



*Durban Hinge-back Shrimp*  
(*Rhynchocinetes durbanensis*)

# The Mecca Of Muck Diving



*Spiny Devilfish (Inimicus didactylus)*

**When the decision was made to create an eco resort near the busy port of Bitung in Indonesia, there were serious doubts but as Lawson Wood reports the Kungkungen Bay Resort on the Lembeh Straits is now a 'must-visit' destination ...**



THE PARADOX of the Lembeh Straits is that it is not only fed by an incredible deluge of nutrients and planktonic particles, the black/brown volcanic sand appears to be the perfect habitat for many of these planktonic creatures to settle down and live. However, the Lembeh Straits are also known to have one of the busiest sea ports in Indonesia at Bitung and traditionally, these fishing boats, coastal traders, barges, container ships and all manner of other craft have dumped their garbage into the straits and Lembeh Island.

The concept of building an eco resort in a former coconut plantation was radical enough, but to build it just a few minutes north of this massive port seemed like madness to many people. For every tree that was cut down, another was planted, and the cut down trees were furnished into the construction of the resort, even the rock that was dug up was split and used as featured stonework in the restaurant and reception area and in the bungalows. Staff were recruited locally from the surrounding villages and spent a year undergoing the necessary training prior to the opening of the resort. The resort now employs over 100 people, many from the same families and many are still with the resort from its inception.

When the Kungkungen Bay Resort first opened its doors in 1994, there were many sceptics who could not believe that you could open an ecologically minded resort in perhaps one of the worst garbage strewn regions in Indonesia. But the owners knew differently. It was only when the dive staff decided to clean up the bay which is privately owned by the resort that they were stunned into submission by the marvels that inhabit the waters. Every piece of detritus, rubber tyre, old fishing net, bottle, plastic, can or bit of wood is now home to an amazing display of fish, shrimps, nudibranchs, snails, anemones, sea urchins and just about everything else in between. Whilst all of these species are found around the Indo/Pacific region, it is the concentration of the weird and wonderful in this small area that makes the Lembeh Straits so special.

Now known the world over as the 'Mecca of Muck Diving', the most famous 'muck' site is Hairball and all of the black sand dive sites in the Kambahu bay are very popular such as TK1, TK2, TK3, Retak Larry and Magic Crack. Whilst the name 'muck diving' hardly conjures up enticing diving, the term is in fact a phrase that is often misinterpreted by people who are not familiar

with the area and is actually off putting to a lot of less experienced divers. Really, the name is synonymous with 'critter diving' on a black sandy seabed, but what few people realise, and it is hardly ever mentioned, is that the Lembeh Straits also have areas of stunning coral growth, especially the northern sites of Lembeh Island.

The Lembeh Straits are 25 kilometres long and the seabed is as diverse as the creatures which inhabit it. On mainland Sulawesi the brown/black ash from the nearby volcanoes not only provides incredibly fertile soil on land, it appears to be equally fertile underwater. On the other side of the straits, the western coast of Lembeh has been pushed up creating limestone and sand stone cliffs and white sand beaches. There are mini walls covered in soft and hard corals as well as fields of mushroom corals. These large, individual coral polyps can be over 30cm in diameter and cover huge areas of the rocky reef. The mini walls on the mainland side of the straits are also volcanic in origin, but here they are created by lava flow and have been eroded into weird and wonderful shapes, also now festooned in all manner of corals and algae.

The House Reef directly in front of the resort is exclusive to guests and in fact

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**FACTFILE**

SULAWESI IS STILL at the forefront of marine diversity locations in the Indo/Pacific region. One of the largest of Indonesia's 17,508 island chain and the world's eleventh-largest island, it sits between Borneo to the west and Maluku and western Papua New Guinea (Irian Jaya) to the east and is roughly 'h' shaped. The island is rugged and comprises four massive peninsulas that are known to be better connected by sea, than by road. One of the larger cities, Manado in the north west has always been well known due to the superb diving in the Bunakan Marine

Park, but it is the north eastern region which still ranks as having quite possibly the largest diversity of marine life to be found in one small, fairly isolated region.

The South China Sea to the north is filled by the high pressure zones of the Indian Ocean and western Pacific Ocean, subsequently making the waters over 30cm higher than in southern Indonesia. This creates a curious phenomenon of cooler upwelling water continually creating some massive tidal races flowing south through the island chain towards the Timor Sea and Western Australia. The Lembeh Straits are fed by these nutrient rich waters.



**Kungkungen Bay is close to Bitung near Manado at the north-east tip of Sulawesi.**



Bullock's Chromodoris or Royal Chromodoris (*Chromodoris bullocki*)



Leaf Scorpionfish (*Taenianotus tricanthus*)

the entire Kungkungen Bay is a conservation zone and off limits to all other dive resorts in the region. Entry is easy from the floating platform attached to the dock and the gentle slope drops steadily down the mucky slope amidst small coral heads and volcanic boulders. There is a small patch reef to the right of the dock, always handy for finding little critters and there are numerous anemones and their attendant clown fish, shrimps and crabs.

The reef to the left of the pier is more robust with large corals and gorgonian sea fans and sea whips. However under the pier itself can be found numerous brilliantly coloured sea fans, juvenile batfish, lionfish, razorfish, numerous pipefish and crocodile fish species. The resort's dive guides all know the best places to find the most interesting creatures, depending on the time of year, or even the time of day.

One of the most unlikely sites is to the south of the resort and directly opposite the police station. Known as the Police Pier, this is a muck dive down a gradual sandy slope which runs from the shore down to over 30 metres, strewn with garbage. There are patches of sponge and large anemones amidst the soft sand and rubble where you can find jawfish, and the beautiful Banggai Cardinal fish. Considered very rare in the home aquarium trade, it is thought that someone released breeding stock into the Lembeh Straits a number of years ago and now this species proliferates in most shallow areas, where they live amongst the tentacles of anemones and the spines of sea urchins. They appear perfectly adapted to their new habitat and are a delight to see and photograph. Frogfish are always found at this area, as well as numerous tiny dragonets and octopus. Whilst this site is perfect for macro photography, there are also larger subjects such as large knobbly starfish and sea cucumbers.

Nudi Retreat, as the name implies, is a great site for finding nudibranchs. This is a small protected cove north of the resort with the reef slope starting in only 3 metres and a very nice mini wall. There is the usual garbage in the shallows and a few old rubber tyres which have Banded coral shrimps and the ubiquitous Orbicular burrfish. This site, apart from the obvious 10 to 20 species of nudibranch is also home to Cockatoo Wasp fish and a pair of Pegasus Sea moths. Frogfish are common here, as well as Robust Ghost pipefish and Orang-utan Crabs (*Achaeus japonicus*).

The most colourful of all the nudibranchs found here are the Royal Hypselodoris (*Hypselodoris bullocki*) which is a brilliant purple in colour with a white fringe and golden gills and the Three-lobed *Ceratosoma* (*Ceratosoma trilobatum*) which usually has a pair of Imperial Cleaner Shrimps (*Periclimenes imperator*) crawling over its body. This shrimp is also found on larger starfish, sea cucumbers and of course, Spanish Dancer nudibranchs. Here you can also find mantis shrimps, small hermit crabs with anemones dotted all over their shelly home, neon file clams which pulse with an iridescent blue light and shrimp species by the score.

North to the next headland is Aer Perang 3 which has a mini wall directly off the shore with a steep muddy slope down to over 30 metres. This is a perfect site on a morning dive, there are pygmy seahorses on colourful sea fans, plenty of anemones and clownfish, frogfish and Ambon scorpionfish. It was here that I was shown two different species of Rhinopias. It is also wonderful; the wall starts from the shore, so it can be done at any depth and every surface is covered in sea squirts, sponges, soft and hard small corals as well as the usual junk! Spanish dancers are usually found and almost everyone encountered here has its

host shrimp living on its back.

Around Magic Rock, there are very good coral formations and amidst the usual rubble around such sites, there are Ribbon eels, hermit crabs, frogfish, spiny devilfish, thorny cowfish and longspine waspfish. Commensal shrimps are found on many different species and you really have to stop and examine closely everything that you find, as there are usually other creatures hitch-hiking on that host. Pay particular attention to sea urchins and anemones, as you will find several different species on each one. Whip corals are another sure winner for critter spotting, as small shrimps, gobies and crabs are usually found on their slender stems.

Clearly a multitude of weird and wonderful creatures are found on each site, that the list is endless. Many creatures are indeed seasonal, with squid coming in aggregations during the spring and juveniles being found on the reefs around May and June. Hairy frogfish are more prevalent in September to January and variations in nudibranch sightings are endless, with different species being more prevalent than others as the season changes and the water temperatures warm up and cool down again.

It is also worth mentioning that there are a couple of WW2 cargo boat wrecks that are close by the resort: *Kapal Indah* and *Mawali*. *Kapal Indah* is a classic because it is just covered in seafans and soft and hard corals. It is a special nudibranch spotter site as well as having the chance to see pygmy seahorses!

There are many different 'muck diving' locations all over this region and people will extol the virtues of each and every one of them, however it is at the Kungkungen Bay Resort in the Lembeh Straits where the highest concentration and diversity of marine life is found in a similar habitat. Book now, you will not be disappointed.



*Painted Lizardfish (Trachinocephalus myops)*

## FACT FILE

Lawson and Lesley Wood were hosted by the Kungkungen Bay Resort; Snooba.com; Singapore Airways and Silk Air, with connections through Singapore and then on to Manado. Whilst in Singapore stay at the Albert Court Hotel in Little India as it is just a few minutes walk from one of the biggest computer/camera and electronic stores in Asia, perfect for getting all the extra equipment you may need on the way to Lembeh, or on your return.

Lawson Wood is running two photographic trips to the Lembeh Straits, in February 2009 and February 2010. Please contact Nikola at Snooba Travel [www.snooba.com](http://www.snooba.com) (T: 0870 162 0767) for dates, prices and information.



*Above: Purple-edged Ceratosoma (Ceratosoma tenue) & below: Pygmy Seahorse (Hippocampus bargibanti)*

## CRITTER WISH LIST

**Frogfish** Every dive  
**Ghost Pipefish**  
 Various species on every dive (almost!)  
**Anemones & clownfish**  
 Several species on every dive  
**Flamboyant Cuttlefish** Hairball & Jahir  
**Wonderpuss Octopus**  
 Aw Shucks & Police Pier  
**Neon File Clam** Nudi Retreat  
**Ribbon Eel** Magic Rock  
**Leaf Fish**  
 California Dreaming, but actually on most dives  
**Pygmy Seahorses**  
 Angel's Window, Nudi Retreat 1 & 2, Nudi Falls, Makawide, Kapal Indah & Pulau Putus  
**Rhinopias Lionfish** Aer Perang 3  
**Mandarin Fish**  
 Aer Perang 2 & Batu Angus  
**Blue-ringed Octopus**  
 House Reef - a selection of dive sites



*Pygmy Seahorse (Hippocampus bargibanti)*