

#### 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:**





#### **PORTOFINO MPA**

ITALY JUNE-JULY

**ZAKYNTHOS MPA** GREECE

JULY

**> KAŞ KEKOVA MPA** TURKEY AUGUST

**CAP CORSE MPA** 

FRANCE **SEPTEMBER** 







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6

#### 246HA the Portofino MPA is the fifth smallest in Italy

#### 282 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

THE MPA

"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."



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 <u>WWF</u> 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 fishermen," and this has yielded results "There isn't the division that used to be with professional fishermen 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 <u>Portofino MPA</u>.

#### 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 <u>the mass mortality episodes of Gorgonians in the Ligurian Sea.</u>

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 threedimensionality, 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 Reclocital

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



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, fishermen, 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.

### Brown Crouper

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!!!)

LET'S DISCOVER!



#### travel tips from VALENTIN **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

#### **OUTDOOR Snorkeling in Punta**

6

#### 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.

#### **Scuba diving** 2 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 SEE TO

Walk up to the 3 **Portofino lighthouse** 

**Catch a game** 5 of Pro Recco

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



#### Seafood 6

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)

#### Focaccia

Liguria is famous for its Admire the sunset and enjoy the focaccia and, in particular, the drink at this lighthouse perched on a cheesy kind: Focaccia Recco. hill, overlooking the Mediterranean.

#### Tonnarella

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

#### **Pesto Genovese** 8

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

THE BEST OF





## GHOST GEAR

#### Medkeepers in action against GhostGear

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.

 $\sim \sim$  watch

THE VIDEO

These are the results of the restless 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 g F 200 kg of ghost gear retrieved

Composition of the ghost gear found in Portofino MPA:

**19%** fishing lines (recreational fishing)

#### 6 days / 25 hours 18% of diving others

THE POSTCARD

#### Seabottom operation in 2 SITES

**63%** nets (artisanal fishing)



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BACK At sea

#### Portofino: NEXT DESTINATION

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







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## A Cakynthos is one of GREECE'S MOST POPULAR TOURISM

CONTRACTOR AND THE NATIONAL MADINE PARK of Zokupthee

DESTINATIONS

#### was established in 1999

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

#### 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 lliad 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



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 <u>Blue Panda Lab in</u> <u>Zakynthos</u>, 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 <u>European</u>

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.





## UNDERWATER TREASURE

#### SPECIES of Zakynthos

#### 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.



#### Monachus monachus

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.



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

## SEE, DO, EAT: Zakynthos travel tips

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

O Andrea Bonet



SEE & HEAR & DO

**Navagio Shipwreck** 





**Dedicate a sentimental** 

#### 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."

#### Swim with sea turtles 2 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

#### serenade – Kantades

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



#### 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.

really good homemade wine."

Almost every family in 4 Zakynthos owns olive

trees and many of the trees on the

island are centuries, if not millennia,

old. If you visit in November, seek an opportunity to go olive picking.

8 **Bring home a bottle** of Zakynthian sunshine in a bottle of local extra virgin olive

oil or delicious white wine.

THE **BEST OF** 

















#### 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







**COOCLOYE Zakynthos!** NEXT DESTINATION

BACK AT SEA

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





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 Kas' "sleeping giant" mountain.

