



Indonesia's
Raja Ampat
The Four Kings

Text and photos by Steve Jones



Close encounter with a manta at Blue Magic, one of many premier dive spots in the Dampier Strait

Swirling unicorn fish surround me and seem to have accepted me as one of their own. I can no longer see the surface nor anything else, save for a wall of fish. Only four minutes into the dive and it's already evident that this site is living up to its reputation, literally boiling with fish. Moments like this remind me why I dive.

All too quickly the fish blanket parts and the moment ends. Pressing on into

the current I'm distracted by a huge school of jacks tempting me to abandon my plan. I resist, reminding myself that something greater may await. I pass a wobbegong posing perfectly under an overhang filled with colorful soft corals. I rudely ignore it.

At last, I reach the end of the reef, alone, and stare into the blue while I calm my breathing down. As the minutes pass, doubt creeps into my mind as to whether I've made the right decision. Everyone is enjoying the busy reef behind me and I am missing it all! As I am about to give up, I glance a dark shadow before me in the blue, growing larger every second. I swim out from

the reef and am greeted by the largest manta ray I have ever seen. Welcome to Blue Magic, a dive site that typifies the wonders to be found in Dampier Strait, one of the hotspots in Raja Ampat.

Diversity!

Over the past ten years or so, Raja Ampat has often been described as having some of the best diving to be found anywhere, but what makes this area so special? From my perspective, it can be summed up in one word: Diversity! It is prevalent here, not only in the habitats to be found, which in turn support the myriad of species, but also

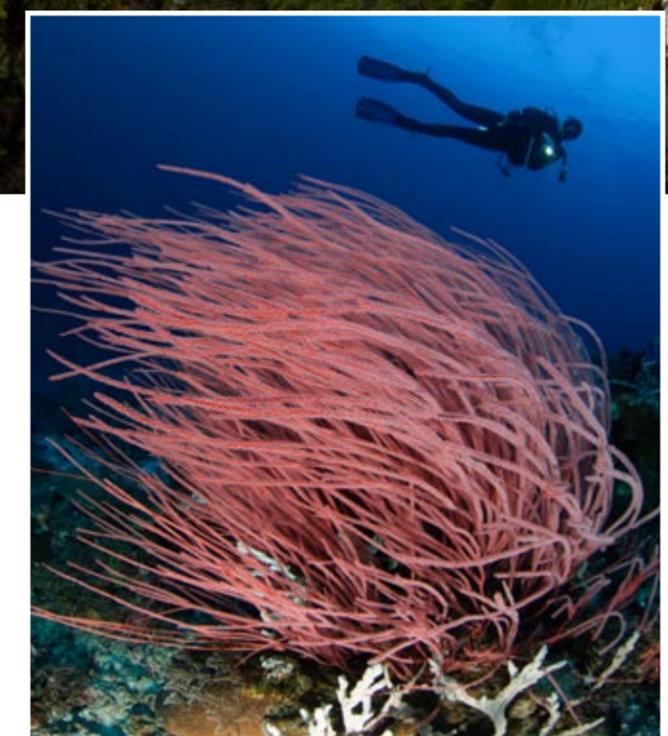
Schooling jacks at Blue Magic in the Dampier Strait (above); Crinoids and soft coral at Four Kings, Wayilbatan Island (top right). PREVIOUS PAGE: Four Kings dive site in the Misool area is typical of the stunning reefs to be found in the south of Raja Ampat



WHAT'S IN A NAME
 The name *Raja Ampat* (Malay for *Four Kings*) is derived from the four largest islands that make up this archipelago: Salawati, Misool, Batanta and Waigeo. These accompany over 1,500 smaller islands and islets found on the northwestern tip of the province of West Papua, which itself forms part of Indonesia's tenure of the west half of New Guinea, the second largest island in the world after Greenland. The eastern half of the island forms the mainland of the separate country of Papua New Guinea. ■



Red sea whips in the Fam Islands, which lie to the west of the Dampier Strait (left); Pair of scorpionfish at Cape Kri, in the Dampier Strait (right)



in the type of diving that can be experienced. Those who enjoy stunning fish-packed seascapes that explode with colour will struggle to find a better location anywhere on the planet. Thrill seekers can enjoy high octane drift dives in those same currents that bring in manta rays. Those that enjoy the smaller things in life, the critters, will find themselves in the most biodiverse area of the world. Indeed, there are no less than 42 species of mantis shrimp in the area!

By land or by sea?
 There are two ways to experience Raja Ampat. If you wish to concentrate on a specific area with a more laid back approach, then a resort will be a good choice. However, if you want to sample the full variety of seascapes here, then a liveaboard is the only way to sample what this huge 50,000 sq km area has to offer. Around 40 vessels currently operate here, yet given the size of the Raja Ampat, you will generally encounter

only a handful of other boats during your whole trip. Vessels also generally co-operate and avoid diving the same site at the same time as another boat, so your group will always have the reef to yourselves.
North or south?
 Shorter liveaboard itineraries will generally follow either a northern route taking in the reefs of the islands around Waigeo, or head south to Misool. Itineraries approaching two weeks will allow the

north and south to be sampled. These areas offer very different diving, so if you have the chance, make sure you visit both. Many cruise directors choose to round off the trips with dives in the current washed, spectacular reefs of the Dampier Strait.
 Incidentally, current is an ever

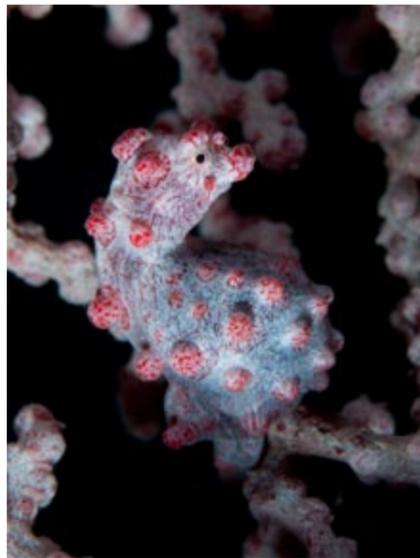


Stunning soft coral growth at Neptune Fan Sea, a channel full of sea fans in the south Raja Ampat

present feature of the dives in the region and of course, this is what makes the reefs so healthy. The common saying here is "no current, no life". However, with good timing and the right choice of site, you'll be able to see the reefs when they are at their best—that is



Pygmy cuttlefish in Anjui Bay—a haven for many critters



Pygmy seahorse on sea fans in Anjui Bay; Hawksbill turtle cruising the Farondi Islands, near Misool (lower right)

when there is a mild current, enough to concentrate all the fish upstream, but not so strong that you are swept away from the "sweet spot"—the point where the current splits around the reef and where the most dense fish life will be found.

The northern areas

Northern itineraries will often head towards the spectacular limestone lagoon of Wayag—without doubt the most photographed topside location in Raja Ampat. A 30-minute hike up the steep limestone cliffs will allow a spectacular view of this stunning lagoon and provide great photographic opportunities.

Wayag and the surrounding islands are part of the Kawe Marine Protected Area (MPA) and the local village clans that steward these reefs have adopted a traditional approach, known as "Sasi" where no-take zones are seasonally rotated, allowing marine life stocks to



Raja Ampat

Limestone islands of Wayag



recover between harvests. These traditional and effective stewardship techniques are ones that many western fisheries have been unable or unwilling to adopt. Furthermore, on the nearby island of Piai, a guarded turtle rookery is helping the local populations of green and hawksbill turtle to

recover—all good indicators that conservation efforts in Raja Ampat are able to turn words into actions.

One of the most stunning dives in this northern region is Magic Rock. Head to the north west side and you will find a large archway that leads into a hollowed out

THE GLOBAL EPICENTER OF MARINE BIODIVERSITY
Raja Ampat lies at the tip of a densely forested peninsula that juts out from mainland West Papua. The region is known as the Bird's Head Seascape and runs from Triton Bay in the south, encompasses Raja Ampat and rounds the northwestern tip of West Papua, deep into Cenderawasih Bay. Located at the convergence of tectonic plates, millions of years of geological upheaval have carved out diverse habitats—quiet sandy bays, undersea mounts, drop-offs, mangroves, fast-flowing channels, the list goes on, and these habitats, fuelled by nutrient-rich upwellings from deep water in turn support the incredible variety of marine species to be found in this area. Over 600 hard coral species and over 1,700 reef fish species have so far been documented in the Bird's Head area, which is more than in any other region of this size on Earth. This is the Global Epicentre of Marine Biodiversity. ■



COUNTER-CLOCKWISE FROM RIGHT: Giant manta ray at Blue Magic, Dampier Strait; Wreckage of a World War II P47 Thunderbolt at Wai Island; Wobbegong shelters under an overhang at Blue Magic; Sweetlips found at a bommie in deep water at Cape Kri



chamber. The floor here is filled with life and provides shelter from the current, allowing you to watch the masses of fish that gather just outside the archway.

Eagle Rock is another dive that typifies the northern Raja Ampat experience. This site is good for spotting manta rays, dogtooth tuna and humphead parrotfish. Large boulders that have broken off and rolled down to deeper water are alight with a dazzling array of orange

Dendronephthya soft corals. As you make your way back up the slope towards your safety stop, be sure to check under the many



overhangs, and you may be lucky to find a wobbegong.

Tranquil waters

A common overnight anchorage in the north is in the sheltered Aljui Bay which lies on the western side of Waigeo, the largest of the main

four Raja Ampat islands. The steep vegetation covered walls provide good shelter. However, this area is also an excellent location for critter spotting, so liveaboards will often spend a day here.



Wire coral shrimp found on the slopes of Anjui Bay

Raja Ampat

CENTER OF THE CORAL TRIANGLE
It was not until 2001 that the area's importance was fully realized when Conservation International sent an expedition to the region following lobbying by renowned ichthyologist Gerry Allen. This area lies at the center of the "coral triangle", the region noted for its supremely high marine biodiversity that covers the intersection between the Indian and Pacific Oceans and spans the rest of Indonesia, Malaysia, Papua New Guinea, Philippines, Timor-Leste and the Solomon Islands. Leading scientist Dr Mark Erdmann has described this area as a "species factory" for the rest of the Coral Triangle. The majority of fish species found throughout the Coral Triangle are present in the Bird's Head Seascape. ■



The nutrient-rich waters in the bay host one of the region's largest pearl farms, the pier and fuel dock making for great night dives.

Here, you'll see barchin scorpionfish, cockatoo waspfish and Berry's bobtail squid amongst a myriad of other species.



Mayhem is a stunning dive in west Waigeo; *Chromodoris annae* nudibranch grazing in Anjui Bay (below)

this area, after diver David Shem-Tov luckily survived an attack by a saltwater crocodile in 2009.

Even sightings of "salties" are rare since their numbers



have been put under huge strain by human expansion into their territories, and they are quite rightly now protected in some regions. Nobody with a true love of the natural world would want a predator exterminated to make it safer for visitors, so the live-boards have taken the pragmatic approach of now avoiding this

area.

Actually the majority of great diving around Misool is to be found in the reefs off the south-east of the island. Here, you will find sites such as Boo's famous Window Wall, an image of which adorns the cover of Burt Jones and Maurine Shimlock's, *Diving Raja Ampat*, which was the



White arrow is another splendid critter dive where the undersea terrain slopes steeply to 30 metres and beyond. Amongst the soft corals and sea fans you'll find yellow examples of the pygmy seahorse (*H. bargibanti*), ornate ghostpipefish and the unusual solar-powered nudibranch, which contains algae in its skin that helps feed the host nudi through photosynthesis.

The journey to the south

The journey to the south and Misool involves covering a fair distance, but on the way down there are some incredible dive sites around Gam island, which lies to the south-west of Waigeo. On the aptly named "Mayhem" I encountered some of the most dense and diverse fish schooling I have ever seen on a single dive; I struggled to count the species

before me. Fusiliers swarmed over the reef, intermingling with unicornfish, surgeonfish, snappers and batfish whilst Spanish mackerels, huge trevallies and tunas glided through the schools waiting for opportunities to feed.

From Gam, it is an overnight run down south. Well-known images from this region, of soft corals with a backdrop of mangrove, were taken in the Nampale blue water mangroves off the north west of Misool. However, most live-boards now avoid



Sweeper at Blue Magic, Dampier Strait; Crinoid and soft coral growth in the Misool Region (right)



definitive dive guide to the region, now superseded by an expanded version that covers the entire Bird's Head Seascape.

Exceptional reefs

The region is protected by the South East Misool Marine Protected Area, which administers most of the region's best dive sites (at least those that have so far been discovered—new dive sites are being found in Raja Ampat regularly and exploration is encouraged). Far out

east, the less visited reefs around Daram Island are wonderful with Andiamo regarded as one of the finest. This reef consists of a submerged pinnacle in front of two small islets. It was here that whilst I was diving amongst profuse sea fan growth on the north side, awash with fusiliers, that a juvenile



COUNTER-CLOCKWISE FROM ABOVE: Snappers grace the stunning reef that leads to Boo Windows; View towards Boo Windows near Misool; Juvenile spadefish under Arborek jetty in the Dampier Strait—the jetty is a stunning dive and no deeper than 5m; Exploring a cavern in the Farondi Island, near Misool

whale shark casually cruised by in the blue, unbothered by our presence.

Moving back towards Misool, there are dive sites that may well cause you to rethink your definition of a good dive. At No Contest, we descended down a near vertical coral-covered wall and were barely able to hold position with a mod-



TOURIST DESTINATION

Raja Ampat's growth as a tourist destination has only recently begun to accelerate, with marine tourism forming one of the strategic initiatives of the conservation programmes working to conserve the Bird's Head Seascape's unique heritage. Visitors to the area pay a park entrance fee of Rp.1 million (approximately US\$102), which is valid for a year. The money is split between conservation, community and tourism development programmes.

Even today, whilst Raja Ampat is possibly no longer true "frontier" diving, it is far removed from the popular resort destinations found in other parts of the world. As of 2013, there are seven resorts but the majority of operators use liveaboards, generally Pinisi sailing boats built in the traditional Indonesian way.

With West Papua being Indonesia's poorest province, there are many challenges for diving operators to overcome. Veteran operator Txus Reiriz has been operating the liveboard *MSY Seahorse* in the region for over eight years. "I heard about how good the diving was in Raja Ampat," said Txus, "but when I visited, I found it exceeded way beyond my already high expectations. The reefs, landscape and biodiversity are stunning, and even now, after over eight years operating in this area, we keep finding new dive sites on almost every trip. But the biggest challenge is it's a long journey for the guests to get here, and because of the remoteness, it's even harder for us to get the supplies we need. Logistics are hell, but it's completely worth it!" ■

erate current washing against the reef.

We were truly in the sweet spot—large schools of longfin spadefish were silhouetted against a scene of absolute chaos as thousands of fusiliers danced in the planktonic waters and two species of



Surprise encounter with a large pelagic manta at Blue Magic; Elephants ear sponge at Blue Magic, Dampier Strait (right); Soldierfish at Mioskon, Dampier Strait (lower left)

life—here also are some of the most exhilarating dives in West Papua.

Mike's Point, named after the son of Raja Ampat diving pioneer Max Ammer, has some of the best fish action in the area. The island above this reef (Kerupiar Island) was repeatedly bombed in World War II, since the U.S. Air Force thought it to be a camouflaged Japanese ship.



barracuda competed with baramundi cod for our attention. On the reef wall itself not a single centimetre was devoid of coral growth, with sea fans competing with *Dendronephthya* soft corals for a space on a reef that exploded with colour. Our ascent had to be done with care, as a downwash runs over the top of this thin long reef. To cap it all off, a sea snake accompanied me to the reef top.

There are currently over 25 described dive sites in this south east region of Misool, and that number is ever increasing. Leaving these behind and heading back north caused mixed emotions since the reefs here are so endearing, but I needn't have worried. The final chapter of our itinerary is the zenith of Raja

Ampat's high octane diving—The Dampier Strait.

The Dampier Strait

Baring the name of the British explorer William Dampier, this huge channel runs between Waigeo and Batanta, two of the four kings, and is not to be confused with the similarly named body of water in Papua New Guinea. Here, you'll find very strong currents, which is one of the reasons cruise directors leave this place until last, once the divers have settled in. However, it is these currents that bring the reefs to

When you see the wake coming off the island when the tide is running, it's easy to understand why.

Down in deeper water, there are large gulleys where a resident school of hump-



Mantas are not the only species to be found at Manta Sandy. These robust ghostpipefish were found amongst the coral

head parrotfish can often be sighted. However, it is on the up-current side where you will find the fish action, and here you can often find large schools of sweetlips with fusilier

and unicorn fish schools so dense they will often obscure the surface.

The strong nutrient-rich currents that run through the Strait also attract another visitor—manta rays. Manta Sandy and Manta Ridge are two sites where mantas can be reliably seen, provid-



CLOCKWISE FROM LEFT: Soft coral growth near Wayilbatan Island, Misool region; Giant barrel sponge at Four Kings, Misool Region; Exploring the caverns of Goa Farondi, Misool Region; Elephants ear sponge growing on the slopes of Blue Magic, Dampier Strait



is also here that you have a very good chance of encountering a reef shark.

One of the striking things about Raja Ampat's reefs in general is the absence of sharks. This whole region has in the past been heavily overfished by shark finners, and anyone who denies that shark overfishing is a problem should visit here and see if their views still reconcile with the visual evidence (or rather lack of it). Yet, shark numbers are now actually starting to climb back from the brink in Raja Ampat, with shark sightings increasing across the whole region. This has been helped by the conservation initiatives, and in December 2012, the area became legally protected as a shark and ray sanctuary, giving hope that one day the master of

ed there is a little current present. Although it should be said that you also have a chance of manta encounters at many other sites in Raja Ampat.

Manta Sandy has a small rubble wall that indicates the boundary that divers should not cross, to ensure they do not disturb mantas when they are at the cleaning station. Wait low on the sand bottom, and you may be blessed with a close encounter with one of the black mantas that frequent this site, complete with yellow

pilot fish dancing around their mouths.

Cape Kri rivals Mike's Point in terms of sheer fish density. You normally begin your dive on the west side and keep heading east on this sloping reef on the south of Kri island. As you approach the easterly point, the big fish action builds to a crescendo above the reef, with large snapper, emperor and barracuda hovering in the current whilst large trevally speed around picking off unfortunate fusiliers from the large schools. It



the seas will once again patrol the beautiful seascapes of Raja Ampat.

Getting there

To dive Raja Ampat, you need to get to Sorong in West Papua. Makassar Airport on Sulawesi has direct flights to Sorong, and Makassar connects with Singapore, Jakarta and Manado. ■

The author would like to thank Txus Reiriz of the MSY Seahorse Liveaboard (Indocruises.com) for his help and considerable support in preparing this article and Jay Monney and Eموke Vizhanyo for their ever patient modelling



during the author's various visits to the region. For more information, visit: Millionfish.com

REFERENCES AND RECOMMENDED READING:
B. JONES AND M. SHIMLOCK, *DIVING INDONESIA'S BIRD'S HEAD SEASCAPE*





Indonesia's
Raja Ampat
Incredibly Rich Waters

Text and photos by Don Silcock

Arus kencang are the words you need to listen out for—you will hear them in the rapid interchange between the dive guides and the boat boys, as they discuss the practicalities of safely immersing a group of “bule” (slang for foreigners) in the waters of Raja Ampat. *Arus kencang* means strong current in Bahasa Indonesia, and the emphasis given to those two words will give you an instant insight into what awaits you below.

The incredible reefs and tremendous biodiversity of the Raja Ampat area have made this remote part of the Indonesian archipelago one of the hottest dive locations in the world, and those currents are the very lifeblood of the area. For they carry the rich nutrients from the deep basins of the Pacific Ocean to the northwest of Raja Ampat and have helped to create what are generally considered to be the finest coral reef ecosystems in the world.

The amazing biodiversity of the area, and the currents that flow through it, are two sides of the same coin, and a basic understanding of this mechanism is the key to truly enjoying one of the best diving experiences there is.



Location, location, location...

The remarkable landmass of New Guinea is the largest tropical island in the world, and it sits just below the equator along

the southern rim of the “Ring of Fire”—the belt of volcanoes and tectonic plates that runs around the edge of the vast Pacific Ocean.

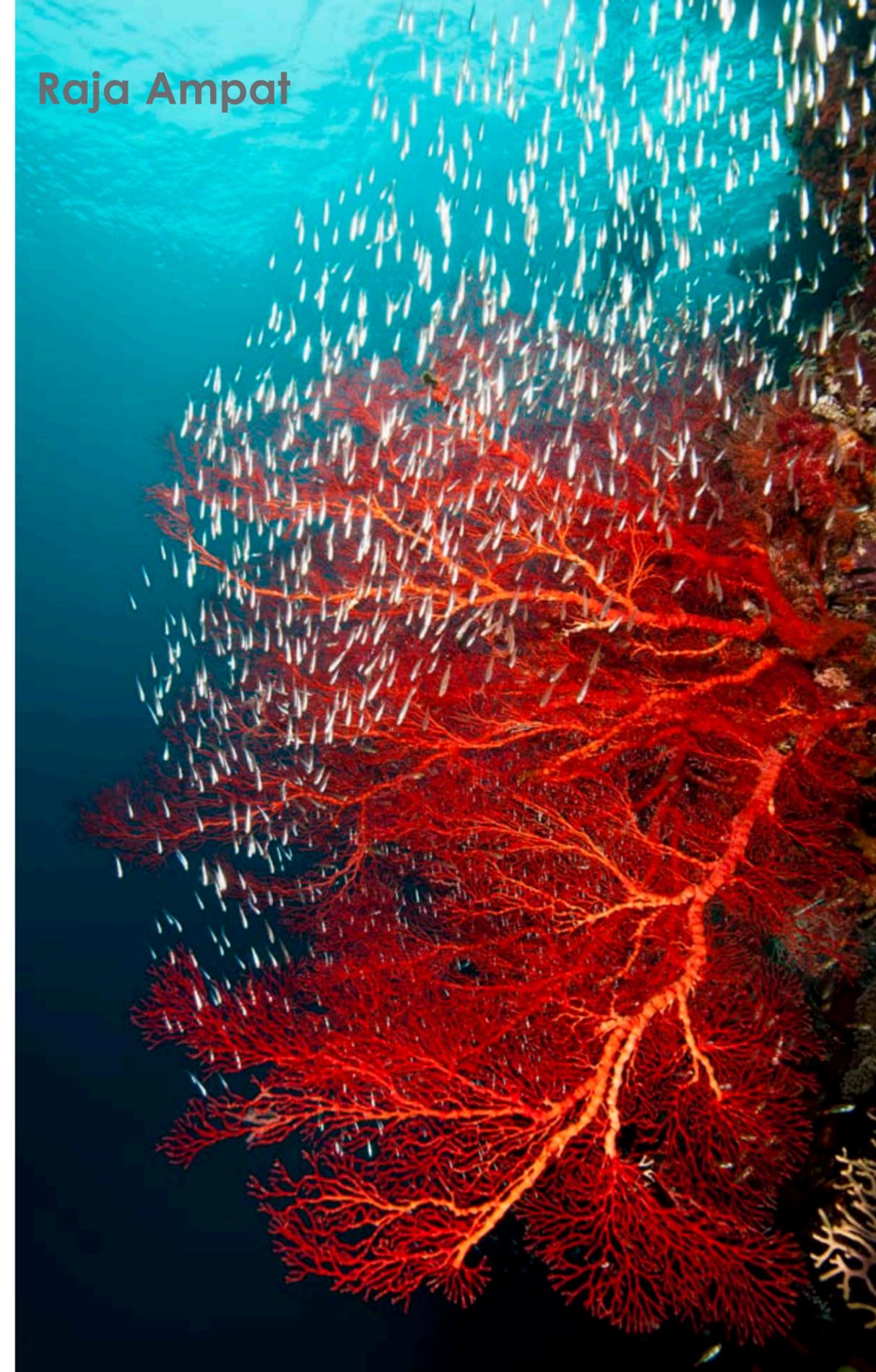
Divided by colonial legacy and cold-war geopolitics into two roughly equal halves, the eastern part of the island is the independent country of Papua New Guinea

(PNG), while the western half, which is now generally known as West Papua, became part of Indonesia in 1969. Although occupying less than half of 1% of the Earth’s



The Passage at Waigeo (above); Cuttlefish (left); Robust ghost pipefish (below)

Raja Ampat



Large red gorgonians decorate the reefs of Raja Ampat



Just ten years ago, your choices were limited to one dive resort and a couple of liveaboards, but now there are several well established resorts and up to 50 boats operating in the area at the peak of the diving season.

Thanks to the excellent work of Conservation International, The Nature Conservancy and WWF-Indonesia a network of 12 marine protected areas (MPAs) have been established in West Papua to counter the impact of tourism and over-fishing. These marine protected areas cover an area of almost 3.6 million hectares, or 25 percent of Indonesia's total national MPA coverage, and have played a major role in keeping the underwater environment in excellent overall condition.

More recently, in February 2013, the local government of Raja Ampat declared four million hectares of coastal and marine waters as a sanctuary for sharks, manta rays, dugongs, whales, dolphins and turtles—tacitly recognizing that these creatures are much more valuable alive than sold as by-catch.

The Four Kings

Raja Ampat means four kings in Bahasa, and the name comes from the local myth of a woman who finds seven eggs, four (ampat) of which hatch and become kings (rajas) and occupy four of the area's biggest islands, whilst the other three become a ghost, a woman and a stone.

Those four islands are Waigeo, Salawati, Batanta and Misool are surrounded by about 1,500 smaller islands and about 40,000 sq km of water. Surveys of the area have identified over 600 species of hard coral, which is nearly 75 percent of the world's total, and in excess of 1,700



surface, the island contains up to ten percent of the planet's species and is a veritable storehouse of biodiversity.

The waters that surround New Guinea offer some of the very best diving in the world, with PNG long-established as a diver's Mecca, but it is Raja Ampat on the northwest tip of West Papua that has become the place to have in your log-book.



Diver on one of the many beautiful reefs of Misool



The incredible scenery in Waigeo area; Superb nudibranch, Black Beauty in Batanta (below)

species of reef fish—more than any other similarly-sized region on the planet. Raja Ampat truly is the global epicenter of marine biodiversity!

Diving Raja Ampat

There are three principal areas to dive in Raja Ampat: in and around the Dampier Strait that separates the main islands of Waigeo and Batanta; Waigeo itself; and the area around the island of Misool in the south. Triton Bay on the south coast of the main island is also technically part



Pipe fish with eggs at Szonc Jetty in the Dampier Strait

of the Raja Ampat area, but its remoteness means that it is treated as a separate trip.

All three areas offer spectacular diving and underwater experiences, which could fill a couple of books, but there are certain signature dives in each area that really should not be missed.

The Dampier Strait

The dives sites of the Dampier Strait are where most liveaboards start and finish their diving programs, because they are the closest to the town of Sorong and its airport, which is currently the point of entry to the Raja Ampat area.

For those of you familiar with fluid dynamics, the Dampier Strait can be thought of as a venturi, where a restriction in diameter automatically increases the velocity of the fluid passing through it.

For all the rest of us, think strong currents—because the Strait is the principal channel through which the flow of water from the Pacific Ocean passes through on its way south. These currents and the rich nutrients in the water have created some of the most spectacular reefs, bommies and encounters you are ever likely to experience.

Raja Ampat

DIVING IN STRONG CURRENTS —*The Do's and the Don'ts*

The trick to diving in strong currents around Raja Ampat is to understand the basic mechanism and work with it, because you just can't fight it. Strong currents are the life-force of vibrant reefs systems, and they are at the strongest around the edges and at their most manageable in the center.

Picture a large submerged bommie or pinnacle that rises up from the deep and faces into the predominant current. Where that current hits the reef first is where its velocity is low, and the deeper you go at that point, the less that velocity will be. But as the current goes around the sides, the velocity increases dramatically, and where it goes over the top of the bonnie or pinnacle, particularly if it is shallow, the velocity is at its maximum.

So, when you enter the water, it should be upcurrent from the bommie, and you must get down on the front as quickly as you can, which is the sweet spot where the current is manageable and where the most prolific fish activity is. Miss the front, and you will think you are in a washing machine, as the currents sweeps you around or over the top. ■





Island from the much smaller Airborek Island at the western end of the Dampier Strait.

The cleaning station is a number of small bommies located in the channel between the main reef and a smaller one to the south. Strong currents run through the channel, which together with the numerous cleaner wrasse and butterfly fish on the bommies, have created the perfect conditions for mantas to come in and be cleaned of their parasites. As many as 30 mantas have been

reported on the site, but on the days I dived it we saw between five and ten—but on every dive.

The site is very popular, and to ensure the presence of so many divers does not

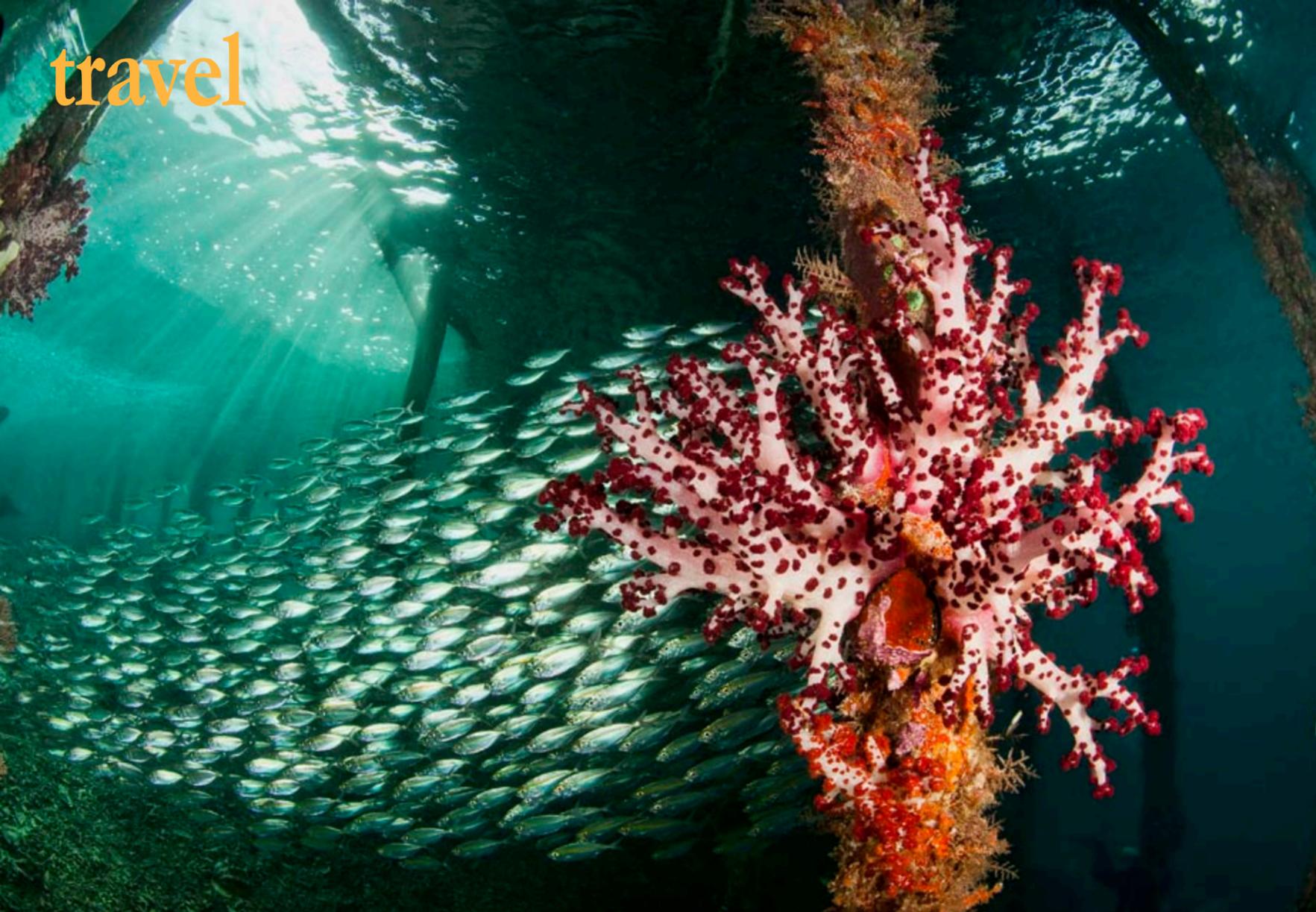
drive away the mantas, a strict demarcation code is enforced at the site. A line of rocks has been laid out in about 16m of water, close enough to the bommies so that divers can observe and photograph the mantas, but far enough away to allow them to be cleaned in relative peace.

The thing to do at Manta Mantra is get yourself in position somewhere along the demarcation line where you can comfortably hold on against the currents and then wait. The site is fairly shallow, and so bottom time is not an issue. As the mantas complete their cleaning rituals, they often come and check out the waiting divers with some upfront and personal interactions. Altogether a tremendous dive site and not one to be missed!



THIS PAGE: Mantas visit the cleaning station at Manta Mantra

Manta Mantra. Various referred to as Manta Mantra, 3M, Manta Ridge and Manta Sandy, this site is a manta ray cleaning station on the southern side of the large reef that separates Mansuar



Airborek jetty in the late afternoon

Airborek Jetty. Another signature dive site that should not be missed are the two jetties on the small island of Airborek. Here, the Dampier Strait currents flow around the jetties, creating a mini-ecosystem on the wooden structures, with rich growths of vibrant soft corals on the vertical piles and resident schools of jacks and batfish patrolling in between.

Late afternoon on a calm day produces a perfect setting for wide-angle photography as the sun's rays create stunning backdrops to the abundant subject matter under the jetty. Then, if

you fire off that, the local kids make excellent models as they swim down to pose for the camera.

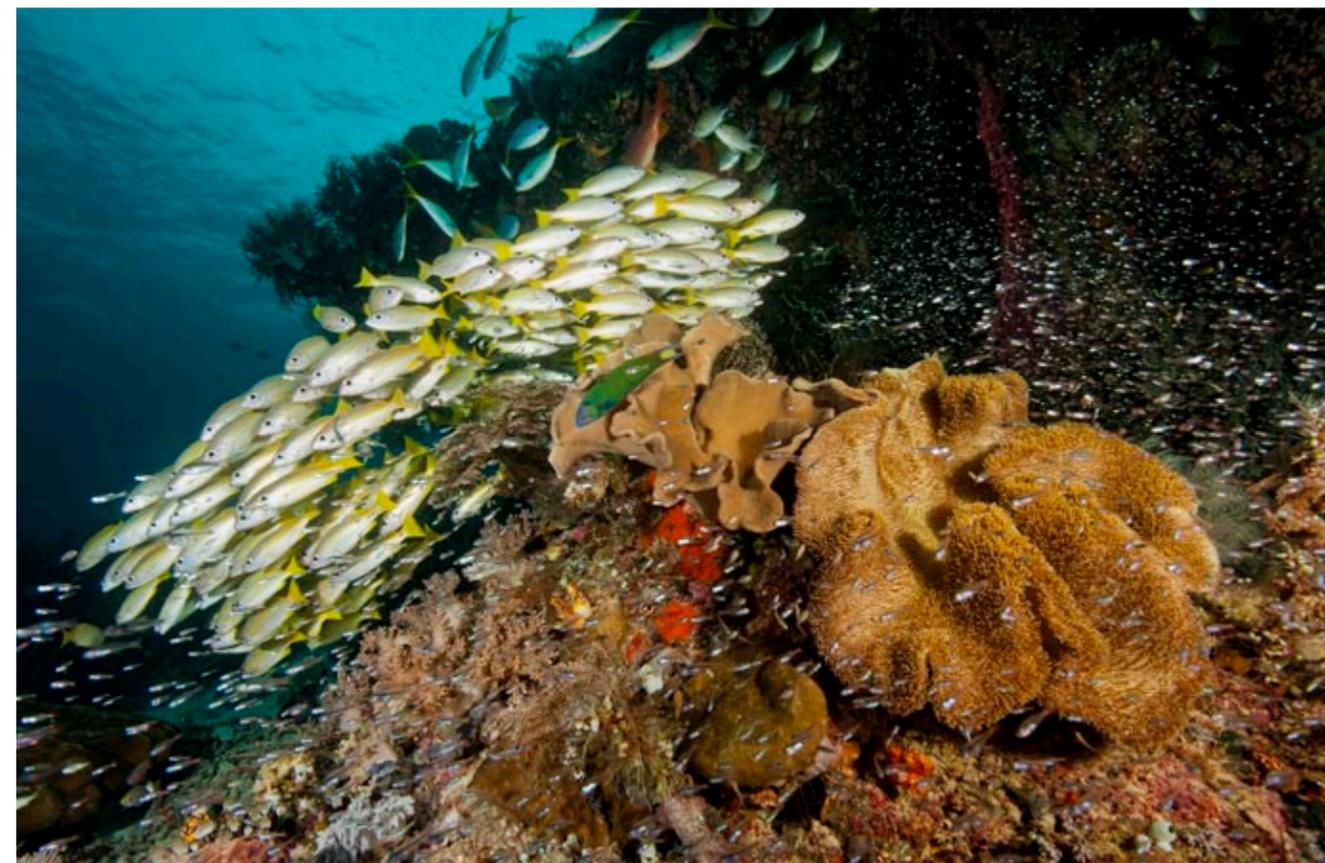
Down in the coral rubble on the slope around the jetties, you will find jawfish, pipefish and other critters, while the bommies at 18m are home to some schooling sweetlips and numerous critters.

Mioskon. This small island on the northern side of the Dampier Strait is near where the southern end of Kabui Bay exits in to the strait between the large islands of Gam and Waigeo. There are



Schooling bat fish underneath Airborek jetty

Raja Ampat



Mioskon reef in the Dampier Strait; Local kids from Airborek village pose underwater (top right)





Wobbegong shark and diver at Mioskon reef

Superb soft corals at Mioskon reef

several other superb dive sites in the area, such as Cape Kri, Sardine Reef and Mike's Point, but for sheer consistency the eastern side of Mioskon is hard to beat.

Known above water for its large population of flying foxes, below water you will find a superb reef with numerous bommies densely coated in soft corals and a resident school of yellow snapper patrol that sweeps up and down the reef in a flowing motion that adds to the very dynamic feel of the site.

Throw in the numerous wobbegong sharks to be found and the plethora of creatures and critters in amongst the bommies and soft corals, and



Raja Ampat



Late afternoon at Mioskon reef

this is one tremendous site that can be dived time after time without getting bored.

Waigeo—The Passage

In the northern area of Raja Ampat, around the western tip of the island of Waigeo are several good dive spots such as the critter site Waterlogged and the nearby Pearl Farm jetty in Alyui Bay. But the narrow channel that separates the islands of Gam and Waigeo is very much the signature dive in Waigeo.

The channel's proper name is Kabui Passage, and it connects the western side of Kabui Bay to the Halmahera Sea, but it is universally referred to as simply The Passage.

Roughly one nautical mile long, The Passage is about 60m wide and is subject to some really strong currents that can make the journey





Beautiful sponges (left) and superb soft corals (above) in Waigeo's Passage

through it feel a little bit like white rafting!

Although it looks just like a fast flowing freshwater river making its way through dense jungle, it is actually sea water, and in the many small

inlets along the side of The Passage, mini-ecosystems have been established. These are quite special, particularly the ones on the southern side near Kabui Bay where large sea fans, soft corals and colorful sponges

have grown in shallow waters under the overhanging jungle creating quite unique photo opportunities.

Diving The Passage around mid-day offers the chance to capture the sun's rays, as they pierce the overhead canopy and illuminate the colorful growth below creating a superb and mysterious effect.

Then, there are the mangroves and archer fish hunting their prey in their unique "spit-and-stun" technique and small schools of halfbeaks up in the inlets, but don't forget to look out into The Passage itself, as you will often see passing sharks, turtles and jacks—what a dive!

Local knowledge

The indigenous people of the Raja Ampat area predominantly live in small coastal colonies where the traditional tribal culture, which revolves around the sea, still prevails. Apart from tourism, there is virtually no industry, which means that the sea is the principal source of sustenance, but extracting that bounty from the rich waters of Raja Ampat requires a quite unique skill set—one which, when learned, is ideally suited to safely immersing "bule" (tourists).

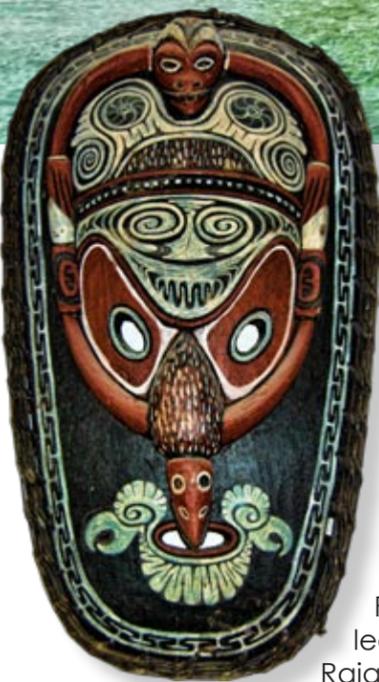
Mikel Merin from Dome Island near Sorong has been the principal



Mikel Merin in his element!



Traditional mask (left); Misool Eco Resort (above); Fan corals on reef; Ornate ghost pipefish (lower right)



boat boy on all the trips I have done to Raja Ampat—which have been with Deb Fugitt's City Seahorse dive travel company.

Fugitt has been leading trips to Raja Ampat since 1999 and met Merin on that first trip, when he helped her find the best spots to dive safely.

Watching Merin study the surface currents and direct the cover boats is to observe somebody who is comfortable with these forces of nature and can intuitively understand what is happening under the water from the patterns above. Those skills are past down from generation to generation by the people

of Raja Ampat, as they learn how to take their canoes out in to the currents of the Dampier Strait, understand where the fish will be, how to catch them and (most importantly) how to get back to the village with that catch.

Merin sat with me one evening on my last trip to Raja Ampat and explained how his uncle had mentored him from an early age to do this by first showing him how to paddle his canoe with and against the currents, then how to interpret the state of the tide from the phase of the moon—no clocks or tide tables required.

Once confident on the water, the next steps were to read the surface patterns created when the currents sweep around a reef or large bommie, so that the canoe can be safely anchored in the sweet spot closest to the fish.

Merin also shared with me stories of what had happened to him when he got it wrong in the early days, as he started to go out by himself. One mis-

adventure he related had him caught in the fierce currents of the Sele Strait between the islands of Batanta and Salawati, as night was falling.

He managed to turn his canoe around and make it back to Dome Island by dawn the next day, but had he not, he would have been swept out into the Halmahera Sea with the next chance of landfall some 300km away—character building.

Misool

Some 130km to the south of the Dampier Strait area, and roughly halfway to Ceram in the Molluccas, is the large island of Misool and what are probably the very richest and most vibrant reefs in the world. This is a remote area in a remote area, and Misool's isolation has allowed it to become the epicentre of biodiversity in an area that is already recognised as the most biodiverse in the world.

It is hard to imagine a more pictur-

esque and inspiring area, both above and below the waters. But it is not like this by accident, and much of the credit for the current excellent status of the area's reefs and marine habitats are the results of the conservation work pioneered by the Misool Eco Resort. A superlative example of what can be done to arrest decline and convince local communities that the seas are not an inexhaustible resource, the resort has



THIS PAGE: The incredible corals and gorgonian fans at Fiabachet in Misool

really done a tremendous job and is to be applauded.

Fiabachet. Is this the best reef in the world? Hard to answer in a quantifiable manner, but subjectively, Fiabachet has to be in the top ten if not the top five—it is simply that good!

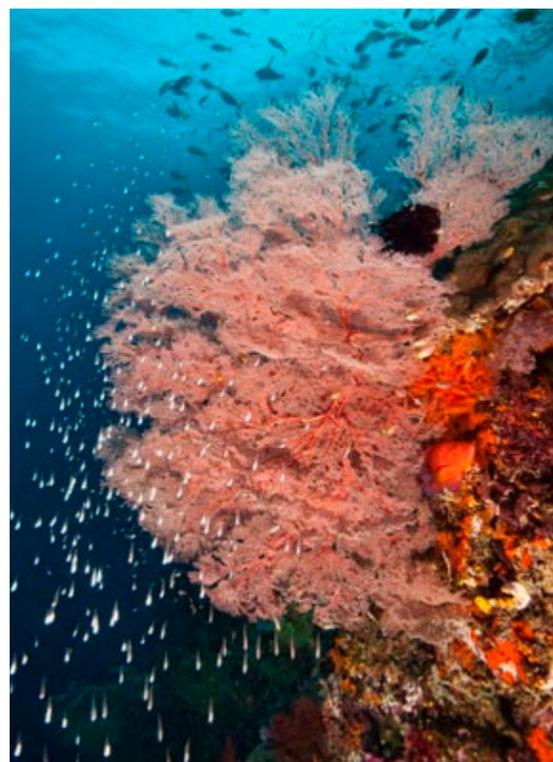
There are numerous other tremendous sites in a string of islands to the southeast corner of Misool, but Fiabachet is the jewel in the crown and a simply amazing experience. The actual site is a long underwater ridge that runs west to east and connects two rocky outcrops: Nudi Rock at the western end and Tank Rock at the eastern end.

The underwater area around Nudi Rock, which takes its name from the remarkable similarity its above water

shape bears to a nudibranch, is positively stunning and probably the best and most dynamic part of Fiabachet. The quality and quantity of the hard and soft corals, sponges, gorgonian fans, sea whips and general fish life will take your breath away!

But the area around Tank is phenomenal as well, and if you went there first, you would probably think it can't get much better than this, only to journey down the ridge to Nudi and find somewhere that takes it to the next level. Once upon a time there were many other places just like Fiabachet.

Batu Boo. It's hard to pick the next best dive site after Fiabachet, as there are so many to choose from, but nearby Batu Boo is quite something, too. It is also





Raja Ampat



Diver in Boo Windows at Batu Boo (above); School of balfish at Batu Boo (top right); Brilliant sunset over Raja Ampat (right)

known as Boo Windows because of the two large, shallow underwater holes in the main island that create excellent photo opportunities at certain times of the day when the sun streams through them. The site is a large underwater seamount that runs north to south, and at the northern end, there is a large oval shaped rocky outcrop, while at the southern end there is a small outcrop with a single tree growing on it—which has been christened Batu Jamur,

or mushroom rock, for obvious reasons. The two “windows” are at the southern end of the main rock and face west to east, making them perfect for the sun’s rays. Besides the windows, there is a great deal to see at Batu Boo, starting with the walls of the seamount that is richly covered in soft corals and gorgonian fans—many with pygmy seahorses. The blue water around the rock is host to numerous pelagic fish, and the

area around Batu Jamur is rich in soft corals and has a resident school of yellow snappers.

Conclusion

The Four Kings is without a doubt one of the top dive destinations in the world, and the danger is that its very popularity will severely degrade its tremendous biodiversity. While there are signs of degradation, there are also significant efforts being made to arrest the decline, and the work

done by Conservation International, The Nature Conservancy and WWF-Indonesia together with the very hands-on and proactive approach of the Misool Eco Resort is tremendous. The creation of the huge marine protected areas (MPAs) and shark sanctuary indicates that the local authorities are getting the message that a healthy and vibrant Raja Ampat is much more valuable than a plundered

one. The area’s spectacular above-water scenery would justify the long journey to get there in itself, but for divers, Raja Ampat offers a chance to see the underwater world at its very best and is something you simply should not miss! ■

Don Silcock is a Bali-based underwater photographer and writer who focuses on the diving in Indonesia and Papua New Guinea. His images, articles and extensive location guides can be found online on his website: www.indopacificimages.com

fact file



SOURCES: U.S. CIA WORLD FACTBOOK, WIKIPEDIA, INDOCRUISES.COM, MARK ERDMANN

Raja Ampat, Indonesia



History Humans first settled New Guinea at least 50,000 years ago, when it was connected to Australia by a land bridge. A British attempt at colonization in 1793 colony was evacuated within two years. The Dutch were next, proclaiming in 1828 that the natives of the western half of New Guinea were to be subjects of the King of the Netherlands. They opened Fort du Bus to protect their lucrative trade with the spice islands from other European powers, but abandoned the area after only ten years. No continuous settlement was established in West Papua until 1897, and no substantial development was undertaken within the country until the 1950s. From 1942 to 1945, Japan occupied Indonesia. In 1949 the Dutch ceded sovereignty of Dutch East Indies to the Indonesian Republic, but excluded Dutch New Guinea (West Papua). A long and tortuous history followed. The controversial West Papuan version can be examined at www.newint.org/issue344/history.htm. Strife continued in Indonesia's unstable parliamentary democracy until President Soekarno declared martial law in 1957. Soekarno was removed from power following a fruitless coup in 1965 by alleged Communist sympathizers. President Suharto ruled Indonesia from 1966 until 1988. Suharto was

toppled in 1998 following a round of riots, and in 1999, free and fair legislative elections took place. Indonesia is the world's third most populous democracy, Government: Republic. Capital: Jakarta. Note: Papua is one of 27 provinces with its capitol in Jayapura. As of late 2004, Raja Ampat has a separate district government.

Geography Located in Southeastern Asia, Indonesia is an archipelago situated between the Indian and Pacific Oceans. Coastline: 54,716km. Terrain consists primarily of coastal lowlands, with interior mountains on larger islands. Raja Empat is the most western district of the Indonesian province of Papua. Raja Empat consists of four major islands off the west coast of Bird's Head Peninsula of New Guinea Island, the western half of which is Indonesia and the eastern half, Papua New Guinea. The province was formerly called "Irian Jaya".

Climate Tropical, hot and humid, with more moderate climate in the highlands. The water



temperature is normally 28-29°C (84-86°F) year round, with an occasional "chilly" 27°C (82°F) spot. Most divers use 1mm neoprene suits. However, some people prefer 3mm.

Environmental issues

Challenges include industrial waste water pollution, sewage, urban air pollution, deforestation, smoke and haze due to forest fires. Logging—the rainforests within the combined West Papua/Papua New Guinea land mass are second in size only to those of the Amazon, making it 'the lungs of Asia'. In 2001, there were 57 forest concession-holders in operation around the country and untold other forest ventures operating illegally. Mining—tailings from copper, nickel, and gold mining are real threats.

Economy A vast polyglot

nation, Indonesia has experienced modest economic growth in recent years. Economic advances were made with significant financial reforms. In 2009, when the global financial crisis hit, Indonesia fared well compared to its regional neighbors. It was one of the only G20 members posting growth in 2009, alongside China and India. However, the government still faces ongoing challenges of improving the country's insufficient infrastructure, labor unrest over wages, and high oil prices affecting fuel subsidy programs.

Currency Indonesian rupiah (IDR). Visa cards, Euros and U.S. Dollars (large bills issued after 1999) are widely accepted. ATM machines in tourist areas offer the best exchange rates, Travellers cheques are becoming quite difficult to use except at banks.

Exchange rates:
1 EUR=12,723IDR;
1 USD= 9,737IDR;
1 GBP=15,127IDR; 1 AUD=
9,972IDR; 1 SGD= 7,908IDR

Population

251,160,124 (July 2013 est.) Papua Province: 2.5 million—1.5 million of which are indigenous people. Ethnic groups: Javanese 40.6%, Sundanese 15%, Madurese 3.3%, Minangkabau 2.7%, Betawi 2.4%, Bugis 2.4%, Banten 2%, Banjar 1.7% (2000 census). Religions: Muslim 86.1%, Protestant 5.7%, Roman Catholic 3%, Hindu 1.8% (2000 census). Note: Indonesia is the largest Muslim country in the world. Visitors are encouraged to respect local tradition and dress modestly. Internet users: 20 million (2009)

Language Bahasa Indonesian, plus 253 tribal languages. West Papua and its neighbour, Papua New Guinea, contain 15% of all known languages. English, Spanish and German are spoken on dive liveaboards.

Health There is a high degree

of risk for food or water-borne diseases, such as bacterial diarrhea, hepatitis A and E, and typhoid fever, as well as vector-borne diseases such as chikungunya, dengue fever and malaria. Check with WHO or your dive operator for prophylaxis recommendations. Larium is not effective in Papua. Bring insect repellents containing DEET. International Certificate of Vaccination required for Yellow Fever if arriving from infected area within five days.

Decompression chamber

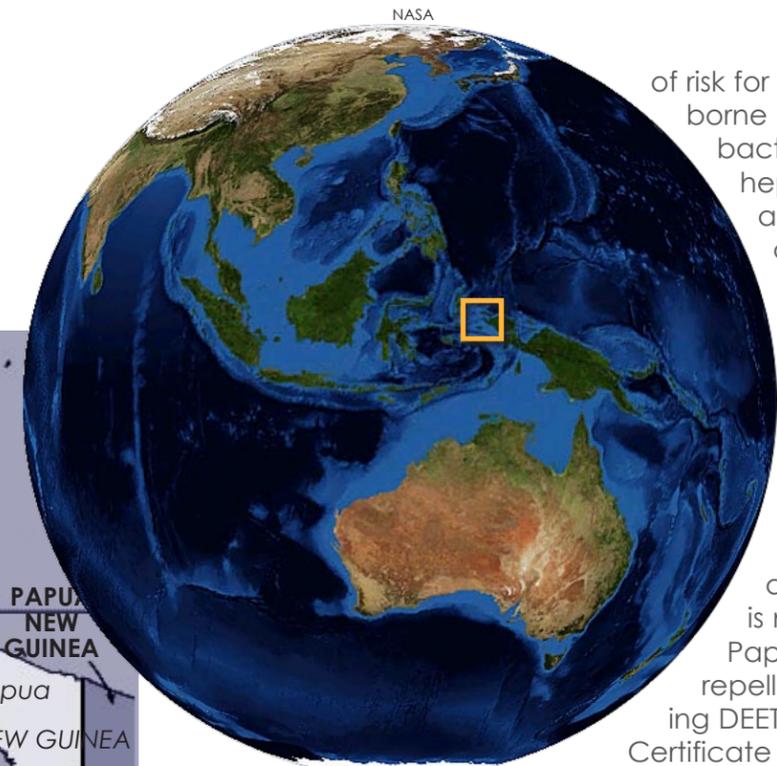
Raja Ampat has a new chamber at Waisai (capital city on south side of Waigeo near Dampier Strait). The next nearest chambers are on Sulawesi: Manado: Malalayang Hospital tel: +62 0811 430913 Makassar: Rumah Sakit Umum Wahidin Sudirohusodo tel: +62 0411 (584677) or 584675

Travel/Visa/Security

Passport valid for six months beyond intended stay is required. There is a Visa-On-Arrival for 35 countries including USA, UK, most European and Asian countries. It is US\$25 for a stay of up to 30 days. To enter Papua, you need a surat jalan, which is issued by the local police, and arranged by your dive operator. Although there is an active independence movement in Papua, tourists have not been impacted.

Web sites

Indonesia Travel www.indonesia.travel/en



NASA



Red Sea Wrecks

Hurghada, Egypt

Diver on
wreck of the
SS *Carnatic*

Text and photos by Brandi Mueller

The Red Sea, its reputation precedes itself. The beautiful red-orange desert mountains stand over the unexpected and contrasting blues of the water. The calm and clear waters hide much below. Under the water is a rainbow of colors, and among the fish and corals, are the remains of many ships.

The Red Sea has been deceitful to many captains over time. The beautiful reefs that divers dream about here have also caused many a ship to meet its end. Sailors thought they were safe after clearing the challenging and narrow Suez Canal only to run aground or hit reef just outside the canal. Misjudgment and bad weather as well as numerous wars have laid the stage for the demise of many ships.

Although a popular dive location for Europeans, I (coming from the United States) knew very little about what I would find. I had always heard about its fantastic reputation and was excited to discover there were so many wrecks (which I happen to like very much).

Not only are there wrecks, but there are wrecks with really great stories behind them. Gold coins, wars, motorcycles and even toilets—who knew? I love nothing more than a good story and a good dive to create more diving stories to tell over a few drinks back on the boat. Lucky for me I had a week on Emperor Diver's MV *Superior* liveaboard and a fantastic group of Finnish and Irish dive buddies.

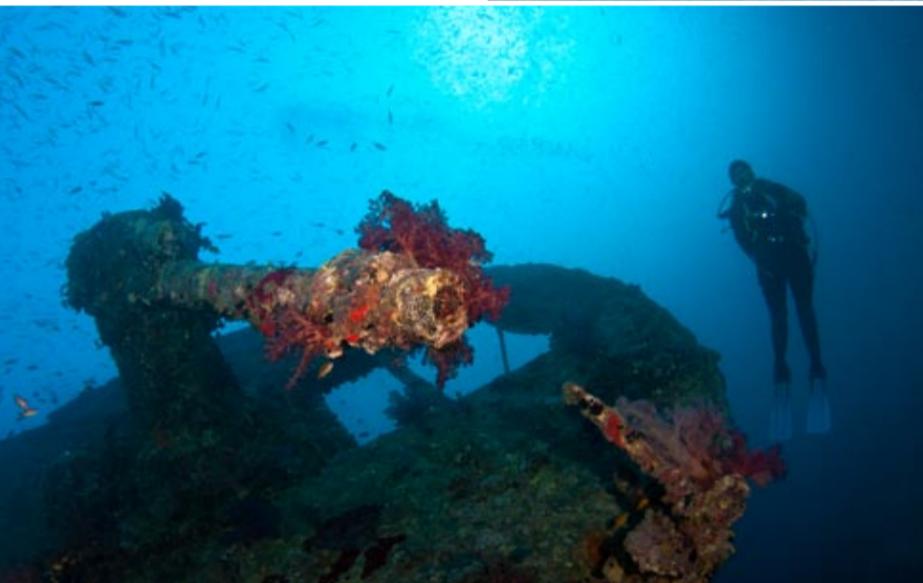
The hardest part was that there were so many wrecks with so much to see on



THIS PAGE:
Scenes
from the SS
Thistlegorm;
City of
Hurghada
(right)



Red Sea

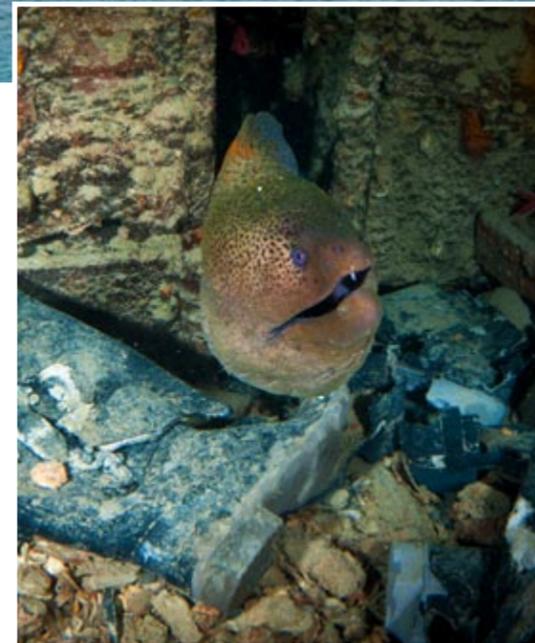


and Italian forces in the Mediterranean, she made the long trip around via Cape Town, South Africa, refueled and headed up through the Red Sea towards the Suez Canal.

Passage through the Suez was dependent

Thistlegorm, two ships had collided blocking the entrance of the canal, forcing her to wait before continuing. She was moored at Safe Anchorage F in September, awaiting the call to continue up the canal.

The *Thistlegorm* waited for two weeks and on October 6, in the middle of the night, two bombs were dropped on her, both hitting a hold with stored ammunition caus-



ing a huge explosion and sinking the ship. Two Heinkel He-111 aircrafts had been dispatched by the Germans from Crete to find and destroy a rumored ship carrying 1,200 British troops, and these aircraft

were headed back after an unsuccessful hunt. They spotted the *Thistlegorm* at anchor in the moonlight and decided to release the unused bombs. The explosion almost tore the ship in two, and towards the stern, the ship seems to have peeled away leaving a distinct missing section of the ship.

While passing through Cape Town, the HMS *Carlisle* had joined the *Thistlegorm* and was anchored nearby also awaiting passage. The *Carlisle* rescued what crew it could, but nine of the 48 didn't survive.

Launched in 1940, the *Thistlegorm* was built as a steam, single screw cargo ship. She only had four voyages, the fourth being her last. Her completed journeys were to North America to bring back steel rails and aircraft parts, Argentina for grain, and the West In-

each one. I wanted to dive them over and over again. The dive guides correctly assured me that the next one would be just as good, if not better.

Diving out of Hurghada in March, the water temperature, frosty 22°C (70°F) was a bit colder than I expected (I hadn't done my research before arriving). My first giveaway that the water would be chilly was when my boat mates were unpacking their drysuits!

Luckily the diving was so good that I didn't notice I was cold until the safety stop. With so much to look at and so many things to take photos of, I hardly had time to notice I couldn't feel my toes.

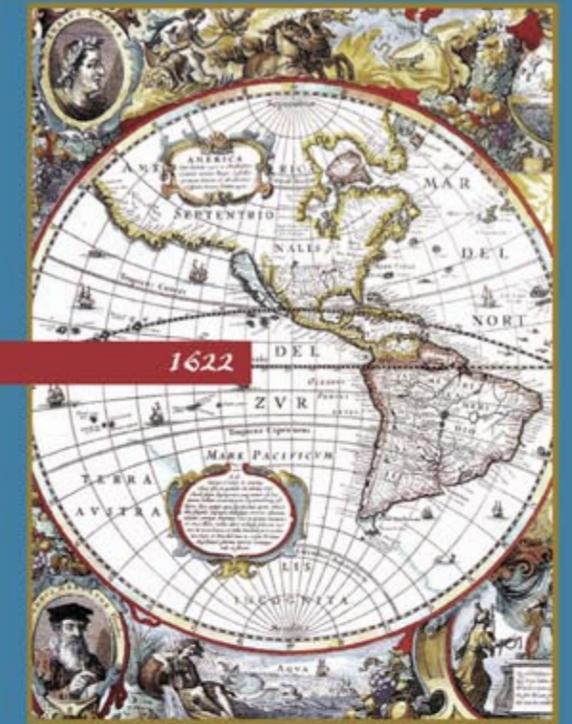
Diving the wrecks

SS *Thistlegorm*. The World War II British Supply Ship, *SS Thistlegorm*, had left Glasgow, England, on 2 June 1941 loaded with military supplies headed for Alexandria, Egypt. Due to German

on how many other ships there were, enemy activity, and in the case of the



Treasure Coins of the *Nuestra Señora de Atocha* & the *Santa Margarita*

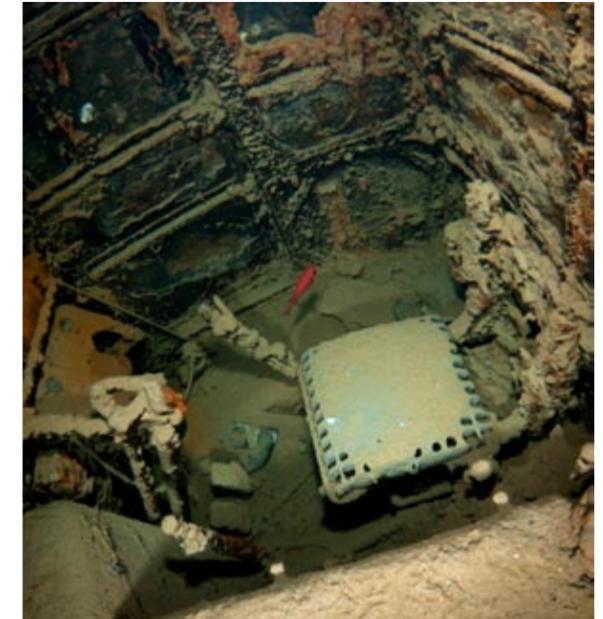
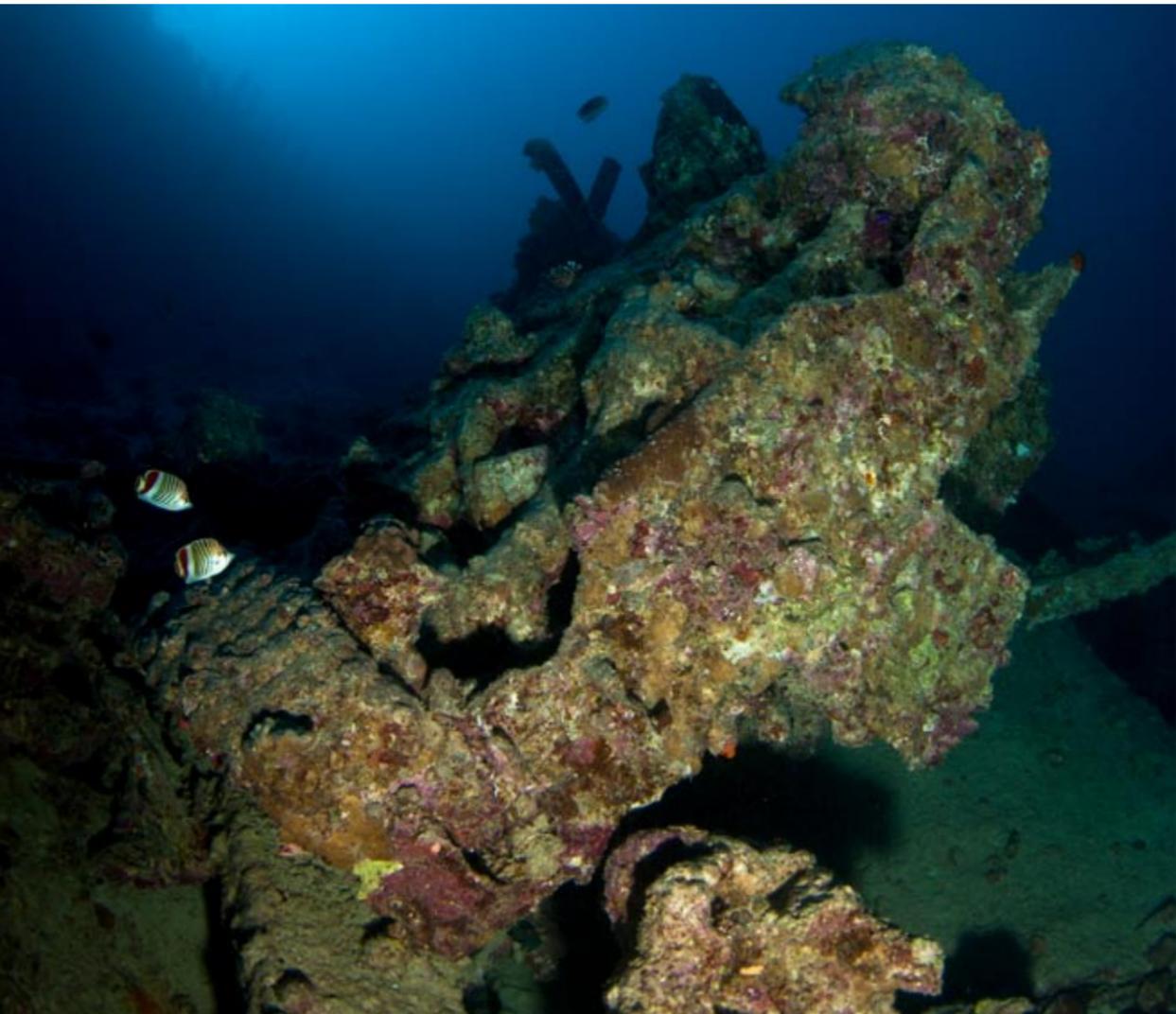


Carol Tedesco

In 40 succinct pages, *Treasure Coins of the Nuestra Señora de Atocha & the Santa Margarita* answers all the most frequently asked questions, including what the coins look like when first discovered, the meaning of the various markings, how they are cleaned, conserved and graded, what they were worth in the 17th century, and the most up-to-date information on the names and periods of office of the men who made them. Of particular interest to 1622 fleet coin enthusiasts is a section devoted to the exceedingly rare Old World minted coins discovered on the *Atocha* and the *Santa Margarita*.

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at
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THIS PAGE: Scenes from the wreck of the *Thistlegorm*; Motorbikes stacked in the beds of trucks on deck (right)



bow and entered the interior of the ship to visit holds #1 and #2. The first thing I noticed inside the ship was motorbikes upon motorbikes stacked in the beds of trucks. Three bikes to each truck and with many of the trucks you could see through the roof of the cab to the driver's seat, clutch, pedals, and a few steering wheels.

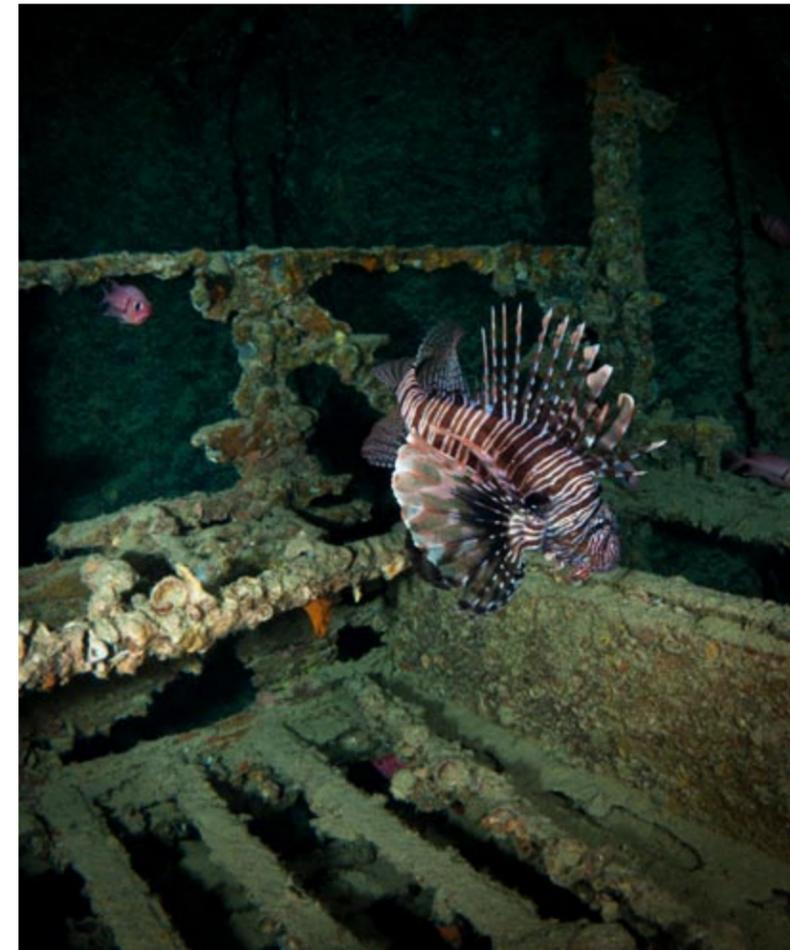
Continuing over the trucks there were stacks of tires in any extra space in front of and behind the trucks. Schools of squirrelfish seem to have made their homes in the 'tween decks of the ship, and they hovered above the trucks and motorbikes. A diver was waving his flashlight at me frantically summoning me over and pointed out a massive green moray eel coming out of a crack between a truck cab and bed. Upon closer inspection, the eel seemed to be guarding a Wellington boot.

The trucks and motorbikes seemed to never end, and in the back of

one truck, our dive guide pointed out a battery which divers had rubbed clean of algae to show its brand. It is stamped with "Lucas, 1941, Birmingham England, Lead Acid". Swimming through the holds, there is a lot of outside light and quite a few exits if one wants to get out of the ship.

On a second dive, we dove the outside of the wreck first visiting one of two LMS Stanier Class 8F steam locomotives, destined for Egyptian Railways, that had been carried on the deck of the ship. Both were hurled off the ship in the explosion, landing one on either side of the wreck. On our way back to the ship towards the stern, there was an upside down tank on which one could clearly make out the caterpillar tracks.

On the stern, the *Thistlegorm* was armed with a 120mm (4.7inch) anti-aircraft gun and a machine gun (the latter being attached after the construction of the ship). Both of these guns are still intact, the forward gun pointing toward the sea floor and the machine gun outward



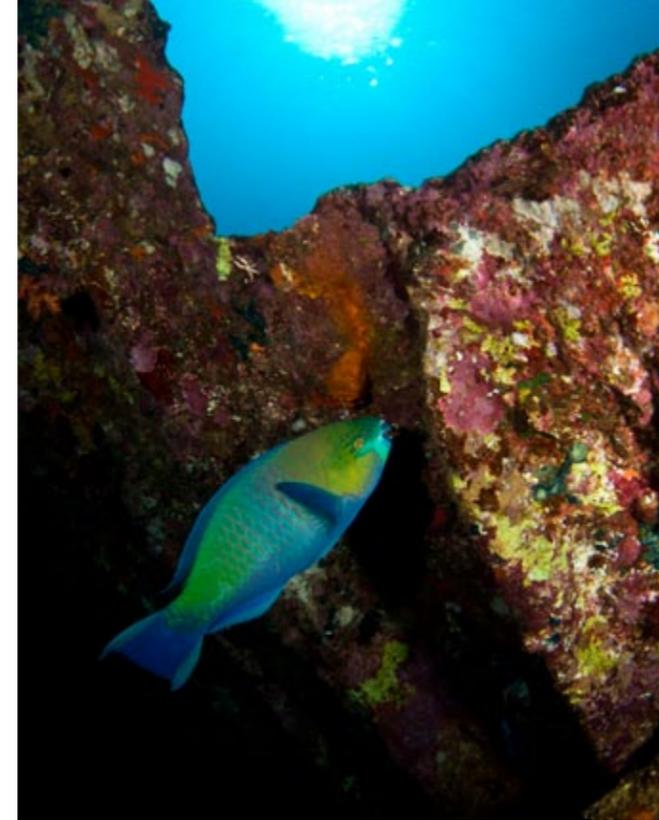
horizontally.

Aside from all the exciting artifacts and historical WWII relicts, the *Thistlegorm* is

dies for sugar and rum. To Alexandria she was carrying Bedford trucks, BSA 350 and Norton 16H motorbikes, boxes of rifles, aircraft parts, ammunition, tires, Wellington boots, torpedoes, tanks, two locomotives and other military supplies.

On our first dive there was some current, which is common, and we used a surface line to pull ourselves up to the bow mooring and decent line. We descended forward of the ship's bomb destruction towards the





teeming with marine life. We saw several crocodile fish lounging on the deck, the holds were filled with colorful reef fish, batfish patrolled the decks, and pink and orange anthias guarded the soft coral-covered winch.

The *Thistlegorm* is one of the most popular and most dived sites in the world, and it's easy to see why. The cargo it contains makes for an exciting treasure hunt with unsuspected war artifacts found around every corner. Its max depth is around 30m (100ft) making it easy for recreational divers and allowing for a fair amount of bottom time. Jacques Cousteau was the first to lo-

cate the wreck in 1956 using knowledge from local fisherman, but it was not found again and dove until the early 1990s.

Unfortunately, time and extensive use is taking its toll on the wreck. Rusting from more than 70 years in saltwater as well as many boats mooring directly to it in weak spots have caused collapses. Sadly,

many artifacts have been removed from the ship as well; Cousteau, himself, took a motorcycle, the captain's safe, and the ship's bell. Divers have removed many of the small objects such as steering wheels and parts of the motorcycles over time.

Even with the wreck pillagers and dive boats and saltwater taking its toll, the *Thistlegorm* is a fantastic wreck dive. Multiple dives are needed to see the majority of it, and even after many dives it would be tough to get bored. Liveboards frequent the dive site. Being close to Sharm el-Sheikh and Hurgada, day boats can easily get there.

Giannis D. Shab Abu Nuhas is a reef that is just below the surface near the Straits of Gobal, a very busy shipping lane. This hidden reef has been the demise of more than one ship. In fact, the wrecks of five ships can be dived off Shab Abu Nuhaus:

the *Giannis D*, the *Carnatic*, the *Chrisoula K*, the *Kimmon M*, and the *Marcus*.

The *Giannis D* had left the Croatian port of Rijeka in April 1983, carrying wood to Jeddah, Saudi Arabia, and continuing on to Hodeidah, Yemen. Having made it through the Suez Canal, the captain thought they were in the clear and

Scenes from the wreck of the SS *Carnatic* (above and left)

went to sleep, handing the vessel over to his officers and giving the orders of "full speed ahead". Shortly after, the ship hit the reef and sank.

Having originally been launched as the *Shoyo Maru* in 1969, the 99m (325ft) long and 16m (52ft) wide cargo vessel was built in Japan. She was sold and

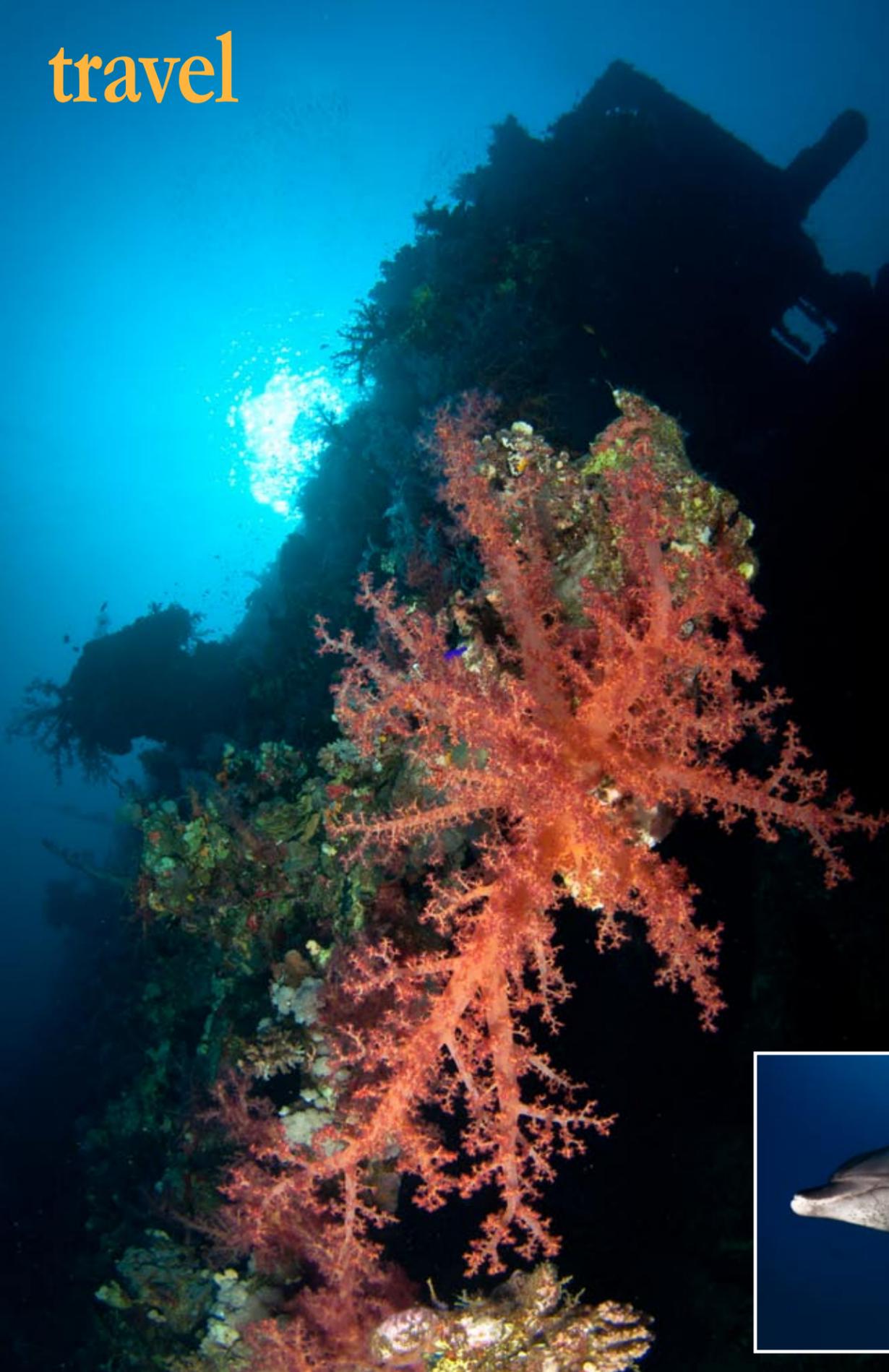


Scenes from the wreck of the *Giannis D* (right, top left and top center)

Historical image of the SS *Carnatic*



WIKIMEDIA COMMONS



Anthias on coral; Pair of chevron butterflyfish (right); Diver at *Carnatic* wreck site encounters wild dolphins (lower right)

renamed the *Marcos* in 1975, and sold again in 1980 to Dumarc Shipping and Trading Corporation and named the *Gianis* and *D* for Dumarc.

Sitting at a 45 degree angle on her port side between 6-27m (20-90ft) our dive guide took us through the interior of the stern. The slight tilt made it feel as if we were swimming through an underwater fun house. There isn't too much in the way of artifacts inside the ship, but the engine room is easily accessed with machinery, gauges, handles and levers still

intact.

The fish life is prolific with many species of reef fish calling the shipwreck home. A large mast extends horizontally from the ship and is covered with hard and soft corals. It appears to be its own little mini reef, and I saw emperor anglefish and parrotfish there. Hanging down from the mast are the original rigging lines, also growing pink soft corals. The collapsed midsection harbors batfish and crocodilefish.

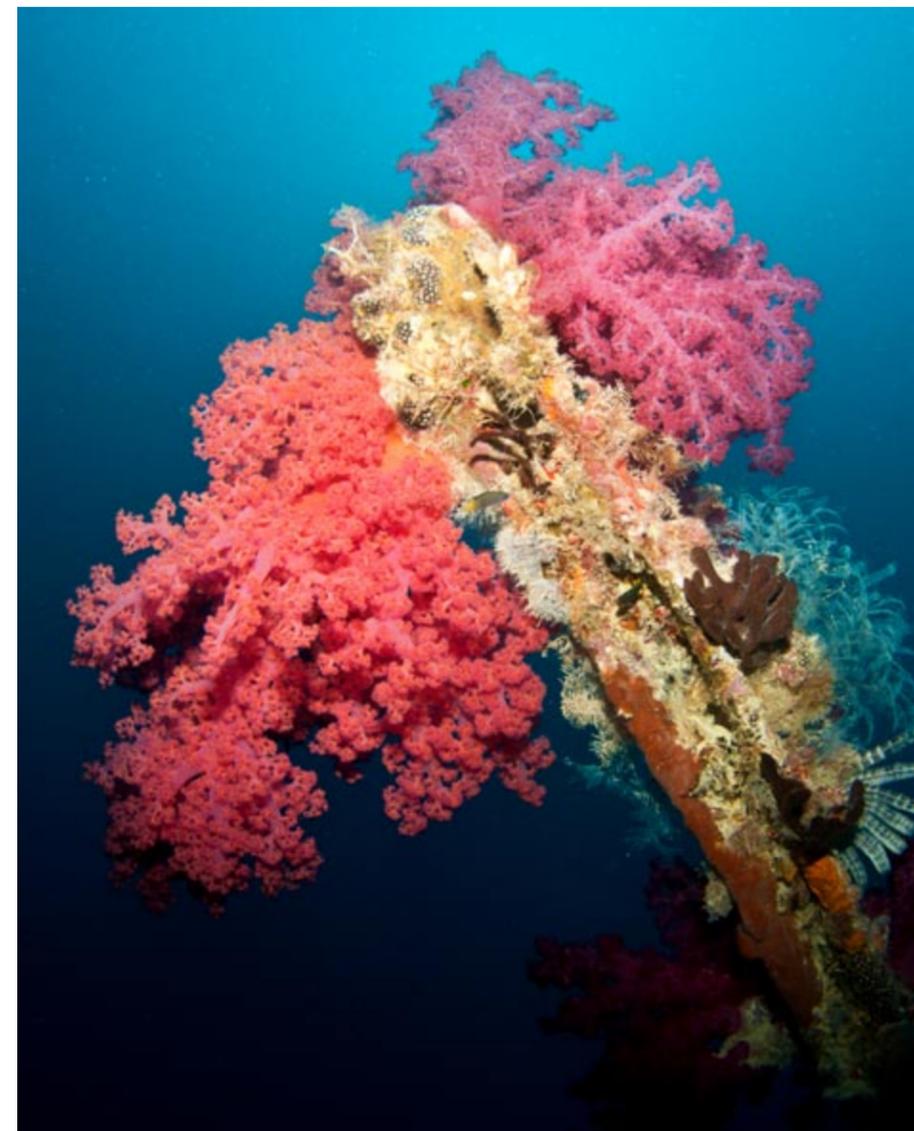
SS *Carnatic*. Another casualty of Shab Abu Nuhas reef, *SS Carnatic* was sailing to Bombay from Suez with 34 passengers and 176 crew, carrying cotton bales, copper sheeting, Royal Mail and



Curious dolphins at the *Carnatic* wreck site

GB£40,000 of gold coins. In the dark early hours of 16 September 1869, the ship hit Shab Abu Nuhas. Captain Jones assessed the damage and decided the ship was okay for the time being. He knew the P&O Liner *Sumatra* would be passing by soon. He decided to keep all passengers on board and continue business as usual

Lush coral growth on the wreck of the *SS Carnatic*



THIS PAGE: Scenes from the wreck of the *Rosalie Moller*; Glassfish (left)

until the *Sumatra* showed up to rescue them. Passengers were told not to worry and instead to prepare themselves for dinner.

Passengers asked the captain multiple times to take them to Shadwan Island some three miles away by lifeboat. All requests for transport were denied, as he kept hoping for the *Sumatra* to pass by. Becoming more persistent as time

went on, the captain finally gave the okay for passengers to be put into the lifeboat.

It had been a day and a half since they ran aground. As the first four passengers were being put in the lifeboat (woman and children first) the *Carnatic* suddenly broke in half. The aft section of the boat sank quickly with five passengers and 26 crew. Soon, the rest of the ship fell onto its

port side sending everyone into the water. With many heroic efforts, the remaining passengers were rescued and transported to Shadwan. Eventually, the *Sumatra* passed by and rescued those left.

Today, the wooden decks of the 90x12m (300x40ft) ship have rotted away leaving only the steel hull, with its iron supports and cross-members. The shallowest part of the ship is at 17m (55ft) and the deepest at 27m (88ft). It is lying on its port side.

The iron ribs were extensively draped with soft coral probably due to lots of water, nutrients and sunlight being able to pass through the beams. The bow area was packed full of glass fish, which hardly even tried to move out of the way when a diver swam through. Near the bow, dozens of small pipefish were free swimming just off the beams in search of breakfast.

The middle section has mostly collapsed but the stern is intact and the prop sits in the sand. A very photogenic davit encrusted with corals extends out from the stern section, and as I was framing a photo with the davit and the sun behind it, a group of four large spotted dolphins swam by our group of divers.

Because of the large quantity of gold

and copper on the boat, Lloyds of London sent one of their best salvagers to the wreck. All the gold was reported found as well as much of the copper and mail, although there's still a rumor that gold coins may be found around the ship. I had a quick look, but sadly, didn't find any.

Rosalie Moller. Another loss of WWI, the *Rosalie Moller* was built in 1910 in Glasgow by Barclay Curle & Co under the name *Francis*. The 108m (355ft) ship was sold in 1931, renamed, and started sailing in China. When the war broke out, she was moved back to Liverpool and placed under the command of Captain James Byrne, transporting goods for the Royal Navy.

In July 1941, she was carrying Belgian

coal, highly coveted during the war because it was supposed to burn longer and created less smoke, to Alexandria.



With the Mediterranean off limits because of German and Italian forces, she sailed the long way around via South Africa. Having gotten near the Suez Canal, just like the *Thistlegorm*, the *Rosalie Moller* took anchor to wait its turn to go up the channel. This ship's passage was also affected by the collision that made the *Thistlegorm* wait.

Anchoring in Safe Anchorage H, the *Rosalie Moller* had no idea about the loss of the *Thistlegorm* two days earlier, when during the night of October 8, two more twin engine Heinkels flew overhead and released two bombs, one hitting the *Rosalie Moller*, and she sank in less than an hour. Only two lives were lost, the rest of the crew were able to get to the lifeboats.

Sitting between 17 and 50m (55-165ft), this is one of the deeper wrecks we dived. With technical diving training and equipment, this ship is known for its penetrations particularly to the engine room, but we only



explored the exterior, which is still very much intact and sitting upright. Visibility was a little murky, which is often normal, making the ship a little eerie and mysterious. We had no current, and that combined with the bottom composition probably led to the decreased visibility.

Descending from our boat, our first view was of one of two still upright masts wrapped with soft coral. Headed further down to the ship deck, we swam towards the bow. I looked into some of the deckhouse windows, and the interior was packed full of cardinalfish, glassfish and other juveniles. Near



the bow, the deck gear was all still in place, and a crocodile fish was lounging in front of the winch.

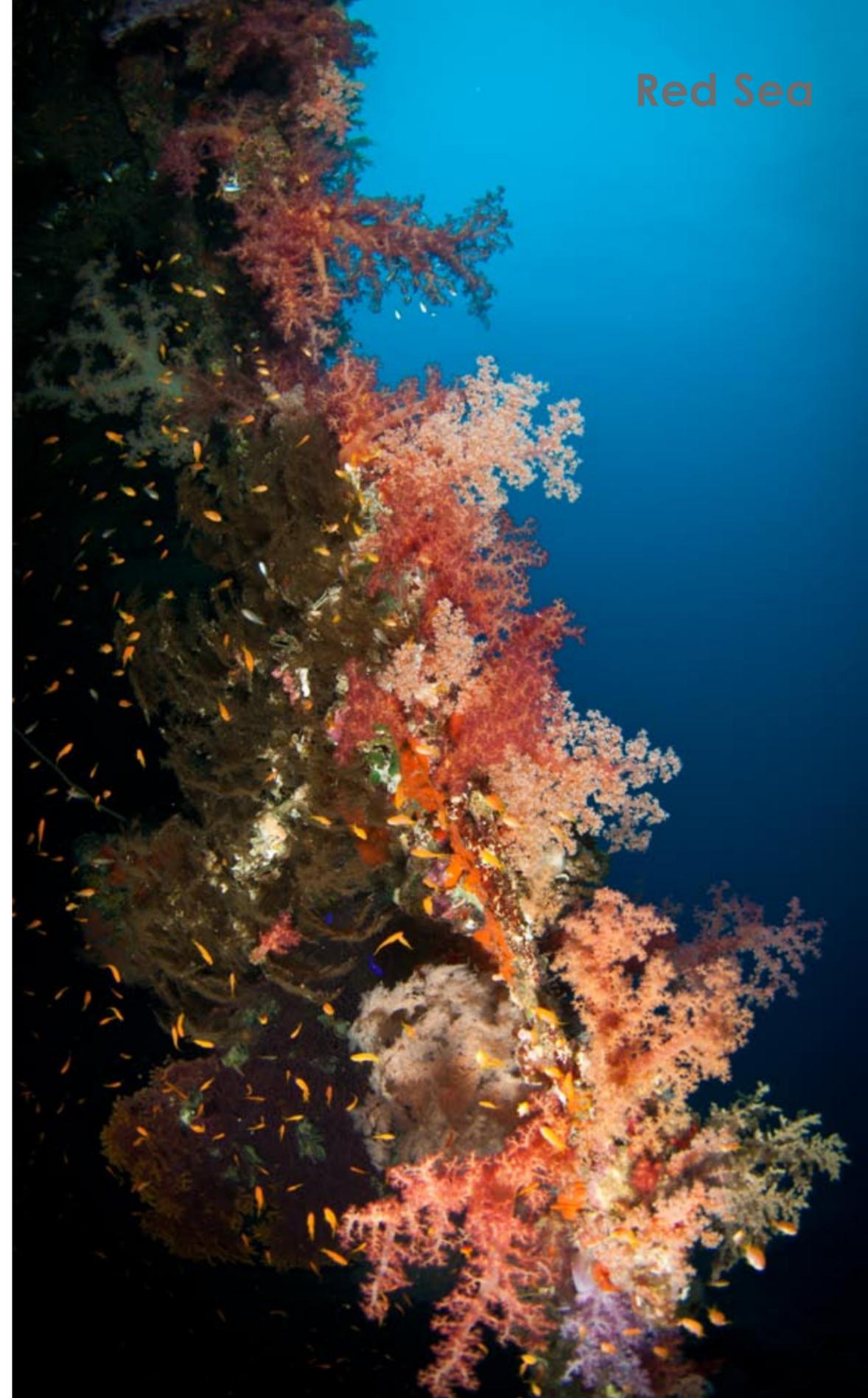
This site is a popular place for a tiny, but very pretty purple flabellina nudibranch. We found three of them during our short dive on the *Rosalie Moller*. Running short on bottom time, I headed back to the forward mast to ascend and saw several large tunas hunting around the wreck.

Dunraven. Sometimes the story of the finding of a wreck can be just as exciting as the account of its sinking. In the case of the *Dunraven*, in the 1970s, Howard Rosenstein was looking for a shipwreck to dive. Local fishermen provided him with the "GPS coordinates" of a site described cryptically: "There is a place out in the Gulf

in the direction of the setting sun, far from land and at least three cigarettes from Ras Mohammed. Here, there is a reef which comes out from the sea to break the surface at low tide. Go to the end of this reef coming from the south east."

Pulling out some charts, Howard Rosenstein got quite lucky guessing the exact spot. The ship wasn't identified as the *Dunraven* for another two years, when engraved porcelain had been found with the name.

Launched in 1873, the *Dunraven* was capable of being powered by sail or steam. In 1876, the ship was on its way to Newcastle from Bombay carrying spices, timber and cotton. In good weather, the ship sailed straight into the reef near Ras Mohammed in the dark. The crew tried for 14 hours to get the ship off the rocks, finally



THIS PAGE: Scenes from the wreck of the *Dunraven*





THIS PAGE:
Scenes from
the wreck of
the *Kingston*

Red Sea

most of the wreck from the reef. Many fish have made the wreck their home including many anthias and several schools of glassfish. Some of the more notable remains include four tall posts near the bow area standing straight up. At the deepest point, 19m (62ft), the propeller sits encrusted with coral and fan corals are growing on the hull.

The *Kingston* was a 78m (255ft) by 10m 32ft rigged iron hull screw steam ship sailing from London through the Mediterranean and the Suez Canal to Aden, Yemen, with a crew of 25. Once getting through the treacherous canal, Master Thomas Rich-

ard Cousins went to bed to sleep. Near midnight, the ship hit Shag Rock. In an attempt to save the vessel, the crew dumped a large quantity of the coal cargo. The ship was still afloat when the captain asked the passing steamship *F.W. Ward* to help pull her off. They declined but offered passage for the crew, which the captain denied.

Later the *Columbian* came alongside and tried to help pull her off, but couldn't. A full day had passed when the ship started taking on water and the captain decided to have the crew abandon ship. Seventeen crew were given passage on the

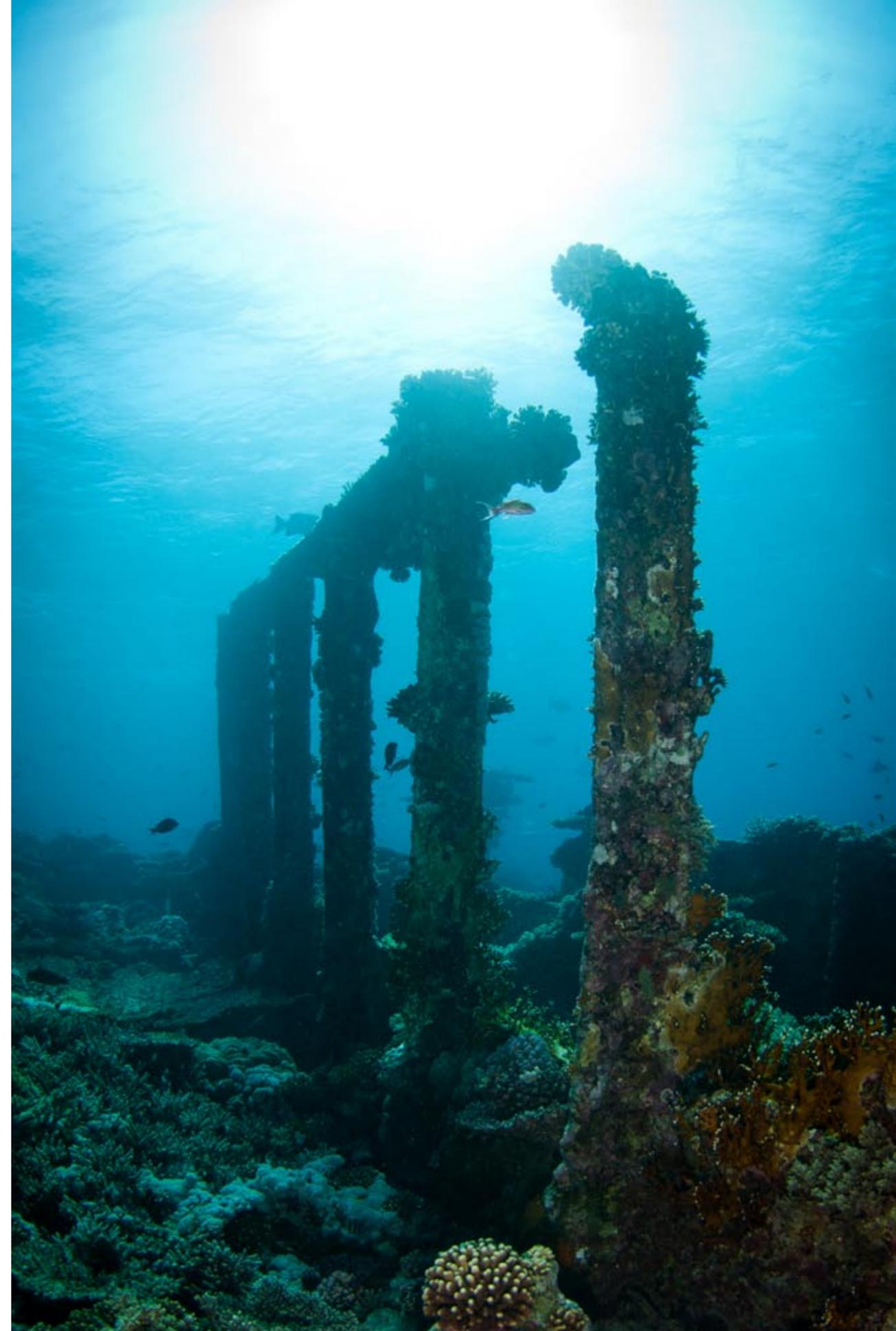
succeeding, but it still capsized, sinking quickly. The 25 crew were rescued by local fisherman.

Mostly upside down and lying on her port side, the propellers are the shallowest point at 17m (55ft), and the ship deck sits in the sand at 27m (88ft).

With several entrance points into the interior, the *Dunraven* made for a fun dive swimming inside most of the upside down hull. We started the dive outside the wreck near the propeller (one of the shallowest points) which still has three of the blades intact. Coming around the starboard side, we entered the ship near the sand, which

almost felt like entering a large dome. Light made its way in through the lower sides near the sand, with the ship overhead. Squirrelfish and goatfish schooled inside the wreck, and after exiting, a large napoleon wrasse paid us a visit. The area around the wreck was very nice reef with hard corals, sea fans, and lots of reef fish.

SS Kingston. All that remains of the *Kingston*, which sank in 1881 after running aground on Shag Rock, are the metal beams and hull. Sitting upright with its shallowest point at 4m (13ft) the ship remains are so overgrown with corals it's hard to differentiate





Remains of the *Jolanda*; Diver and fan coral in the Red Sea (right)

Red Sea

abyss. Coming up on the *Jolanda* cargo, I first saw one lone white porcelain toilet sitting upright, as if it were waiting to be used. Continuing on they littered the sea floor sometimes stacked on top of each other and scattered in all directions. A small bit of metal ship structure was left as well, with the beams decorated by soft coral, and fish taking up residence underneath, in the shadows.

The ship was relocated in 2005

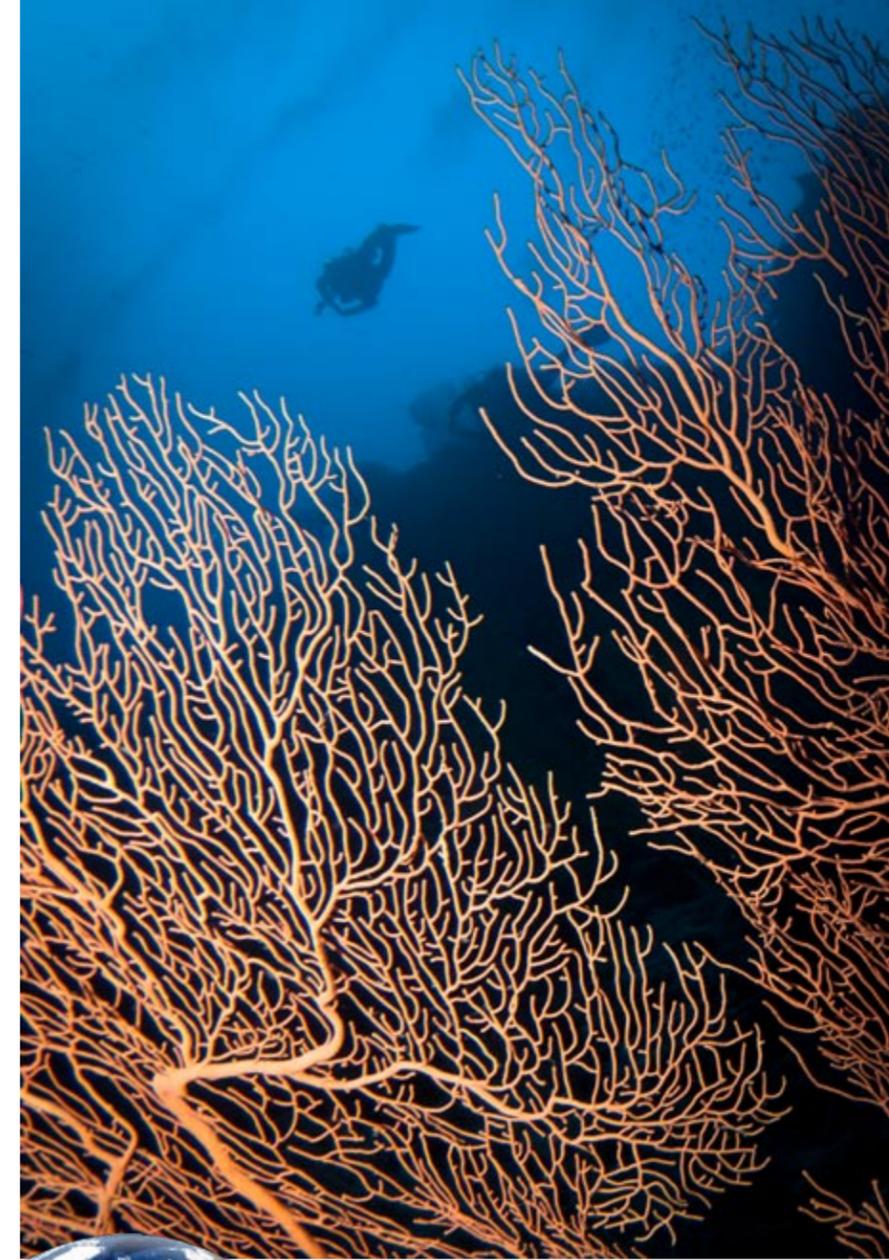
between 145 and 200 meters deep, but for me, the cargo was just as interesting, even without the ship.

Afterthoughts

The history that lies beneath the Red Sea makes it a playground for any wreck diving enthusiast. With so many ships having sunk for different reasons over many years, it has become an underwater museum decorated with the gorgeous and colorful corals and fish of the Red Sea. Tales of destruction and loss, wars, bad weather and just bad luck are as numerous as the abundant marine life of the Red Sea. As my week came to an end, I was already planning my return trip to see it all again and maybe check out the Southern Red Sea wrecks. ■

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passing *Almora*, but the rest of the crew stayed onboard for another day and then moved to Gobul Island, staying four days before being rescued.

Jolanda. Often incorrectly spelled Yolanda, the *Jolanda* was a 75m (245ft) Cypriot freighter sailing from Piraeus to Aqaba with a cargo of toilets, wash basins and bathtubs. She ran aground near Ras Mohamed during a bad storm on 1 April 1981. After four days, the ship rolled onto the port side sitting at the edge of a wall. Until 1985, she was completely in recreational dive depths, but then the ship fell over the edge leaving only the toilet and bathtub cargo behind on the reef between 10 and 30m (32-100ft).

Close to the popular dive site Shark Reef, the *Jolanda* cargo is an unexpected sight underwater. We started our dive at Shark Reef drifting along in a slight current. The hard corals cover the sloping wall, which extends off into the



Cargo of ceramic toilets litter the wreck site of the *Jolanda*



Location of Hurghada on map of Egypt and global map

