

'dua pygmy, empat mata'

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> THERE ARE SOME VERY BASIC RULES FOR PHOTOGRAPHING CRITTERS – FIRST YOU OBVIOUSLY HAVE TO BE WHERE THEY CAN BE FOUND. THEN YOU NEED THE RIGHT CAMERA AND LENS COMBINATION TO FILL THE FRAME AND FINALLY YOU NEED TO BE ABLE TO SPOT THEM. THIS IS WHERE DIVE GUIDES COME IN. THERE IS NO SUBSTITUTE FOR A GOOD GUIDE AND I WAS CONSTANTLY AMAZED AT THE CRITTERS FENDI PRODUCED FOR ME.

Sulawesi lies like a large broken star in the middle of the vast Indonesian archipelago. Its remote location, roughly a third of the way between the huge islands of Borneo to the west, and New Guinea to the east, places Sulawesi right in amongst the richest marine environment in the world – the Coral Triangle. Defined by the Nature Conservancy as the global epicenter of marine biodiversity, the Coral Triangle is characterized by more than 600 coral species and 3000 species of reef fish. To put those numbers into perspective - the Red Sea has around 200 coral species & 1000 fish species and the Caribbean 50 and 900 respectively. Geographically the Coral Triangle covers six countries - from the Philippines in the north to the Malaysian state of Sabah on the tip of the island of Borneo in the west and the Solomon Islands to the east. In between lies Indonesia, East Timor and Papua New Guinea. The scientific reasons for this tremendous biodiversity are complex and relate to a combination of factors including water salinity, temperature and speciation rates. However there is little doubt that the phenomenal flow of water that marine scientists refer to as the Indonesian Throughflow plays a significant role.

DIVING NORTH SULAWESI

Divers are spoilt for choice when it comes to exploring this part of Indonesia. At the tip of North Sulawesi are the Bangka and Gangga Islands that receive the full force of the Indonesian Throughflow as it first touches land, and offer exceptional diving if you're experienced and know how to handle strong currents. On the east coast is the critter mecca in the sheltered Lembah Straits with some of the most unusual things you'll ever see underwater, while on the west coast there is the magnificent Bunaken Marine Park with its steep walls and blue water diving.

North Sulawesi is very well served by a range of dive resorts plus a number of resident and visiting liveaboards and is without doubt a world class destination that justifies an extended stay to make the most of the tremendous diving available.



Left: Clown frogfish at Nudi Retreat in the Lembah Strait

Above: Dua pygmy, empat mata! (Two pygmies, four eyes!)



1 Beautiful baby cuttlefish at night at Posi Posi in Bunaken

2 Coral Shrimp on a sea whip at Odyssey Point in Bunaken

3 A pair of Robust Ghost Pipefish Tiwowo Point in Bunaken

4 A pair of mating Mandarin Fish at Posi Posi in Bunaken

5 A Leaf Scorpion Fish at Air Prang in the Lembah Strait

6 Green turtle at Lekuan 1 in Bunaken

7 Schooling Batfish at Fukui in Bunaken

8 Moray Eel at the Molas Shipwreck in Bunaken

9 Ornate Ghost Pipefish at Odyssey Point in Bunaken



BUNAKEN NATIONAL MARINE PARK

One of the first parks established in Indonesia, the Bunaken Marine Park was created in 1991. It covers almost 90 hectares and 97% of it is water; five islands - Bunaken, Manado Tua, Mantehage, Siladen and Nain - occupy the other 3%.

Each of these islands has its own flavour but the dormant volcano Manado Tua, with its classic cone shape and sheer size, dominates the park. While Siladen, with its white sandy beaches and densely wooded interior, has a real desert island look about it. Bunaken Island, in the shadow of Manado Tua, is the most populated and supports around 4000 people and the majority of the dive resorts.

The area is renowned for blue water, wall diving and pelagic encounters. The deep basins north and west of Bunaken and to the south in Manado Bay are the source of the blue water and as the nutrient rich Throughflow surges past the five islands of Bunaken Park, it creates numerous counter currents around them.

The underwater topography and lunar cycles are just some of the variables at work, but the end results are biodiversity hotspots with wonderful diving! The sites around Bunaken Island best illustrate these mechanisms, because the island, lying as it does in the middle of the park, faces into the predominant northeast current.

The current is strongest on the eastern and western sides of the islands and sites such as Timur 1 and 2 are nourished from the deep water basins to the north and are rich in hard and soft corals, sponges and schooling fish. But the underwater topography between the islands, and the 1500 metre deep Manado Bay to the south, creates the swirling counter currents that feed the multiple dive sites on the south side of Bunaken – such as Lekuan 1, 2 and 3 on the southwest side and the excellent Fukui on the southwest side.

Diving these sites is a heady experience, particularly on the vertical walls which drop into the abyss and create a feeling akin to vertigo on a clear day if you look down! A mid-morning dive at Timur 1 and 2 on the east coast of Bunaken is superb, and probably my favourite dive of all, because the sun is perfectly positioned to illuminate the sloping wall and profusion of corals that provide a perfect backdrop to the clear blue waters.

Fukui was also a memorable dive with giant clams, schooling batfish, sweetlips and my encounter with the huge, but ancient and completely indifferent green turtle at Lekuan 1 is something I will always remember.

So many sites, so much to see, so little time...

BUNAKEN CRITTERS

The number of critters I encountered in Bunaken really surprised me and brought a smile to Andrew Lok's face. Andrew, the general manager of Cocotinos where I was based this trip, had assured me that there were some excellent critter diving sites less than 10 minutes from the resort, but I'd dived Lembah Strait the year before so I was difficult to convince.

So when I came back on just the second day of the trip with excellent photographs of two pygmy seahorses and a new Bahasa phrase learned from Fendi, my excellent Indonesian guide 'dua pygmy, empat mata' (two pygmies, four eyes) I

knew it was my turn to buy the beers for Andrew! Anybody who's ever tried to get a really good image of just one of these tiny but incredibly photogenic creatures actually looking at the camera will know why I was so excited about two of them posing for me and long enough for me to actually press the shutter!

Cocotinos is right in the fishing village of Kima Bajo in Wori Bay, north of Manado, and there are some great critter sites north of the bay at Aba Point and Odyssey Point plus to the south at Gabet and Posi Posi. Aba Point is a classic critter site in a small bay that provides protection from rough weather with a small river providing a constant source of organic nutrients and nearby deepwater for the essential cold water upwellings critters seem to thrive on. It was there that I captured the two pygmies on a small gorgonian fan at 30 metres, but spent so long with them my beeping computer limited further exploration to an extended five metre deco stop. The pygmy seahorse is in my opinion the single most dangerous creature in the sea for underwater photographers!

Posi Posi south of Wori Bay is the place to be as the sun goes down because of its resident colony of mandarin fish and their nightly mating ritual – but make sure you get there early and get a good spot as it can get crowded with boats from other resorts.

Being so close to the world's critter Mecca of the Lembah Strait is obviously challenging; you won't find really exotic critters such as hairy frogfish and Ambon scorpionfish in Bunaken, but there's no doubt there's a lot of fascinating small stuff to see on the western side of North Sulawesi.

LEMBEH

No other place is quite like the Lembah Strait - it's unique! Dividing the eastern side of the tip of North Sulawesi and the island of Lembah, the strait benefits from the rich flow of deep sea nutrients of the Indonesian Throughflow and its cold waters. Sheltered bays on both the mainland and Lembah provide protected areas for critters to thrive. And thrive they do – attracting divers and underwater photographers from all over the world to witness the incredible selection of weird, wonderful and strange creatures.

For photographers it's a 'must do' and



NORTH SULAWESI

The Indonesian Throughflow

Marine scientists refer to the phenomenal flow of water from the Pacific to the Indian Ocean as the Indonesian Throughflow. It is a natural phenomenon resulting from the trade winds and associated currents in the northern and southern hemispheres working in opposite directions and creating higher sea levels to the north and a corresponding flow heading south.

The Throughflow enters the Indonesian archipelago around North Sulawesi, Halmahera and Irian Jaya and exits through the Lombok and Ombai Straits and the Timor Passage in the south.

It brings with it the cold waters, rich in nutrients from the very deep West Caroline Basin and so strong is the flow of water between the islands of Borneo and North Sulawesi in the north and Bali and Lombok in the south, that it creates a physical barrier to the migration of Asiatic species eastward and Australian species westwards, resulting in the evolution of two distinct groups of flora and fauna.

Called the 'Wallace Line' after Alfred Russel Wallace, the 19th century naturalist who traveled some 14,000 miles across the 'East Indies' studying the native plants and animals. Wallace realized there was a fundamental evolutionary difference between the flora and fauna to be found to the east and west of an imaginary line running between Borneo and North Sulawesi and Bali and Lombok.

Wallace's book, *The Malay Archipelago*, documents his travels and findings and comes a close second to his contemporary (but more famous) 19th century colleague Charles Darwin, and his *Origin of the Species*, in terms of impact on our knowledge of evolutionary development.

Bunaken Marine Park Fees – and what happens to them!

One of the first things you'll need to do on arrival at Bunaken is pay the Rp150,000 (A\$20) National Park fee. This gets you a waterproof plastic tag and a cable tie, which allows you to dive in the park for the calendar year you're in and is issued by the resort or liveaboard you are using. Park rangers are out every day checking that people using the park have their tags.

Modeled on a system first developed on the Caribbean island of Bonaire, the basic concept is to collect money that the Bunaken Management Advisory Board can use to fund conservation and village development projects in the park.

The Advisory Board is comprised of the North Sulawesi Watersports Association, representatives from the 30 villages in the park, local tourism, fisheries and environmental government agencies plus the local university's marine sciences department. Projects funded by the Board have been focused principally on the most urgent conservation issues in the marine park such initiatives to eliminate destructive fishing practices such as blast and cyanide fishing, plus other illegal activities such as mangrove cutting and capture of endangered wildlife such as turtles and dugongs.

The second priority has been village development programs such as mangrove replanting, conservation education for children, and construction of public wells, community information boards, docks, toilet facilities, and garbage disposal areas. More detailed information on the activities of the Advisory Board and its use of the park fees is available at www.bunaken.org

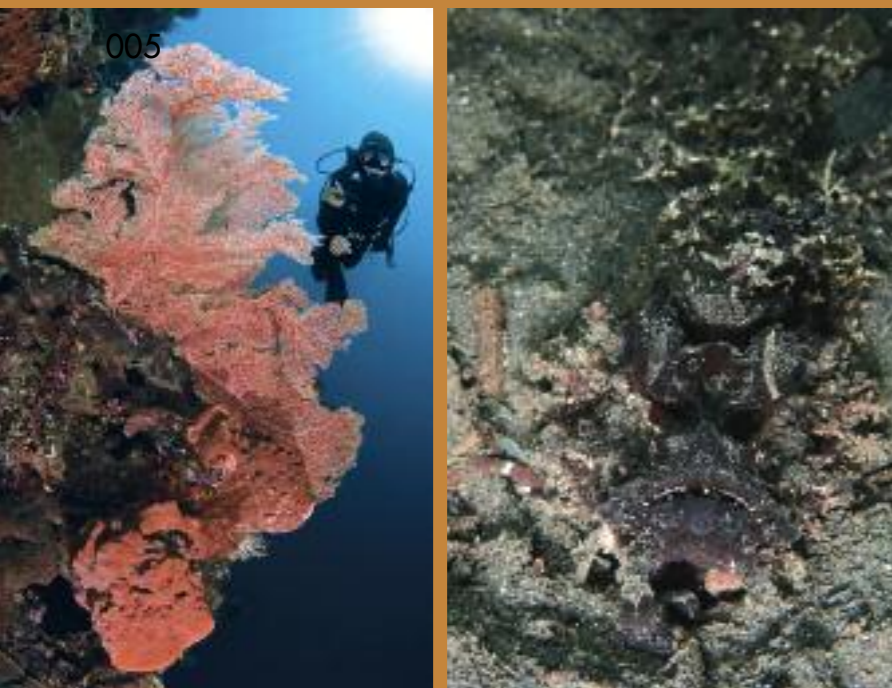
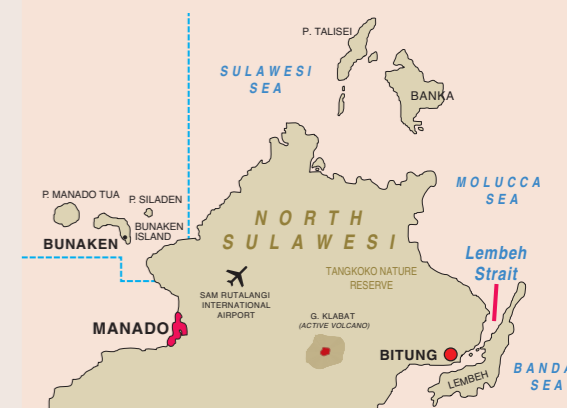
North Sulawesi Information

Getting There: Manado is an international airport serviced by direct flights from Singapore with Silk Air four times a week and from Kuala Lumpur with Air Asia three times a week. There are also regular domestic flights from both Jakarta and Bali, although that usually involves a short stop at Makassar (Ujung Pandang) in South Sulawesi.

When to Dive: The tip of North Sulawesi lies just above the equator and is therefore subject to the two main seasons – wet and dry.

The dry season is from April to November when the wind blows from the southeast, the water temperatures are around 30 deg C and the seas are usually calm with visibility up to 30 metres.

The wet season is from December through to March with cooler winds from the northwest that can bring heavy rain and rougher seas and the water temperatures are around 25 deg C, with visibility around 15 metres



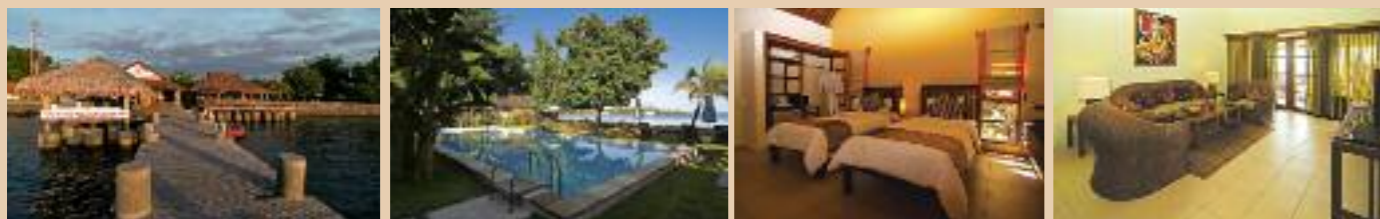
many divers will enjoy it, but it's not everybody's cup of tea. The water can be quite cool with challenging visibility at times, plus if you are not taking photographs, critters that can disguise themselves to look like a rock or a crinoid look just like rocks and crinoids so it may not hold your attention like a stunning coral reef can!

I chose to stay at Cocotinos because its location at Kima Bajo meant I could get to all the main dive sites around Bunaken, plus it's a relatively easy 90 minute drive over to Lembeh. You can have the best of both worlds and dive the walls and reefs of Bunaken plus some of the famous sites in Lembeh like Hairball and Nudi Falls.

Having spent a week at Lembeh last year dedicated to critter diving, this balance of a couple of days there in between the rest at Bunaken proved to be a perfect way to spend 10 days in North Sulawesi.

Left: Diver on Timur 1 wall in Bunaken - mid morning

Right: Scorpionfish at Air Prang in the Lembeh Strait



COCOTINOS Several underwater photographers recommended Cocotinos to me and I was glad I took their advice. It's a small resort that aims to provide "affordable luxury" and I was impressed with both the resort and the diving logistics. There are 22 spacious well equipped rooms, restaurant, lobby pool and spa and a big dive equipment area right on the jetty.

Cocotinos is on the beach in Kima Bajo and I liked this because you only have to walk out of the main gate and you are in the village. I went out for a walk around the village early most mornings and it was great getting to know the locals, particularly as I soon realized which of the resort's staff lived in the village. I took an early morning walk around the village and it was

great getting to know the locals, and I soon realized which resort staff lived there. Casual visitors can easily overlook the positive impact a dive resort can have on a local economy – employment opportunities and job skills are hard to come by for average villagers in Indonesia and there are few alternatives to traditional fishing and subsistence farming. Another big advantage is that Cocotinos is relatively close to Bintung and the Lembeh Strait, so a daytrip to the critter diving mecca is perfectly feasible. It takes 90 minutes to get from Cocotinos to Bintung Harbour, so a 07.30 departure has you ready for your first dive about

09.30. Three dives in Lembeh Strait and then back to Cocotinos in time for a cold beer as the sun goes down over Bunaken is a very enjoyable way to spend the day!



USEFUL LINKS

Cocotinos: This is the resort where I stayed at on this trip and I definitely recommend it
www.cocotinos.com

North Sulawesi: This site is run by the North Sulawesi Tourism Organization and contains a lot of useful information about the area
www.north-sulawesi.com

Silk Air: Singapore Airlines (my favourite airline) is the regional carrier to all the main vacation locations in Asia
www.silkair.com