

# ABSOLUTE

SEYCHELLES 2017 EDITION



THE INSIDERS GUIDE TO THE ISLANDS

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# Wise OCEANS

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*WiseOceans is a marine conservation and education organisation that works towards a future with healthier oceans, raising awareness of these fragile ecosystems and the creatures that live within them.*

The organisation have been working in partnership with Four Seasons Resort Seychelles in Petite Anse in the south-west of the main island of Mahé since 2012. The Marine Discovery Programme delivers marine education to guests, resort staff and the local community, introducing them to the wonders of what lies beneath the beautiful blue surface. The diversity of Seychelles' marine life is truly breathtaking and a fantastic tool for inspiring passion for the oceans. By increasing knowledge and understanding of the natural Seychelles environment the Marine Educators spread awareness and passion for the oceans and the protection of what lives within. Eager to learn more about this incredible project, Absolute Seychelles caught up with the WiseOceans team...

#### **What does WiseOceans do at Four Seasons Resort Seychelles?**

One of our core activities is to take guests from Four Seasons Resort Seychelles on guided snorkels around the stunning bay of Petite Anse. There is no need to get in a boat, just a few kicks of your flippers and you will be seeing schools of reef fish among the coral. Our Marine Educators can help to enhance the snorkeling experience of confident and proficient snorkelers but are also adept at helping novice snorkelers discover the joys of seeing life beneath the waves for the very first time. It is such a privilege to be part of that special moment. For those who want to learn a little more, there are tailored marine

life talks and the opportunity to take part in a CoralWatch survey, which is a 'citizen science' project that contributes to coral reef conservation in the Seychelles.

You will often find our Marine Educators down at the beach with a gaggle of budding marine biologists. It is impossible to overestimate the value of inspiring the next generation to love and look after the marine environment, plus they have the best questions! WiseOceans Marine Educators spend hours with young resort guests, helping them to learn through marine-themed games, arts and crafts, and snorkeling too!

The partnership between WiseOceans and Four Seasons Resort Seychelles has also established environmental projects to help protect the precious marine life of Petite Anse and beyond. Alongside our Reef Restoration Project, we conduct marine research such as monitoring nesting turtles and beach profile surveys. Valuable data is also collected and shared with the Seychelles Department for Environment, Energy and Climate Change, to help build a broader picture of the health of marine life across Seychelles and in the Indian Ocean.

#### **What can you see on the reef?**

There really is an incredible amount to see on the reef at Petite Anse and it is so accessible. The first fish guests encounter is often a scissortail sergeant. This fish forms large schools, particularly in quite shallow water.

The quintessential reef fish must surely be the butterflyfish. On the reef, you might spot a threadfin or yellowheaded butterflyfish or maybe even the stunning Meyer's butterflyfish. You will see that they are often spotted in pairs. Did you know that butterflyfish mate for life?

It is a real treat to spot an eagle ray. They are often seen whilst snorkeling but you can sometimes see them from the beach as they like to swim close to the surface of the sea right by the shore (the best time to see this is in the late afternoon). Look out for the tips of their wings (fins) breaking the surface. These graceful creatures are not aggressive and whilst (as with any wildlife) you should not approach or harass them, it is possible to clearly and safely observe these beautiful rays in the water.

Often the most eagerly anticipated marine life sighting is that of a sea turtle. Seychelles is lucky enough to have two species that are regularly seen while snorkeling; the green and the hawksbill. Sea turtles also nest in the Seychelles. In many places around the world sea turtles nest only at night but in Seychelles the hawksbill sea turtle can be seen nesting during the day. You may also be lucky enough to see some hatchlings making their way to the sea from their nest. If you are fortunate enough to see a turtle on the beach then please follow the good practice of keeping disturbance to a minimum, staying quiet and well away with no flash photography.



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## What are corals?

Corals are the main component of tropical reefs with over 800 recognised species globally to date. Their 3D environment can be home for up to 4,000 species of fish and although coral reefs only occupy less than 1% of the marine environment, they support more than 25% of marine life, giving rise to the nickname 'the rainforests of the sea'. As well as being extremely biodiverse, coral reefs protect coastlines from extreme weather events and play an important role in the economy of many countries.

Whilst they may look like rocks or plants, corals are in fact made of colonies of individual animals known as coral polyps; small creatures that are related to jellyfish. The polyps secrete a calcium carbonate skeleton and they form colonies that can range in size from a few centimetres to several metres. These coral colonies come in many different shapes and colours. The polyps themselves are translucent; their colour comes from a plant (marine algae called zooxanthellae) that lives within its tissues. The plant also provides most of the coral's energy through photosynthesis. This symbiotic relationship is mutually beneficial and without the other, one cannot survive on its own for long.

## What is coral bleaching?

You may have heard about coral bleaching in the news in recent years. One of the main causes of this is warming sea temperatures. Corals are happiest between 23-29 °C but when the water temperature exceeds this range the polyps expel the algae from within their tissues. One consequence of this is that the coral loses its colour and appears 'bleached' white (remember it is the algae that gives it its colour). As the algae also provides the coral with its primary source of food through photosynthesis, if coral bleaching lasts for extended periods of time it can cause coral mortality.

Climate change is causing sea temperatures to warm and combined with natural

fluctuations through events like El Niño, (a global weather phenomena) corals and coral reefs face major problems.

In the late 1990s the coral reefs of Seychelles suffered from extensive bleaching as a result of an El Niño event. The surface temperature of the sea increased by a couple of degrees above the norm and remained that way for several months. The impact of this, in addition to subsequent bleaching events and outbreaks of the coral predator crown-of-thorns starfish, is that some parts of the Petite Anse reef (and others around Seychelles) struggled to grow back fully over the following years.

Coral reefs in Seychelles and around the world continue to be faced with challenges, mainly from the unabating pressure of climate change and with further El Niño events forecast coral bleaching events are sadly anticipated. Therefore, the need for positive action to help the reefs recover is clear.

The Petite Anse Reef Restoration Project In March 2015, together with Four Seasons Resort Seychelles launched the Reef Restoration Project which aims to return the house reef in Petite Anse to the thriving coral reef ecosystem that it once was through a new and innovative approach to coral reef restoration. The project boldly aims to restore 10,000 square metres of degraded limestone reef through the transplantation of 16,000 coral fragments, and to increase knowledge and awareness of coral reefs and the threats they face, believing that education is the way to a better future for our seas. Taking an innovative approach, one which must overcome extreme water dynamics, voracious coral predators and an unstable substrate, the Petite Anse Reef Restoration Project is working with nature to ensure the best outcome for the reef.

First, we created a coral nursery comprising lengths of steel bent into arcs and fixed to the sea floor. Now we collect fragments of coral: the actions of waves, fish, snorkelers and boat anchors result in broken coral

fragments; we use these pieces and also snip fragments from live donor colonies in order to propagate corals of certain species to maintain genetic diversity, or colonies that are resilient to stressors.

The coral fragments are taken to our Coral Cabana on land and carefully 'doctored' to be of the right size, free of algae, disease and bleaching, and then fixed to a solid surface, such as a small piece of steel. Next, they are placed in the coral nursery where they are safe from predators and grazers, and can grow bigger and stronger, attaching themselves securely onto their mobile home. In a few months, the coral fragments are strong enough to transplant out to the reef and are attached to bare areas of reef, where they will forever remain, growing big and strong as part of a thriving reef community.

The Reef Restoration Project is an important step to supporting the recovery of the reef in Petite Anse, but the project's chances of success are directly linked to reducing the overall and ongoing stressors to the reef. Climate change remains the largest threat and to promote lifestyle choices that help to reduce the effects of climate change, we have developed, together with Four Seasons Resort Seychelles, a new experience for guests – 'A Promise to the Reef'. This encourages guests to make their own promise to the reef by reducing their carbon footprint through a small and manageable lifestyle change. Small changes can make a big impact and 'A Promise to the Reef' is the perfect gift for guests to take back from their vacation in paradise.

## How can guests involved?

One of the most exciting aspects of the project is the opportunity for guests to get involved in the process. Resort guests can join our Reef Restoration Project Officer in the Coral Cabana and help prepare the corals fragments ready to be placed in the coral nursery. Young budding marine biologists can learn how we 'grow' corals and come away being an official 'Coral Saver'.

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Many people want to know how they can help the reef themselves. One way to take ownership and make a difference is to sponsor a section of the reef. Sponsorship is available for one, two or four square metres in size. Sponsors are sent a certificate of sponsorship, and photos are regularly posted to our Gallery so that the progress of your reef and its new coral colonies can be seen.

**With Seychelles being such a popular honeymoon destination, do you offer special experiences for newly-weds?**

Seychelles is a romantic destination and WiseOceans, together with Four Seasons Resort Seychelles have introduced a new interactive experience where newlyweds, couples celebrating an anniversary or simply those on a romantic escape together can save and sponsor a coral fragment. During the Love Grows Beautiful Things experience, guests help prepare a rescued coral fragment for attachment to a heart-shaped metal frame (that helps sustain the growth of their coral), before it is planted into the coral nursery for a full recovery.

Under our team's expert guidance, couples may also take to the water to watch the planting of their fragment in the coral nursery. After a few months in the coral nursery, the strengthened coral will be transplanted back onto the reef.

Through our partnership with Four Seasons Resort Seychelles we continue to deliver marine education to a wide audience and help contribute to the conservation of Seychelles' beautiful marine life. WiseOceans believes that education is key to making a real difference.

"In the end, we will conserve only what we love, we will love only what we understand and we will understand only what we are taught".

Baba Dioum, Senegalese Conservationist  
[www.wiseoceans.com](http://www.wiseoceans.com)

