

# Fathoms

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

**MARCH 2022**



*The SS Lady Darling*

*Marc Alexander - Flinders Pier*

*Boating - How Is Your Boat Battery?*

*3 Months of Photo Competitions*

*Standard Dress Diving*

*Photos by Mark Jeffrey*



# Contents

	Page
Top Shots	3
New Members	6
Local Dive Reports	7
Memorable Dives - Diving PNG	9
Memorable Dives - Portsea Hole	10
Pinnacles Dive Day	11
Standard Dress Diving	13
Book Review - Navy Divers	16
Lost and Found	17
The SS Lady Darling	18
How is Your Boat Battery?	21
Photo Competitions	22
Club Equipment	30
Emergency Contact Information	31
VSAG Committee details	32



# Top Shots - Mark Jeffrey



*Blairgowrie Pier*

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*Blairgowrie Pier*



*Point Nepean*

# Top Shots - Mark Jeffrey



*Aqaba Jordan*



*Flinders Pier*

# NEW MEMBERS

## Arthur Ohanian

I retired in 2018 after 33 years of running my towing and transport company. As most people who retire I had all the aspirations of doing all the things that everyone dreams to do during retirement, such as, travel, golf, learning different languages etc.,etc!

While on holiday in Fiji in 2000, I had a go at scuba diving and was totally blown away by all the different types of marine life, vegetation and with experiencing a totally different environment. Over the years since then, I have dived in Bali and Sicily.

So during lockdown in 2021 I decided it is time to start diving seriously and obtained my accreditation so I can pursue my new passion. I am now going for my Wreck and Deep diver accreditation so I can actually

go and see things live rather than watch it on TV.

Since I have begun diving I have become more aware of the environment and the fragility of the world and appreciate more what I see during a dive. Since diving I have met great people who simply love to enjoy life. I dive every week either boat or shore dives, preferably boat!



I was introduced to VSAG when I was on Redboats where I met Matthijs, Ian and Dylan and so after meeting up with them I've become a member and look forward to meeting more of the other members.

Prior to the pandemic, I did a lot of diving in Indonesia. Now on my home turf, I completed my AOW and am enjoying the more technical aspects of diving. I love cold-water dives, the reefs, walls and wrecks around Port Phillip Bay. My goal is to extend my skills in deep diving and wreck diving. Hopefully soon I will get the opportunity to explore sites such as the Victorian Ships' Graveyard of Scuttled Shipwrecks.

When I'm not diving, I work a busy job in telecommunications. In my spare time I enjoy traveling, live music, cooking and eating with my family. Thank you for welcoming me into the group. I'm looking forward to making new friends, becoming a part of the community and learning more from experienced Club Members.

## Gugi Ginting

My name is an unusual one and is pronounced 'Googie'. As an Indonesian national, I grew up in landlocked Jakarta, but have always loved being in the water.



I always wanted to try diving and the opportunity presented itself while I was accompanying my wife on a work trip to Fiji in 2018. While she was working, I managed to complete my OW certificate in tropical waters! Initially I was quite scared of being underwater. But now that

I have conquered my fear, I would be happy to be underwater every weekend.

## Michael Fox

My name is Michael Fox and, no, I did not star in Back To The Future. I have three daughters and I like to find things I can do with each of them. In 2019, my youngest daughter, Leah, and I completed our OW certification. While we have managed to get a bit of diving in, obviously with the lockdowns we were quite restricted in what we could do. However, with things now opening up, we have both been doing our AOW and we are just about to complete it.

I absolutely love diving. However, since joining the Club, I have discovered that one aspect of diving that I have discovered I love is hunting for crays. I can not wait to catch my first one and hopefully it is not too long away. I am also aiming to get my Wreck certification so I can dive some of the wrecks here.

I used to run a café in the CBD but we suffered from the impact of Covid. Fortunately we managed to get out of that business. I am a keen sailor and cyclist and also have a 40-year old vintage BMW motorcycle that keeps me out of mischief.



# LOCAL DIVE REPORTS

## Blairgowrie - 26 Feb 2022

by Matthijs Smith

After much debate on potential conditions and debate on the merits of various diving options, Peter Walters and I finally met up for a Friday morning dive under Rye Pier. I had not dived Blair for a long time (pre-Covid) and Peter had never dived it. Despite some of the dive reports on Facebook, conditions in the water were fine; a little bit milky and a very gentle current but still very pleasant. Peter was absolutely mesmerised by the abundance of growth on the pier wall. There was an abundance of fish life around and I was half expecting to find the local Wobbegong hanging out looking for a nice meal but if it was there, it was hiding.

On our way back to the dive platform, Peter found a very funky decorator crab that was clearly doing a trial run for Mardis Gras. Unusually for a non-weekend dive, there were quite a few other divers in the water possibly reflecting that Rye and Flinders Piers are both having work done. The dive was better than the bacon roll afterwards, and it was a pretty good bacon role so this was a very pleasant way to spend a Friday morning.



## Coogee & J4 – 17 Mar 2022

by Matthijs Smith

Ian Scholey picked the day, but I think even he was even surprised that the conditions turned out as good as they did. Myself, Graham Ellis, Carole and Peter Campisano were on Carmine with Ian Scholey and Peter Mosse on Sea Eagle. We launched from Sorrento onto a glassy ocean. The swell transiting the heads was almost 10cm. The first dive was on the Coogee at 33m. Conditions below the surface were almost as good as conditions above. Excellent visibility, no surge and the water temperature at 17°C. It was an absolutely sensational dive. The wreck was teeming with fish life. Ian and Peter found a cray hiding in the bow and we managed to cover most of the wreck despite the short bottom time.

Peter Mosse and Ian did a second dive exploring the insides of J4 that was equally spectacular with excellent visibility. The plaque on the sub had been recently cleaned, although the structure of the sub itself is starting to look a bit tired. Myself, Peter and Carole did a shallow dive at site called The Supermarket as Peter wanted to shop for some crays. They were not in stock, but we did find a very chilled swell shark hanging about in the weeds. Just a magical and memorable day out on Club boats.

# LOCAL DIVE REPORTS

## Megalodon tooth hunt

– 10 Mar 2022

by Matthijs Smith

"I'm scheming. Want to do something a bit different?" said the English voice on the end of the phone. So Thursday morning, we are in the carpark at Martha Cove boat ramp. Myself, Peter and Carole Campisano on Carmine, and Ian Scholey, David Flew, Richard Dahlenburg and Graham Ellis on Graham's RIB. Our mission, to find and excavate fossilized teeth from giant prehistoric sharks called megalodons. Along with our usual dive gear, we are fully equipped with an incredible array of hammers, chisels, scrapers, and hand trowels. David wanted to bring an excavator. We drove up the coast from Mt Martha but when we got to the site, there was a fisherman parked right on top of where we were hoping to go fossil hunting. Strangely, he did not seem to be intimidated by a bunch of people in rubber suits bearing hammers and chisels, so we parked 100m further up the coast. Once in the water, our enthusiasm was not constrained by our limited knowledge in what to look for. It honestly sounded like something from Lord of the Rings, with all the hammering going on. Needless to say, we did not find any teeth. But we did get a nice bit of brain coral. An incredibly fun day and I cannot wait to do it all again.





# MY FAVOURITE DIVE SITE

## Reminiscing! Hansa Bay PNG

by *Tim Forster*

Quite a while back I went to Hansa Bay PNG and apart from my travel group, I've never met anybody else who's been diving at Hansa Bay. Not a clue how to do it these days, I have seen references to "Liveaboards" but these boats are unknown to Australians and only advertised in Europe. There are some large mines near Madang and there must be divers amongst the employees who would dive up at Hansa Bay. For wreck divers it has relevance and equates to Truk and Honiara. To get there it's an interesting days drive from Madang PNG up the coast with a few dive spots on the way, in particular the mine sweeper Boston, a shore dive along a limestone coast of difficult rock, a steady drop off with a sweep of current, about 30m to the



wreck. My own memories of Hansa are a small township with a background of heavy forest, a huge backdrop of mountains in the background. On this trip as we flew over the top from Port Moresby there was permanent snow, and this is no longer so. Hansa Bay is a sandy bay that bottoms out around 40m. A river flows into the top end, this can silt the visibility as does the prevailing weather conditions, so there is a good and bad time to visit. When I was there it was overcast, light rain and no wind, making it perfect.



Wrecks there are plentiful, the literature says 35, with live ordinance all over the place. The wrecks were caught there by allied aircraft and some were deliberately sunk.

I believe in the 1960s an Australian bunch did some salvage (of sorts) and made the most of the artifacts and some full sake bottles. There is a wreck which had its cargo holds full. We left the sake bottles on the wreck but collected one from the many that were scattered over the sand. These days, a heritage overlay of WW2 wrecks exists in PNG.

A number of wrecks break the surface, there's all sorts of stuff and we only dived on 4-5 of the wrecks. Looking back on an interesting trip, we also dived around Madang and an infamous seamount where the drop off is too deep to sound the bottom. I was lucky enough to find a beautiful golden cowrie while diving off Madang.

PNG is different, its highly corrupted, its political and has tribal outcomes. It is poor, international corporate interests take what they can, the people are lovely, speak a beautiful English along with many local dialects and pigeon, but these days you have to be careful in PNG. Many of us have been to PNG a number of times but not to Hansa Bay.



# MEMORABLE DIVES

## Sometimes You Get Lucky - Portsea Hole

by *Peter Mosse*

My dive log records it thus.

"Too rough to go outside, although a spectacular trip through the heads. Just made the Portsea Hole in time for slack water. Tentative hold of the anchor. Heavy bucking at the surface. Wasn't really happy with it".

My buddy Alex and I proceeded with the dive, while my 15-year-old son Wade stayed in the boat. I had some months previously given him basic instructions on how to start and drive the boat. I had also very quickly explained the rough marks for the Portsea Hole before quickly exiting the boat. We descended quickly and checked the anchor. The hold wasn't good, but we decided to continue and stay in the general area of the anchor and just go up and down and along the "wall" section.

Not long into the dive, I heard a distant tinkle, tinkle sound. I can still hear it today! Instantly, I knew what it was. I headed back to the anchor and sure enough,

During this time, my son had been sun baking lying on the floor of the boat. He said he had slowly become aware that nature and sound of the rocking boat had changed somewhat and finally decided he should have a look. I remember seeing his blond head emerge above the gunwale and look around and then finally stand up.

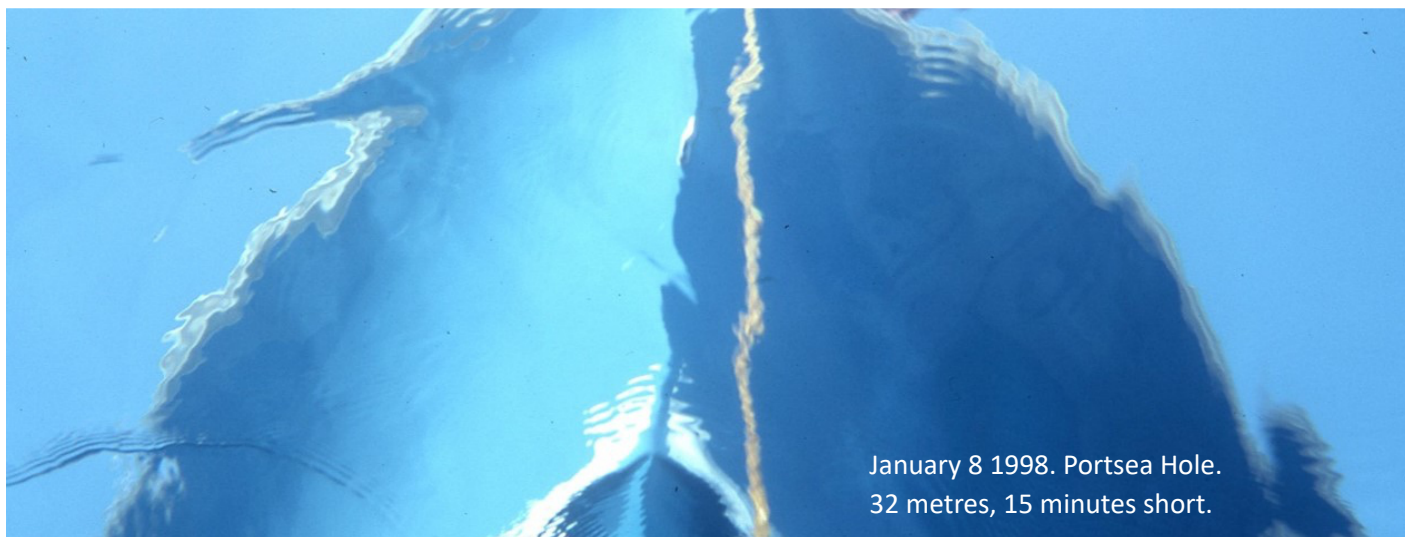
I watched in anticipation as he moved to the helm. I was relieved to see the puff of smoke characteristic of a two stroke motor. He had managed to start it OK.

He then made his way toward me. Meantime Alex had surfaced and was bobbing at some distance.

Shortly we were both back in the boat, minus an anchor and chain.

I was unable to find the equivalent anchor. The one I replaced it with is still with me but it is just not as good as the old one!

While luck was against us for the broken anchor rope, we were lucky that my son was in the boat since out normal practice for decades has been to leave no one in the boat (Many would rightly challenge this as being a bit risky!!). So, while Lady Luck had smiled on us



January 8 1998. Portsea Hole.  
32 metres, 15 minutes short.

there was the anchor along with a neat pile of anchor chain. What to do? This was my favorite anchor. I wanted to keep it. I managed to grab the chain and head to the surface as rapidly as safety allowed.

Clearly the boat was gone. No surprise. A quick 360 degree spin and then I spotted the blue hull and white deck drifting fairly rapidly with the outgoing tide toward the Quarantine Station. But no sign of my son Wade in the boat. That caused me a bit of concern. I yelled as loudly as I could be to no avail. Even with an inflated BC, I knew I couldn't hang onto the anchor for long enough so I reluctantly let it descend to the bottom. It could still be there some several hundred meters to the Southwest of Portsea Hole.

But still no sign of my son, and the boat kept drifting...away.

once, the bad luck balance sheet continued after we were back on land, we had a parking infringement notice, a flat tyre and on the way home, the spare wheel worked loose.

It was certainly a very memorable day.

### Lessons Learned

- Check the anchor rope regularly.
- If you think the end near the chain looks a bit worn and frayed, IT IS. Change the anchor rope end for end, cut off 6 to 8 meters and resplice a new gimble or buy a new anchor rope. And buy a good one.
- Ensure the D shackle(s) are done up as tight as possible. Alternatively, you can wire it so it cannot turn. Do not keep it loose enough to undo. If you need to get it off, plan to cut it off.



# *Pinnacles Dive Day And Picnic*

## **Sunday 20 March 2022**

The Pinnacles is one of those iconic sites in Victoria that is notoriously difficult to get on, but when its right, it is absolutely brilliant. So, when Peter Mosse, the site's Platinum status frequent diver, offers to organise a dive for the Club, you do spend too much time thinking about it.

Last year, the Club had a fantastic dive and picnic with 6 boats on the water, great conditions above and below the water, visibility of 20m plus, and Stuart Cousin's smoked salmon making its debut appearance. The was a lot to live up to.

Unlike last year, the waters in Bass Strait have been a lot more turbid this summer. Peter Mosse had checked the site out the previous week and described as a footy club's washing machine. However, the forecast steadied in the run up to the event so a final call to go ahead was made on Thursday evening.

This year we had 4 boats on the water (Mistress, Carmine, Peter Mosse's and Steve Grigoleit's boats) and 16 divers. Surface conditions were great with a slow, 1.2m swell. Divers were dropped off on the wall and gullies or a site slightly east. Visibility was 3-5m with a bit of surge that was much stronger in the gullies.

As we had Peter Campisano in charge of a surface boat, most of the divers entered around the same time. Despite the moderate visibility, its an utterly spectacular site. Fields of sea tulips swaying back and forth, bright red sea whips, hand-shaped sponges. Absolutely magical. It is a deep site starting at below 30m and then working up to the kelp beds around 20m.

Once back on the boat, we headed back to New Haven taking in the beautiful rock formations along Cape Woolamai. Back at the New Haven Public BBQ, it was time to get some food happening.

Rohan brought along one of his crays and we had an amazing array of salad contributions. We put JL in charge of meat cooking duties. However, the public BBQs were like all public BBQs: not much heat, and what there is, is all in the top, left hand corner. Eventually Peter Mosse got out his gas camp stove and finished off frying the sausages in a fry pan. So glad Stu' and Donna were not here to see this and next time we will remember to bring our own BBQ.

Once again, a great day, a lovely dive, fun in the Club boats, great food and lots of laughs. Definitely will be putting this in next year's calendar.

**- Matthijs Smith**





*Image by Mark Ryan - Aquability*

# Standard Dress Diving

by Ian Scholey

Ever since I was a kid, I have been fascinated by the thought of hard hat diving. I clearly remember sitting in awe in front of the TV screen, mesmerised as a heroic diver grappled with a giant octopus or squid, knife in hand. More often than not, they died a horrible death as their air line was cut by the bad guy. So, putting thoughts of the grisly ending that potentially awaited me to one side, the answer was a loud, unambiguous "Count me in!", when Mark Ryan offered the chance of doing the IANTD Standard Dress Course. The gear looks so cool, why would I not give it a go? Regular dive buddy, Chris Porter, was soon on board as well. This was going to be fun.

The only two agencies that offer a recreational Standard Dress course are IANTD and NAUI. Within Australia the course is only offered at two places:, Aquability, which we did with Mark Ryan as our instructor, and PDS in Portland that offers it as part of an annual event held by the Historical Diving Society. The course took place over two days with the first day in the classroom during which we learnt about the history of diving as well as about the equipment and concepts involved in diving hard hat.

Essentially the same rules apply in standard dress diving as apply in scuba. The rig is fed air from the surface by means of a pump, compressor or cylinders. The breathing gas enters the helmet in a continual flow and vents through a one way valve. The diver

controls the inward flow rate via a valve on the hose at chest level, and the vent rate via a valve on the side of the helmet. If you get it wrong, you either inflate the suit like a balloon and float to the surface or don't get enough air circulation which makes breathing difficult and allows CO<sub>2</sub> to build up. The helmet is also equipped with a knock valve to the side of your head allowing you to vent gas from the system quickly should the need arise, and a system that allows communication with the dive supervisor on the surface.

Standard dress diving is actually pretty simple conceptually and is very safe. If the gas supply is cut off, there is ten minutes or so worth of gas inside the suit providing time to solve any problems. On our dives, we were also accompanied by a safety diver equipped with a stage tank and an air gun. If anything went wrong, the air gun could be used to inject gas into the suit through the sleeve.

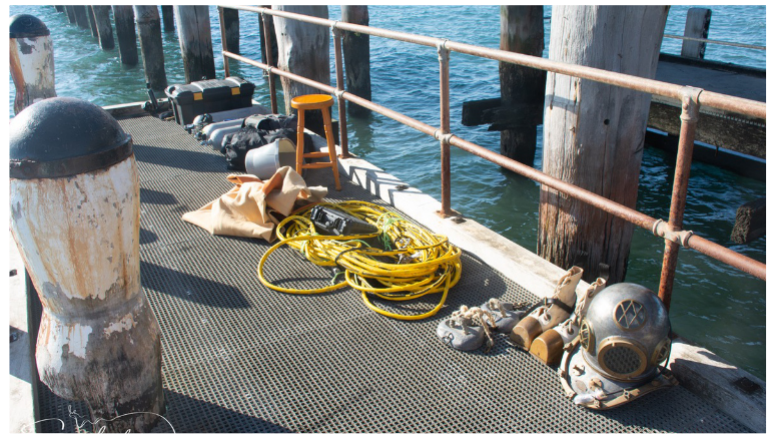
The course teaches divers to do three, key aspects of standard dress diving:

1. Make a dive.
2. Supervise a dive i.e. run the comms and drive the pre dive checks.
3. Tend the dive; i.e. dress/undress the diver and manage the gas and hoses.

After our classroom session we completed a dry dive. This involved each of us getting kitted up and gave us



practice in the dressing techniques and sequence that we would need to demonstrate the following day. The second day of the course is where the real fun starts. We headed to Flinders Pier to do our proper dives in the ocean. There is a substantial amount of gear to carry down to the dive site. We had to make several trips back and forth to the car park loaded



down with cylinders, the communication units, dive helmet, chest weights, lead boots, hoses, belts and rigging, a dressing stool, and even a ladder to enable us to get into the water. Before we were even set up, we had attracted a crowd of interested spectators. There were three of us on the course along with Mark acting as our safety diver, and Warren whose gear we were diving with. Warren was there to keep an eye on the surface to make sure we did not screw anything up too badly. Our day involved each of us completing the three elements as we exchanged roles for each of the three dives.



The diver does not actually have much to do until the dive is about to commence. The tenders are responsible for dressing the diver and getting him ready for the dive. This process starts with getting the diver into the suit, and finishes with an air and comms check and the face plate being screwed into position. It is then a case of getting to your feet with the considerable

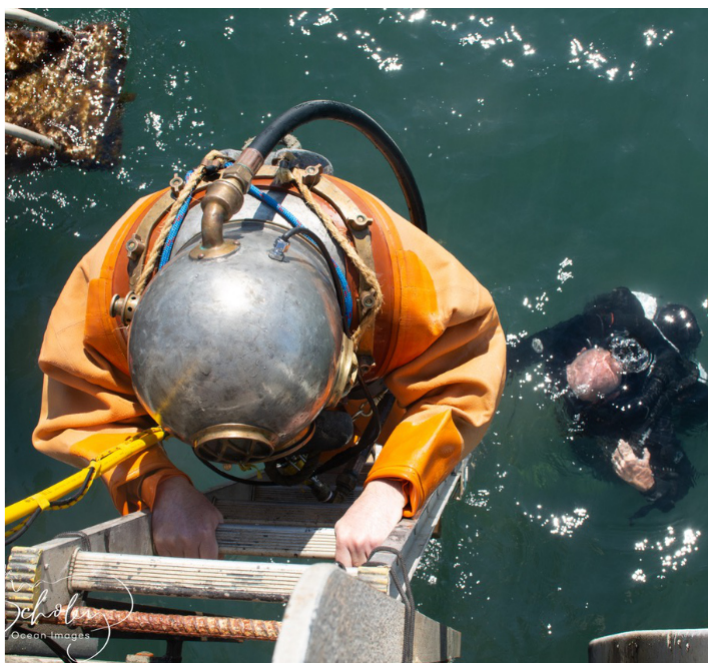
weight of the rig and manoeuvring yourself to the ladder. The diver descends the ladder until the face plate is submerged. Everything is paused at that point to allow the diver to adjust valves and for the dive supervisor to complete a bubble check. Once the diver and supervisor are satisfied that the bubble flow is acceptable and coming from the right places, the go ahead is given via the helmet comms and down you go.

It takes a few seconds to get sorted once on the bottom. The valves are manipulated to get the buoyancy to a point where feet remain on the sea floor,



but it is possible to walk. With the basics sorted on the bottom, we had to complete a couple of drills as part of the course. First was a simulation of a loss of gas flow where the safety diver hands you the air gun and you have to insert it up your sleeve and add air to the suit. This was pretty easy to do although you had to remember to do it with your arm pointing downwards to prevent water entering the suit.

The second drill was to lie flat on your stomach and then get back to your feet. It sounds difficult but was in fact it pretty easy to do. The technique involves increasing the air flow into the suit to provide more buoyancy without going too far and heading to the surface. With these two drills successfully completed we basically went for a walk around the sea floor. I guess it is a bit similar to moonwalking. You basically



lean forward and bounce each foot forward. Not particularly elegant, but effective nonetheless. After about 30 minutes dive time, I arrived back at the foot of the ladder and climbed back to the surface. With the course completed you are certified to dive to 18m in Standard Dress. We completed our course using a Korean Pusan, 12 bolt, 4 light dive helmet, 40 year old Japanese diving suits, American made boots, English chest and back weights and homemade rigging. Our gas supply came via a 50-metre hose from standard scuba cylinders.

Honestly, I am not sure how useful this course is going to be in my future diving. But I can confirm it is a hell of a lot of fun, and I would recommend it to anyone on that basis alone.



*Image by Mark Ryan - Aquability*

**Mark Ryan has agreed to put on another Standard Dress Course for VSAG specifically.**

**The cost for the course will be \$450, is limited to 6 participants and we expect it to be held over a weekend in July or August. If you are interested in joining this course please contact Ian at [ischoley@inet.net.au](mailto:ischoley@inet.net.au)**

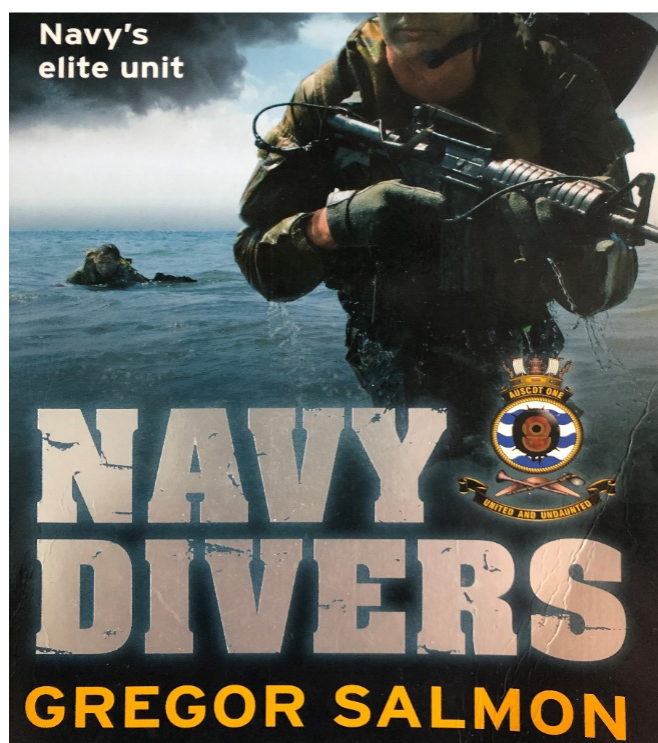
# BOOK REVIEW

by *Arthur Kokkinos*

## Navy Divers

- written by **Gregor Salmon**

If there was ever a time you needed to convince yourself that the Australian Armed forces were the bravest soldiers the world has ever known, then look no further. NAVY DIVERS a book written by Gregor SALMON will definitely provide enough evidence to confirm that argument. With the proud history of our ANZAC'S and many other soldiers fighting in battles across Europe, Asia and the Middle East. The bravery and resilience of our armed forces is legendary. However, The Australian Navy Divers were in another level of warfare that is almost too hard to believe that they ever existed. Little is known about this elite unit and their history dates back prior to World War 2.



The book has compelling memoirs of the many top secret missions infiltrating into enemy lines. The Australian Navy Divers have been used as virtual guinea pigs sent out to clear rivers, lakes, oceans, bay inlets and also used on land disarming many bombs dropped on major cities that did not ignite or explode. The writer manages to describe the many high risk diving exploits in vivid, nail biting fashion. Disarming of bombs in zero visibility conditions, working tirelessly around the clock disarming land mines and bombs on land to protect urban areas and save local residents, clearing murky rivers by touch of hand, Bravely diving in 9 metres of water into enemy territory on oxygen so as not to create bubbles are just some of the stories in this book. The Australian Navy Clearance divers were in a world of their own and without a doubt the bravest human beings living on this earth.

The Navy Divers Training regime is also mentioned in this book and gives an insight into what type of person you need to be to join this elite group. The training required to join this group is rated the hardest in the world. Navy divers from ally countries (USA, England) have trained with The Australian Navy divers and on many occasions, they have nearly drowned or many were unable to complete the training, such is the standard, it is considered the best in the world.

The author has described in captivating fashion the many different tasks the Navy Divers undertook such as (disposing and disarming bombs for safe passage for our navy fleet, underwater repair jobs, use of sonars to detect items underwater, IED and Robot work, deep technical diving, Rebreathers, Infiltration and fast rope diving, ammo clean ups, ambush patrols and setting up underwater barricades).

I found it really hard to put this book down. The missions and skill factors required to perform as a Navy Diver will literally make you feel proud of this elite unit. The courage and strength these divers possessed will bring



you to tears. Tears of immense appreciation. A book that covers Australian war history combined with Diving is a book that will not disappoint you.

From 1950 The Royal Australian Navy divers trained in Port Phillip Bay, Sydney Harbour and at Lake Eucumbene home of the 67 metre high training tower. All these locations produced world class divers that helped the Royal Australian Navy build a reputation of the best and most respected clearance divers the world has ever seen.



The tower at Lake Eucumbene used for dive training

I highly recommend this book and without a doubt a book you need to read before you hang up you regs.

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



# LOST & FOUND

## Good Times On GoPro Reef

by *Matthijs Smith*

It was one of those magical winter days on the water in Melbourne. We were on Grant Callow's boat Breaker (myself, Dylan Smith, Mike Mossveld, Grant Brittain and Grant) diving sites off Lonsdale back beach. The usual shenanigans on the boat with Grant Brittain trying to persuade everyone to hold onto his shark shield so they could enjoy a 2000-volt shock. Dylan and I were on the second dive group at the first site. Beneath the surface, the countryside was typical of that stretch of coast; fields of seaweed gently swaying and a cornucopia of limestone formations to explore.

At the end of our dive, I clipped off my GoPro. Back on board, Grant started the engine and we headed to our next dive site. I looked at my rig – no GoPro. "Did



someone take my camera?". Blank looks all around. Grant Callow yelled over the engine noise, "No point going back, I don't know where I picked you up". Then Grant realised the situation had a lot more mileage in it. He started typing into his GPS. "There," he said "I've marked a new artificial reef. It's called GoPro Reef". Now the banter really started. "Gee, look at that. That would make a great picture. Oh. I forgot, you don't have a camera".

I tried not to be gutted, but I was. Replacing this system was not going to be cheap. The day had ended up turning into a several hundred dollar dive day. I tried to have a brave face and keep laughing. But I was gutted. When I got home, I started exploring replacement options. If I was going to keep leaving stuff on the ocean bottom, I did not want to spend too much money on a new set up. I bought a cheap camera for \$60 and, a few weeks later, managed to find some decent lights on eBay for \$300.

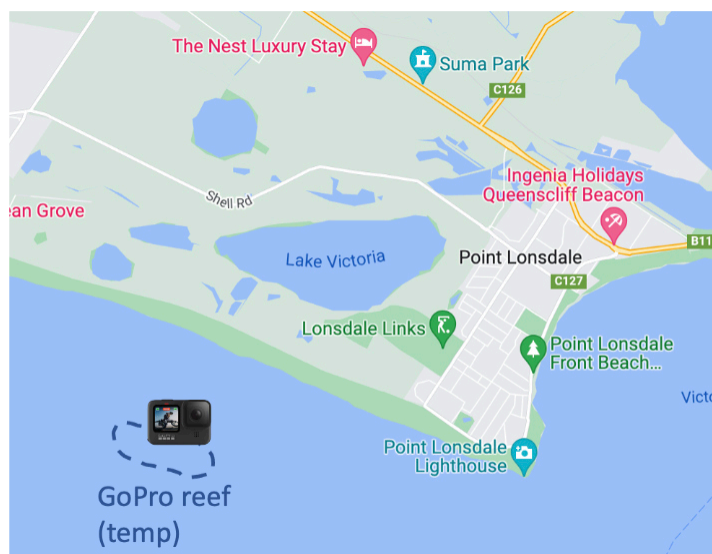
Four weeks later, we are out again on Grant's boat, again diving off the coast of Lonsdale back beach. Dylan and I had a great time cruising around,



swimming through limestone arches, exploring under ledges and looking for swim throughs. I saw one particularly enticing one although it looked like it might be a bit tight. I poked my head and shoulders in which only confirmed that it was not big enough (or rather I was too big!) to get through so I started back-finning. As I did, I saw a glimmer of red on the bottom. There it was. My camera and light sitting on top of the sand at the bottom of this tiny limestone basin. I reached down. I reached for the power button on the camera, 42% charge. Pressed the big button on the light. Pow! Flood light. It was on. Everything worked. Amazing.

As soon as I started climbing up the ladder to get back on board I yelled out "I found it. I found my camera". The was greeted with some fairly salty expressions of incredulity followed by accusations of making it up, hiding the camera, playing a prank etc etc. I did not care. I got my camera back. And I had some great new lights on their way from my eBay purchase. Things were definitely on the up.

The old adage for divers is "The dive shop giveth. And the ocean taketh away". But every now and then, just occasionally, the ocean giveth back. Thank you ocean.



## DIVE REPORT



# The SS Lady Darling

By Ian Scholey

It was a late thought, but I applied for a permit to dive the SS Lady Darling a protected wreck when we were already in NSW. I was not really expecting to get permission before we left. However, I was delighted to get a call the very next day from Heritage NSW giving us the green light. We made a quick call to Mark Ryan to see if he could help us with a mark for it. We found it despite it being on sand and ended up diving it on consecutive days. On the first day we dived from the boiler to the stern, and the second day we dived from the boiler to the bow.

The wreck is located five and a half kilometres south-west of Aughinish Rock, eight kilometres south-west of the southern end of Montague Island and two kilometres off Cape Dromedery. It is in a very exposed position, so we were lucky to get our dives in. We were amazed by the colourful life making it a truly magnificent dive. Those lucky enough to dive her were myself, Peter Campisano, Carole Campisano, Rowen Salger and David Flew.

The SS Lady Darling was built at the W. H. Potter and Company shipyards in Liverpool, England. She was launched in July 1864. The new ship was 189.7 feet long, almost 29 feet wide and displaced 649 tons. She was an iron hulled steam powered general cargo vessel with three masts proving additional power. The

steam came from a single coal burning boiler powering a simple 140 hp two cylinder engine. This ship is one of only two shipwrecks in NSW with such an engine, the other being the SS Woniora. The ship was owned by Messrs Tyndall and Heywood Bright of Liverpool.

For three months after her launch she was used around England (probably Liverpool) and was then sold to Bright Brothers and Company (closely related to the original owners). On 18 October 1864 the SS Lady Darling left Liverpool for Australia skippered by Captain Thomas Johnston. She arrived in Hobsons Bay, Melbourne on 17 January 1865 via Lisbon and the Cape of Good Hope (where coal was taken on for fuel). No customers were aboard but some of the cargo included type (30 boxes), fruit (1,350 boxes), apples (50 boxes) and wine (26 casks).

The Lady Darling left Melbourne on 13 April 1865 bound for Dunedin and Nelson in New Zealand. On 22 June 1865, Thomas Johnston, aged 45, the Master of SS Lady Darling was accidentally killed on the ship. He was buried at or from St Pauls Church Molesworth St, Thorndon (a suburb of Wellington, New Zealand). On 21 October 1865 she arrived in Sydney from Nelson carrying 14 passengers as well as 7,600 ounces of gold (worth about A\$4.2 million in 2004 dollars). The gold was destined for the Bank of New South Wales (now Westpac).



On 26 May 1866, the SS Lady Darling ran aground near Green Cape south of Eden (on the far South Coast of NSW) while travelling from Melbourne to Gladstone in Queensland. She returned to Melbourne and was drydocked. However, the damage was more than first thought and about 12 hull plates were replaced. The First Mate was found responsible for the grounding. The skipper on this trip was Captain Henry McEachern who had an interesting career. In 1862 he was skipper of a schooner called Annie Beaton which plied the waters of Victoria.

Two years later, in May 1864, his vessel, the Star of Victoria (which he part-owned), a 275-ton barque, was wrecked at New River Heads at the bottom of New Zealand. Later, in January 1884 he was skippering a schooner called A. F. Gifford out of Gloucester, Massachusetts, America when he found a large knife inside a large cod that they caught. After this the ship made voyages from Melbourne to Gladstone in Queensland as well as Newcastle, NSW and Sydney. During these voyages she carried livestock, general cargo and coal as well as passengers. On 22 August 1866 she arrived in Sydney from Gladstone with 280 head of cattle. On 26 August she arrived in Melbourne, the skipper at this time was Captain James (Jas) Clark. During parts of November and December 1866 the ship was slipped, most likely in Melbourne.

The ship was not profitable as Bright Brother and Company were not able to get work on a regular basis for the ship. On 27 August 1867 (one source says 1868), the SS Lady Darling returned to Liverpool, England. She was again owned by Messrs Tyndall and Heywood Bright. In 1870, the ship had major work done on her. The hull was lengthened to 239 feet (72 metres) and she now had a gross displacement of 895

tons. A new hull bottom was also fitted at the same time. In 1871 she may have been in a collision. Over the next few years the ship worked the English coast and sometimes travelled to places like St Johns, Canada and the Mediterranean.

Around this time shipping to and from Australia started to move away from sail power to steam power. As such, the need for coal to power these larger ships increased. In the case of Melbourne, coal needed to be shipped from Newcastle or the Illawarra area in NSW. Therefore, more ships were required to meet this need.

James Patterson arrived in Melbourne in 1852 and soon started a shipping line called Patterson and Company. All the ships owned by the company were sailing vessels. When the demand for coal rose, Patterson decided to purchase a steam ship. He purchased the SS Lady Darling which left Liverpool, England on 1 February 1874 and arriving in Melbourne in May 1874 (although the official sale may not have been till 2 January 1875). The ship was under the command of William Clayton. The Lady Darling entered the Newcastle to Melbourne run and for the next six years operated without incident, taking ballast to Newcastle and coal to Melbourne. The ship also made occasional stops in Sydney. The skipper once she arrived in Australia for the second time is believed to have been W. Sewel.

For example, at 9:40 pm on 22 May 1880 the SS Lady Darling left Newcastle for Melbourne. At 2:30 pm on 24 May 1880 she passed Gabo Island (on the NSW-Victoria border). She passed Wilsons Promontary at 5 pm on 25 May 1880 and arrived in Melbourne at 1:20 pm on 26 May 1880. This may have been the time she entered Port Phillip Bay but it also might have been the

time she arrived at Hobsons Bay which is what the Port of Melbourne was known as then.

## SS Lady Darling

On 8 November 1880, the SS Lady Darling left Newcastle under the command of Captain J. A. Roberts (also reported as L. A. Roberts). The weather was fine as she headed south past Sydney and on 10 November 1880 the SS Lady Darling the ship had passed Narooma on the South Coast. Captain Roberts was intending to pass between Montague Island and the mainland. The island is about six and a half kilometres from the closest part of the coast and it is said that Captain Roberts was about half way between the island and mainland as he passed the island. About here (11:20 pm) he handed over control of the ship to the Chief Officer, R. Hughes. It appears that he advised Arthur Sweet on the helm to turn a bit to the east to clear Bermagui well to the south.

South of Montague Island there are two shallow reefs. The largest of these is Aughinish Rock which is about 2.5 kilometres south-west of the southern end of the island. A further two kilometres south there is another reef. Both of these reefs break in any sort of swell and are shallow enough to wreck any large boat that crosses over the reefs. The Lady Darling drew about 16 feet 5 inches (5m) and in even a two metre swell she was likely to hit a reef that was shallower than 7 to 8 metres at low tide.

As indicated, Chief Officer Hughes must have changed course from south to south-east or south-south-east. At about midnight the SS Lady Darling hit a reef on her port side, near the engine room. Chief Engineer Michael Kelly reported that water was pouring into the engine room. On examination, a hole the size of a garbage can lid and about 2.5 metres under the waterline was found. The pumps were put into operation but it was obvious that the ship was doomed. Captain Roberts (back on the Bridge) ordered that the ship be steered towards shore. Five minutes after hitting the reef, the water in the engine room had almost reached the boiler so Kelly released steam and the engine lost power (as well as the pumps). The lifeboats were launched but the Captain did not order the immediate evacuation of the ship. Captain Roberts ordered the ship to be abandoned and at 12:30am, he and the crew watched from a lifeboat as the ship disappeared stern first.



The crew rowed the lifeboat to Montague Island where they knew there were men constructing the new lighthouse. They arrived there at 4 am. At about 5 am, the SS Kameruka sighted the masts of a sunken ship south-west of Montague Island. They examined the wreck and sounded the depth as being 15 fathoms (28 metres). The Kameruka continued to Tahra where the skipper reported their find to the authorities in Sydney.

The SS Kiama also came across the wreck that morning and later they saw signals from Montague Island. Captain Roberts rowed out to the Kiama and asked them to pass on information about the sinking to Sydney. The famous pilot steamer Captain Cook was sent from Sydney and when they arrived (12 November?), they collected the crew and went to examine the wreck. The crew were taken back to Sydney and they travelled to Melbourne on the SS Barrabool (see SS Bonnie Dundee Page for more information on this ship).

Captain Roberts later reported that the ship hit something about 3 kilometres south of Montague Island, so this makes it very likely that the ship hit Aughinish Rock rather than the other reef. Note that later the same day, the bushranger Ned Kelly was hung in Melbourne!

The Court of Marine Inquiry began on 21 November 1880 where it heard that the ship never came closer than one mile to Montague Island. The Court found that no blame could be found in the Captain or crew as the ship appeared to have hit an uncharted reef.

The SS Lady Darling lay unfound until August 1996 when the net from a Bermagui fishing trawler became entangled on something off Cape Dromedary. The skipper of the trawler, Dom Puglise, approached Bert Elswyk, the operator of a local fishing and diving charter boat, to recover his valuable net. He also told them that a piece of rivetted plate had come up with the net that he had retrieved. On 16 August 1996, Bert and local dentist, Paul Mood, went out with the aim of recovering the net and gear.

Imagine the surprise that awaited Bert and Paul when they descended to the sea floor! The net was not caught on a reef, but hooked over the remains of a shipwreck.



# BOATING

## How Is Your Boat Battery?

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. If I had known what Graham explains here, my helicopter ride and boat rescue (see Fathoms January 2022) may not have happened! And remember car batteries cause problems quite frequently. Peter M.

During my annual boat check, I discovered the engine was cranking a bit slower than usual. Both batteries were tested using a battery analyser, and the results indicated one needed to be re-charged and re-tested and the other one should be replaced. The batteries were about 3½ years old and kept charged using a good quality smart charger. I re-charged each battery individually using a properly rated battery charger. Rule of thumb is a properly rated battery charger should have a current output of at least 10% of the battery capacity. For example, if your battery has 100 Ah capacity, the battery charger should be capable of charging at 10 amps as a minimum.

After recharging, one battery tested as Good with a marginal internal resistance and the other tested as Replace. I took the batteries to a battery shop that had a "carbon pile" battery tester and watched them get tested at their rated CCA; the results were Marginal for both of them at their rated CCA. CCA stands for Cold Cranking Amps which is an international standard that looks at the ability of the battery to deliver a certain current to start the engine. Engine manufacturers will nominate a minimum CCA for a battery to ensure reliable starting. Getting back to both batteries being marginal, for me that is not acceptable, especially considering there is no such thing as Roadside Assist on the water, and when sea conditions can never be guaranteed to stay good. In case you are wondering, a carbon pile tester is an acceptable way to test batteries properly against a known cranking load. The result of this test saw me purchasing two new batteries.

As mentioned above, I use a smart charger to charge my batteries. Smart chargers are not battery analysers. The information smart chargers, such as Ctek, NoCo, Victron, provide is only an indication of battery health. This is because it is based on charging conditions and generally provides information on the state of charge.

The state of battery charge can also be checked using a multimeter to measure the voltage with different types of batteries having different voltages when fully charged. For example, when fully charged, flooded lead acid batteries are nominally 12.70+ volts, AGM batteries 12.80+ volts, gel type batteries 12.85+ volts. However, this information does not tell you what cranking current the battery can provide, and the cranking current will vary with battery age due to degradation or fouling of the battery plates which in turn impacts internal resistance. Battery voltage will provide only some indication of battery health. If your battery is:

1. Reading 0 volts, the chances are, the battery experienced an internal short circuit.
2. Reading <10.5 volts when being charged, then the battery has a dead cell (12 volt batteries have 6 cells)
3. Fully charged (according to the battery charger) but the voltage is 12.4 or less, the battery is sulphated.

Your battery can have a bad cell which could fail when you are on the water leading to a short-circuited battery. This could mean your radio won't even work. A bad cell can lead to conditions 1) or 2) described above. Most battery analysers have the function to detect a bad cell.

The Internal Resistance (IR) of a battery is a good indication of the condition of the battery plates and battery health. Multimeters cannot measure internal resistance by themselves. The safest and easiest way to measure the internal resistance is using a



**Figure 1. A hand-held Ancel BA301 portable battery analyser.**

# BOATING

## How Is Your Boat Battery?

battery analyser. Generally flooded lead acid batteries should have an internal resistance of less than 10 milliohms and over that, the battery should be replaced.

- If the IR > 30 milliohm, battery is in very bad condition and probably unusable.
- If the IR is between 10 to 30 milliohm, the battery is still in poor condition but may be usable or revivable but this is a potential risk when at sea on a boat. Okay for a car but be prepared!
- If the IR is between 5 to 10 milliohm, the battery is in good condition.
- If the IR is less than 5 milliohm, the battery is in very good condition.

The cost of a reasonable battery analyser is not high. I spent about \$70 for the analyser shown in Figure 1. There are a whole bunch of analysers available in this price range, each with their own pros and cons. A simple Google search for best battery analysers will provide a heap of results with reviews on multiple analysers.

Most analysers have the ability to test your battery while either connected in the boat or disconnected out of the boat. When connected in the boat, you will need to start your engine as part of the analysis, which means the engine will need to have rabbit ears on connected to a tap, or similar, to avoid engine damage. This test will tell you whether there are potential problems with your starter motor,

provide voltage diagnostics of the engine starting so you can see how low the voltage dips and provide diagnostics on charging. A word of warning, running an outboard engine of water with muffs on at high revs is not recommended by some manufacturers and should not be done.

When the battery is removed from the boat, the starter motor testing can't be done and neither can the charging test. This does however provide you with the opportunity to check the conditions of your battery connections and do any maintenance required on them. The analysis provided when the battery is out of the boat includes:

- Cranking amps
- Internal resistance
- State of health
- Percentage charge.

In all cases, a battery analyser is good to tell you your battery is okay to use. If the battery is testing as marginal, I would recommend you take the battery to somewhere it can be properly tested with true load at its rated CCA capacity.

The new batteries I bought (different to the one in the photo above) needed to have a CCA of 780 amps as recommended by the engine manufacturer. I tested them so I had a baseline for their original condition to compare with subsequent annual boat checks. They both tested as follows; CCA 919 amps, 98% charged and 3.26 milliohms resistance. The CCA of a new battery can be over its actual rating as you can see here.

Just as an aside, one trick that may get you out of trouble if your battery fails while out on the water is getting someone to turn the engine over combined with someone rope starting the engine at the same time. That has worked in the past for larger engines but there are limits.

### A Bit More on Battery Failure - Stratification

Flooded lead acid battery stratification is a possibility boat owners should be aware of because it can cause cells to fail. A flooded lead acid battery contains a liquid mix of sulphuric acid and water. The electrolyte should be evenly distributed between the top and bottom of a battery. An even concentration within the liquid is vital for the optimum performance of the battery cells. If the acid concentration settles to the bottom of the battery, this is called battery acid stratification. It causes sulphation in the plates located in the bottom half, significantly reducing a

*Figure 2 shows the battery analyser connected to a battery that is disconnected from the boat. This battery is not from my boat, but another vehicle because it was easy to get to for the photos.*



# BOATING

## How Is Your Boat Battery?



**Figure 3.** Analysis results showing IR of 9.46 milliohm, CCA 317A and voltage of 12.76V leading to the assessment that the battery condition was good. SOH is state of health or percentage charge. The STD is the rated CCA of the battery which you enter into the analyser prior to use.

battery's lifespan due to accelerated corrosion. Short use operation of the boat engine or irregular usage (prolonged storage without properly charging), or a faulty alternator causing under-charging, can lead to this condition. You must make sure that the charger voltage is high enough to charge the battery properly and spread the electrolyte solution evenly.

To prevent stratification, you can perform an equalization charge with a good smart charger which balances the electrolyte's voltage and specific gravity in your vehicle's battery when it goes into equalisation charge mode. Equalisation also prevents the build-up of sulphate crystals on the plates. Smart chargers are more expensive than standard chargers and they analyse the battery to determine the battery type and what state it is in to determine what the battery requires. Most of them have multiple different charging modes. Figure 4 shows some examples of smart chargers.



**Figure 4.** Some examples of smart chargers. It is important you buy something that suits the types of batteries you have (e.g. flooded lead acid, AGM, Gel, lithium) and is large enough for your largest battery. Remember the 10% rule (as a rule of thumb your battery charger should be a minimum of 10% of the Ah rating of the battery, e.g. A 100Ah battery would require a 10 Amp charger as a minimum).

If you have an AGM (absorbed glass mat) battery you don't have to worry about stratification, but some outboard engine manufacturers' engines are not suitable for AGM batteries because they may damage the alternator. The labels on the battery will generally tell you if the battery is an AGM (Absorbed Glass Mat) battery. If you aren't sure, you can Google it to find out what battery you have. AGMs tend to be a lot more expensive than standard flooded lead acid batteries with advantages of reduced size, weight and a longer life time compared to standard flooded lead acid batteries.

# PHOTO COMPETITION

## *Winner*

December - 2021



*Matthijs Smith - Electropus - Rye Pier.*



# PHOTO COMPETITION

## *Runners up*

December - 2021



*Peter Mosse - I didn't think you would see me - San Remo*



*Peter Mosse - Mongolian hat - San Remo*

# PHOTO COMPETITION

## *Winner*

January - 2022



*Marc Alexander - Biscuit star spawning - Blairgowrie Pier*

# PHOTO COMPETITION

## *Runners up*

January - 2022



*Christine Reynolds - A quick bite for lunch - Osprey reef - QLD*



*Peter Mosse - Big black cruising - San Remo*

# PHOTO COMPETITION

## *Winner*

February - 2022



*Marc Alexander - Weedy photobomb - Flinders*

# PHOTO COMPETITION

## *Runners up*

November - 2021



*Peter Mosse - Weedfish - San Remo*



*Marc Alexander - Just haaaangin' out - Rye 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 1<sup>st</sup>/2<sup>nd</sup> 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](mailto: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

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In the event you cannot place a call, use

## VHF Channel 16

and follow the Radio Emergency Message Protocols shown below.

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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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