

TRIP NOTES

RAJA AMPAT, PAPUA BARAT (WEST PAPUA) INDONESIA JANUARY 2006

Please note that trip notes are exactly what the name suggests. They are not polished literal works. If you want to know something specific about the area visited, feel free to e-mail me.

Please also read the trip notes from my first visit to Indonesia in April 2005. These notes only deal with Raja Ampat.

Raja Ampat

This was my second trip to Indonesia and I was keen to explore the eastern region of Indonesia known as Raja Ampat. With only a few live-aboard dive boats operating in this area and only one shore-based operation, I had been told that there were many areas that had yet to be dived.

New Guinea, the second largest island in the world is separated into two parts. The eastern side of the island is the independent state of Papua New Guinea and the western side of the island belongs to the multi-ethnic Indonesia.

In 2001, the Indonesian Government renamed the region from Irian Jaya (named by the Dutch when they were custodians of the island) to Papua Barat. Although not entirely correct, many people refer to the region as Western Papua.

Raja Ampat, meaning the four kings is the name given to the island archipelago located adjacent to the main island of West Papua. There are four main island groups (Waigeo, Batana, Salawati and Misool) and hundreds of smaller islands with secluded beaches and lagoons.

The entry point to Raja Ampat is Sorong, en-route from Manado. The people inhabiting the areas are distinctly Papuan in appearance and culture bearing more resemblance to Papua New Guinea nationals rather than Indonesians.

The 15 day expedition explored the southern region (Misool) and the northern region (Waigeo). This was a lot of territory to cover and many evenings were spent steaming to a new location.

The trip overall was a success with 49 plus dives completed in the three week period.

Access

Access to Raja Ampat is via Manado in North Sulawesi to Sorong. Travelling east in Indonesia is similar to travelling west in America during the gold rush – the further east you go the less reliable the infrastructure and services become.

The only flight scheduled for Sorong departed Manado at 0400. The flight was a code share arrangement with an Indonesian flare – the aircraft changed companies for the return leg from Merpati to Wings. It was amusing to note that one of the air tickets for a group member claimed she was married (different surname) and not a girl but a boy. She was single and female! Such discrepancies in accuracy are common in Asia.

Both airlines have a very poor safety record and are not what you would call world class. The flight to Sorong was just under two hours and was uneventful (which is a good thing when flying tenth class airlines in a third world country). The aircraft was a 737-200 which had originally started service with Lufthansa in 1969! During the take off roll I was surprised that the flight deck door was left open; I realised only later that the door was broken and hanging on one hinge.

The landing in Sorong matched the unreliability and safety record of the airline. On approach the pilot was high & fast, then too low & descending too fast. Finally he relented to being incorrectly set up for the landing, and thumped the aircraft hard onto the runway.

I was told that the airport was quite new and replaced the antiquated World War Two Japanese built runway on a nearby island. Despite the airport being new, it was quite run down and the arrival terminal was little more than a long table on which bags were unceremoniously placed for collection.

The operator had prearranged local transport and we climbed aboard three very cramped taxi buses for the short transfer to the *Shakti*. Diving bags were crammed into every conceivable space and persons then piled on top. Delicate gear, such as camera bags, sat on laps!

Sorong

Sorong is the regional capital of Raja Ampat and is the “jewel of Asia”. A magnificent city of immense wealth and culture – well maybe on some moth eaten brochure! Sorong is a typical regional Asian city – dirty, musty, oppressive heat, rubbish everywhere but the rubbish bin. The police carried shotguns and the army were brandishing machine guns.

***Shakti* – Home Away From Home For 15 Days**

Several Indonesian owned live-aboards operate in the area, however, *Shakti* is the only non Indonesian owned operation.

The *Shakti* is roughly 30 meters in length and constructed of wood. I was told the boat was around 6 years old being constructed in the traditional Indonesian phinisi style of boat building (wooden vessel with two masts resembling an old style pirate ship). The *Shakti* diving operation is owned and operated by David Pagliari a softly spoken but enthusiastic expatriate from Hong Kong. The crew are Indonesian and Papuan.

Comprising two levels, the *Shakti* has six cabins (four double berth below the main deck & two located on the main deck). Each cabin except one has air conditioning and a window, or a hatch that can be opened. Immediately aft of the forward four cabins is a largish multi purpose room equipped with a DVD player and overhead projector. This room is used for general entertainment, camera repairs and sleeping. Despite being air conditioned and having a oscillating fan, the room can become quite hot and stuffy. A ladder and hatchway connects this room to the upper deck and galley.

Located on the main deck is a spacious galley adjoining the kitchen area and the remaining two cabins. The galley has a skylight built into the roof that ensures good lighting, however, you must be careful not to get sunburnt.

The upper deck has deck chairs and mattresses and is an ideal area to socialise and relax. There are three bathrooms with warm water fresh and salt water showers.

The forward area of the boat is quite spacious and this is where the dive stations are located and dive briefings conducted. All your equipment is kept neat and tidy in a plastic crate and it's almost impossible to misplace equipment. The arrangement is very efficient and neat. Access on and off the boat is via a ladder-way which is lowered from the side of the boat to waiting tenders.

The *Shakti* has the standard safety equipment including HF and VHF radio, portable GPS and radar. Medical oxygen and a well stocked medical kit is also carried.

Two small tenders are used to ferry divers to dive sites and the shore if required. One is an orange coloured heavy Chinese built rescue boat and the other is a zodiac style craft constructed from aluminium. Both are powered by Yamaha 40 HP outboards. The larger Chinese built boat has a boarding ladder, however, the smaller zodiac requires divers to slide aboard "like a seal".

The air fills I received were of high quality and the compressor was large enough to fill tanks on demand. Equipment cleaning (if required) was available via a small hose connected to the fresh water tank. Two large plastic tubs were available for soaking camera gear and dive computers.

Staff

All the staff on *Shakti* acted in a very friendly, outgoing and professional manner. David the skipper was very approachable and did everything in his power to ensure your stay was pleasant and memorable. If there was a problem, then a staff member would deal with the problem immediately.

All the staff are quiet and inconspicuous. It amazes me how such a large number of staff can literally disappear on a boat, but they somehow manage it. The exception was Adam. Adam is British born, is diving instructor rated, and has been travelling the world for the past 11 years. He is exceptionally gregarious and his friendly abruptness and casualness made up for the quietness of the remaining crew. In the morning you would frequently hear Adam's booming accented voice yelling "hands of cocks – put on socks" as he rallied the guests for breakfast. Adam's job on *Shakti* is a dive guide.

The only negative comment I have regarding the staff is that David (skipper) during lagoon trips was not well versed in photographic etiquette. It is very difficult to take decent photographs "flying" along in a zodiac at 15 knots! No doubt I should have mentioned this at the time and David would have stopped the boat, but at the time you don't really want to say anything. When you consider that three individuals in the boat were semi-professional photographers, there really is no excuse for David not thinking to frequently stop the boat for picture taking. This negative aspect of the trip is easily rectified.

Please read the separate report on Diving 4 Images (which is in no way associated with *Shakti*).

Food

Food is one of the most important aspects of a live-aboard, and morale quickly slumps if food is not tasty, plentiful and varied.

The food aboard the *Shakti* was excellent. Two Papuan girls worked tirelessly, sometimes 14 hours a day to provide meals for the crew and guests. Most meals were rice based with either fish and prawns. Fruit was either pineapple, papaya or watermelon. Breakfast was cereal, eggs to your liking, bread and flapjacks. Freshly brewed coffee was available at all hours, as was tea, hot water, biscuits (cookies) and fresh drinking water. Milk was UHT milk and was a very welcome change from the usual powdered milk. There was always enough food and left overs were given to the crew.

A word of thanks must go to the two cooks – Yolanda and Aximina. They worked the longest hours of any of the crew and slaved away in 40 degree Celsius heat cooking and baking.

Surface Topography – Raja Ampat

The islands of the Raja Ampat are extremely picturesque and range from sheer-sided limestone islands, similar in appearance to Palau, to small coral sand cays and islets, resembling those of the Maldives.

The topography is stunning. Hundreds of islands, comprising mostly wave undercut limestone (karst) with un-logged primary rainforest growing to the water's edge. Due to its isolation and the inaccessibility, large scale commercial logging has not taken place. As such, the majority of the unique ecology (forest on karst) has been preserved.

Local Geology

I did a quick Internet search on the regional geology of Raja Ampat, however, was not able to find anything pertinent. Therefore, these are my very limited observations from the areas I visited.

Limestone is the dominant rock type, however, in the southern region there is a combination of basalt and andesite landforms. I noted at least one eroded basalt/andesite shield volcano with several basalt tongues finishing at the ocean edge. The volcanic rock has been eroded to form undulating hills and valleys with fertile kraznogenic soils. Landforms in the north were mainly limestone outcrops and islands.

The limestone is massive and bedded (beds are several meters in thickness in some areas), exhibiting iron oxide staining and is of unknown geologic age. The beds are tilted and overturned in some places. Biological indicators such as fossilised molluscs and coral were not observed in the limestone beds. It's possible that the limestone was chemically precipitated as dolomite and was uplifted. I didn't observe any limestone of biological origin during my limited time ashore.

The topography is controlled by physical erosion from ocean-going swells and waves which has resulted in the formation of limestone islands and outcrops of varying size. All the outcrops I visited had been undercut by wave action forming extensive undercut platforms, which in some instances were several meters in width. On closer inspection of these undercut platforms, I observed several species of mollusc, therefore, it is not infeasible to suggest that biological activity is probably initially responsible for opening up channels within the limestone for physical erosion from sea water to occur.

Beneath the water's surface steep walls and buttresses fall away to deep water. Diving along these walls it's possible to observe the part and full formation of paleo sea caves, crevices and wave cut platforms. These structures have since been covered by seawater due either to sea level rise, isostatic and/or tectonic uplift, or a combination of events. Several limestone outcrops have undersea caves that have transgressed from one side to the other, forming undersea columns either side of the outcrop.

Chemical and physical erosion of the limestone above sea level is responsible for the formation of karst and the inherent features of this type of geology (caves, crevices, holes, cracks, razor sharp limestone ridges, etc).

Shark lagoon and Lookout

During one of the rare times, we were not steaming or diving, we decided to visit a small lagoon which appeared to be landlocked between several large limestone outcrops.

Towering walls of precipitous limestone karst dwarfed the zodiac as we navigate the several narrow channels leading to the lagoon. The razor sharp limestone looked inhospitable, but a juvenile goanna was seen, hanging precariously from the steep side of the cliff, feeding on a freshly caught crab. Because of the limestone, caves are numerous and one cave I explored was home for a large community of large fruit bats.

Primary rainforest (not logged) grew to the water's edge and brown and white sea eagles hunted from the taller trees. White pigeons were observed cooing from the relative safety of the smaller densely foliated outcrops. At the edge of the forest, colourful orchid species were not uncommon and a feathered pink flowering hoyia was observed in the forest canopy.

Once the outboard engine was silenced, the forest was exceptionally quiet with only the chattering of birds and the "swish" of schooling fish jumping in the shallows of the mangroves could be heard.

The lagoon has a warm water temperature and high calcium bicarbonate precipitation causes the water to appear milky in appearance. Juvenile black tipped reef sharks, less than a meter in length were observed herding small schools of juvenile school fish in the shallow water adjacent to the beach. The sharks, which are small enough to fall within the "cute" category, use the area as a training ground away from larger predators.

On the shore, pale, brown coloured mud skippers inhabit the densely packed mangroves at low tide.

Lookout

Later in the afternoon, to photograph the sunset, we climbed the highest of several dozen limestone outcrops. The trek to the top of the outcrop was challenging, and any thought of arriving refreshed was quickly forgotten as we gingerly clawed our way through a tangled understorey, to begin climbing near vertical scarps in 30 degree heat.

Limestone karst has never been a forgiving rock substrate and boots, ankles and hands soon began to show the effects of the exceptionally razor-sharp rock. The effort of climbing was forgotten as we reached the summit to see an amazing vista of craggy limestone hills and outcrops surrounded by azure coloured water and white beaches. The *Shakti* could be seen below in the distance.

If you are in this area, a side trip to the lookout is an absolute must do.

Diving – Raja Ampat

I was banking on numerous factors, such as lack of human inhabitation, the remoteness of the region, the Wallace Line that dissects the area, and the locality of Raja Ampat within the Pacific Ocean, to culminate in providing some exceptional diving. I'd been told that marine scientists have claimed that Raja Ampat has the richest marine biodiversity in Indonesia.

Although some dives were good, I would not rate any of the dives I did as exceptional or mind boggling. Visibility was rarely greater than 20 meters and sometimes as poor as 10 meters. If the visibility had been better, then the underwater topography would have been more stunning (because you could see it). Currents were very strong on many dives.

If you are inexperienced in diving currents, Raja Ampat is probably not the place to learn!

If you are knowledgeable in coral and fish diversity, then yes the area is unique for its biodiversity. However, if your diving style is more clear, calm water looking at pretty fish with the odd shark here and there, then this area may not excite you.

I was under the illusion that as the region is very isolated, commercial fishing fleets would not be present – I was sadly incorrect. Every evening I saw large commercial fishing boats.

I was also disappointed at the volume of rubbish I observed in the water and on the beach. Yes the beaches are pristine, but you have to ignore the plastic sandals, bottles and assortment of other flotsam. The rubbish observed in the Raja Ampat was in no way similar to the volume of rubbish seen in Lembec Strait or in the Philippines.

Most of the diving is steep walls and drop offs with interesting underwater topography. Sandy and coral rubble slopes can be found adjacent to the many lagoons and small atolls that the region is famous. Caves, crevices and deeply cut wave platforms are common.

Marine Life and Diversity

The coral diversity was outstanding; I'm not a coral buff, but even to a non trained individual the number of species is incredible. Some of the soft corals are the best I have seen – purple, yellow, white, orange and red corals festoon some of the many overhangs along with giant sea fans and gorgonians.

Invertebrate life on all the dives I did was exceptional. Rarely was a wall dived that was not densely covered in a profusion of invertebrate life.

Crustaceans were well represented and spearer and crusher mantis shrimps were commonly seen during many dives. On most night dives, painted crayfish, bugs, sponge crabs, speckled shrimps, barber shrimps, sea spiders, colourful sea urchins and hairy crabs were observed.

We dived several areas adjacent to villages and wharfs on sand and coral rubble and were rewarded with sightings of relatively elusive marine creatures. Some of the species observed were: Mimic octopuses, bobet squids, various ghost pipefish species, black-nosed crocodile fish, blennies, gobies, box fishes, triple fins (including mandarin fish), wasp fishes, razor fish, snake eels, nudibranchs, frog fish, scorpion fish, moray eels and poison urchins.

Large predatory fish, other than giant trevally, a few schools of barracuda and the odd solitary spanish mackerel was sadly lacking. I saw two sharks over 50 dives and they were a large black tip and a smallish white tip reef sharks (tessellated wobbegongs excluded).

Commercial Fishing Fleets and Herbal Fishing – Fish Decline

Human habitation in the Raja Ampat region is sparse, so villagers intent on capturing fish for local consumption are not the main cause for declining fish stocks. Most nights, I observed Sorong based Indonesian fishing boats plying between the islands searching for fish. No doubt long lines are set regularly.

Reef bombing does occur as does cyanide poisoning, but these practices appear to be minimal. Of concern was a practice outlined to be by an expatriate: A local herb is mixed into the seawater which causes large fish to become sedated allowing fisherman to easily capture them. The fish (apparently groupers are favoured) are then transported to other areas of Indonesia where they are sold.

I was told that while the herb only causes large fish to become slow and sedated, it will kill smaller coral fish outright. The herb doesn't break down immediately after dispersal, but continues to kill coral fish for some time after. I'm not sure if this is true, but I did note that many sites had a definite lack of the usual small coral fish you expect to see on a reef.

Interestingly, there were higher than normal numbers of scorpion fish, coral cod and coral trout species on most of the reefs I dived.

Below are two representative examples from my dive log.

Example from Dive Log – Gorgonian Passage 15 m. Dive time 90 minutes

Our second dive at Gorgonian passage and despite initial misgivings dive was very good. The sand floor passage is between towering limestone karst and a current flows through the channel. Massive sea fans hang into the current from the steep sides of the wall. These fans are the largest I have seen and many would be as large as a small office. Gorgonians are thick on the ground along with several dozen hard and soft corals. Soft corals are especially colourful. Within the coral community there are the usual coral fish including several species of blennies. The sand floor is home to 4 species of goby including the uncommon white capped goby. At 5 m I was photographing a blenny when the camera viewfinder went very dark. I immediately thought that the camera had failed, only to realise that the darkness was caused by a large school of tightly packed small fry swimming above my head. Following the fry were several mackerels and trevally (small size). Current was very strong on the sand bottom and impossible to fin against, however, the current dissipated as you swam closer to the wall. A very scenic location to dive.

Example from Dive Log – Sardine Rock 32 m. Dive time 70 minutes

The rock is actually a coral atoll and we were diving the point interface between two currents. The name comes from school of fusiliers that inhabit the point. Military style entry and decent into strong current. Strong finning against very strong current to reach staging area. Once at current interface the strength of the current ebbs. Several spanish mackerel – one just under 2 meters in length. School of circling barracuda at the edge of my vision (15 m visibility). Move up the reef conscious of high nitrogen uptake at depth due to finning! At 15 m the fusiliers swam amongst me. Following the school is a group of very large black giant trevally – they are big! “BANG BANG” – the trevally make their attack on the fusiliers! The school scatters quickly and then tranquillity returns with trevally only patrolling. 5 minutes transpired and the event was repeated “BANG BANG” as the large predators feed on the school. The noise is exceptionally loud and almost deafening. It reminds me of an underwater explosion – the vibrations travel right through your body. Current starts again and it's all go on the “jellyfish express”. “Whoosh” as you are swept along the reef wall. Too fast for picture taking! Navigation is a priority to not hit coral outcrops! An eddy forms above me as the current escalates! Then as fast as it developed, the current stops. Time to search for goby species amongst the sand

rubble, however, only Randalls goby is observed. An octopus strains its head to get a better view of me. Current starts up again and spits you up and out across the reef atoll reef flat. Deploy the surface marker buoy, secure the camera and carry out a 5 minute safety stop, finning into the current to maintain direction and position.

Example from Dive Log – Kepotsol Island 20 m. Dive time 88 minutes

Not the most exciting dive I have done, however, the underwater topography was worth doing the dive. Descended on one side of the small limestone outcrop and made my way through a large cave which was open to other side. The swim through was about 10 m in depth and about 30 m in length. If you looked towards the surface you could see bubbles of air (from your tank & air injection from ocean swells) along the underside of the outcrop. The water was slightly green in appearance due to plankton content, however, the sun shining through the water on the far side of the cave looked quite impressive and inviting. Closer to the edge of the swim through, the ceiling resembled inverted topography and was similar in appearance to an aerial photograph of a savanna dotted with small hills and lakes. This was caused by water and air mixing along the underside of the outcrop.

Marine life was more of the same animals and included a few trevally, nudibranchs, a 2 m black and white sea snake, and a small brown octopus.

The reef edge to the left and right of the swim through was not exciting, and other than hard and soft coral growth, marine life was quite sparse.

At the end of the dive whilst doing the safety stop at 5 m, I watched ocean waves pounding into the outcrop. The waves swished under the wave cut overhang, entered a crevice, depressurised and then retreated. There was little surge as I was beneath the wave, however, the pressure and noise created when the wave was funnelled into the crevice was very impressive and hurt my ears slightly.

The last day of the trip we sailed across Dampier Strait for Sorong & arrived around 2100. The crossing was a little uncomfortable as swells were rolling in from the Pacific Ocean, but I was told it was a good crossing, as the region can get very rough. In fact, this was the roughest sea conditions we had had in the past two weeks.

On Dry Land

The taxi ride to airport from the docks was uneventful. Adam was in the taxi bus behind us playing with the siren. Drivers wore cheap vinyl jackets as it was cool for Sorong in the early morning.

The airport itself is worthy of comment. A huge tin shed with subdividers separating areas. When departing Sorong our flight were delayed (3 hours) and the shed was extremely hot and the air still and oppressive. The only air conditioning was where the x-ray machine was situated, the remainder of the tin shed having two large fans attached to the wall for ventilation. The sparrows nesting in the ceiling were even feeling the heat!

Jolanda decided to switch on a fan and a strong gust of wind made its way across the building, causing locals to scurry to warmer areas or clamber into warm jackets. Several smoking passengers gave Jolanda filthy looks as the ash from their cigarettes burnt more quickly than normal!

I noted that the Merpati airline we had booked on had changed names to Wings. A Dash 8 heavily loaded with dive gear. Excess baggage was not charged as bags had been taken away and the representative had failed to note the weight. The pilots were concerned as the runway was short and temperature quite warm in the mid morning sun.

Despite this, we lifted off without a problem. During the flight, male passengers, to the chagrin of their partners, were entertained by the Indonesian Wings hostess swaying her hips as she “super-slinked” her way along the aisle dispersing out of date bottled water to dehydrated passengers.

Arriving in Manado was the end of the trip. The group dispersed to various home countries (Germany, China, USA, Indonesia and Australia). Jolanda and I then flew onto Singapore, followed by a medium haul flight to Melbourne, and a domestic hop to Hobart.

My Opinion Regarding Diving in Raja Ampat

- The region is very inaccessible and dived rarely. This in itself adds to the excitement and pleasure of the diving.
- Visibility (at least on my trip) was quite disappointing. Average visibility for 50 dives was 15-20 m.
- A definite lack of large predatory marine life such as sharks and tuna. I saw very few big fish other than one large school of jack fish, a few schools of barracudas and the odd few spanish mackerel.
- Smaller cryptic creatures were quite common if you knew where to look.
- Colourful reef fish were not observed in numbers and species that I was anticipating. There were very large numbers of scorpion fish, coral cods and coral trouts.
- Invertebrate, hard and soft coral diversity was superb.
- What I saw of the surface topography was beautiful and few places would stand alongside the sheer magnificence of the limestone hills, buttresses and lagoons.
- The bird life was prolific. I observed two eagle species, pigeons, kingfishers and hornbills. No doubt, if I had spent more time looking I would have seen more bird species.
- On the flora side of things, cycads and orchids were prolific as were hoyo species.

Would I dive Raja Ampat again? Yes, but there are other regions in the pacific which have similar if not better diving. The one aspect of Raja Ampat which is difficult to replicate is its remoteness, magnificent surface topography, and isolation from main stream diving operations.