mm. The fruit is a capsule, 7 to 9 mm long, with 6 teeth and seeds featuring wavy wings. It has therapeutic applications.



CALYSTEGIA SOLDANELLA

[IT] Planta perenne, fino a 100 cm, con fusti glabri portanti alla base rizomi sotterranei che si propagano all'esterno strisciando sulla sabbia. Solitamente a questo genere appartengono specie che sono un vero flagello per i coltivi, per questo motivo a questo genere si dà in gergo il nome di "Budello del diavolo". Particolarità – usi officinali.

[EN] Perennial plant, reaching up to 100 cm in height, with smooth stems that feature underground rhizomes at the base, which extend outward by creeping across the sand. Typically, this genus includes species that pose a significant threat to crops; hence, it is colloquially known as "Devil's Gut". Particularities – therapeutic applications



VERBASCUM NIVEUM

[IT] Planta biennale, 30-150 cm, provvista di una densa pelosità bianca o giallastra. Il fusto è ramoso o semplice. Particolarità – usi officinali. È una specie endemica, ossia presente in pochissime regioni o in ristrettissime aree. In Italia è presente soltanto in 4 regioni: Abruzzo, Molise, Puglia e Marche. È una specie considerata "Vulnerabile", ossia esposta a rischio di estinzione.

[EN] Biennial plant, 30-150 cm tall, covered with dense white or yellowish hairs. The stem is branched or simple. Particularities – Medicinal uses. It is an endemic species, meaning it is found in very few regions or in highly restricted areas. In Italy, it is present in only 4 regions: Abruzzo, Molise, Puglia, and Marche. It is considered a "Vulnerable" species, meaning it is at risk of extinction.



EUPHORBIA PARALIAS

[IT] Planta perenne, 30-60 cm, con fusto eretto, glauco, glabro con base ramificata e portamento cespuglioso. Foglie numerose, lanceolate o oblungoellittiche, strettamente addensate e più o meno embricate. Particolarità – usi officinali. È tossica e il lattice è velenoso e caustico. È una specie minacciata, esposta cioè a grave rischio di estinzione.

[EN] Perennial plant, 30-60 cm in height, featuring an erect, glaucous, and glabrous stem with a branched base and a bushy growth habit. It has numerous leaves that are lanceolate or oblong-elliptic, densely arranged and more or less imbricated. Particularities – therapeutic applications. It is toxic, and the latex is both poisonous and caustic. It is classified as a threatened species, meaning it faces a significant risk of extinction.



CAKILE MARITIMA

[IT] Planta annuale, 10-30 cm, succulenta, con fusti ascendenti o prostrati, flaccidi e glabri, e spesso molto ramificati. Foglie glabre, grigioverdi, a consistenza carnosa di forma intera o lacinata Racemi brevi. Particolarità – usi officinali.

[EN] Annual plant, 10-30 cm, succulent, featuring ascending or prostrate stems that are flaccid and glabrous, often exhibiting significant branching. The leaves are glabrous, grey-green, with a fleshy texture, and can be either entire or laciniate in shape. Peculiarities – therapeutic applications.



CRITHMUM MARITIMUM

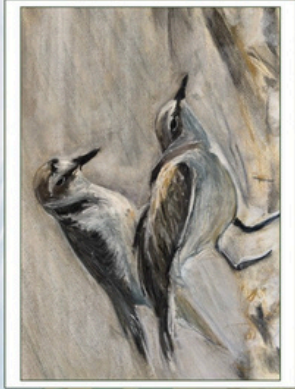
[IT] Cespuglio, di 20-50 cm, glabra, carnosa e molto aromatica. Il fusto è molto ramificato e legnoso con scapi erbacei ascendenti. Le foglie basali sono 23 pennato-sette, con segmenti lanceolati lineari, carnosi e interi. Particolarità – usi officinali

Viene raccolta e a volte coltivata per la bontà delle foglie aromatiche e succulente che possono essere sia conservate sottaceto, sia consumate nell'insalata.

[EN] Bush, 20-50 cm, smooth, fleshy, and highly aromatic. The stem is extensively branched and woody, featuring upright herbaceous scapes. The basal leaves are 23 pinnate-seven, with lanceolate-linear segments that are fleshy and entire. Particularities – therapeutic applications

It is gathered and occasionally cultivated for the benefits of its fragrant and tender leaves, which can be preserved in vinegar and used in salads.

... Osserviamo il ciclo vitale del fraterno
... observe the life cycle of the *Kentish Plover*



[IT] La femmina di solito depone da 2 a 4 uova per covata. Le uova hanno colori e motivi che si mimetizzano con l'ambiente, aumentando le loro possibilità di sopravvivenza. La deposizione avviene generalmente in periodi specifici, solitamente in primavera, quando le condizioni meteorologiche sono favorevoli e la disponibilità di cibo è maggiore. Dopo 24-28 giorni, questa cooperazione è essenziale per garantire la protezione delle uova. Durante l'incubazione, i genitori si alternano nel mantenere le uova calde e proteggerle dai predatori e dalle intemperie.

[EN] The female typically lays 2 to 4 eggs per clutch. The eggs have colors and patterns that blend with the environment, increasing their chances of survival. Laying usually occurs at specific times, generally in the spring, when weather conditions are favorable and food availability is higher. Both the female and male participate in incubating the eggs, and this cooperation is essential to ensure the protection of the eggs. During incubation, the parents take turns keeping the eggs warm and protecting them from predators and harsh weather.

RIPRODUZIONE (Reproduction)

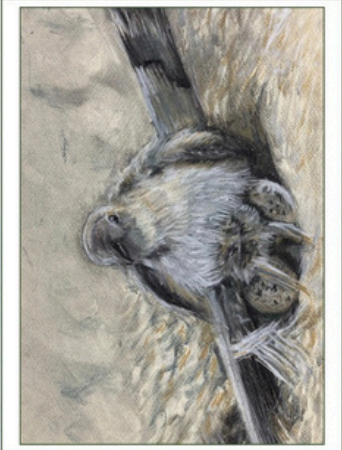


NIDO (Nest)



[IT] Il fraterno costruisce il suo nido in luoghi strategici, come spiagge, dune e aree sabbiose esposte. Il nido è una semplice depressione nel terreno, spesso foderata con piccoli ciottoli, conchiglie o granelli di sabbia, che aiutano a mimetizzarlo.

[EN] The *Kentish Plover* builds its nest in strategic locations, such as beaches, dunes, and exposed sandy areas. The nest is a simple depression in the ground, often lined with small stones, shells, or grains of sand, which help with camouflage.



[IT] Con il passare dei giorni, i pulcini iniziano a imparare a cercare cibo da soli. Osservano i genitori e imitano il loro comportamento per trovare degli alimenti. Fin dall'inizio, i pulcini sviluppano istinti per nascondersi dai predatori. Intorno alle 4-5 settimane di età, i pulcini iniziano a volare.

[EN] As the days go by, the chicks start to learn to forage on their own. They observe their parents and imitate their behavior to find food. From the beginning, the chicks develop instincts to hide from predators. Around 4 to 5 weeks of age, the chicks begin to fly.

CRESCITA (Growth)



SCHIUSA (Hatching)



[IT] I pulcini possono emettere suoni attutiti mentre sono ancora dentro le uova, il che può stimolare i genitori a prepararsi per la schiusa e a proteggere i neonati. Dopo la schiusa, i pulcini escono dall'uovo coperti di piume corte e bagnate. Sono immediatamente in grado di muoversi, il che è cruciale per evitare i predatori. La cura parentale, il camuffamento e il comportamento istintivo giocano ruoli vitali nella sopravvivenza dei pulcini durante i primi giorni di vita.

[EN] The chicks can emit muffled sounds while still inside the eggs, which may stimulate the parents to prepare for hatching and to protect the newborns. After hatching, the chicks emerge from the egg covered with short, wet feathers. They are immediately able to move, which is crucial for avoiding predators. Parental care, camouflage, and instinctive behavior play vital roles in the survival of the chicks during their first days of life.

INDIPENDENZA (Independence)

[IT] I pulcini continuano a imparare nel loro habitat, comprese quelle aree più sicure e dove possono trovare cibo. Generalmente, dopo circa 6-8 settimane, i pulcini diventano abbastanza indipendenti e capaci di sopravvivere da soli. Anche se possono ancora beneficiare della presenza dei genitori, hanno già le abilità necessarie per sostenersi.

[EN] The chicks continue to learn about their habitat, including which areas are safer and where to find food. Generally, after about 6 to 8 weeks, the chicks become quite independent and capable of surviving on their own. While they may still benefit from the presence of their parents, they already have the skills needed to sustain themselves.

MIGRAZIONE (Migration)



[IT] La migrazione dei frateri è spesso legata al loro ciclo di riproduzione dove tendono a tornare in aree costiere e spiagge per nidificare durante la primavera e all'inizio dell'estate, quando le condizioni meteorologiche sono favorevoli.

[EN] When they reach maturity, usually around one year, young plovers can engage in migrations and eventually start their own breeding cycle. The migration of plovers is often linked to their breeding cycle. They tend to return to coastal areas and beaches to nest during spring and early summer when weather conditions are favorable.



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We are all just human beings: for this reason it is possible that this dossier contains mistakes and inaccuracies.

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