

Bali

Island of the Gods



Text and photos by Scott Bennett

Bali. It's a name synonymous with a tropical island paradise, conjuring up images of emerald rice terraces, an exotic, vibrant culture and friendly people. This jewel of the Indonesian Archipelago is also a magnet for scuba divers, drawn by a bevy of attractions ranging from tiny jewel-like nudibranchs to enormous mola molas. Once you've been, you're hooked!

My previous visit had been a year and a half earlier. Although I had only stayed for a week, I was eager to return for a longer

stay. Due to previous commitments, the only time I could visit was in January, which to my dismay, turned out to be the height of the rainy season. However, I'll take rain in Bali over winter in Canada ANY day, so I threw caution to the wind and decided to go for it.

Twenty hours and several stopovers after leaving snowy Toronto, I finally arrived in Bali on a sultry tropical evening. The heavy rains that delayed our departure in Singapore had given way to a vibrant sunset, and I was feeling cautiously optimistic about the weather. On hand to meet me was my driver Alit, who would take me on the two and a half hour drive to my first stop of the trip, Scuba Seraya Resort on Bali's

CLOCKWISE FROM FAR LEFT: Fan corals on Menjangan reef; View at Tirtanangga; Mating crabs; Boxfish; Juvenile Frogfish; Decorator crab. BELOW: Moray eel serviced by cleaner shrimp





CLOCKWISE: Seraya Beach; Balinese boy in ceremonial wear; Harlequin shrimp; Seraya resort

northeast coast. Still groggy from jet lag, I slept for most of the way, and before I knew it, we were pulling into the resort's driveway. The grounds were quiet, with the only sound being crickets and the occasional dog barking in the distance. After grabbing a quick drink, I retired to my room to assemble my camera gear.

The next morning, the skies were gloomy but my spirits were high as I wandered over to the dining room for an early breakfast. After a kick-start with a cup of strong Balinese coffee, I was eager to get into the water. I headed over to the dive shop to get my gear sorted out. There I met Degeng, who was to be my guide. It also turned out I was the only diving guest that day. Sweet!

When owner, Patrick Schwarz, first developed the property, no one had any idea as to the treasures that lay just offshore. Now, this innocuous corner of the North Bali coast is something of a mecca for muck, attracting divers the world over to experience the myriad of critters that can be observed here. And I was going to have it all to myself!

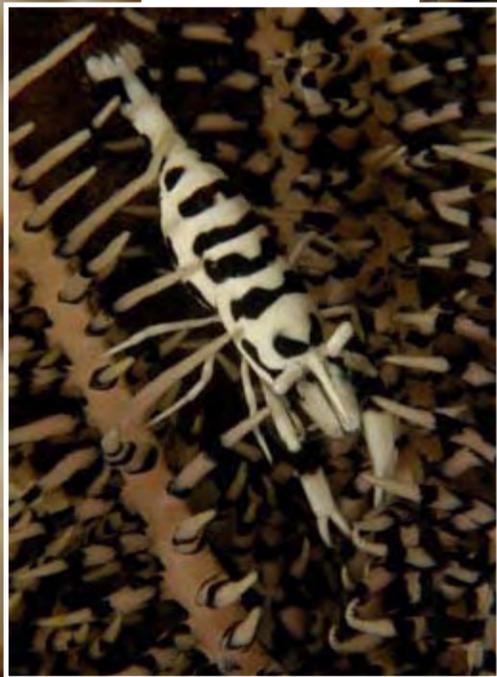
Despite having my "critter shopping list" handy, I asked Degeng what he had seen recently. Upon hearing the magic words "boxer crab with eggs", there

was no doubt as to where the first dive would be! After gearing up and doing a final check on the camera, we walked the scant few metres to shore and our entry point. The unsettled conditions had resulted in strong surf, which made our shore entry a bit awkward to say the least! Fortunately, conditions were somewhat calmer underwater, and we swam down the gentle slope of black sand.

Seraya Secrets is comprised of two sections, each with distinctive habitats. Just off the beach, the bottom gradually descends to a depth of around 3-9 metres. This is 'Top Secrets' where the black sand is punctuated with a mixture of small rock outcrops, sponges and tiny hard coral clusters. It was here that we found our quarry!

With a truculent stance, the boxer crab waved its claws like a miniature cheerleader, each equipped with a tiny stinging anemone for protection. Underneath its carapace was a jewel-like cluster of vivid red eggs! I immediately put my close-up filter over the macro port and inched closer. The subject cooperated by remaining relatively still; unfortunately, it was I that was moving! The surge from the waves above made focusing a real challenge. No sooner did I focus that the





surge shoved me enough to throw everything out of focus. Necessity is the mother of invention, so I did everything possible to steady myself. Between holding Degeng's shoulder and bracing my elbow against the sandy bottom, I was able to get the shots.

If the dive ended then and there, I would have been one happy camper, but Degeng had a lot more to show me. A concrete block at four metres played host to a lionfish convention of several species

in addition to tiger shrimps, nudibranchs and a pair of curious white-eyed morays who obligingly posed for photos.

Moving deeper, abundant crinoids were home to commensal shrimp in a variety of colours, while a myriad of nudibranchs inched their way across the barren substrate. My camera was already exhausted, and it was only the first dive!

The dive also took the record for possibly the most undignified shore exit of all time. After handing Degeng my camera, I was in the process of trying to remove my fins off when a big wave knocked me off balance onto my back. Bobbing helplessly in the rolling surf, I felt like a turtle that had been flipped over! Fortunately, Degeng came to my rescue, and I made it to shore with nothing bruised but my ego.

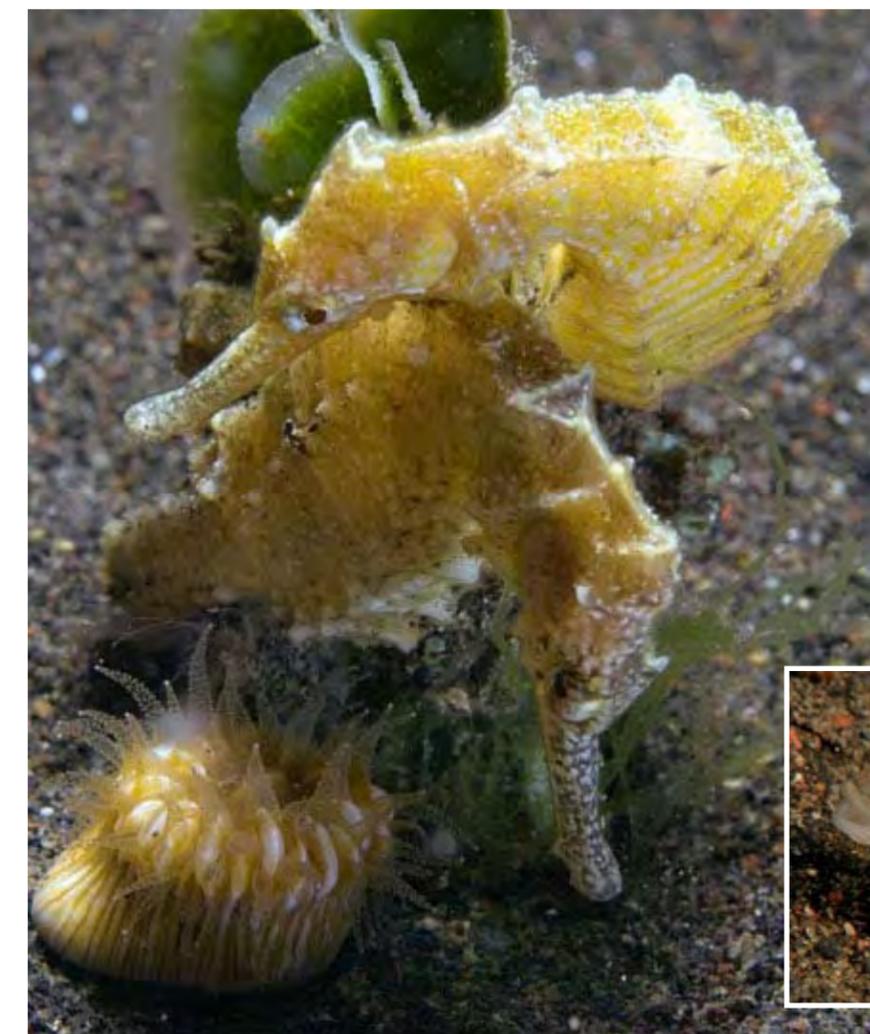
Over the next three days, Seraya Secrets was like an underwater



CLOCKWISE FROM FAR LEFT: Tiger shrimp pair at Seraya Secrets; Crinoid commensal shrimp at same site; Boxer crab with eggs also at Seraya Secrets; Ribbon eel at Coral Gardens; Frogfish; Bristle worm at Seraya Secrets



CLOCKWISE FROM LEFT: Coral garden at The Drop Off; Offerings (above) for the resort ceremony (left); Goby; Seahorse pair



treasure hunt, with each dive revealing a rich bounty of critters at each and every turn. This time, there was lots of REALLY small stuff; In addition to some absolutely minuscule nudibranchs, Degeng found a couple of frogfish so small I had to look through my camera's viewfinder to see what he was pointing at! If that wasn't enough, harlequin shrimp, saw blade shrimp, mantis shrimp a plethora of partner gobies and yet more nudibranchs kept my camera shutter clicking furiously.

Night dives brought out a different set of critters, including flatheads, decorator crabs, bobtail shrimp, bristleworms and several octopus

species to name a few.

With the imposing silhouette of Agung volcano as a backdrop, Scuba Seraya Resort sits amidst lush tropical vegetation alongside one of Bali's signature black sand beaches.

Resort life

On my second day of my visit, Patrick drove up from Sanur. Over a delicious dinner of Kerala prawn curry, he told me of all the changes that had been done since my previous visit. A broad expanse of grass between the rooms and the dive shop had been replaced with a stylish new dining area and bar. I could see a lot of landscaping had been done, too. This part of Bali is normally dry but now, at the height of the rainy season,

everything was lush and green.

I was also privileged to witness a traditional Balinese blessing ceremony, which is held every six months. The entire staff dressed in their finest traditional clothes to take part. A small temple on the grounds of the resort was the focal point. The women negotiated the steep steps to the top, carrying seemingly endless baskets of offerings. Soon the platform was overflowing with offerings, ranging from fresh flowers and fruit to an entire *babi guling* (Roasted pig).

After sessions of prayer involving the entire staff, several of the women proceeded to walk around the resort, blessing every corner. At the end, the *babi guling* was divided up amongst the entire staff.

Dive sites

One could spend their entire stay photographing Seraya Secrets, but

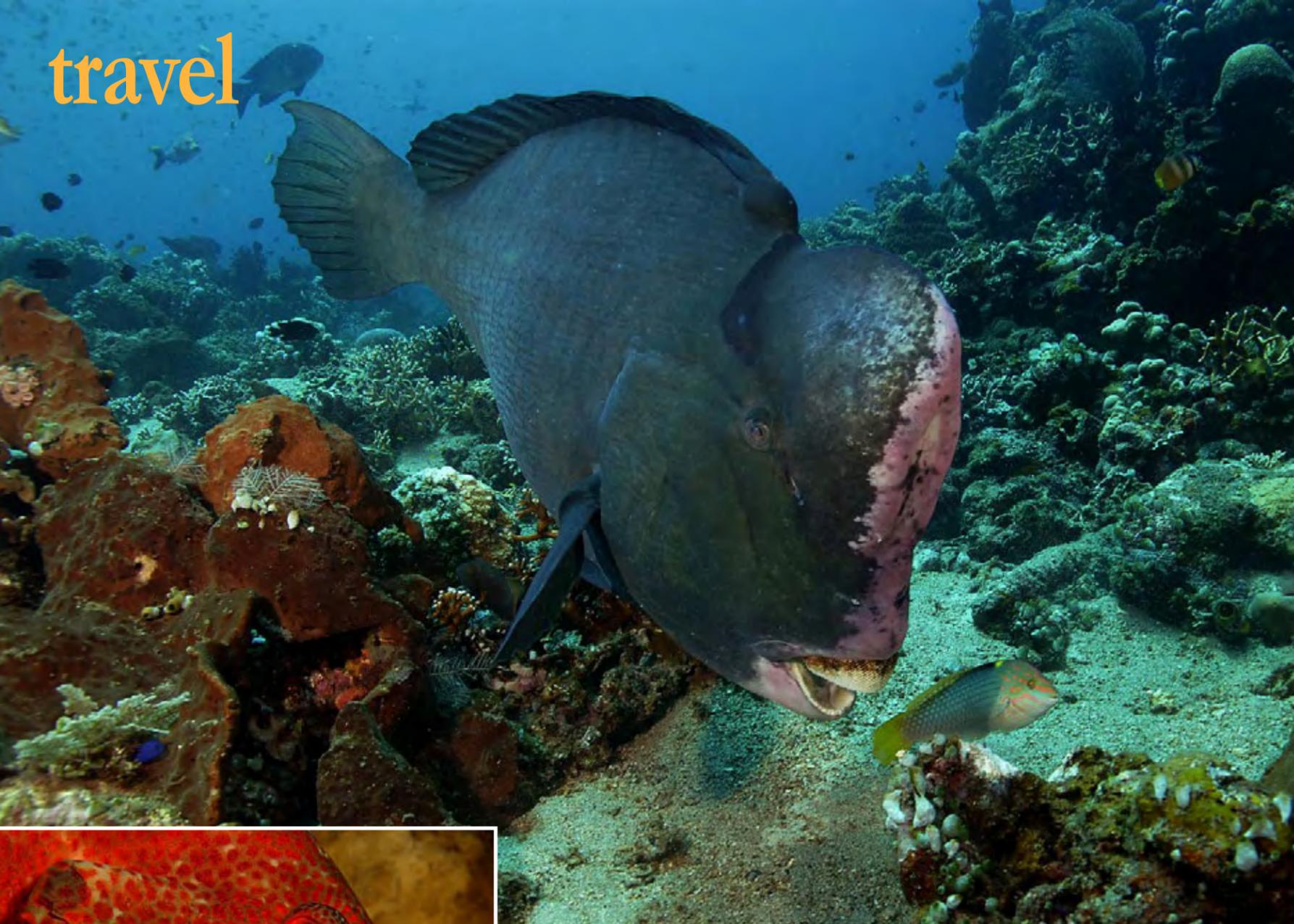
many superb sites are but a mere zodiac ride away from the resort.

Consisting of a series of underwater lava flows radiating out from shore, The Drop Off's slopes are adorned with a multitude of fan and whip corals, including one massive purple gorgonian. There is also abundant fish life to be found including yellow-ribbon sweetlips, eye-patch butterflyfish and three-spot angelfish.

The Coral Garden consists of a series of three steep ridges, each cloaked with a rich tapestry of marine life. Ribbon eels are particularly common with all three colour phases of black, blue and yellow to be seen.

Another superb site is Batu Kelabit, whose current-swept point is alive with coral growth. There are reef fish galore including bumphead parrotfish, jewel groupers and clouds of anthias.





However, no visit to Seraya is complete without a visit to the world-famous *Liberty* wreck. With all the superlatives regularly bestowed on the site, it's almost enough to make a diver wary. "How good can it REALLY be?" one might be inclined to ask. Well, the *Liberty* delivers and then some!

Torpedoed by the Japanese off Lombok during the Second World War, the vessel was towed to Bali for salvaging. Unfortunately, it took on too much water during the trip and was left at Tulamben, where it remained semi-beached until 1963. Tremors caused by the eruption of Mount Agung volcano caused the ship to

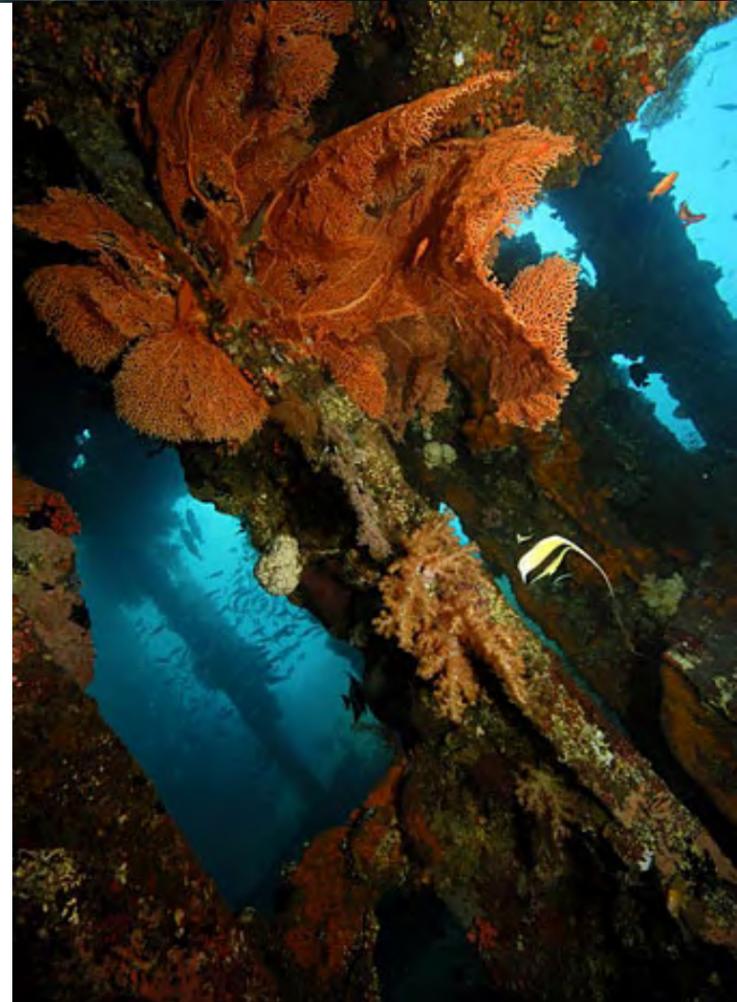
slide down the slope to submerge 30 metres from shore where it remains to this day.

During the high season, this site can be a virtual expressway of diver traffic, but during my stay, it was all but deserted! Well, not quite. Within moments of entering the water, Degeng gestured excitedly towards the surface near the zodiac. Tulamben's famous school of jacks was in attendance! During my visit the previous year, I had the misfortune of having a macro lens on the camera when they made their appearance. This time, I was armed with a 10-20mm wide-angle zoom and swam directly into the swirling maelstrom of shim-

mering fish. This was by far and away the biggest school of jacks I had ever seen. Back on the zodiac, Degeng estimated the school was comprised of around 1000 individuals. I nearly forgot about the wreck!

After a photographing frenzy, I finally had to drag myself away and we descended. The vessel seemed even more luxuriant with coral growth than I remembered. Fan and soft corals jostled each other for space amidst a myriad of sponges and tunicates. Beams and parts of the ship's frame thrust outwards like the skeleton of a gigantic whale, each bedecked with coral growth. Even with the lower visibility, close-up wide-angle shots were a joy to take. Just to prove you can never win, I saw a yellow clown frogfish and a host of colourful nudibranchs!

The ship's cargo hold is a definite highlight of any dive. With its massive columns and ethereal beams of light illuminating the gloomy interior, it is like an undersea gothic cathedral. Beams from my flashlight revealed a riot of



CLOCKWISE FROM ABOVE: Grouper and Cleaner shrimp; Bumphead Parrotfish; Schooling Jacks at *Liberty* wreck; Coral encrusted beams of the *Liberty* wreck



again.

After bidding Patrick farewell, it was time for the second leg of my journey.

The North Shore

It is often said that when one door closes another one opens. During the trip's planning stages, a proposed visit to

another resort had fallen through at the last minute, leaving me with several days to spare. At the recommendation of a friend, I contacted Blue Season Bali in Sanur to arrange some diving. A relatively new operation, the company is run by Englishman Jonathon Cross.

No stranger to the Bali diving scene, Jonathon offers a variety of dive trips around the best dive sites Bali has to offer. As I hadn't really dived the north shore of the island, he immediately

suggested Puri Jati, Permuturan and Menjangan. He assured me they could make all the arrangements, including accommodation, transportation, dive gear, equipment, guide and driver. I was sold!

The day after my arrival in Sanur, I headed to the shop first thing in the morning. Although Jonathon was out of town, I met head divemaster Putu and driver Wayan who would be accompanying me for the trip to Puri Jati, or PJ as it is commonly known. Within an hour, everything was set, and by mid-afternoon, we were on our way in a comfortable van packed with dive gear and loads of tanks.

Driving up the back roads to avoid the traffic, we passed by quintessential scenes of Balinese village life.

Groups of women, baskets of offerings perched precariously atop their heads, made their way to the local temples, while stone carvers toiled meticulously over their latest creations.

Leaving the lowlands behind, the road writhed like a serpent as we ascended the central mountains. Passing trucks, heavily laden with carrots and cabbages, were evidence of the cooler temperatures, along with



colour; Fan corals cascaded from overhead beams while abundant fish swirled about vertical columns. The fish here are used to divers and allow a close approach for photography. The oblique-banded sweetlips are particularly approachable. And all this with nary another diver in sight!

After three memorable days, it was time to bid Scuba Seraya adieu. I was able to catch a lift with Patrick back to Sanur. On the way, we stopped at Tirtagangga to admire the wonderful panorama of emerald rice terraces lining the roadside. Strangely enough, I stayed in a guesthouse less than a kilometre down the road on my first visit to Bali 13 years earlier. The views here are spectacular, and I was eager to have the chance to photograph them



CLOCKWISE FROM ABOVE Nudibranch pair at Seraya Secrets; Menjangan Reef; Tirtagangga; Sweetlips at Liberty wreck; Dive master, Putu, at Blue Season Bali in Sanur



people wearing jackets and woollen sweaters. A light drizzle started falling, and swathes of clouds soon engulfed the peaks creating an ethereal landscape. Crossing the mountains, the road twisted and turned as it descended to the coast far below. With frequent photo stops along the way, the 3-hour trip had turned into four, and we finally arrived at the Zen Resort late in the afternoon.

The resort itself was stunning; with 15 luxurious villas set amidst luxuriant tropical gardens, Zen is Bali's only

Ayurvedic Resort and Spa. Translated as "the science of life", Ayurveda is a 5000-year old holistic healing system originating in Southern India. The resort's spa offers a myriad of health and beauty treatments including ayurvedic massage, yoga and mediation. An infinity pool offered a stunning panorama of rice fields and vineyards cascading down to the palm-fringed ocean.

After a delicious dinner of vegetable satay and brown rice at the outdoor restaurant, I retired to my room to assemble my camera gear.

The next morning, the weather gods were smiling as I awoke to a beautiful, sunny morning. Camera gear assembled, I had a quick breakfast and headed to the reception where Putu and Wayan were patiently waiting. The drive down to the water was short but scenic. Verdant fields of rice sloped gently towards

CLOCKWISE FROM TOP LEFT: Gorgonian fan coral at Menjangan Reef; Devil Scorpionfish; Ambon Scorpionfish; Dwarf Scorpionfish; Moon-faced Euselenops nudibranch

the shore while a Hindu temple stood defiantly, an island encircled by a sea of green.

Within minutes after leaving the resort, we arrived at the beach. The ocean was a sheet of glass as we geared up and made our way to the shore. The beach was virtually deserted except for a few local kids splashing about. PJ was all ours!

As it turned out, we had a bit of a swim ahead of us, as the bottom remained level for quite some distance. After swimming for around 30m, the slope finally started to drop off. At 3m, the barren expanse of dark sand was interrupted by the appearance of a tiny thumb-sized coral.

By the time the slope reached 4m, one had turned into multitudes radiating out in all directions along with intermittent patches of seagrass and clusters of large-leaved Halimeda algae. Moments later, Putu stopped beside one such cluster

and gestured towards it.

Moving closer, I discerned a pair of eyes staring right back. The owner turned out to be an impeccably camouflaged Ambon scorpionfish. An adjacent cluster proved to be a second individual, and before long, we discovered four more in the immediate vicinity. Talk about hiding in plain sight!

After photographing the scorpionfish entourage, Putu beckoned me to follow. From that moment on, my camera's shutter was firing virtually non-stop for the ensuing 80 minutes. Putu's eagle eyes were nothing short of miraculous. His uncanny ability to discern all manner of

creatures from the seemingly barren terrain put my critter-spotting skills to shame!

A minute pygmy pipehorse sat amongst an assembly of the omnipresent corals, while nearby, a jewel-like painted frogfish the size of my baby fingernail sat conspicuously atop the dark sand. Even with a close-up filter on the camera, it was still absolutely miniscule in my viewfinder!

While nudibranchs were somewhat





more elusive than I expected, Indian arminias were especially common. It almost seemed like mating season, as amorous trysts were routinely encountered. On one occasion, a third individual was eager to get in on the action of an already mating pair.

On the barren expanses of sand, lone anemones were home to colonies of blacksaddle anemonefish while the undulating fronds concealed entire communities of porcelain crabs and commensal shrimps of several species.

The highlight of the dive was a sea cucumber carrying two colourful hitchhikers: a pair of imperial partner shrimp. Perched atop the continually feeding invertebrate, they hung over the side, deftly scooping up tiny morsels of food dislodged as it slowly undulated across the sandy bottom.

After downloading the images back at the resort, I was surprised to discover the sea cucumber was in fact a semi-sea cucumber: Something had made a meal of the animal and roughly two thirds of its body was missing!

Facilities

Despite the absence of a

dive shop, the local community had recently installed facilities for the ever-burgeoning numbers of divers. Along with some rinse tanks for dive gear, I was pleasantly surprised to discover a separate tank for cameras, and it had just been filled with fresh water.

Each diver is charged a fee of Rp 5,000 to use the facilities, with the money going back to the local community. A simple warung provided an assortment of snacks as well as coffee, tea and soft drinks. In addition, a number of tables and benches had been set up where divers could relax during their surface intervals. The ensuing hour proved to be difficult indeed. Fighting the temptation to look at all the images on my camera view

screen proved to be a tremendous challenge to say the least!

Finally, our surface interval was up, and we were back in the water.

For our second dive, we swam in the opposite direction from the first. Curiously, the Ambon scorpionfish had all vanished, but PJ had more surprises in store.

Even areas of bare sand in a scant metre of water were home to filefish, sandivers, starfish and snails. Upon descending the slope, a moon faced euselenops nudibranch inched along the sand, the first time I've seen one in the daytime.

At a round 5m, a bright green shrimp perched atop a small clump of hard coral, its green body perfectly mimicking the adjacent clusters of vegetation. Adding to the cavalcade were finger dragonets, ornate and robust ghost pipefish, seahorses, cuttlefish and tail-fin batfish.

The latter, was a particularly compliant photo subject, posing patiently as I took photos from every angle. I was already grateful for making the switch to digital; ten minutes into the dive and I'd already shot the equivalent of a roll of film!

While it's easy to be engrossed in photography, care must be taken when kneeling on the bottom. An ill-placed hand or knee may result in an unwelcome encounter with a painfully sharp appendage, as the volcanic substrate is prime scorpionfish habitat! In addition to the Ambon species, PJ is also home to dwarf lionfish, devil scorpionfish and dwarf scorpionfish to name but a few.



CLOCKWISE: Imperial shrimp on Sea cucumber; Finger dragonet; Green shrimp; Robust Ghost Pipefish; Coral gardens at Menjangan reef



CLOCKWISE: Mimic octopus; Wonderpus; The Auyurvedic spa at Blue Season Bali in Sanur greets guests with tub baths decorated with colorful floating tropical flowers

The ensuing dives over the next two days proved to be a macro bonanza, with each dive revealing a cornucopia of critters. Although there is only one

dive site at PJ, the area is actually quite large, allowing boundless exploration over a number of dives.

At around 8m, the slope becomes dramatically steeper. The tiny corals disappear entirely and the terrain becomes barren once again. At 20m, intermittent mounds of sand punctuate the bottom like a range of miniature hills. Apart from the occasional sea pen or hydroid, the terrain seems completely devoid of life. At PJ, however, looks can be deceiving! This

is the realm of flying gurnards, cockatoo waspfish, mantis shrimp and a myriad of goby species with their attendant partner shrimps.

I was also able to cross off not one but two major items off my critter wish list. While photographing a goby, a particularly

frenetic bout of tank banging heralded the discovery of something significant. The goby was instantly forgotten as I rapidly finned towards Putu.

It was significant all right; sitting on the sand was a wonderpus! It was only a juvenile, but hey, a wonderpus is a wonderpus! Minutes later, the adrenaline level was amped up another notch with the discovery of a mimic octopus. Putu managed to find two more mimics, one of which was a fully-grown specimen.

Rejuvenation

After all the diving, I decided that a massage at the spa was in order. At the reception, I perused a list of nearly 30 treatments before deciding on the Abhyangam, a hot oil massage followed by a therapeutic herbal bath. Upon my arrival at the spa in a bathrobe, one of the attendants held up a piece of cloth marginally bigger than a dishcloth and cheerfully requested I put it on. "You want me to wear THAT?!?" I queried in equal doses of disbelief and horror.

Within moments, the scanty attire was all but forgotten as the two masseuses worked their magic. The massage was

fabulous, although the large volumes of coconut oil made me feel like I was being basted for the main course at Christmas dinner! The massage was wonderful, and after an hour, I felt as limp as a boned fish.

I was then ushered into the bathing area where a tub waiting. This was no mere tub but an exquisite work of art! The water's surface was covered by a multitude of flowers in amazingly intricate design patterns while the wooden deck surrounding the tub was decorated with gorgeous floral bouquets. The presentation was so artistic, I was reluctant to get in and ruin it.

Before the bath, I was then told to sit while the two attendants applied a paste comprised of green gram (lentil) powder and turmeric. By the time they finished, I looked like I was covered with a layer of yellow oatmeal. Especially worrisome was the tumeric; I was beginning to wonder if I'd be stained permanently!

Once in the tub, the yellowy concoction washed right off and I spent a relaxing hour soaking up the splendid view of the surrounding countryside as a passing thunderstorm



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Bali

rumbled overhead. Nearly three hours later, I got back to my room, utterly relaxed and rejuvenated.

Unfortunately, the effects of the spa treatment were about to be undone by a used wetsuit and salt water. There was a night dive to be done!

Night dive

Arriving at dusk, the beach was deserted as we geared up and headed for the water. Flashlights scanning the sandy bottom soon revealed a different array of creatures than we'd seen during the day.

While no more mimics were found, there was plenty of other octopus species about, including one coconut octopus peeking out of a large discarded shell. Flatheads were everywhere, their iridescent blue fin patches contrasting sharply with the dark, sandy bottom.

A profusion of crabs and shrimp crept across the sandy bottom while a weedy patch revealed a green robust ghost pipefish. Another patch of reddish coloured weed turned out to be a decorator crab looking like an orangutan crab on steroids.

Seahorses were out in full force too,



both alone and in pairs. All possessed that irritating seahorse trait of looking the other way as I tried to photograph them! Putu had a great solution though. As he moved towards the seahorse, it would instinctively turn away, looking right in the direction of my camera.

Especially memorable was a crab barreling across the sandy bottom with a second individual firmly clasped in its claws, which I can only assume was something akin to love on the run! Getting a photo proved to be a real challenge, as they didn't stop for a second!

Permuturan

The next morning, after a final dive (and one more massage) we packed up the van and headed for our next stop, Permuturan. The 30-minute drive was quite scenic, passing small villages framed by a backdrop of rugged peaks. The north coast of Bali is usually one of the island's driest regions, but the wet season had garbed the landscape a vibrant green. Unique in Bali, Permuturan possesses the

island's most extensive areas of shallow reefs easily accessible to divers. With an absence of the strong currents and waves that affect other parts of the island, it is also home to a remarkable artificial reef project.

The Biorock installation at Permuturan is larger than all of the other installations worldwide combined. This simple yet highly effective process aids reef regeneration with an electrically conductive frame utilizing rebar (re-enforcement steel). After being submerged and anchored to the sea bottom, a low-voltage current is then applied via a generator through an

LEFT TO RIGHT: Biorock installation at Permuturan; Octopus in a coconut; Diver inspects Biorock structure at Permuturan; Decorator crab looks like a strange orangutan



anode mesh composed of titanium.

Approximately three hours after the current is turned on, the corrosion turns into a white film of limestone due to an electrical process called mineral accretion,

where calcium carbonate is removed from the seawater. This material, a composite of limestone and brucite, is similar to the composition of natural coral reefs. Once the power is left on, the layer of film becomes thicker and soon becomes encrusted with the precipitated minerals.

Within a few weeks, the resulting structure possesses the strength of lightweight concrete. During this time, the safety of the structure in combination with the mild electric current attracts a variety of marine organisms including small fish, crabs, sea urchins, ascidians and tunicates.

The next step involves the transplant of coral fragments, which immediately bond with the accreted minerals and grow very quickly. The strength of the existing structure also provides stress relief for the growing coral, enabling them to grow some three to five times faster than normal.

Studies have shown that coral grown with assistance from the Biorock has proven to be 40 percent more likely to resist the effects of a coral bleaching.

As Putu had filled the tanks before our departure, we just pulled right up to the beach and immediately geared up. Admittedly, my knowledge of the site was somewhat limited, and I wasn't exactly sure what

to expect. Swimming along the sandy bottom in less than ideal visibility, we came upon a very large mound rising abruptly from the bottom dotted with assorted clusters of coral. "Surely, this can't be it?" I mused to myself in disbelief, peering through the murky water at the smattering of reef fish swimming about.

After a few minutes, Putu gestured for me to follow, and we were seemingly headed back to the beach. Fortunately, we had merely headed in the wrong direction and within moments arrived at our destination.

Before us lay an immense domed structure, its framework composed of an intricate latticework of steel encasing a pair of smaller domes within. Large lionfish, completely unfazed by our presence, glided lazily amongst the steel beams looking for an easy meal.

The uppermost portion was swathed with coral growth, while a myriad of reef fish



CLOCKWISE: Lionfish makes home on Biorock; The Dome at Biorock; Boats at Menjangan await tourists heading to Permuturan; Biorock, view from below

Fan coral and Anthias at Batu Kelabit (right)
Thriving coral gardens on Menjangan Reef
(below)

darted about. Even the visibility had improved. This was more like it!

Close by was another, albeit smaller, structure. Then another. And yet another! The entire area was strewn with innumerable structures boasting a broad spectrum of shapes and sizes, each home to lush coral growth and thriving populations of fish.

As I discovered after the dive, the Permuturan site encompasses an area of two hectares at depths ranging from three to five metres. Beyond the dominant structure called "The Dome", there are a total of 50 structures with such whimsical names as the Nautilus, Flowers, Caterpillars and Tepee.

Since the project's inception in 2000, coral growth has been phenomenal, with the structures now thoroughly encrusted with a broad range of species. The project is now a major attraction in itself, drawing legions of divers to see the regenerating reefs. I could have easily done more dives here. However, there was one final stop to make.

Menjangan Island

Prior to 1998, Menjangan Island's flourishing reefs were an essential stop on the North Bali dive circuit. Then El Nino arrived. The subsequent coral bleaching due to the increased water temperatures hit Menjangan hard, decimating the island's shallow water coral gardens.

Over the ensuing decade, I'd heard horror stories about the reef's destruction and was somewhat apprehensive about diving there. Despite my trepidation, I was interested to see how the reefs had fared in the ensuing decade.

Laying in wait at the jetty was a virtual flotilla of boats, eager to ferry visitors out to the island. Upon loading up all our gear, we headed across the somewhat choppy waters for the 30-minute ride to the island.

Menjangan is noted for its wall dives, and our first dive site was Garden Eel Point situated on the island's northwest tip. From the top, the wall descends from 8 metres down to 35 metres. Abundant corals cascaded from the steep slopes



while plentiful cracks and crevices provided home to prolific numbers of reef fish.

As we were diving on a slack tide, the lack of strong currents meant the absence of large pelagics, although whitetip reef sharks, barracudas and Napoleon wrasse have been observed here. Nevertheless, a small school of bluefin trevalley patrolled the blue just off the wall, keeping a watchful eye on our progress. In turn, I kept an eye on a few ominous titan triggerfish.

Ascending to 18 metres, a big expanse of white sand was home to the site's namesake. Large congregations of garden eels undulated in the gentle current, disappearing into the safety of their burrows at the first sign of danger (or photographers). For our safety stop,

the depths between 5-6m were home to healthy congregations of corals, a far cry from the decimation I'd heard about.

For our surface interval, we headed to the main jetty on the other side of the island. Even from the boat, the destruction wrought from El Nino was all too apparent in shallows surrounding the jetty. Most of the bottom was barren, although there were definite indications that the coral was starting to return.

Our final dive was Pos II, and we just swam right from the boat. The sand soon gave way to a wall at 12m and we headed deeper. The contrast was remarkable. The cooler waters had shielded the corals from El Nino's wrath and the corals were back with a vengeance. A rich tapestry of species

cloaked the walls, including copious gorgonians in a variety of hues. Adding to the colorful mosaic were several angelfish species as well as anthias, chromis, butterflyfish, while moray eels peered inquisitively from rocky clefts.

Despite all the doom and gloom reports of Menjangan's apparent demise, I was pleasantly surprised to find many of the island's reefs thriving. Once again, Mother Nature shows her resilience in the face of adversity.

Bali's undersea environs never cease to surprise and enthrall. Be it reefs, wrecks or critters, there's something on the Island of the Gods for just about everyone. The only thing I found lacking were the crowds. Despite initial misgivings about the weather, Bali in the rainy season is a blessing all on its own. ■



A Story in Images

The Liberty Wreck

Photos by Lawson Woods



TOP LEFT TO RIGHT: Large fan coral hanging off the wreck of the *Liberty*; Close-up of Anemone Shrimp; Freckled Frogfish creeps over the black volcanic sands of Tulamben; Soft coral and anemones thrive on the *Liberty* wreck; The Pigmy seahorse is tiny, no bigger than an inch or 2.5cm (right)

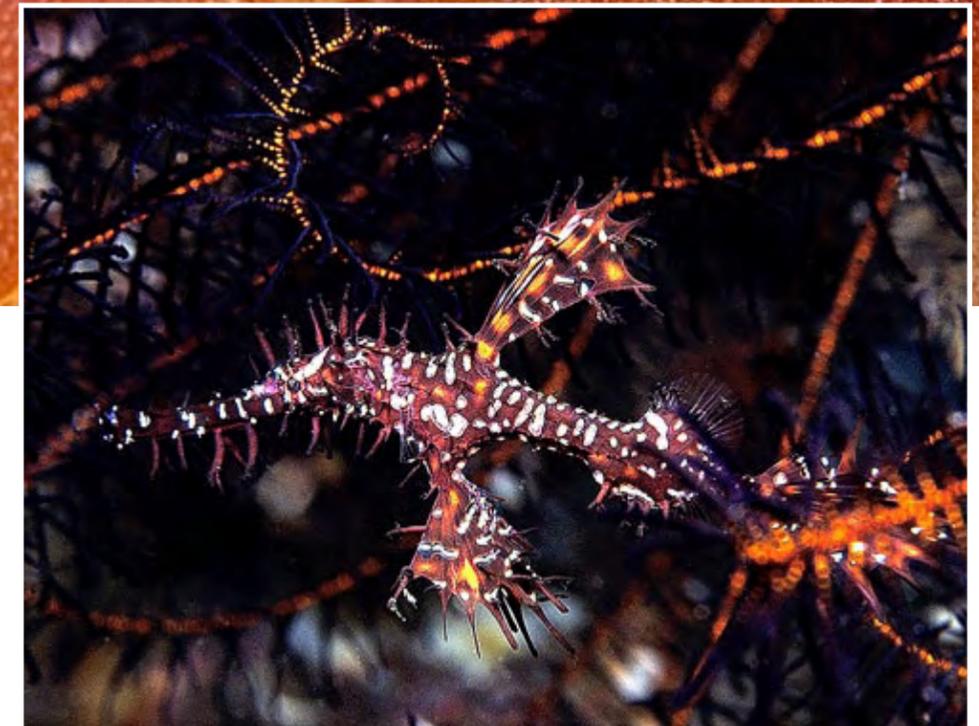


PREVIOUS PAGE: The *Liberty* wreck is a microcosm of life providing lush coral habitat for a plethora of tropical species. Here, a diver inspects a beam decorated thickly with coral growth

LEFT: Leaf Scorpionfish

RIGHT: Great Barracuda lurks in the bowels of the wreck





CLOCKWISE FROM TOP LEFT: The tiny Pigmy Seahorse anchors itself by its tail, which is wrapped around a branch of coral; Commensal shrimp is perfectly camouflaged riding on the back of a Spanish Dancer, a colorful and lacy swimming sea slug; Ornate Ghost Pipefish hangs out in a feather star; Polka dots decorate the Baramundi cod

Bali's East Coast

Superb sponges on the reefs of Nusa Penida

Text and photos by Donald Silcock

When India's Prime Minister Pandit Nehru visited Bali in 1950 to attend celebrations marking the newly established independence of Indonesia, he famously called the island "the morning of the world". His simple but eloquent description really does encapsulate the uniqueness of this special island.

Balinese dancer at Candi Dasa



Predominantly Hindu in a nation of over 220 million people, where Islam is the principal religion, Bali is the only place outside of the Indian sub-continent where the Hindu religion exists in any real strength.

Introduced in the 6th century, by Hindu traders from India, the religion spread rapidly across this huge

archipelago of over 17,000 islands, peaking in the 14th century with the Majapahit Empire. The rise of Islam from the 14th century slowly but surely eclipsed the Hindu kingdoms, and Hinduism itself, and ultimately forced what was left of the Hindu elite to take refuge, consolidating in Bali around the end of the 15th century.

Their descendants have succeeded in protecting their heritage, and it's this strong culture that makes the island so special.

Tourism in Bali

Simply stated, tourism is the life-blood of Bali. Its unique culture, special ambience and physical features have

drawn visitors to the island since the 1960s. The Balinese are generally very tolerant of tourists and their mores and almost always manage to maintain their smiles and composure. It's their strong culture and tight village lifestyle that provides this foundation.

It's not just the money that tourism brings to the island that the Balinese





like; they are genuinely open and friendly to foreigners as any study of their history shows.

Tourism can be roughly divided into three groups. There are the mass-market visitors for whom the southeast corner of the island caters. The so-called "tourist triangle" of Kuta, Nusa Dua and Sanur caters for every variation possible from the low end budget accommodation in Losmens, to the very top end of town and everything in between.

Beaches, restaurants, bars and nightlife provide everything that these visitors want from their vacations, which typically last about seven days.

The second group are those coming in search of the 'real Bali'. The exact location of this mysterious place is not really clear, apart from it not being anywhere near the tourist triangle. However, the most likely location is the town of Ubud up in the hills north of Denpasar, although there is a

counter argument that it's really in Seminyak at the western edge of the tourist triangle.

Ubud is certainly a charming place that combines the best of both worlds—so charming that my wife and I have actually bought a place there!

The third group is those visitors who come to sample what the seas surrounding Bali have to offer. By far, surfers dominate this group, and Kuta, the epicenter of the tourist triangle, became what it is because of the quality of the breaks just off the beach there.

Second to the surfers are us

divers who are attracted to the island because, unlike many other locations in Indonesia, it offers a great combination of diving and things to do and see when we are not underwater. Also Bali, along with Jakarta, is a "hub" that caters for international flights and allows the onward dive traveler to get to places like Manado and Sorong.

Many divers choose to break their long international journeys and sample the delights of Bali for a few days.

CLOCKWISE FROM TOP LEFT: Padang Bai harbor; Traditional fishing; Possibly some kind of Balinese Hindu shrine or offering; The vibrant local market at Padang Bai



Anthias on the reef at Nusa Penida
BELOW RIGHT: Angelfish on the reef at Nusa Penida

Diving Bali

Bali's most famous dive site is the *Liberty* shipwreck just off the beach at the small town of Tulamben on the northeast coast of the island. A close second is probably the muck diving Mecca of Seraya, just a few kilometers east of Tulamben.

The *Liberty* wreck is without doubt a great dive, but to enjoy it, you need to be there early or late in the day, because in between, it gets very crowded as the day-trippers arrive.

The physical distance from the southeast corner to Tulamben is about 80km, but the journey takes between three to four hours on Bali's narrow and crowded roads. Most divers either base themselves in the southeast and do day trips or stay up on the northeast coast and forego the restaurants and bars. Either way, they will pass through the town of Candi Dasa on the east coast.

Often referred to as the eastern frontier of tourism in Bali, Candi Dasa is a pleasant town located at the northern end of Amuk Bay and hosts a good selection of hotels, restaurants and cafes. It is also a great place from which to base yourself in order to explore the east coast of the island.

The East Coast

There are two things you really need to know about diving on the east coast—first, the area is subject to some of the strongest currents you are ever likely to experience, and secondly, the water can be really cool, so a 5mm wetsuit is highly recommended. The strong currents are the result of the Indonesian Throughflow (see sidebar below) and the water temperatures are produced by the cold-water upwellings from the deep trenches to the north and south of Bali. This is a powerful combination, which acts as the catalyst for some really great diving, but a good guide with local knowledge and experience is essential if you want to experience the sites safely.



10,000 RIVERS

What makes the East Coast of Bali, and in fact many of the other great locations in this vast archipelago such good diving, is Sverdrups and the Indonesian Throughflow.

If, like me, you had never heard of Sverdrups before, I suggest you buy a copy of David Pickell and Wally Siagian's excellent book *Diving Bali* (ISBN 962-593-323-9). It's the best reference I have found to diving in Bali, and you will find that its contents and maps are used by virtually all the dive guides on the island.

But it's David Pickell's excellent description of the immense hydraulic forces that prevail in the Lombok Channel, which separates Bali and its eastern neighbor of Lombok, that sold me on the book. Understanding these

forces enables an understanding of why the East Coast can be such good, but potentially challenging, diving.

Let me give you the Readers Digest version: To the northwest of the Indonesian archipelago lies the Pacific Ocean where the sea level is 150 mm (6 ins) above average; whilst to the south lies the Indian Ocean where the sea level is 150mm below average.

This disparity is caused by the trade winds and associated currents that act in opposite directions in the northern and southern hemispheres, but the overall result is a massive flow of water from the Pacific to the Indian Ocean. So huge is the volume that traditional measurements such as cubic meters and gallons are inadequate to describe it in an easily understandable way. So

the Norwegian scientist Harald Sverdrup invented the Sverdrup—one million cubic meters of water per second.

David Pickell visualizes like this—think of a river 100m wide, 10m deep and flowing at 4 knots. Then imagine 500 similar rivers—that's one Sverdrup!

It is estimated that the total amount of seawater that passes through the Indonesian Throughflow is 20-22 Sverdrups, or 10,000 of those rivers. A massive volume of water that has to make its way around the chain of islands, which runs along the bottom part of the Indonesian archipelago called the Lesser Sundas that stretch from Bali in the west to Timor in the east.

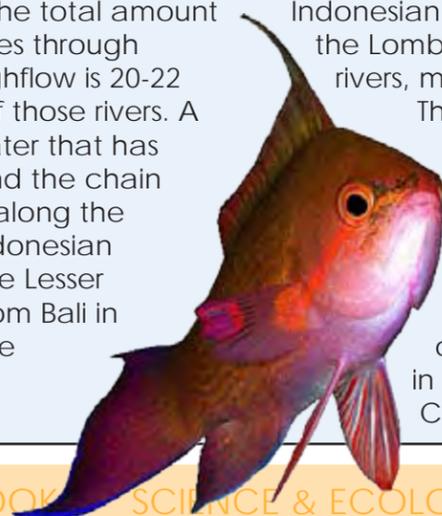
There are a limited

number of channels between the islands of the Lesser Sundas, and of these, the 35km wide Lombok Strait, between Bali and its neighboring island Lombok, offers the most direct path to the Indian Ocean. It is estimated that about 20 percent of the shallow water flow of the Indonesian Throughflow passes through the Lombok Strait, which in terms of rivers, means 1500 of them.

That's a lot of water, but what's so important is that it carries with it the eggs and larvae of the marine life of the Indo-Pacific, an incredibly diverse area with over 4000 identified species—compared to around 1000 in the Red Sea and 400 in the Caribbean. This helps to explain

the intense biodiversity of some of Bali's reefs and dive sites. But the other piece of the puzzle is the seasonal upwellings from the deep waters around the island.

The Indonesian archipelago's underwater topography is incredibly complex with deep trenches, troughs and basins surrounding its 18,000 islands. Around the Lesser Sundas, it is particularly complex, with the very deep Flores and Banda basins to the north and the Bali and Sunda trenches to the south. As the Indonesian Throughflow weaves its way over and through this complex underwater landscape, it creates upwellings that carry streams of nutrient rich cold water from the deep, which nourish the reefs of eastern Bali and other hot spots on the island. ■





Amuk Bay

Amuk Bay itself is roughly 8km wide, with Candi Dasa at the northern end and Padangbai just round the southern tip of the bay. Padangbai is a small but very pleasant and picturesque fishing village, best known as the place to catch the ferry to Lombok and where most of the dive operators working the east coast depart from.

The three main dive areas—The Blue Lagoon, Mimpang and Gili Tepekong—offer considerable diversity, and each

one has its own unique features.

The Blue Lagoon is the location that less experienced divers are usually taken to first, as the dive sites in this area are generally much less exposed to the strong currents experienced at the other sites. However, don't let this fool you into thinking that this is a second rate area,

it's not, and of the six dives I experienced here, I was impressed with the health of the bommies and the general marine life.

More of a macro than a wide angle area, I saw a great selection of frogfish, leaf scorpion fish, moray eels, scorpion and stone fish, blue spotted stingrays and lots of nudibranchs.

The name Blue Lagoon conjures up images of deserted Pacific Ocean islands with swaying palm trees, however it's actually a small bay located just around the headland and to the northeast of

Padangbai Bay. There is a small resort located right on the beach, which is popular with tourists from Candi Dasa who go there to snorkel.

The more correct name for the area is Tanjung Sari, and there are a number of sites to dive, not just the bay in front of the resort. The relative lack of currents and maximum depths of around 15-18m offer a pleasant combination of an uncomplicated dive site, with plenty to see.

Gili Mimpang is one of three islands located just outside Amuk Bay as the seafloor starts to drop down into the depths of the Lombok Strait, which means that all three spots are subject to the strong currents associated with the Throughflow. None of them are suitable for newly qualified divers, and again, a good guide is essential for even the most experienced diver.

The other two islands are Gili Tepekong and Gili Biaha, with Tepekong about one kilometer south-east of Mimpang and Biaha about 4km northeast.

Gili Mimpang is actually a group of small islands, three of which break the surface and are known as Batu Tiga. Local legend has it that they were used for target practice by the Indonesian

air force in the 1960's—thus possibly explaining why they are so broken up compared to the very solid lumps of rock that make up Tepekong and Biaha. Mimpang's position is closer towards Amuk Bay, which means that it is less exposed to the currents of the Lombok Strait, and therefore, is often considered to be a lesser site than the other two.

My experience from two days of diving both Mimpang and the nearby Tepekong is that it has a great deal to offer, particularly the southern edge of the site where there are some excellent small caves teeming with fish life and very healthy soft coral that are surrounded by very photogenic glass fish.

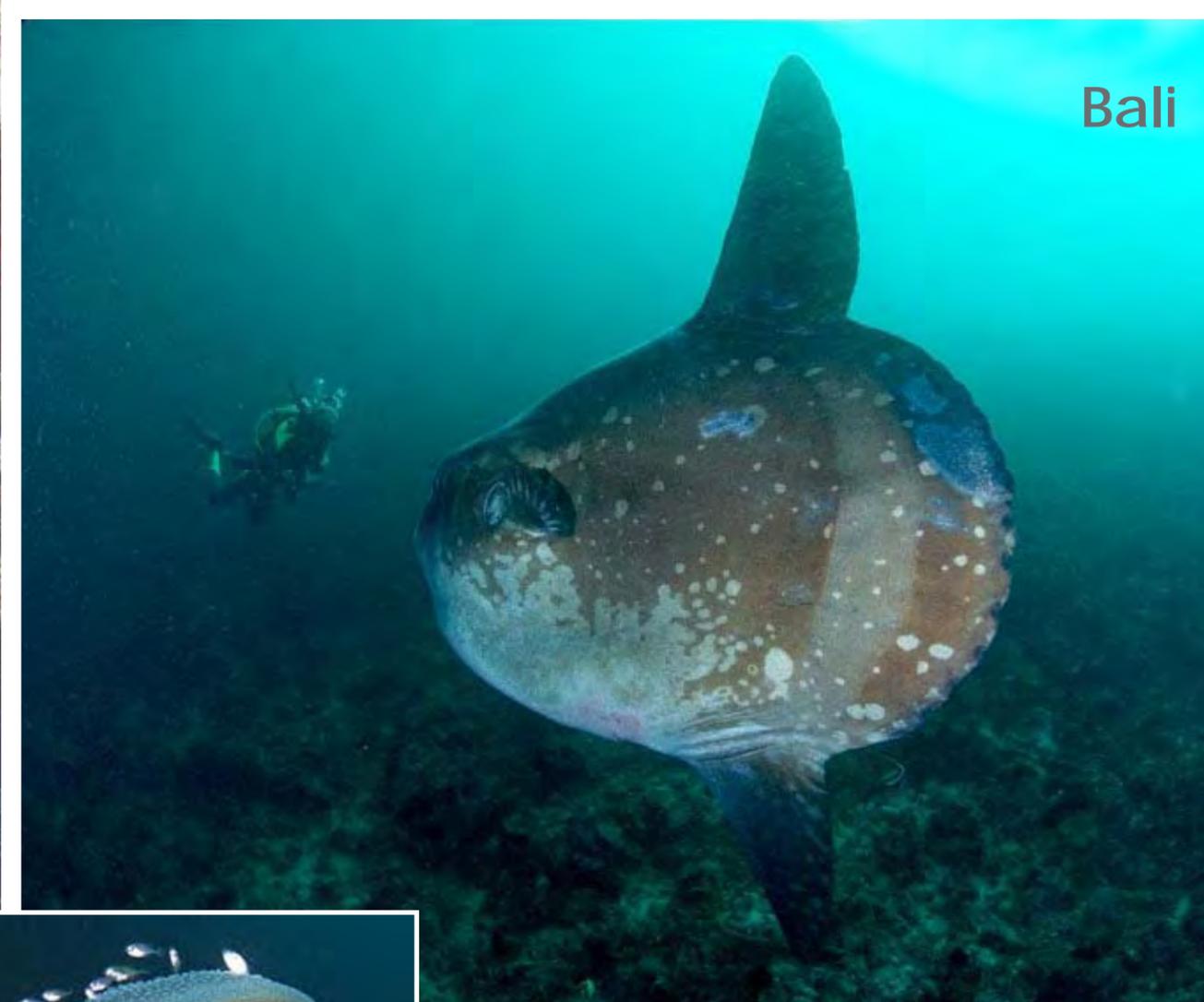
I was amply rewarded for visiting

Mimpang when, on the first dive of the second day, my very excited dive guide, Mitra, basically dragged me away from the caves giving me a very strange hand sign that I subsequently learned is the local code for the Mola Mola, or Oceanic Sun Fish, that this area of Bali is well known for at certain times of the year.

I have long wanted to photograph the Mola Mola, but was not expecting to be so fortunate as it was late December,

THIS PAGE: Critters of the Blue Lagoon—these images illustrate the vibrancy of this site. CLOCKWISE: Moray eel; Scorpion fish; Cuttlefish; Leaf fish; Big eyes





Bali



RIGHT: Jellyfish at Tepekong

ABOVE: Mola Mola taken at Mimpang

and September is known as the time to see them. Not only did one grace us with its amazing presence that day, but I was actually able to photograph it as I had made the decision to use a fish-eye lens after being shown the cave area on the previous day.

They really are a unique creature, almost 3m from tip to tip they appear quite ungainly at first glance but can move very quickly, as I learned when I tried to get “the shot”. A true pelagic about which very little is known, they are believed to come to this area of Bali to be cleaned of parasites—usually by the common banner fish, which was indeed the case with the one we saw that day.

The southern edge and the western side of Mimpang are one of the best places in Bali to see white tip reef sharks, and on my second day, I saw a group of about ten large ones swimming in the strong current. Like most sharks they are wary of divers, particularly ones emitting large streams of bubbles as they struggle

against the current to get in position to take photographs—no award winning shots that day!

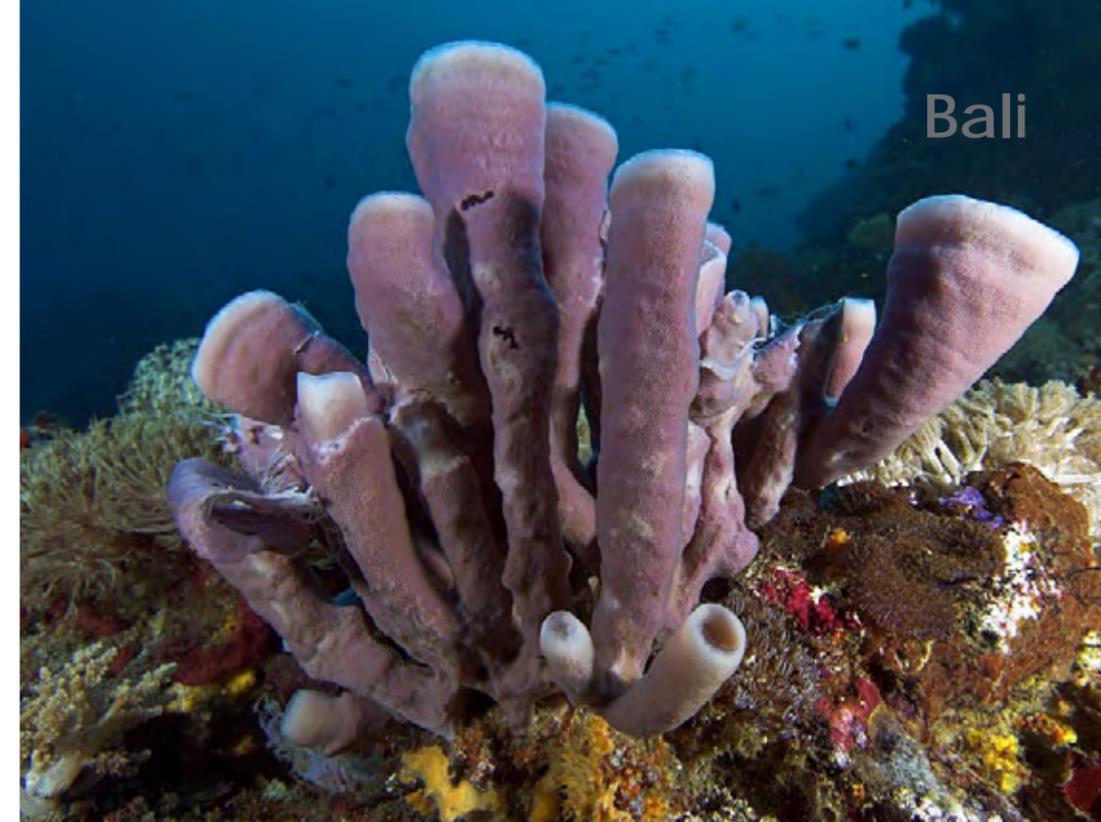
Gili Tepekong is only one kilometer from Mimpang, but the conditions can vary considerably between the two sites, and often when one can be dived in safety, the other is out of the question. Located as it is, right on the edge of the Lombok Strait, Gili Tepekong is swept by the Indonesian Throughflow, which means that when it is safe to dive the site, it is spectacular. But if you try to dive the site in the wrong conditions, you

may experience the so-called toilet effect where instead of going up to the surface as nature intended, your bubbles are spiraling in the opposite direction—caught in one of the infamous down-currents that make the East Coast so potentially challenging.

Definitely a site only for experienced divers, Tepekong rewards those who do venture there with some spectacular diving. The highlight of which is the Canyon at the south-western tip of the site where fallen rocks from the island have created an area reminiscent of Roman ruins, which is now populated by large schools of sweetlips, jacks, groupers and white tip reef sharks.

ABOVE: Inside the small, but vibrant caves at Mimpang
TOP LEFT: The shark nursery at the Faux Canyon at Tepekong





The Canyon has apparently established a reputation as a “must-dive” location but many operators are very reluctant to take divers there because of the dangers of the downdraft. Patience and trust in your dive guide are a must, because if they tell you that the conditions are not suitable, you need to accept their judgment, as they can read the situation better than you can.

Such was the story on the days I was diving Tepekong, and my guide, Mitra, knew how much I wanted to dive the Canyon, but cautioned me against it, which is basically what you are paying for—good advice!

At the northern tip of Tepekong there is a site known as the “Faux Canyon”, as apparently some

operators have been known to take divers there and tell them it is the real Canyon! I dived this site a few times and enjoyed it, particularly the shark nursery—a wide but low and tapering cave that is host to a substantial number of white tip sharks. It’s called the nursery because of the baby white tips that are always found there. In fact, the first couple of times I visited, that was all I found—four to five one-metre-long juveniles. However, on the last dive, it must have been lunchtime,

as mum and dad were home as well, and although initially quite camera shy, they started to come closer and closer. Quite an exciting sensation when you find yourself jammed into the cave due to the strong surge!

Nusa Penida

—Sental, Ped, SD and Toyapakeh

Nusa Penida, together with Nusa Lembongan and Nusa Ceningan, is a group of three islands that sit right in the middle of the Lombok Strait between Bali and Lombok. This position means that their northern coasts bear the full brunt of the Indonesian Throughflow as it hits the islands. The western and eastern coasts experience very strong currents due to the huge

volumes of water sweeping past.

Nusa Penida is by far the largest of the three islands—roughly 18 km long and 14 km wide, compared to the combined size of Lembongan and Ceningan at just 3 by 5 km. Separated from Lembongan and Ceningan by the Toyapakeh Strait, Penida is a low, dry limestone island, which means that it does not have the wet season heavy river run-offs that significantly reduce the underwater visibility.



Ribbon eel on the reef at Nusa Penida; School of golden bait fish shelter in small cave at Nusa Penida; Photogenic sponges on the reef at Nusa Penida; Sea whip on the reef at Nusa Penida; Scorpionfish blends into the reef; File fish on the reef at Nusa Penida



CLOCKWISE FROM LOWER FAR LEFT INSET: All images from the reef at Nusa Penida — Emperor Angelfish; Soldier Fish; Box fish; Dwarf Hawfish; Star fish and barrel sponge; Striped Triplefin

BELOW: Moray eel on the reef at Nusa Penida



I had read stories of the excellent visibility and healthy reefs on the northern and northwest coasts of Nusa Penida, but had also heard others about coral bleaching as a result of El Nino in 1998. So, I guess my expectations were fairly low. However, on my first few dives there, I was frankly

quite stunned by the 25m plus visibility, excellent fish life and overall vibrancy of the reefs.

The water temperature at all the sites on the north coast—Sental, Ped and SD, and Toyapakeh on the northwest coast—can be really quite cold. My computer registered 22°C on one dive! But the strong currents and nutrient-rich, cold-water upwellings combine to create some tremendously rewarding diving.

I had also read that many of the Nusa Penida sites were not particularly good for underwater photography, as the strong currents basically turn every dive into a high-speed drift. However, I

actually got some of my best images of the trip on these sites by keeping close to the reef and looking for spots where I could shelter from the current.

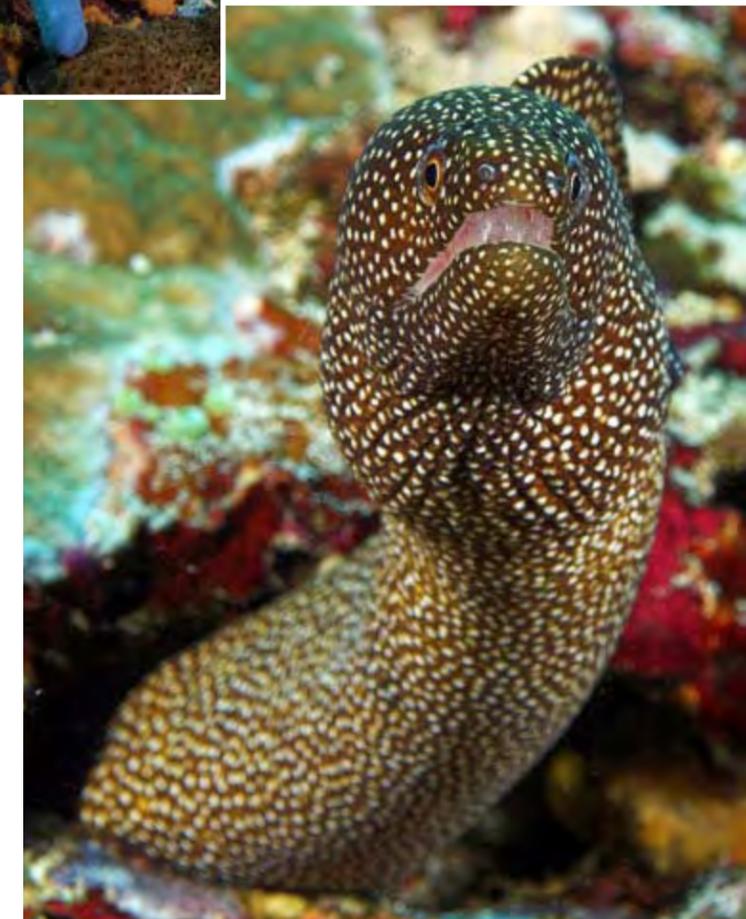
The north and northeast coasts of Nusa Penida are also known as locations to see the Mola Mola, and to my surprise and delight, on the fourth day of diving in the area, I saw another one. This time, I spotted it myself when something caught my eye down in the blue. I was at about 15m at the time, and what I saw was a cloud of banner fish surrounding a large but non-descript lump of something. The lump was the Mola Mola looking up the reef slope, as it was cleaned of the

many parasites that live on its body, and when it turned slightly, my nitrogen saturated brain finally registered what it was.

This time, I did not have the fisheye lens, but it did not really matter as the Mola Mola only allowed me to get close enough for one shot before demonstrating its strange but very effective swimming technique and disappeared rapidly into the depths.

Conclusion

As a general rule, I much prefer liveaboard diving to land-based. My day job pays for my dive travel and cameras and, like most people, I get a limited number of days vacation every year. Liveaboards allow me to get the maximum diving in the shortest time, whereas land-based diving usually restricts you to three dives a day, and too much time is spent getting to the





CLOCKWISE FROM ABOVE: Bali fragrances; Balinese dancers; Amuk Bay at sunset; Balinese rice terraces

sites.

Having said that, what I really liked about diving the East Coast on this trip were the logistics. I based myself in Candi Dasa and was picked up every morning about 08.30 for the 15-minute drive to Padangbai, where I was able to enjoy a Bali coffee at the Topi Inn (www.topiinn.com) whilst the dive boat was loaded with the gear for the day's diving.

We were usually on our way by about 09.15, and the maximum time to any of the sites was 40 minutes, but usually much less. The morning's two dives were done before noon, and then it was time for a nice lunch ordered the day before from the Topi Inn, followed by a quick snooze.

The afternoon dive was usually completed by three, and then it was back to Padingbai for a quick fresh water shower and another coffee before heading back to the hotel in time for a sundowner of ice cold Bintang whilst reviewing the days images—very civilized!

My visit to the East Coast of Bali was organized through AquaMarine Diving (www.aquamarinediving.com) and I would like to thank Annabel Thomas and her staff for a first class trip, which was superbly organized and very professionally conducted.

— Don Silcock
don.silcock@ge.com
www.indopacificimages.com ■

BALI

The Island really is a special place, each time I visit Bali the more enjoyable I find the experience. The Balinese people are predominantly Hindu in a nation dominated by Islam, and have a long history & a unique culture that draws visitors from far and wide.

Safety Bali has been the subject of two horrendous bombings and both of them occurred in the "tourist triangle" in the southeast of the island, a long way from the dive locations on the east, northeast & northwest of the island. My opinion is that I am perfectly safe away from the principle tourist areas, which I tend to avoid anyway.

When To Go The dry season of April to October is the best time to dive the east coast and May to September have the optimum conditions & visibility. My trip was actually in December, right in the middle of the rainy season, so the heavy river run-offs from the often-torrential afternoon rain in Bali meant that the underwater visibility was not particularly good – especially at the sites closest to shore. However, overall I was most impressed by the diversity of this part of Bali and was pleased with the images I took.

Who To Dive With There are many dive operators in Bali offering a range of diving and services but I have personally found AquaMarine Diving (www.aquamarinediving.com) to be very professional and highly organized and would thoroughly recommend them.

Getting There Bali's airport is located in the southeast of the island, very close to the main tourist areas. It is a major hub in Indonesia and very well serviced by international and domestic carriers.

Where To Stay I personally stayed at the Water Garden Hotel in Candi Dasa www.watergardenhotel.com, which was suggested & arranged by AquaMarine Diving. There is a wide variety of hotels to suit all tastes and budgets in Candi Dasa.





phase 1



phase 2

If there is one thing that we know about mimics, it is that they are rare. Since they were first recognized, very few have been collected or observed in the wild. Even in areas such as the Lembeh Straits and Bali, which have been extensively dived by knowledgeable naturalists, sightings have been infrequent and sporadic. Only dozens have been seen, not hundreds or thousands. Yes, it is a big ocean. However, the habitats apparently suitable for the mimic are limited, easily accessible and the number of people (including collectors) diving on them is rapidly increasing ... I would urge everyone, amateurs and professionals alike, to curtail your desire to display these animals. I hope that with our help they can continue to survive in the wild where they can be studied, photographed and appreciated.

— Dr. Roy Caldwell
The Cephalopod Page

See a video on YouTube of a mimic octopus impersonating a sole fish, a lionfish, and a sea snake:
www.youtube.com

The Mimic Octopus

Text edited by Gunild Symes
Photos by Andrea Ferrari

The amazing mimic octopus was discovered in 1998 on the bottom of a muddy river mouth in Indonesia, off the coast of Sulawesi. Since then, it has been reported that researchers have filmed nine different kinds of mimic octopuses, *Thaumoctopus mimicus*, in the act of mimicking flatfish, lionfish and sea snakes as they move across the ocean floor. (See [video link](#)). It is a strategy that this fascinating creature uses to avoid predators and other threats.

Typically, the mimic octopus is brown and white striped and grows to about 60 cm long. Its habitat is in muddy estuary bottoms in the tropics around Bali and Sulawesi. Small crustaceans and fish are most likely their source of food.

Octopus are highly intelligent. They can change the texture and color of their skin to display camouflage in avoiding predators. But the ability to impersonate another animal was unknown until the discovery of the mimic octopus. Indeed, the mimic octopus is the first

known species to be able to mimic multiple species.

Other creatures have been known to take on the characteristics of just one other species as a survival tactic. For instance, there are flies that can display the black and yellow stripes of bees—a warning aimed at predators. The mimic octopus is so intelligent, it can figure out what dangerous sea creature to impersonate for each specific kind of threat.

It has a varied repertoire: As a sole fish, the mimic octopus can accelerate in speed through jet propulsion as a leaf-shaped wedge with all its arms closed together and undulating like a flat fish. As a lionfish, it can ward off enemies, tricking them to think it has the fish's poisonous fins, by spreading its arms wide and hovering above the ocean floor. As a sea snake, the mimic octopus looks menacing to pesky damselfish, which are common prey to sea snakes, while it waves two arms in opposite directions like a snake wriggling in the water. It is thought that the creature can also mimic stingrays, mantis shrimp, sand anemones and even jellyfish. ■ SOURCE: MARINEBIO.ORG



phase 3



fact file



SOURCES: WWW.CIA.GOV, WWW.STARFISH.CH, WWW.SCUBA-DOC.COM

Bali, Indonesia



History In the early 17th century, the Dutch began to colonize Indonesia. During WWII, the islands were occupied by Japan. After Japan's surrender, Indonesia declared its independence, but four more years passed with intermittent negotiations, recurring hostilities, and UN mediation before the Netherlands let go of its colony. Home to the world's largest Muslim population, Indonesia is the world's largest archipelagic state. Its government faces several challenges including alleviating poverty, preventing terrorism, consolidating democracy after 40 years of authoritarianism, reforming the financial sector, irradicating corruption, halting human rights violations by the military and police, and controlling avian influenza. Indonesia reached a historic peace agreement with armed separatists in Aceh in 2005, which led to democratic elections in December 2006. In Papua, a low intensity separatist movement continues to confront Indonesia. Government: republic. Capital of Indonesia: Jakarta. Main city of Bali: Denpasar.

Geography Indonesia is located in Southeastern Asia. It is an archipelago of islands between

the Indian Ocean and the Pacific Ocean with a total coastline of 54,716 km. The island of Bali is one of Indonesia's 17,508 islands, an archipelago located south of the equator where the Indian Ocean meets the Pacific. The tropical Indo Pacific region in which Bali is located is considered to be on of the world's richest ecologically biodiverse systems. Bali is in essence a volcanic island with the volcano, Mount Agung, revered as a great spirit by the local people, as its highest peak rising 3,142 meters above sea level. Another peak, Mount Seraya, which lies east of Agung, rises 1174 meters above sea level. Volcanic island with high crater peaks, deep valleys, cultivated lowlands, lush terraced rice fields and thick tropical forests in the highlands.

Time Zone GMT plus 8

Climate Tropical, hot and humid. Temperatures range from a high of 31°C (88°F) to 25°C (78°F) low. Highlands are cooler and drier. Lowlands along the coast are pleasantly drier than the main tourist areas in the south. Monsoons. The dry season takes place April through November, and the wet season, December through March. Natural hazards



Map of Bali
INSET: Map of Indonesia

RIGHT: Global map showing location of Bali



include occasional floods, severe droughts, tsunamis, earthquakes, volcanoes, and forest fires.

Environmental Issues deforestation, sewage, industrial water pollution, urban air pollution, forest fire smoke and haze

Health In Bali, there is no major risk. Unlike islands further east in the archipelago, there is no Malaria/Dengue fever in the northeast province of Bali where Tulamben is located. There is a very small risk for these diseases in the rural areas of the islands north-west. Unless you are arriving from an infected area, Smallpox and Cholera vaccination is no longer required. However, do not drink the water. Buy bottled water from the better hotels and resorts. Watch out for Bali belly, temporarily upset stomach from unfamiliar, spicy foods. Outside higher end hotels and resorts, do not depend on proper heigene. Shower frequently. Dry thoroughly in extensive humidity. It is recommended to dry thoroughly and use medicated body powder when exposed extensively to the heat and humidity to avoid

skin rashes and fungus, especially during the wet monsoon season. When traveling in the rest of the country, be aware of the high degree of risk of food or waterborne diseases such as bacterial diarrhea, hepatitis A and E, and typhoid fever, as well as vectorborne diseases such as chikungunya, dengue fever, and malaria. Please note that highly pathogenic H5N1 avian influenza has been identified in Indonesia, but it poses a negligible risk with extremely rare cases possible among visitors who have close contact with birds (2008)

Population 237,512,352 (July 2008 est.); Religion: 87% Hindu, 3% Christian, 8% Muslim

Visa Travelers from most Western countries do not need a visa and are automatically given a 30 day stay permit upon arrival. Passports must be valid for at least six months upon arrival in Indonesia. Indonesian immigration is very strict. No work is permitted while visiting on a tourist visa.

Indonesian Law is very hard on drug offenders; the death

penalty is regularly applied on narcotics couriers.

Driver's License A valid international driving license is required. Rental car insurance is highly recommended. Drive carefully. Traffic rules are not followed as well as in the West. Accidents are frequent.

Currency Indonesian Rupiah (IDR). Exchange rate: 1EUR=15,052 IDR; 1USD=12,028IDR; 1GBP=17,917IDR; 1AUD=7,577IDR; 1SGD=7,861IDR. Credit cards are accepted by most higher end resorts and businesses. Payment in US\$ cash and traveller's checks is widely accepted.

Dive Season All year round; Underwater visibility varies 15 to 35 meters during dry season, 10 to 20 meters during wet season.

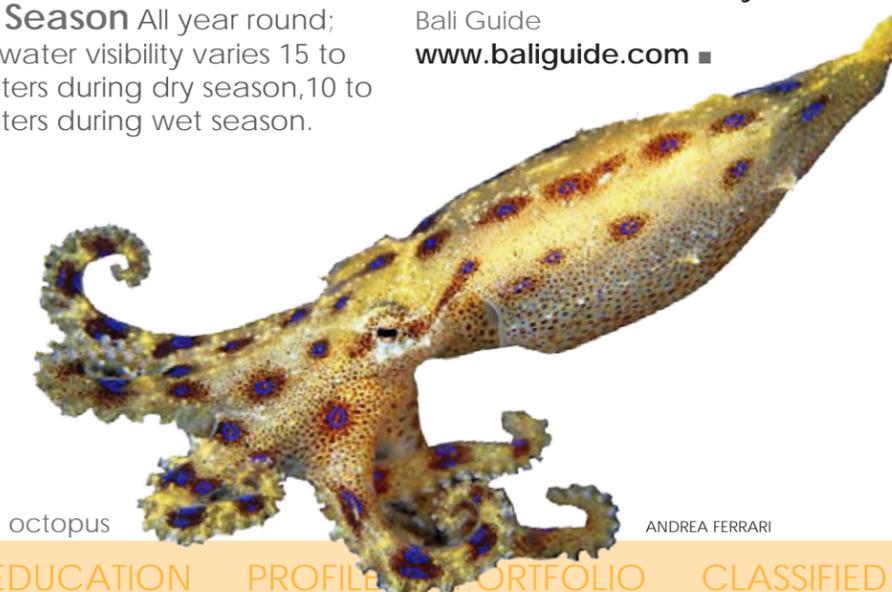
Decompression Chambers

Hyperbaric Medical Department
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www.sanglahbalihospital.com

Rumah Sakit Angkatan Laut
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Web Sites

Bali Tourism Authority
www.balitourismauthority.net
Bali Guide
www.baliguide.com ■



Blue-ringed octopus

ANDREA FERRARI