



Funded by the Ionian Environment Foundation

# Sail Sustainably in the Ionian

## Charter Boat Guide

[WWW.SUSTAINABLESAILINGGREECE.COM](http://WWW.SUSTAINABLESAILINGGREECE.COM)

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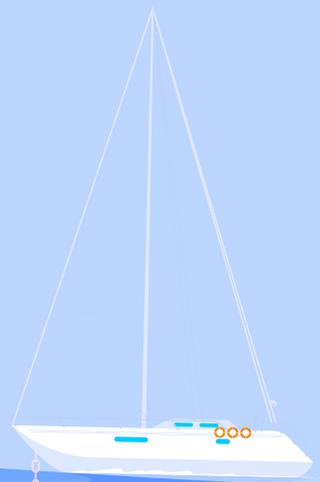


## Further Resources

- Local NGOs and organisations
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# WELCOME ON BOARD

Kick back and enjoy your well-deserved sailing holiday. Here are our top tips to make your time on the water as sustainable as possible



## COME CLEAN: PREVENT POLLUTION

Take care to minimize contamination when refuelling and emptying bilges. Use marine-friendly sunscreen, shampoos and cleaning products.



## LOWER YOUR SPEED

Reducing speed from full throttle by 10% reduces your fuel usage by 20%.



## BUY LOCAL & BUY SUSTAINABLE

Support local producers and buy from small local shops and markets. Choose sustainable seafood at tavernas.



## GET TO KNOW NATURE

When viewing wildlife, remain at least 100 metres away and limit your viewing time to 30 minutes.

## MOORING SAFELY

Use mooring buoys, or if you anchor use sand and mud and avoid sea-grass beds. Use rocks for long lines, not trees.



## LEAVE NO TRACE

Keep a tidy boat, leave your rubbish and recycling at designated areas in marinas and do not leave it at all on smaller islands.







## REDUCE YOUR IMPACT

The world we explore by boat is three dimensional: the intricate network of bays and coastlines, the vast expanse of water, and the seabed teeming with fragile corals, shellfish, sea fans, and seagrass, such as Posidonia meadows. It is within our power to collectively safeguard the environment and the magnificent seas we have the privilege to explore, by actively avoiding any harm or disruption. This guide is designed to enhance the sustainability of your water activities, ensuring the preservation of the breathtaking sea and landscape in the Ionian region for future generations.

### MOORING SAFELY

We float above these amazing worlds – but then drop anchor. When deciding where to stop, look out for marked anchorages and use moorings where available. Do not anchor in seagrass and coral areas as the damage caused by anchors and chains takes decades to restore – it takes a year to grow one centimetre of Posidonia seagrass. Unfortunately, not all of the seagrass meadows are mapped out yet, so they may not appear on your charts, but you can look around to spot them.

#### WHAT CAN YOU DO?

- **Wear polarized sunglasses** to reduce surface glare on the water, which will help you see seagrass beds.
- **Anchor in sand or mud** and not in seagrass meadows.
- **Tie long lines to sturdy rocks**, not to trees, and avoid sand dunes. Trees and dunes protect inland areas from the destructive forces of wind and waves so avoid damaging them. If you must use a tree protect the trunk using a towel.
- If you visit the same site frequently, try to **anchor in the same position**.
- **Avoid anchor drag**, as it can damage the seabed. If your anchor is dragging, raise it and re-anchor. If it continues to drag, choose a different anchorage.
- **When raising the anchor** you should slowly motor towards it and retrieve it when the line is vertical. Wash off your anchor when you leave an anchorage.
- If the anchor is stuck, try to free it by hand or disconnect it and mark the site with a buoy for a diver to retrieve later. **Don't force the anchor free** by motoring forward.

### AVOID PROP AND HULL DAMAGE

Scarring and damage is caused by boats entering shallow waters where propellers, motors and hulls come into contact with seagrass beds. As the propeller slashes into the sea floor, or the hull and motor drag across the bottom, they cause physical damage to the crucial root systems of the seagrass and leave a visible scar in the seagrass bed.

Over time, erosion and scouring from waves and currents in damaged areas can result in scars expanding, causing additional loss of seagrass.

- Review charts to see where shallow waters are located. Steer your boat in marked channels or deeper water while under power.
- When using your tender over seagrass in shallow water, trim your outboard motor up and idle to a safe depth.

#### WANT TO KNOW MORE?

*See the next section on wildlife to find out more about the amazing Posidonia meadows.*



## LOWER YOUR SPEED

Hopefully you'll have favourable winds, but you will need to use your motor from time to time – but as it runs on marine diesel, this has a carbon footprint, and increases your fuel costs.

### WHAT CAN YOU DO?

You can easily decrease your fuel consumption by **cutting your speed: reducing your power by as little as 10% from full throttle will save you 20% in fuel costs**. You'll make your fuel last longer, save money and reduce your carbon impact – a win-win for the environment and your wallet.

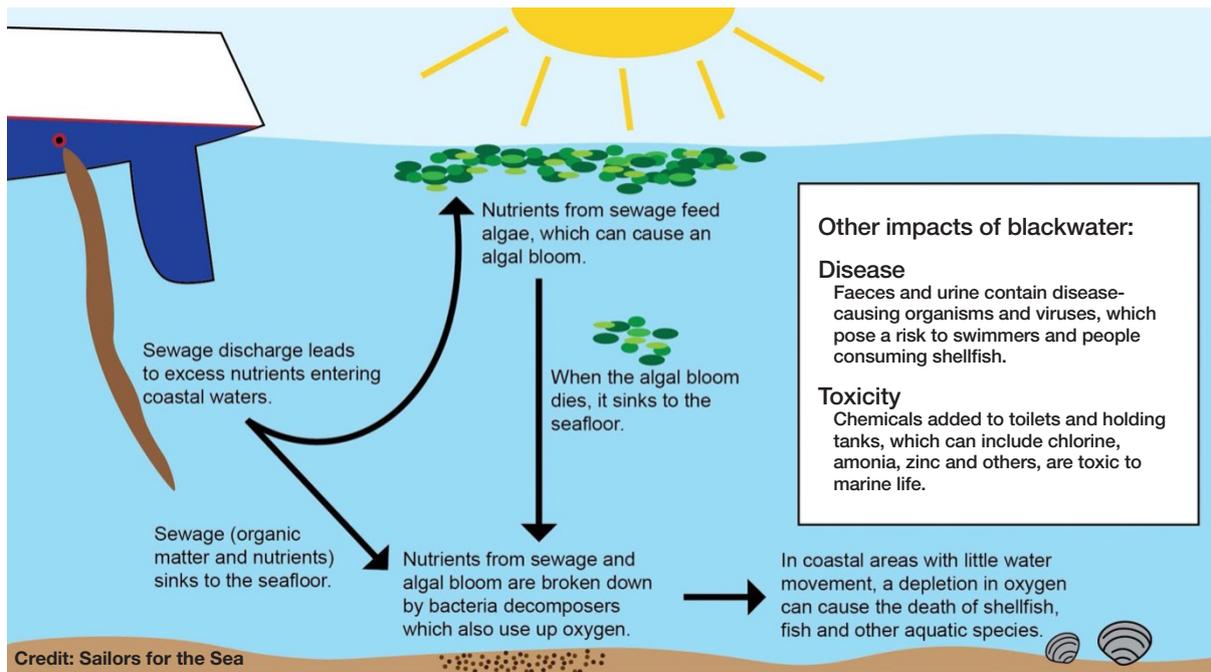
## COME CLEAN: PREVENT POLLUTION

### REFUELLING WITH CARE

Over 95% of oil pollution in the sea comes from everyday spills or splashes from refuelling. Filling up the tank is the principal way we unintentionally pollute our waters – even a few drops of fuel are toxic for the sea, harming both animals and plants.

### WHAT CAN YOU DO?

- **Know the capacity of your fuel tank** or portable container, and how much fuel you need. Boat fuel tanks are not pressurized like car fuel tanks, so the pump nozzle will not automatically shut off.
- **Fill the tank slowly** and listen for a change in tone as it gets full. Fill to no more than 90% capacity to allow for expansion due to heat.
- Using portable fuel cans (jerry cans) often leads to accidental fuel spills, so **take extra care**.



**If you have a spill, notify the marina or your company rep immediately.** Never use detergent or soap to make the spill disappear; they don't get rid of the spill but break it down into smaller droplets, making the spill harder to clean and more toxic to marine life. Wipe up any drops on deck/pontoon with a cloth and dispose in the rubbish, do not wash overboard.

**DID YOU KNOW?**  
One litre of oil released into the water can spread into a two kilometre oil slick!

## DISCHARGE WASTE WATERS CAREFULLY

Blackwater is sewage – your toilet waste. It contains pollutants including nutrients, metals, toxins and pathogens. Blackwater discharged from your boat reduces water quality, negatively affects aquatic ecosystems and increases risks to human health.

In Greece, all charter boats must be fitted with holding tanks for blackwater, so you can use the toilet facilities at any time, but as the tanks are small they need to be emptied during your voyage.

Greywater is untreated water from your onboard sinks, showers, and wastewater from cleaning your boat, and it's a major polluter of the marine environment. This does not get captured in your holding tank, so care must be taken when washing up, showering, or cleaning the boat. Note that most marinas and harbours in the Ionian have a no-discharge policy, so you will be fined if you are found to be polluting.

### WHAT CAN YOU DO?

- Only empty your holding tank when you are in **open sea** and deep water far from shore.
- **Do not flush toilet paper** or any sanitary products in your boat toilet as they will end up in the sea and blocking your toilet. Instead, put in rubbish bags and take ashore.
- **Use shoreside and marina facilities** for showering, laundry and dishwashing – many tavernas on small islands will also have facilities you can use.
- Use sink strainers to **catch food waste** and solid particles then dispose of them in the bin.

## SUNSCREEN CHEMICALS AND MARINE LIFE

### How sunscreen chemicals enter our environment:



The sunscreen you apply may not stay on your skin.



When we swim or shower, sunscreen may wash off and enter our waterways.



### How sunscreen chemicals can affect marine life:

**Chemicals in some sunscreens that can harm marine life:**

- 3-Benzylidene camphor
- 4-Methylbenzylidene camphor
- Octocrylene
- Benzophenone-1
- Benzophenone-8
- OD-PABA
- nano-Titanium dioxide
- nano-Zinc oxide
- Octinoxate
- Oxybenzone

**GREEN ALGAE:** Can impair growth and photosynthesis.



**CORAL:** Accumulates in tissues. Can induce bleaching, damage DNA, deform young and even kill.



**MUSSELS:** Can induce defects in young.



**SEA URCHINS:** Can damage immune and reproductive systems, and deform young.



**FISH:** Can decrease fertility and reproduction, and cause female characteristics in male fish.



**DOLPHINS:** Can accumulate in tissues and be transferred to young.



### Here are a few ways to protect ourselves and marine life:

*Consider sunscreen without chemicals that can harm marine life, seek shade between 10 am & 2 pm, and use Ultraviolet Protection Factor (UPF) sunwear.*

  
Seek shade

  
Umbrella

  
Sun hat

  
Sunscreen

  
UV Sun glasses

  
Sun shirt

  
Leggings



Revised Sep. 2020
[oceanservice.noaa.gov/sunscreen](http://oceanservice.noaa.gov/sunscreen)

## USE ECO-FRIENDLY PRODUCTS

Chemicals from cleaning and personal care products decompose in the water leading to less available oxygen in the sea, which causes fish, shellfish and other aquatic life to suffocate, resulting in dead zones. Suncreams can damage marine life, especially ones containing ingredients like oxybenzone and octinoxate, as they can be toxic when they wash off to the sea. They also contribute to coral bleaching, damage coral larvae and disrupt the development of fish.

### WHAT CAN YOU DO?

- **Use sunscreens labelled as being ‘marine safe’** (or equivalent) and ensure they do not contain oxybenzone and octinoxate. Read the ingredients and choose ones with less toxic materials such as zinc oxide or titanium dioxide. There are several brands available in pharmacies in Greece that are using cleaner ingredients and formulas.
- **Apply suncream at least 30 minutes before you go into the sea**, as it is less likely to wash off. Even better, consider wearing sun-protection clothing such as a rash vest: then you won't have to worry about sunscreen sneaking into the water in the first place and you won't need to reapply.
- Do not use shower or hair products if you are using the shower off the back of the boat.
- **Buy ‘marine safe’ washing up liquid and other cleaning products to use on board** that do not have phosphates in them.

## LEAVE NO TRACE

Weekly, countless sailors navigate the Ionian seas, producing substantial volumes of plastic, domestic waste, and food waste. This is already inflicting notable harm on both infrastructure and the marine/coastal ecosystems. The UN forecasts a future where plastic outweighs fish in the sea by 2050, underscoring the urgency of avoiding contribution to marine pollution. We all need to take responsibility to reduce our litter output and make sure we leave these waters cleaner than when we encountered them.

### WHAT CAN YOU DO?

- **Keep a tidy boat:** Always ensure that any items that might blow away are safely stowed in the galley and rubbish is secured below deck in your waste/recycling bin to avoid it going into the sea.
- **Dispose of rubbish carefully:** No waste should be thrown overboard, not even 'organic' matter. Use the big blue recycling bins for all packaging items (aluminium, tins, plastic bottles, containers and paper). There are usually separate bins or big 'bells' for glass.
- **Do not leave rubbish on smaller islands:** The smaller islands do not have facilities to deal with the large amounts of waste the charter boats bring in, so try to keep your rubbish on board until you reach a marina or larger port.
- **Never stub a cigarette out on a beach or throw overboard:** Cigarette butts are non-biodegradable litter and the single most collected item in beach clean-ups. Each cigarette filter is made up of 12,000 plastic fibres, so when thrown into the sea, it's like introducing thousands of individual pieces of microplastic. Carry a portable ashtray or a small box in your bag for cigarette butts to dispose of them in a bin later.
- **Pick up litter you see on beaches or in the sea** (check it is safe to do so, and wear gloves if needed), volunteer for a beach clean-up day or make a donation to a local environmental organization (for some ideas see the list in the 'resources' section).
- **Stop buying bottled water:** Keep your reusable bottle with you and ask for refills when you are ashore. At restaurants and bars, ask for their own filtered water rather than water in plastic bottles.
- **Reduce your use of plastic** by reusing bottles, bags and containers. Avoid drink takeaways in single use plastic cups and do not use plastic straws. Purchase products with minimal packaging and take reusable bags to carry shopping. For example, try to buy loose fruit and vegetables from the local market or sellers, rather than boxed or plastic-wrapped produce from the supermarket.

# HOW LONG UNTIL IT'S DECOMPOSED?

IF ONE BOTTLE OF WATER MADE IT INTO THE SEA, HOW LONG WOULD IT TAKE TO FULLY DECOMPOSE?



TOILET ROLL  
1 MONTH



PLASTIC BAGS  
10-20 YEARS



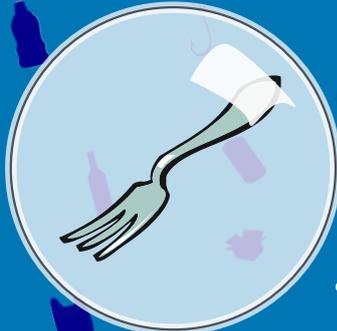
CIGARETTES  
10 YEARS



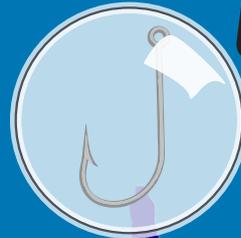
CARDBOARD  
2 MONTHS



DRINKS CANS  
200 YEARS



PLASTIC CUTLERY  
100-1000 YEARS



FISH HOOKS  
600 YEARS



GLASS  
4000 YEARS



DIAPERS  
450 YEARS



SOME PLASTICS  
NEVER

THIS HAS  
TO STOP

WE LIVE  
HERE

Brought to you by:



# IT'S TIME TO KICK BUTTS

10 FACTS ABOUT THE #1 FORM OF PLASTIC LITTER FOUND AT BEACH CLEAN-UPS WORLDWIDE

#1

**850,000** TONNES OF BUTTS ARE LITTERED EVERY YEAR

That's the equivalent weight of forty Statue of Libertys.



#2

**30%** OF ALL LITTER COLLECTIONS ARE CIGARETTE BUTTS

They are the #1 form of plastic found at beach clean-ups worldwide.



#3

EACH BUTT CONTAINS **12,000** STRANDS OF PLASTIC

It's not cotton, nor is it biodegradable.



#4

THEY TAKE **10-15** YEARS TO BREAKDOWN IN THE OCEAN

Becoming another form of harmful plastic eaten by fish.



#5

THESE TEENY TINY BUTTS CONTAIN MORE THAN **7000** CHEMICALS

Including arsenic, a chemical formerly used as rat poison.



#6

IN ONE LITRE OF WATER, EVEN ONE CIGARETTE BUTT IS **TOXIC** TO FISH

A recent study found that leached toxins from butts kill half of all fish exposed.



#7

**65%** OF ALL SMOKERS DISPOSE OF THEIR BUTTS IMPROPERLY

According to a 2009 American study that observed smokers' habits.



#8

THE PRESENCE OF ASH RECEPTACLES REDUCED LITTERING BY **9%**

In the same study, litterers were an average 10m away from an ashtray.



#9

A REDUCTION OF LITTER **REDUCES** THE CHANCES OF FUTURE LITTERING

Clean promotes clean. Littering is a contagious human behaviour.



#10

YOU CAN HELP REVERSE THE PROBLEM. **THINK, TALK AND TAKE ACTION**

Sharing this infographic would be a great start. Let's have the discussion.



## #PROTECTOURPLAYGROUND

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SOURCES

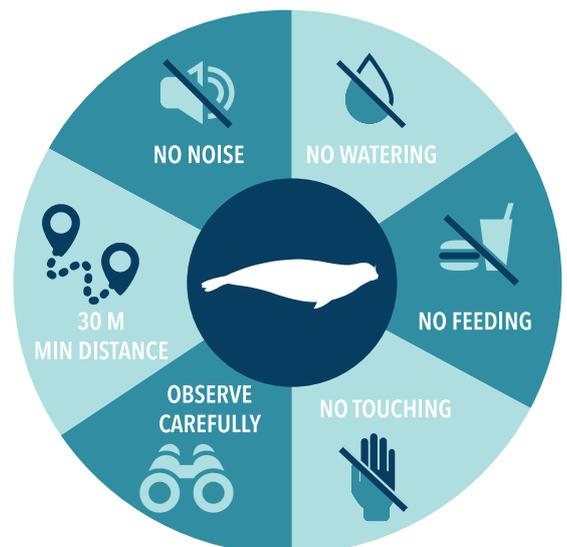
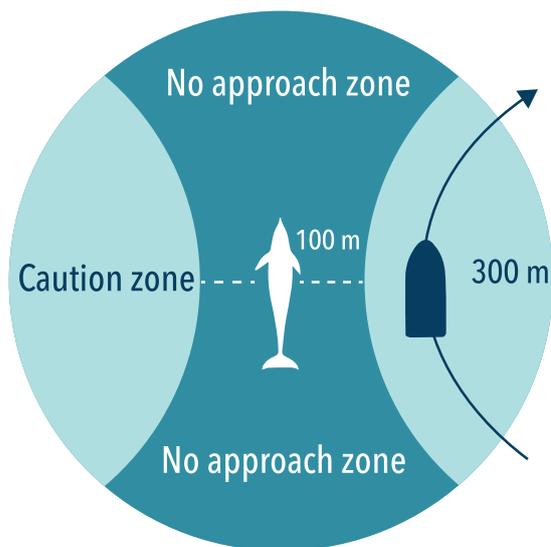
OCEAN CONSERVANCY  
U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION  
KEEP AMERICA BEAUTIFUL  
NEW SCIENTIST MAGAZINE  
ALLIANCE FOR THE GREAT LAKES  
WHOSE BUTT IS IT? ELIZABETH A SMITH & THOMAS E NOVOTNY.

# LET'S BE SMART

## SUPPORT MARINE MAMMAL CONSERVATION



While today's abundance of monk seals, whales and dolphins is likely only a fragment of what it was a century ago, important populations still live and reproduce in the Ionian Sea. Human disturbance to marine mammals causes them unnecessary stress. By applying the following very basic codes of conduct you will be contributing to their conservation.



**S** Stay back 100 metres from cetaceans

**M** Move away cautiously if the animals show signs disturbance (sudden change in behaviour)

**A** Always put your engine in neutral when cetaceans are near

**R** Refrain from feeding, touching, or swimming with wild dolphins or whales

**T** Teach others to be CETACEAN SMART

**S** Stay back 30 metres from seals

**M** Move away cautiously if the animals show signs disturbance (sudden change in behaviour)

**A** Avoid making noise in the presence of a seal on land and if at sea put your engine in neutral

**R** Refrain from feeding, touching, or swimming with monk seals, and KEEP PETS AT A DISTANCE, as they might be carriers of dangerous diseases to the seal

**T** Teach others to be MONK SEAL SMART

PROJECT BY



[www.ioniandolphinproject.org](http://www.ioniandolphinproject.org)

WITH SUPPORT FROM



## GET TO KNOW NATURE

Greece has an amazing array of marine wildlife, and while sailing you may come across some of the extraordinary creatures that live here, including seabirds, seals, dolphins and turtles. But as the number of recreational boaters sailing across these beautiful Mediterranean waters has increased dramatically, so have the threats to wildlife. Disturbance caused by boats can have a harmful effect on breeding, feeding and resting patterns. Flapping sails may cause a flock of birds to take flight; engine noise might disturb a pod of dolphins; and sailing into shallow depths could disturb sensitive habitats. But by applying the following very basic code of conduct you will be contributing to their conservation.

### **WHAT CAN YOU DO?**

- Stay back 100 metres
- Move away slowly if the animals show signs of disturbance (sudden changes in their behaviour)
- Always have your engine in neutral, and avoid making noise if you see seals on land
- Refrain from feeding, touching or swimming with dolphins, seals or turtles
- Limit your viewing to 30 minutes.

## HELP!

*If you come across dolphins, turtles or seals, support organisations working to study and protect them by alerting them to their location. Where possible, take photos and videos from a safe distance and upload with information on your exact location, date and time to these organisations:*

*Dolphin, seal, whale – Ionian Dolphin Project:*  
**[ioniandolphinproject.org/report-a-sighting/](http://ioniandolphinproject.org/report-a-sighting/)**



*Turtles – Archelon:*  
**[archelon.gr/eng/help2.php?mid=1&mid2=25](http://archelon.gr/eng/help2.php?mid=1&mid2=25)**

*If you see an injured sea turtle – immediately call:*  
**+30 6941511511**

## BUY LOCAL & BUY SUSTAINABLE

A great way to get to know the local culture, enjoy new experiences and even save money is to buy local products. It's often a rewarding choice, not only in terms of financial and carbon savings, but because of the unforgettable holiday experiences you gain. Modern and traditional producers of high-quality food products are found all over the Ionian. At local markets or small shops, you can find olive oil, dairy and meat products, and a huge array of local fruit and vegetables. A visit to a typical island taverna is a must on any trip, and here too you can choose more sustainable options.

### WHAT CAN YOU DO?

- Avoid buying or ordering fish species that are at risk due to overfishing, and opt for more abundant alternatives. Try unusual species found in the 'Pick the Alien' guide.
- Support local producers and shop from farmers markets and small shops.
- Try local specialities like Ribolla wine from Kephallonia, Englouvi lentils from Lefkada, and honey and kumquats from Corfu.

**LEFKADA base:** your local farmers market is every Saturday outside the marina gates.

**CORFU base:** daily market at Corfu Central Market, Lochagou Spiridonos Vlaikou.

### WANT TO KNOW MORE?

See the guide by WWF  
for some ideas  
[fishguide.wwf.gr/local-recommendations](https://fishguide.wwf.gr/local-recommendations)





Atlantic mackerel (*Scomber scombrus*) > 18 cm.  
 Bluespotted cornetfish (*Fistularia commersonii*)  
 Atlantic blue crab (*Callinectes sapidus*)  
 Bogue (*Boops boops*) > 10 cm.  
 Caramote prawn  
 from small scale fishers (*Penaeus kerathurus*)  
 Dusky/marbled spinefoot (*Siganus luridus/rivulatus*)  
 European anchovy (*Engraulis encrasicolus*) > 9 cm.  
 European pilchard (*Sardina pilchardus*) > 11 cm.  
 Golan round herring (*Etrumeus golanii*)  
 Lionfish (*Pterois miles*)  
 Long-spined sea urchin (*Diadema setosum*)  
 Mediterranean mussel (*Mytilus galloprovincialis*)  
 Rainbow trout (*Oncorhynchus mykiss*)  
 Redcoat (*Sargocentron rubrum*)  
 Red Sea goatfish (*Parupeneus forsskali*)  
 Round sardinella (*Sardinella aurita*) > 10 cm.

Sand steenbras (*Lithognathus mormyrus*) > 20 cm.  
 Striped venus clam (*Modiolus barbatus*)  
 Pumpkinseed (*Lepomis gibbosus*)



Caramote prawn (*Penaeus aztecus*)  
 Common squid (*Loligo vulgaris*)  
 Little tunny (*Euthynnus alletteratus*)  
 Mugil mullets (*Mugil spp.*) > 16 cm.  
 Common pandora (*Pagellus erythrinus*) > 15 cm.  
 Picarel (*Spicara smaris*)  
 Axillary seabream (*Pagellus acarne*) > 17 cm.  
 Atlantic bonito (*Sarda sarda*)  
 White seabream (*Diplodus sargus*) > 23 cm.  
 Horse mackerell (*Trachurus spp.*) > 15 cm.  
 Common cuttlefish (*Sepia officinalis*)  
 Gilthead bream (*Sparus aurata*) > 20 cm.



Mediterranean sand smelt (*Atherina hepsetus*)  
 Common spiny lobster (*Palinurus elephas*)  
 European lobster (*Homarus gammarus*)  
 Sea urchin (*Arbacia lixula, Paracentrotus lividus*)  
 Skates (*Raja spp., Dasyatis spp., Aetomylaeus bovinus, Myliobatis aquila, Gymnura altavela*)  
 Smooth-hound (*Mustelus spp.*)  
 Bivalve (*molluscs*)  
 Atlantic bluefin tuna (*Thunnus thynnus*)  
 Crabs  
 Red mullet (*Mullus barbatus*)  
 European seabass (*Dicentrarchus labrax*)  
 Greater amberjack (*Seriola dumerilii*)  
 European hake (*Merluccius merluccius*)  
 Surmullet (*Mullus surmuletus*)  
 Swordfish (*Xiphias gladius*)  
 Dusky grouper (*Epinephelus marginatus*)  
 Brown meagre (*Sciaena umbra*)  
 Atlantic salmon (*Salmo salar*)



Limpets (*Patella spp.*)  
 Date mussels (*Lithophaga lithophaga*)  
 Mediterranean fan mussel (*Pinna nobilis*)  
 Juvenile fish and cephalopods



## RESPONSIBLE SEAFOOD CONSUMPTION GUIDE

### PICK THE ALIEN EAT RESPONSIBLY

With the aim to promote responsible consumption of seafood and fish products, this is a list you may consult when choosing what to eat!



#### RECOMMENDED



#### GOOD ALTERNATIVES



#### AVOID



#### PROHIBITED

**RECOMMENDED** alien species whose consumption contributes to the protection of marine ecosystems or species that are abundant in the Greek seas and more likely to be fished with sustainable techniques and methods. Next to each species you can find the minimum conservation reference size based on the applied legislation.

**GOOD ALTERNATIVES** consist of species whose consumption may be a responsible choice under conditions, such as the size and season of consumption, and taking into consideration the fishing techniques and methods they were caught. Next to each species you can find the minimum conservation reference size based on the applied legislation.

**AVOID** species whose stocks are declined or endangered species and apex predators. The category also includes species which are more probably to be caught with fishing techniques and methods that pose high threats to the marine environment. There are also species which are usually mislabeled and may correspond to protected species, or impact human health mainly due to their high concentration in heavy metals.

**PROHIBITED** species based on the international, European and national legislation, according to which catching and selling them is illegal.



For more information visit [www.isea.com.gr](http://www.isea.com.gr)



You can **help** us gather valuable information on **marine mammals in the Ionian Sea**. By reporting your encounters with any of these charismatic species you will **contribute to their conservation**.



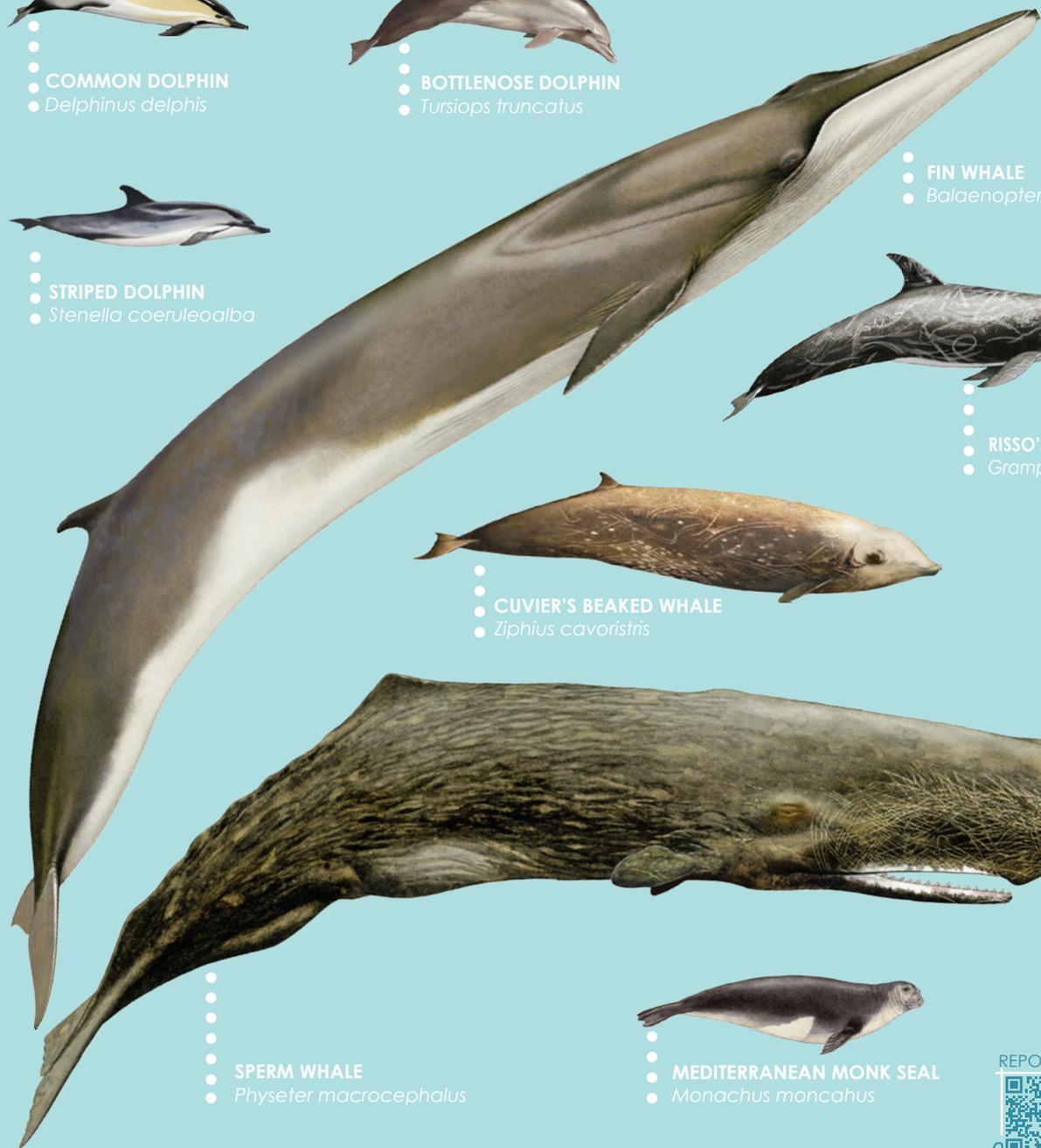
- COMMON DOLPHIN
- *Delphinus delphis*



- BOTTLENOSE DOLPHIN
- *Tursiops truncatus*



- STRIPED DOLPHIN
- *Stenella coeruleoalba*



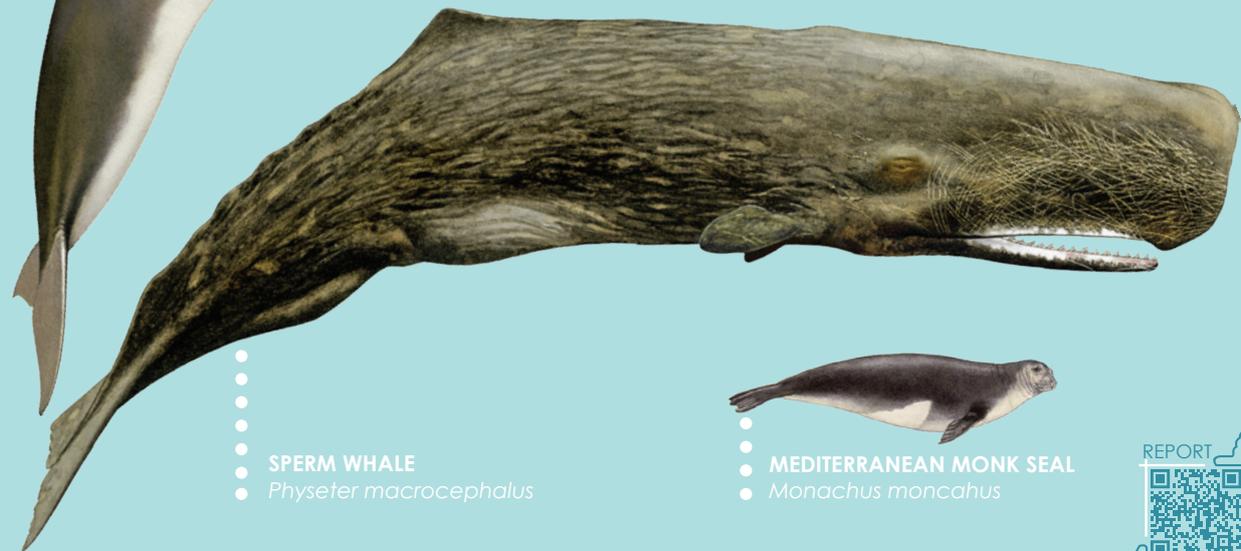
- FIN WHALE
- *Balaenoptera physalus*



- RISSO'S DOLPHIN
- *Grampus griseus*



- CUVIER'S BEAKED WHALE
- *Ziphius cavoristis*



- SPERM WHALE
- *Physeter macrocephalus*

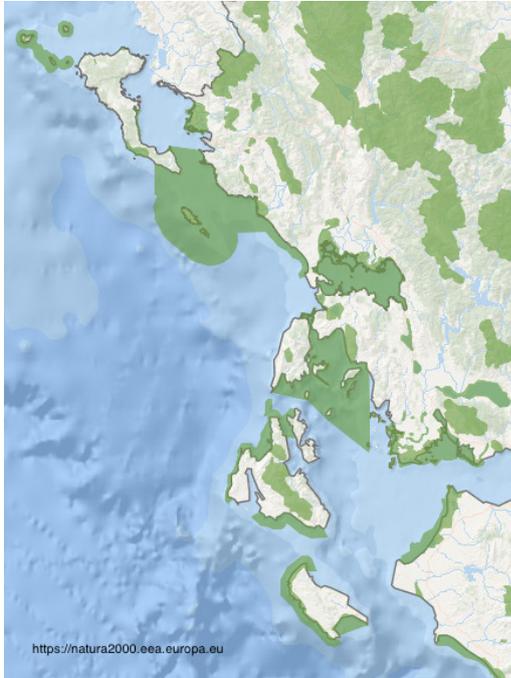


- MEDITERRANEAN MONK SEAL
- *Monachus monachus*





## WANT TO KNOW MORE?



### ENVIRONMENT AND THE IONIAN

The Ionian Islands are the archipelago of western Greece that spans from the north to the mid-south of the country. There are six main islands - (from north to south) Corfu, Paxos, Lefkada, Ithaca, Kefalonia and Zakynthos – along with many smaller ones, each with a distinct character.

Although there are differences between the islands, in general the physical environment is similar and the climate does not vary from the north to the south Ionian Sea. Western Greece is far rainier than the rest of the country and therefore all Ionian Islands are very green and rich in flora and fauna.

The Ionian is home to an impressive variety of fish, amphibians, small and large cetaceans, including several species of whales and dolphins. Sadly, the common dolphin has been an endangered species for many years, with a concerning reduction in numbers in these waters. The Ionian is also the favourite spot of *Caretta-caretta* sea turtles and monk seals (*Monachus monachus*).

The Posidonia meadows are the lungs of the Mediterranean, but those in the eastern Ionian are seriously damaged by human impact. The tourist industry, with vast numbers of boats and cruise ships, has a dramatic effect on the meadows' health and distribution, whilst various other human activities have left their mark.

**WANT TO KNOW MORE?**  
[natura2000.eea.europa.eu](https://natura2000.eea.europa.eu)

Tourism is key to the economic prosperity of the Ionian islands, but the most popular are facing immediate, significant problems. Freshwater supplies are hugely reduced due to over-exploitation and contamination of water sources, especially on Corfu.

Inadequate provision of clean, drinkable water results in islands importing vast quantities of bottled water, increasing waste management problems. Biodiversity and resilient ecosystems are still rich but under huge pressure, with some species requiring active protection and regeneration.

Greece has a network of Marine Protected Areas (MPAs) around the country to protect habitats and species from damage. They include legal protection like Marine Conservation Zones, Sites of Special Scientific Interest, Special Areas of Conservation and Special Protection Areas. In the Ionian, there are three EU protected '*Natura 2000*' areas:

- The Inner Ionian Sea Archipelago (site code GR2220003), where you might see common dolphins, bottlenose dolphins and Mediterranean monk seals
- The Gulf of Ambracia (GR2110001), where bottlenose dolphins are the only cetacean species present
- The waters surrounding the islands of Paxos and Antipaxos (GR2230004), where bottlenose, common and striped dolphins are regularly present, and monk seals are occasionally sighted

Human activities have caused significant decline in the populations of many of these species, and degradation of key marine ecosystems like the Posidonia meadows, but thankfully there are local organisations working to improve conservation and protection. This guide will help you to join this effort and protect the amazing waters and coasts where you will spend your sailing holiday.

## HABITAT AND WILDLIFE PROTECTION

As a sailor, you are a steward for the ocean and are responsible for keeping it healthy. Being a steward for the ocean means you navigate and interact with marine animals and plants in a respectful and positive way. Here we share with you some more detailed information on the marine plants and animals in the Ionian.

### HABITAT: SEA GRASS MEADOWS

Aquatic plants and algae provide food and shelter to fish and other marine life, but are not important only for aquatic ecosystems: they provide about 80% of the Earth's oxygen, making them vitally important for human life too.

In the Mediterranean, one of the most important underwater plants is the Posidonia (*Posidonia oceanica*), also known as 'Poseidon's beard'. This marine plant only grows in the Mediterranean and has been described as the underwater equivalent of the olive tree – it has roots, leaves, flowers and fruits, just like land flowers and trees. It grows in extensive meadows and at depths from 1 to 40m, turning sandy bottoms into verdant underwater ecosystems. The dense underwater Posidonia meadows provide spawning and nursery habitats, areas of refuge, and feeding grounds for many fish and invertebrates. Marine animals, including sea turtles, rely on seagrass for sustenance. They also help to filter and clean water, as well as protecting beaches and coasts from sea swells and erosion. They are critical for mitigating the effects of climate change as they bind 35 times more CO<sub>2</sub> than forests on land – they really are the lungs of the Mediterranean.

**DID YOU KNOW?**  
Greek coasts account for approximately 30% of the Mediterranean coastline. (WWF Greece).

The eastern Ionian has the most extensive Posidonia meadows (903 km<sup>2</sup>) in the Mediterranean, some of it in protected Natura2000 sites. However, this area is also under high pressure from sailing and other boat tourism activities, and over recent years the vast number of boats has had a dramatic impact on the meadows, with many becoming damaged.

**WANT TO KNOW MORE?**  
[archipelago.gr/en/our-work/marine-conservation/seagrass-coralligene/](http://archipelago.gr/en/our-work/marine-conservation/seagrass-coralligene/)

### IONIAN WILDLIFE

The seas here host some of the most important remaining marine mammal and sea turtle populations in the Mediterranean including four species of dolphins (bottlenose, common, striped and Risso's dolphin), two species of whales (sperm whales and Cuvier's beaked whales), the highly endangered Mediterranean monk seal, as well as two species of sea turtle (loggerhead and green turtle).

#### Dolphins

Dolphins have long been part of Greek life, appearing in stories and myths, as well as on ancient mosaics, buildings and pottery. Dolphins are a type of marine mammal that can orientate themselves, locate their food and communicate with each other through an echolocation system. They hear frequencies ten times higher than humans, they are intelligent and social, and in some places they live in communities of thousands.

Unfortunately, the dolphin's greatest "natural enemy" is humans. Recreational boats are a significant cause of harm, either directly (injury or death through strikes) or indirectly (disturbance, and sound pollution of boat engines). Combined with the overall degradation of their habitat and the reduction of available food, all types of dolphins in Greece are under threat, and we are already seeing a significant reduction of their population.

The species you're most likely to see in the Ionian are the common dolphin and bottlenose dolphin, with striped dolphins also found near the islands of Paxos and Andipaxos.

**WANT TO KNOW MORE?**  
[archipelago.gr/en/our-work/marine-mammals/dolphins/](http://archipelago.gr/en/our-work/marine-mammals/dolphins/)

## Seals

The Mediterranean monk seal has been well known for millennia. Ancient Greeks revered the seals and believed they were under the protection of the gods Poseidon and Apollo because of their great love for the sea and the sun.

But seals are now one of the world's most threatened marine mammals, with only a few hundred estimated to survive in the whole of the Mediterranean sea. Around half the global Mediterranean monk seal population lives in Greece, in the few remaining monk seal habitat areas like the Ionian Inner Sea Archipelago. Unfortunately, these areas are experiencing disturbance by tourists during the critical breeding season in summer months, placing further pressure on their dwindling numbers.

Seals are often seen resting on banks and rocks, which is essential for them to warm up and restore their energy for their next hunting dive. The typical sign that seals are aware of your presence is 'heads up'. If distressed, they will often shuffle at speed into the water.

## Turtles

Sea turtles are some of the oldest living animals: seven species have been present for 100 million years. They are air-breathing, egg-laying reptiles with a long life span, with some living over 100 years. They spend almost all of their lives at sea – only female adults come ashore to nest in the sand. It is estimated that only 1 in 1,000 hatchlings will survive to adulthood.

In Greece the most common species is the loggerhead turtle (*Caretta caretta*) which has become a symbol of the Mediterranean and the Greek seas. Greece hosts approximately 60% of the nests of this species, and some of their most important breeding sites. The National Marine Park of Zakynthos (bay of Laganas) has one of the highest nesting densities in the world.

From late April to mid-July sea turtles return to their natal beaches to mate and nest. Eggs hatch 60 days after they were laid, from mid-June to early October. This, of course, coincides with the summer spike in tourism – so we need to be extra careful.

**VISITING THE NATIONAL MARINE PARK OF ZAKYNTHOS?** [www.nmp-zak.org/en](http://www.nmp-zak.org/en)

**WANT TO KNOW MORE?**  
[ioniandolphinproject.org/mediterranean-monk-seals](http://ioniandolphinproject.org/mediterranean-monk-seals)

**AND**  
[archipelago.gr/en/our-work/marine-mammals/seals/](http://archipelago.gr/en/our-work/marine-mammals/seals/)

**WANT TO KNOW MORE ABOUT TURTLES?**  
[www.archelon.gr/index\\_eng.php](http://www.archelon.gr/index_eng.php)

## DID YOU KNOW?

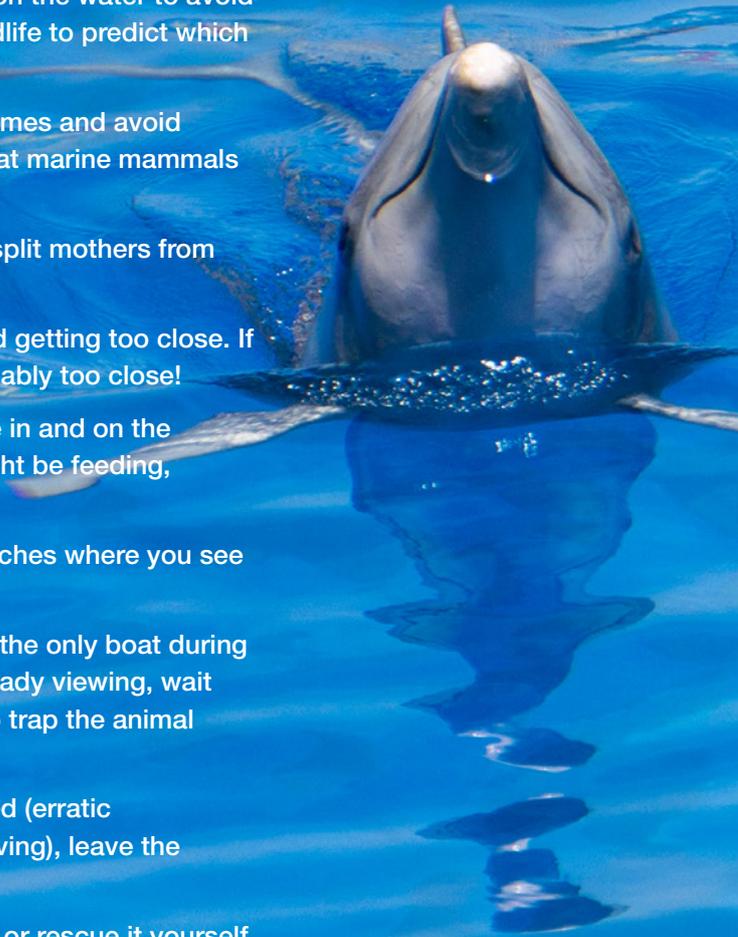
**Greece has nearly 500 species of birds?  
See 'Useful links' section for a guide to birds in Greece.**

**Greek seas also have at least 36 species of sharks,  
30 species of batoids (like a ray)  
and two species of whales?**

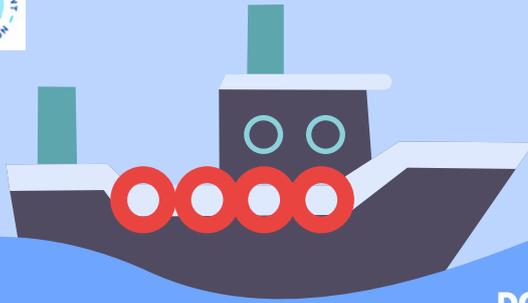
## SPOTTING WILDLIFE

Whilst it might be tempting to get a little closer to see more, remember that marine wildlife is just that – wild. Encounters with boats can be dangerous or deadly for these beautiful creatures, so here are some additional tips to keep disturbance to a minimum and keep you and your boat safe.

- If you see wildlife while under motor, slow down and, if safe to do so, put your engine into neutral. If sailing, drop your sails. Do not re-engage the motor until the animal has vacated the area, as engine noise is very disturbing to animals like dolphins and seals.
- Keep a consistent course when you spot wildlife in or on the water to avoid collisions. Changes in direction make it difficult for wildlife to predict which way to go to avoid your boat.
- Never chase an animal. Try to stay behind them at all times and avoid sudden changes in speed and direction. Remember that marine mammals may surface in unpredictable locations.
- Avoid travelling through pods of dolphins, as this can split mothers from their young.
- Use binoculars to observe the birds or animals to avoid getting too close. If you don't need binoculars to see the detail you're probably too close!
- Try to maintain a distance of around 100m from wildlife in and on the water or on beaches and coastal areas where they might be feeding, resting or breeding.
- Don't take your tender or paddleboard to caves or beaches where you see seals resting, and do not swim or snorkel in the area.
- Limit your viewing time to 30 minutes. You may not be the only boat during the day to view the same animal. If another boat is already viewing, wait your turn and don't crowd the animal. Be careful not to trap the animal between your boat, other boats and the shore.
- If the animal exhibits behaviours that show it is stressed (erratic swimming pattern, aggressive behaviour, prolonged diving), leave the area immediately.
- If you see a sick or injured animal, don't attempt to aid or rescue it yourself. Contact the relevant organisation listed below.
- Don't feed animals or birds, as your food may be harmful to them and will change their feeding behaviour. It will also result in them losing their natural fear of boats and humans.
- Do not touch or swim with dolphins or turtles – they are wild animals and are better left undisturbed.
- You may spot rafts of birds on the water. The main reason they form large groups is to rest and for safety. Avoid steering into rafting birds as breaking up rafts can make birds more vulnerable to predators and use up their energy.
- Do not make excessive noise, use flash photography or operate drones near or over animals as it will disturb them.



# BOAT USERS



**How to avoid collision with a sea turtle when boating.**

## Be aware of spotting a sea turtle.

When travelling by boat near foraging or nesting areas, appoint a crew member to be responsible for spotting sea turtles.

## Keep your distance.

If you spot an animal nearby, make sure to always keep a minimum 15m distance.

## DO NOT throw your trash in the sea.

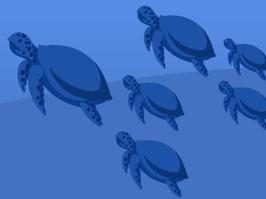
Sea turtles might ingest or choke on something you threw in the sea so avoid that at all times. Keep your garbage in the boat and dispose them when you reach the land.

## Follow the speed limit.

This way, you ensure that you spot a sea turtle in time and you can slow down or stop to avoid collision and injury.

## Avoid boating above seagrass beds and shallow waters.

Seagrass beds and shallow waters are places where sea turtles can regularly be found and straying in those areas increases the chance of hitting one. Your boat's propeller also grazes seagrass which takes years to regrow.



## Report dead or injured sea turtles immediately.

If you spot a dead or injured individual, immediately call the Coast Guard or relevant national authorities to report it and get instructions on what you can do next.

# BEACH VISITORS

**How to act around nesting turtles and hatchlings.**



## Keep quiet.

Loud noises may scare the turtles.

## DO NOT pick up hatchlings to move them into water.

Hatchlings must find their way to the sea on their own.

## DO NOT take photos with flash or use flashlight directly facing the turtle.

Turtles may get scared or disoriented and abandon nesting. Hatchlings may lose their way to the sea.

## DO NOT get in the way of the turtle and try to stay out of sight.

It is best to watch animals from a distance, preferably in a low position and only approach an animal from behind.

## Watch what you are stepping on.

You may accidentally step on a hatchling trying to reach the water.



## DO NOT touch the sea turtle or hatchlings.

Turtles can feel your touch and it is not an enjoyable experience for them, you may scare or injure them and even get injured yourself.

## If you have a dog, make sure to keep him on a leash and walk away.

You do not want your dog to chase or scare turtles and hatchlings.



## If you encounter disoriented hatchlings, carefully show them the way and contact professionals.

If you spot hatchlings heading away from the nesting beach, call the Coast Guard or relevant national authorities to receive instructions on how you can help and construct a temporary barrier to encourage them to move towards the sea.



# RESOURCES AND LINKS

## Local NGOs and organisations:

**Ionian Environment Foundation:** [ionianenvironment.org](http://ionianenvironment.org)

**Archipelago:** [archipelago.gr/en/our-work/marine-mammals](http://archipelago.gr/en/our-work/marine-mammals)

**iSea:** [isea.com.gr/?lang=en](http://isea.com.gr/?lang=en)

**Ionian Dolphin Project:** [ioniandolphinproject.org](http://ioniandolphinproject.org)

**WWF Greece:** [wwf.gr/en/our\\_work/nature/marine/protected\\_areas/sekania](http://wwf.gr/en/our_work/nature/marine/protected_areas/sekania)

**Archelon:** [archelon.gr/index\\_eng.php](http://archelon.gr/index_eng.php)

**Zakynthos National Park:** [nmp-zak.org/en](http://nmp-zak.org/en)

**Kefalonia and Ithaka Geopark:** [aenosnationalpark.gr/en](http://aenosnationalpark.gr/en)

**Kalamos Terra Sylvestris:** [terrasylvestris.org/biological-field-station](http://terrasylvestris.org/biological-field-station)

## Bird spotting guides:

**Avibird (illustrated checklist of Ionian birds):** [avibase.bsc-eoc.org/checklist.jsp?lang=EN&p2=1&list=howardmoore&synlang=&region=GRii&version=images&lifelist=&highlight=0](http://avibase.bsc-eoc.org/checklist.jsp?lang=EN&p2=1&list=howardmoore&synlang=&region=GRii&version=images&lifelist=&highlight=0)

**ebird (checklist of Ionian birds):** [ebird.org/region/GR-F/media?yr=all&m=](http://ebird.org/region/GR-F/media?yr=all&m=)

## Fishes of Greece guide:

**Guide to sharks and rays:** [isea.com.gr/wp-content/uploads/2022/10/Checklist\\_ENGLISH\\_WEB\\_UPDATED\\_compressed-1.pdf](http://isea.com.gr/wp-content/uploads/2022/10/Checklist_ENGLISH_WEB_UPDATED_compressed-1.pdf)

## Sustainable seafood:

**Recipes for unusual fish species, created by famous Greek chefs:** [isea.com.gr/recipes-for-edible-alien-species](http://isea.com.gr/recipes-for-edible-alien-species)

## Nature spotting app/guide:

[greece.inaturalist.org](http://greece.inaturalist.org)

## Some tips on local products:

[greeka.com/ionian/products](http://greeka.com/ionian/products)

[ithaca.gr/en/home/food-drink/local-products-2](http://ithaca.gr/en/home/food-drink/local-products-2)

[greekgastronomyguide.gr/en/item/kentriki-agera-kerkyras](http://greekgastronomyguide.gr/en/item/kentriki-agera-kerkyras)

[greekgastronomyguide.gr/en/lefkada](http://greekgastronomyguide.gr/en/lefkada)

## Sailing guides:

**World Sailing's Code of Environmentally-Friendly Behaviour:** [sailing.org/tools/documents/WorldSailingCodeofEnvironmentalFriendlyBehaviour-\[7289\].pdf](http://sailing.org/tools/documents/WorldSailingCodeofEnvironmentalFriendlyBehaviour-[7289].pdf)

**World Sailing Trust/Borrow a Boat – Sustainable Boating Guide for Charterers:** [borrowaboat.com/sustainabilityguide\\_print.pdf](http://borrowaboat.com/sustainabilityguide_print.pdf)

**Sailors for the Sea – Green Boating Guide:** [sailorsforthesea.org/programs/green-boating-guide](http://sailorsforthesea.org/programs/green-boating-guide)

## Boat owners, sailing clubs and regatta guides:

**Royal Yachting Association (resources for clubs and events):** [thegreenblue.org.uk/clubs-centres-associations](http://thegreenblue.org.uk/clubs-centres-associations)

**World Sailing (resources for clubs, venues and events):** [sailing.org/inside-world-sailing/organisation/world-sailing/sustainability](http://sailing.org/inside-world-sailing/organisation/world-sailing/sustainability)

**The Ocean Race – Guides for Sustainable Events:** [theoceanrace.com/en/racing-with-purpose/sustainable-sports-and-innovation#rwp-7](http://theoceanrace.com/en/racing-with-purpose/sustainable-sports-and-innovation#rwp-7)

**Sailors for the Sea – Clean Regatta Toolkit:** [sailorsforthesea.org/programs/clean-regattas](http://sailorsforthesea.org/programs/clean-regattas)

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### Credits for infographics used:

Ionian Dolphin Project: Dolphin and Whale guide, SMART guidelines

Ionian Environment Foundation: Beach guide, Boat users guide

Sailors for the Sea: Blackwater guide

52 SuperSeries/11th hour racing: Litter guide, Kick Butts guide

Isea: Posidonia guide, sustainable seafood (pick the alien) guide

Oceanservice/nooa: sunscreen guide

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For more information:  
[WWW.SUSTAINABLESAILINGGREECE.COM](http://WWW.SUSTAINABLESAILINGGREECE.COM)





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