

Fathoms

Official Magazine of the Victorian Sub-Aqua Group (est. 1954)

WINTER 2022



The MV Kalinda Trip

Boat Trailer Brake Woes

3 Months of Photo Competition

Different Diving



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Kalinda Portfolio - Ian Scholey



Museum of Modern Art - Brewer Reef

Kalinda Portfolio - Ian Scholey

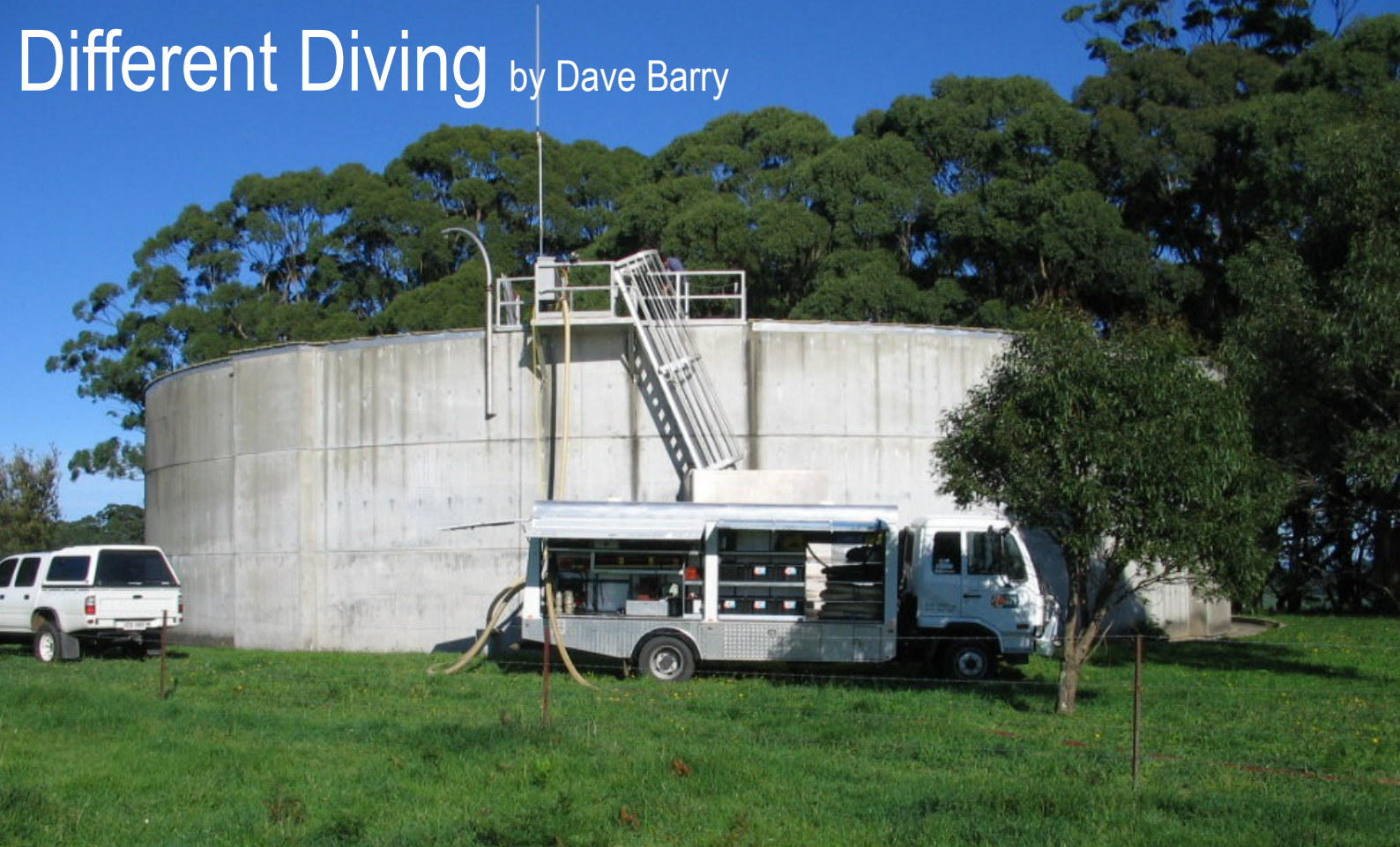


Persian Carpet Flatworm - Lodestone Reef



MV Kalinda

Different Diving by Dave Barry



A typical drinking water storage tank

Most people assume that diving is carried out in oceans and bays, and to a lesser extent rivers, lakes and caves. But there is another, completely different environment out there which is not widely known about – drinking water storage tanks.

This is a specialised area that requires high levels of hygiene to prevent contamination of the drinking water. It also requires significant technical skills relating to construction materials, engineering design as well as accurate photography to compliment the required report writing.

Over time, water storage tanks accumulate variable amounts of sediment on the bottom of the tanks. Historically the tanks had been drained and manually swept out by workers operating under confined space conditions. But changes to OH&S and an aging work force created a shortage of available personnel. So new ideas were required to continue this necessary maintenance process.

A water industry operator was vacuuming his swimming pool one morning, and had the bright idea of... "I wonder why we don't vacuum out our water tanks, while they are full of water and still online to the customers?" So, he called up a local dive company and explained his new brain wave. After talking back and forth and swapping ideas, a trial was carried out using normal 'off the shelf' pool cleaning equipment.

The diver entering the tank was disinfected in a large tub of highly chlorinated water, the sediments across a small section of the floor are were cleanly removed and the rest of the process is now history.

The diving process had to be re-invented, to make it 'fit for purpose' and most importantly, high levels of hygiene had to be maintained for all the equipment

and the divers themselves. As all the diving and cleaning equipment have to be lifted up onto the roof area of each storage tank, it became necessary to reduce the weight of each item. It was also decided to limit the amount of equipment that was required up on the roof and leave non-essential items within easy reach, but down on the ground in the service vehicle.

Following the successful initial trial, a year was spent deciding on pricing and the necessary dive equipment to make the process cost effective and hygienic. Dry suits were selected for the hygiene requirement and all the other dive gear was required to be for drinking water use only. A suitable enclosed work trailer was set up to carry and store the equipment, along with compressors and pumps used in the cleaning operation. A stainless-steel

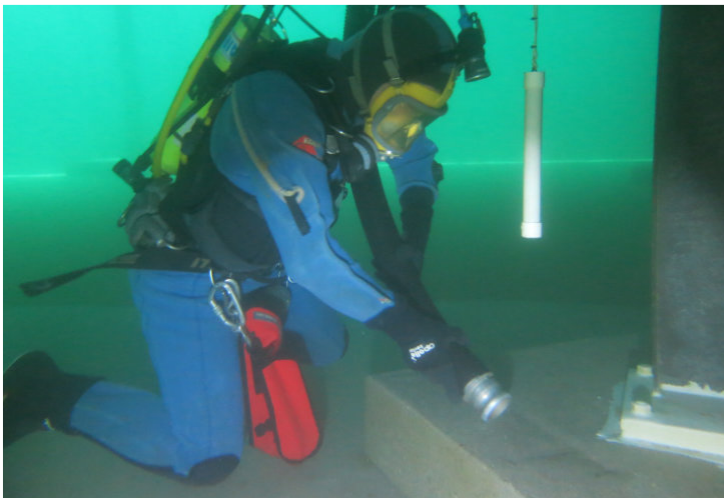


A diver entering a water storage tank



A diver vacuuming the bottom of a water storage tank. Note the highly modified vacuum head.

vacuum head was sourced in WA, where they were built and used for cleaning large swimming pools. The vacuum hoses were set up to be easily handled and light enough to be lifted up onto the roof areas. The first few tanks took a full day to set up on and clean, but as the process became clearer, more effective vacuum patterns were established, to work around the roof support posts and pipework within the



A diver cleaning the raised step inside a water storage tank

tank. Tank construction details also had to be learned, and the internal pipework and its functions understood to avoid the diver becoming entrapped in an outlet penetration. But with each tank cleaned, the process became clearer and more effective.

Under water photos were taken of the tank structural features and word soon reached a government organisation involved in public health and water quality. This department had a film production unit for training purposes, so it was arranged to make a video of this new tank cleaning process. That gave the diver vacuuming system a huge confidence boost to other clients considering whether or not to try this new way of maintaining their water quality procedures. Copies of the video were sent off far and wide and the diver cleaning system was soon becoming a full-time job, rather than a part time occupation within the other commercial diver disciplines, such as boat salvaging,



A diver photographing internal features of a water storage tank. Not the heavy thermal protection. Water temperature varies hugely depending on the location of the tank.

bridge pile renovations, and underwater construction jobs.

Now after 23 years of tank cleaning in most states of Australia, the diver process has become the accepted maintenance practise for most water utilities. There are also many renovations that can be done by diving within a tank. Ladder removal and installations, safety screens on outlet pipework, mixing nozzles on the inlet pipes to improve the stored water quality and leak repairs to reduce water wastage.

So it is not just about diving inside tanks, but having the technical skills to produce accurate reports on a wide range of issues, such as structural defects, protective coating issues and water quality integrity. It has taken a lot of technical training, specialised mentoring and attending water industry conferences and trade shows to become proficient in 'different diving'!



A diver repairing the floor of a water storage tank. Everything that is used in a water storage tank must be approved for use with potable water.

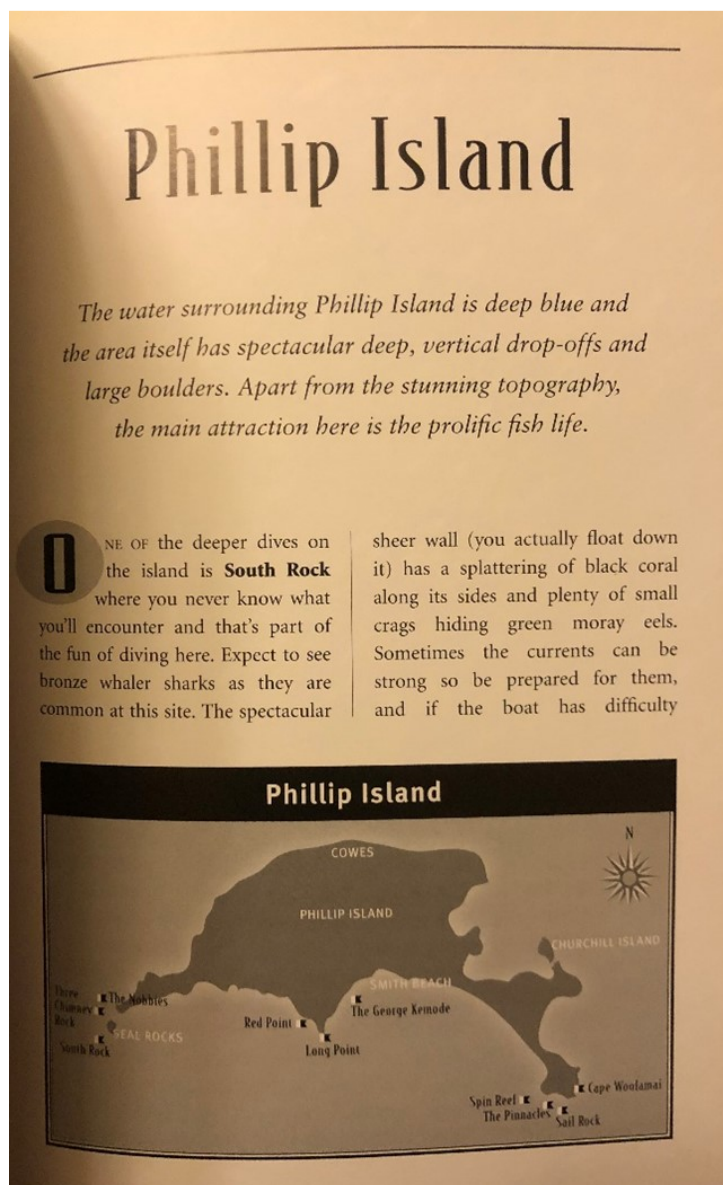
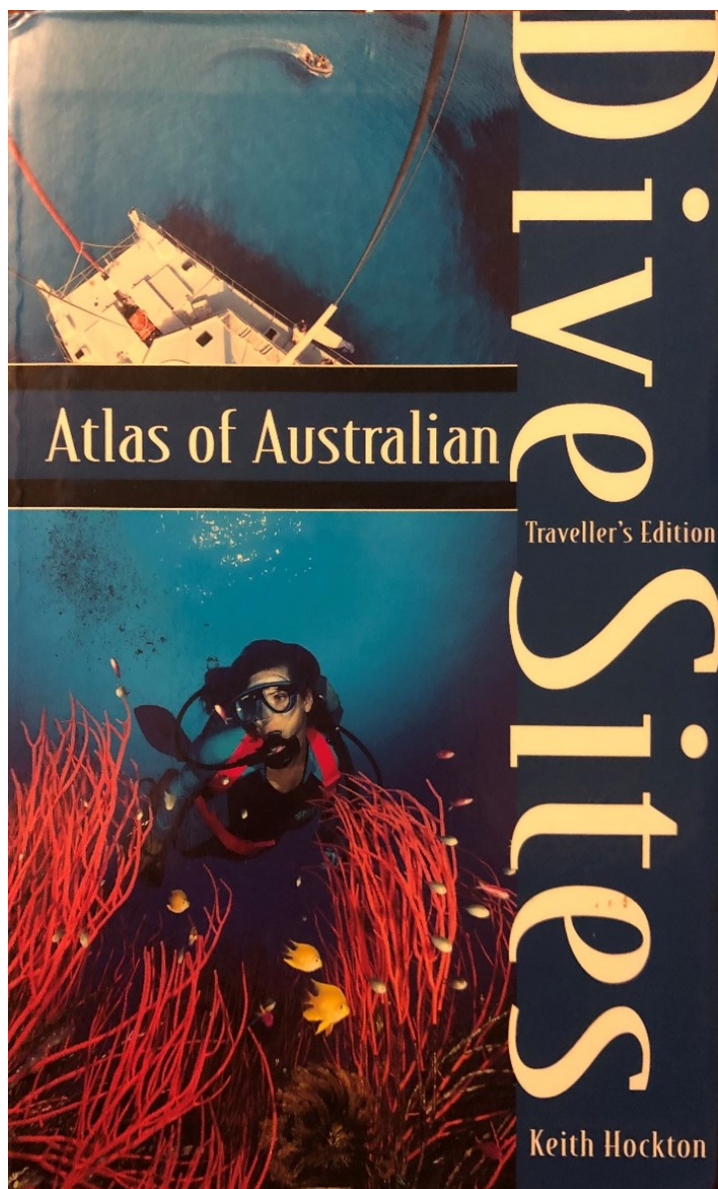
The Author - Dave Barry is a long-time commercial diver who pioneered the use of divers to clean drinking water storage tanks and has cleaned hundreds and probably thousands of tanks across Australia.

Atlas of Australian Dive Sites

- written by Keith Hockton

Finally, I have found a book that describes dive sites within Australia that does not fail to deliver in diving content, map location, safety procedures, climatic hurdles and most importantly dive site entry and best time to dive each dive site. This book authored by Keith Hockton was first published in 2003 and possibly has been updated since its first edition. I found it very hard to put this book down, every page has an abundance of information that captures your imagination. The book has a magical effect and definitely triggers your dive cells into overdrive, giving you an inspirational feeling to start planning a dive at one of the many dive sites mentioned. To best describe this book in a clear understanding way I would describe as a motivational dive therapy book, to get that love of diving back into the inner sanctum of your brain. It's well written with lots of information and very easy to follow instructions.

In this book you will find everything that is to know about diving. It covers great analytical and reasonably well researched information on grading divers for dive sites,



One of the many pages covering a dive location in full detail.

tide talks, dive operators, essential equipment, insurance with DAN and diving with marine creatures such as Sharks, Seals, Whales, Crocodiles, Dolphins, and Turtles. I highly recommend this book to be part of your dive library. It will be a book that you will turn to for future dive information. Get your hands on a copy you will not be disappointed.

My book review rating for this book is 10/10.

Remember, if you're not diving, dive into a dive book!!!

Until next time,

Arthur Kokkinos

DIVE SITES

My Favorite Overseas Dive Destination

by Carole Campisano

Our family's favourite overseas dive destination is Komodo. Peter and I have been once before and stayed at Angel Island Eco Resort. We're hoping to go again later this year. It's fairly expensive but it's a lot closer to the better dive spots. However, diving Komodo can be done on a budget. My daughter and son in law have just returned from their diving honeymoon there. This is their second visit.

Firstly, fly direct to Denpasar, Bali; stay a few days and dive at Nusa Lembongan and / or Nusa Penida . From Denpasar, get a connecting flight to Labuan Bajo - Komodo Airport, Flores, in East Indonesia.

The airport isn't far from the town's main street , (near the port) which is littered with dive shops. The dive shop that Lou and Chris used back in 2018 and May



Some of the dive sites we've been to are - Sebayur Besar, Sebayur Kecil , Pengah Kecil , Batu Bolong , Mawan (Manta Point). The most popular and exhilarating sites are The Cauldron, Castle Rock and Crystal Rock. These dives usually start with a negative entry from the boat because the current is strong and if you dawdle on the surface, you will miss the spot. With such strong currents there's so much diversity and abundant marine life, as well as being situated within the 'Coral Triangle'. Chris and Lou spotted plenty of mantas in May, as well as white tipped reef sharks, turtles , bump head parrot fish, trigger fish and massive trevally .An abundance of macro life, as well as moray eels, frog fish, scorpion fish , octopuses and of course, nudibranchs.

A boat night dive was held at a place called Bidadari, not too far out of port. The focus was macro stuff and apparently it was a fantastic dive.

Diving in Komodo is pretty awesome. You need a reasonable amount of experience to be able to do a negative entry and have good buoyancy control so as to avoid damaging the coral environment while in current. Obviously, an S.M.B is a 'must have' here. Also, make sure you have enough cash to cover the daily diving National Park fees. They are another extra cost to include with your daily boat dives. They, in fact, have rangers that board the boats to count the divers, so you'll need to sort that out at the start of the day.

Dragon Dive Komodo go out for the whole day and supply lunch and drinks and do three dives. Most of the boats here chugg along, so there's time for a little snooze on the way home to port.



2022 was 'Dragon Dive Komodo'. They got a 10 % discount on their returned visit and if there's a third visit, it will be 15 %. Remember the name as there's a few with similar names and they're not as good ! The staff are awesome. Dragon Dive Komodo is well located, also providing accommodation with dive and stay packages. The diving packages can all be booked on line. They also have a restaurant on site.

Because Louise and Chris were on their honeymoon they stayed at the upmarket Meruorah Komodo Labuan Bajo, very fancy.

Two places they recommended for dining out in town were- 'Baccala', an Italian restaurant and the Happy Banana Komodo, a Japanese restaurant.

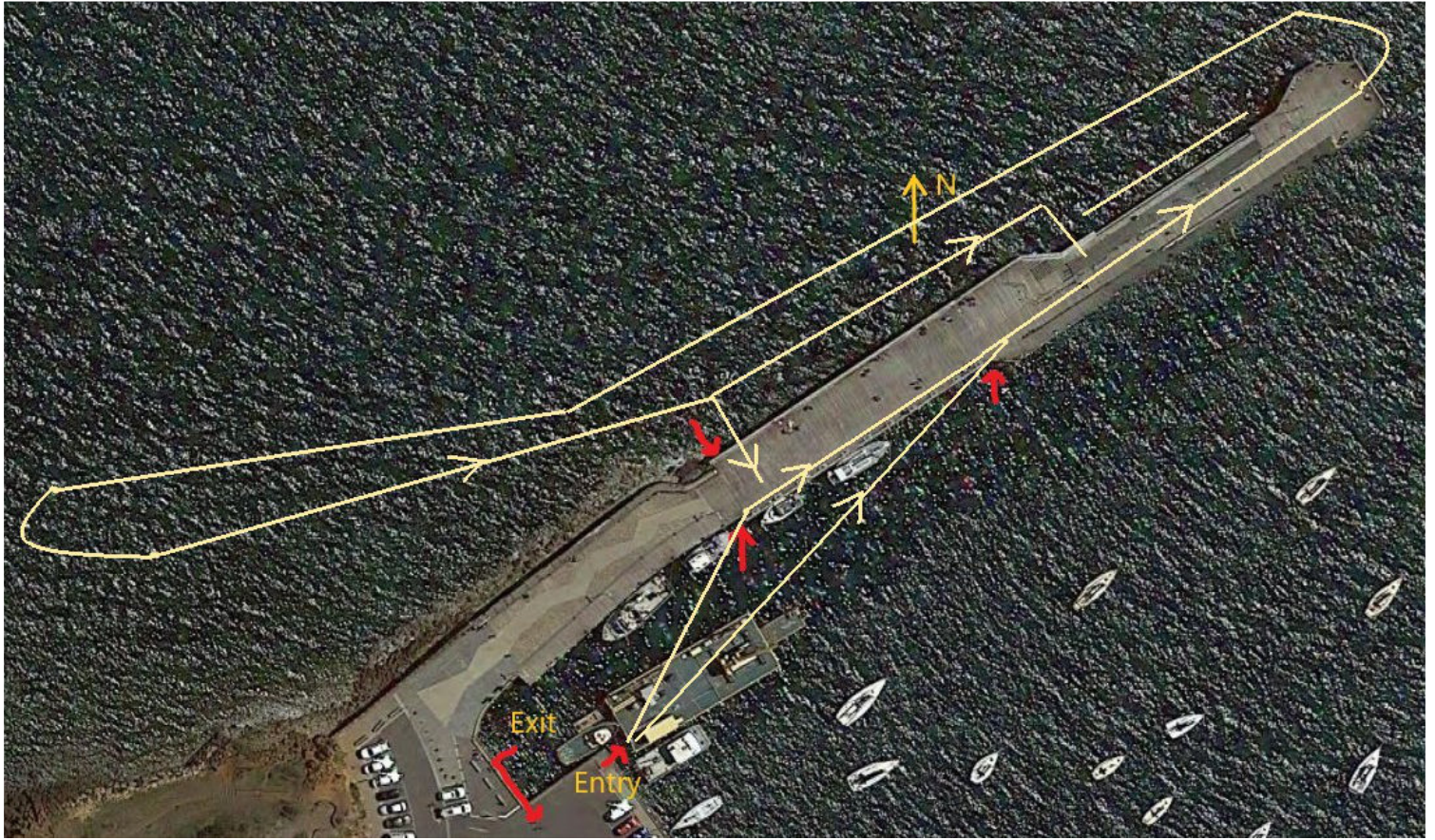
Our family has dived mainly in the northern area of Komodo, where it's warmer and is prone to strong currents. The best time to go there is the dry season, between May and September. The seas are usually calmer then too.



Fantastic diving, great food and nice people. Just perfect.

Mornington Pier

by *Walter Medenbach* - Boat and underwater images by *Arthur Kokkinos*



My go to local shore dive site is the Mornington Pier. Where else can you do a night dive during daylight hours. The big attraction for me is the schools of small fish midway and further along under the pier. I also get a buzz from the surreal blue green light beneath the pier, the likes of which I have not seen elsewhere. This comes at the expense of poorer visibility, around five or so meters, due to the pier and suspended particulates.

Start the dive by taking a giant stride from carpark wharf. It is to the right of the corner post in the photo. On the surface head to the under pier entry points, keeping an eye out for boat traffic. These are marked on the satellite picture. The first, for those with confidence and torches, is the start of the "night dive". Be warned, Ian Lewis's Shore Dives of Victoria doesn't recommend this section as it is "often highly polluted with crud and oil slicks from the fleet". Further along is the standard entry. The enclosed section of the pier is above an underwater rock pile with gullies to either side.

Along the seaward side are suspended concrete slabs to protect the harbour from wave action. Just a metre or so out from this is an underwater rock wall that parallels the pier, creating a gully. This is what changes the nature of the light under the pier. Past the enclosed section are fewer boulders on the sea floor. There are

lots of algae, sponges and some junk. Here is where we start to see small schools of fish, more as we approach the end of the pier at a depth of 9m. Along with schools of Old Wives, we have often seen Longsnout Boarfish. The further we go, the gap between the concrete slabs and the sea floor increases. In the enclosed section at the star, it is high enough for a single tank diver to squeeze through. Take your time to explore the seaward gully. We once saw a huge, possibly half a metre, Silver Bream in the gully. It is the only fish that I have ever seen under a pier that would justify the fishers above.





Upon reaching the end the pier, go to the outside of the seaward rock wall. Keeping the wall to your left head fin along the wall checking out the nooks and crannies. Here you will find lots of small ray. There is often fishing line overhead to entrap you so make sure you have a line cutter or knife and a buddy to assist. Now is a great opportunity to collect squid jigs if you have run out or for a gift to fishers on the pier after the dive. Towards the Snapper Point headland and a little further out you'll find sea grass. It seems its quality has deteriorated over the years. When turning back, head towards the rock wall. Keeping the rock wall to the right, you will come across a rock or concrete cylinder, standing on end, maybe a metre high. It could be a pylon. This marks where to cross the rock wall for the short cut to the harbour. Remember it is dark under there and a slight squeeze to get under the slab. Alternatively you can travel further along to go under the pier, avoiding the enclosed section.

Once on the harbour side of the pier it is best to surface and fin to the small ledge on the South Western wall of the small harbour, once again keeping an eye out for boats. At the wall you can stand in the water and doff your gear, placing it on the ledge just above the water line. On the eastern end of the ledge is a ladder from where you can pass gear up to your buddy on the wharf.

Mornington pier can be dived day or night. If depth is a priority then wait for high tide which also makes exiting easier at the ledge. Although the harbour is sheltered, it is not advisable to dive when the winds are strong, especially Westerlies. Always check the conditions on the seaward side of the pier. Unfortunately two divers, an instructor and a trainee, died in 2016. According to the coroners report, the waters on the seaward side were rough (2m), but calm on the harbour side. It was possible that surges in the seaward gully pushed the trainee into the rough waters.

There's lots of parking here but on good weather days it can be tight as the pier café (The Rocks Mornington) is popular. The parking close to the entry point is two hours and when full it might be worth waiting five or ten minutes to get a spot. There is untimed parking behind the yacht club. If unlucky you still may find parking along Schnapper Point Drive. Just drop the gear on the wharf and have your buddy stand watch while you park your car. On a high note, so to speak,



the pier also has modern public toilets. And of course it is only a few steps for that after dive coffee or meal. I hope your dives at Mornington Pier are as good as mine.

TECHNIQUE

The Status Quo Bias - We don't like to change.

by *Mike Mason*

In 1985, Coca Cola unveiled "New Coke" which was a reformulation of the original Coke flavour. Blind tests found that many consumers preferred New Coke to Coke Classic. However, when consumers were choosing which Coke to buy, they chose Coke Classic. New Coke was ultimately discontinued in 1992.

In the 1990s, citizens in the States of New Jersey and Pennsylvania were given two options for their automotive insurance: an expensive option and a cheap option. In New Jersey the cheaper option was the default and was selected by most citizens whereas, in Pennsylvania, the opposite was the case - most people chose the expensive option which was their default.

These are both classic examples of the Status Quo Bias which refers to the phenomenon of preferring that one's environment and/or situation remains as it already is. We tend to prefer familiar choices over less familiar, but potentially more beneficial, options.

When Nitrox was first introduced in the 20th century, it was largely shunned by the diving world and it took quite a few years before training agencies started widely promoting it in the mid-90s. During those years, the science behind why nitrox was better than air (in terms of reducing the risk of Decompression Sickness) did not change but people were still very reluctant to start using something new that was less familiar. This could be considered the Status Quo bias among a whole group of people rather than just individuals.

People also tend to feel more regret for bad outcomes that result from a new action or decision than bad outcomes resulting from inaction. i.e. maintaining the Status Quo

Maintaining the Status Quo is also more likely to occur when there is choice overload or lots of uncertainty and/or costs to consider.

Why does this behaviour matter to diving?

Equipment

Once we have our equipment set up in a certain way, changing it can feel uncomfortable. As a personal example, I could never quite get my head around the concept of donating the reg out of my mouth (on a long hose) to a diver who was out of gas. To me, this technique increased the risk of having two divers without regs in their mouths at the same time which just seemed illogical. However, after discussing it with many people via social media to try and gain as much information as I could I am now an advocate and have changed my setup accordingly. This particular example will doubtless divide opinion until we evolve and grow gills. Regardless of the specific situation, keep an open mind. We do not

know what we do not know. However, what we do know is that there is almost certainly someone out there who can help us improve our knowledge more!

Training



There are so many training paths to choose from! New divers will often go to their local dive shop or club and simply 'fall in' with the associated agency. If and when we want to go beyond simple recreational diving then there is a good chance the agency we are already with offers the relevant training and they'll be pleased to sell it to us. This will feel OK in our minds as we are biased to be happy maintaining the status quo and not spending effort and time looking elsewhere and taking 'risk' by using another instructor or agency. But what if there is someone else out there who can offer us better training or who can impart knowledge in a way that works better for us?

Do not be afraid to explore other options. We are not all the same; we interact in different ways with different people.

To round up

For better or worse, all biases affect our decision making and we cannot avoid them. They are part of what makes us human. One way we can combat the negative effects of biases is simply an awareness that they exist. Hopefully, this article achieves that and encourages you to consider that maintaining the Status Quo, while it might be the easy option, maybe is not the best way forward.

The Author

Mike Mason spent 20 years in the Royal Air Force, most of it flying on frontline squadrons. He now works as a flying instructor in the Royal Australian Air Force teaching young pilots to fly fighters. He has been an active diver since 2015 and has around 300 dives in his logbook from as far north as Iceland and as far south as New Zealand.

EQUIPMENT

Development of the Diver's Safety Flag

by Des Williams

Surfacing after a dive, there is nothing more unsettling to a diver than the sound of a boat travelling at speed above. One must keep an anxious lookout for churning propellers whilst praying they are not about to pass overhead. The risk of serious injury or death from motor boat "bite" is ever present and most, if not all, experienced divers can relate tales of near misses.

The 1950s and 60s were boom years for spearfishing and the new sport of scuba diving, which also coincided



The complicated H over D system.

with a boom in aluminium and fibreglass run-about affordability, so it wasn't long before the increased danger of motor-boat "bite" for divers became very real indeed.

By 1960, the spear-fisher's representative body, the Underwater Spear Fishermen's Association (USFA), was pressuring all state maritime authorities to recognise the diver's flag, composed of a red background with one white diagonal stripe from the top right-hand corner to the bottom left-hand corner and for it to be incorporated in the States flags code book. It was thought that the red background of such a flag was universally recognised as a warning of danger. It was

the diver's flag design being supported by American sports diver's groups at the time.

Its design was originally conceived by Denzel Dockery in the early 1950s and was sold through his dive shop at Flint, Michigan, USA. The flag was seen by Ted Nixon, a sales rep for US Divers and he offered to promote and sell the flag nationally. It wasn't long before the flag gained recognition by various US states and county ordinances, who legalised and more importantly, enforced its use.

Under pressure by the USFA for an officially recognised single diver's flag, the Australian Ports Authority (APA) approached the Ministry of Transport (MOT) in London for advice. Not surprisingly, a complicated British solution was forth-coming! The MOT deemed the US sport diver's flag as unsatisfactory! They recommended the APA adopt the International Code of Signals flags H over D. Yes, a TWO flag signal to convey the message: "I am engaged in submarine survey. Keep Clear." Internationally, the H flag flown separately means "I have a pilot on board" whilst the D flag alone means "Keep clear of me – I am manoeuvring with difficulty".

It was decided that as the H over D flags system was the accepted and recognised signal to shipping of all nations, it was therefore of greater significance. As the Australian Navy also agreed with this view, the H over D flags signal was adopted during 1962 and was to be flown from a boat during diving operations. And, to be sure, to be sure, it was also recommended that a supplementary red and white flag, (as being used in the USA!) was to be towed on a float to indicate the presence of a diver in the water. No doubt, Australian flag manufacturers rejoiced!

Not surprisingly, a period of confusion followed, as the individual Australian States, prevaricated over which system to use. The next confusing flag development came in NSW on 2nd June 1967, when the Maritime Services Board of NSW made the following announcement: "A new signal flag is to be adopted in NSW to signify the presence of skin divers in underwater operations. This was announced today, by the Maritime Services Board which indicated that at a recent meeting of the permanent committee of the Australian Port Authorities' Association, it was decided that a red flag with a white diagonal cross should be adopted throughout Australia, to denote the presence of skin divers. The Maritime Services Board will promulgate regulations in due course to give statutory authority for the use of the red flag with the white diagonal cross in NSW."

A single flag (the NATO Flag 4) was exactly what divers had wanted and in NSW at least, rapidly gained acceptance whilst the US sport diver's flag was quickly abandoned for the new closely similar flag. However, no sooner had Flag 4 been introduced, than a combination of international events and the rise in sport diving popularity, dictated a further change.

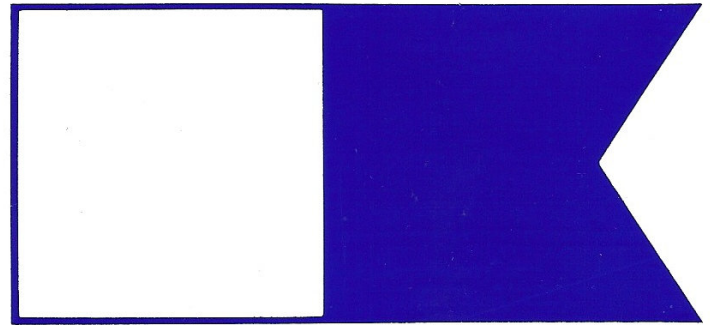
Back in 1885, the British Board of Trade had introduced the International Code of Signals to be used by vessels at sea. At this time the code consisted of 18 signal flags. In 1902 the code was revised to consist of 26 flags containing all the letters of the alphabet. The Alpha Flag (Flag A), a white and blue swallow tail burgee, had originally flown to let other vessels know that the boat flying it was restricted in its ability to manoeuvre and should be given right of way. It was traditionally flown when helmet divers were operating from a vessel. Well, brilliant! Finally, a decision to use a flag, which had signalled diver's below since the 1880s!

During the Fourth Assembly of the Intergovernmental Maritime Consultative Organisation (IMCO) held during 1965, the International Code of Signals was revised with the changes to become effective from January 1st 1969. Of particular concern to divers was the revised meaning given to Flag A. Its meaning now was "I have a diver down – keep well clear at slow speed".

A recommendation by the Australian Port Officer's Association on the adoption of the International Code of Signals Flag A, as the flag to be flown by vessels having divers in the water, was accepted by Port and Maritime authorities throughout Australia and came into force on 1st April 1969.

It was subsequently agreed that Flag A must be flown from boats and must measure a minimum of 915mm X 760mm. In 1983, the Maritime Services Board of NSW introduced a regulation approving the flying of Flag A from a buoy, or float, in use by spear-fishers or divers, providing the flag measured no less than 700mm X

THIS FLAG SIGNIFIES



DIVER BELOW KEEP CLEAR

The promotional sticker seen widely on vehicals and boats after 1969

200mm. Finally, sanity prevailed and Flag A is still the status quo today.

Your reporter was still cautiously diving under the H over D flags system in Victoria, during early 1970, even though the new single Flag A had been approved eight months earlier. At that change over time, unfortunately, the new Flag A was not immediately understood by all boat users, so divers were very circumspect in its use during the first few after April 1969. Back then, it was not uncommon for fishermen to motor up to a dive boat to ask "what flag is that?" The Scuba Diver's Federation in various States were quick to set about a national advertising campaign, to promote the new Flag A, amongst all boat users. Bumper stickers were handed out and signs erected at boat ramps during this campaign. Today, the Flag A is widely understood and as always, for your own protection, you are strongly urged to "Fly the Flag for Diver Safety".



VSAG Members at the recent First Aid Course

Boat Trailer Brake Woes

by *Graham Ellis*

Editor's Note: Some of you may think this article won't be relevant to you as a VSAG member, but spare a thought for all those club members who do have boats and make them available for you to dive. A lot of work (and cost) goes on behind the scenes. Here Graham Ellis tells us about problems with his boat trailer brakes and the incredible amount of work he had to put in just to get them working again. As a fellow boat owner, I admire Graham's skill. I certainly could not have done what he did. And it would have cost me a lot of money to get it done by a boat mechanic. Peter M.

After doing my annual boat check I discovered that I couldn't push the pistons back into the brake calipers when attempting to change the brake pads. The end result was after removing them it turns out the pistons were seized. Even hitting the pistons with a full swing of a 26 oz hammer, they still wouldn't move. The website states if an air hose solution does not work, then the phenolic piston must be mechanically broken out of its

housing. Take care not to mark the piston housing with tools during the piston breakout.

I didn't use air and I managed to get them out without mechanically breaking them. Instead, I used a good grease gun after fitting a 3/8" UNF grease nipple in the caliper to pump the piston out (Figure 1). In the end, I probably applied 2,000 psi of pressure to push them out.

After cleaning the phenolic pistons up, it turns out that they had swollen due to heat from the brakes (Figure 2). The piston measured 54.15mm diameter and the bore of the caliper was 54.18mm!

When you consider that the piston rubber boot sits between the piston and the bore, in conjunction with corrosion of the caliper at the boot groove, the pistons were not doing a lot because they couldn't move with the pistons being jammed in place. This discovery easily explained why fuel consumption in my tow

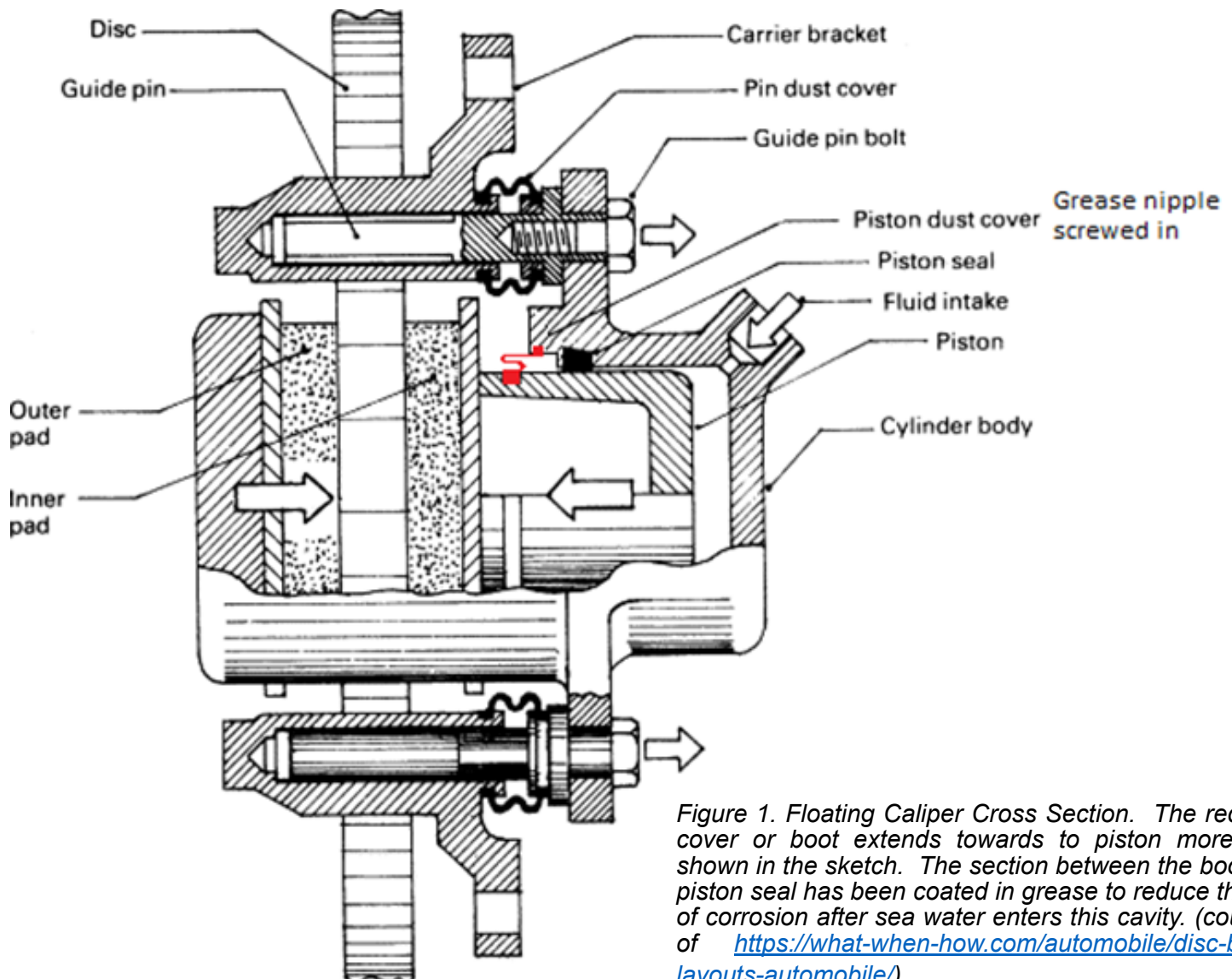


Figure 1. Floating Caliper Cross Section. The red dust cover or boot extends towards to piston more than shown in the sketch. The section between the boot and piston seal has been coated in grease to reduce the risk of corrosion after sea water enters this cavity. (courtesy of <https://what-when-how.com/automobile/disc-brake-layouts-automobile/>)

vehicle wasn't too good with brakes dragging and it explained why my trailer brakes were a bit hot and smelly at times when I arrived at the boat ramp – the brakes wouldn't release.



Figure 2. The swollen phenolic piston (Top). Note the scuff marks at the bottom of the piston caused when pumping out of the bore. The swollen piston will not slide into the bore (Bottom).

After cleaning and removing the rust, it turns out the bore in the caliper is still round so no honing required. If it isn't round there is a risk the piston will not travel squarely to the bore and jam.

The end result is I have replaced the over diameter phenolic pistons with stainless steel pistons and calipers. I made sure there is rubber grease inside the dust boot to reduce the risk of chloride pitting.

Ordinarily the grades of stainless steel we see in boats are acceptable for sea water. The problem we have with hydraulic brakes is that when immersed in water during boat launching, water can enter the dust boot on the piston for a number of reasons including a damaged boot. What then happens is that the water dries out leaving a concentrated soup of salt water and this in conjunction with the heat generated when the brakes are used will push this part of the brake into condition(s) where the critical pitting temperature (CPT) and/or the critical pitting concentration (CPC) of the chlorides has been met for the stainless steel or "galvanised" mild steel or cast iron.

I have spoken to boat trailer specialists and they agree;

- Phenolic pistons are problematic due to swelling
- They don't strip new calipers to grease the boot cavity when installing them on trailers for warranty reasons
- When servicing calipers, make sure grease is coating the metal surfaces to reduce the risk of corrosion by way of the grease being a protective coating.

With the new pistons in place, I am sure my mpp (miles per pads) will improve too.

The message here is that if any of you have phenolic pistons, your trailer brakes may not be working or working properly.

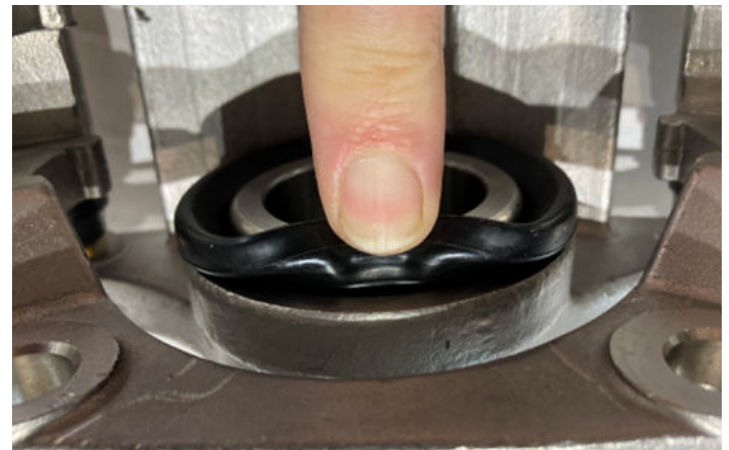


Figure 3. A new stainless-steel caliper, showing the dust boot which has been coated with rubber grease on the inside as well as between the stainless steel bore and boot.

EQUIPMENT

Diving Skills and Equipment Training Day

by Peter Walters



This year's skills and equipment day was held on Saturday 30th April at the Merricks Aquacamp.

The first half of the day focused on equipment. Peter Mosse and Jim Dyer took us through their thinking in terms of equipment set-up. I found their mantra of minimalization to be very useful. I guess I have been heading down that path over the past 18 months – I have moved to a wing and back-plate setup as part of reducing the amount of clutter to deal with. Peter's ideas took this along some extra steps.

Most of us jumped at the chance to upgrade our back-up second-stage to be attached via a bungee around our neck to create the air-triangle. To me, it makes perfect sense – in a real-world out-of-air scenario we will need to have our back-up as accessible as possible to reduce the problems caused by panic.

Most also took advantage of the chance to change some hose lengths to optimise our set-ups. It was great to have Jim do this on the spot.

Peter took us through a process of considering each of the parts of our equipment and playing devils advocate: do we really need this and can it be housed more effectively.

We then moved on to the pool. What a great set-up it is there: three separate but connected pools with one at

4.5m depth. We went through some exercises to help us become more intimate with our equipment. It was a great opportunity to just focus on every inch of our kit as we removed and put back our fins and BCDs while blind-folded underwater. I enjoyed the process of going through this slowly. You can feel yourself gaining muscle memory as you slowly go through the process. It makes a lot of sense to keep practicing this throughout the year.

Thanks to Bobbi and Mark for organising a great lunch to finish of the day; and thanks again to Peter and Jim for a very satisfactory training day.



Rethinking Flexible Hoses

by Peter Mosse

Flexible regulator hoses are all the rage now and have virtually replaced the older rubber hoses for most divers.

But beware! The photo below shows a popular brand of flexible LP regulator hose, which I have recently replaced on my regulator.

The instruction pamphlet that comes with the hose states that if there is scuffing on the outer layer of the hose, where the hose could rub against sharp or uneven surfaces, replace the hose.

If there are more than six loose threads in the same area on the outer layer of the hose, replace the hose.

It is not clear what is meant by loose threads, but it is easy to see and feel broken threads. The hose shown in the photograph has approximately 15 broken threads and at least one scuffed area.

So in my interpretation of the instructions for use, this hose needed replacing, which I have done.

While I cannot say for certain how old this hose is, and how many dives I have done with it, I can definitely say

it is very much newer and has done far fewer dives than my old rubber hoses did.

And I do, as much as practical, care for the hoses as stated by the manufacturer, much more so than I ever did with my rubber hoses. They have never been curved tightly, and I do my best not to hang the weight of the second stage on them during washing and drying.

And one other thing to consider, the manufacturer says “never fold the hose back on itself”. This is unfortunate since it is an effective method to control a free-flowing LP hose.

So are these hoses fit for purpose. I will leave that up to you to decide for yourself based on your style of diving, but I can say for sure, for my style of diving they are not.

I will be purchasing some rubber hoses and maybe a few spares in case they disappear from the dive shops altogether.



LIFE MEMBER LUNCHEON

by *Des Williams*

The Annual VSAG Life Member luncheon was held on 13th April at Young & Jacksons Hotel. A spectacular Melbourne autumn day greeted us, for our gathering in the city, which seems to be coming back to life after COVID. Unfortunately, we had several apologies this year due to a number of circumstances such as health issues, transport hold ups and workload demands, but nine members did attend. After passing our COVID Certificate inspections at the front door, we assembled in Cloe's Room for a very enjoyable luncheon and catch up. It was brilliant to have Frank Coustley with us this year, we had lost touch with him for a couple of years, but it was certainly a great pleasure to have him back amongst us. We raised our glasses to toast our missing Life Member pals and also in remembrance of John Noonan and Dr. Jan Watson, who are no longer with us.

I would, on behalf of the attendees, like to thank David Geekie for making the arrangements for our luncheon and we DID miss you this year David.

Matthijs presented Ian Scholey with his long-awaited Life Member badge, in what suspiciously looked very much like a marriage proposal. It ended well, as I can report that Ian "accepted"..... The badge that is! Wonderful to see everyone again this year and here is hoping that our 2023 luncheon will see a full attendance.



Attending the luncheon were: Ian Scholey, Don Abell, John Lawler, Barry Truscott, Matthijs Smith, Pat Reynolds, Peter Matthews, Frank Coustley & Des Williams.

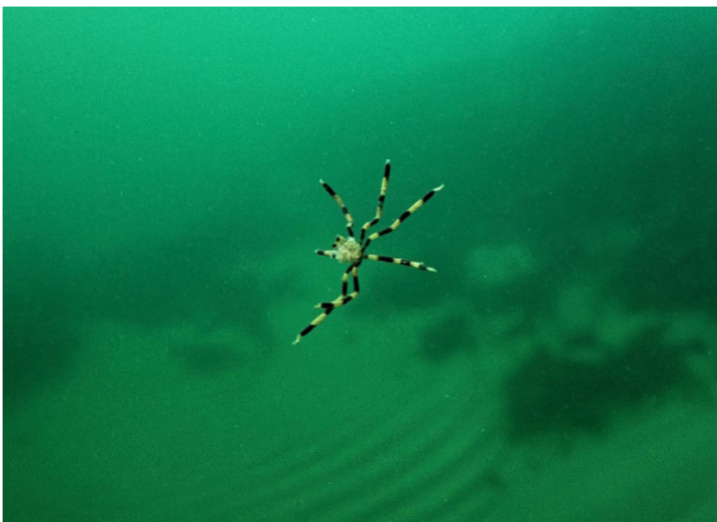
Best wishes to ALL Life Members out there and keep safe, hope to see you all next year, if not before.

ADRIFT

by *Peter Mosse*

Heading back into the current and up the sand slope at the end of a San Remo jetty and sponge garden dive, I sensed something very small drifting past my mask.

Experience suggested I should look at it. I put my light onto it and lo and behold it was a pycnogonid (Sea Spider)... adrift. I felt my chances of getting a photograph were very low, but what the heck, no harm in trying! And it worked.

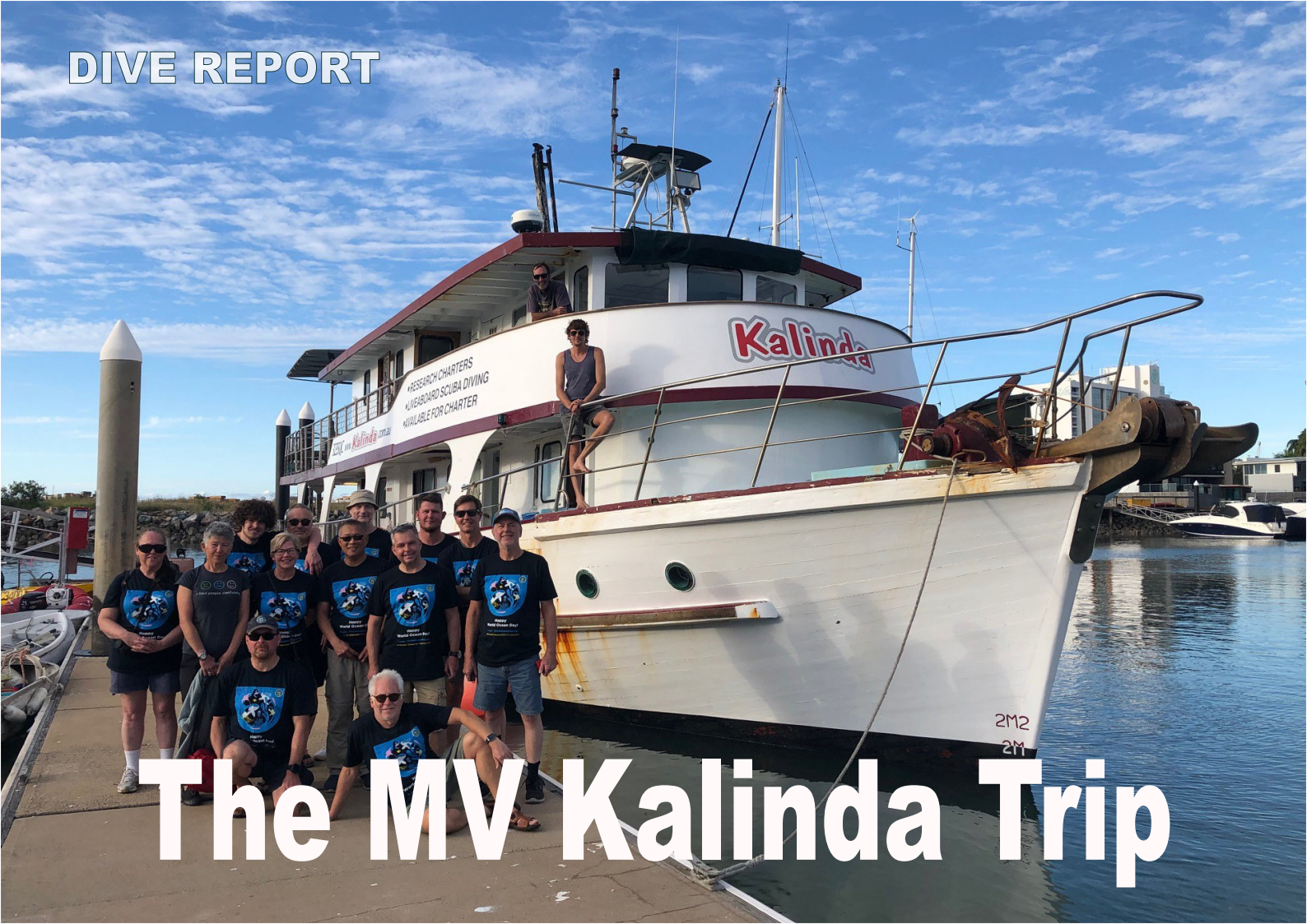


But this observation raised many questions.

- Was this an intentional drift or an accidental drift?
- Where had the animal come from?
- Where would it end up? It was a flood tide so it was heading into the murky water and generally muddy bottom of Westernport Bay.
- Would it drift for the whole tide?
- How would it make contact with the bottom again?
- Was this just an adventurer expanding its horizons come what may? Or is this something that happens regularly?

I guess I will never know the answer to these questions, but it is fun to ponder.

DIVE REPORT



The MV Kalinda Trip

By Peter Walters

James Chong put the call out in February – to try a different liveaboard trip out of Townsville in June. Spots seemed to fill quite quickly and this resulted in 10 intrepid VSAGers and 3 from the British Sub Aqua Club Adelaide joining the MV Kalinda.

This was my first liveaboard and I had been looking forward to it in the months leading up to the trip. Perhaps this was a good one to do first as I hadn't been spoilt with any previous luxury liveaboards.

As we checked the boat out, on arrival, I could hear a few comments about the lack in some areas like quality of bed linen and bathroom appointments. People allocated to the 'passion pit' sleeping area contemplated the pros and cons of such intimate arrangements – luckily there were only 3 bedding down in an area designed for eight to snugly fit.

We departed at 7pm on June 7th to begin our adventure: five nights away with the possibility of doing up to 18 dives.

Day 1 – Keeper Reef

After a bit of a bumpy night, we arrived at Keeper Reef (74km from Townsville). Our first dive briefing was detailed to ensure we understood the captain's rules. I think most felt that the dive briefings were done very well overall – using hand-drawn maps. I feel, during

the trip, we all very confident with the diving management by the crew.

Nightly minutes after arriving we were in for our first dive. There was not a lot of colour in the coral but there were good gardens, bommies and ridges – creating quite a maze.

I think most were happy with the food supplied. A meal was served 5 times a day – including after each dive. The crew had it down-pat as far as knowing when to serve something hot and carby after a dive. I have not had tinned spaghetti for many years, but I have to say, it hit the spot. I have also learned the value of adding Worcestershire Sauce and Tabasco Sauce to nearly everything.





We moved to a different part of the reef for dive 3 and for the night dive. The night dives were great – starting with Keeper Reef’s spectacular ridges and swim-throughs.

We stayed at Keeper Reef that night. Captain Dave was having to keep an eye on the constant Southerly breeze that was forecast to lift to 25 knots.

Day 2 - John Brewer Reef and the Museum of Underwater Art

I think this site was quite a surprise to many.

At a dive briefing the previous day we discussed how keen people really were about seeing the underwater installation. A few were certainly interested and so we motored there at the start of Day 2.

There was plenty of excited talk as we emerged after the dive. The stainless-steel installation was made up of the frame of a traditional chapel and around 20 statues in and around this. The peak of the roof sat at about 16m depth and the seafloor at around 24m.

I am a big fan of contemporary art installations and so to add in the underwater dimension really made this a feature.

This was a dive of 2 parts: first, the installation; then followed by heading out through the mouth of the atoll. I probably enjoyed the latter more, as turning back to the coral wall at 24m depth showed some amazing vistas of the landscape.

For that day’s night-dive most of us focused on the installation again. Adding darkness into the mix with lots of torch-beams hovering around structure made it a very

memorable experience. Ian and Matthijs worked as a photography team to capture some great images.

Day 3 - Lodestone Reef and back to Keeper Reef for the night-dive.

The dives here needed some good navigation as you needed to skip from bommie to bommie. It was a good test of skills as we tried to avoid surface swims back to the boat.

Captain Dave felt that the conditions were better back at Keeper for the night and we were pleased to return to that location for our night dive.

Day 4 – Helix Reef and Grub Reef

For many, Helix Reef was the standout divesite, outside the Yongala.

As described by Ian:

‘Best dive of the trip, Yongala excepted, was for me Helix Reef - High Voltage. The site was blessed with pristine corals of all varieties. There were some great





8th June 1/2 Keeper Reef, Star Pickett
 3/4 Keeper Reef, the mooring

9th June 5 John Brewer Reef, MOUA
 6 John Brewer Reef, Cuttlefish
 7 John Brewer Reef, Mooring 1
 8 John Brewer Reef, MOUA

10th June 9/10 Lodestone Reef, Ridges
 11 Lodestone Reef, Mooring
 12 Keeper Reef, The mooring

11th June 13/14 Helix Reef, High Voltage
 15/16 Grub Reef, Area 51

12th June 17/18 SS Yongala



swim throughs with large yellow sea fans and a section of deeper wall where there are several massive whip corals. The current draws in bigger animals and we were fortunate to see several White Tipped Reef Sharks, a huge Stingray and a school of Cobia which circled Rowan and I for a couple of minutes. In the shallows the coral was just magnificent with the colours accentuated by the light of the sun. It wasn't a difficult decision to stay at the site for a second dive.'

And by Rowan:

'My favourite dive site on the Kalinda-Townsville trip was without doubt High Voltage at Helix reef. On this dive there was an abundance of very interesting reef to navigate as well as some fantastic marine life. Ian Scholey and I decided to follow the recommended route detailed in the dive brief and mostly succeeded. The site had a combination of very tall bommies, walls and swim throughs along with some wider areas of sand mixed with stag horn coral. The visibility was fantastic and on this dive I saw a loitering white tip reef shark, a hawksbill turtle, a large school of jacks, a monster marble ray, a school of very active cobia not to mention plenty of corals and a loo with a view. We dived this site twice and I was excited after both dives.'

Grub Reef – The giant clams

Another highlight was 2 large clusters of giant clams – with around 30 and 50 of the beasts. Captain Dave calls it 'Area 51' and draws parallels to the underwater scene in the movie Cocoon. This was certainly an amazing place to see. There was some damage from a cyclone but there are still many there glistening with their vibrant colours.

Day 5 – The SS Yongala

As we hit the sack at the end of day 4, we were unsure where we would awake on day 5. Captain Dave advised that during the night we would start to motor toward the wreck but, depending on conditions, we may need to divert to a different location for our last dives. The key issue to consider was divers exiting from the water as the site is very exposed.

It was not until we attached to the mooring that we knew we were diving the wreck.

This was my first dive on the Yongala and it lived up to all I had heard. During the first dive there was quite a current and so we needed to duck down below the line of the deck. As we worked our way along the amount of sea-life was amazing – large and small: sea-snakes, schooling barracuda, giant gropers and cod, rays, among others.

The second dive had less current so we were able to spend a lot of the dive along the hull which seemed to feature even more large schools enveloping us.

Following the Yongala there was a gentle motor back to port.

Thanks to James for putting together a great experience. From start to finish, things went very smoothly.

Having had 5 days living on the Kalinda – experiencing its strengths and weaknesses – I am pleased to say that many of us have signed up again for a 9 day trip to the Great Detached Reef out of Thursday Island in November 2023.

Thanks for a great trip all.

Images by Ian, Rowan and Matthijs





PHOTOGRAPHY

Camera Equipment Complacency

By David Flew

I have a routine for preparing to go diving. I collect my gear, and work upwards from fins to head. I know that if I forget any one thing the consequences are either I don't dive, or the dive is spoilt in one way or another. I do this while collecting the gear, and again while loading into the car (or soon into a travel bag.)

I do the same when assembling my camera, light and strobe. Assemble and test for function. Except recently, I didn't test the video light. My video light is my primary light for night dives, I also have the light in my strobe, and a low power dive light for redundancy. Of course the video light would not turn on. Without it, the camera set-up does not focus well, so I had a night dive just like when I started diving - pretty ordinary.

Obviously, I decided next time to check everything. But this time the strobe won't sync to the camera. It is supposed to be TTL fully auto, but will only work in manual, so I left it behind and did a non-camera dive. Not bad at all. Thanks Sandy.

Turns out the fibre optic cable is no longer working as it should. I took a punt and got a genuine replacement. Got me thinking about equipment failures on dive trips. I figure decent operators will be able to get you diving for pretty much any failure of "standard" dive gear, O-rings etc. But it's too much to expect a replacement brand-specific fibre optic cable. Unsurprisingly I'm about to order another as a travel spare.

My camera set up is shown in Figure 1.

- My camera rig is made up from a variety of bits and pieces.
- Strobe is Olympus UFL-3.
- The strobe arm is "Chinese locline" with an internal safety cord in case it comes apart.
- Tray is home made from aluminium.
- The "safety cord" is 6 mm soft irrigation dripper line. I keep this clipped to my rig which means I can let go of the camera and deal with other stuff if necessary.
- The camera is an Olympus TG5, housed in an Olympus 058 housing.
- The video light is an Itorch pro-6; a bit dated, and really hard to get replacement batteries. And only 1 hour run time on full power. It has its own clip and hand cord. Sometimes I just use it as a dive light when the vis is too bad for photos.
- Blue locline arm with internal safety cord (this stuff DOES come apart under load).
- The tray has another clip, so I can fold everything up, bring the rig close to my body and clip it off.
- The new strobe fibre is genuine Olympus. The old one worked for around three years. I cannot see any damage; it still passes light but obviously has an issue.

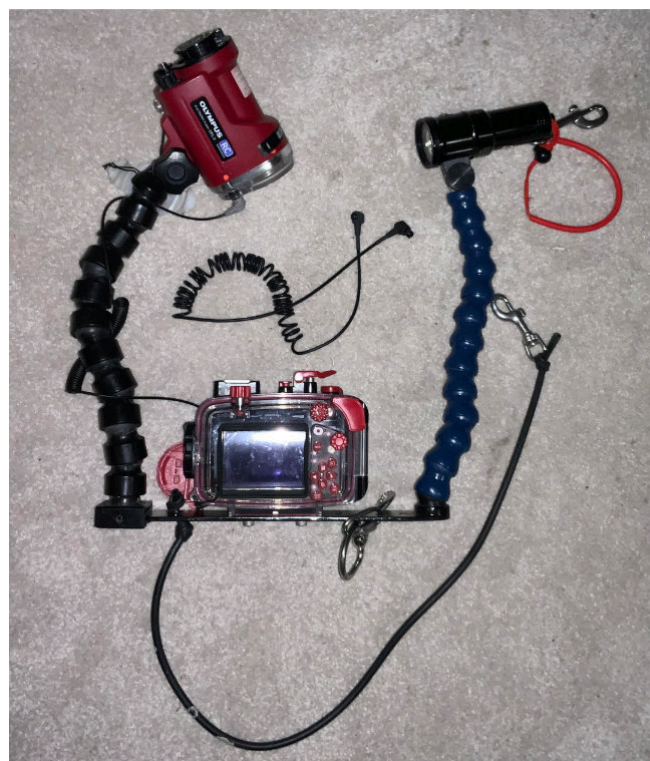


Figure 1. My camera setup with the offending cable shown.

PHOTO COMPETITION

Winner

Feb - 2022



Matthijs Smith - Lightbulb Ascidian

PHOTO COMPETITION

Runners up

Feb - 2022



Peter Mosse - Smile - San Remo



Ian Scholey - Green Turtle

PHOTO COMPETITION

Runners up

Feb - 2022



Peter Beaumont - Short headed seahorse

PHOTO COMPETITION

Winner

March - 2022



Peter Mosse - Blue Devil

PHOTO COMPETITION

Runners up

March - 2022



Peter Mosse - Cuttle



Ka Lee Tse - Ewans Pond

PHOTO COMPETITION

Winner

April - 2022

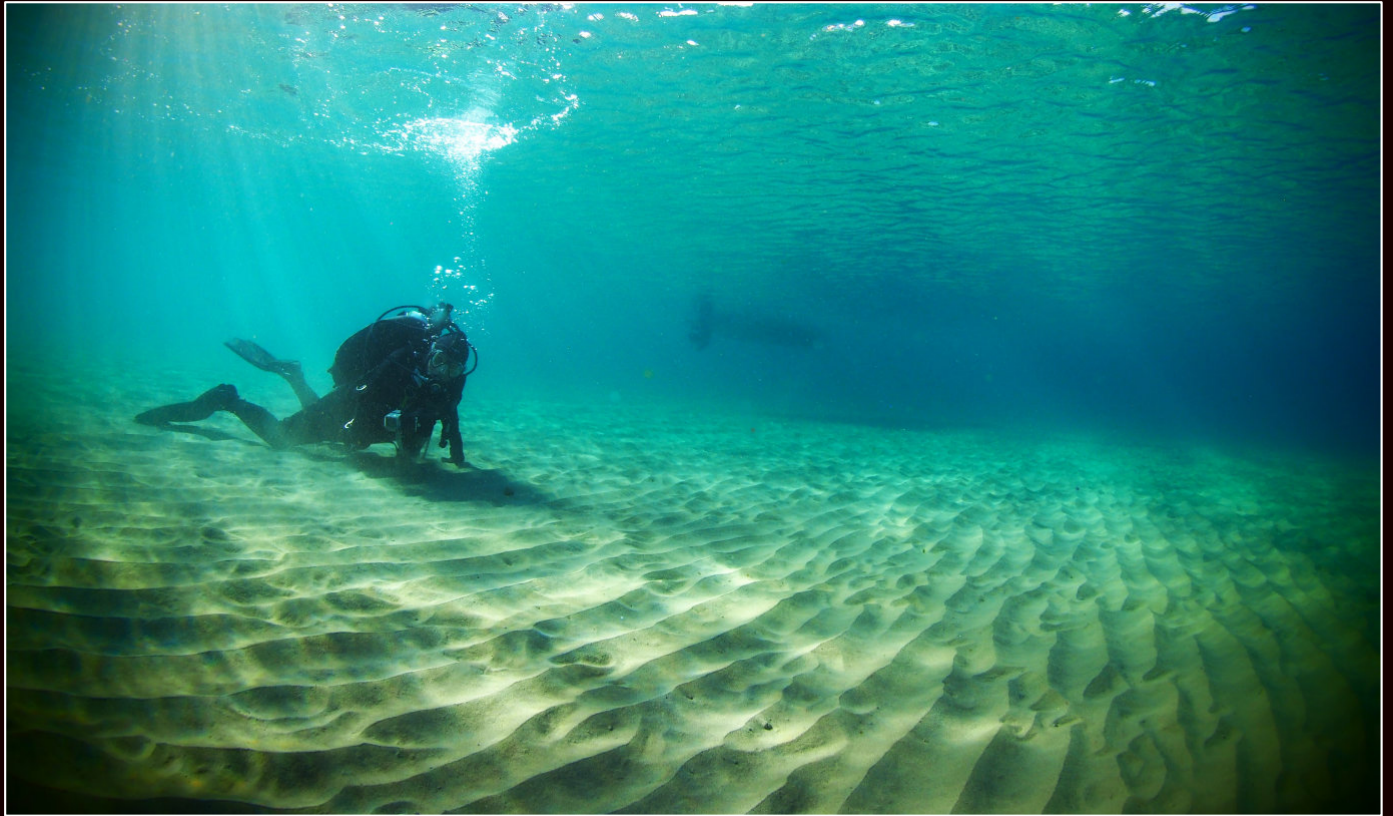


Marc Alexander - Comb Jelly - Rye Pier

PHOTO COMPETITION

Runners up

April - 2022



Tim Forster - Diver - Popes Eye



Enoch Ko - Tassled Angler - Rye Pier

PHOTO COMPETITION

Runners up

April - 2022



Marc Alexander - *Vercos nudibranch*



Tim Forster - *Smooth Ray*

PHOTO COMPETITION

Winner

May - 2022



Peter Mosse - Sea Pen - Westernport Bay

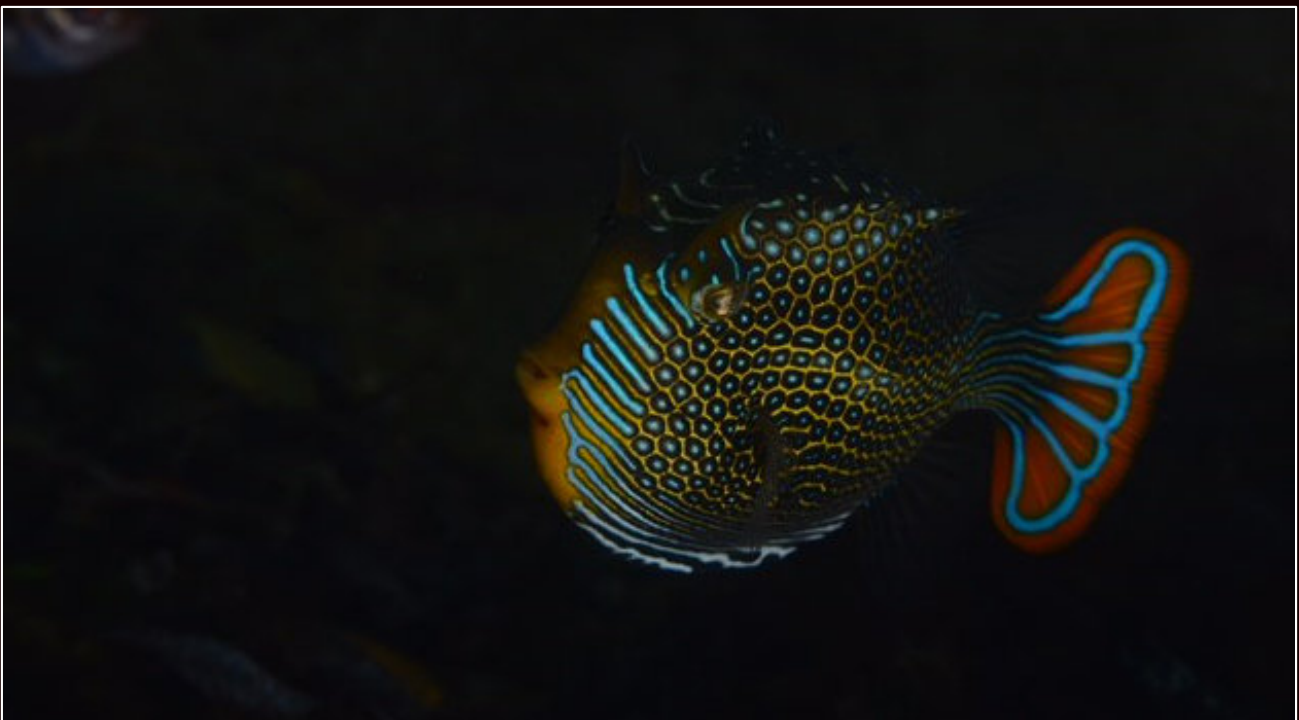
PHOTO COMPETITION

Runners up

May - 2022



Marc Alexander - Shaws cowfish - Flinders Pier



Peter Beaumont - Ornate cowfish - Flinders Pier



Club Equipment

As a reminder to all, we have a range of club equipment for use by VSAG Club Members.

This includes Emergency Oxygen Administration and First Aid kits. These are typically provided on long-term loan to active Club boat owners and permanently located on their boats for the safety of Club Members.

Other equipment available for short-term loan includes:

- 2.8 litre pony bottles including 1st/2nd stage regs; redundant gas for deep or wreck diving
- Ambient carbon monoxide (CO) meter; for monitoring member's compressors.
- Automated External Defibrillator: with plans to increase the number of units over time
- Sand Launching Ropes

In addition, the Club owns a number of standard aluminum dive cylinders and a few smaller sized cylinders.

A full list of equipment available for loan by VSAG Club Members, and instructions on how to access this equipment, is available at the VSAG site: <https://www.revolutionise.com.au/vsag/vsag-equipment/>

For Club Members to access this equipment, the first point of contact is the Equipment Officer - Brian Heatherich.

The general email address to enquire about accessing of equipment is equipment@vsag.org.au.

The Equipment Officer will know the current location of pieces of equipment and can assist with arranging access. It is advised to make arrangements as far in advance as possible to ensure availability and sufficient time to collect the equipment.

For any further questions or requests, please contact Brian Heatherich.

Emergency Contact Information

Anywhere on Victorian Waters, your first response should always be to call

000

or call the Water Police on 1800 135 729

In the event you cannot place a call, use

VHF Channel 16

and follow the Radio Emergency Message Protocols shown below.

If all of the above fail, activate your

EPIRB

Radio Emergency Message Protocols

Ensure all vessel passengers are familiar with the operation of a VHF radio and the following process for placing a Mayday or Pan Pan call

Speak slowly and clearly

Mayday call

Vessel or an occupant is in grave and imminent danger and requires immediate assistance

Distress call

Mayday, Mayday, Mayday

this is

"Name of your vessel", "your call sign" x 3

Distress message after call has been acknowledged

Mayday

"Name of your vessel", "your call sign"

Vessel position (GPS, bearing, what3words)

Nature of distress and assistance required

Other useful information such as number of persons on board, vessel description, life-rafts, EPIRB, etc.

Pan Pan call

An urgent situation exists but there is no imminent danger

Urgency call

Pan Pan, Pan Pan, Pan Pan

All Stations x 3 (or *"specific station"* x 3)

"Name of your vessel", "your call sign" x 3

Urgency message after call has been acknowledged

Pan Pan

"Name of your vessel", "your call sign"

Vessel position (GPS, bearing, what3words)

Nature of distress and assistance required

Other useful information such as number of persons on board, vessel description, life-rafts, EPIRB, etc.

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