



Tunnel Vision in Dos Pisos, Tulum, Mexico. Photo by Alvaro Hererro

# GUIDELINES

No.165 - JUNE 2024



THE MAGAZINE OF THE CAVE DIVERS ASSOCIATION OF AUSTRALIA



Please contact the most relevant person or, if unsure write to:  
C.D.A.A. P.O. Box 544 Mt Gambier SA 5291 [www.cavedivers.com.au](http://www.cavedivers.com.au)

**Science Officer** – Ian Lewis Mobile: 0427 284 051  
Email: [ian.lewis2@sa.gov.au](mailto:ian.lewis2@sa.gov.au)

**Media Contact** – Grant Pearce Mobile: 0438 833 103  
Email: [national@cavedivers.com.au](mailto:national@cavedivers.com.au)

**Risk Officer** – Grant Pearce   Mobile: 0438 833 103  
Email: [national@cavedivers.com.au](mailto:national@cavedivers.com.au)

**Search & Rescue Officer** - Richard Harris Mobile: 0417 177 830  
Email: [info@cavedivers.com.au](mailto:info@cavedivers.com.au) Phil Coker 0423 393 347

**STANDARDS DIRECTOR** - Chris Edwards Mobile: 0417 116 372  
Email: [standards@cavedivers.com.au](mailto:standards@cavedivers.com.au)

**Quality Control Officer** - Chris Edwards Mobile: 0417 116 372  
Email: [quality@cavedivers.com.au](mailto:quality@cavedivers.com.au)

**BUSINESS DIRECTOR** - Mathew Rochford Mobile: 0411 529 512  
Email: [business@cavedivers.com.au](mailto:business@cavedivers.com.au)

**CDA**A Products - Email: [info@cavedivers.com.au](mailto:info@cavedivers.com.au)

**Bookkeeper** - Vacant Email: [business@cavedivers.com.au](mailto:business@cavedivers.com.au)

**SITE DIRECTOR** - Kelvyn Ball   Mobile: 0428 842 259  
Email: [site@cavedivers.com.au](mailto:site@cavedivers.com.au)

**Mapping Officer** - Tim Payne Mobile: 0448 147 927  
Email: [tim@diveessentials.com](mailto:tim@diveessentials.com)

**Tank Cave Booking Officer** - Damian Bishop Mobile: 0433 345 743  
Email: damian.bishop@live.com.au

**Kilsbys Booking Officer** - Craig Larkin Mobile: 0418 821 191  
Email: [kilsby@cavedivers.com.au](mailto:kilsby@cavedivers.com.au)

**Lady Nelson Booking Officer - Corrie Harry** Mobile: 0400 008 460  
Email: corrie@scubacapers.com

**Shaft Booking Officer - Gary Barclay** Mobile: 0407 527 921  
Email: garinda@bigpond.com

**Bakers Booking Officer - Kelyvn Ball** Mobile: 0428 842 259  
Email: [site@cavedivers.com.au](mailto:site@cavedivers.com.au)

**Little Blue Booking Officer** - Email: [site@cavedivers.com.au](mailto:site@cavedivers.com.au)

**PUBLICATIONS & RECORDS DIRECTOR** - Leon Rademeyer  
Email: [publications@cavedivers.com.au](mailto:publications@cavedivers.com.au) - Mobile: 0437 958 929.

**Records Officer** - Brendan Moore Mobile 0407183522  
Email [records@cavedivers.com.au](mailto:records@cavedivers.com.au)

**Guidelines - Advertising / Production** - Leon Rademeyer  
Email: [publications@cavedivers.com.au](mailto:publications@cavedivers.com.au) - Mobile: 0437 958 929.

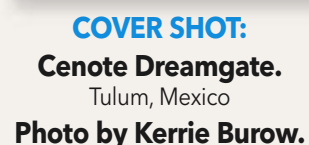
ACT: Ryan Post. Mob: 0439 855 067 Email: ryan@ryanpost.com.au  
NSW: Matthew Pridham. Mob: 0410 598 859. Email: matt.pridham@yahoo.com.au  
N.T.: Jeffrey SWANN. Mob: 0419 561 515 Email: jeff@darwin.ortho.com.au  
QLD: Ben SHIELD. Mob: 0405 260 276 Email: benray80@hotmail.com  
SA: Damian BISHOP. Mob: 0433 345 743 Email: damian.bishop@live.com.au  
WA: Nunzio LOPOLO. Mob: 0433 037 394  
VIC: Martin SLATER. Mob: Email:

**Public Officer -** Andrew Seifried Mob: 0404 275 637  
Email: [info@cavedivers.com.au](mailto:info@cavedivers.com.au)

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Congratulations to Kerrie on the above photograph being awarded Best Runner Up in Australia's Top Emerging Photographers 2024.

ABN 65 062 259 956

P.O. BOX 544, Mt Gambier, SA 5291

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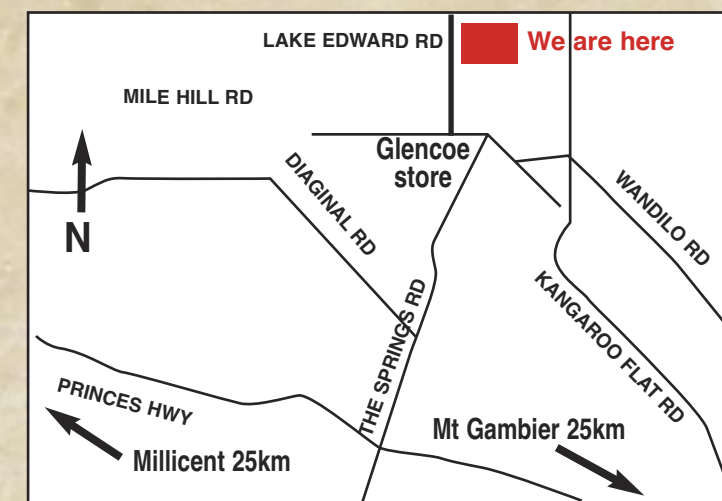
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Lake Edward Rd Glencoe, Sth Australia  
Mobile: 0438 833 103

**Email:** [stay@ptdivelodge.on.net](mailto:stay@ptdivelodge.on.net)

**Email:** [admin@aquifertec.com.au](mailto:admin@aquifertec.com.au)

**Web:** [aquifertec.com.au](http://aquifertec.com.au)



# Publications Report

Can you believe it has been eight months since we've celebrated our 50th (and in such style)? However, shortly thereafter I had to get stuck into the Publications and Records Director's role, again... after being appointed upon the resignation of a director, again... it has been an incredibly busy time. You'd think it would get easier with practice.

Stepping back into the role even after only a few months takes time in many ways. It takes time to be granted access to systems again, to be brought up to speed on decisions and investigations and to get to grips with changes the director before you had made to your general working environment. A lot of outstanding work has been done and continues to be done to make this transition easier and more seamless for our volunteers, but with the proliferation of IT systems and our ever-expanding footprint in the digital world, it is only becoming more complex.

Members will again have an opportunity to elect their preferred candidate for the Publications & Records role in the forthcoming AGM so that it can hopefully revert from a stop-gap to a fully-fledged director's position with some continuity. The two-year term for our elected representatives has always

attempted to strike a balance between continuity and representation of the direction members want our association moving in. A proposed change to the Constitution up for voting this year will be to remove the need to spill a casually appointed director's role at the next AGM. This will see any casually appointed director serving the remainder of the usual term - Standards and Business on even years, everyone else up for election on an odd-numbered year.

In other news, the National Committee has agreed to keep the current A4 format of Guidelines due to the overwhelmingly positive feedback from members regarding our 50th anniversary edition. It is good to know we are on the right track with our more visual approach to the magazine, but please keep the feedback coming.

Last but not least, we are in the process of contracting a new graphic designer as replacement for the departing Dave Bryant. We'll keep you up to speed, but in the meantime please send all contributions to me at: [publications@cavedivers.com.au](mailto:publications@cavedivers.com.au)

**Leon Rademeyer #5013**  
Publications & Records Director

**Hello CDAA Members... it's Dave Bryant with my final hoo-ra as your Graphic Designer.** It's been a great 24 years behind the scenes doing Guidelines and at 56 this year I am leaving behind my 35 year profession in the Printing and Photography Industry and, would you believe, working less and travelling more. As many of you know I'm petrified of caves and cave diving so I never took the opportunity to enjoy what You get to see, but, I have loved photoshopping your underwater photos and showing them to my family and friends who find 'what you guys do' an extreme sport,

but oh so beautiful and measmurising at the same time. It has been my pleasure to work with so many Publications Directors, Authors and Photographers who have helped to keep Guidelines looking great, and a decent read! Thank you to all the Advertisers too, without your support we couldn't have been able to produce such a wonderful publication, but of course, your contribution has supported the Association too.

Thank you all once again for your friendship, support and good times. Dave.

**Stories, Photos and Advertising enqurties for Guidelines December 2024 - Deadline is Nov. 15th.**  
• Send articles and jpeg images by email to [publications@cavedivers.com.au](mailto:publications@cavedivers.com.au) •



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# A reflection from the National Director...

## Volunteers

The National Committee extends our heartfelt gratitude to our dedicated volunteers who tirelessly work behind the scenes to keep our organisation running smoothly.

These 'behind the scenes' volunteers include:

- Craig Larkin: he manages the Kilby's Sinkhole interface, updates access conditions and assists members with site access responsibilities.
- Damo: he manages the Tank Cave booking system.
- Andrew Seifried: as Public Officer he provides invaluable advice on governance and technical tax matters.
- Brendan Moore: after many years of service as Records and Membership Officer, he has stepped down to enjoy a well-deserved break.
- Andrew Ottanelli: as our new Record Officer he has processed over 140 cards/certifications within a few short months.
- Meg Anderson: she orchestrated the 50th Anniversary Celebrations, arranging a program featuring local and international guests.

## Operational issues

### Tank Cave preservation:

Despite our ownership of Tank Cave for many years, concerns persist regarding the ongoing damage to the site. Areas like A6, once adorned with pristine clay blocks, are now severely damaged. As custodians of this unique site for future generations, we urge members to prioritise its preservation. Accidental damage occurs easily, but its effects are permanent.

### To mitigate the damage:

- Check your gear and technique before diving.
- Practice rusty skills elsewhere, not here.
- Make your fellow divers aware of unconfigured gear and/or sloppy technique.

Since Kilsby's has become more accessible to members, we have mostly observed responsible behaviour from members in adhering to the access requirements established by Graham Kilby. Please be aware that site access protocols may change periodically

as Graham balances the needs of his property with our diving activities. These updates impact both general public customers and licensed holders. It's crucial to stay informed about these changes to ensure a safe and enjoyable experience.

Don't assume previous procedures are in effect. Always familiarise yourself with the latest conditions before visiting. In case of doubt, refer to your access conditions. If you have any questions, don't hesitate to contact the Kilby's Booking Officer, Craig Larkin, the Site Director, or any member of the National Committee for assistance.

In closing we thank our valued volunteers again for their tireless contributions. Together, we can ensure the preservation of Tank Cave and foster a sustainable, responsible diving community for years to come.

We would also like to thank outgoing graphic designer Dave Bryant for putting together Guidelines during the past 24 years. He has certainly captured the heart and soul of cave diving in Australia and was particularly invaluable in linking like-minded cave divers across the globe and in turn providing the stimulus for international cave divers visiting Australia.

Dave's dedication and contributions to the CDAA have been outstanding, particularly the support he has given all past CDAA directors and members. On behalf of the National Committee, we thank you so very much Dave, we wish you and your wife the very best for the future.


**Grant Pearce** #1382  
National Director



*On behalf of the  
National Committee*



Mathew Rochford,  
Business Director



Kelvyn Ball,  
Site Director



Chris Edwards,  
Standards Director



Leon Rademeyer,  
Publications and  
Records Director

# Site Report

## Englebrecht Cave lease transition:

The lease for Englebrecht Cave has transitioned from Jan Colman to the City of Mount Gambier Council. We extend our heartfelt thanks to Jan for her invaluable support over the past decade. The Council will officially take over the lease from the beginning of this financial year. For the time being, existing access protocols are expected to remain unchanged.

## Three Sisters Cave entrance upgrade:

A new steel entrance, funded in partnership with Wattle Range Council, is nearing completion. This project will improve safety by repositioning the entrance and reducing traffic risks during diver set-up. If you're interested in helping with the project, please contact me.

## Earls Cave progress:

An access agreement is in progress for Earls Cave following the completion of a risk management assessment for Council.

## Dive site closures:

Ela Elap remains closed, and DEW has closed Ewan's Ponds due to declining water levels and environmental concerns related to nutrient-rich water from the surrounding region.

**Kelvyn Ball** #3276  
Site Director

# Business Report

First up, 2024 Symposium and AGM.

Looking at Saturday, 12 October, with a social event in the evening. Reverting to a more familiar format of recent years after last year's grand celebrations. Please consider getting involved this year as we need help across the board in putting together this year's event. There's a speaking roster to source and coordinate, on-the-day logistics, catering, audio and video help, working with our generous sponsors, social media, minute taking for the AGM, all sorts.

If you're new to our association, getting involved with the symposium and AGM is a great way to get to know people, why things happen the way they happen, and perhaps most importantly, what makes our association tick. Or, if you've been around a while and thought "yeah, that can be done better", well, now is your chance.

Speaking of helping out, we now have some apparel celebrating our 50th anniversary (just in time for our 51st I hear you say!). We ran out of volunteers and volunteer time last year and had some challenges with logistics this year, something about stitching and digitisation and something, but it's ready to go and looks fantastic. Keep an eye out for an opportunity to order soon.

Our Public Officer, Andrew, has been on the hunt for a new auditor to work with us and I'm pleased to say the National Committee is looking to convene shortly to finalise an appointment for this upcoming audit season. I expect this to be finalised in the coming week.

We have some Member Jungle changes under consideration at the moment, however I'm looking to see how this audit and membership renewal season goes now we have removed multi-year memberships. We will look at bringing multi-year memberships

back in years to come, but right now, with the systems we have, it creates a lot of extra work for everyone.

As flagged in my report last year, there are some constitutional changes in the works. These are mainly administrative and I trust no one will find them particularly controversial. They're largely aimed at tidying up some historical anomalies, and ensuring we can administer the association with the tools available to us. I'll have both an amended Constitution and explanatory notes out shortly.

Speaking of things we need to vote on, this year, being an even numbered year, the Business and Standards roles are up, as is the Publications & Records role with Leon having been appointed to a casual vacancy.

There's a bit of a backlog of work coming out of my desk with a lot of other association business going on, but I've been working with the National Committee on the promised Regulations review and that is now well progressed.

The National Committee has a site access and definition update on the way, similar to last year's special site update, which I'm ensuring is reflected in the Regulations. A revamped Tank Cave Access Officer Terms of Reference has been drafted which will be reflected in the Regs, and I'm working with Leon on some document management systems.

In closing, it's time to get your Hall of Fame and Life Member nominations in and I'll be updating on AGM timing and voting procedures shortly.

**Mathew Rochford** # 4827  
Business Director

# Standards Report

The instructor workshop held following the AGM has resulted in a number of updates to our training standards. The majority were focused on updating our standards to keep current with international best practice along with providing greater flexibility to our instructors when running in-water sessions. We have now had an opportunity to work with those changes and are pleased to say that the changes are working well.

The theory components of both Basic Cave and Cave have been updated and are now available as e-learning. Over 100 hours were spent on each course, rewriting and correcting and although a number of individuals assisted with this endeavour, I would particularly like to thank Tim Payne for his input. To date 47 divers have made use of our Academy since we went live nine months ago and it has been great to receive feedback on how we can further improve the courses going forward.

We are optimistic that the Advanced Cave Course will be available by around October/November, with the Sump Rescue Orientation Program to follow soon after that. To achieve that I need your help. As many of you would be aware, three of the director positions will fall vacant at the next AGM. I am extremely keen to finish the work I have started on updating standards and

regulations as they relate to our training along with completing the online education for our courses. Therefore, it is my intention to stand for election again and I want your vote. I would also urge you to vote for Mat Rochford as Business Director and Leon Rademeyer as Publication and Records Director. As I am sure you will appreciate, as volunteers, our time is limited and so several projects which we have started, still require time to finish. All five of us are focused on achieving that and ask for your continued support.

The online voting process is simple, quick and painless. So please, when the email arrives, take two minutes out of your day and vote. On the subject of SROP, Harry will once again be running the program this October but on the Thursday and Friday prior to the AGM. AGM dates are listed elsewhere in this issue of Guidelines. Please contact Harry directly if you would like to participate. Numbers are limited.

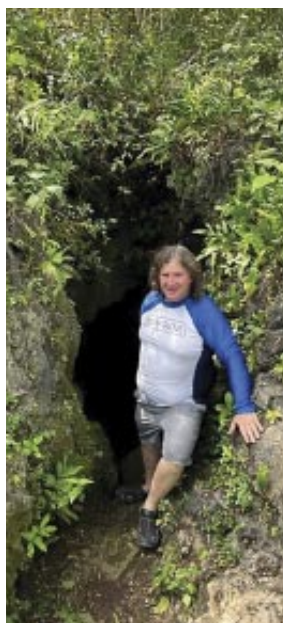
Thank you.  
**Chris Edwards** # 2247  
Standards Director



# Beginners guide to diving SE Sulawesi

Story and Photos by Linda Claridge and Gary Barclay

*In 2022 we had the pleasure of meeting and diving with Robin Cuesta in Mount Gambier. Robin runs Sulawesi Dive Trek and gave an awesome presentation about his ventures and cave diving in Indonesia at OZTEK later in Melbourne. It didn't take too long for us to decide this was to be our next 'go to' location.*



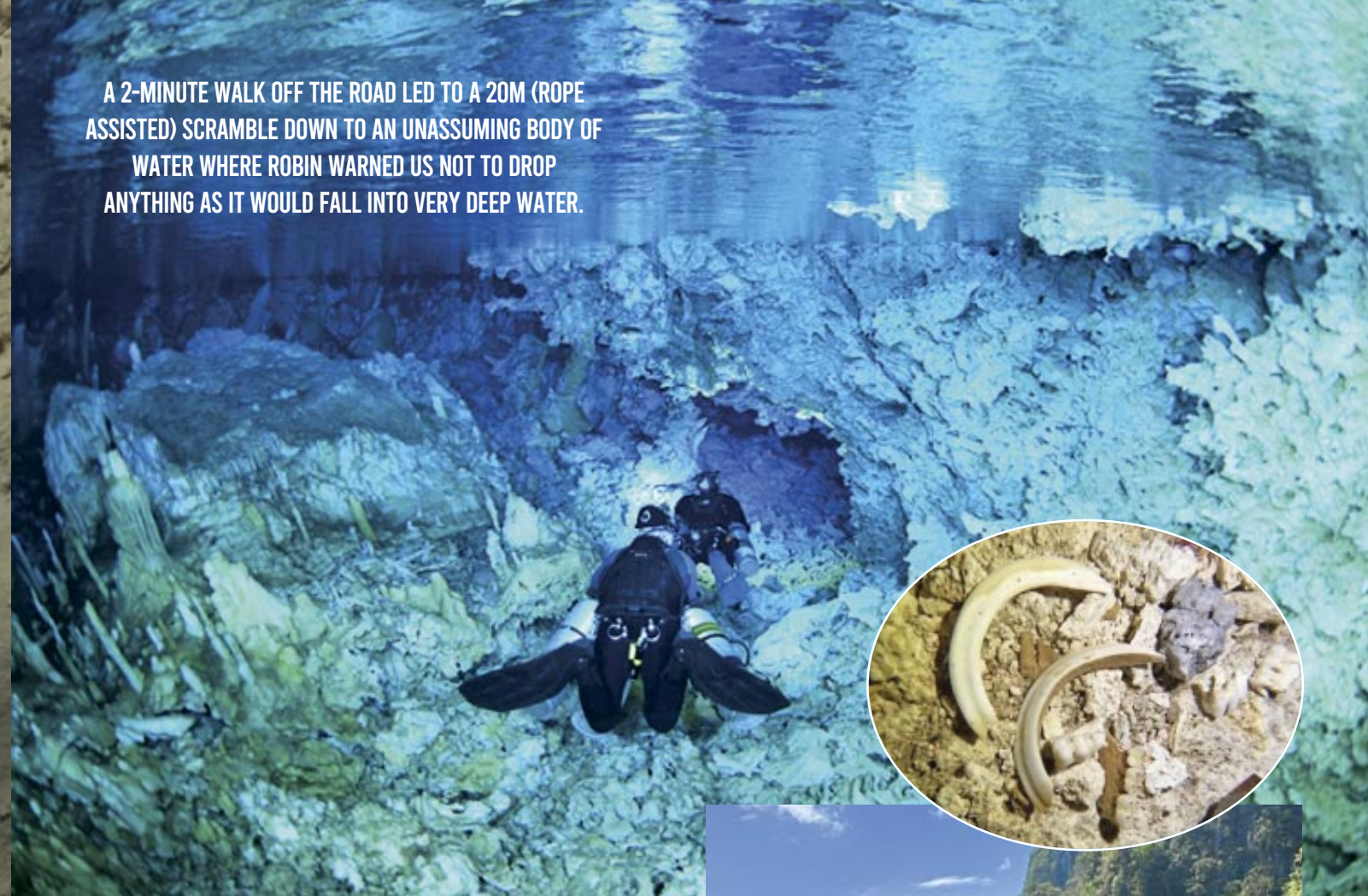
In June 2023 we departed Melbourne and started the first of 3 flights to eventually reach our destination of BauBau. A very short overnight stay in Denpasar had us back at the airport before dawn for the 2nd leg of the trip to Makassar. We were expecting a 90-minute stopover at Makassar but due to a cancelled flight our stopover had now stretched out to an 8hr lay over. So, with time to kill we left Makassar airport to find some breakfast and I immediately had my first experience with Indonesian taxi drivers!!! Feeling a bit intimidated by all this unexpected attention we ducked into a Circle K (think 7-eleven store). One very persistent taxi driver followed us inside and attempted to engage in chit chat - and ultimately pick up some business. We tried to ignore him whilst remaining polite in a foreign country, when 2 of his broken English words suddenly got my attention... karst country! After communicating in further broken English, he explained that for

approx. AUS \$70 he would take us on a private guided tour to some Karst country for about 4 hours and would have us back at the airport by 1400hrs - well, that is what I thought he said. So, we jumped in his taxi (actually an unmarked personal car that I discreetly took a photo of and sent to my bother should our bodies never be found again) and headed off. Travelling through town he suggested that we stop at a tiny family owned 'café' and have some Maros. We agreed despite not really knowing what he was suggesting. It turned out to be a buffalo soup that you add your own chili/peanuts/ketjap manis/lime to. It was served with banana leaf wrapped parcels of rice and the whole lot was soooo good. I think the business was owned by his cousin...

As we headed off, I mentioned to him that all the females in the restaurant wore head scarves and was it a problem that I didn't. He caught my eye in the rear-view mirror and said "Just a little bit". \*Note to self - maybe get some sort of head covering along the way!

We journeyed out of Makassar and out into the country, the scenery alternating between farming lands and jungle. Arriving at Rammang-Rammang we are struck by the sudden appearance of the Karst Mountains here that appear to

A 2-MINUTE WALK OFF THE ROAD LED TO A 20M (ROPE ASSISTED) SCRAMBLE DOWN TO AN UNASSUMING BODY OF WATER WHERE ROBIN WARNED US NOT TO DROP ANYTHING AS IT WOULD FALL INTO VERY DEEP WATER.



erupt out of the surrounding land. Standing tall, picturesque and with amazing rock formations that seem to go on forever the Karst of Maros Pengkep has been recognised as a UNESCO world heritage site since 2001. We jumped aboard a canoe and headed up to a village that rests at the base of this mountain range. Walking around the village we wondered at the local's ability to eke out a living by selling water or coconuts of soft drinks to the tourists. An amazing unexpected stopover in an incredibly beautiful area. Thank you Agus, for your persistence!

Flight #3 had us finally arriving in BauBau SE Sulawesi where we were picked up by Chaca (Robins awesome divemaster) and driven to our Villa for a good night sleep before meeting Robin and the rest of the Sulawesi Dive Trek team the next morning. The check out/Sidemount reef dive was a perfect



introduction to the local area and the warm 26-28 degree water was such a pleasant change after my last 14 degree dive only 4 days earlier. After this dive we drove back into town and thought we were stopping to eat lunch but we were actually about to do dive 2, Goa Lanto - a cave dive. Seems like Mount Gambier isn't the only place with a cave under the town! Situated off the road and behind some local homes this site was the the location of Robins first exploration dive back in 2016. A very pleasant 26degree circuit dive past another air chamber and so much more decoration than I expected.





For the next 2 days Robin showed us some amazing ocean sites around BauBau. Each of these dives were done out of a long boat supported by Robin and his very able attendants – these guys were very clearly used to loading and unloading and were incredibly nimble in these narrow boats. The dives included lighthouses, reef dives, wall dives and a really interesting ‘sea’ cave (well, the entrance was via the ocean) where Robin showed us a crocodile jaw and the bones and shell of a long dead turtle all resting in the silt.

The next day we packed up everything and caught the local ferry across to Muna Island – also known as the land of a thousand caves. There is very little tourist infrastructure on Muna and certainly no diver support so anything that we needed for diving needed to be taken with us. memories of multiple Nullarbor trips came flooding back but with food, accommodation, power and running water available here we were able to simply focus on cylinders, compressors, O2, spares, tools and anything else dive related. As is the case with many inter island ferry rides, we shared with ride with locals, motor bikes, tourists, motor bikes, chooks, motor bikes, trucks, cars and more motor bikes! Muna Island sits on a limestone bed which has created an extensive network of underground caves and holds a very important freshwater source to the local people. With a relatively small area of just over 3,000 km2 many of the caves have physical links to the ocean. This means that

throughout the dive the cave water may have changes in salinity, temperature, flow and even inhabitants!

Once on the island we interrupted our drive to the accommodation with our first cave dive on Muna Island. This was to be my first and last drysuit dive for the trip! I have dived dry in many warm locations around the world and it has always been my preference when it comes to buoyancy control but a combination of warm water, warm air temp and humidity it wasn't a great choice here. Robin has acclimatised and he uses his dry suit for most cave dives. With some of the dive times reaching 3 hrs there were to be other advantages with diving wet.... I just had to learn how to use a BC for buoyancy again! What a surprising dive this was. A 2-minute walk off the road led to a 20m (rope assisted) scramble down to an unassuming body of water where Robin warned us NOT to drop anything as it would fall into very deep water. After some relatively low vis (2-3m) in the shallows the vis improved as we descended and there was sooo much decoration in the cave – stalactites, stalagmites shawls, flow stone. Haloclines were also noticeable as we moved from the fresh to the saltier levels. 49metres and 95 minutes later we surfaced to find Chaca and his 2 buddies ready to whisk our cylinders back up the slope to the vehicles.



Top: Crocodile skull in sea cave  
Left: Our patient helpers  
Below: Through the jaws!



Top:  
Above: Turtle Skeleton  
Right Top: In-water cave critter - fortunately dead!  
Right: How many people does it take to dismantle cylinders?







**Above: Crystal Stalactites**  
**Below: Single use plastic**  
**Below Right: Linda Muna**  
**Opposite page: Goa Laulawi broken cluster of stalactites seeming to melt into the environment**



Having been pre warned by Robin that on Muna Island we may not have hot water or air-conditioning I was pleasantly surprised with the quality of the accommodation. A large, clean room with working air con (most of the time) a bar fridge and kettle and a tiny balcony – this was awesome. No hot water though, but we could happily deal with that. The family who owned this hotel supplied us with traditional breakfast and dinner each day. Our diet consisted mainly of fish soups, noodles and rice with fried fish and/or chicken and tempeh – all very fresh and tasty. Eggs (fried or scrambled) were often included at breakfast. Evenings there would be fresh fruit – Muna has the best pineapple I have ever tasted!

Once settled in we realised that the Sulawesi Dive Trek pop up dive shop/filling station has been created on the veranda! Here we could store our dive gear, analyse gasses and set up charging stations.

Each morning the truck would be loaded with all of our dive gear, enough cylinders to get us through the day, water, emergency supplied and our 3 ‘helpers’. Robin, Gary and I (and later Farzad) would pile into Robins car and we would head off to that days dive site. If we were doing 2 dives, we would stop along the way to collect an Indonesian workers lunch from one of the many road side stalls – a brown paper bag of rice, noodles, a green veg and a serve of fish or chicken. It was always very fresh and very tasty.

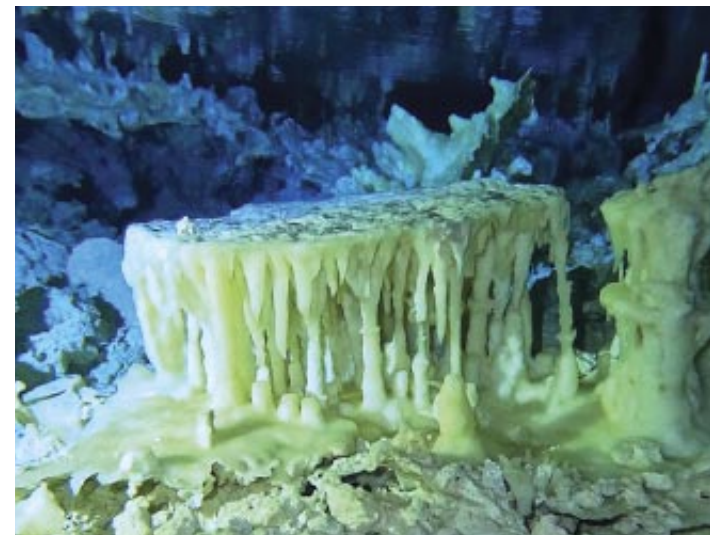
Our next dive was even more astounding than the first dive. Initially planned as another deep dive we waited patiently as Robin awaited the arrival of confirmation of our dive permit but when it didn't arrive (landowner relations and access protocols exist everywhere and we also had to factor in ‘island time’) – we reverted to his backup plan, Goa Laulawi. When we arrived at this cave, we felt like we were heading into Englebrecht cave with 108 steps leading us down to a small lake to finish our kitting up. That was where any Englebrecht similarities ended. This was a 3-hr stage dive and it certainly did not disappoint. Goa Laulawi would have to be the most heavily decorated cave I have ever seen. Brilliantly white ancient reef limestone, crystal formations, huge fossilised clam shells, a cave eel and lots of isopods. Imagine the crystal caves of Bahamas mixed with the whiteness of Weebubbie, the maze tunnels of Tank Cave and the warmth of tropical diving. For the first 700m we swam in less than 4m of water and much of this time we had air above our heads. Occasional sightings of bats

hinted to alternative entrances into this extensive cave. We left the stages at 110 bar and descended to depth (less than 10m) until we reached our turnaround pressures and reluctantly made our way out. Amazing.

On our way back to the hotel we stopped for a walk around a market and enjoyed some street food and some amazing mangosteens and snake fruit. It was obvious that Robin is well know in the area and respected for what he brings to the area. He employs a couple of the local lads to help with carrying of gear and the divers he brings to the area are also a welcome additional source of income for the locals.

Back at the hotel evenings were spent with the usual array of post dive activities – drying and repacking gear, reviewing photos/videos from the day, talking or taking a walk around the town. Gary and I attracted a fair bit of very friendly attention as we wandered down to the local jetty to watch the sun set. Lots of ‘halo’, lots of smiles and waves, and lots of photos shared – and I always wore a hat! On one trip back from a dive Robin sent Gary to buy some drinks for us. from the car we could hear raucous laughter and could see Gary and the ladies from the road side stall all taking group selfies with him!

Over the next 7 days we dived in caves that offered so much variety. Caves in the jungle, caves under roads, caves under villages. We dealt with haloclines, thermoclines, hydrogen sulphide layers, fine silt, heavy silt and silt that rained down from the ceiling. We saw blind cave critters, isopods, bats, lots of bats, tusks and boar skulls in the water. Each site had different characteristics and was uniquely beautiful. We shared our lake surfaces with kids playing, swimming and jumping in the water, with women doing their washing and with loads of PVC pipes pumping the water to local homes. Sadly, we also saw so much plastic in the water – the water in the cave was really clear in most areas but so many local consumables such as drinking powders, shampoo, conditioner and laundry liquid are sold in cheap single use sachets which ultimately make their way into the water. In one village we took large empty rice bags into the water with us to better utilise our deco time with a plastic cleanup. Part of Robins business plan is to try and educate the locals as to the importance and potential fragility of the valuable resource that they have access to. Helping the locals to recognise that anything that makes its way into the ground or



the lakes will make its way throughout all of the water systems and ultimately back to them via their drinking water. This is a really complex problem - there isn't any rubbish pickups, there isn't any septic treatment plant, you can't buy cleaning products in bulk if it is not supplied in bulk or you don't have money to purchase in bulk.

Muna Island was amazing both above and below the surface and Robin and his back up crew looked after us incredibly well. He gave us information pre trip on expectations, equipment and travel advice. His suggestions on accommodation of BauBau were really useful and once we arrived on Muna Island he looked after everything - including organising a birthday cake for Gary and a masseur for Farzad! Thank you, Robin.

### HINTS...

Practise in aluminium cylinders before you get there. I hadn't use ally's in a loooong time and would have enjoyed the first few dives more if I wasn't preoccupied with the changing buoyancy characteristics of these beasts. I also didn't factor in using them in a 3mm steamer.

Be flexible and ready to ‘go with the flow’ with dive logistics. Access agreement/protocols exist everywhere and we are at the whim of any landowner – at home or overseas. As with anywhere that we go access is always a ‘work in progress’ and requirements can and will change with little or no notice.

Make sure you take everything that you think may need with you dive wise (including spares) – Robin is pretty well set up but if you are going to Muna then once you are there you will have to make do. EG – if you lose your rack of PM's you will have to find the Indonesian word for pegs before heading to a super-market big enough to stock them....

Learn to like rice - LOL. Robin asked us about any dietary requirements before we arrived and whilst special diets might have been able to cater for, I feel that it would be a major task to accommodate this.

Take a decent size towel poncho – you may have to change in/out of your wettie whilst being the centre of attention with the local kids!

Then sit back, relax and enjoy island life and a vast array of incredibly beautiful caves whilst being guided by the expert of Indonesian Cave diving and a damn nice guy – Mr. Robin Cuesta.

Linda Claridge.





# Capturing Sublime Caves of Mexico

Cave Dive Training and Underwater Photography with Under the Jungle

Story and Photos by Kerrie Burow

*Beneath the Yucatan Peninsula in Mexico lies an intricate network of underwater caves, a realm of hidden beauty that attracts cave divers from around the globe.*

**Under the Jungle** is a dive shop and training centre nestled in the heart of the Riviera Maya on the eastern side of the Yucatan Peninsula. It's become a go-to centre for cave dive training, cave guiding, citizen science, exploration and the annual Wetpixel/Under the Jungle photography workshop.

In May 2023, I travelled to Mexico for the 2023 photography workshop and also signed up for pre-workshop skills refinement the week before.

## **The 2023 Wetpixel/Under the Jungle Workshop:**

Over the last couple of years I have been focused on improving my cave diving skills, and also been keen to improve my cave photography. Along with travelling to Mount Gambier quite a number of times to dive, I have also attended cave photography workshops in Italy and France. I've found that these workshops have been an excellent way to be introduced to the local caves by divers who dive them frequently and photograph them the best. It was

also a chance to improve my own cave diving and cave photographs.

When I heard about the 2023 Wetpixel/Under the Jungle Workshop, being led by Natalie Gibb, Tom St. George and Adam Hanlon (three underwater photographers I'd admired for years), I jumped at the chance to both dive the Mexican caves and learn cave photography from some of the best in the business.

Along with signing up to the week-long main workshop, I committed to arriving a week early so I could do a number of days of one-on-one dives with Natalie, a renowned cave diving instructor and explorer who not only imparts expert training but also captures the enchantment of cave diving through her unique photography.

I wanted to hone my cave diving skills, get used to the local cylinders, and work on photography skills specific to cave diving photography with the intention of being ready to hit the water running for the main workshop.

## **Under the Jungle and Natalie Gibb:**

Natalie Gibb's list of accomplishments in the diving industry are extraordinary: she's a TDI Instructor Trainer and cave and sidemount instructor, she's co-owner of Under the Jungle

Cenote Cooppe One

with exploration partner Vincent Rouquette-Cathala, she's also one of the most renowned cave diving explorers in the world and a 2022 inductee into the Women Divers Hall of Fame (WDHOF).

As well as her cave diving accomplishments, Natalie's growing contributions to cave diving photography cannot be understated. Her images illuminate the hidden world found deep within underwater caves. One of the most striking aspects of her photography is the sense of depth and ambience she captures. The caves she explores are a challenging environment to photograph, but her photos manage to convey both the serenity and the haunting beauty of these spaces.

Being a relatively new cave diver, I was eager to soak up as much knowledge and skills as possible from this master of light and shadows. After a long journey from Sydney, Australia, I arrived at my villa accommodation in Puerto Aventuras - just a 5-minute drive from Under the Jungle - eager to start diving.

## **Safety First:**

The immediate focus of our training was on safety with the ultimate goal being to explore the Yucatan caverns and caves with confidence while minimising risks. We planned to review dive planning (including gas management), line laying, protocols in Mexico, emergency procedures and skills specific to taking photographs in the caves.

Natalie and I started out on Day 1 with a "shake down"



Natalie Gibb in Cenote Tamja Ha





Cenote Dreamgate

dive – or a “test run” – in Cenote Jardin Del Eden (also known as Cenote Ponderosa), a stunning lagoon with crystal clear waters, nestled amidst a dense rainforest which also provides access to a large cavern system. The shake down dive was a chance for me to test my equipment to see if it was functioning well after the flights from Australia, and it was also a chance for Natalie to assess my diving skills before we ventured into overhead environments. After performing a number of drills and skills to Natalie’s satisfaction – including various finning techniques, emergency gas shutdowns and out of gas donations – I was ready for my first cavern dive in Mexico! Ponderosa, with its incredible light display of diffraction appearing at the cavern end of the cave line did not disappoint!

We followed up our day in the water with some theory back at Under the Jungle, a review of navigation pitched at my level of qualification (including jumps, Ts and gaps scenarios) as well as problem and emergency situation management. Cave diving protocols can differ depending on the country where you’re diving, and this was an excellent way for me to quickly get up to speed with what was expected in Mexico compared to the training I’d completed in other countries.

It was a very satisfying first day, and I returned to my accommodation that night buzzing at the thought of all of the other beautiful caverns and caves I would be diving during the rest of my stay in the Yucatan.

#### Building Skills:

Over the following week, I dived in a number of beautiful

caves under the one-on-one tutelage of Natalie and later her instructor Lilia Cabrera Gallaga. We covered a combination of theoretical knowledge and practical skills, which enabled me to explore the local caves with increasing confidence while minimising risks. The instructors’ expertise in technical knowledge about the specific caves we dived shone through as well as their insights into psychological aspects of cave diving, ensuring I was mentally prepared for the Wetpixel/Under the Jungle cave photography workshop the following week.

#### Painting Darkness with Light:

Diving with such experienced instructors (and photographers) not only provided guidance on the cave systems but also offered insights into the best photographic opportunities and techniques in the caves we dived – each a very unique underwater space.

Cave diving photography presents a unique set of challenges and rewards. The interplay between the cave’s darkness and artificial lighting creates a setting that can transform ordinary scenes into mesmerising images.

The placing of offboard lights around the cave to light it up without disturbing the environment, in spaces where every slight movement counts, requires total concentration and care. Distraction is a cave diver’s worst enemy. Focusing on the perfect shot can lead photographers to lose track of air consumption, guidelines, or their spatial orientation – your own safety and that of the team you’re diving with is more important than any photograph.



Cenote Nohoch Nah Chich



Cenote Taak Bi Ha





Exploring and photographing the Mexican caves comes with a responsibility to preserve and protect these delicate ecosystems. Cave divers and underwater photographers are custodians of these hidden caves, and we have a responsibility to advocate for their conservation and sustainability. Sticking to ethical diving practices ensures minimal impact on the fragile cave decorations and ensures those who dive them after us can also experience their beauty.



### Conclusion:

Improving my cave diving skills for underwater photography at Under the Jungle was a very satisfying endeavour and exceeded my expectations. I was able to combine the excitement of cave diving with the artistry of capturing images under the guidance of expert instructors. It was an incredible opportunity to refine my own technical and photographic skills before starting the main Wetpixel/Under the Jungle Workshop, which proved equally fulfilling. I now find I'm counting the months down to my next trip to cave dive in Mexico.

### How to get there:

The Wetpixel/Under the Jungle Workshop has been held annually for the past few years. Under the Jungle is situated about a 50-minute drive from Cancun International Airport. I managed to get there by flying from Sydney to San Francisco where I jumped on a connecting flight to Cancun.

### About the Photographer:

Kerrie Burow is a CCR, technical and cave diver from Australia. She is an award-winning underwater photographer, including winning the Black & White category in the Underwater Photographer of the Year 2022, and frequently places in other photography awards, such as the Australasia Top Emerging Photographer Awards and Mono Awards.

Kerrie is a regular contributing writer and photographer for magazines, including Scuba Diver Magazine Aus/NZ, and her articles and images have been published nationally and internationally.



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# China 2024



Story and Photos by Andy Oakeley, Craig Challen, Chen Qian (Charlie)

*In April 2024 Chen Qian (Charlie), a Chinese explorer, invited Craig Challen and Andy Oakeley to come and form a team to do some deep exploratory dives in China. The prospective sites were DaXing Spring Cave, and Sheng-loong (Shenglong) Sinkhole.*

Charlie lived in Du'an County during the coronavirus lockdowns in China and took this period of isolation to complete dives down to 258m in DaXing Spring Cave.

- DaXing Spring Cave had been closed since the death of Han Ting while preparing for a world record depth dive at the site in October 2023, but Charlie was hopeful that his local contacts would enable him to get a special entry permit for the team to dive the cave.
- Sheng-loong was unexplored deeper than about 120m by divers, but an ROV had been operated beyond 200m and it was rumoured to be up to 300m deep.

Craig was keen to explore DaXing Spring Cave further, having dived there in 2015. Should depth and conditions permit, dives using Hydrogen diluent were also planned to continue the experimental program commenced by Richard Harris.

Andy, having had his Dual JJ-CCR build since mid COVID, was keen to get some sub-200m dives under his belt.

With two prospective deep sites available, and the lure of the unknown; Craig and Andy

obtained Chinese visas, booked flights to Nanning City China, and departed in late March 2024 with more than 90kg of gear each.

## Nanning:

Nanning is a small city by Chinese standards, with a population of 7 million. Located in the Southeast corner of China about 130km inland and 150km from the Vietnam border. The climate is 'warm sub tropical' with an annual mean temperature of 22.3 °C. Summers are hot and humid with July, the hottest month, having a 24-hour average temperature of 28.5 °C. Winters are mild still with some rain though. January is the coolest month, averaging 13.3 °C. Rain is most frequent in the spring and summer months and relative humidity consistently averages above 80 percent. The annual rainfall is 1,269mm.

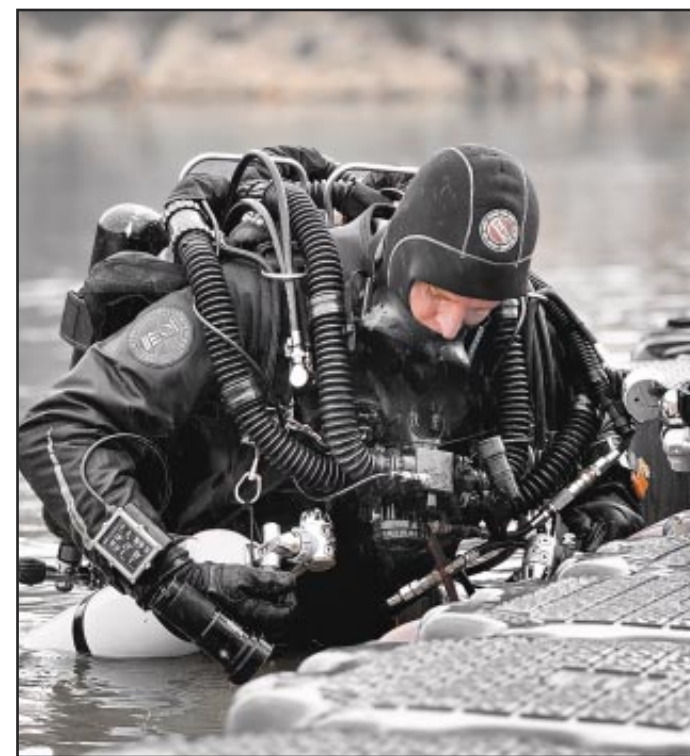
Upon arrival in Nanning Charlie informed everyone that despite all the right noises from the local officials he was unable to get a permit for DaXing Spring Cave, and he checked Craig and Andy into a hotel in Wuxu in the Jiangnan district of Nanning city, just a short ride from Nanning Airport and a 5min drive or 30min walk from Shenlong Sinkhole. This was to be their accommodation for the next few weeks.

## Sheng-loong (Shenglong) Sinkhole:

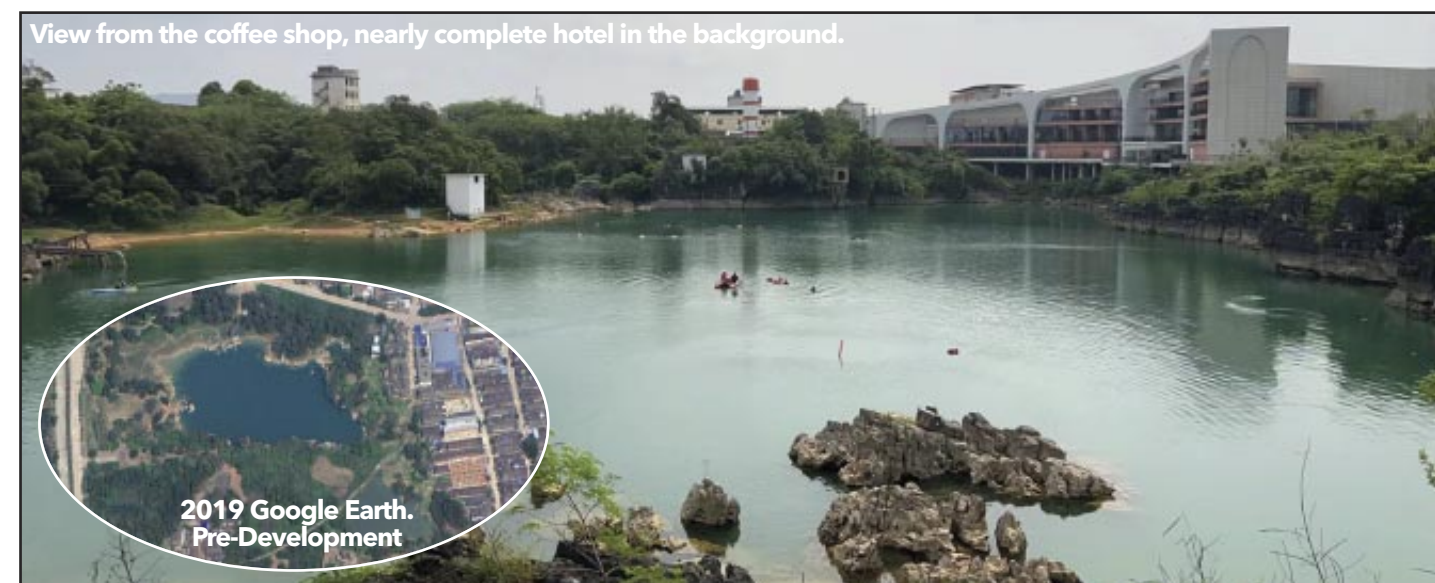
Shenlong Sinkhole is the centrepiece of Shenglongtan Park, and is surrounded by indus-

trial and agricultural enterprises, interspersed with tower blocks (some abandoned) and a huge selection of local eateries and convenience shops, small supermarkets, and hardware stores.

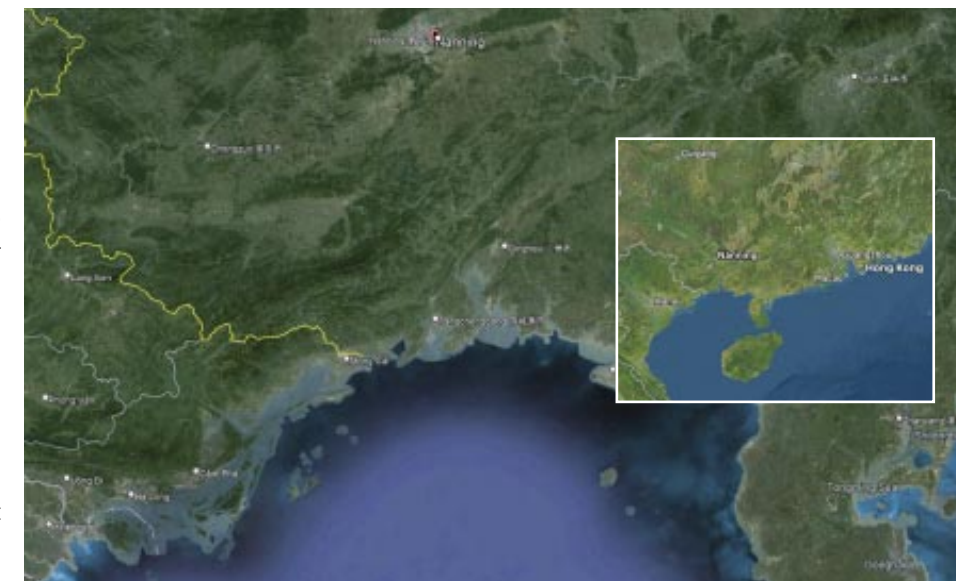
Shenglongtan Park is in the final stages of development as a recreational water sports hub for the region. Once completed it will have an onsite hotel, fully fitted out dive shop, camping facilities and more. Currently completed and functional are the main building (which has a coffee shop and basic snacks and drinks), camping areas, landscaping, toilet blocks, and ancillary buildings. We set up in one of the ancillary buildings which was already being utilised by the freedivers that frequent the lake. Charlie and the support team provided compressors, tanks, weights and all the extras needed for diving.



View from the coffee shop, nearly complete hotel in the background.



2019 Google Earth. Pre-Development



The sink hole itself is rumoured to be over 300m deep, and has been explored to some degree by ROV, though the details of the ROV Exploration were unclear. The information on hand though was:

- a) The ROV Team believed that there was a cave/cavern in the southeast corner of the lake at about 250m.
- b) There was a 300m deep section further out in the lake.

There were a hundred different ideas of what the divers should do and of how they should do it, and all being expressed in a language that Craig and Andy could not understand. So, to some degree they were at the mercy of the support team and where the team told them to dive. In the end though they just needed to start diving.

After re-building an abandoned floating jetty, not strictly required but it was there and seemed like a good idea at the time, and assembling and prepping their gear, Craig and Andy popped into the water for a checkout dive. A short swim out from shore saw them easily drop down a wall to 50m. The wall appeared to just keep going which was a good sign.

Water temp was 24C down to 21C with visibility of about 4m, which was not great but good enough. Apparently though in November - February the lake the visibility improves to 20m, but deteriorates rapidly through March until the following October.



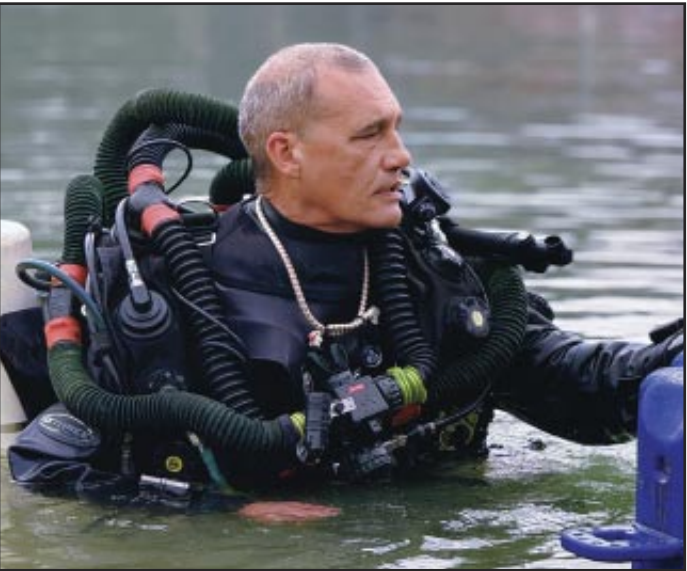
A subsequent dive to 120m the next day went well, and it appeared that the wall still continued downwards.

The next couple of days were consumed with a day off for a national holiday, during which the park was shut, then some work to put in a descent line. There seemed to be considerable debate amongst the support team on whether to have a descent line or just follow the wall, where to put the descent line if we were to have one, and if it was to be either 2/3 of the way across the lake in the area rumoured to be 300m or in the 250m section, closer to shore where the cave was rumoured to be. It seems nothing in China happens without hours of conversation beforehand. In the end the support team found a two hundred and something meter spot about 1/3 of the way out into the lake and that's where the line was destined to be.

Deep Dive 1:

With the shot line now in place, it seemed the sensible thing to do would be to go and dive down it and see how deep it really was. Craig and Andy planned a dive to 220m and Charlie planned to go to the bottom of the line.

- Charlie found the bottom of the line in 229m and reported that the ground sloped away from there.
- Craig had some fun hauling himself back up the shot line for a bit when his diluent regulator decided that delivering gas (needed for wing inflation) below 200m was not something it wanted to be a part of anymore.



Jetty building

- Andy was stoked to complete his first dive beyond 200m, finally use the Dual JJ-CCR for the purpose it had been built for and confirm that it actually worked quite well at those depths.
- It looked like there was potential for this to continue deeper and maybe into a cave of sorts.

Deep Dive 2:

With the first dive out of the way, Charlie and Craig planned their second dive to explore from the end of the line down the slope, and Andy just planned to go to the bottom of the shot line (229m) and back. The second dive also allowed all 3 divers to get more of a feel of what they were dropping into, and they realised that at about 150m they were passing an outcrop and entering a gorge of sorts in the bottom of the lake. Craig and Charlie ran a line down the floor of the gorge to 250m and wished they had scooters. With the limited visibility and lack of scooters it was difficult to tell if they had entered the cave or not.

Deep Dive 3:

A few days off deep diving allowed Andy and Craig to install a collapsible habitat (that Craig had brought with him) into the lake. Craig and Charlie were to use this on the next (and final) deep dive.

On this dive Craig and Charlie planned to swim to the end of the line, extend it some more, ascend from the end of the line to determine if they were in a cave/cavern, and then reel the line back in.

Andy planned to swim down the line to 240m and then return, thus keeping his deco obligation down to around 7.5 hours and leaving the habitat available for Craig and Charlie whose dive plan was 10.5 hours.

Again wishing that had scooters Craig and Charlie explored the end of the line and concluded they were at the very least in cavern not dissimilar to El Zacaton, made famous by Sheck Exley's dives there, if not the start of a cave.

Whether this gorge extended further or not, or into a cave system, or not, will have to be an exploration exercise for another day, but it was concluded that if El Zacaton could be called a cave dive, this was also a cave dive.

Future diving in Shen-Loong Sinkhole:

Further exploration of this site is definitely warranted. There is already a plan by the Chinese divers to do some more exploration by ROV to better map the site. With the excellent facilities onsite, close to hotels and shops, warm water year-round, and the promise of better visibility from November to February (when it is also cooler on the surface), it is an exciting proposition for future exploration.

It is worth noting, for anyone else who wants to go diving in Sheng-loong Sinkhole; that the management of the park is friendly

to technical divers (they bought the Habitat off us before we left), and you can easily do +100m dives straight off the shore. Access to O2 and Helium and a booster would need to be arranged in advance through one of the technical diving centres in Nanning city, and you will need an invitation from the park management (or someone else in China) to get a visa, which would be easily arranged. For deeper dives, if you want a descent line in the middle of the lake and tow out to the line, you will also need to arrange for and pay for support from by one of the local dive teams or dive centres.

Getting there is not too hard, but unfortunately there were no direct flights from Perth to Guangzhou at the time of this trip, so Craig and Andy departed on a long 24 hour mission Perth - Sydney - Guangzhou - Nanning with about 90Kg of gear each. It has since been determined that Perth - Hong Kong and then catching the bullet train to Nanning (704km in 4 hours) would have been shorter though would have involved some luggage wrangling in Hong Kong to transfer to the train.

This trip was incredibly well supported by Wolf and his team from Vic's Diving Base, Bai from 200BAR Dive Centre Nanning, and numerous individual divers who did everything from setting the shot line, towing divers out using a RIB, assisting with moving gear, and anything else the visiting divers needed. Most of the sup-



229m - bottom of the decent line

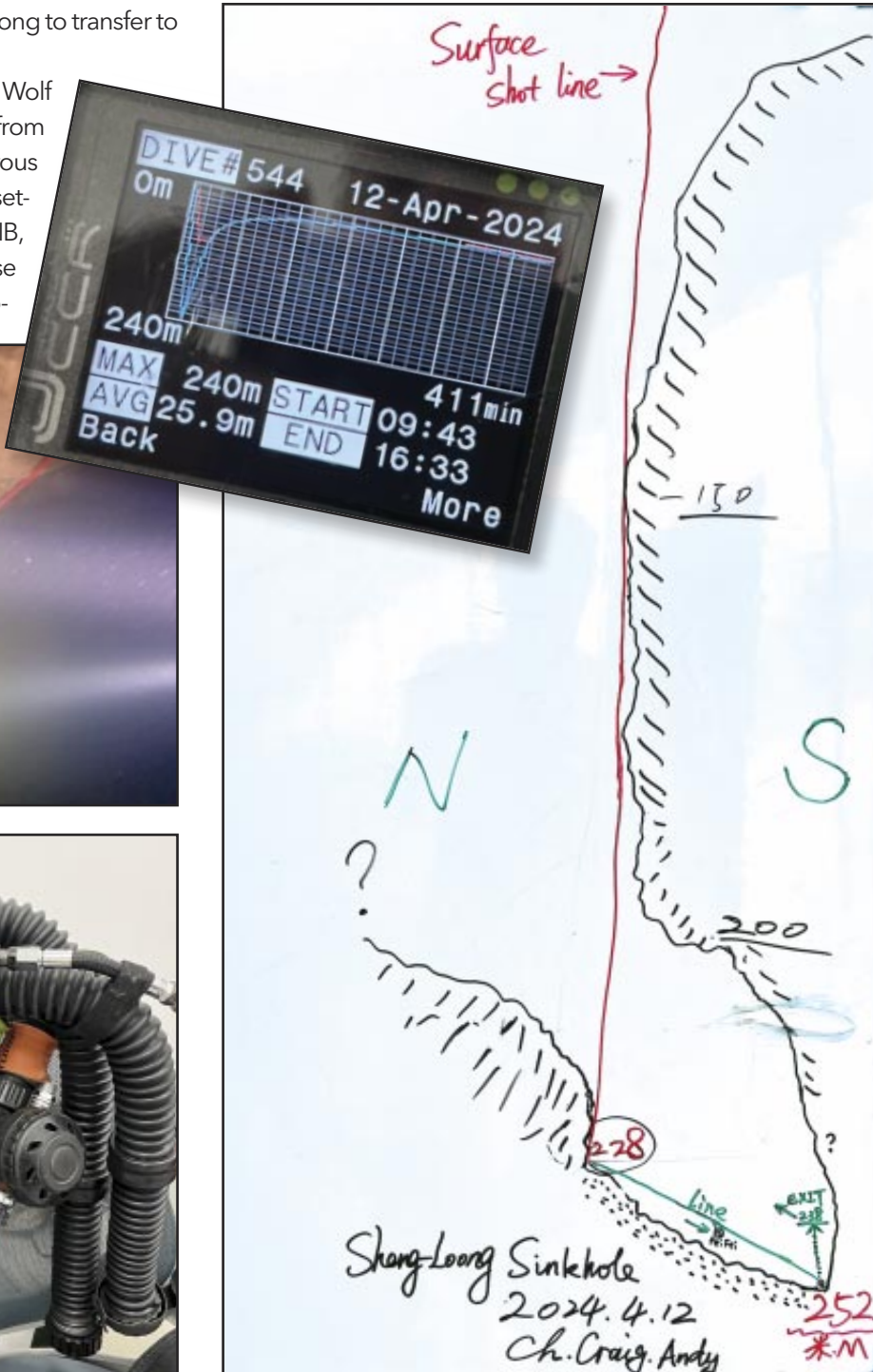


Dual Golem BOVs

porting divers spoke pretty good English, and Google Translate filled in the gaps. Having a translator (Charlie mostly) on hand did just make life easier.

It is not possible to name everyone who helped us with this project in China, but special thanks to:

- Charlie for coordinating everything, and inviting us.
- Bai, Belinda, Julie, Cyril, and FeiFei for their above ground and in water support.
- Wolf, Grape and team from Vic's Diving Base for their surface support.
- Sammi for giving us access to Shenglongtan park, its facilities and buildings.
- Wonder the freediver and Yang for driving the gear cart and constantly smiling.





# Skanda's Diving — Adventures —

## Cave and cenote diving in Mexico

Story by Skanda Coffield. Photos courtesy of Alvaro Herrero

*The Yucatan Peninsula is deservedly considered a must visit destination for cave divers. Originally from Melbourne, after two dive trips to Mexico I decided to try living there, and Tulum has been my home since 2016. The variety of caves, length of the different systems, potential for exploration and tacos everyday all are appealing!*

### Genesis of the Yucatan caves:

The Yucatan Peninsula in southeastern Mexico is one of the biggest limestone karst regions in the world. The peninsula was once the ancient seabed before geological uplift exposed the peninsula to the air. We can see fossilised corals and shells in the rock, both above and under the water. During the ice ages when sea level changed, the upper part of the peninsula was exposed to the elements. Rainwater filtered down through the rock, both carving and dissolving passages as it flowed towards the coast.

The strip of coast from Cancun to Tulum is riddled with cave systems providing drainage of the aquifer into the Caribbean sea. In periods of lower sea levels, the caves were dry and this is when calcium carbonate rich water drips formed the fantastic stalagmites and stalactites. While the cave systems were dry, unsupported ceilings collapsed in places, these openings to the caves are locally

called cenotes. The current length of reported explored caves in the area is 1680 kilometers, with estimates of more than 2000 kilometers of explored cave very likely to be accurate.

### Traveling to Mexico:

From Australia the journey is long but not too challenging (unlike say Truk Lagoon). With direct flights from Melbourne and Sydney to hubs in the United States, and from there direct connection flights to Cancun the journey is manageable. After landing there are a few options for transportation from Cancun Airport - private transport, taxis or bus (and maybe soon a train).

Depending on the style of accommodation and people's preference for bigger or smaller towns, Playa del Carmen or Tulum are good bases for diving. Playa del Carmen is a bigger city, and for a few years was the fastest growing city in Latin America. It has a lot more of the amenities you would expect from a city - shopping centers, cinemas, a much bigger choice of restaurants and is right on the coast. Tulum is a smaller town, and used to be more of a backpacker / hippy destination that in recent years has changed quite a bit as the town has grown.

While the beach in Tulum is a few kilometers from town, the town itself is right between the two longest cave systems with Ox Bel Ha being just

*Left: divers descend through light beams at Cenote Taj Mahal*

*Amazing stalagmites and stalactite in Dos Pisos*

south of Tulum and Sac Actun just north. From Playa del Carmen expect to drive at least thirty minutes to arrive at cenotes, while from Tulum most cenotes are an easy fifteen minutes drive.

### How, where and what:

As an independent, certified diver with experience it is possible to rent tanks from one of the many fill stations or dive centers and go diving. Currently there is a visitors cave pass being offered through the local cave safety committee (CREER) which can help when renting tanks, and accessing the cenotes. All cenotes are on private property, with different cenotes having their own requirements for entry or slightly different rules. While it is possible to dive many of the cave diving cenotes, many of the cenotes that are used for recreational cenote tours in the cavern zone (sort of like the recreational divers in Kilsby's Sinkhole) require divers to be accompanied by a local guide. Similarly some cave diving sites will not allow divers without the cave pass or a local guide.

### Guided cave dives:

So why hire a guide if you can dive as an independent, trained cave diver? For first time visitors to Mexico's caves, a guide can help provide an orientation and explain local protocols and procedures. Depending on where you cave dive around the world, system marking and markers can vary quite a bit or mean different things. For example, in Florida it is common to mark a jump line with a set of double arrows, while in

Mexico it is common to have just one arrow. Guides can help with the logistics of where the cenotes actually are! It can be pretty frustrating to waste a morning trying to find the correct dirt road to turn down to get to that cenote you want to dive.

Having been there and done that, while an adventure, it can be pretty frustrating losing half a day cruising around on bumpy jungle roads. Local guides can also point out many of the cenotes that you may be passing on the highway and give a bit of orientation as to where the main cenotes are as well as which are diveable, or which ones you need keys for and where to pick them up. Some cenotes are behind locked gates, and the keys are kept at certain dive centers. Local knowledge is super helpful, as you don't want to arrive only to find a locked gate, or worse drive in if the gate is open, only to be locked inside when the gate is closed by whoever left it open! Once at the cenote, your local guide should be able to give you a good bit of information about where you are going to dive.

Some things I always find interesting to explain are the exploration history, who was involved in the exploration, what other caves the cenote is connected to, and then more practical stuff like depths and location of the cave entrance. And then of course the caves of Mexico are famous for their complexity, so a local guide can suggest routes that take you to the most 'interesting' parts of the cave. Now diving a cave for the first time, everything is interesting, and diving 'just' the mainline of many caves will take you to some amazing places. But some navigations can take you past ancient bone sites of ice age animals like bears or ground sloths, or past ceramic vases or pots





*Huge decorated rooms in Cenote Xulo*

that were placed in the cave as offerings or dropping while people were collecting water. Finally, a local guide can take you to the best post dive taco spot!

#### Cenotes as time capsules:

Like many caves both dry and flooded around the world, in the caves of the Yucatan Peninsula divers can see relics of the past. When the cave systems were dry during the last ice age humans and animals used them as places of shelter. There are many places where bones of large, now extinct animals such as the short faced bear or ground sloth can be seen. There have been a number of human skeletons found within the caves ranging from ten to thirteen thousand years old. This makes them some of the oldest human remains found in the Americas, a significant piece of humanity's story as a species. While the skeletons have been removed for study, in other places divers can see clear signs of human use of the cave environment. Remains of fire pits and charcoal deposits suggest that some areas were used for shelter, such as the Chamber of the Ancients in Cenote Carwash. Other caves

show signs of use for human exploitation - there are a number of different caves that show clear signs of mining ochre by people. There are many really interesting documentaries and articles available online about the archeological and paleontological finds in the flooded cave systems.

#### The cave environments:

Mexico's caves are famous for being super decorated with stalagmites and stalactites. These formed when the caves were dry and range in size from delicate soda straws to huge stalagmites to meters tall columns. The cave systems are also known for being 'shallow'. This generalisation that the caves here are shallow can be deceptive! The deepest registered cave in the state of Quintana Roo is the Pit, which reaches 120 meters of depth with cave passage at a consistent 100 meters average. This is definitely not the norm however! It can be helpful to think of the cave development happening at different layers of depth (caused by changing sea levels over eons). We commonly dive the 5-10 meter layer (caves like Nohoch Nah Chich), the 10-15 meter layers like at Mayan Blue, and then the



*Tannic dome in cenote Tortuga (photo by Phillip Lehman)*

deeper salt water tunnels (places like Vaca Ha). Some locations will be affected by tannic acid seeping in through the ground which can affect the color of the water, or stain walls and ceilings shades of brown. Depending on the caves' proximity to the coast the salt water layer will start at different depths, for example, at Ponderosa it is 12 meters but at Carwash (a cenote much further inland, it can be found at 21 meters). Where the fresh and salt waters meet there is a separation between the different densities of water called the halocline. The different densities of water cause light to move at different speeds through each salinity, causing cool visual disturbances. Once the waters are mixed they blur and it looks like you are peering through foggy glass. If you are lucky once in the saltwater, you may see a remipede, a species of crustacean that lives only in flooded caves. These grow to a few centimeters of length and look like albino centipedes swimming through the water! The caves are also inhabited by a species of cave adapted blind fish, that has evolved to live in the complete darkness and does not even have eyes.

While Mexico is about as far away from Australia as can be,

it is well worth a visit at least once for cave divers. The caves here can be enjoyed by all levels of diver (yes even without cave training advanced open water divers can do cavern tours and experience limited overhead diving) from cave diver, to advanced cave and beyond using diver propulsion vehicles, additional stage tanks or rebreathers. With the sheer amount of cave passage, and the variety of depths and colors there is a lot to see! Despite living here over 8 years and cave diving pretty much full time, there are still many cenotes I have not visited and parts of caves that remain a mystery to me!

#### About Skanda:

Skanda is a cave and rebreather instructor at ProTec Dive Centers. While he is kept busy with a full time teaching schedule, he does occasionally guide certified divers. When he is not diving for work, he is generally exploring a new or old cave on his Sidewinder!

For more information about local diving protocols, procedure, and the cave pass check CREER's website: <https://creer-mx.com/>

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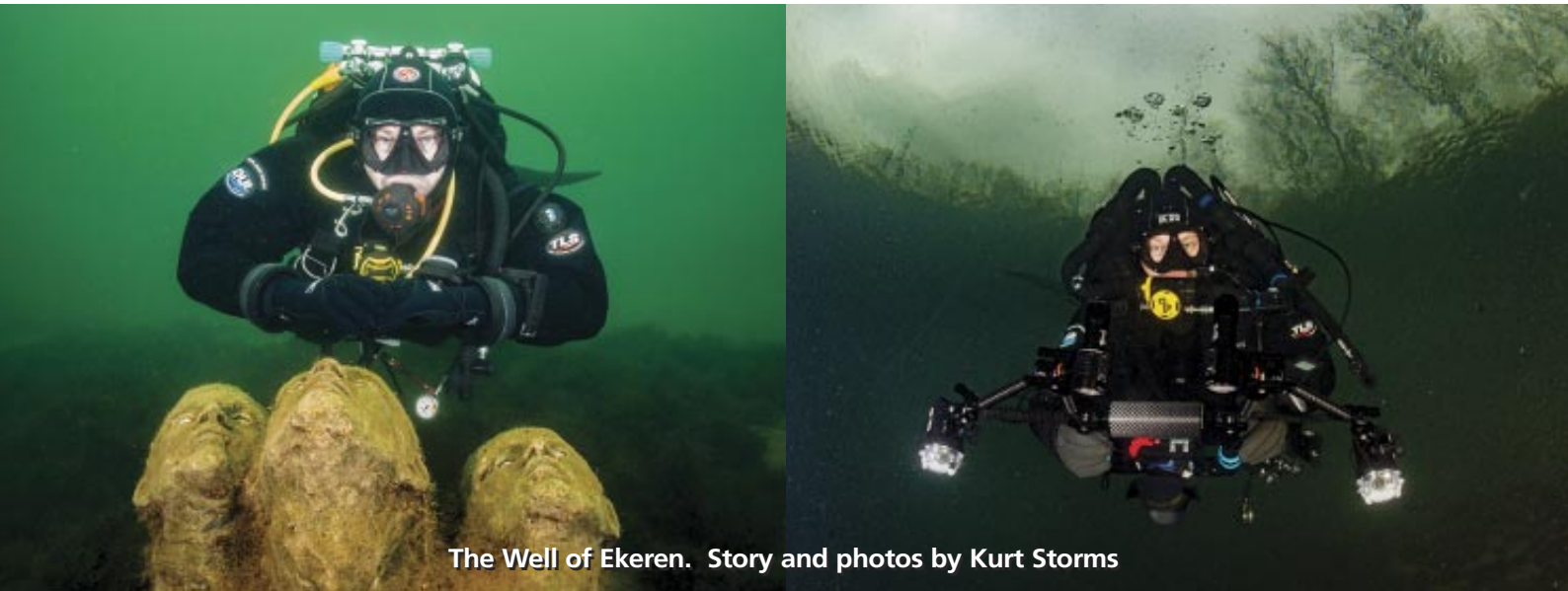
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# Domein Muisbroek

## A unique piece of nature



The Well of Ekeren. Story and photos by Kurt Storms

*A hidden paradise in the middle of a busy world port near the city of Antwerp. Domein Muisbroek is home to a large number of indigenous fish species and is a resting place for water and migratory birds. Divers also call it 'the well of ekeren'.*

It is still early in the morning when I am photographing in the shallow water near the platform. The sun's rays cut through the foliage and give the stairs a fairy-like atmosphere. Fortunately, I have installed my fisheye lens because the water is crystal clear today.

Many a diver has taken his first steps in the water at Domein Muisbroek. Thanks to a usually pretty good visibility, it's an ideal training ground. Via a specially built platform, you can jump straight into the water or you can simply take the stairs. Along the water's edge, you can dive to a depth of 6 metres. In the middle of the pond, you can find depths of up to 21 metres where the bottom consists of mud and silt. At the impressive perpendicular drop-offs that surround the pit, you should definitely take a look. There you will see many fossilised seashells and if you are lucky even shark teeth. Taking the shells with you, however, is not an option. Once out of

the water, they pulverise. The Thermocline can be felt when descending; the temperature drops with every metre. The temperature drops with every metre you descend. Adequate protection from the cold is therefore recommended, even in summer. From May onwards, the vegetation along the edges of the lake increases and you can see schools of young perch everywhere. The water plants purify the water and visibility improves dramatically. It is my favourite time of the year. In several places, you find fallen trees and branches overgrown with algae on the shore. When the sun shines, you can capture its rays in your photo. For this I use my wide-angle lens with a short shutter speed. Ideal is 1/125 or faster. About 15 metres from the jetty, you will find a fallen tree with a trunk that is still partly above the water. Often ducks are resting on it and sometimes a turtle that was once set up here. Unfortunately, I have not yet been able to observe this behind my lens.

### Mosses

By summer, plants such as waterweed are at their highest; ideal hiding places for all kinds of underwater inhabitants. Eels, pike, perch and carp populate the pond. Above the water surface, nature is also in full bloom. Mating damselflies, nectar-eating bees are just a few examples of why you should not forget your marco

lens. Feel free to walk along the pond, you will find plenty of subjects. I prefer to use wide-angle underwater so that I can set up a subject completely, preferably with a diver. Some objects have been placed there to make the diving more attractive. Night diving is also nice here, as you can see more fish than during the day. The hunting pike do not hesitate to come in the light of your diving lamp and eat a fish. The Put van Ekeren really has something to offer everyone. And that is quite special for such a small piece of nature.

During the week it is quiet at the well. Sundays can be very busy. There is ample parking space but no other facilities at the moment. Diving is only permitted if you have a permit. There are annual or three-year permits, but a day pass is also possible. You have to apply for these in advance, in writing or by mail, at AVOS ([vergunningen@avos.be](mailto:vergunningen@avos.be)). You can also apply as a club or individually via an online form, [www.avos.be](http://www.avos.be).

### History

When you drive onto the Muisbroek domain, nothing suggests that the bottom under your feet once belonged to the North Sea. Millions of years ago, during the Pliocene and Miocene, the sea level was about 50 metres higher. The Miocene was the time of Megalochus Megalodon, the largest shark that ever existed, which could reach a length of 18 metres. In the 1920s, soil was excavated to raise the bottom

of the marshalling yard in Antwerp North. This created two ponds that served as a source of water for the steam locomotives of the time.

The largest pond, where the divers dived, originally had a depth of 7 to 9 metres. Later, during the construction of the A12 motorway, the pond was dug deeper to over 20 metres. In 1997, AVOS, the Antwerp Association for Conservation and Sport, concluded a user agreement with the city of Antwerp to be allowed to dive in the western half of the pond.

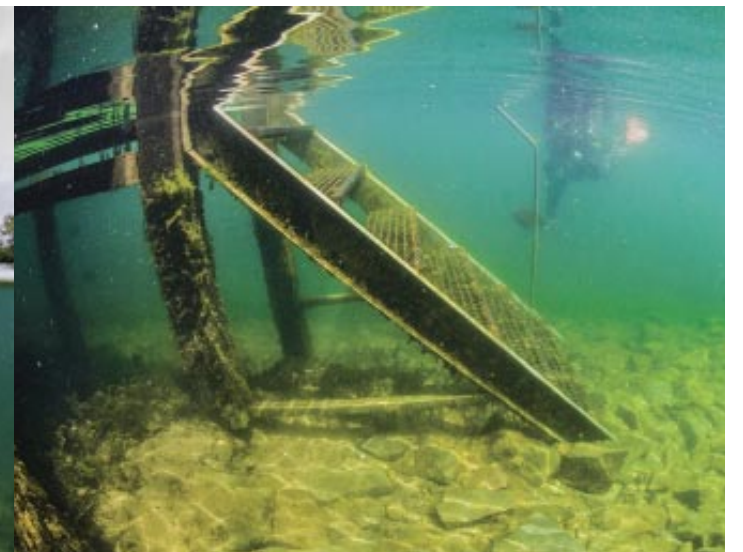
### Address:

Address : Ekersedijk, 2030 Ekeren (Antwerp), Belgium  
Opening hours: every day between sunrise and sunset.  
Night dives are possible if requested 1 week in advance.

### FINAL MENTION:

I need to thank Kurt Storms and some other European divers who supported Guidelines during Covid19. During lockdowns in Australia we were only able to create Guidelines because we had contributions from people like Kurt who were still diving in Slate Mines and Lakes, and for that I am so very thankful. As I leave my post as the designer of Guidelines I wanted to once again thank all the writers and photographers who helped to keep Guidelines going over the years.















Dave Bryant.







# CDAA INSTRUCTORS

NAME	Basic Cave	Adv. Cave
NEW SOUTH WALES		
 FEATONBY, Tim (CDAA 3327) Worowing Heights, NSW Mob: 0402 129 253 E: tim.featonby@hotmail.com	Yes	Yes
 Ryan Duchatel CDAA 4983 Mobile: 0419 268 714 E: ryan@totalimmersiondiving.com.au	Yes	
SOUTH AUSTRALIA		
 BISHOP, Damian (CDAA 4738) Mob: 0433 345 743 E: Damian.bishop@live.com.au	Yes	
 PANNE, Timothy (CDAA 2640) Mob: 0448 147 927 E: Tim@divessentials.com	Yes	Yes
VICTORIA		
 BARCLAY, Gary (CDAA 1735) Mob: 0407 527 921 E: garinde@bigpond.com	Yes	Yes
 BOWMAN, Jane (CDAA 1880) Mob: 0407 566 455 E: janelboman@hotmail.com	Yes	Yes
 CLARDGE, Linda (CDAA 2214) Mob: 0408 052 070 E: garinde@tpgi.com.au	Yes	Yes
 CALLAWAY, Shane Mob: 0407 354 862 E: shayne.callaway@bluewaterascent.com.au	Yes	
NAME	Basic Cave	Adv. Cave
VICTORIA Continued		
 DALLA-ZUANA, John (CDAA 236) Mob: 0407 887 060 E: jdz@paintandcustom.com.au	Yes	Yes
 EDWARDS, Chris (CDAA 2247) Mob: 0417 116 372 Email: chrisedwards01@me.com	Yes	Yes
 LEE, Hee Man (CDAA 5064) Mob: 0413 422 850 E: hfdee@hotmail.com	Yes	
 MONACO, Rubens (CDAA 1731) Mob: 0413 429 533 E: info@idscuba.com.au	Yes	Yes
WESTERN AUSTRALIA		
 BICANIC, Josip (CDAA 4691) Mob: 0412 571 779 Email: joseph_b@me.com	Yes	Yes
 PANTER, Geoff (CDAA 3784) Mob: 0407 445 112 E: gpantner60@bigpond.com	Yes	Yes

# EMERGENCY PLANNING INFORMATION

## TIPS FOR EFFECTIVE EMERGENCY MANAGEMENT

- Always inform someone (who is not part of your dive team) of your dive plan
- Be prepared, and ensure you can provide critical information (such as your location) to emergency services when required
- Always plan your dive and dive your plan!
- Be trained to administer First Aid and CPR. It's better to have it and not need it, than need it and not know what to do!

## ACCIDENT/INCIDENT RESPONSE:

In the event of an incident or accident, CDAA members are to:

1. Assist the person or persons injured.
2. Contact emergency services (if needed) and provide clear and accurate information:
  - a. **WHAT** is the emergency?
  - b. **WHERE** is the emergency? Provide relevant information – street address, GPS coordinates, nearby landmarks.
  - c. **HOW** do emergency services access the site? If possible, direct another member to meet emergency services at the road or a nearby intersection and direct them towards the emergency
  - d. Provide the **NAME** of the injured person/s
  - e. Provide **YOUR NAME** and contact details.
3. While you are waiting for emergency services record as much relevant information as possible, including times, names and contact details and events leading to incident.
4. Contact the CDAA National Director and/or the CDAA Site Director as soon as possible

## MISSING/OVERDUE DIVER:

In the event that a diver has not returned to the surface by the expected time, it is important that members act quickly as time is of the essence. As a guide, if a diver is 15 MINUTES or more over their expected run-time, members are advised to:

1. Contact the CDAA Search & Recovery (SAR) Officer. In the event that the SAR Officer cannot be contacted, call the National Director, or Site Director. Follow the directions provided by the SAR Officer or relevant Director.
2. Provide as much information as you can – names of the missing divers, summary of the dive plan, time the divers entered the water, equipment configuration used, expected run time, time overdue.
3. Establish an appropriate course of action. Consideration should be given to the dive plan, extent of penetration and gas reserves of the missing/overdue divers. Are there are other divers on site (or nearby) who may be able to assist with an emergency search. *Note: a search should ONLY be considered if divers available are suitably experienced, equipped, and have sufficient (additional) gas to undertake a search and provide assistance.*
4. If no other divers are available to conduct a search or the missing/overdue divers are not located and have not otherwise returned within the timeframe decided, enact the **ACCIDENT/INCIDENT RESPONSE** procedures listed above.

## DECEASED DIVER:

1. If a diver is found to be deceased within the cave, do not disturb the scene. If possible, try to note down pertinent information - location, position, remaining gas, computer runtime, then return to the surface as soon as possible.
2. Contact the CDAA National Director and the CDAA Search & Recovery (SAR) Officer immediately. The SAR Officer will liaise with the relevant authorities as required.

**NOTE: Members are advised not to make any statements regarding incidents or accidents to members of the public, to landowners, to the media, or via any other platform/media. Please direct all associated enquiries to the National Director for comment.**

## EMERGENCY CONTACT DETAILS

Police, Ambulance, Fire	000 or 112 (mobile)	CDAA National Director – Grant Pearce 0438 833 103
State Emergency Services	132 500	CDAA Site Director – Kelvin Ball 0428 842 259
Mt Gambier Hospital	8721 1200	CDAA SAR Officer – Richard Harris 0417 177 830
Divers Emergency Service (DAN)	1800 088 200	CDAA SAR Officer – Phillip Croker 0423 393 347