

WELCOME TO ZAVORA!

The Association of Coastal Conservation of Mozambique (ACCM) would like to welcome you to Zavora, one of the most beautiful and untouched places in Mozambique! We have put together some information and good tips about what you can do to help us conserve and preserve this wonderful coastal area (and others), and thereby making your time here in Zavora both pleasant and sustainable not only for yourself, but also for the people around you and the environment! Here you will find guidelines on how to best conserve the beach and the ocean, as well as a consumers guide to sea food. We hope you will take a few minutes to read this information and we encourage you to keep it in mind as you enjoy the beautiful environment that you are holidaying in!



Why are we stressing this?

Over the past few decades coastal development, raise in population, climate changes, consumption changes and changes in society life style has abruptly increased pressure on the environment - species that before was abundant has now been reduced or even extinct, activities that before was acceptable might today be considered destructive to the environment. Unfortunately our vulnerable coastal ecosystem are some of the most threatened and researchers estimate that in 10 years, unless we united take steps towards a more sustainable lifestyle, we will achieve the point of ecological collapse. If everyone does a little it will help a lot – now is the time for change, we need to think and act more sustainable to ensure that our children will be able to grow up enjoy the same wonders of our planet as we are lucky enough to appreciate today - it is our responsibility!

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CARE FOR THE BEACH

Collecting Corals and Sea Shells

Corals are to the sea as the trees to the forest. They are living animals with important ecological functions serving as habitat and/or food source for fish and other invertebrates. Corals are slow growing animals, for some species it can take 100 years to grow 1cm. They are the most important part of the reefs - some of the world's most diverse ecosystems. One single healthy reef system might be home to as many as 3000 different marine species and produce up to 35 tons of fish per square km per year!!

When walking along the beach you might see white, porous coral washed on shore. This is their skeleton formed by carbonated calcium. This skeleton will still contribute significantly to the ecosystem as a nutrient source for tiny beach critters, as a building base for new corals and, along with sea shells, they will eventually grind down to become a part of our beautiful beach!

Tips!

- Do not collect corals or shells, even if they are on the beach/looking dead
- Place live coral found on the beach back in to the ocean – they might resettle and keep on living and growing!
- Never buy or sell corals and shells, or any product made thereof. Express your disapproval should you see someone else buying or selling!

Legal stuff: It is illegal to collect, sell, buy and/or transport corals in Mozambique (art.61 §2a).



Driving on the Beach

Please help conserve our beautiful coastline by reducing driving on the beach to a minimum. Our beaches and dunes are extremely vulnerable, as they contain thousands of living creatures and are the last buffer between sea and land. Using the beach as a highway quickens coastal erosion, reduces beach structural stability, and can have negative impact on dune and vegetation.

In the first few centimeters of the sand live numerous tiny little animals, smaller than our eyes can see, that are part of an ecosystem called "benthic infauna". These animals are a crucial part of the ecosystem, as they clean our nutrients from the sand and provide food for a lot of sea birds and other coastal animals. Unfortunately these little creatures are highly vulnerable to human impact, and driving on the beach can injure or kill them as a result of the pressure caused to their bodies.

Also, sea turtles, including the almost extinct Leatherback, and sea birds nest in this area. The turtle nesting season is between November and March, and driving on the beach might destroy nests as well as create obstacles for newly hatched turtle babies racing to get to the ocean before a predator finds them. Remember, a wheel rut for a little turtle is like Kilimanjaro for us!

Tips!

- Only drive on the beach for launching your boat (don't forget to purchase a permit!)
- Only use the designated area between the ramp and the launch area
- Avoid driving on the wet part of the sand as this is where most animals live – when possible, it is better to drive above the high tide mark but before the dunes (birds and turtles nest on the edge of the dunes)

Legal stuff: Driving on the beach with any motorized vehicle is illegal in Mozambique, except to launching the boat in designed areas and a permit must be purchased (art.54 §1).



Garbage

Despite the obvious fact that garbage is an eye sore, it has a really negative impact on wildlife. Mammals, birds, fish, reptiles, crustaceans and other invertebrates can all become tangled and entrapped in all types of garbage and debris, and some mistakenly eat it causing the animals digestive system to clog up.

It is also worth noting that there is yet no proper waste management and no recycling in Zavora (or the rest of Mozambique for that matter) - everything is burned! Please consider this when you dispose of your rubbish.

Tips!

- Never litter on the beach – even the smallest piece of litter like a cigarette butt or a chocolate wrapper will cause an impact.
- Use reusable cloth bags that you can bring home with you instead of plastic ones that might blow away and end up in the ocean.
- Think about where and how you dispose of your litter. It is better to put everything in a bag and seal the bag properly so that it won't be taken back on the beach with the wind.
- Bring a bucket with you to the beach to collect trash, both yours and trash you may come along. That little effort can have a huge impact on helping to preserve the wildlife.
- If you brought it into the country, then bring it back out again! You are doing the Mozambiquan nature a huge favour by taking recyclable packaging to South Africa or other countries with a proper recycling system.
- Batteries should always be taken to a recycling station as they contain acids that are extremely destructive on nature.



CARE FOR THE OCEAN

RECREATIONAL FISHING

General tips!

- Familiarize yourself with the Mozambican regulations and follow sustainable fishing principles
- Do not catch and keep more than you can to eat! Catch and release when possible
- Think about the size of the fish you catch. Acquire knowledge regarding minimum sizes of the fish you are targeting, Release the smaller fish as they will still reproduce and keep the fish population healthy.
- Respect bag limits and no take seasons!
- Recreational fishers are allowed to catch a maximum of 10 fish per day, with restrictions on the following species: slinger, soldier, blueskin, rockcod max. 4; parrotfish max. 1; sharks max. 2; lobster max.2 (art.13 §1). We urge you to not only respect this limits but also help marine conservation by releasing species on the orange and red list in the 'consumers guide' of this brochure.
- Be careful with manta rays and whale sharks at the surface. Propeller and hooks have been seen to cause damage to these animals. Use polarized sunglasses and keep your eyes open for fins, especially when you're skipping on shallow reefs where these animals concentrate
- If you are a recreational fisher do not sell fish – it is illegal (art.17 §2a), increases the pressure on the ecosystem and has negative social impacts on the local community
- Respect other ocean activities. Sometimes divers and fishermen use the same spots – please allow divers to finish their dive (30-60 mins) before you resume fishing in the area as to avoid accidents. (A diver won't do very well on the braai anyway;)
- Never anchor on the reef - it can cause massive damage to coral and benthonic life, which again means less fish for you next time you come!
- Remember that future generations will also be dependent on the ocean. If we overfish or contribute to the extinction of key species now, there won't be any left for those who will take over. Respect the ocean and conserve its life as best you can.



Sailfish/Marlin

Aspects of the biology, productivity and fisheries for marlin and sailfish suggest that their stocks have been reduced drastically in the last few years mainly due commercial longline fisheries, however recreational fishing has also contributed in minor proportion. Anglers have a critical role to play on the conservation of billfish.

Tips!

- Recreational catch-and-release is the better option, but the type of hook that you choose is important. A study on white marlin showed that the survival of a released white marlin caught on circle hooks is 100%, while with J-hooks only 65% (Horodysky and Graves 2005).
- Circle hooks are superior to J-hooks, as they will almost always "hook" into the corner of the fish's mouth rather than going into the throat, where a hook can catch on entrails or the gills of the fish. If that happens, the fish will almost always die. Circle hooks minimize damage to the fish making a healthy release possible (The Billfish Foundation 2011).
- Fish can be released by removing the hook, or by cutting the leader as close to the hook as possible. Frequently, an exhausted fish can be revived by slowly towing the fish through the water prior to release.

Legal stuff: Catch of billfish (game fish) in Mozambique is regulated under the Art. 15 (Dec.n51/99) and is subject to special license. We highly recommend that you release your catch, but if you still want to keep it you will need to purchase a special permit from the Provincial Fisheries Administration (this permit is different from the normal recreational license - which is required by all recreational fishers). The following species are considered game fish and need special license per specimen (senha de captura): swordfish, black marlin, blue marlin, shorbill spearfish, striped marlin and sailfish.



Bottom fishing

Fish that live associated with the bottom (e.g. groupers) are usually slow growing with a low reproduction rate, which means that their population can be easily affected by fishing. Tangled lines from bottom fishing often cause damage on corals and other benthonic life and can destroy the habitat of reef creatures.

Tips!

- Keep it recreational, not destructive - do not bottom fish here!

Legal stuff: Bottom fishing in Mozambique is not considered recreational fishing (Reg.n51/99)

Prawns

The main method for catching prawns is by trawling. Unfortunately, a normal catch contains more than 70% by-catch (other, non-targeted marine species), which will most likely go to waste. Much of the by-catch might even be species threatened to become extinct, such as turtles, sharks and the larger groupers.

Mozambique has a closed season for catching prawns between October and February. During this time prawns should not be fished, sold or purchased.

Tips!

- Always ask where the prawns came from and how they were caught
- Choose other types of sea food if you're not sure if the prawns were caught by trawling
- Don't buy prawns in the closed season as to discourage illegal fishing



CARE FOR THE OCEAN

A CONSUMERS GUIDE TO SEAFOOD

As consumers or anglers we can do our bit by carefully choosing what to consume or fish. The following list is developed based on the limited information available for the species in this area along with international recommendations, taking local conditions and issues into account. We hope that with more research we will be able to provide more precise data and recommendations, but for now it's better to prevent potential damage by following the advice below. The reasons behind the level of protection for the individual species do are represented by the following letters;

- (a) Species protected by Mozambique law
- (b) Rare /overfished
- (c) Eco-unfriendly fishery
- (d) Biological reasons - slow growth, low reproduction rate or critical ecological importance
- (e) Internationally Red listed (included in the IUCN Red List of Endangered Species) – pop. decreasing

General tips!

- Avoid buying undersized crayfish or small fish and let people know that you are concerned about the size
- Avoid buying fish from eco-unfriendly fisheries, it is better to buy from local fishermen which have less impact
- Avoid buying prawns during recession period as not to encourage illegal fishing

Best Choice	Better NOT – think twice!	Definitely NOT!
Bonito	*1 Albacore (b, e)	*5 Brindle bass (a, b, d, e)
Dorado	Billfish (b, d) – not *3	*4 Manta rays (a - in process, b, d, e)
Kingfishes	Kob (b, d, e)	*4 Mobula rays (b, d, e)
Mackerel – not *1	*1 Spanish Mackerel (b, e)	*5 Potato bass (a, b, d, e)
Mullet	Parrotfish (c, d)	Red steenbras (a, b, d)
Octopus	Prawns – trawled (c)	Seventy-four (a, b, d)
Oysters	Rays (most b, d, many e) – not *4	*3 Striped and Blue marlin (b, e)
Panga	Rockcods (b, d, some e) – not *5	
Squid	Sharks (b, d, many e)	
Tuna caught by line – not *2	*2 Yellow tuna, Bigeye tuna (b, e)	

A quick note to the divers!

Recent studies on Scuba Divers impact on reef shows that many divers damage corals and the benthonic life due to carelessness, ignorance or poor buoyancy control. Here in Zavora we enforce strict practices to assure that the health of our reefs is maintained. We have a no-glove policy as divers wearing gloves are more likely to damage the reef by touch. Photographers and videographers should also pay extra attention to their buoyancy and fin placement. Please contact your closest dive center for more information and recommendations.

ACCM is a Mozambican Association created to assist with marine research, conservation and sustainable tourism in the Zavora region. We appreciate your understanding of the importance of this topic, and we trust that you will enjoy and respect our environment! Should you have any questions or comments, please come see us (whilst we are waiting for our eco-centre to be buildt, we can usually be found at MozDivers, Zavora Lodge) or send us an email: info@zavoralab.com. We wish you a wonderful stay here in Zavora!