



Ed.—In this issue, we present comprehensive coverage of Papua New Guinea below and above the waves with reports from Steve Jones and Christopher Bartlett as well as an informative backstory on PNG by Don Silcock who has visited the country on a regular basis for 14 years. Enjoy!

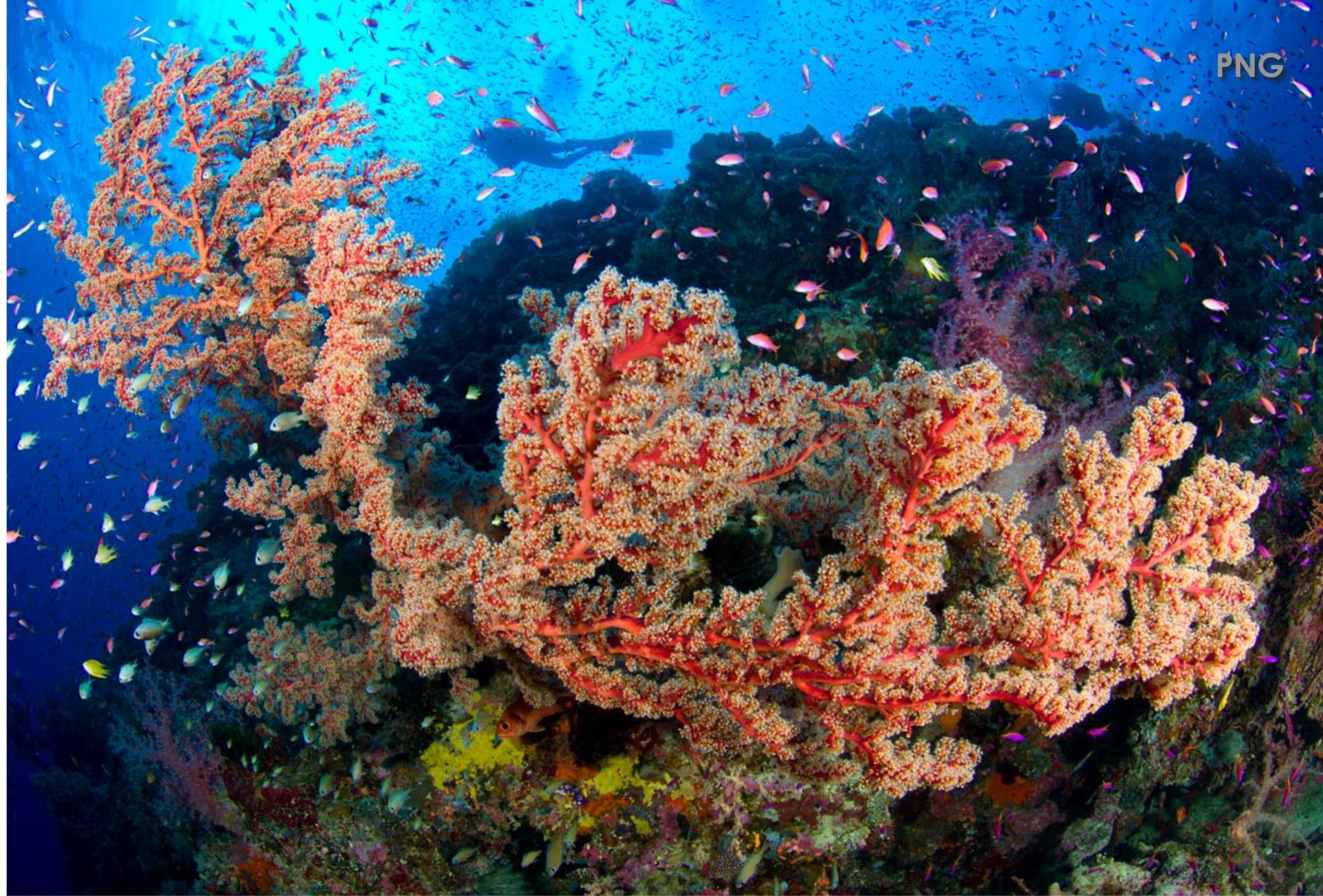
Unity in Diversity

Papua New Guinea

Text and photos by Steve Jones

Spectacular reef scene with sea fan, anthias and diver at Barney's Reef, Witu Islands. PREVIOUS PAGE: Nudibranch (*Chromodoris coi*) on orange sponge, Fathers Reefs, Kimbe Bay

I've been on the road for 36 hours now, and I'm pretty much on the other side of the world from where I started back in rain drenched England. At last, I'm approaching the final legs of the journey—just a short one-hour flight to go. Things have gone smoothly so far, I'm thinking, as I wander up to the check-in desk for the last leg of my trip. "The flights full," the attendant tells me, "You'll have to wait until tomorrow."



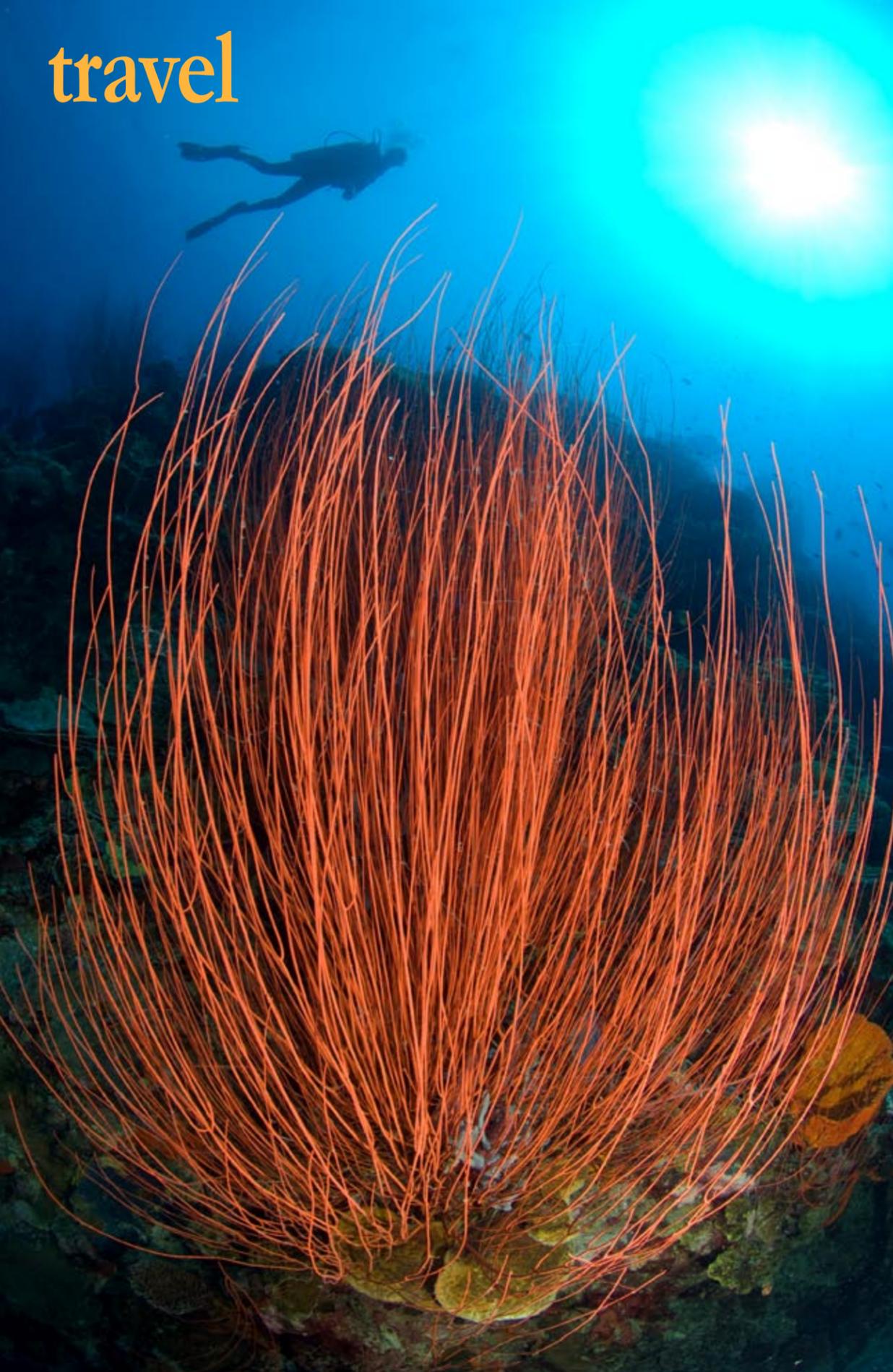
Commensal shrimp, Fathers Reefs, Kimbe Bay

Following a mixture of smooth talking and plain old pleading, I managed to "unoffload" myself, and I'm soon in the air heading for New Britain Island, Papua New Guinea. I should be out for the count, but I'm too excited to sleep. Ever

since I first learned of this country, from the pages of David Doubilet's, *Light in the Sea*, I've wanted to come here. I guess I'm a slow starter, for I read that book nearly 20 years ago! "Make sure you get a window seat!"

was the message from everyone who I knew who'd been here. The view really is staggering. Papua New Guinea is as raw and untamed land as you'll find. The landscape ranges from mountainous highlands to rich rainforest; its ecosystem

attracts scientists from the world over, and upwards of 850 languages are spoken here. With such extraordinary variety, how apt that the country's motto is, "Unity in Diversity". In no time, we touch down at Hoskins



Diver and red whip fan coral



Diver in archway with giant barrel sponge, Fathers Reefs, Kimbe Bay

airport, and from here, it's just a one-hour drive, through endless neatly ordered rows of oil palm, to my destination—Walindi Plantation Resort on the shores of Kimbe Bay. Characterised by a friendly atmosphere nurtured by the owners, Max and Cecilie Benjamin, this has long been the secret haunt of some of the world's best underwater photographers .

Diving

The next morning, I'm heading out to South Emma Reef. Descending into the crystal clear water, the first thing that strikes me is the sheer size of the corals and sponges here. Encircled by tall volcanic mountains, Kimbe Bay's reefs are protected from the fiercest storms, while the mooring buoys in turn keep the

reefs protected from anchors. This has enabled corals to grow undamaged to gargantuan sizes. My descent is checked only by a school of barracuda. Over the next days, it becomes apparent that just about every reef seems to have their own school!

Following Max over the drop off, we soon find a swim through filled with life; the walls are a mass of colour. Emerging through the other side to the upstream side of the reef, the scene is stunning—a wall of fusiliers are being hunted by tuna and huge barrel sponges protrude from the reef wall. The myriad of corals provide shelter for longnose hawkfish, scribbled leatherjacket and fire dartfish—just a few examples of the 900 plus species of fish that have been recorded



Tiny colourful tiger shrimp measures only 2cm



PNG

ABOVE LEFT TO RIGHT: Elegant squat lobster on crinoid; Close-up of a mantis shrimp, Volcano Crater, Witu Islands; Pygmy seahorse on sea fan, Kimbe Bay



Broadclub cuttlefish, Inglis Shoal, Kimbe Bay

in the bay. This reef already ranks amongst the best I've ever seen—and it's only the first dive!

The beautiful underwater formations can be attributed to the large numbers of reef building corals; there are at least 440 species present. Whilst we are moored on the picturesque Restorf Island, we are, however, reminded of the bird life that has made

Papua New Guinea as important for ornithologists as it is for marine biologists. The screech of sea eagles orbiting overhead emphasises the prehistoric feel of this place, whilst underwater, we find a reef adorned with giant elephant's ear sponges.

Reefs like this in places such as the Red Sea or the Maldives would be crowded with dive boats, yet here we are totally alone. I feel like I am discovering a place that has been untouched and unexplored—a sensation that I rarely experience anymore. As I dive these waters,

I am filled with the same enthusiasm and excitement that I used to experience in my youth. I am once again discovering the unsurpassable beauty that the underwater world holds.

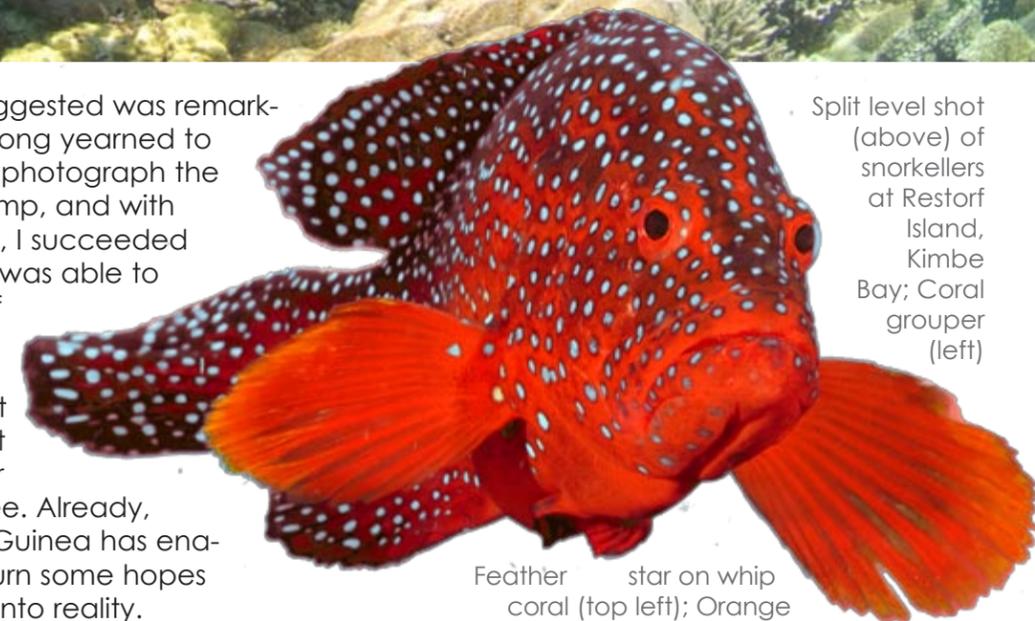
Max operates three day boats from Walindi and just a few safari boats dive these waters—that's it! There are dozens of reefs to dive, and yet, not another boat in sight.

The Witu Islands

Venturing beyond the shelter of the bay requires one of these safari



Nudibranch, *Phyllidia ocellata*



boats, and the *FeBrina* has become a firm favourite amongst serious divers all over the world. She's captained by Alan

Raabe, one of the industry's more flamboyant characters, whose personality is as colourful as the T-shirts he wears. This

diving-focussed ship has both the safety and the enjoyment of the divers foremost on the agenda.

Diversity is everywhere in Papua New Guinea. Not just in the marine life but in the type of diving itself. On my first morning in the Witu's, I awaken moored inside a sheltered volcano crater within Garove Island. From the stunning reefs of Kimbe Bay, I am now in muck diving territory—this is the domain of the critters. The black volcanic mud of the crater is home to countless numbers of the weird and wonderful—ribbon eels, mandarin fish and various species of mantis shrimp.

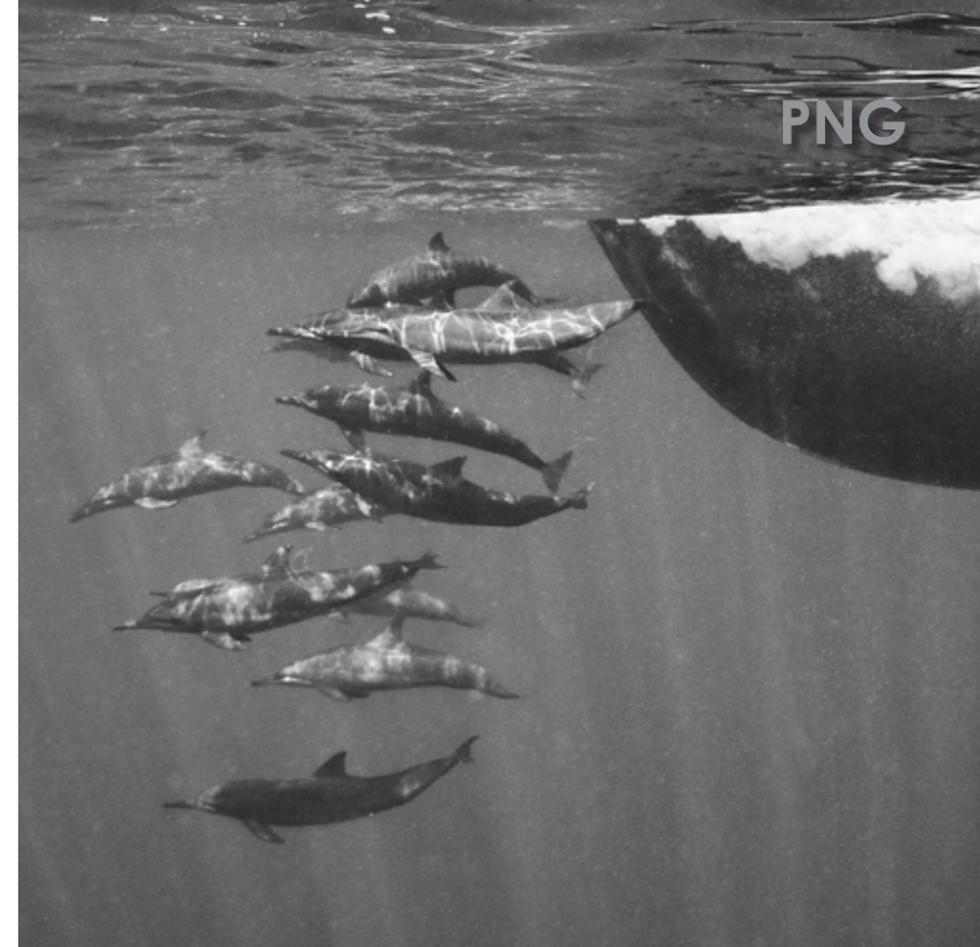
My guide, Digger, has a passion for these creatures, and his ability to find

anything I suggested was remarkable. I have long yearned to observe and photograph the rare tiger shrimp, and with Digger's help, I succeeded in doing so. I was able to watch two of them move across the coral—a sight that I thought I would never be able to see. Already, Papua New Guinea has enabled me to turn some hopes and dreams into reality.

Returning to the *FeBrina*, I am greeted by the beaming smiles of children row-

Split level shot (above) of snorkellers at Restorf Island, Kimbe Bay; Coral grouper (left)

Feather star on whip coral (top left); Orange mantis shrimp in volcanic sand, Volcano Crater, Witu Island (bottom left)



PNG



CLOCKWISE FROM LEFT: Longfin spadefish, Fathers Reefs, Kimbe Bay; Diver amongst school of jacks on Lama Shoals; Dolphins ride the bow of the *FeBrina*; Silvertip shark; Local island children spend their days in the outriggers canoes

ing towards me in their canoes—a particularly enchanting experience. Upon their arrival, our respective modes of transport became trading posts. In exchange for the fresh fruit the group held out to us, we gave pencils, paper and other simple yet desired trinkets. As we followed them back towards land, the haunting songs of local tribesmen greeted us as they practiced for an upcoming festival.

In the thick of the action
The Witu Islands are not just about muck diving—in fact far from it. The offshore reefs build on the tempo of the diving from that experienced in Kimbe Bay—and that is no small feat. From stunning seascapes like the The Arches and the wonderful gorgonians of Barney's Reef, the frenzy of marine activity increases in a crescendo, finally reaching its peak at Lama Shoals, or Krakafat, as

it's more affectionately known . A dive at this site makes the senses roar, for in the thick of the action huge schools of jacks and barracuda orbit overhead, and batfish hover in the current before vast bushes of black coral. Grey reef sharks can be seen cruising back and forth, whilst fairy basslets perform a dance of death with the preying jacks, who work like a pack to bay their quarry. Whilst my mind spins from all this I





PNG



am given a window of tranquillity, as a turtle effortlessly glides down and settles on the reef.

Spectacular formations

After the pristine, coral rich reefs of Kimbe Bay, the Witu Islands had offered big fish school action at its best, tempered with superb critter diving. This is really what makes the diving here so

special—it's the variety.

The Father's Reefs don't buck the trend of offering something different. This reef group lies some 70 miles northeast from Kimbe town and are dominated by spectacular underwater formations and vast expanses of hard coral. Midway reef in particular has a reef top that is covered with stag horn coral as far as the eye can see, while

Fathers Arch is a beautiful grotto filled with countless soft corals and gorgonians.

Encounters with big animals are common in these waters—hammerheads and even orca have been seen in the region. Sadly, I did not witness them, however, three stunning silvertip sharks graced my entire dive on Shaggy's Ridge, whilst at least 15 white tip sharks

CLOCKWISE FROM TOP LEFT: Diver and huge red sponges on reef; Reticulate humbugs gather under stone coral, Fathers Reefs, Kimbe Bay; Scorpionfish resting on reef; Big barracuda (2m-long) patrolling under dive boat



Colourful sea fans at Restorf Island



Leopard Blenny

Colony of red whip corals at Susan's Reef; Hawksbill sea turtle (right), Fathers Reefs

accompanied me while diving Belinda's Reef.

It seemed that as the names of the dive sites became more obscure, so the diving got better and better. So I had high expectations for Killibob's Knob. Alan's sense of humour knew few boundaries when he was thinking of names for the sites!

A gathering place for an impressive number of grey reef sharks, it soon became clear that it was not actually the sharks that rule this reef at all, for the animal that stole the show was a great barracuda. At nearly two metres long, his boldness was in no doubt, after he sent a pair of juvenile greys packing, this bar-



racuda claiming the fish scraps thrown in by the kitchen staff as his own. There is only room for one boss on this reef!



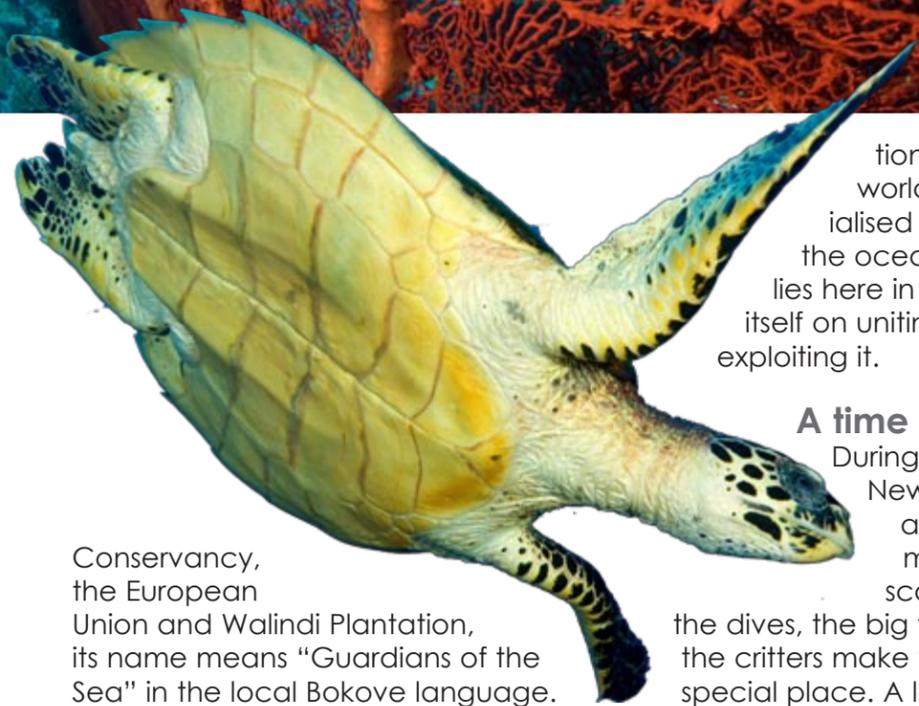
CLOCKWISE FROM ABOVE: Cockpit of a Mitsubishi Zero fighter plane wreck, Kimbe Bay; Diver in swim-through heavily decorated with corals and sponges; Striped blenny on pink sponge, Volcano Crater, Witu Islands, Kimbe Bay; Front view of wreck of a Mitsubishi Zero fighter plane with diver

Conservation through education

As I stand on the jetty of Walindi on my last night, I am joined by Pascal Waka. "I really worry about the state of the world," he says. "The ice caps are melting. The oceans are being fished out... Where will it all end?" His subsequent observations on the

human race's troublesome tenancy of ruining this planet belie his young 25 years of age. Pascal works at Mahonia Na Dari, a marine institute dedicated to protecting Papua New Guinea's reefs through education and research.

Opened in 1996, following a co-operative effort between the Nature



tion for marine scientists worldwide. While industrialised nations lay waste to the oceans, a glimmer of hope lies here in a country that prides itself on uniting diversity, rather than exploiting it.

A time capsule

During my last hours in Papua New Guinea, I reflect on all that it has shown me. The stunning seascapes, the variation in the dives, the big fish action along with the critters make this whole region a truly special place. A land that is caught in a time capsule, just like the World War II Japanese Mitsubishi Zero fighter plane laying silently on the sea bed in Kimbe

Bay, which we'd explored a few days earlier.

The area is a reminder of what coral reefs really can be if protected from humankind's overbearing influence. It's wonderful to see such healthy populations of sharks when they have all but disappeared from many other areas, succumbing to the obscene demand for shark fin soup. As I depart this land, I can't help wondering how much time the sharks of Killibob's have left? ■

The author wishes to thank the team at Walindi Resort and MV FeBrina liveaboard for their help in creating this article. Steve Jones is an underwater photographer and journalist in the United Kingdom. See: www.millionfish.com

Conservancy, the European Union and Walindi Plantation, its name means "Guardians of the Sea" in the local Bokove language. It has provided courses for thousands of school children all over the country, as well as being an important research sta-

CLOCKWISE FROM TOP LEFT: Red sea fan with diver, Susan's Reef, Kimbe Bay; Diver with bright orange sponge at Kimbe Bay; Wreck of a Mitsubishi Zero fighter plane with diver, Kimbe Bay; Hawksbill sea turtle

fact file

Papua New Guinea



SOURCE: CIA.GOV WORLD FACTBOOK

History In 1885, the eastern half of the island of New Guinea, which is the second largest in the world, was divided between Germany, which held the north, and the United Kingdom, which held the south. In 1902, the latter area was transferred to Australia. During WWI, Australia occupied the northern portion and continued to govern the combined areas until independence in 1975. A secessionist revolt on the island of Bougainville ended in 1997 after nine years of violence, which claimed some 20,000 lives. Papua New Guinea's indigenous population is one of the most heterogeneous in the world. The country has several thousand separate communities, a majority with only a few hundred people. Over millennia, some of these communities divided by language, customs, and tradition, have engaged in local tribal conflict with their neighbors, which has been increased in large part by the introduction of modern weapons and migrants into the cities. Government: Constitutional parliamentary democracy and a Commonwealth realm. Capital: Port Moresby

Geography Papua New Guinea is located in Oceania, a group of islands including the eastern half of the island of New Guinea between the South Pacific Ocean and the Coral Sea, east of Indonesia. Coastline: 5,152km. Its terrain is mountainous, with rolling foothills and lowlands along the coast. Lowest point: Pacific Ocean 0m. Highest point: Mount Wilhelm 4,509m. The country shares the island of New Guinea with Indonesia.

Along the southwest coast, PNG has one of world's largest swamps

Climate Tropical. The northwest monsoon occurs December to March, the southeast monsoon, May to October. Slight variations of temperature are seasonal. Natural hazards: situated along the Pacific "Ring of Fire", PNG has active volcanism and experiences frequent and sometimes severe earthquakes, mud slides, and tsunamis.

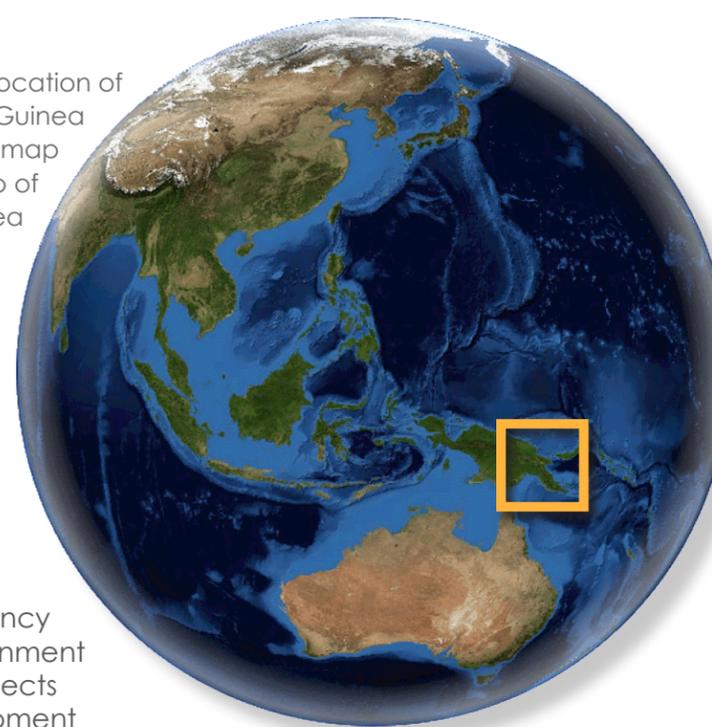
Economy Natural resources abound in PNG. However, getting to them has been difficult due to the rugged terrain, issues with land tenure as well as expensive infrastructure development. Around 85% of the population live on subsistence farming. Two-thirds of export income comes from mineral deposits such as copper, gold and oil. Estimates of natural gas reserves come to about 227 billion cubic meters. Construction of a liquefied natural gas (LNG) production facility planned by a consortium led by a major American oil company could develop export of the resource in 2014. It is the largest

project of its kind in the history of the country and could help the nation double its GDP. Transparency will be a challenge for the government for this and other investment projects planned. Other areas of development



by the government include more affordable telecommunications and air transport. Prime Minister Peter O'NEILL and his administration face challenges that involve physical security for foreign investors, building investor confidence, increasing the integrity of state institutions, bettering economic efficiency through

RIGHT: Location of Papua New Guinea on global map
BELOW: Map of Papua New Guinea



privatization of state institutions operating under par, and continuing good relations with Australia, which ruled PNG when it was a colony.

Environment Growing commercial demand for tropical timber is leading to deforestation of PNG's rain forests. There is pollution from mining projects and severe drought. PNG is party to: the Antarctic Treaty, Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Endangered Species, Environmental Modification, Hazardous Wastes, Law of the Sea, Marine Dumping, Ozone Layer Protection, Ship Pollution, Tropical Timber 83, Tropical Timber 94, Wetlands

Population 6,057,263 (July 2009 est.) Ethnic groups: Melanesian, Papuan, Negrito, Micronesian, Polynesian. Religions Roman Catholic 27%, Evangelical Lutheran 19.5%, United Church 11.5%, Seventh-Day Adventist 10%, Pentecostal 8.6%, Evangelical Alliance 5.2%, Anglican 3.2%, Baptist 2.5%, other Protestant 8.9%, Bahai 0.3%, indigenous beliefs and other groups 3.3% (2000 census). Internet users: 120,000 (2008)

Clown anemonefish in a purple anemone at the dive site Dickie's Place in the Witu Islands, Kimbe Bay

Language Tok Pisin, English, and Hiri Motu (official languages). In PNG, some 860 indigenous languages spoken, over one-tenth of all languages. Note: A creole language, Tok Pisin, is widely used and understood. English is spoken by 1%-2%; Hiri Motu is spoken by less than 2%

Health There is no risk of disease when eating at the resorts! The food is fantastic! However, outside the resorts, be aware that there is a very high degree of risk for food or waterborne diseases such as bacterial diarrhea, hepatitis A, and typhoid fever; as well as vectorborne diseases such as dengue fever and malaria (2009)

Currency Kina (PGK). Exchange rates: 1EUR=2.67PGK; 1USD=2.12PGK; 1GBP=3.37PGK; 1AUD=2.19PGK; 1SGD=1.70PGK

Decompression Chambers

Melanesian Hyperbaric Services
Jacksons Airport, Port Moresby
Emergency tel: 6930305 or 6931202 (ISD Code 675)

Websites

Papua New Guinea Tourism
www.pngtourism.org.pg





Villagers from Bauwame, near Tufi in Oro Province, in traditional dress

Expect the Unexpected
Papua New Guinea

Text and photos by Don Silcock
Supplemental photos by Steve Jones

Papua New Guinea is truly one of the last frontiers—the country is a wild and adventurous place and offers some tremendous scuba diving, combined with many unique and fascinating things to see above the water. One of the world’s most heterogeneous countries, Papua New Guinea (PNG) has a population of around 6.5 million people, but over 850 languages and nearly 1,000 traditional societies and ethnic indigenous groups. This tremendous diversity is the result of the country’s mountainous terrain and dense vegetation whereby tribes and clans formed as a self-defense mechanism—leading to thousands of separate communities.

Low-level conflict between neighboring tribes was usually (and in many places still is) the norm, which meant that each tribe tended to limit itself to its defined area and resulted in the large number of traditional societies and languages. Even today less than 20 percent of PNG’s population live in urban areas, with the remainder usually following a traditional

village and subsistence farming based lifestyle—many without power or running water, and where ‘luxuries’ such as soap, cooking oil and clothes are few and far between. Located north of Australia, PNG occupies the eastern half of the island of New Guinea, (the second largest island in the world), the Bismark and

Louisade archipelagos, the Admiralty Islands, Bougainville Island and numerous other smaller islands in the Bismark and Solomon Seas.

First contact
Possibly one of the most intriguing aspects of PNG is that it is only about 70 years since ‘first contact’ was made with

the highland people of New Guinea. Incredibly, that contact was made by an Australian prospector called Michael Leahy from rural Queensland, who not only extensively documented his experiences in a daily journal, he also took an extensive series of photographs using his Leica camera—thus providing a unique insight into an amazing series of events.

The discovery of significant gold deposits in 1926 at Edie Creek, near Wau on the north coast of New Guinea created a gold rush and spurred the Australian colonial government to venture inland and explore the very rugged interior. It had been assumed that the chain of mountains, that run east to west across the country, was so rugged that nobody

could possibly live there. Unknown was the fact that there are actually (in very simple terms) two parallel mountain chains and in between them are a series of fertile valleys, which were populated with a large number of highland people.

Equally ironically, the highlanders lived very parochially in thousands of separate small communities, each with its own network of allies and enemies. The fertile soils of the valley provided the communities with what they needed, and it was just too dangerous to travel outside the safety of their tribal territory, so there was a kind of 'Lost World' of people completely isolated from the rest of the world and living what was basically a Stone Age existence.

Michael Leahy, his brother Dan and Patrol Officer James Taylor were the people who made that first contact during the five years they spent exploring the highland region, from 1930 to 1935, looking for gold prospects.

World War II

Papua New Guinea was a major theater in the battle for the Pacific during WWII, with the Japanese forces landing first in Kavieng, New Ireland on 21 January 1942 and soon after at Rabaul in New Britain, which they proceeded to turn into a major base.

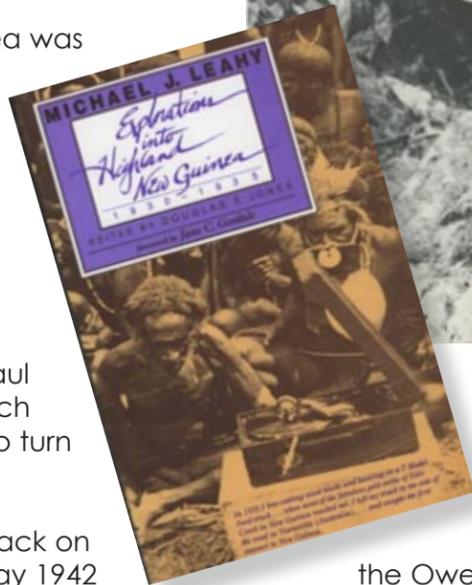
The Japanese launched their attack on Port Moresby in May 1942 from Rabaul, as the precursor to the invasion of Australia. But in the Battle of the Coral Sea, U.S. carrier-based aircraft and the Australian Navy

succeeding in forcing the Japanese armada back to Rabaul.

In June 1942, after suffering devastating defeat at the Battle of Midway, the Japanese abandoned trying to take Port Moresby by naval attack and launched a surprise landing near Buna



Michael Leahy, Australian prospector



on the northeast coast of PNG, using it as a base from which to launch an overland advance across

the Owen Stanley mountain range. These mountains reach a height of 13,000 ft and are like a spine that runs down the Papuan peninsula creating a formidable, saw-toothed, jungle barrier

that separates the northeast from the southwest of the country. The defeat of this attack by the Australian Army on the Kokoda Track is one of the finest moments in the military history of Australia.

The remnants of the war are to be found all over the country, both above and below the water, and make Papua New Guinea one of the best places in the world to dive on WWII wrecks—particularly aircraft.

Australian Colonial Rule and Independence

When the Japanese invaded Rabaul in 1942, the British colonial territory of Papua and German New Guinea were merged together in to a single entity and administered as a one colony by Australia. After the war Australia remained in control of the country until full independence was granted in September 1975.

When visiting Papua New Guinea, it's very easy to get the impression that it was 'happy days' all round during colonial rule, and Australia ruled with great wisdom and generosity. Many older local people who experienced those times will tell you that it was much better back then—'gut taim bipo' (good times before). But the truth is that PNG was just not ready for independence in 1975, and many of the problems that plague the country to this day can be traced back to the rushed nature of that transition point.

The Wantok System

An appreciation of the 'Wantok system' is important in gaining a better understanding of today's Papua New Guinea, as the system is both the social glue that binds the nation together, while probably being the largest single impediment to the country's develop-





Distinctive facial tattoos of female villagers in Oro Province

On their time off, locals relax on the sidewalk and enjoy watching the street life

PNG

The negative side is that the political system in PNG is such that anybody elected to the parliament has to basically promise the earth to all and sundry, but this is particularly so to any of their Wantoks, creating a situation where a great deal of public money is consumed but there is very little to show for it.

Is it safe to go there?

This is a very common question and one I have been asked a lot but generally only by those people who have not yet been to PNG. And well, the honest answer is no, it's not 100 percent safe, but in my experience, the risks are manageable and are far outweighed by the overall experience.

I have lived in Sydney for the last 14 years and can honestly say that I have never had a single situation where I felt threatened or in any real danger. Is that because Sydney is 100 percent safe? No, it's not. What it really means is that I use my common sense and avoid areas or venues where there could be trouble. Coincidentally, I have also been visiting Papua New Guinea on a regular basis for about 14 years and also not had a single situation there where I felt threatened or in any real danger—again, because I used my common sense.



STEVE JONES

expensive place, and personally I don't find it very appealing.

The dan-

ger is principally from the Raskols, local gangs that have become a permanent and very negative feature of Port Moresby, and some other major cities in PNG such as Mount Hagen and Lae. Virtually every expat I have spoken to in Port Moresby seems to have a "near miss" story and some have stories that are really scary. But I really don't think the place is the "near death" experience these stories and the media tend to make it, and in reality, I believe it is actually the local people that suffer the most from the Raskols.

A violent crime against an expat will usually bring severe retribution from the police, whereas similar crimes against the locals appear to be much more common and not a lot seems to be done



STEVE JONES

THIS PAGE: Faces of the people of PNG

ment.

PNG is basically a patchwork quilt of nearly 1,000 traditional societies and ethnic indigenous groups. There are over 850 different languages (one third of the world's total languages still used), and one common tongue—Tok Pisin, the lingua franca spoken by the majority of the population. Wantok is Tok Pisin for "one language" and refers to the language of the tribe a person belongs to. But Wantok

is much more than a language as it encompasses the basic philosophy of life for the people of PNG, and if one of your Wantoks is in trouble, needs money or is hungry, you are compelled to help them as much as you possibly can. The positive side is that because there are such limited basic services for the people in general, and no safety net for the poor, the Wantok system effectively performs that role.

Port Moresby

Unless your final destination is Loloata Resort in nearby Bootless Bay, all scuba diving trips to PNG involve either transiting through, or overnighing in, Port Moresby as the capital is the only international gateway into the country. In my experience, this is probably the most intimidating part of any journey to PNG, because there is definitely an element of danger in Port Moresby, plus it's also an





Underwater scenes from Milne Bay, PNG: Diver and giant elephant ear sponges; Coral grouper on reef; Rhinopias or lacy scorpionfish (below)

about them. Apparently very few, crimes against expats are planned—instead they tend to be random and opportunistic occurrences where a Raskol seizes the chance that has suddenly presented itself.

For visitors to Port Moresby, being involved in such a random event is probably the biggest danger you will actually face, and that is only likely to happen if you are particularly careless, such as walking around unaccompanied with an expensive looking camera or wrist watch, or maybe a visibly bulging wallet.

Local people in PNG tend to sit on the ground and watch the world go by when they have nothing to do, which can be very intimidating to the uninitiated visitor who will already be semi-paranoid about raskols just waiting to

pounce. While it is unlikely that they will be wearing a T Shirt with "Raskol" on the front to identify themselves, the fact is that you will probably know one should you cross paths with one—or more.

So, the trick is to use your common sense and get out and see the things Port Moresby has to offer but use the guided tours offered by all the hotels to do that. The guides will know the potential trouble spots, who the possible trouble makers are and steer you well clear.

Away from Port Moresby, in the bigger towns such as Alotau in Milne Bay and Rabaul and Kimbe in New Britain of Kavieng in New Ireland I have wandered around alone, and while I did not feel completely safe, I did not experience any problems.

Some excellent general safety tips I

picked up from the Lonely Planet are as follows:

- Use a Bilum: Bilums are the locally made colorful string bags that everybody seems to use in PNG and using one does a lot to neutralize the flashing "I'm a tourist" sign above your head that draws attention to you.
- Raskol money: Have some money ready in your pocket in case you do have a "raskol moment" and keep the rest of it well hidden.
- Pay Friday: The locals get paid fortnightly on a Friday, and the younger men get on the grog in a big way—stay well clear. ■

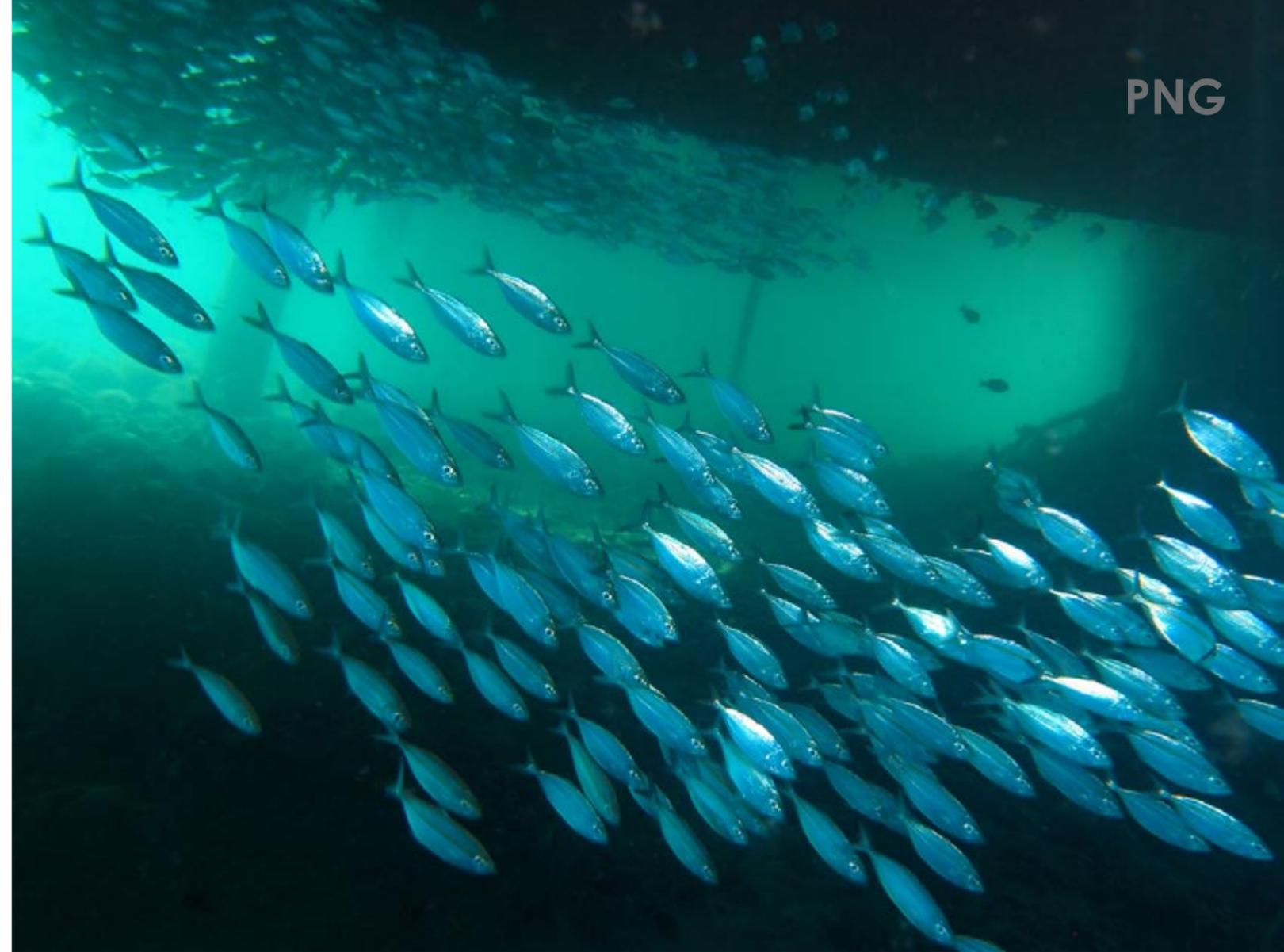
For more information, visit:
www.indopacificimages.com



Tufi, New Ireland & **Papua New Guinea** *Milne Bay*

Text and photos by Christopher Bartlett





PNG

Is there another country anywhere with so much diversity? The six million inhabitants of this nation of mountains and islands are spread over 463,000km² of mountainous tropical forests and speak over 800 different languages (12 percent of the world total). Papua New Guinea occupies half of the third largest island in the world as well as 160 other islands and 500 named cays.

Located just south of the Equator and to the north of Australia, Papua New Guinea (PNG) is a diver's paradise with the fourth largest surface area of coral reef ecosystem in the world (40,000km² of reefs, seagrass beds and mangroves in 250,000km² of seas), and underwater diversity with 2,500 species of fish, corals and molluscs. There are more dive sites than you can shake a stick at with many more to be discovered and barely a diver on them. The dive centres are so far apart that there is only ever one boat at any dive site.

It is one of the few places left in the world where a diver can see



Moorish idol (above); There are colorful corals everywhere (left); Schools of fish under the dive boat in the harbor (top). PREVIOUS PAGE: Clown anemonefish on sea anemone



CLOCKWISE FROM LEFT: Diver and whip corals on reef; Beach view at Tufi; View of the fjords of PNG from the air

the misty clouds at the swath of trees below, occasionally cut by the hairline crack of a path or the meandering swirls of a river. The jagged peaks of the Owen-Stanley range that run down the spine of the island weren't that far away, as we headed east from Port Moresby to Tufi. The landscape was rugged to say the least, and it was easy to understand why both Australian and Japanese troops had struggled during the Second World War battles there.

As we approached the east coast of Oro Province, the spectacular fjords of Cape Nelson came into view—a strange mix of gla-



PNG

macro critters, pelagics and big stuff as well as fantastic soft and hard corals. The often misused and abused adjective, 'pristine', is actually appropriate here due to low fishing pressure in the area in comparison to other areas of the Coral Triangle, no dynamite fishing and a system implemented by dive resorts whereby local reef owners receive a small fee for every diver who visit their reef. As a result, elders make

sure that the reefs are not fished.

So, where to go? We set off on a four-resort tour to the north and the south taking in the provinces of Milne Bay, Oro and New Ireland.

Tufi

Sitting at the back of the De Havilland Twin Otter with my partner, Imi, and an American Mom-Dad-and-teenage-son-combo in front, I peered through



cial action now topped by lush tropical forest, with aqua coral reefs surrounding the headlands clearly visible in the cobalt blue of the Solomon Sea. Banking steeply, we lined up with the gravel airstrip and touched down. Two 4WD vehicles were waiting for us to take us on the one-minute drive to the resort.

With a fruit juice in hand, we whizzed through the usual paperwork and were asked to leave our dive gear outside our rooms in 20 minutes and meet at the reception area from where we were taken down to the dive centre. Less than 90 minutes after landing, the five of us plus instructor Glen and dive master Alex were in a boat and heading off across the flat sea to Bev's Reef—part of the mid-distance reef system and one of the several Tufi reefs with a manta cleaning station. Using a well-drawn dive site map, Glen laid out the plan for a drift dive, and off we went.





Bev's Reef. Imi hadn't dived for four months, and I had the new camera, so we were planning on just chilling and getting comfortable again—a wall dive seemed ideal. Rolling in, we both burst into grins not just from the simple pleasure of being in the water again, but because of the clear blue water filled with corals, reef fish and colourful purple, yellow and white sea squirts. There were nudibranchs and schools of fusiliers and snappers, whitetip reef sharks and three of the nine species of anemonefish found in PNG.

Wending our way slowly at the back of the group, coming over the top of a coral outcrop to have a gander for big stuff that might be hanging out in the current, I had to do a double take. Sitting there next to a crinoid was one of PNG's underwater grails—a black Merlet's or lacy scorpionfish (*Rhinopias*

aphanes) which has the peculiar habit off shedding its skin every three months or so. Photographers search for these for days and days, and here I was pointing an unfamiliar camera at one after barely 30 minutes in the water. It turned out to be the first of two that I saw, but it was the start of a long list of new sightings for me.

Veale's Reef. One of Tufi's signature sites is Veale's Reef, often dived on the same trip as Bev's. Veale's is often frequented by an albino hammerhead, but not on this occasion. Still, it was hard to grumble with all the schools of baitfish, barracuda, black and white snapper, batfish, some Spanish mackerel, as well as a swift-moving green turtle and a couple more whitetips swimming around. We certainly had enough to talk about over a late but delicious



CLOCKWISE FROM LEFT: Outrigger trip; Lacy scorpionfish; Tufi Resort; Nudibranch flabellina; Barracuda



CLOCKWISE FROM FAR LEFT: Diver on Cyclone Reef; Life on Nuggets Reef; Diver exploring healthy reef; Grey reef shark on Jack Daniels Reef



lunch on the veranda.

Blue Ribbon Reef. Some reefs are just a short trip away, such as Blue Ribbon Reef just round the runway headland, which we dived during a tropical storm. The sea turned an atmospheric deep blue as we searched for, you guessed it, ribbon eels. Not all ribbon eels are blue—far from it, in fact. They are all born black with a yellow dorsal stripe; adult females are yellow with a black anal fin with white margins on the fins, and only adult males are blue with a yellow dorsal fin.

Outer reefs. The outer reefs are a 30-minute boat ride away, and Cyclone Reef is one of them. The story goes that it appeared from nowhere after a severe storm in 1972, brought up from the depths by the elements. Its very top breaks the surface of the sea and is a haven for mating seabirds. Over the edge, it drops away into a wall dive, once again buzzing with reef life, and out in the blue, we spied two hammer-

head sharks cruising past.

Minor Reef is nearby and often dived in tandem with Cyclone. The reef top sits a few metres below the surface, and its plate and staghorn corals bask in the sunlight illuminating the damselfish that adorn them, making it a great spot for no-flash photography. It is named after the large bright yellow and black *Notodoris minor* nudibranch that is often found there.

Back at the resort, looking at the maps on the walnut-panelled walls gives one a better sense of the remoteness and the size of the area. Whole swathes of the Solomon Sea, starting where Cyclone and Minor Reefs are marked, are uncharted. There are basically reefs everywhere out there.

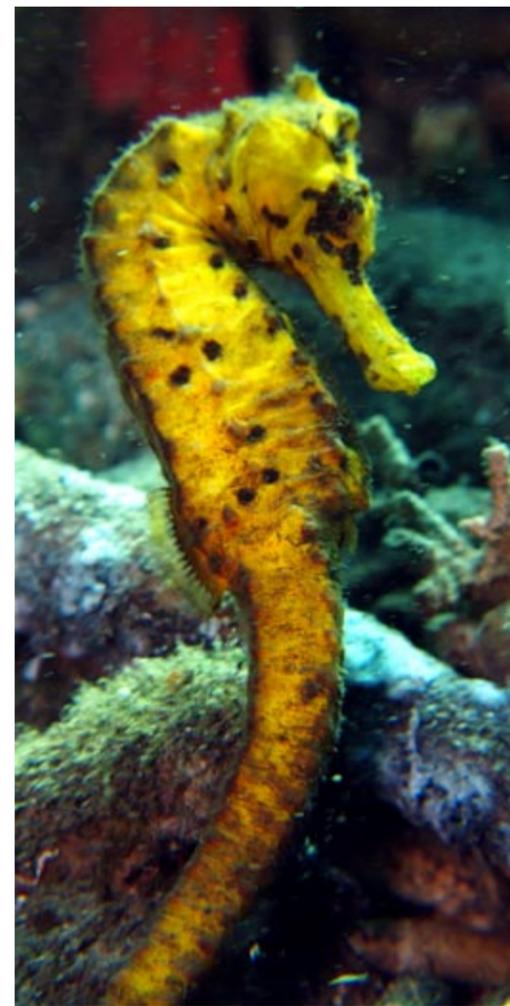
Jack Daniels and Nuggets are two recently discovered reefs, and Glen and his brother, Archie, were keen to get us out to them. Armed with a small plastic bottle with a little water in it, Archie began crunching and rolling it between

his hands as soon as we were down Jack Daniel's slope and onto the wall. Within a couple of minutes, he had attracted the attention of four grey reef sharks. They didn't seem very used to human interaction and kept their distance, as did a couple of sea turtles. The sharks occasionally darted a bit closer to recce us odd-looking, large, bubble-blowing creatures, and a couple of whitetip reef sharks came by for a look, too.

With our appetites for diving well and truly whetted, we went for an afternoon dive off the public wharf. It is talked up as a photographer's delight and one of the best spots in the world for so-called muck-diving. Muck-diving gets its name from apparently uninteresting sites that can be either silty, sandy, muddy or just rather barren-looking, but are actually home to a large number of small, weird and wonderful creatures.

Tufi Wharf. Tufi's wharf dive site is more of a junk dive than a muck dive. The





PNG



sloping wall of the fjord is littered with debris from the harbour's previous life as a torpedo patrol boat base during WWII, dumping of old bits of machinery, the odd fuel drum and some girders, which were no doubt formerly part of the jetty. There are also the remains of a PT boat and its torpedoes down at 45 metres. However, there was more than enough along the fjord slope and wall to keep us occupied, with ornate and robust ghostpipefish, frogfish, ringed pipefish, common seahorse, loads of nudibranchs, crab-eye gobies, anemonfish, mantis shrimp, cleaner shrimp and lionfish to gander at. Plus, 50 metres past the remains of the torpedo boat wharf were more walls, little caves and tons of sponges on the corner of the harbour.

If you fancy a fourth dive in a day, dusk dives are available, and Alex and Archie—the eagle-eyed guides—are experts at finding nocturnal action right by the wharf, including brightly-patterned mandarinfish.

Topside activities. If three or four dives a day is a bit too much, there is plenty to do to fill your surface time actively. On Sunday, we were paddled up McLaren Sound in an outrigger and advanced into the forest until it became too shallow to make further progress.

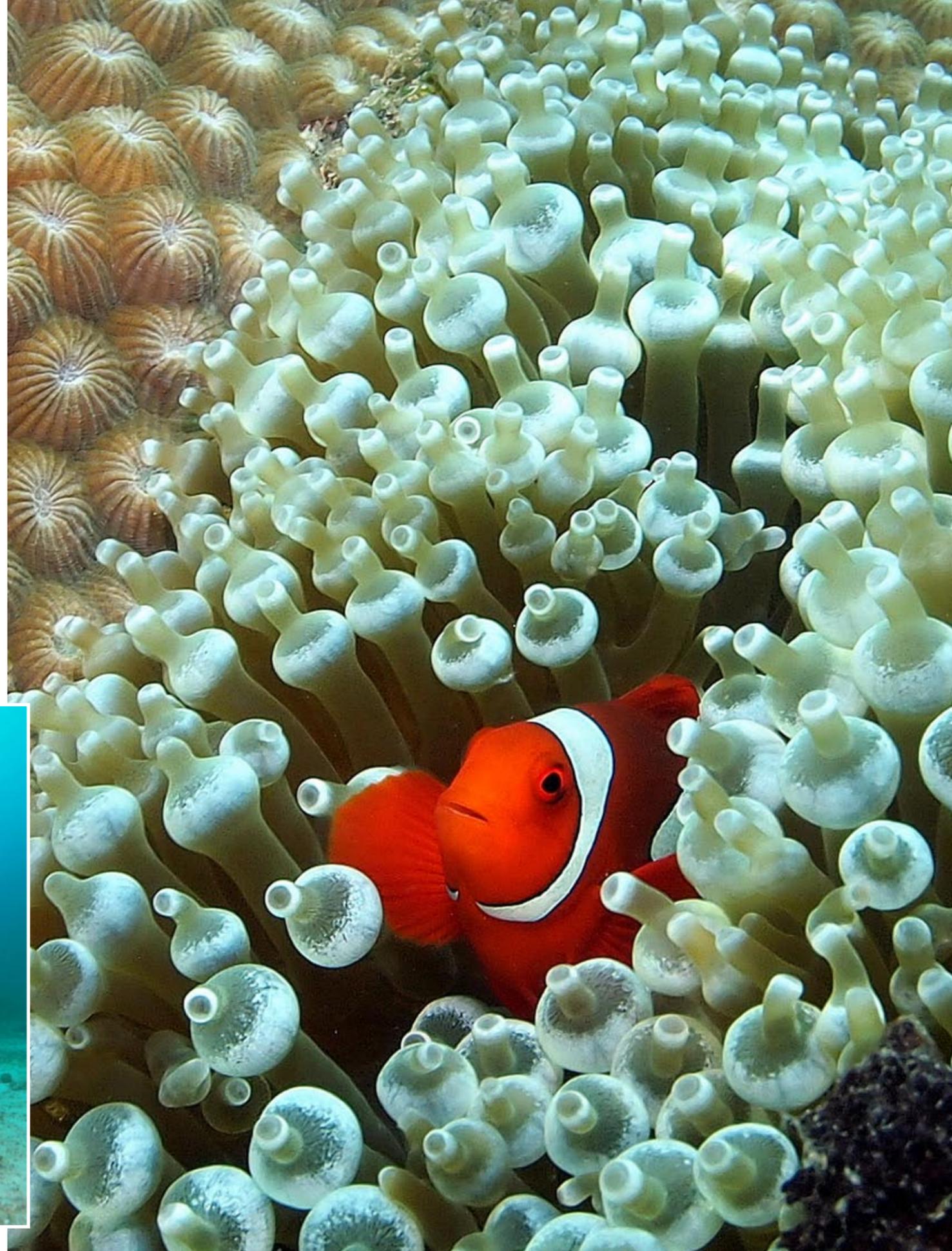
After a short walk, we were given an insight into village life, traditions, the uses of various plants and trees and viewed demonstrations of tattooing and sago-making before being paddled back to the dive boat, which whisked us to a white sand beach on the headland opposite the resort for a barbecue lunch and afternoon swim.

In the afternoon, you can also walk through the village, or amble down to the dock, and watch the locals from the surrounding area come in on their outriggers for a trip to the store by the wharf or to trade in the village. There is a steady trickle of comings and goings if people-watching is your thing, but the main event is the Saturday evening



CLOCKWISE FROM LEFT: Fang blenny; Nudibranch Kune's chromodoris; Ornate ghostpipefish; Seahorse; Map pufferfish cleaned by a wrasse; Crab-eye or twin-spot goby





CLOCKWISE FROM TOP LEFT: Tiny anemone shrimp on tube anemone; Whip coral goby; Spinecheek anemonefish; Catalina flying boat wreck; Nusa Resort



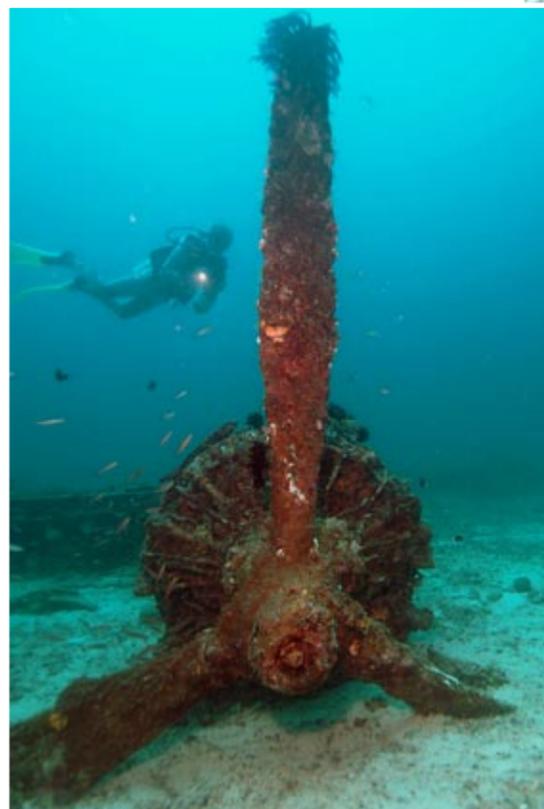
the small beaches, we'd see an outrigger parked upon the shore and hear voices in the distance, mainly children whooping with laughter, frolicking unseen in the trees. It is certainly a place that should inspire happiness.

New Ireland

Two hours' flight north-east of Port Moresby, with a ten-minute stop in West New Britain near the site of PNG's last volcanic eruption, lies Kavieng, the capital of New Ireland Province. Located at the northern tip of a 380km-long island, sleepy Kavieng and its 11,000 inhabitants hold few attractions for most of the trickle of tourists who venture here to dive and to surf and no accommodation worth staying in. Yet, if you like wandering around dusty betel nut-stained streets and dim and musty shops, an afternoon in town after a dive is an interesting experience

and was another opportunity for us to experience the friendly nature of the locals.

New Ireland's diving has a reputation for pelagics and sharks that



wharf market that springs up when the weekly ferry comes in from Popandetta. That said, I would have gladly dived the sites we did over and over again; every dive was a "Wow dive".

On our final afternoon, we took a two-seater canoe and paddled up the fjord, hearing the sounds of the forest as we went. We canoed the deep blue in the centre of the fjord, apparently bottoming out around 200 metres below, and would pop over to the shallow reef tops for a dip and a snorkel. At many of

with a ten-minute stop in West New Britain near the site of PNG's last volcanic eruption, lies Kavieng, the capital of New Ireland Province. Located at the northern tip of a 380km-long island, sleepy Kavieng and its 11,000 inhabitants hold few attractions for most of the trickle of tourists who venture here to dive and to surf and no accommodation worth staying in. Yet, if you like wandering around dusty betel nut-stained streets and dim and musty shops, an afternoon in town after a dive is an interesting experience





CLOCKWISE FROM FAR LEFT: Dwarf hawkfish; Diver and large purple branching soft coral; Wreck of the Japanese Jake WWII airplane; Der Yang wreck; Chalet at Nusa Island Retreat; Diver and large cuttlefish



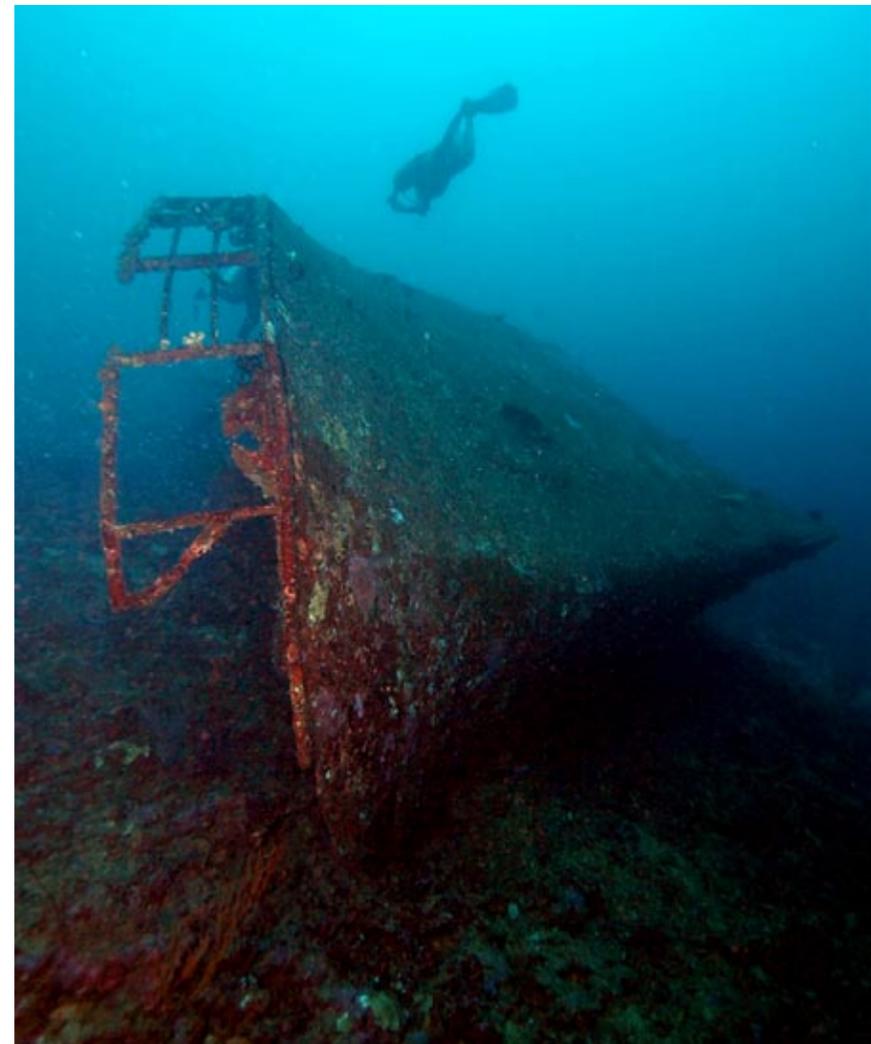
opposite Kavieng harbour in the morning, he and his wife, Cara, took us to sites in both the Bismarck Sea and South Pacific Ocean. Some of the South Pacific sites such as the trevally- and anemone-festooned Echuka Patch and the *Der Yang* shipwreck were less than a ten-minute putter away. The Japanese Pete and Jake float planes stationed here when Kavieng was under war-time occupation, were so close we'd arrived before we could kit up, as were the remains of a Catalina flying boat and several unexploded bombs.

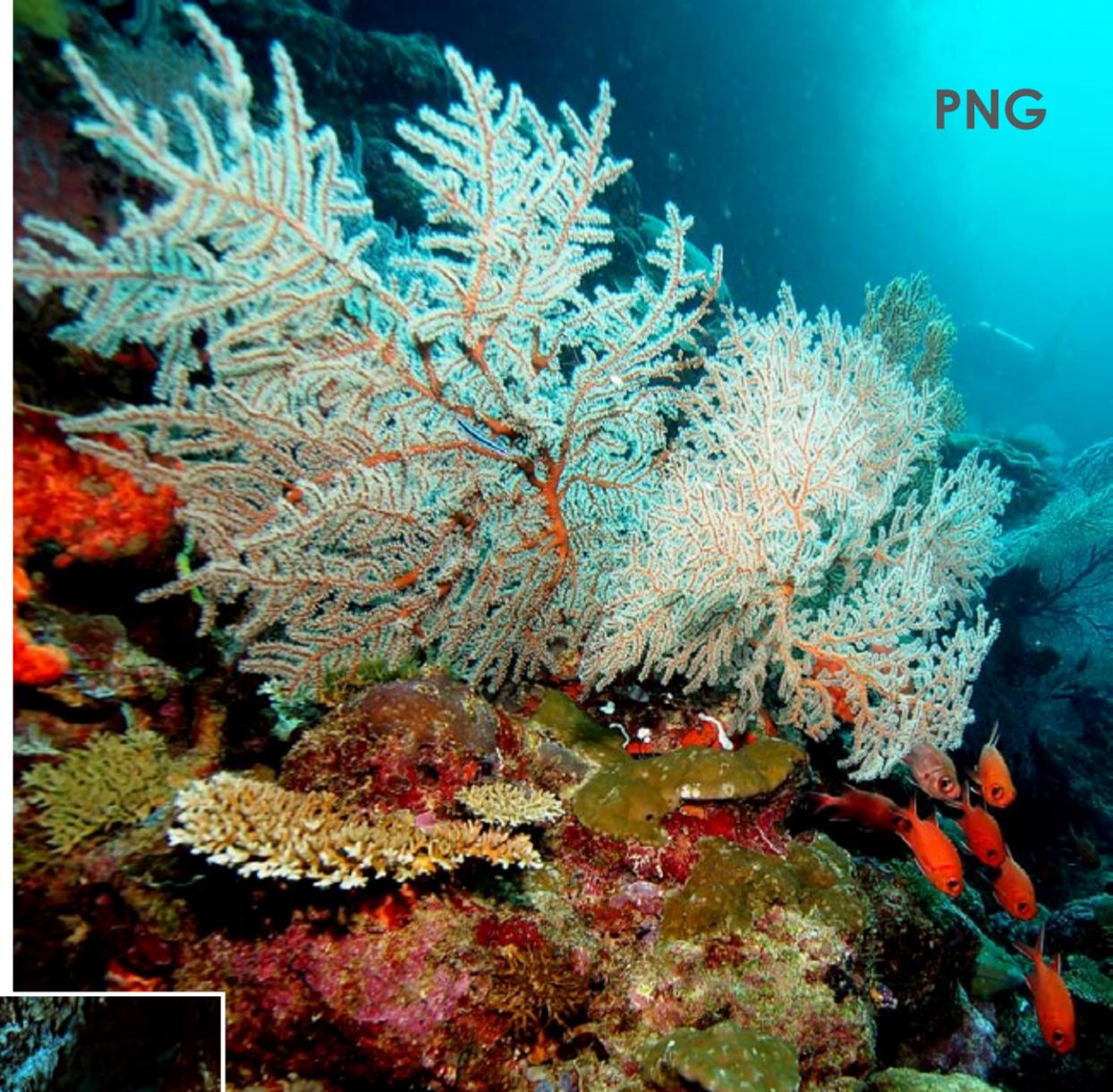
are attracted by the fresh deep water that is flushed between the multitude of small islands and passages making up the area; dogtooth tuna, Spanish mackerel, trevally, barracuda and blacktip, whitetip, silvertip and grey reef sharks all came out to play. New Ireland also has a good mixture of vibrant and colourful reefs, a few interesting muck-diving sites and WWII plane wrecks aplenty.

Dorian Borchers, joint-owner of Kavieng Scuba Ventures, has a wealth of knowledge of both the Japanese and Allied planes found in the area. Picking us up from the doorstep of our villa on the water's edge, under the palm trees at Nusa Island Retreat

Bismark Sea dive sites. The Bismark Sea sites were a little further—about half-an-hour away—but are well worth the trip through the islands and mangroves. Albatross Passage has stunning soft coral coverage and a wide range of fish, with pygmy sea-horses, cuttlefish, dogtooth and sharks. On an incoming tide, it is a truly excellent dive. Down by the wall and on the sandy shelf, it is calm but ends with a safety stop on reef hooks watching the action below as the current pumps past.

On the way back, the B-25 *Stubborn Hellion* awaits in 12 metres of water on the edge of the mangroves. Sixty-eight years after crashing into the sea after sustaining





THIS PAGE: Scenes from freshwater cave diving; Fan coral at Nusa (above)



twin-machineguns in the top aft turret. The current can also adversely affect visibility on occasion, and we caught what was described by both dive centres as unusually poor viz. It is all relative, though, and a measure of how good it usually is. The very worst we had was 15 metres!

Cave dive. Dorian is a positively affable chap with a fun sense of humour, a John Holmes moustache,

and will, at some point, have you laughing till your mask fills, and you can barely keep your regulator in. But he takes his diving seriously. It was only after we'd been diving together for three days that he asked if I'd like to do an afternoon freshwater cave dive half an hour inland. You bet! Despite having well over a 1,000 dives in my log-book, I'd never done a penetration dive, so was a touch nervous, as we clambered carefully down inside the mouth of a cavern.



With two torches each, we carefully slipped into what appeared to be nothing more than a large puddle, mindful of not disturbing the fine silt on the bottom, and followed an orange safety line down and in to the cave. After an initially narrow section, we emerged into a series of huge caverns draped in stalactites

and stalagmites full of gin clear water, troubled only by the odd halocline. The environment and total stillness were enthralling in their own right, but it was even more thought-provoking with the knowledge that the water level was once much lower and the caves surely inhabited. Close to the entrance and exit, in six metres of water, lie the remains of Japanese rice bowls and a clay bottle made in the late 1800s in the Netherlands. It begs the question what older relics might lay further in.

As well as being home to Nusa Island Retreat, Big Nusa is inhabited by a local community who chat happily with visitors taking a walk around the island. During the windy months from October to March, the multitude of small islands and channels are dotted with appar-

damage in a bombing raid on Kavieng, she is in remarkably good condition, with a spinecheek anemonefish manning the

and will, at some point, have you laughing till your mask fills, and you can barely keep your regulator in. But he takes his

and stalagmites full of gin clear water, troubled only by the odd halocline.



PNG

Lissenung Island. The other accommodation option is Lissenung Island, an even smaller island 20 minutes' boat ride towards the Bismarck Sea. Owned by Austrian ex-engineer Dietmar Amon and his wife, Ange, its seven rooms are ideally located for diving the Bismarck sites

ently excellent surf breaks, and accommodation is often taken up by surfers. The resort's owner, Sean, is a keen wave rider himself as well as the provider of a good yarn and even better tucker. He also likes a party, and night owls will feel at home.

like Peter's Patch, with its batfish and pelagics; Helmut's Reef; Danny's Bommy, with its leaf fish and white-bonnet anemonefish; the long wall at Kavin II; Matrix, with its whip and soft branching coral; and, of course, Albatross.

They are all excellent sites with var-

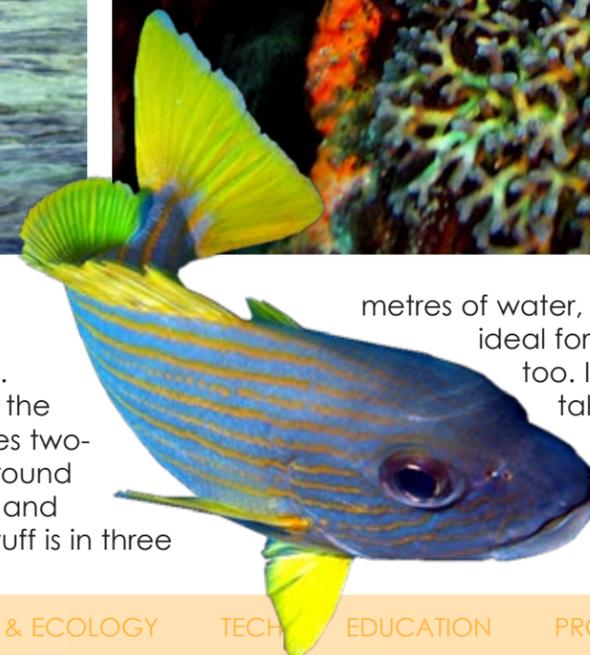
ied topography, amazing tiny critters like halemeda and orang-utan crabs, abundant longnose hawkfish, schools of one-metre humphead parrotfish, more pygmy seahorses, tiny crinoid-dwelling squat lobsters and horned shrimps, and panda anemonefish. We dived some of them several times and would happily return to them repeatedly. Although, if a choice had to be made, Albatross and its wall overgrown with big fan corals, black corals and sponges just pips the others.

Several times a year, Lissenung's twin-engined 26-foot Ozycat heads northwards to New Hanover on expeditions to explore virgin reefs and a Japanese two-man submarine, as well as Chapman's Reef, with its resident giant groupers. Divers on the expeditions stay in guesthouses on different islands depending on the itinerary.



CLOCKWISE FROM FAR LEFT: Beach at Lissenung Island Resort; Tiny orangutan crab; Clingfish and horned shrimp on feather star; Diver and barrel sponge; Pijama cardinalfish





Contrary to Nusa, Lissening Island is only occupied by the seven-room resort, has a "no guests under 12" policy and can be walked around in ten minutes. Basically, guests share Dietmar and Ange's private island paradise, with sandy and well-kept gardens, a small but per-

fect white sand beach with several seahorses basking in the shallows, and each room facing the sea. The staff live on the neighbouring island of Eruk, and tours can be arranged to the village and school, the development of which the philanthropic owners have been

heavily involved in. In the evening the office doubles up as a clinic, as locals come in to have a variety of minor injuries dealt with. The usual diving routine sees the dive boat leave after breakfast and return for lunch. Afternoon and dusk dives leave daily, and a secret

location is home to more mandarinfish mating after sunset. Afternoon dives on the house reef that goes two-thirds of the way around the island are free, and much of the best stuff is in three

metres of water, making it ideal for snorkelling, too. It doesn't take too much luck to get a glimpse of juvenile

CLOCKWISE FROM FAR LEFT: Pink anemonefish on large anemone; Pair of mandarinfish; Whip corals in reef garden at Lissening; Sweetlips; Local fishermen fishing the reef at Lissening; Nudibranch chromodoris



PNG

LEFT TO RIGHT: Octopus; Nudibranch; Squat lobster; Banded boxer shrimp



blacktip reef sharks around the far side of the island.

Milne Bay

Purpose-built Tawali Resort is hidden in the tropical forests on top of the limestone on the eastern cape of Papua New Guinea. It is a two-hour drive and ten-minute boat

ride from Alotau Airport. A wooden walkway leads up from the jetty to the smart reception area, restaurant and guestrooms.

Milne Bay Province got its reputation as a premier dive site through liveboards started by Bob Halstead, one of the pioneers of PNG diving, with the *MV Telita*. In 2004, Rob Van Der Loos, owner of the *MV Chertan* liveboard, and Bob Hollis, owner of the *Oceanic*, started building a resort to cater for divers who prefer a more luxurious between-dive setting.

Arriving late in the afternoon and only having three days left for diving, genial dive centre manager and instructor Alfred

organised a house reef dive for us as soon as we had dropped off our bags. The house reef is large enough to occupy curious divers for several days. As with Tufi's house reef, a plethora of the ocean's most intriguing creatures can be found very close to the jetty. Warty frogfish, a rather bold octopus and another mandarinfish-inhabited coral head were all within 15 metres of the ladder.

Crinoid City. Diving is conducted from a converted tuna fishing boat, and seemed like considerable overkill when we walked down the next morning with two other divers. It could have comfortably taken five times our number. Still, it soon proved its worth in the chop, as we ploughed along for an hour to Crinoid City. The surface current was pretty strong, but a

judiciously placed rope running the length of the hull and down to the mooring point made hand-over-hand progress easy. The aptly named site is a good place for Merlet's scorpionfish, as it likes to hide amongst the crinoids, and Alfred soon spotted a green one.

Dinner at Tawali had a slightly more formal feel to it than the other resorts, partly because it is the only one where couples have their own table, and partly because the topside staff, on the contrary to their dive crew counterparts, were more reserved than at the other resorts. They paid less attention to details, with the drawing pin in my soup that I almost swallowed being the most memorable.

Deacon's Reef. The next day, the sea was totally flat, like an oil bath, though the cur-



Tiny warty frogfish; Crocodilefish (left)





unique topography and more sheltered nature, the stand-out site that we visited. Located next to the shore of the mainland, it starts as a sheer wall dive that ends in a series of shallow stone gullies and passages and gives a feeling of flying through a mini underwater mountain range or a moonscape dotted with clumps of long whip coral strands.

rent still made for fast drift dives and challenging photo composition. It was clear to see where the area got its reputation with more fish-and-coral-covered reefs.

Local guides Jacob and Charlie also had a keen eye for pygmies, and pointed out three different sub-species that morning, before spotting a bamboo shark snoozing under a small coral head.

Whilst these reefs were all good, Deacon's Reef was, due to its

Lauadi. Just round the corner lies Lauadi, Tawali's best muck-diving site. Devoid of any coral, the anthracite grey volcanic sand slopes down into the depths on a 30-degree angle. Lurking in the sand, hiding behind tiny bits of rubble, and sitting on wood debris, a Pacific seahorse, a 1cm-wide squat lobster, an emperor shrimp, a pasta-like flabellina nudibranch and several more

anemonefish allowed themselves to be digitally captured. It was the last dive of the trip, ending our adventure with another great dive.

The other three divers and two guides had gone, and even Charlie was starting to look a little bored. I had been down 65 minutes already. It was time to go back to the boat.

Unfortunately, close to the shore at a depth of five metres, we went past a three metre by three metre patch of rubble and coral. I tried not to look at it. I failed, and a zebra dwarf lionfish caught my eye and so did an eel, as a peacock mantis shrimp scurried under two more lionfish. I shrugged apologetically, and Charlie emptied his BC and lay down on the sand. Papua New Guinea had turned out to be highly addictive.



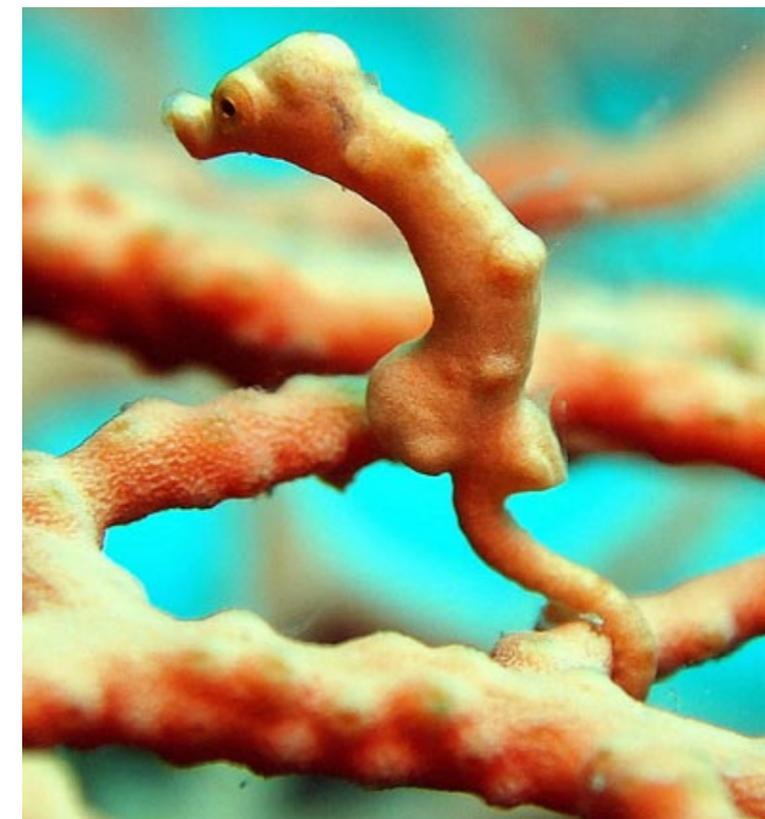
PNG



Moray eel at Tawali



Flagella nudibranch at Lauadi



Where to stay and dive

- Tufi, Oro Province: www.tufi-dive.com
- New Ireland Province: Nusa Island Retreat www.nusaislandretreat.com.pg
- Kavieng Scuba Ventures www.scubakavieng.com
- Lissenung Island Dive Resort www.lissenung.com
- Tawali, Milne Bay: www.tawali.com

Multi-resort itineraries and visits to the annual Goroka cultural festival (see next page) can be organised by Indigo Safaris info@indigosafaris.com. The author will gladly answer any questions sent to cb@christopherbartlett.com ■

CLOCKWISE FROM FAR LEFT: Lizardfish at Tawali; Crocodilefish at survey location; Checking measurement estimation skills; Pigmy seahorse on coral; Colorful shrimp; Peacock mantis shrimp



of their cultural diversity. Only a couple of hundred foreigners attended this spectacular and unique event. Last year, I was one of them. It was my first time, but I will surely not be my last. Amidst a riot of singing, dancing and feathers, I wandered through the field of performers taking pictures and trying to chat with the different tribes.

Although the dancers were keen to pose for the camera and readily struck a pose, it is far from a show designed for tourists—quite the opposite in fact. The first Goroka show was held in 1957, the brain-child

of administrators and missionaries trying to stop virulent inter-tribal conflicts. It was implemented by Australian Patrol Officers (PNG was under Australian administration until peaceful independence was arranged in 1975). Instead of fighting over ancient feuds and cultural differences, the idea was to get together and celebrate diversity, take part in competitions and intermix peacefully.

As unlikely as it sounds, the idea worked, and 53 years on is still going strong. There are no longer any competitions (I can imagine the archery and spear throwing competitions were hotly contested and probably not the best way to promote peace), not even for dancing or singing. Quite rightly, the organisers feel that one cannot say that one cultural dance is better than another without giving the feeling that the culture itself is being judged. Nowadays, each group has a section of the show-

grounds and dances and sings there from 10 am to 4 pm each day.

There were a considerable number of women's groups, wearing more birds in their headdresses than you'd find in a Filipino smuggler's suitcase, their glimmering breasts sporting as many kina shells as they possess in order to display their wealth. Fierce-looking Silimbuli warriors with blackened faces in huge hair-woven berets jumped up and down in unison to the rhythm of their kundu drums, dissuading any challenge. Brightly coloured Mount Hagen warriors formed a formidable spear line, but chanted and whistled cheerily whilst grass-skirted Engan ladies danced and sang as their men beat out a tune on bamboo (and hardware store PVC) pipes with flip-flops. One tribe had giant bird and butterfly frameworks on their backs in a sort of Rio Carnival style, others acted out stories

about spirits and ancestors in song, shaven headed children with their hair made into beards playing the roles of pygmy ghosts. Hornbill beaks and wild pig tusks were proudly worn, and grasses and leaves used as dress and decoration in a myriad of ways. Every tribe was stunning, with one exception.

The famed Asaro mudmen, with their white clay-covered bodies and giant clay masks used to make victims believe they were being attacked by spirits, mainly sat in the shade and tried to sell masks and clay models despite the cajoling of the organisers. They seemed to do little trade, the 200-odd foreign visitors were mainly engrossed in the rest of the action.

You can stay in the madly expensive Bird of Paradise Hotel in town, or use the basic but clean and safe accommodation provided by the National Sports Institute right next to the show grounds and save about 150 euros each per night and eat for about 5 euros per day. ■



ANNUAL GOROKA CULTURAL FESTIVAL

Over the three-day weekend closest to the September 16th Independence Day, nearly 100 tribes gather at Goroka in the Eastern Highlands for a celebration





Timor-Leste's Tasi Tolu



Thorny seahorse; Seaside view of Tasi Tolu in Timor-Leste; Tiny tiger shrimp just under 2cm (right)

Text and photos by Don Silcock

There can't be many dive sites that owe their existence to the direct intervention of the country's president, but Tasi Tolu, on the outskirts of Timor Leste's capital Dili, can claim that unique patronage.

Tasi Tolu gets its name from the three fresh water lakes just inland from the beach and below the nearby foothills. During the rainy season, the lakes tend to fill to capacity and then overflow, flooding

the nearby road and villages. To prevent that from happening, the government commissioned a project to provide a drainage channel for the overflow to run off into the sea. This design, which took the most logical path, would have dumped the outflow right onto the Tasi Tolu site.

In my experience, there are typically three basic ingredients for a critter site to flourish—a sheltered area (critters don't like surf); close proximity to deeper waters with nutrient rich currents; and a source of organic run-off such as a large stream. The organic run-off is a kind of Goldilocks-and-the-three-bears deal, because it needs to be just right—not too hot and





CLOCKWISE FROM LEFT: Entwined nudibranchs; Commensal shrimp, *Periclemenes magnificus*; Cleaner shrimp hiding in coral; Banded boxer shrimp



not too cold, because too hot means siltation which the critters don't like very much, and too cold means not enough organic nutrients. Tasi Tolu is obviously just right, because it's a great site with lots of critters to see, but the drainage channel would have raised the temperature to the boiling point during the wet season and effectively decimated the site.

The local diving community waged a

campaign to get the drainage channel relocated and ultimately got the issue on the radar screen of Dr Ramos Horta, the urbane and erudite Nobel Peace Prize winning president of Timor Leste.

Horta saw tourism as part of the potential solution to one of Timor Leste's most pressing problems—lack of employment opportunities—and accepted that destroying one of the

best critter dive sites in Dili was not a great idea. He was eventually able to stop the project.

Shore dive

Tasi Tolu is a shore dive and a pretty straightforward affair. Kit up on the beach from the back of your transport, close to the now defunct and partially constructed drainage channel, then walk





Tasi Tolu

dive guides from Dive Timor Lorosae who I dived with in Timor Leste. Not that the site is particularly hard to find, rather that it looks nothing like a photogenic one.

One of the highlights of Tasi Tolu were the resident pair of Rhinopias. The yellow one posed nicely for me, as seen below (right). There was an assortment of other critters in and amongst the marine growth, ranging from seahorses to spiny tiger and tozeuma shrimps. ■

CLOCKWISE FROM LEFT: Leaf fish (or Paperfish); View over village, bay and steep hills at Tasi Tolu; Gaping weedy scorpionfish; Tiny squat lobster measures just 2cm; Porcelain crab in sea anemone



straight down the sloping sand at about 15m where you will find a flat patch of marine growth and in amongst it, you will find a wide variety of photogenic critters.

I did several dives at Tasi Tolu and eventually got to know it like the back of my hand, but I

down the beach and enter the water just by the group of small boulders. Heading

have to say that I would have missed the site completely if I had not been shown it by the



fact file



Timor Leste

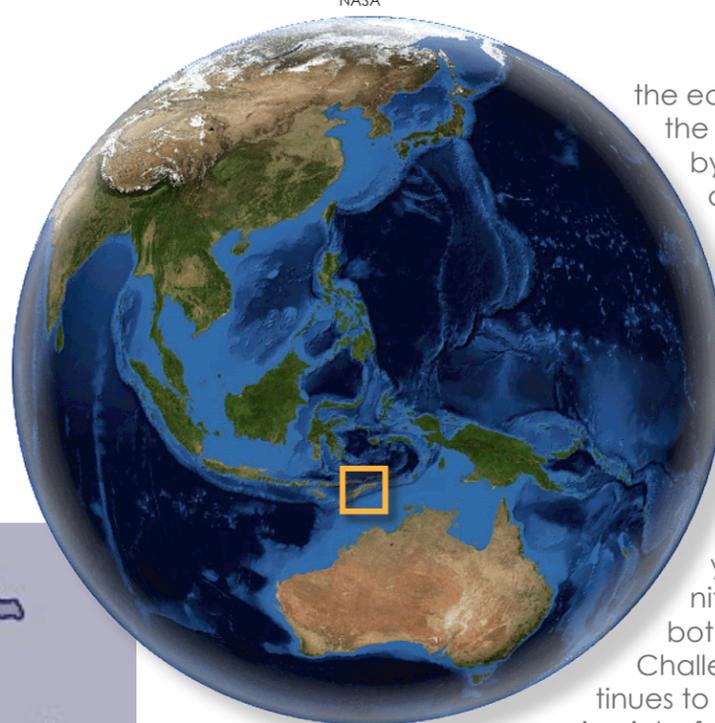


SOURCES: US CIA WORLD FACT BOOK, STARFISH.CH

History In the early 16th century, the Portuguese began to trade with the island of Timor and colonized it by the mid-century. After clashes with the Dutch in the area, Portugal ceded the western portion of the island to them in a treaty in 1859. From 1942 to 1945, imperial Japan occupied Portuguese Timor, but after the Japanese defeat in World War II, Portugal resumed colonial authority. On 28 November 1975, East Timor declared itself independent from Portugal. Nine days later, it was invaded and occupied by Indonesian forces. In July 1976, Indonesia incorporated it and designated the region a province of Timor Timur (East Timor). Over the next 20 years, an unsuccessful campaign of pacification followed. An estimated 100,000 to 250,000 individuals lost their lives during this period. On 30 August 1999, an overwhelming majority of the people of Timor Leste voted for independence from Indonesia in a popular referendum supervised by the United Nations. In retribution, Indonesian militias supported by the country's military began a large-scale scorched earth campaign as the Timorese awaited the arrival of a multinational peacekeeping force in late September 1999. Around 1,400 Timorese were killed by the militias and 300,000 people were forcibly pushed into western Timor as

refugees. Destruction was rampant and affected most of the country's infrastructure, including nearly all of the country's electrical grid as well as homes, irrigation systems, water supply systems, and schools. The violence was brought to an end on 20 September 1999, when an Australian-led force of peacekeeping troops—called the International Force for East Timor (INTERFET)—were deployed to the country. Timor Leste was internationally recognized as an independent state on 20 May 2002. However, internal tensions threatened the new nation's security again in 2006, when a military strike sparked violence leading to a breakdown of law and order. Once again an Australian-led peace-keeping force—this time called the International Stabilization Force (ISF)—was deployed to Timor Leste at the request of Dili. In addition, an authorized police presence of

RIGHT: Global map with location of Timor Leste
BELOW: Detail map of Timor Leste



ern end of the Indonesian archipelago in the Lesser Sunda Islands. The country includes the eastern half of the island of Timor, the Oecussi (Ambeno) region on the northwest portion of the island of Timor, as well as the islands of Pulau Jaco and Pulau Atauro. Terrain: mountainous. Lowest point: Timor Sea, Savu Sea, and Banda Sea 0m. Highest point: Foho Tatamailau 2,963m. Coastline: 706km

over 1,600 personnel was organized and deployed in Timor Leste by the U.N. Security Council in what was called the U.N. Integrated Mission in Timor-Leste (UNMIT). Stability was restored in the region by the ISF and UNMIT, thereby allowing peaceful presidential and parliamentary elections to be held in 2007. Since then, the country has experienced stability except for one incidence in 2008 when a rebel group tried and failed to stage a coup. Government: republic. Capital: Dili

Geography Timor Leste is located in Southeastern Asia, northwest of Australia. It lies at the east-

the economic infrastructure of the country was devastated by Indonesian troops and anti-independence militias by late 1999. Refugees numbering 300,000 fled westward. A massive international program of 5,000 peacekeepers (up to 8,000) and 1,300 police officers helped to stabilize the country over the next three years. This led to significant reconstruction in both rural and urban areas. Challenges the country continues to face includes generat-

ing jobs for young people entering the work force, rebuilding its infrastructure and strengthening the civil administration. Oil and gas resource development in offshore waters has helped to increase government revenues, but not jobs, since there are no production facilities in the country. The economy continues to improve despite the outbreak of violence and civil unrest in 2006. By 2009, most of an estimated 100,000 internally displaced persons came back home. Government increased spending significantly in 2009-2010, for the most part on basic infrastructure, roads and electricity leading to first time national debt in late 2011.

Population 1,177,834
Ethnic groups: Austro-nesian (Malayo-Polynesian), Papuan, small Chinese minority. Religions: Roman Catholic 98%, Muslim 1%, Protestant 1% (2005). Internet users: 2,100 (2009)

Currency U.S. Dollar

Language The official languages are Tetum and Portuguese. Indonesian, English and about 16 indigenous languages are spoken. Tetum, Galole, Mambae and Kemak are spoken by a large part of the population.

Health There is a very high degree of risk for food or waterborne diseases such as bacterial and protozoal diarrhea, hepatitis A, and typhoid fever as well as vectorborne diseases such as chikungunya, dengue fever and malaria (2009)

Decompression Chambers
BALI: Sanglah General Hospital Hyperbaric Medical Department. Tel: 62-361-227911

MAKASSAR (SULAWESI):
Rumah Sakit Umum Wahidin Sudirohusodo. Tel: 62 - 0411 (584677) or 584675 ■



Leaf fish (or paperfish)

