



PROTECT

MEDITERRANEAN TREASURES

#30BY30



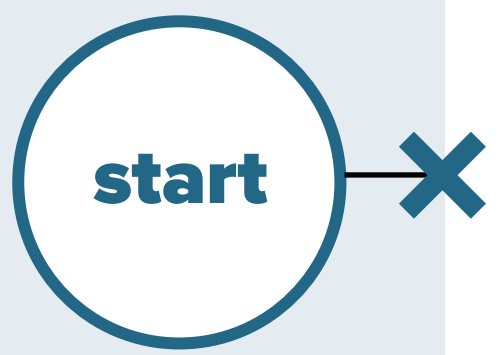
Follow the journey.



BLUE

PANDA

WWF travel guide
to discover the Mediterranean Sea
and its people
2021



Welcome to the Mediterranean

Turquoise, glimmering water. Gorgeous sandy beaches. Thousands of years of culture and civilization, and treasures under and above the sea's surface.

The Mediterranean Sea is loved by the world. Millions of visitors enjoy its beauty every year. For those living along its coasts, the Sea is a source of pride and livelihood. But this blue treasure requires urgent action if we want to continue to thrive from the benefits it provides.

In 2021, WWF's sailboat Blue Panda takes you on an incredible journey to some of the Mediterranean's most iconic sites which are located close to well-known tourist destinations and that are too often threatened by mass tourism, unsustainable fishing and other human activities. In 6 marine protected areas, we explore the sea's underwater universe and engage with the coastal communities on its shores and act to free these areas from ghost gear.

This special travel guide is an invitation to discover Mediterranean marine treasures and the many people acting for their protection and a call to join them to ensure that by 2030 at least 30% of the Mediterranean is effectively protected #30by30.

We invite you to come along on this exciting journey. Get inspired, immerse yourself in the Mediterranean Sea, and get to know its people and marine life from a new perspective. Join us in protecting this unique treasure. Welcome aboard!

Follow the Journey:



ON WEBSITE

www.wwfmmi.org/wwf_boat/the_blue_panda/



ON SOCIAL MEDIA

#30by30 #BluePanda





welcome

Let's start the jour- ney

> **PORTOFINO MPA**

ITALY
JUNE-JULY

> **ZAKYNTHOS MPA**

GREECE
JULY

> **KAŞ KEKOVA MPA**

TURKEY
AUGUST

> **CAP CORSE MPA**

FRANCE
SEPTEMBER

> **TABARKA**

TUNISIA
OCTOBER

> **TAGOMAGO MPA**

SPAIN
NOVEMBER

start

1



PORTOFINO

ITALY

JUNE-JULY

2

3

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6

Por- to- fino

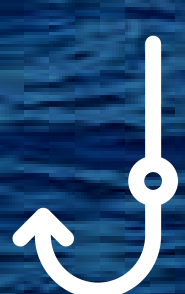
ITALY
JUNE-JULY



246HA
the Portofino MPA
is the fifth smallest in Italy



ONLY 500 PEOPLE
live in the small village
of Portofino



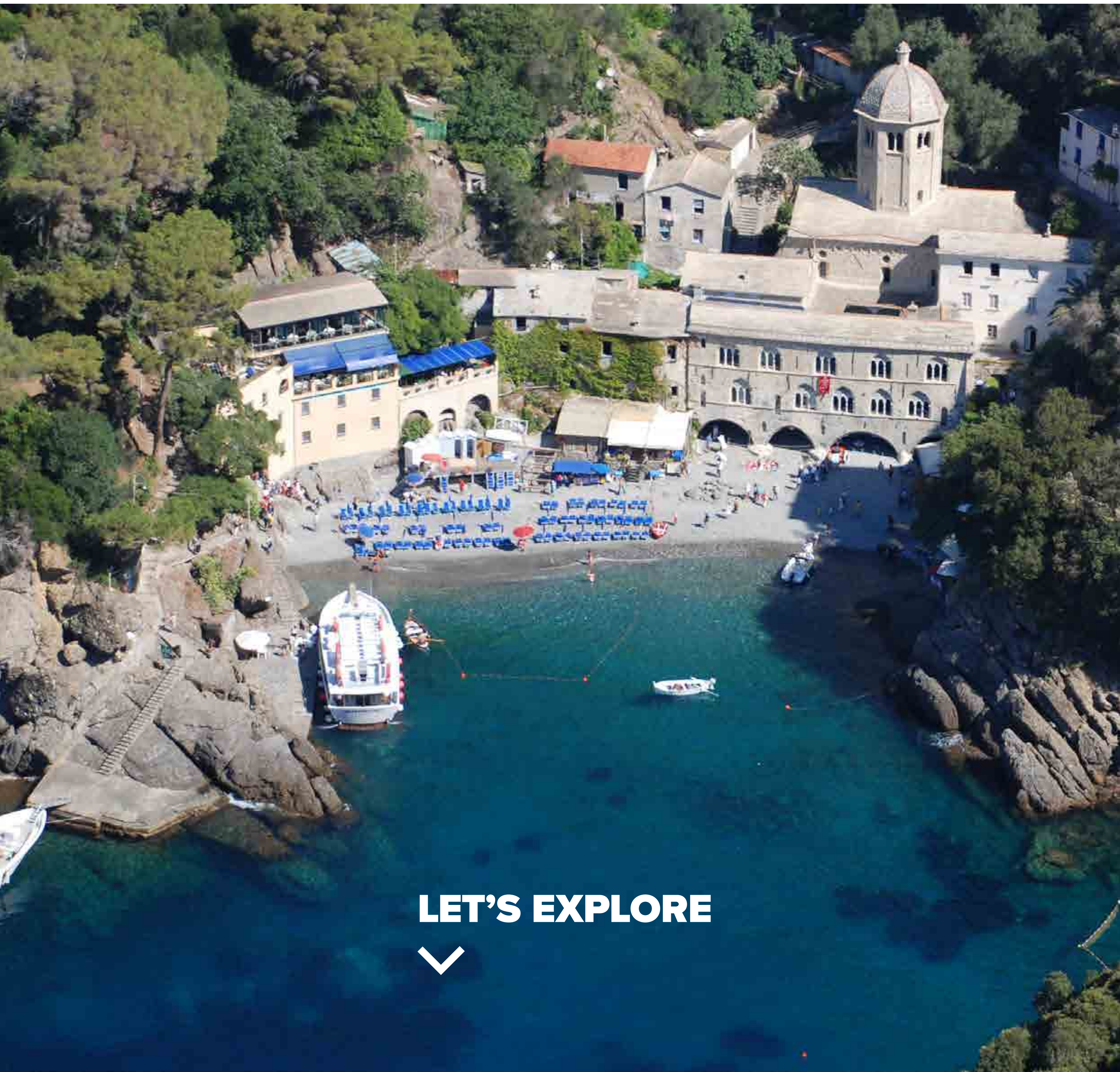
**36 ARTISANAL
FISHING BOATS**
are authorized to fish inside
the MPA every year



The MPA hosts the most
important shallow-water
**CORAL POPULATION
OF THE LIGURIAN SEA**

Welcome to the Portofino MPA

Portofino, a small fishing village on the Northwestern coast of Italy, has played host to romantic getaways since the glamorous days of old Hollywood, drawing everyone from Orson Welles to Elizabeth Taylor and immortalized in books and songs. Today, Portofino and its neighboring towns on the Italian Riviera like Santa Margherita Ligure and Camogli are popular especially among visitors keen on boating, fishing, and diving. The Portofino Marine protected area is Italy's fifth smallest, but boasts stunning biodiversity, from colorful fish to the most important shallow-water coral population of the Ligurian Sea. Hop along for the ride as we explore the Portofino MPA on Blue Panda's first stop of its 2021 journey.



LET'S EXPLORE





ELENA

diving deep into nature and yourself

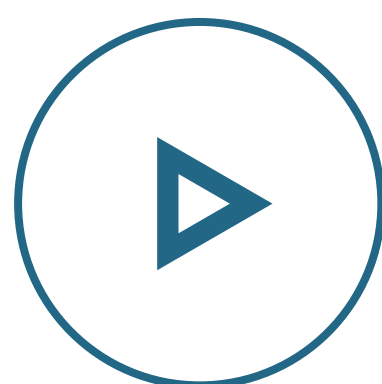
“Initially it was really the contact with nature. You are surrounded with fish, in an environment that embodies nature itself.” This is how Elena Colombo, professional diver from the Portofino MPA, describes what it means to be underwater.

Portofino and its surroundings are generally considered the birthplace of scuba diving in the Mediterranean. Many of the major companies that make diving equipment are headquartered in the area.

Elena first started frequenting one of these clubs in the late 1990s. She used to come from Milan almost every weekend. “Obviously it had always been my passion, what I wanted to do in my life. I decided to change my life to make it my work. I left my job in Milan which had nothing to do with diving, and I moved here permanently to open a diving club in San Michele di Pagana.” And this was not by chance, as this “is a place where it is hard to meet divers who are unhappy about what they see, it is really rich.”

But, in the over two decades as a professional diver, she’s seen things change when it comes to the environment. “In recent years, the most prejudicial thing - although I am not a specialist - is climate change. The sea water rise creates a mucilage phenomenon, which damages gorgonians and corals, but not the fish,” she explains. “Every year, the situation seems to worsen.”

WATCH
THE VIDEO



In addition, ghost gear creates problems. “The present harm are the fishing lines, which come from sportive, amateur fishing - something we are trying to change in people’s minds, especially those of fishermen.”

Along with her colleagues in the diving community, Elena started the Reef Alert Network, an association of professional divers that collaborates with local diving clubs, fishers, scientists, the MPA managers and NGOs like [WWF](#) to better monitor and protect the marine environment of the area from ghost gear: “The most important work, beyond ghost gear, is to create a positive and collaborative relationship with professional fishers,” and this has yielded results “There isn’t the division that used to be with professional fishers anymore.”



Change won’t come overnight, and Elena places her hopes in the future generations. “Young people are more open to environmental issues, like climate change, plastic, and illegal fishing. These are the people with whom it is easier to find a fertile ground to try to ameliorate things in the coming years. They are our hope.”

Read also about the ghost gear retrieval we did with Elena and the divers of the [ReefAlertNetwork](#) together with the [Portofino MPA](#).

the CORAL FORESTS of Portofino

BY GIORGIO BAVESTRELLO

*Professor of Zoology at the University of Genova.
Born in Rapallo, a few kilometres from the Portofino MPA,
he studied the ecology of coral reefs and
[the mass mortality episodes of Gorgonians in the Ligurian Sea.](#)*

The Portofino Promontory has always been there to protect one of the best natural landing places on the Riviera di Levante. Entering the small cove, you get your first glimpse of the village square, full of memories of the dolce vita. It is easy to imagine the Portus Delphini with moored Roman trireme vessels, Genoese galleys or English frigates in amongst the small fishing boats that struggle – now, as then – to eke a living from the sea.

The rocks of the cape are perfectly vertical, falling from the lighthouse sharply into the sea, promising depth and a rich underwater world for divers. Along these cliffs, after the Second World War, Italian diving was born. It developed thanks to the naive recklessness of a group of intrepid young people who, in some cases, paid with their lives for their daring. The same stretch of sea has also seen memorable efforts from marine biologists, pioneers who, with limited means but great intuition, described the diversity and functioning of the coral beds and the underwater treasures of the Marine Protected Area of Portofino.

In Portofino coral formations have grown on the cliffs forming parallel horizontal planes that make the wall similar to a giant supermarket shelf. Each of these floors has an illuminated surface facing up and a shadowy one, facing down. It is an

incredibly complex, three-dimensional environment that hosts an abundance of marine species like molluscs, sponges, and bivalves.



Most divers are amazed and delighted by the underwater forests that grow on top of the coral constructions, especially gorgonians - large branched corals characterized by flexible skeletons. Marine and terrestrial forests are similar in some ways. Like trees on land, sea corals change the structure of the environment, giving it breadth and three-dimensionality, altering the penetration of light and slowing down the current. Both terrestrial and underwater forests produce a virtually infinite variety of environmental conditions to which countless organisms can adapt. Like the foliage of large trees, gorgonians offer shelter to a number of animals that hide among their branches. Numerous organisms (invertebrates, fish, small sharks) deposit their eggs on the gorgonians, like birds nest in trees.

The red coral populations of the Portofino MPA are the most abundant and rich in the whole Ligurian Sea. Over the years, thanks to the protection offered by the MPA and to the growing ecological awareness of divers, the red coral forests have grown into large colonies. Red coral - this mythical organism - is perhaps the invertebrate which has demonstrated the "MPA effect" most spectacularly.

But these marine forests continue to be threatened. Global warming is having an increasingly dramatic effect on the whole Mediterranean Sea, and is the cause of impressive death phenomena especially in late summer, when the surface layer of hot water reaches its maximum depth. In addition, fishing activity threatens colonies of gorgonians, as fishing hooks get entangled in them, breaking their branches or tearing their tissue.

Portofino is one of the most famous Marine Protected Areas in the Mediterranean. The size of the MPA is modest when considered in terms of the human crowds it attracts. The MPA plays an extremely delicate role as it must take into account the needs of the environment and those of its users (divers, fishers, boaters). Good management plans based on scientific data need to be implemented by all stakeholders working together to protect and restore these unique gorgonian forests for us and for the generations to come.

LET'S
DISCOVER!



Red Coral

the “pearl of the Mediterranean sea” has its home place in the Portofino MPA.



Brown Grouper

is the most charismatic species of the MPA, because it's the main species that usually increases when you stop spearfishing.



Striped Dolphins

move from Genoa to Portofino, and come here to eat. You can usually spot them in the evening or early morning when there are fewer boats in the sea. Portofino is in the center of the Pelagos Sanctuary, so if you go out far from the coast, you can see bottlenose dolphins and cetaceans. (We were lucky to spot them too!!!)

7



travel tips from VALENTINA

PROJECT MANAGER OF THE PORTOFINO MPA

She has been studying and working here for over 15 years and we can guarantee she knows the area very well. Let's see what are her favourites



6



OUTDOOR

1 Snorkeling in Punta Chiappa

Head out to Punta Chiappa, close to Camogli, Portofino and Santa Margherita, and enjoy a day of swimming and snorkeling, observing the marvelous nature underwater in the Portofino Marine protected area.

2 Scuba diving in Portofino

Portofino is considered the birthplace of diving in the Mediterranean. And for good reason. It's an incredibly biodiverse place, where colorful fish and corals abound. The region is home to famous diving equipment companies and, if you don't know how to dive yet, one of the many clubs will be excellent places to learn.



WHAT TO SEE

3 Walk up to the Portofino lighthouse

Admire the sunset and enjoy the drink at this lighthouse perched on a hill, overlooking the Mediterranean.

4 Tonnarella

While you're in Punta Chiappa, catch sight of the traditional way of fishing dating back to the 17th century.

4



5 Catch a game of Pro Recco

the record-breaking water polo team from Recco, Liguria, the most successful club in men's water polo.



FOOD & DRINK

6 Seafood

The Italian riviera brims with interesting local cuisine, fresh produce and, of course, seafood. Catch a meal featuring fish pickled in the traditional way. (Picture of Luca's boga)

7 Focaccia

Liguria is famous for its focaccia and, in particular, the cheesy kind: Focaccia Recco.

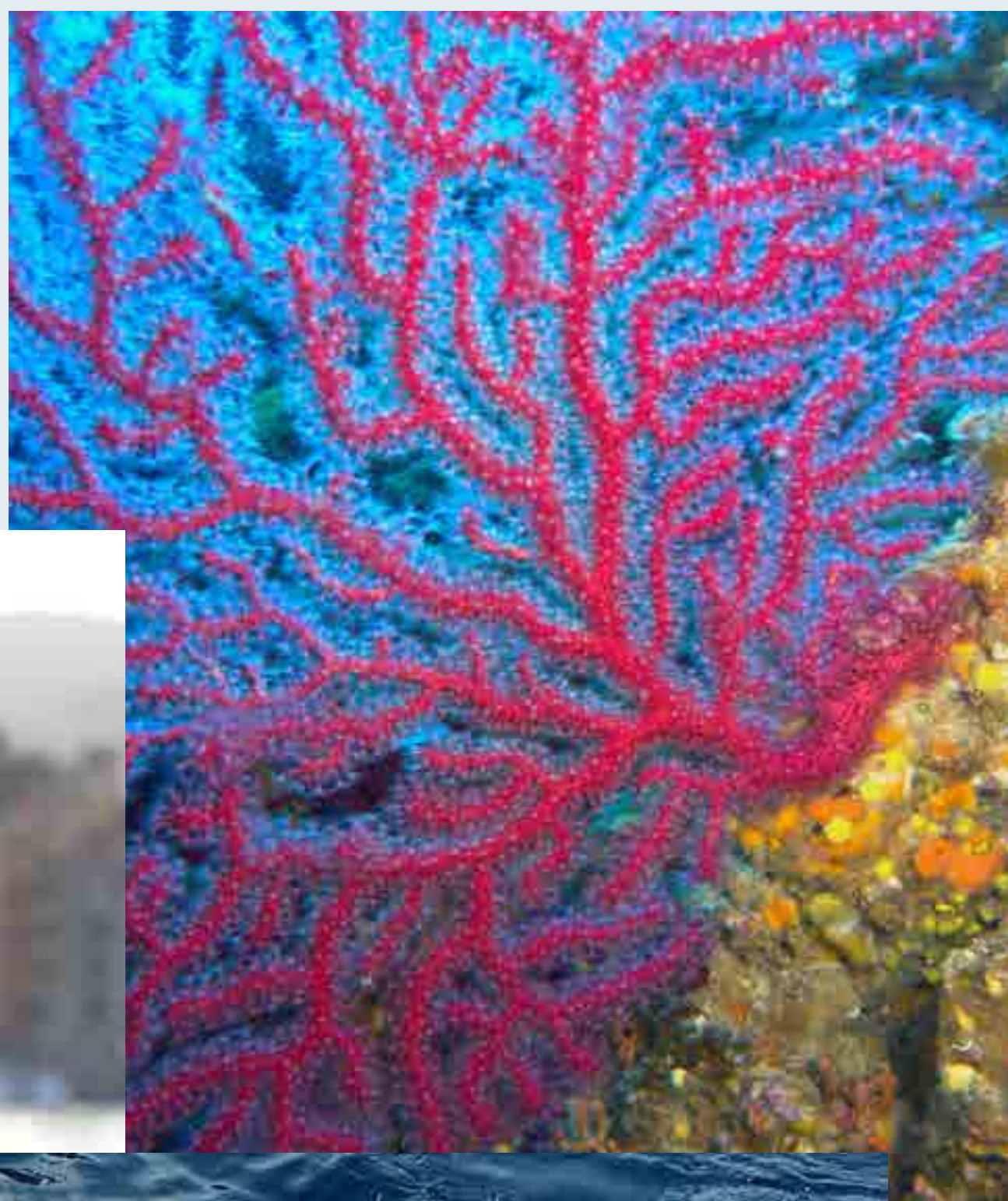
8 Pesto Genovese

Make sure you enjoy a plate of pasta prepared with pesto Genovese, and cooked with potatoes and green beans.



THE BEST OF

the BEST of Portofino

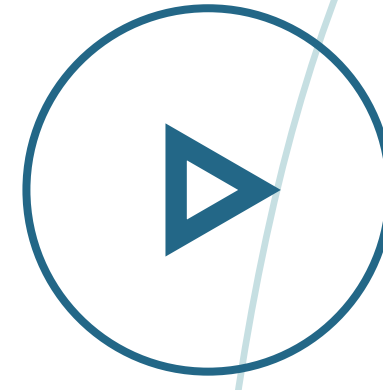


GHOST GEAR



Medkeepers in action against GhostGear

WATCH
THE VIDEO



25 hours of work and 200 kg of ghost gear retrieved later, the Marine Protected Area of Portofino can breathe a little better. Committed and enthusiastic teams of divers engaged in 6 days of sea bottom cleaning activity, and spent hours underwater to free the gorgonians, corals and other marine species that populate the depths of the Ligurian sea from the suffocating effect of abandoned fishing lines, trammel nets and longlines at sea.

These are the results of the retrieval operations carried out between 8 and 29 June and organized as part of the 2-year Ghost Gear project in the Mediterranean, in close collaboration with Portofino MPA and the Municipality of Santa Margherita Ligure. The last day of retrieval took place precisely as the Blue Panda had arrived in the Italian iconic tourist hotspot.



> **16 SITES**
identified and mapped

> **200 kg**
of ghost gear retrieved

> **6 days / 25 hours**
of diving

> **Seabottom operation
in 2 SITES**

> Composition of the
ghost gear found in
Portofino MPA:

19% fishing lines
(recreational fishing)

18%
others

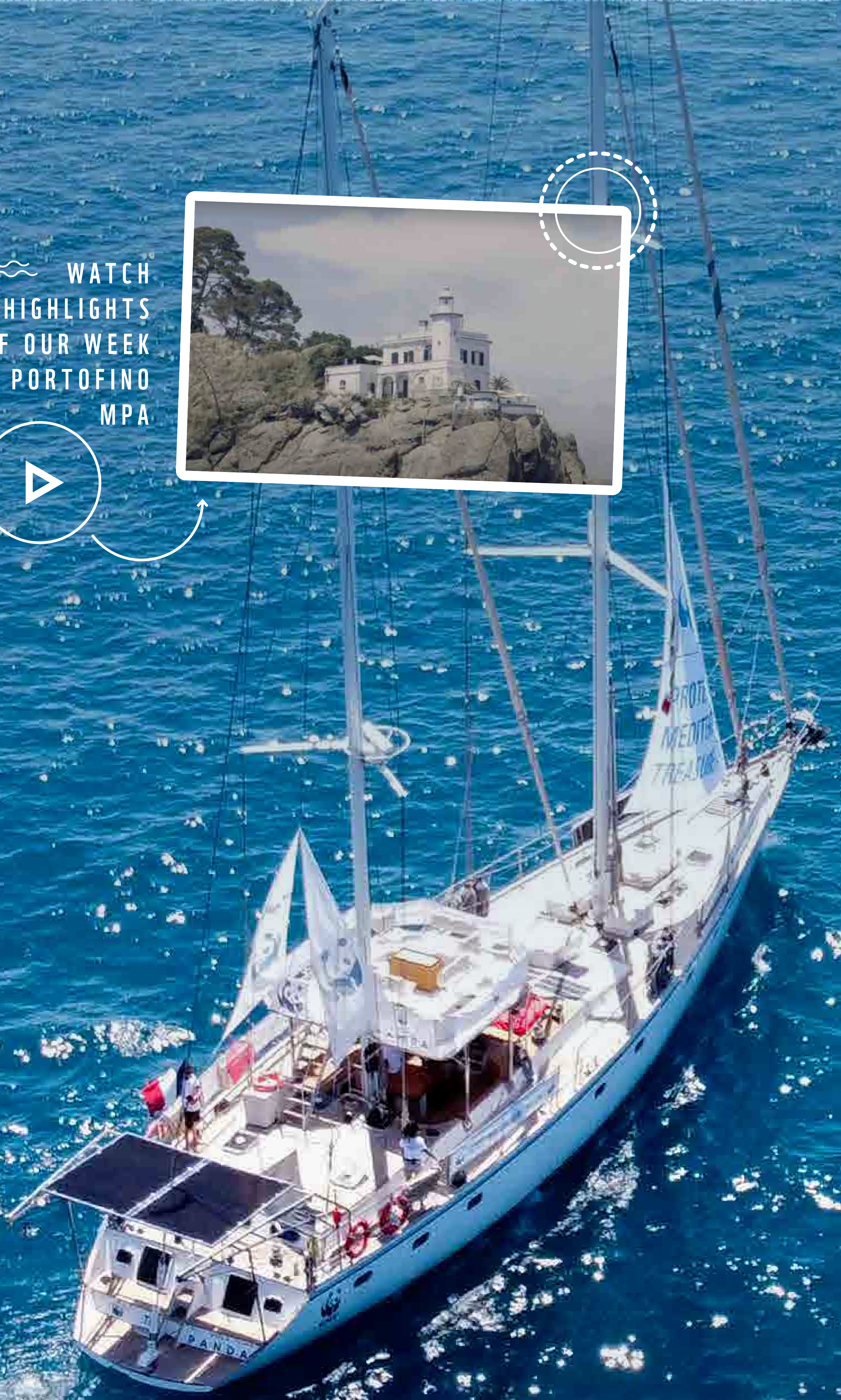


63% nets
(artisanal fishing)



THE POSTCARD

WATCH
HIGHLIGHTS
OF OUR WEEK
IN THE PORTOFINO
MPA



Goodbye Portofino!

NEXT DESTINATION



BACK
AT SEA



*Photos and videos are from:
Luca Coltri, Salla Huusko
and the Portofino MPA.*

Back at SEA

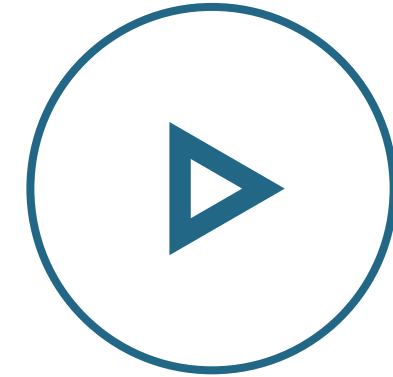
WHILE WE HEAD TO ZAKYNTHOS

A pod of striped dolphins near the Tuscan Archipelago

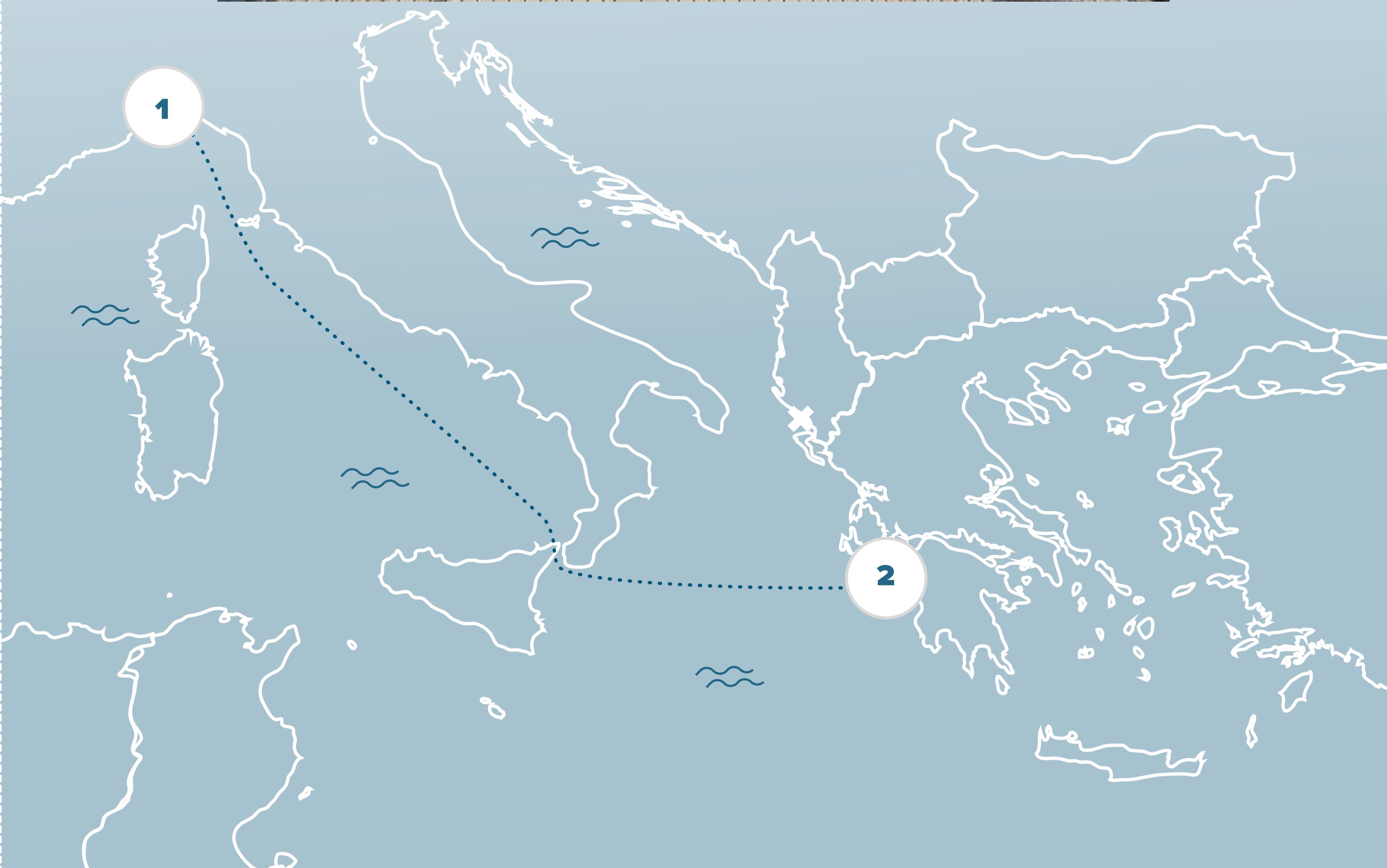
came to wish the Blue Panda a good morning.



WATCH THE VIDEO



Now, it's time to say goodbye to this beautiful marine treasure and take to the sea towards our next destination: the Zakynthos MPA in Greece.



Za- kyn- thos

GREECE
JULY

ZAKYNTHOS MPA
GREECE
JULY

start

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Zakynthos is one of **GREECE'S MOST POPULAR TOURISM DESTINATIONS**



THE NATIONAL MARINE PARK of Zakynthos was established in 1999



The park is home to the endangered loggerhead **SEA TURTLE**

© Salla Huusko

Welcome to the Zakynthos MPA

Zakynthos, or Zante in Italian, is an island situated in the Ionian Sea, west of mainland Greece. Known for its stunning beaches, blue water, lush mountains, and friendly locals, it has been nicknamed "Fior di Levante" (Flower of the East) for its unique beauty.

Currently the fifth most popular tourism destination in Greece, Zakynthos draws visitors to immerse themselves in the island's intoxicating blend of gorgeous landscapes, culture, and history. Earning itself a mention in the ancient Greek poet Homer's Iliad and the Odyssey, the island's history spans thousands of years. Churches and other monuments to the island's history remain for the visitor to marvel at.

The island is home to the National Marine Park of Zakynthos, established in 1999 to protect its unique marine habitat and species. Greece hosts 60% of loggerhead sea turtle (*Caretta caretta*) nests in the Mediterranean and one of the most important nesting sites is Laganas Bay in Zakynthos. On one beach, Sekania, is a carefully protected habitat where thousands of turtle eggs hatch each year.

Sekania is off-limits to outsiders, but many of the beaches in Laganas Bay offer the opportunity for the visitor to respectfully observe turtles in their natural habitat. You can head to the Kalamaki beach and swim or hire a pedalo. During our stay with the Blue Panda, we met with local tourist operators, small-scale fishers and organisations that are working towards developing a more sustainable way of doing tourism. You can do your bit too, while still fully enjoying the treasures Zakynthos offers.

LET'S EXPLORE





MARIA LOUGARI
AND ANTONIS NIKOLOUDAKIS

RECONCILING TOURISM AND CONSERVATION on the magical island of Zakynthos

With its gorgeous sandy beaches, stunning blue water, and friendly culture, Zakynthos is one of Greece's most popular tourist destinations. But its beaches also provide some of the Mediterranean's most important nesting sites for the loggerhead sea turtle, *Caretta caretta*.

“What we had from the beginning was one mass tourism hotspot and one biodiversity hotspot in the exact same location,” says Demetres Karavellas, the CEO of WWF Greece. “In the early 90s, we were already seeing the impact of tourism on these nesting beaches.”

As tourism became an important industry on Zakynthos three decades ago, the conservation movement put in a concerted effort to preserve some of Zakynthos' habitats. Following a pan-European campaign, in 1994 WWF Greece purchased Sekania, today the most important *Caretta caretta* nesting beach on Zakynthos. Sekania records one of the biggest loggerhead sea turtle nesting densities worldwide.

Following the purchase of Sekania, the National Marine Park of Zakynthos (NMPZ) was established in 1999. It was the first national park with a management agency in Greece. At the core of it are the protection of the nesting habitats of *Caretta caretta* and other vulnerable species such as the endangered Mediterranean monk seal.

“The existence of the National Marine Park of Zakynthos did not only save the habitat of the sea turtles,” says hotelier Antonis Nikoloudakis, whose father built the first hotel complex on the island in the 1970s. “In my opinion, it actually saved the tourism industry as well.” The conservation efforts were able to recover some of what had been damaged.

“The broader area of Laganas Bay still survives healthily more or less as a tourist destination because of the restrictions that were imposed in the name of environmental protection.”

Tourism on Zakynthos came to a grinding halt as a result of the COVID-19 global pandemic. To date, visitors’ numbers have not recovered to pre-COVID levels, and many hotels continue to keep their doors closed.

For many on the island, this means financial struggle. “We are depending on tourism as an island, either directly or indirectly,” says Maria Lougari, owner of the sustainably run Castelli hotel.

At the [Blue Panda Lab in Zakynthos](#), the discussion centred on how tourism and conservation can be better reconciled in the post-pandemic world. Most speakers called for a more sustainable model of tourism. Not only is it what more travelers look for today, it’s also encouraged by the [European Union](#) as part of its recovery roadmap.

For hoteliers like Nikoloudakis and Lougari, accounting for the environment comes naturally. “There’s no bigger misconception than thinking that being sustainable is not profitable,” as Nikoloudakis explains, healthy nature is in many ways a prerequisite for having something meaningful to offer for tourists.



LET'S
DIVE IN!



READ
THE FULL
STORY





SPECIES of Zakynthos

©Joakim Odeberg

BY CHARIKLEIA MINOTOU

Sekania project leader, WWF Greece

Zakynthos island is home to the National Marine Park of Zakynthos (NMPZ), which encompasses six different nesting beaches of the loggerhead sea turtle, *Caretta caretta*. The combined marine and terrestrial habitats and ecosystems of the NMPZ are an important and internationally recognized nesting area for this endangered species.

In addition to *Caretta caretta*, the Marine Park is home to many other protected species, such as the monk seal *Monachus monachus*, the sand lily *Pancratium maritimum*, important ecosystems of sand dunes and more.

Every year, the *Caretta caretta* travel thousands of miles to nest in Zakynthos and to lay their eggs at the nesting beaches of Laganas Bay, NMPZ. The nesting period starts in early May and lasts until the end of October. Each turtle will lay eggs at the sandy beaches 2-3 times during each nesting period. Every nest hosts 100-120 eggs and the incubation lasts approximately 60 days. The small hatchlings come all



MEET MARKOS,
A FISHERMAN
FROM ZAKYNTHOS



together to the surface and move quickly to the sea to start their journey. Many predators and other dangers menace the species and, as a result, only one in a thousand will survive to adulthood.

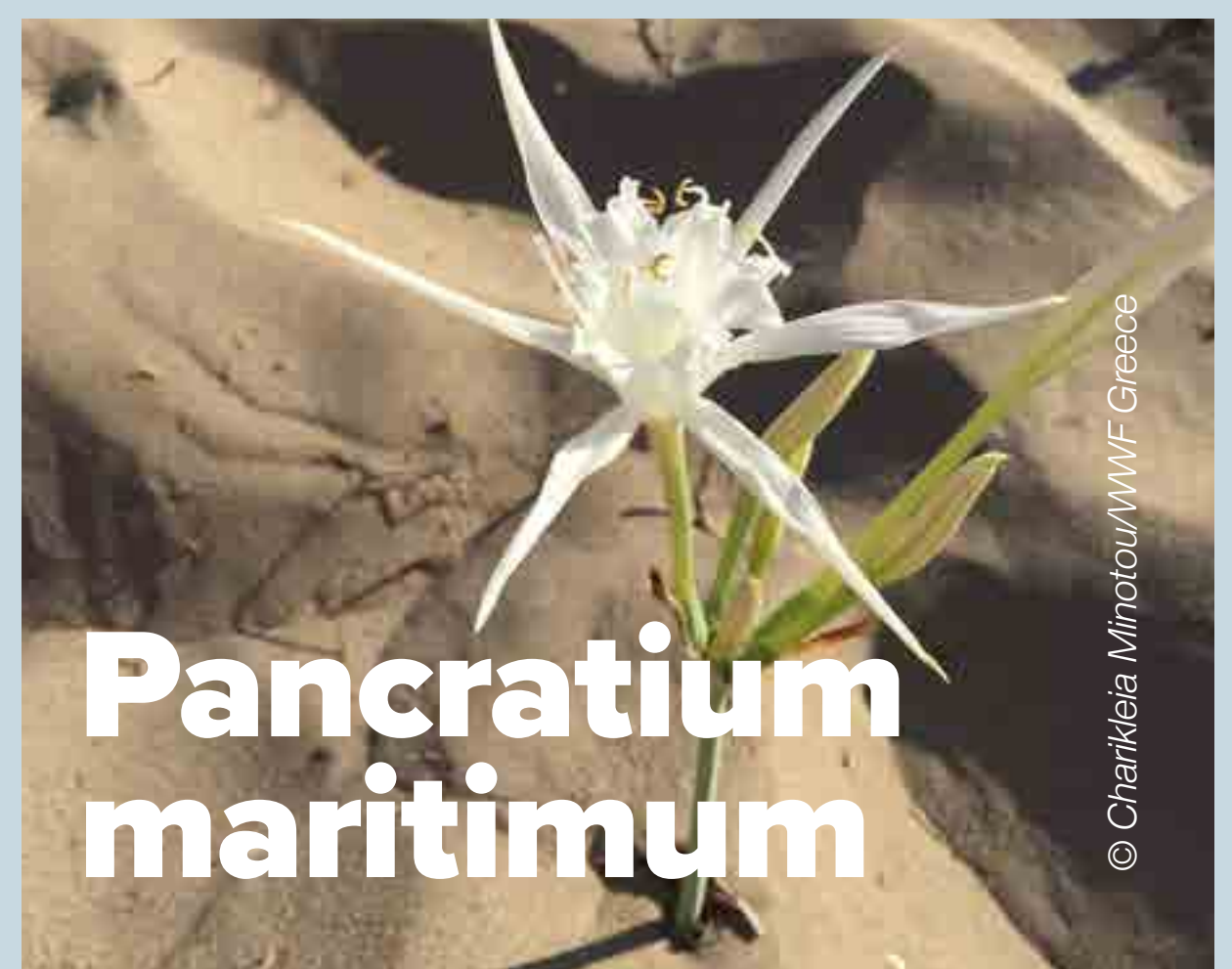
The nesting period between May and October happens at the height of the tourist season. On average, Zakynthos Island hosts more than one million tourists annually. As a result, the coexistence of human and nature become a priority for the protection of the sea turtles. The unique sandy beaches and sand dunes host nests, eggs, hatchlings and tourists and for this reason it is important to find a balance between them. Ideally, the shallow and warm sea waters can offer refuge for both the sea turtles and the tourists.



Loggerhead sea turtles nest in Zakynthos between May and October. The most important nesting beach is the fully protected Sekania.



Monk seals frequent the rocky area in the west of the Marine Protected Area of Zakynthos. The caves and small beaches are the ideal habitat for the seals. As they tend to avoid people it is difficult to see them during the summer months.



This Mediterranean protected species is found on beaches and sand dunes in Zakynthos. Its flowers have a pleasing, exotic and subtle lily scent.

LET'S
DISCOVER!



SEE, DO, EAT: Zakynthos travel tips

FROM: HOTELIERS ANTONIS NIKOLOUDAKIS & MARIA LOUGARI
CHARIKLEIA MINOTOU, WWF GREECE



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© Andrea Bonetti

7



4



SEE & HEAR & DO

1 Navagio Shipwreck Beach

Arguably the most famous beach in Greece, the stunning Navagio is reachable only by boat. Hotelier Antonis Nikiloudakis suggests going early. “If you really want to experience the place, be there by 8 a.m. This will be unforgettable.”

2 Swim with sea turtles in Laganas Bay

Antonis suggests going late in the afternoon. “It’s the time when the turtles like to bask under the sun. If you keep still and calm, it’s practically impossible to not see a beautiful turtle swimming near you.”

3 Head for the green hills

“Go for a hike or a bike ride in the mountains,” says Antonis. “Stop by a village with friendly people and have something to eat, and drink really good homemade wine.”

4 Almost every family in Zakynthos owns olive

trees and many of the trees on the island are centuries, if not millennia old. If you visit in November, seek out an opportunity to go olive picking.

5 Dedicate a sentimental serenade - Kantades

- to your beloved, accompanied by guitar and mandolin, a typical instrument in Zakynthos.



FOOD & DRINK

6 Enjoy a plate of *skordostoumbi melitzana*, a Zakynthian garlicky eggplant dish.

7 Sample local dairy products

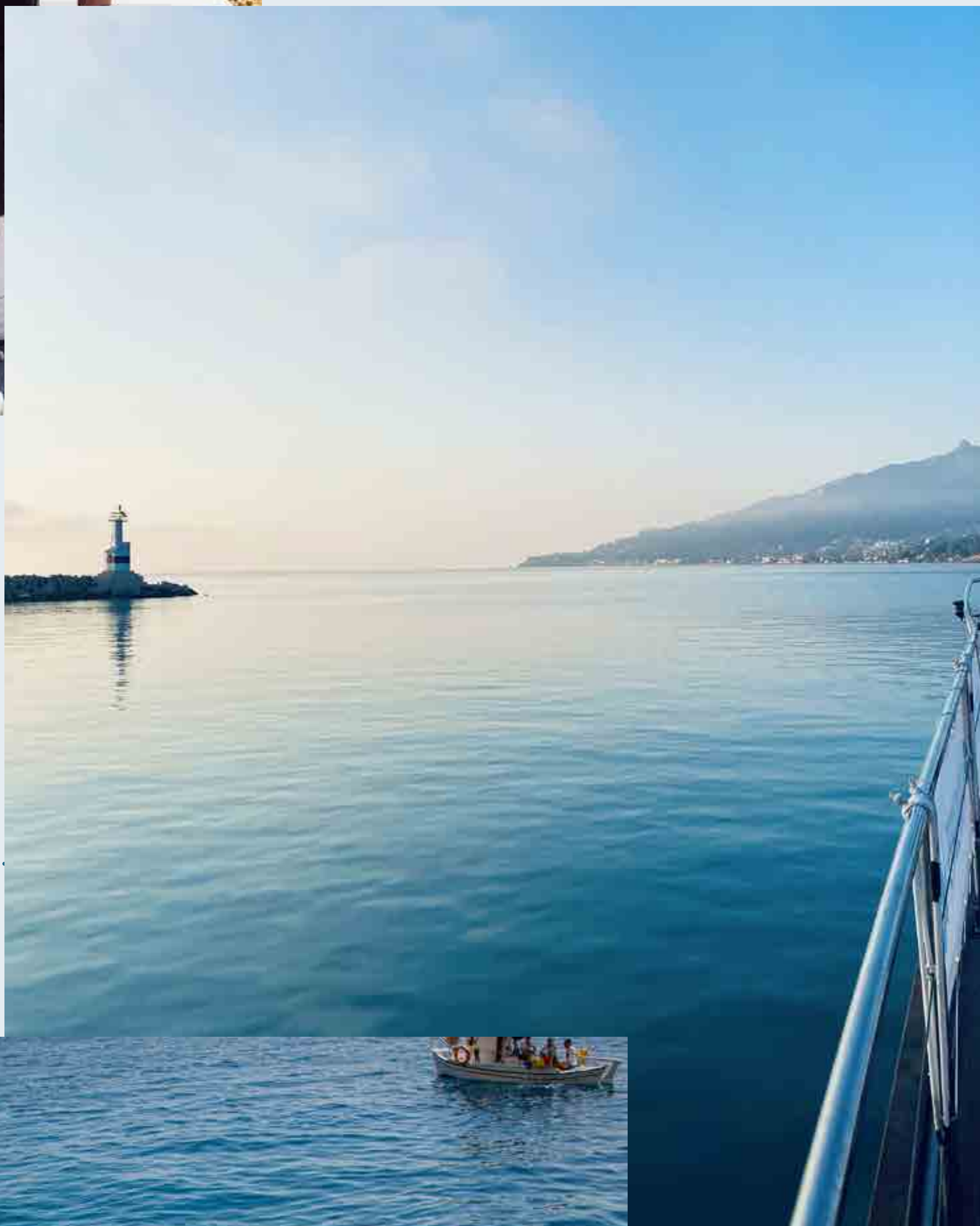
Zakynthos has many local specialties. Maria Lougari’s favorite is *pretza*. “It’s something between yoghurt and feta cheese. You can only find it homemade, and many taverns offer it, too.” Or, try *ladotyri*, an oily cheese made of sheep’s milk, or *mizithra*, a white cheese that can be made from different types of milk.

8 Bring home a bottle of Zakynthian sunshine in a bottle of local extra virgin olive oil or delicious white wine.



THE BEST OF

the BEST of Zakynthos



GHOST GEAR



Turning Ghost Gear into something useful



Above water, there are cheerful holidaymakers marveling at some of Zakynthos' most beautiful caves. But below the surface, abandoned and discarded fishing nets and lines designed to trap and kill marine life continue to do their deadly work.

This summer, WWF organised two ghost gear retrievals in collaboration with local divers and fishermen in Zakynthos. Diving at a depth of around 30 metres, the divers were able to collect ghost nets lying at the bottom of the Marine Protected Area.

Ghost gear was also the subject of a seminar with fishers that took place in the center of Zakynthos. The seminar was done in collaboration with Lefteris Arapakis, co-founder of the social organization Enaleia.



Arapakis started Enaleia with a friend, hoping to train those left without employment by the Greek economic crisis into becoming professional fishers. “When we did the fishing courses, we were really shocked to see that the fishers were not only collecting fish with their nets,” Arapakis tells. “They were collecting lots of plastic and discarding it back to the sea.” Motivated by what they saw, Enaleia began to organize the collection of plastic in collaboration with the fishers. “Currently, we are working with around 25 fishing communities all over the Mediterranean. And we are collecting thousands of kilos of plastic from the bottom of the sea every week. That plastic is then integrated into the circular economy,” Arapakis says. Through Enaleia’s collaborations with companies throughout Europe, the plastic is turned into material used in, for example, clothes and shoes.

Arapakis says that the most common type of waste the fishers find is ghost gear, amounting to around 25% of all plastic they collect. “It’s the biggest challenge, because not only is it the

largest in quantity, but it's also the deadliest form of plastic. It takes 600 years to break down to microplastic. And for all this time, it keeps on harvesting and destroying the natural environment, and also damaging the local economies and communities.”



ENALEIA'S 3 SOLUTIONS FOR FIGHTING GHOST GEAR:

- **1. Work with the fishing communities in order to collect old fishing equipment and prevent it from entering the sea and becoming ghost gear.**
- **2. Locate ghost gear. “When the locals or the fishers send us signals, we organize diving and cleanup activities to collect this material.”**
- **3. Integrate this material into the circular economy. “Just collecting it or cleaning it from the sea is not solving the problem. This material can be raw material for a new economy, used to create new products”.**



THE POSTCARD

WATCH
HIGHLIGHTS
OF OUR WEEK
IN THE ZAKYNTHOS
MPA



**Goodbye
Zakynthos!**
NEXT DESTINATION

BACK
AT SEA

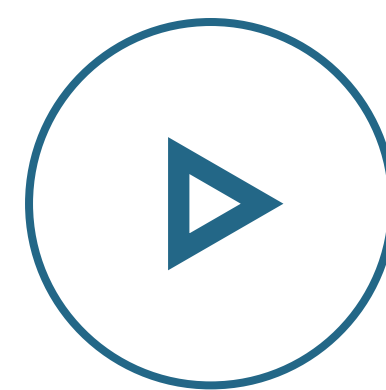


*Videos and photos
(without credits) are from Saila
Huusko and WWF Greece*

Back at SEA

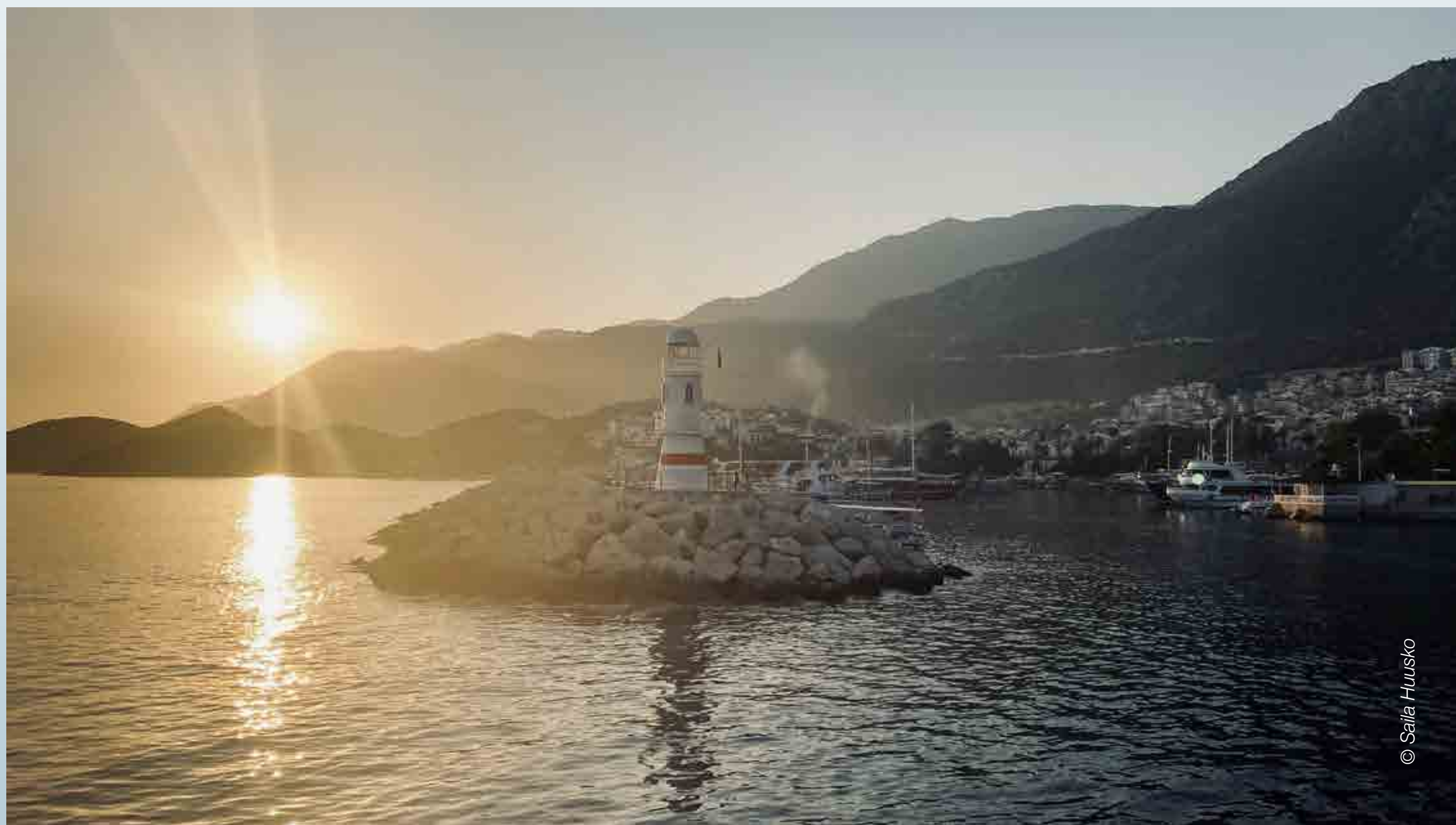
WHILE WE HEAD TO KAŞ KEKOVA, TURKEY

WATCH THE VIDEO

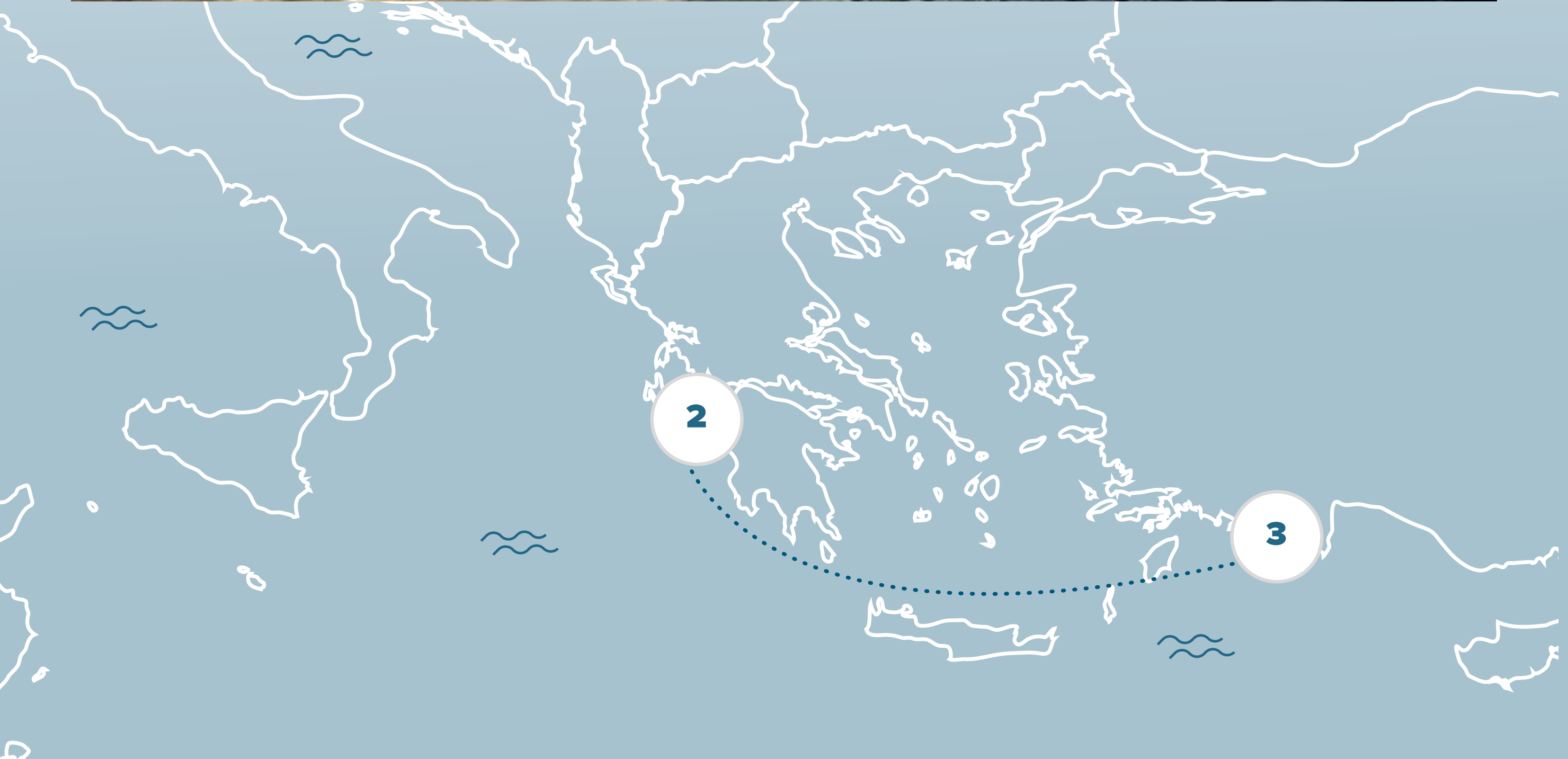


Now, it's time to say goodbye to the gorgeous island of Zakynthos and head towards the equally beautiful Marine Protected Area of Kaş-Kekova in Turkey. Covering over 400 nautical miles in

around 4 days of sailing, the Blue Panda passed by the islands of Crete and Rhodes on its way, and arrived in time to see the sun rise over Kaş' "sleeping giant" mountain.



© Salla Huusko



Kaş Kekova

TURKEY
AUGUST

KAŞ-KEKOVA
TURKEY
AUGUST



JUNE - OCTOBER
is the best time to visit



2 RESTAURANTS
in Kaş serve lionfish



The **KAŞ-KEKOVA MPA**
was created in **2006**

start

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Welcome to Kaş

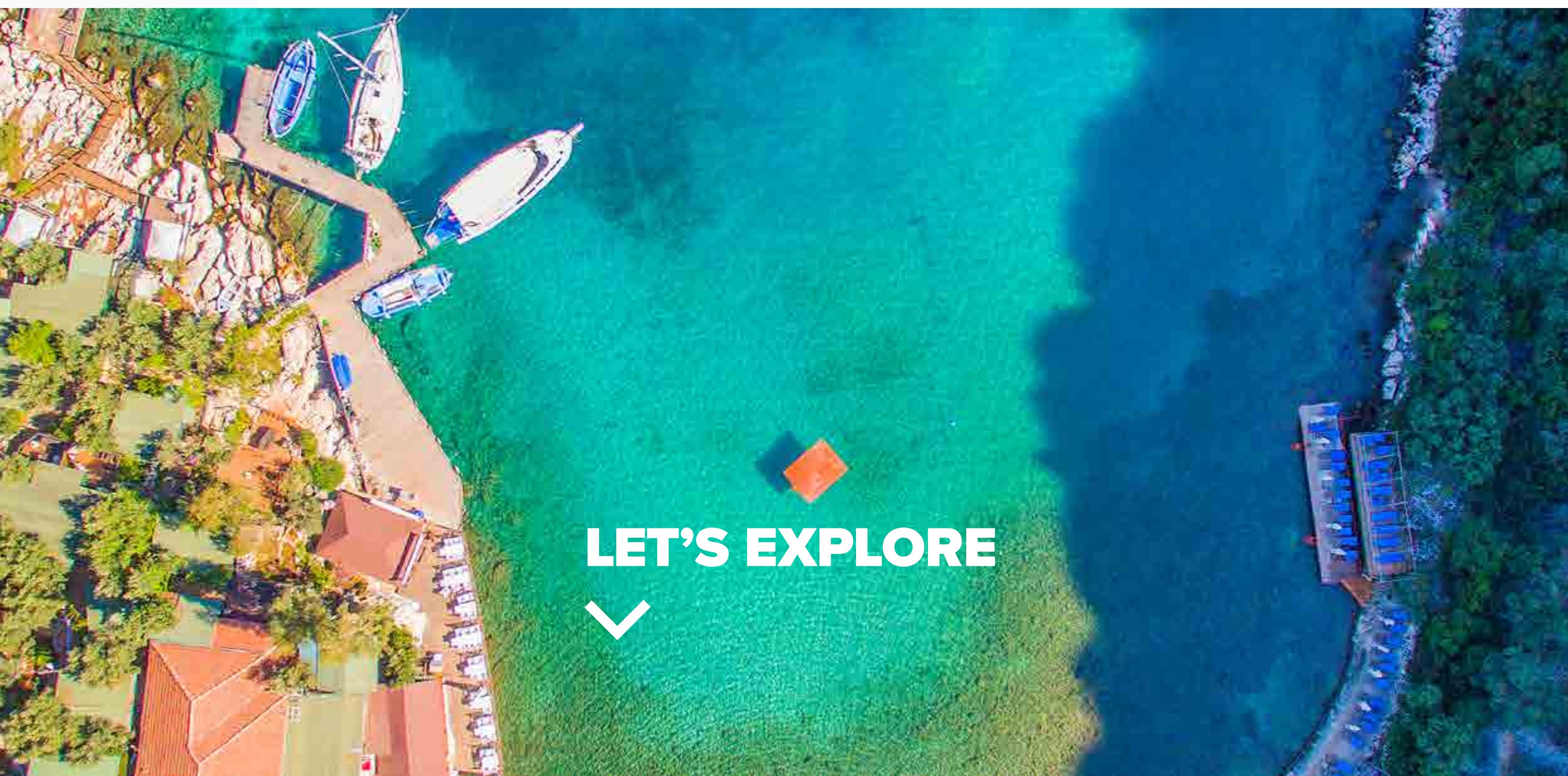
Kaş is located on the Lycian coast in southwestern Turkey (between Fethiye and Antalya). It is rich in marine and terrestrial biodiversity.

Previously known as a small fishing village with an economy mainly based on artisanal fishery, agriculture and olive production, today Kaş has become an important center for cultural as well as nature-based tourism. Retaining much of the character of its charming past, Kaş today is also buzzing with trendy restaurants, bars, and shops.

Culture intertwines with history, as Kaş is located on the long Lycian Way, Turkey's first long-distance walking route. The trail consists mainly of Roman roads, old footpaths and mule trails, and combines panoramic views with ancient ruins. This continues underwater, as the crystal clear waters of Kaş offer scuba divers the unique opportunity to dive into history surrounded by colourful fish.

But Kaş is not stuck in the past. Changes are taking place, and not always for the better. Increasing tourism, intensive fishing and warming temperatures threaten this fragile ecosystem and the centuries-old traditions it supports. But the people and nature of this area are learning how to adapt to and mitigate some of these impacts, providing a precious lesson of resilience and sustainability.

Enjoy your visit!



LET'S EXPLORE





A whole community is turning invasive species into a domestic specialty

Mehmet sits by the old harbour of Kaş and slowly works his way through a bucket of lionfish. As he works, an assortment of animals in the old harbor gather around him: cats, dogs, and even sea turtles swimming in front of him. They're used to getting their share of the leftovers of the lionfish Mehmet cleans.

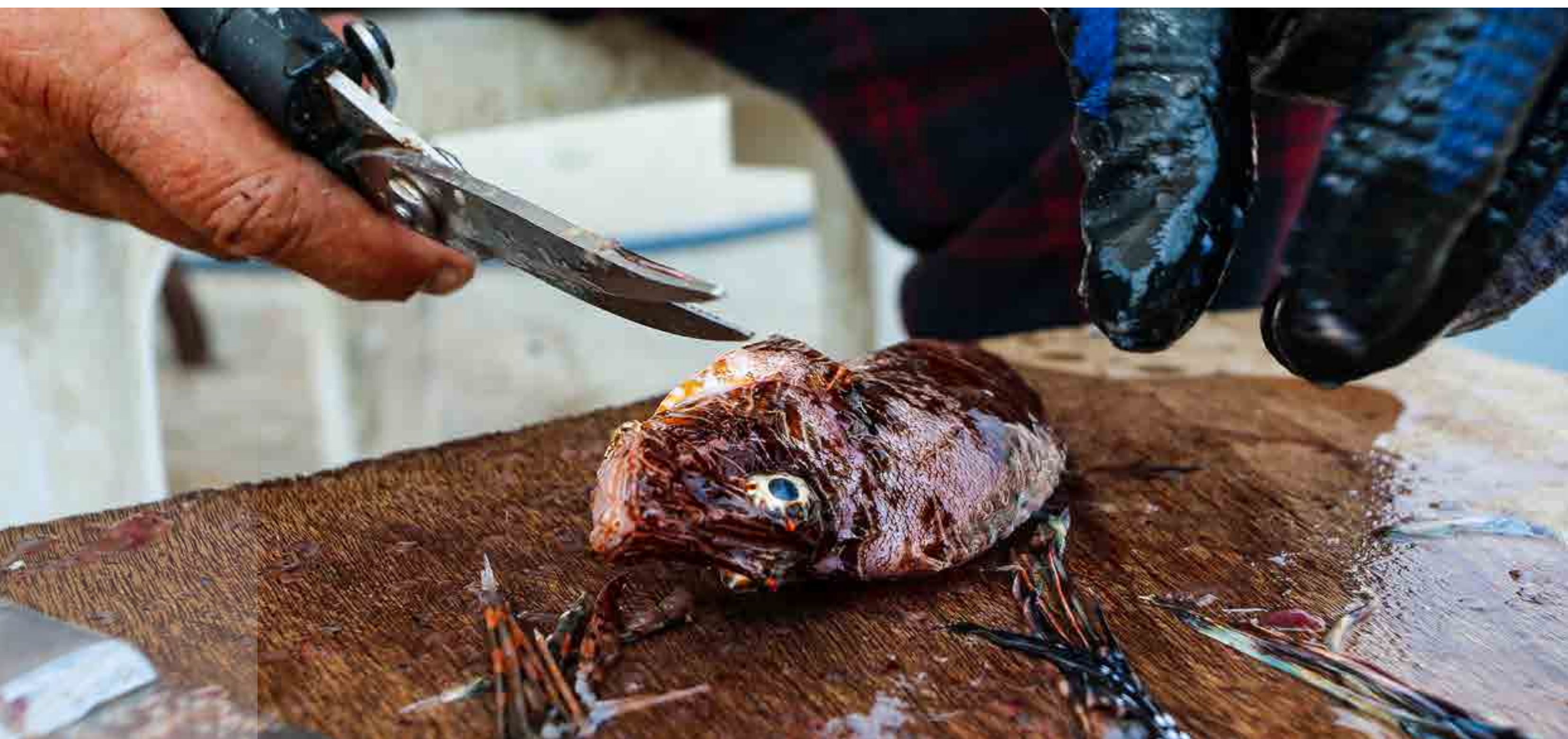
Having first learned to clean lionfish by trial and error, Mehmet has been doing this in Kaş for 4 years now. The amount of work varies and depends on the season and weather: sometimes no fishers go out, on other days Mehmet cleans up to 60 kilograms of fish. The fish he cleans is delivered to restaurants that then serve it to their customers.

As the Mediterranean warms up, [invasive tropical species such as lionfish](#) are wreaking havoc on the marine ecosystem. This has serious implications for the health of the system in the future. As decades of overfishing have depleted native predators like dusky groupers that are fond of lionfish, fishers can now help the ecosystem rebuild its balance by catching these voracious species instead of native species.

Mehmet picks up the fish he's cleaning. "Look, this is an expanded stomach. Let's see what's in it. This is such a small fish, but it has eaten dozens of baby fish, even more. About 20 to 25 baby fish coming out of a single stomach." A lionfish stomach can grow up to three times its original size, Mehmet points out, and can eat all kinds of species in addition to fish.

“Our goal is to make lionfish edible, to show their economic value and to help fishers to generate income out of them. This way, the fishers will be willing to target them,” Mehmet says. At first, the fishers were reluctant. Lionfish is not easy to clean and there was no economic value to catching the species. But, Mehmet says, attitudes are changing. “When we showed what we found in the stomachs of this fish to fellow fishers, they realized the danger of it.” If lionfish eat everything in their path, there will be nothing else left.

The entire Mediterranean is under threat from invasive species, and it is estimated that almost 1000 alien species have already migrated into the warming waters of the Mediterranean Sea and replaced endemic species. Mehmet says. “We must fight in some way, and the most effective way to fight is by introducing them into the economy and encouraging fishers to catch them.”



From the sea to the plate

Across the picturesque village, Dragoman Bahce, a restaurant attached to the diving center of the same name is getting ready for an evening of welcoming patrons. Elif Terzioğlu, the owner and manager of the restaurant, tells the story of how theirs became one of a handful of restaurants that serve lionfish in the area.

Elif says that it was due to the insistence of Murat Draman, the owner of the diving center, that they first began serving lionfish. “As a diving company, actually, you need the fish in the water, not on your plate,” Elif says. But, if you know that lionfish living underwater is dangerous and destroys other species, you might think differently. “So we wanted to help the Mediterranean by introducing lionfish to eat. It's a good way to help the environment by eating.”

At first, getting lionfish for the menu wasn't easy. “The fishermen didn't want to take them out in the beginning, because they couldn't sell them, so it wasn't useful for them at all.” But after a lot of talking, they found both fishermen willing to catch the fish and Mehmet, who was willing to clean for restaurant use.

Theirs is a lionfish twist on an old bar classic: fish and chips. “It wasn't popular in the beginning,” Elif says. But, slowly people started to discover the dish. “First, the divers came in for it, because they know. Now it's getting more popular and people come in to ask for lionfish.”

Hatice Bozdağ, who's worked as the cook at Dragoman for many years, says that lionfish is easier and faster to cook than many other types of fish. “Whoever tastes lionfish likes it so much. They all come back. I know one person who came to the restaurant four or five times. That's how much they like the fish. Well, I think it's delicious.”

Today, there are only two restaurants in Kaş that serve lionfish. WWF is working in Kaş and other areas to increase the demand for new invasive species with public awareness actions and by training fishers to catch and clean them safely.



Fishing at the time of climate change:
Watch the story of Osman and Edmin, a fishercouple from Kaş

LET'S
DIVE IN!
▼

Invasive species are one of the effects of climate change in our sea. But there are others.





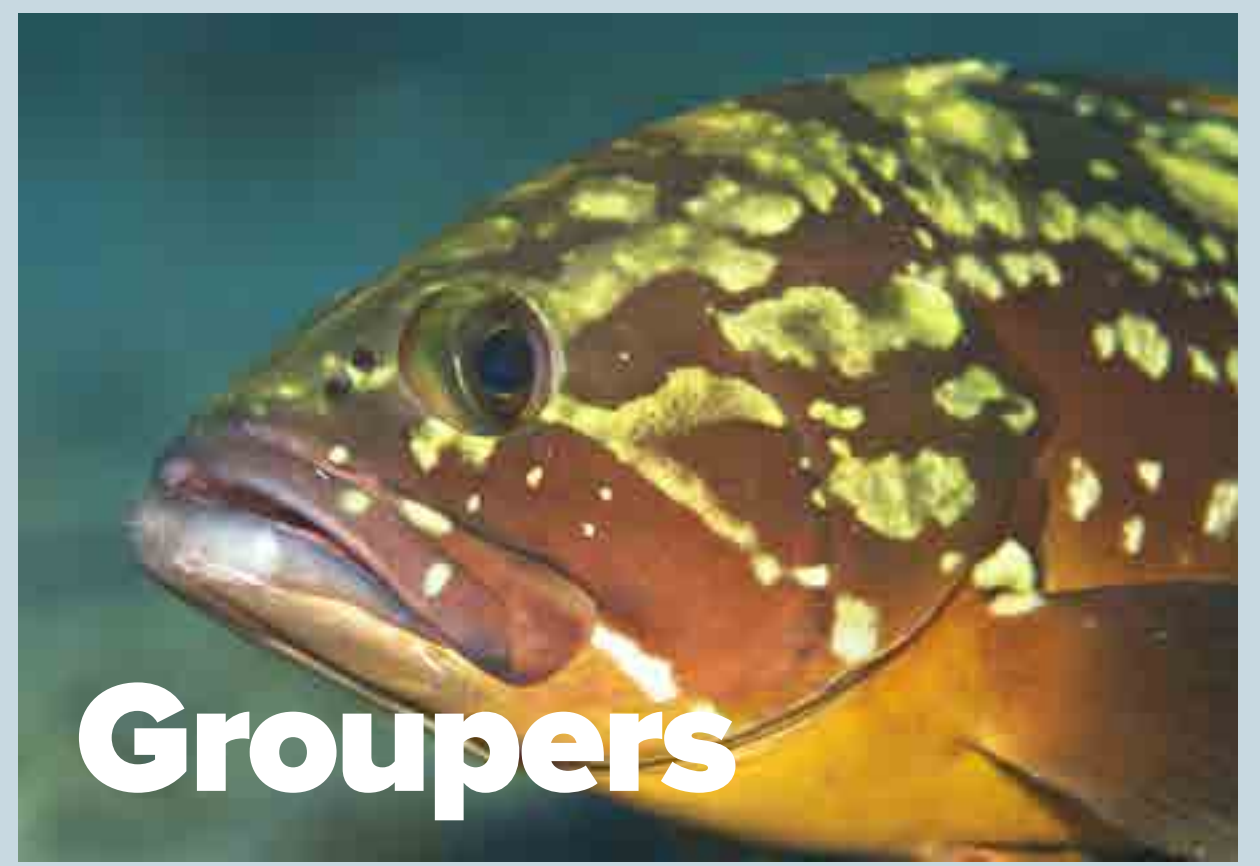
the CHANGING NATURE of Kaş

One of Turkey's 32 Marine Protected Areas, Kaş-Kekova is particularly known for its special marine biodiversity. The Kaş-Kekova protected area received the status of "Special Environmental Protection Area" in 1990. Originally, the MPA only included the Kekova area due to its archaeological significance. Through the efforts of marine scientists and WWF Turkey, the Kekova Special Environmental Protection Area was expanded to include the environs of Kaş in 2006. Endangered species, such as Mediterranean monk seals and sea turtles have established populations in the area. *Posidonia oceanica*, the most widespread endemic seagrass species of the Mediterranean Sea, is particularly prominent in the Kaş-Kekova region.

But even in the Marine Protected Area native species and habitats are increasingly competing with invasive tropical species that arrive through the Suez Canal and enjoy the warming waters of the eastern Mediterranean. As tropical herbivore species move here, reef areas formerly dominated by complex and richly biodiverse algal forests are being transformed, sometimes irreversibly. The fish – mostly voracious rabbitfish – indiscriminately graze down the vegetation, which is then unable to regenerate before being replaced by invasive tropical algae on which the fish continue to graze, forming so-called 'turfs' or even 'barrens'. Turfs now cover more than 50% of the shallow reefs in the southeast Mediterranean, with less than 1% covered by native algal forests.

Today, fishers in Kaş report that the tropical rabbitfish make up 80% of their catches. With an adult length of 12-14cm rabbitfish swim in large shoals and devastate the habitats of native species with their feeding habits. To put this in perspective, a study of more than 1,000km of Greek and Turkish coastline found that where rabbitfish were abundant there was a 65% reduction in large seaweeds, a 60% reduction in algae and other invertebrates, and a 40% reduction in the overall number of species present.

Climate change means it will likely be impossible to stop the continued spread of lionfish, rabbitfish and other potentially destructive invaders. But in a region where so much depends on healthy, diverse marine ecosystems – fishing, tourism, recreational diving etc. – the need to at least attempt to control the numbers of these alien species is obvious. Together with promoting the demand for invasive species (see article), effectively managed MPAs like Kaş-Kekova are crucial to help restore biodiversity and rebuild stocks of native predatory species weakened by decades of overfishing and human-driven impacts.



The presence of predators like groupers (dusky grouper and golden grouper), is an indicator of the health of the marine ecosystem and can help reduce invasive species. But they're threatened globally due to their large size, long life-cycle, and the time it takes them to reach reproductive maturity.



Despite being listed as "threatened" by IUCN, the common seabream (*Pagrus pagrus*) is not included in the communiqué of the Ministry of Food Agriculture and Livestock which regulates fishing in Turkey. Its population in Kaş-Kekova MPA has declined by 95% since 2002.



Its vast meadows oxygenate the ocean and provide a vital habitat for some 20% of marine species found in the Mediterranean, but anchoring tears its leaves and uproots plants.



TRAVEL TIPS



SEE & HEAR & DO

1 Dive

Kaş is one of the leading spots for scuba diving in Turkey and famous for its clear waters. There are more than 20 dive centers and diving schools and guided diving trips to the 50 dive spots in the vicinity.

2 Kayak

Sea kayaking is a great way to explore the region. It is possible to glide over ancient ruins and paddle through calm bays for an exhilarating day out on the water.

3 Go for a walk

Kaş is on the Lycian Way, Turkey's first long-distance walking route. The trail consists mainly of Roman roads, old footpaths and mule trails, and combines panoramic views with ancient ruins.

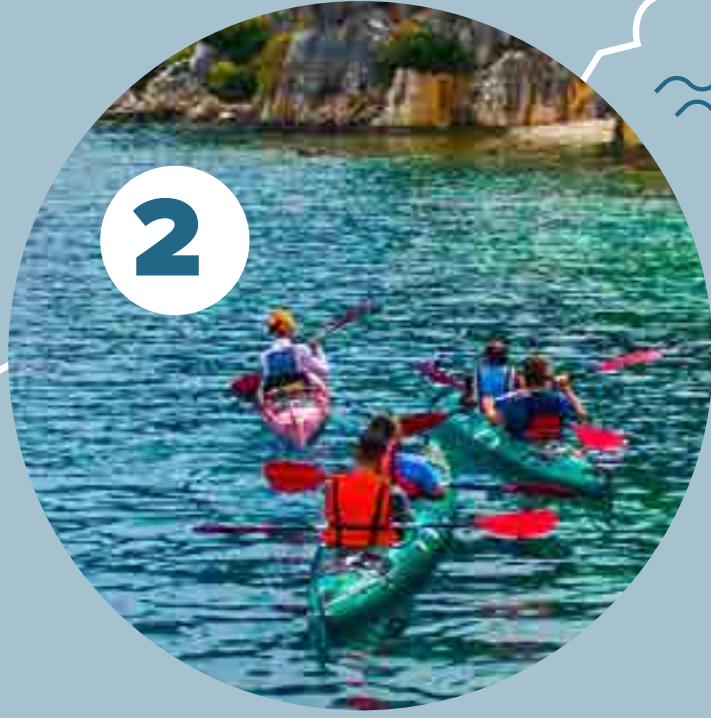


WHAT TO SEE

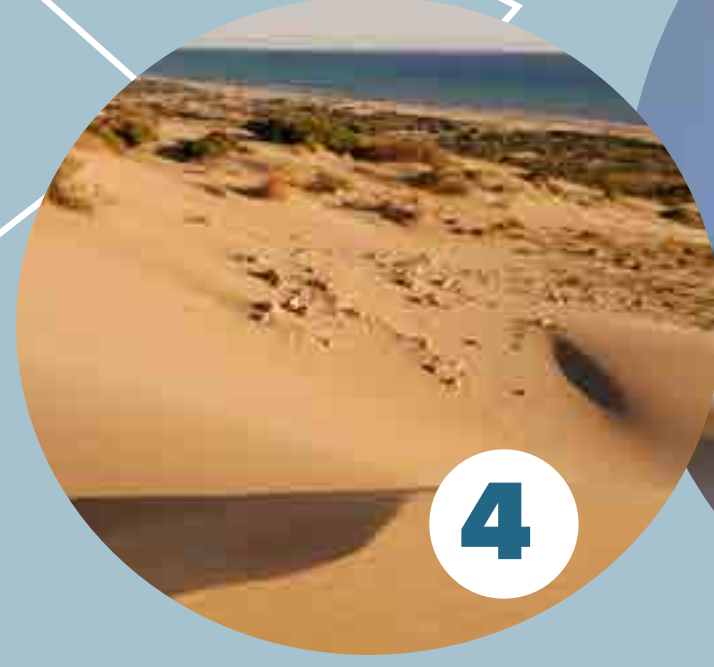
4 Patara

2000 years ago this was the most important sea port of the Lycian civilization. According to mythology, Apollo was born here and it is also recorded as the birthplace of St. Nicholas. Apart from its ancient ruins, Patara is also famous for its beach. Patara is located 40km west of Kaş and can be reached by bus.

2



4



7



5 Kekova Bay

Located 40km east of Kaş, Kekova hosts not only one but two sunken cities. The picturesque bay also features a medieval castle and is famous for sea turtles. The bay is reachable daily by boat and sea kayak tours from Kaş.

6 King's tomb

Lycian tombs are all over Kaş and the King's Tomb is a superb example. This 4th century sarcophagus is located in the middle of Kaş, and is in exceptionally good condition.



FOOD & DRINK

7 Gozleme

Try these Turkish pancakes at the local marketplace, open every Friday. Gozleme is also served in a wide variety of cafes.

8 Lionfish

Although first seen in 2014, the lionfish population is quickly growing and threatening local species. Enjoy a sustainable seafood meal at one of the local restaurants serving, for example, fish and chips made with lionfish.

9 Vegan/vegetarian restaurants

are the newest addition to Kaş's culinary landscape and are quite popular. The vegan version of Turkish pizza (lahmacun) together with beetroot juice combines a traditional dish with a brand new approach.



THE BEST OF

the BEST of Kaş-Kekova



GHOST GEAR

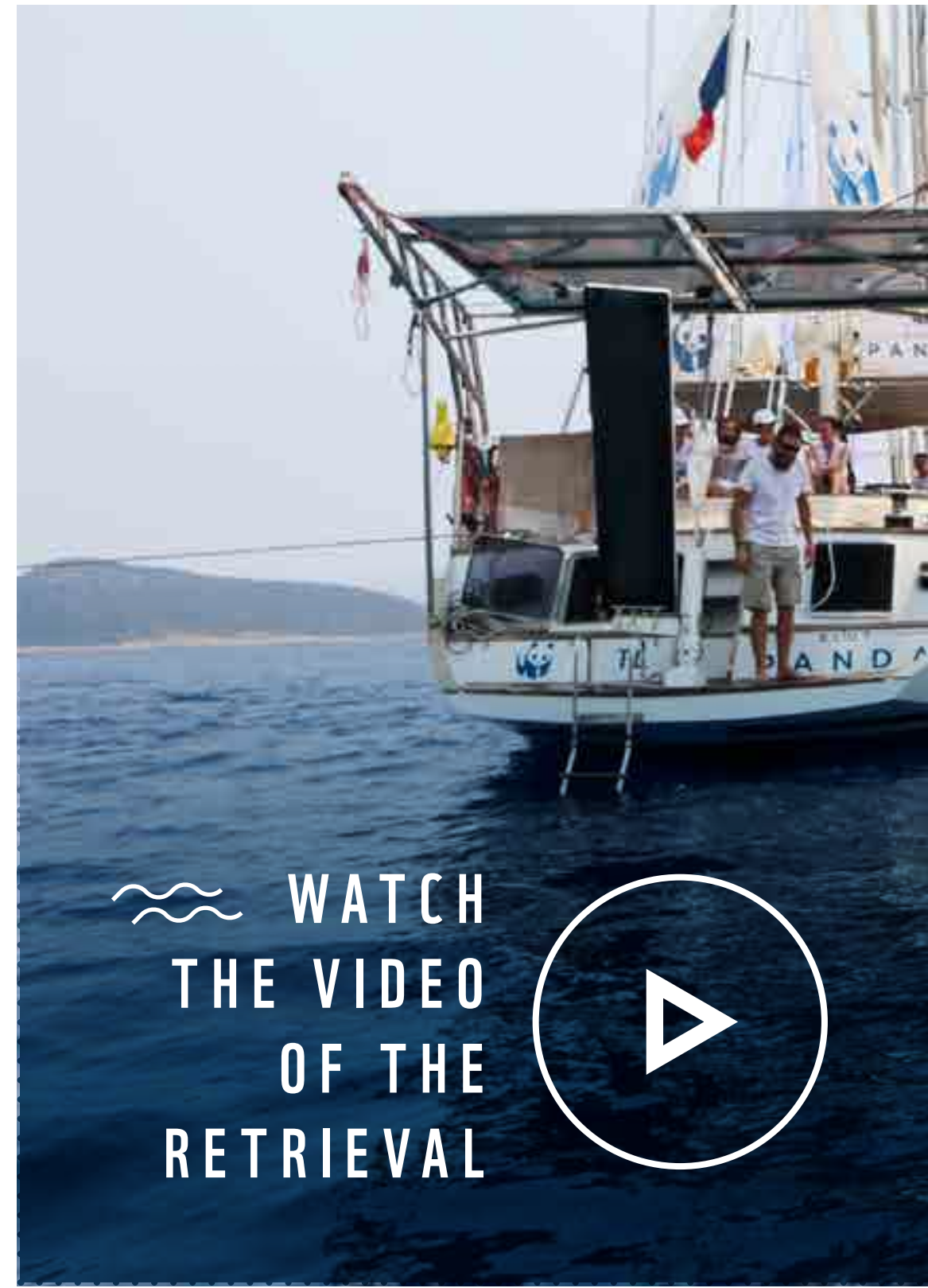


Collecting GhostGear in Kaş

Our project to clean key Mediterranean protected areas from threatening ghost gear has continued in Kaş too. We first started with mapping the presence of ghost gear in the area and its condition on the seabed, using a CCTV camera. The area we identified for the retrieval is located directly in the MPA, also close to a diving spot. After this, together with the Kaş Underwater Association, Agriculture and Forestry District Office, and the Kaş Fishers Cooperative we managed to collect 60kg of ghost gear in one single operation. The retrievals will continue until the end of the year. The retrieved gear was first transferred to the harbour and then to the Fishers Cooperative close-by.

The fishing gear we collected was gillnet, the most common type of gear used to catch red mullet, parrotfish and dusky spinefoot fish in the area. Fishers were able to take some parts like weights that could be reused. Currently there is no system in place to effectively recycle ghost gear and we are working with the municipality to find a way.

After the ghost gear was retrieved there was a workshop aboard the Blue Panda to discuss sustainable solutions to the problem. Because these were mostly older nets and in bad condition, they were not recyclable and had to be discarded as landfill. The outcomes of the workshop will help to devise a mechanism and shape a protocol with local stakeholders.



WATCH
THE VIDEO
OF THE
RETRIEVAL



THE POSTCARD

WATCH
HIGHLIGHTS
OF OUR WEEK
IN THE KAŞ-KEKOVA
MPA



**Goodbye
Kaş-Kekova!**
NEXT DESTINATION

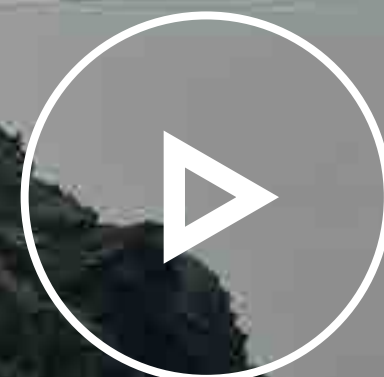
BACK
AT SEA



Back at SEA

EXPLORING THE WATERS OF THE CAP CORSE MPA

WATCH THE VIDEO



CAP CORSE



<< KAŞ



Marine Protected Areas play a crucial role in helping rebuild fish stocks in our ocean. After leaving Kaş, the [#BluePanda](#) sailed north reaching the Cap Corse MPA where together with specialised divers we collected data on fish populations in the protected area. These data will allow us to understand the status of fish populations in the protected area and define policies for its effective management.

This work is a first test of a wider study that we aim to develop across MPAs in the Mediterranean to improve their management and effectiveness in recovering and preserving marine species and habitats and reduce the pressure of human activities, especially fishing and mitigate the impact of climate change.



Today, only less than **2% of the Mediterranean is effectively protected. We must increase this to 30% by 2030 to achieve a healthy sea.**

start

1

2

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6

TABARKA
TUNISIA
OCTOBER

Tabarka

TUNISIA
OCTOBER



The MPA would cover an area of **140 HECTARES**



SEPTEMBER TO APRIL is the best time to visit



80% OF THE WORKFORCE is employed in small-scale fisheries

Welcome to Tabarka

Tabarka is a quaint, quiet coastal town in northwestern Tunisia close to the border with Algeria. Its stunning, white sandy beaches are overlooked by a Genoese fort dating back to the 17th century.

The area around Tabarka is known for sand dunes that can reach up to 60 metres, and for a coastline where sandy beaches are intercepted by spectacular rocks and cliffs. It is a popular destination for divers who can admire sea bottom landscapes consisting of Posidonia seagrass meadows and red coral. In the Melloula fishing village, one can follow a visit with artisanal fishers with a walk or swim to admire the Melloula caves.

Tabarka is along the migratory route of the loggerhead sea turtle (*Caretta caretta*) and it's not unusual to come across bottlenose dolphins or the Audoin's gulls.

Here, you can wander along beaches and marvel at ancient ruins to feel the meeting point of past and present. As a place hoping to attract a new generation of tourists in search of nature and outdoor experiences, Tabarka also stands at a crossroads of balancing tourism with sustainability in order to protect its delicate habitats from overexploitation. This is why WWF is working with local authorities to officially designate Tabarka as an MPA.



LET'S EXPLORE





How to make ecotourism a driver for social change

OUR INTERVIEW WITH RANIA MECHERGUI

©Dar El Laini

Born in Ain Draham, northwest Tunisia, Rania Mechergui studied environmental biology and sustainable development. Always passionate about her region, she trained to become a professional travel guide. In 2015 she launched [Kolna Hirfa](#), an award-winning social enterprise that works with women artisans in some of the most disadvantaged rural areas of northwestern Tunisia and [Dar El Ain](#), entirely dedicated to ecotourism. Rania is one of the protagonists of our [Blue Future documentary](#). We met her in Tabarka during our Blue Panda Stop, organising plastic clean-ups and educational workshops with WWF Tunisia.

What's the potential of ecotourism for an area like Tabarka?

Tabarka is a very beautiful region characterized by a large variety of natural ecosystems: we have the sea, but also forests, mountains, lakes, and wetlands. There is great biological marine and terrestrial wealth here, sustaining lots of fishery and agricultural products, and important cultural and culinary richness. Tabarka was also a meeting place for several civilizations, and its history and archeological sites are part of its character.

This natural, cultural, and historical wealth has made Tabarka a welcoming area with important artisanal know-how.

What is DAR EL AIN?

DAR EL AIN is an ecotourism service company, operating in North West Tunisia , and in particular in the Kroumirie region (Tabarka and Ain Drahem). We offer a range of alternative and ecological tourist activities, like hiking trips, guided tours in national parks and nature reserves, workshops with local artisans, and dining with locals.

DAR EL AIN is very committed to the socio-economic issues of Jendouba and the entire northwest region. The idea for DAR EL AIN came to us as co-founders after a deep analysis of the region and its needs, and a confidence in sustainable and ecological tourism as a way of contributing to socio-economic development.

We defend the principles of social economies and solidarity by encouraging fair trade, the economic and social integration of the most vulnerable populations, the creation of sustainable jobs, the consumption of local products, and favoring products from structures of solidarity (association, cooperatives, groups).



What is the work you are doing with local communities?

The success of DAR EL AIN is due to the fact that it was co-created with the local community. We work closely with associations supporting artisans and agricultural development groups.

We collaborate with women who host tourists in their homes or offer a catering service, so that all our hikers eat with local families and share culinary experiences with them. And we work with women artisans, offering tourists workshops on pottery and weaving. This provides these women with a sustainable income.

We also partner with a group of artisanal fishers from Tabarka to develop a series of underwater and coastal hiking circuits that integrate fishers and their families in the activities we offer, including catering, fishing tourism, and felucca rides.

How is it impacting local people?

At the beginning, when we invited women to work with us and to welcome hikers into their homes, some men did not accept that their wives could work in tourism; today, these same men have changed their minds and they help their wives to cook and receive hikers in their homes.



©Dar El Laini

What do you aim to achieve?

Our vision is of a better Tunisia where social and economic equality are maintained in a protected environment and where natural resources are preserved.

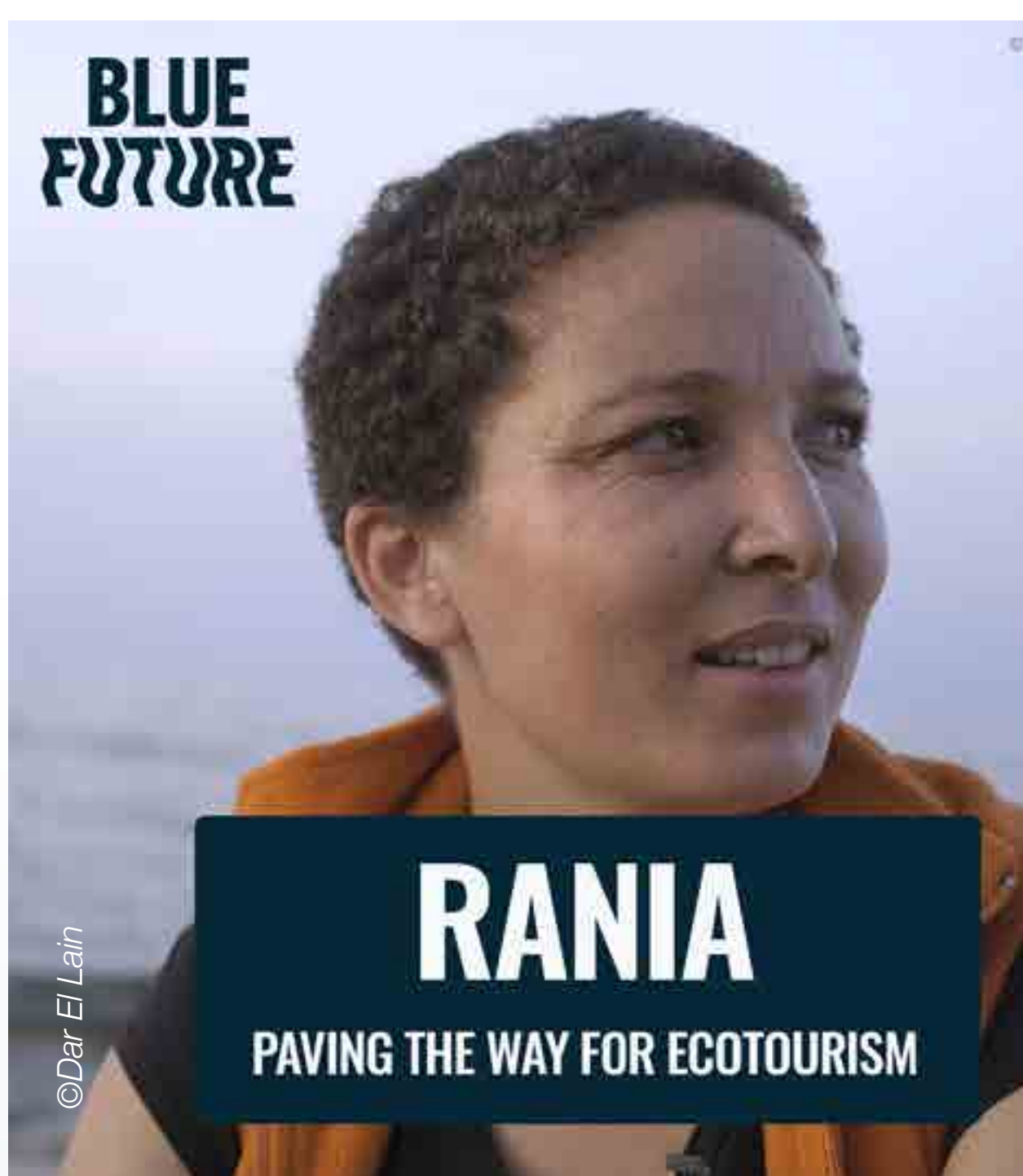
We aim to develop sustainable and ecological tourism that respects natural resources and contributes to the well-being of local communities. We want to create sustainable and green jobs for local people, develop responsible and ecological tourism in the northwest region, and increase people's awareness of the need to preserve the environment.

What is that you like most about this activity?

I am a feminist, I really like working with women artisans and small local producers, whose goal is to create a sustainable and ecofriendly income.

What does it mean for you to be Mediterranean?

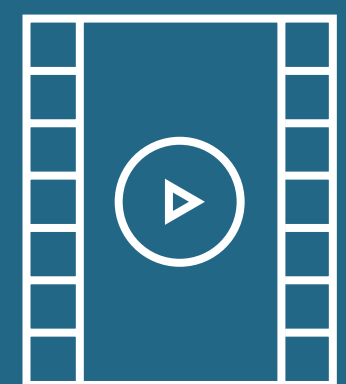
The Mediterranean, for me, is my identity and my belonging of which I am proud.



Want to know more about Rania?

Watch Blue Future, the new collective documentary about young people driving change in the Mediterranean.

WATCH THE DOCUMENTARY



This time we delete on purpose the section on Travel Tips and invite you to contact Rania for a unique visit to Tabarka.

LET'S DIVE IN!



THE MARINE (soon-to-be) protected area of Tabarka

©Michel Gunther

BY MOUNA ABAAB,
WWF Tunisia

Located in the Kroumirie region in northwestern Tunisia, Tabarka is a city of many treasures. Known for its lush forests of cork and Zen oak, it is also a favorite destination for divers who arrive here to enjoy its underwater landscapes.

Cap Tabarka, with its clear waters and high visibility is a particularly interesting dive site. Its cliffs, reaching up to 18 metres, plunge into waters that attract various fish species such as damselfish (*Chromis chromis*), white seabream (*Diplodus sargus*) and the painted comber (*Serranus scriba*).

The Tunnels site is considered a real geological monument. It's made up of long corridors surrounded by marl and sandstone. These rocky landscapes make Tabarka a unique place to visit for divers seeking to observe landscapes of great originality.



©Mathieu Foulique

The “grouper rock” - as its name suggests - is known to shelter a good number of emblematic Mediterranean grouper species such as the dusky grouper (*Epinephelus marginatus*) and the golden grouper (*Epinephelus costae*). This 300-metre rock formation is entirely covered in an impressive mosaic of posidonia and various species of yellow gorgonians (*Eunicella cavollini*) and white gorgonians (*Eunicella singularis*), and dotted with orange stony cup corals (*Astroides calicularis*), creating landscapes of multiple colors and shapes of rare beauty.

Conservation efforts are directed towards the dusky grouper (*Epinephelus marginatus*), the emblematic species of the soon-to-be confirmed Marine Protected Area of Tabarka. This impressive species reaches its maturity at 5 years and can live up to 50 years. Due to the high level of overfishing, it is on IUCN’s “endangered” Red List and requires specific protection measures. In 2012, a project for a marine and coastal



Dusky grouper

This dark reddish species is present between 6 and 35m depth, and prefers the rocky seabed where it can feed on crabs and octopus. Dusky groupers are very curious and friendly with the divers who come to see them, but this makes them vulnerable as well.



Red Coral

Coralium rubrum is one of the mythic species of the region. It has been traded for centuries, as testified by the Fort of Tabarka, and was used for luxurious artisanal jewelry making of Amazighan style. Today, red coral is overexploited especially at depths of less than 50m and is listed as “vulnerable” by the IUCN. Its exploitation is highly regulated by the fishery authority but specific conservation measures are needed to protect it. WWF is contributing to a national plan of action for the conservation of coralligenous habitats.

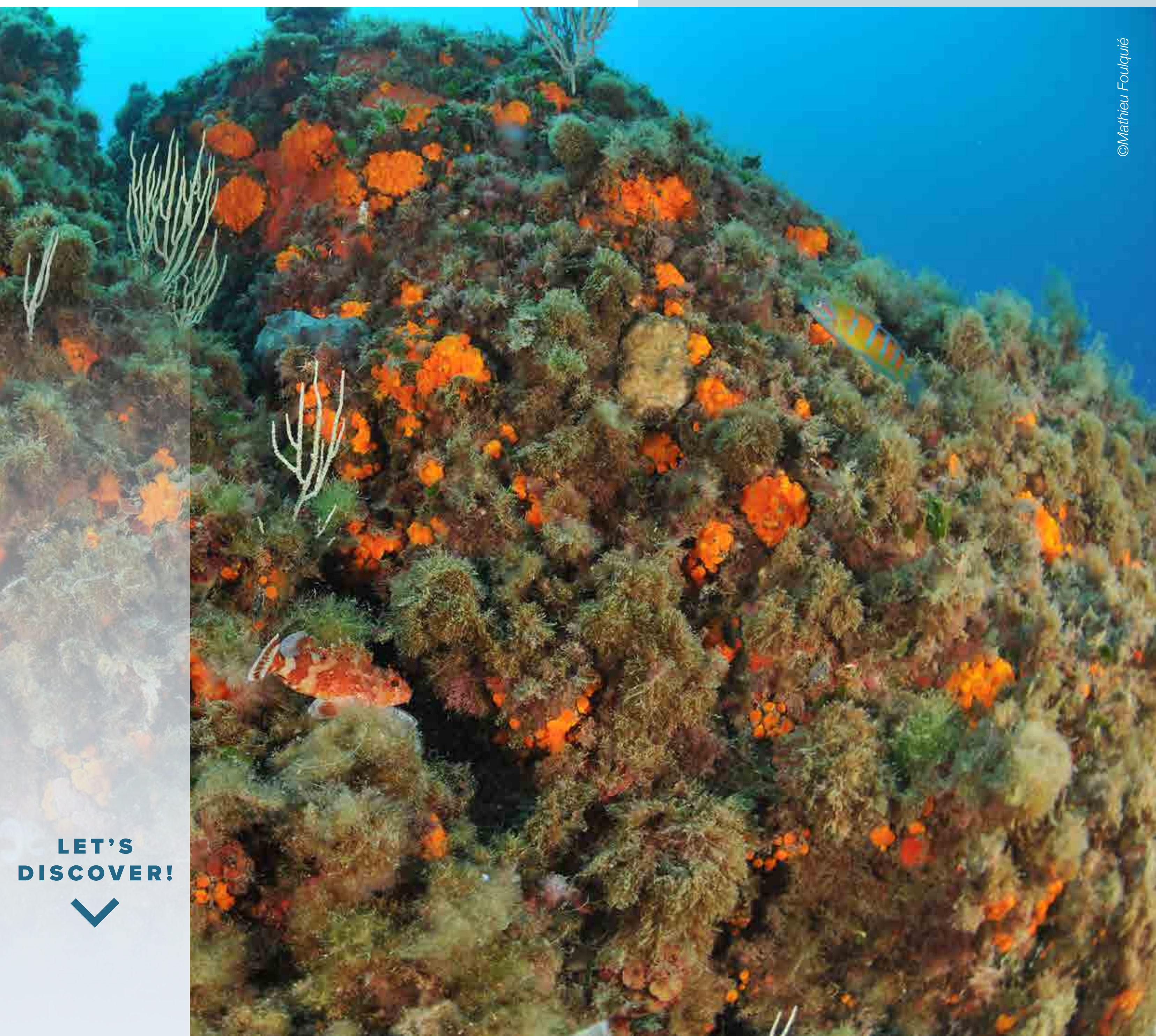
protected area was launched. The MPA would cover an area of 140 hectares and protect more than 28 fish species as well as other species of flora and fauna. This project is still being carried out by the management authority in Tunisia, in cooperation with the local community. WWF is strongly advocating for the swift creation and management of the Tabarka MPA.



© Chris Martin Bahr

Bottlenose dolphin

While strolling near the shores of Tabarka it is very common to see bottlenose dolphins (*Tursiops truncatus*) jumping from the water, alone or in groups. This happens especially at sunset, as dolphins are attracted to the gillnets deposited in the evening by local fishers.



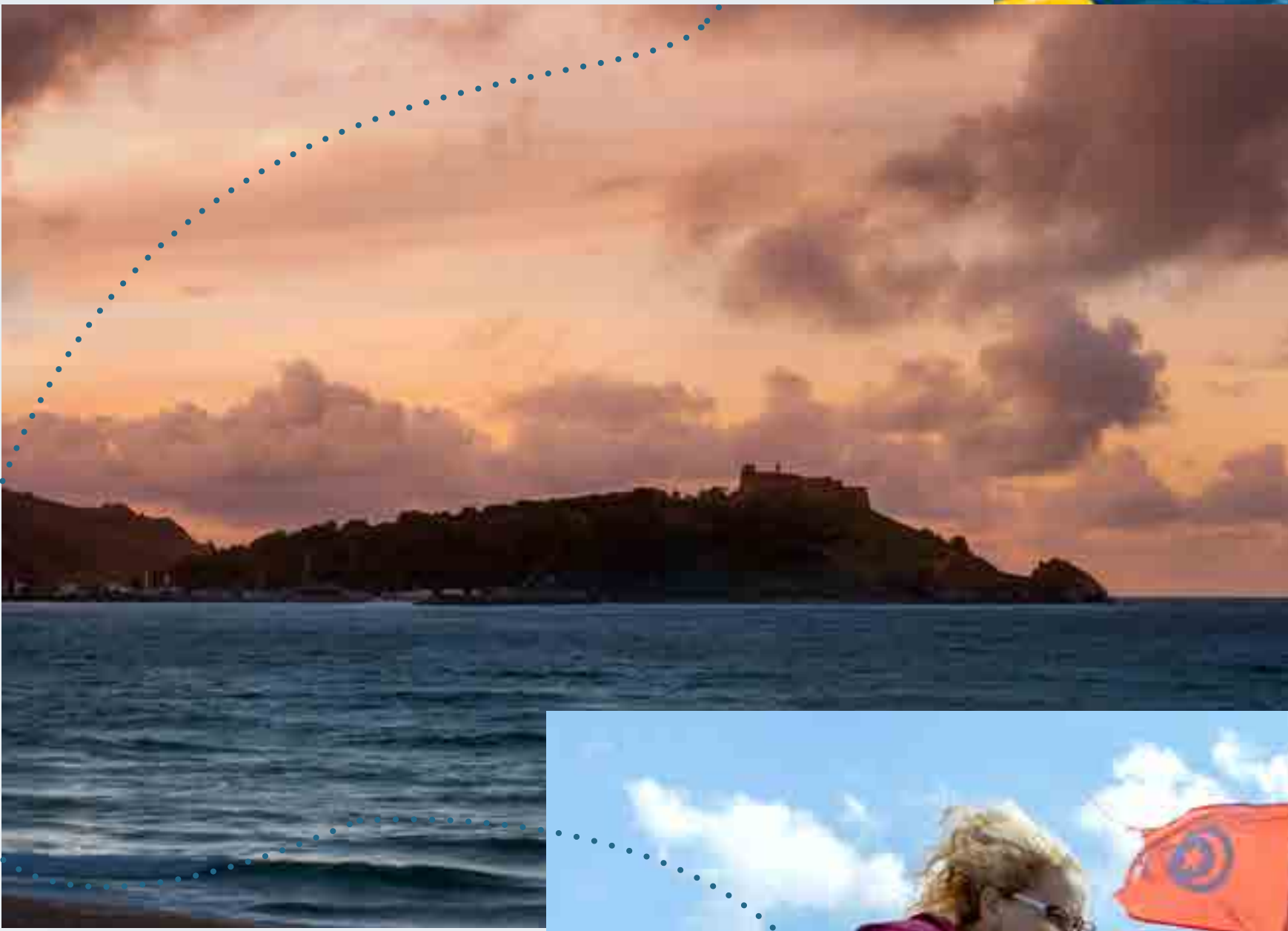
© Mathieu Foulquie

LET'S DISCOVER!



THE BEST OF

the BEST of Tabarka



GHOST GEAR



Tackling Ghost gear in Tabarka

In Tabarka we continued our fight against ghost gear. Together with local fishers and divers, we mapped five different sites located in the marine area and retrieved almost 500kg of ghost gear. To ensure the correct disposal of the collected materials, we installed 2 waste collectors for nets and other fishing tools and another collector for general plastic waste. We have also identified a recycling company that would be interested in the collection and recycling of big ghost nets. Small as well as large fisheries are taking place in the area, and WWF is calling for stronger protection measures to reduce the impact of human activities and preserve the high biodiversity of Tabarka.



THE POSTCARD



WATCH
HIGHLIGHTS
OF OUR WEEK
IN TABARKA



**Goodbye
Tabarka!**

NEXT DESTINATION



BACK
AT SEA



start

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IBIZA-TAGOMAGO

SPAIN
NOVEMBER



Ibiza Tago- mago

SPAIN
NOVEMBER



159,000 PEOPLE

live permanently in Ibiza, and over 2,4 million tourists visit every year



SINCE 2018

Tagomago is a marine protected area



The MPA is home to the **GREATER AMBERJACK FISH**

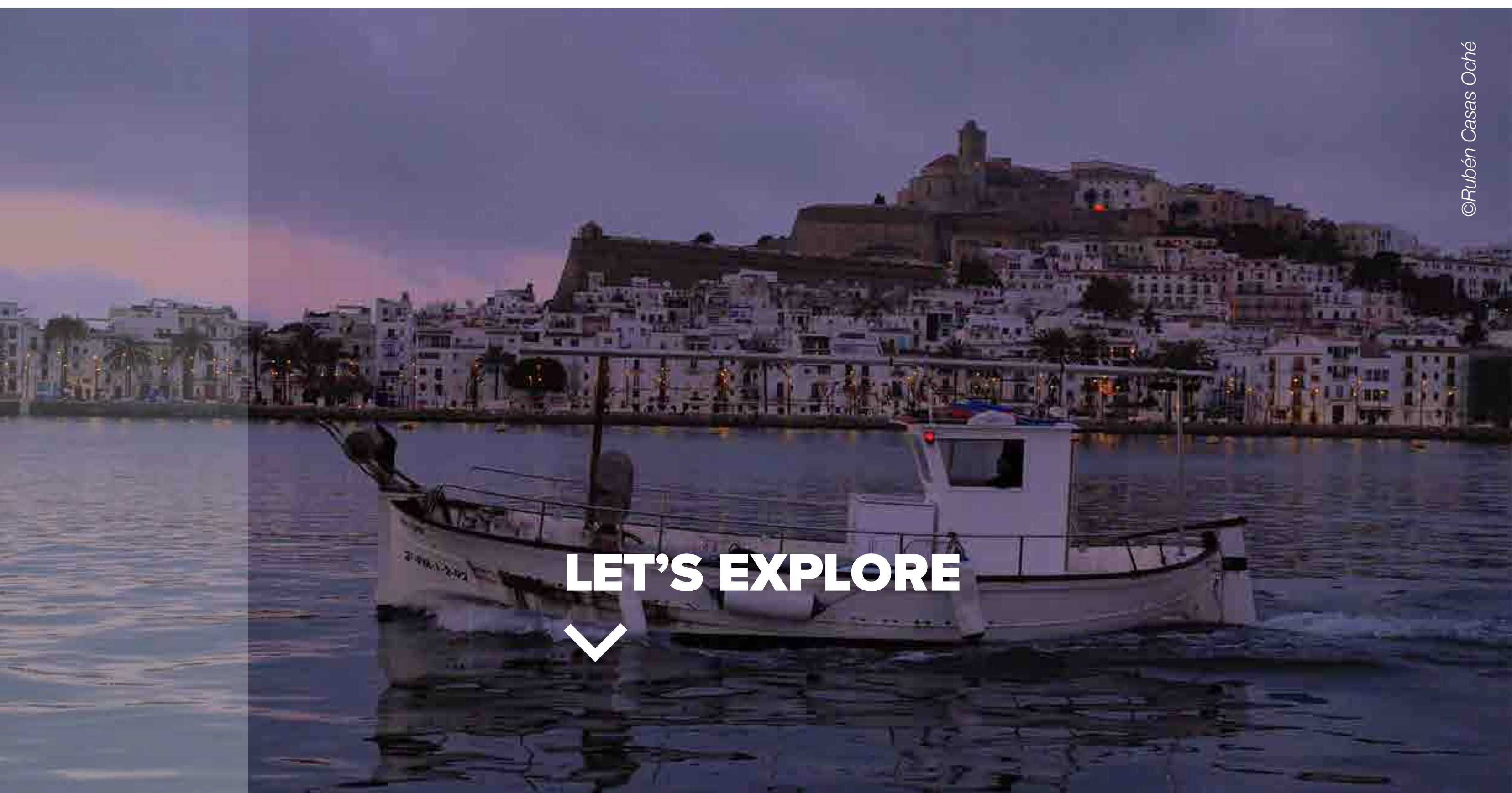
that can grow up to 190cm

Welcome to Ibiza-Tagomago MPA

Ibiza, or Eivissa in Catalan, is an island located in the Balearic Sea in the western Mediterranean. Known for its nightlife, Ibiza is much more than bars and nightclubs: it also boasts beautiful nature, places to unwind, artisanal fishers, and protected marine habitats. The island has a long agricultural and artisanal fishing history and, in 1999, it was declared a World Heritage Site in recognition of its unique biodiversity and culture. Nowadays, tourism is the main source of income on the island, bringing hundreds of thousands of visitors each year, especially during the summer season.

If you sail around the island, you can witness a varied coastline: cliffs and small coves along the north shore, and long sandy beaches and dunes in the south. Ibiza's clear and clean waters offer the perfect environmental conditions for rich marine biodiversity, including marine flora such as *Posidonia oceanica* and a large diversity of fauna.

The small privately owned Tagomago island, located only 1.5km to the northeast of Ibiza, lends its name to the marine protected area (MPA). It was established in 2018 to protect the outstanding ecological value of posidonia, rocky and sandy habitats, the socio-economic welfare of Ibiza's small-scale fishers and other maritime activities. Be aware that tourists cannot land on Tagomago, but professional fishing, recreational fishing, scuba diving and boating are allowed in the waters of the reserve.



LET'S EXPLORE



Seeing the OTHER SIDE of Ibiza

WITH MARGA SERRA, ENVIRONMENTAL PROGRAM
COORDINATOR OF THE CONFRARIA DE PESCADORS D'EIVISSA

Of all Mediterranean islands, Ibiza is one of the most frequently featured in popular culture. From songs to TV shows focused on the island's nightlife, Ibiza has gained a reputation as a place where the party never stops. For many who live on the island, however, this reputation tells only a part of the story.

“We have a lot of different Ibizas, and it's interesting to know all of them,” says Marga Serra, environmental program coordinator with the fishers' association “Confraria de Pescadors d'Eivissa. Marga was born in Ibiza and, for her, its image as an island of nightlife and fashion isn't the island she knows. “We have a lot of traditional places and it's a mixture of different cultures,” she says.

Marga was 10 years old when she realized that her future lay with the sea. She began her career as a marine biologist working on sea turtle conservation and as an activist. One day, she began visiting fishers. “I completely fell in love with the sector, and I realized it was my place,” she says. Working with small-scale fishers in Ibiza is to work within a world that includes all kinds of fields. “We deal with management, conservation, biodiversity, local economies and education.”

People, Marga says, are a big reason why she loves her work. “The fishermen and women are special people.” Fishers are part of the identity of the local communities and have their place in people's hearts, the gastronomy and the landscape.

The fishers of Ibiza were also instrumental in the creation of Ibiza's newest marine protected area (MPA), Tagomago, established in 2018. “The fishers were the first people to point

out that this is a special place to preserve,” Marga explains. “They decided to create the MPA, because we have a lot of tourism, and a lot of illegal fishing. The MPA is a tool to preserve these spaces, to have more regulation and inspections.” Unlike other MPAs in the area, Tagomago was created through a consultative process, in which fishers had a say. The MPA protects not only biodiversity but also the fishers’ livelihoods. When fishers ask for this, it’s a sign of the need, Marga says.

In another effort to combat illegal fishing, the fishers’ associations of Ibiza, the Confraria de pescadors d'Eivissa and the Confraria de pescadors de Sant Antoni, together created a label, [Peix Nostrum](#), that certifies legal, locally caught fish. Consumers and wholesalers can identify these products by tags (see photo below).



Early results from the Tagomago MPA are promising. A visual census, conducted by scuba divers two years after the creation of the MPA, showed improvement in fish species’ numbers. Regulation is necessary because tourism pressure is still growing, Marga says. And, good results convince even those skeptical of the need for MPAs. “The results show that we want to preserve our resources.”

As for Marga, she will continue working with fishers for as long as she can. “All the people who work on the sea, we have something in common – we are a little bit crazy,” she says, laughing.

The richness of the **TAGOMAGO** Marine Reserve

BY MIGUEL GOMEZ, WWF SPAIN

©Rubén Casas Oché

The Tagomago Marine Reserve, or marine protected area (MPA), is located to the northeast of the island of Ibiza. In the area, there are four sites of community importance to contribute to the conservation or restoration of natural terrestrial and marine habitats that overlap with the reserve, and a special zone for the protection of marine birds such as the Balearic shearwater (*Puffinus mauretanicus*) and storm petrel (*Hydrobates pelagicus*).

The reserve is home to very rich marine biodiversity. This includes the habitats of phanerogam meadows, protected by the European Union. These meadows host *Posidonia oceanica* and *Cymodocea nodosa*, coralligenous and other important ecosystems such as sea mounts, rocky and sandy bottoms that are home to a large number of algae, filter feeders such as molluscs and sponges, and a large number of reef and pelagic fish species.

The high ecological value of the Tagomago Marine Reserve makes it very important for Ibiza's small-scale fishing fleet. The Tagomago MPA was strongly promoted by the local fishing associations or "confradies", considered essential to produce and increase commercial fish stocks, to preserve the rich biodiversity and to regulate authorized maritime activities in the area in a way that is compatible with the conservation of the biological richness and marine life.

The marine reserve is managed by the Balearic and local administrations, fishers and other economic users, scientists and NGOs together. Through a participatory process, roles and responsibilities are shared by all stakeholders.

Currently, they are working to incorporate the traditional knowledge of local fishers and most advanced technology to evaluate important habitats and promote the enlargement of the marine reserve to protect iconic Mediterranean gorgonian species.



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The fishers follow seasons, and the gear they use and the species caught depend on the season. Some of the species caught and that are associated with the rocky bottoms of the reserve include lobster (*Palinurus elephas*) and predatory species such as dentex (*Dentex dentex*), grouper (*Epinephelus marginatus*) and scorpion fish (*Scorpaena scrofa*).

Pelagic species such as the greater amberjack (*Seriola dumerili*) are caught when approaching the rocky reefs of the reserve during late summer. From autumn to spring, fishing efforts are directed towards other species typical of sandier bottoms, such as cuttlefish (*Sepia officinalis*) or picarel fish (*Spica smaris*).

Although current data shows that fish are smaller and less abundant than in the past, a recent fish visual census indicates that, since the reserve's creation in 2018, the biomass of key commercial species is higher within the Tagomago Marine Reserve than in other areas on the island. This further confirms that the MPA is effective in rebuilding fish populations and marine habitats.



Posidonia oceanica

A species endemic to the Mediterranean and very present in Ibiza and Tagomago, with habitats ranging from shallow waters to those deeper than 35 meters.



Scorpion fish (Scorpaena scrofa)

This predator fish is a mimetic species that camouflages in rocky and sandy bottoms, using its dorsal fin to hunt the small invertebrates it feeds on. It is a very popular culinary species in Ibiza, and professional and recreational fishing has brought it close to threatened level.



Greater amberjack (Seriola dumerili)

This is a very voracious fish that can grow up to 190cm. It forms schools in early life stages which makes it vulnerable to overfishing. It is an important commercial species and, when schooling, a delightful sight to behold for scuba divers.



the BEST of Ibiza and Tagomago marine reserve



THE POSTCARD

WATCH THE VIDEO
WITH HIGHLIGHTS
FROM OUR WEEK IN
IBIZA AND TAGOMAGO



**Goodbye
Tagomago!**

BACK
AT SEA





✦ End of journey

The Blue Panda has finished its journey across the Mediterranean, visiting some of the most beautiful and pristine marine areas of our region. From June to November, together with our crew, we covered over 3000 nautical miles sailing along stunning rocky coastlines and golden beaches. Not even the best travelled sailors can fail to be moved by the beauty of the Mediterranean Sea and the warmth and energy of the people living along its coasts.

We hope this Travel Guide on Mediterranean Marine Protected Areas has given you a taste of the tremendous ecological and human value of these areas for our region.

We have explored with you and for you some of the most pristine and fragile underwater habitats, we have visited coasts and villages with local people, tasted their regional delicacies and heard from many of them how it is possible to develop a more responsible way of doing tourism in the Mediterranean without losing any of the enjoyment.

We invite you to continue exploring this beautiful sea, learn more about its nature and people and act for its increased protection.

The Blue Panda will set sail again in 2022. Follow the journey.



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SPECIAL THANKS

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PANDA

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