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No. 135 - MARCH 2016



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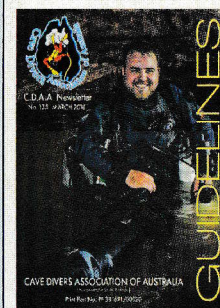
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### Cover:

*Bradley Dohnt  
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 Downstream in  
 Olwvlgin,  
 Christmas 2015.*

Image by:  
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## CAVE DIVERS ASSOCIATION OF AUSTRALIA

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GUIDELINES is a newsletter of the Cave Divers Association of Australia. All articles for the following issue are to be sent to the Publications Director, Email: [publications@cavedivers.com.au](mailto:publications@cavedivers.com.au)

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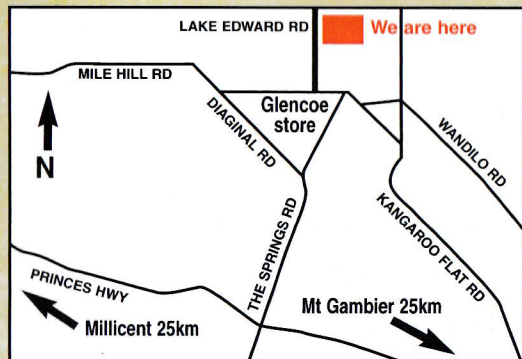
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## EDITORIAL

ROWAN STEVENS



Dear members,

Welcome to the March 2016 edition of Guidelines.

Firstly I am pleased to announce that Meggan Anderson has accepted the role of CDAA Records Officer and during the past couple of months has been shadowing me in learning the ropes. Effective immediately Meggan will be issuing membership, instructor and qualification cards and servicing member enquiries regarding records, renewals, etc. Meggan can be contacted on email [records@cavedivers.com.au](mailto:records@cavedivers.com.au) or on mobile 0415 291 904.

Instructors are still to submit record of training forms as per the current process to the address listed when card activation payments are made. Please support us in welcoming Meggan.

AGM 2016 has been set for Saturday 22 October and will be held in Mt. Gambier. John Vanderleest, our National Director has indicated he will not be standing for re-election – please read the National Committee Update for more information.

In this edition of Guidelines we profile Ian Lewis a long standing respected member of the association. We also have member articles on diving in Mexico and Madagascar and gear reviews. Also in this issue we lift the lid of solo diving and explore the evolving attitudes towards its wider acceptance.

Happy reading and until we meet in the next issue in June ...

Rowan Stevens #3177 | Publications and Records Director  
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# NATIONAL COMMITTEE UPDATE

MARCH 2016

Being Directors of the CDAA are interesting roles. You are surrounded by other volunteers, all passionate to contribute to the running and development of our sport; you receive very rewarding emails from people who simply wish to thank you for your efforts; and you get abusive emails from people who think that because they pay their membership they have a right to abuse you and our volunteers when they do not get what they want.

Fortunately, the positives outweigh the negatives. And to remain positive, both for the Directors and the Association, there needs to be periodic change in the leadership team. Planned leadership change is a good thing. It's not about finding a mini-me, but about ensuring that your successor is properly prepared. Ideally, a successor would not think the same as the incumbent. Rather, they should bring about fresh ideas and new energy.

To help bring about this ideal, I would like to formally announce that I do not intend to stand for office when I come up for re-election in 2017, and invite any and all people who would like to take on the role of National Director, to come forward to be engaged in our strategic thinking and planning. And when the time comes for a leadership change, hopefully we do not suffer from the loss of momentum.

So, speaking of running the CDAA, what has happened over the past 3 months? As you are aware, due to a change in Property Title and the inclusion of open water divers in Kilsby's sinkhole, our access arrangements needed to be rewritten. In the new agreement, there were 2 items that required legal discussion and are presently in the hands of the Kilsby's legal team (and hopefully this is resolved before you are reading this issue of Guidelines).

With our own site, Tank Cave, we are working through

the development of a master site plan. While this might seem like an overkill, simple things like the extension of the existing shed or installation of a permanent toilet need planning approval. If we do not do this properly and someone is hurt, we stand the chance of our insurer not covering us. I would hate to see the loss of this site because of litigation by one of our own members.

The master plan does not mean we intend to build everything on the plan. It's about ensuring that any decision made by the members of today, does not impede what members of tomorrow may want. When the master plan is prepared, we will be asking you what if any of this you may want to do today. For example, do we want to have camping facilities, do we want showers etc.

Finally, we are happy to announce that we have locked in the date for the AGM this year, to be held on the 22nd October, 2016 in Mount Gambier. Our International guests are Don and Andre Shirley from South Africa. Both accomplished divers in their own rights, it will be a pleasure to host them.

As always, may your drysuit remain wet on the outside.

John Vanderleest

On Behalf of the National Committee.



John Vanderleest,  
National Director



Peter Horak,  
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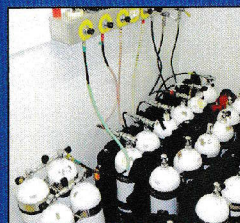
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# Important NEWS from Kilsby's

*The Kilsby family would like to take the opportunity to provide some clarification in relation to the current status of Kilsby Sinkhole, particularly regarding the temporary closure to members of the Cave Divers Association of Australia.*

For the past 8 months, we have been working hard to improve: 1) the above ground facilities at the site; and 2) the management systems which have traditionally limited our capacity to accommodate the diverse and extensive interest in the sinkhole. Recent visitors would have noticed the removal of the viewing platform which was installed during the use of the site for weapons research during the 70's and early 80's. This platform was in a deteriorated condition and its removal was required to maintain the safety of visitors when viewing the sinkhole.

The site has also been re-fenced, new pathways installed and irrigated lawn areas developed with the intention of creating a picnic area adjacent to the sinkhole.

The shed, which has been used as a workshop space for the farm for the past 25 years, has been vacated and made available for use by all site visitors. Not only a great place to shelter in poor weather, it incorporates change spaces, a basic kitchenette and classroom/training space. A barbecue is now also available for groups to use.

Approvals have been sought for the installation of permanent toilet facilities and plans are in place to re-clad the shed and install a limestone feature annex to the building.

We've recently added an additional dive slot to our daily booking calendar and relaxed the rules requiring divers to depart the site between dives. This reflects our interest in improving the experience of visitors, allowing time to utilise the facilities and enjoy more time at the site before and after a dive. For many years, our family has received a broader industry push (diving industry, tourism and education sectors) for reform to the way in which access

to privately owned sites such as ours are managed. After great consideration and consultation, the Kilsby family has commenced a trial introduction of site access agreements which span a range of interest groups. This trial has provided access to a limited group of recreational diving entities, school groups and land based tour operators.

Unlike the access which has been extended to the CDAA, non-CDAA bookings require all divers to access the site under the supervision of an industry recognised guide (i.e. Divemaster/Instructor) who represents the entity holding an access agreement. The ongoing access to the site is directly aligned to the integrity of these guides, their commitment to follow the protocols of their represented agency and their diligence in following site access guidelines.

Recent divers would have noticed the installation of markers which identify where the overhead environments start and finish underwater. These were installed by a recreational dive shop to provide clarity to the areas of the site which have vertical access to the water surface and assist in guiding divers who are not appropriately trained to enter these sections of the sinkhole.

While we recognise that for some, the introduction of other entities to the site may cause some level of discomfort, the broader community, including many CDAA members, have voiced their strong support for our movements at the site.

Many CDAA members have identified excitement in the potential to share their love for diving sites like Kilsby's with their Open Water trained friends and family. The Kilsby family would be greatly disappointed if our work to build greater access to the site did not make this possible.

Our new access trials have been well considered and are being delivered with a significant focus on maintaining safety and the integrity of proven site management practices. It has consistently been our goal to work closely with all stakeholders as we explore the possibilities that the site can offer and this period is no exception.

The creation of the new access agreements has been integrated into a broader refresh of our agreements with entities such as the CDAA, which have not been revisited for many years. Due to the time between these reviews, the documents have required a significant re-write and the complexities of which have required further consultation with the CDAA over the past few months.

Although less than ideal, the closure of the site to the CDAA while the new agreement is finalised was

mutually agreed as the best approach considering the outdated nature of the current agreement.

The Kilsby family apologise for the inconvenience that this has caused members of the CDAA, and we hope to welcome you back to the site again in the near future.

While a new agreement with the CDAA is being finalised, Kilsby Sinkhole continues to welcome visitors with those entities who operate under a new trial current site access agreement.

As we work towards a sustainable access model for the sinkhole we thank all stakeholders for their patience and support. Please continue to use our facebook page as a place to ask questions, provide feedback and seek accurate information about Kilsby's Sinkhole.

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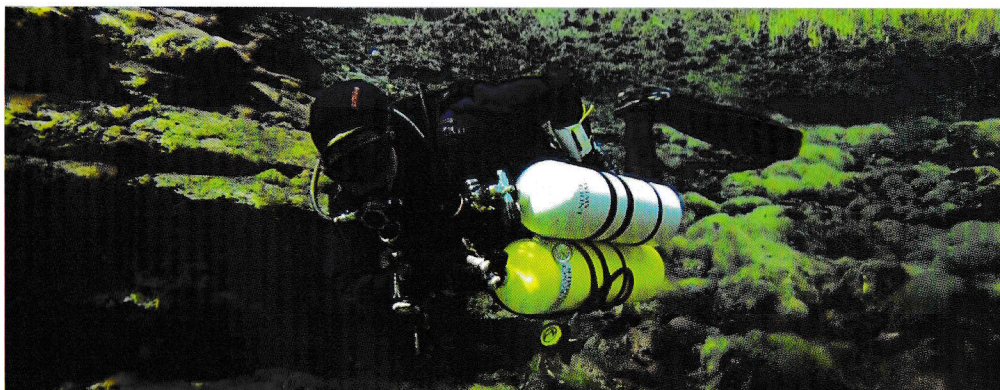
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# 'He Supports Solo Diving – Burn The Witch!'

By Darrell Staight

*I'm going to preface this article by making an assumption that most of the readers have watched at least one of the Harry Potter movies and as a result will be familiar with the term 'he who must not be named'. It's a strange concept where an idea (or a villain in the case of the Harry Potter movies) is considered taboo to the point of even preventing open discussion on the subject. It should be pretty clear that this practice is actually counter-productive, particularly as much can be learnt in the arena of debate. Nevertheless, in the real world I can think of a few good examples where sub-divisions of society exhibit the same behaviour, discouraging the discussion of certain subjects which they deem controversial. Unfortunately this also extends to the sport of scuba diving. Yes, we have something nearly as taboo as bringing up 'Lord Voldemort' and it goes by the name of 'Solo Diving'!*



What is Solo Diving? I think the most commonly held perception is the one similar to what you would find on Wikipedia which simply states: "Solo diving is the practice of scuba diving alone without a dive buddy." Interestingly enough you will also find this passage following it: "Solo diving, once discouraged, is now (since the late 1990's) beginning to gain acceptance among experienced divers who have skills in self-sufficiency and redundant backup equipment." This sort of sets the scene for the tone of this article in which I will further bring to light some of the division on this subject and in the face of adversity, some of the arguments that actually support solo diving. I will also speak to some of the weaknesses of the buddy system. In fact many of us in the diving community think that in addition to the above, a more comprehensive definition would also

include something similar to the following: "One should consider solo diving risk management even when diving with a buddy if there is any part of the dive in which your buddy would not be able to render effective assistance." If you are anything like me and are totally unapologetic and outspoken in supporting solo diving (assuming certain provisos are met), then you've probably met with some conflict from time to time. In fact I think it's fair to say that there is a small proportion of the diving community who are pretty quick to condemn anyone who so much as suggests that solo diving is an acceptable practice. The responses can sometimes be so out of proportion to the subject matter in question, that I have occasionally thought it a metaphor for the kind of mass hysteria that took place in the 1600's. You might even imagine the screams. "They're witches. Burn them!"

Ok, so that may sound a bit melodramatic (admittedly I did write it with a wry smile). But when I heard the 'witch' analogy used (again somewhat in jest) by well known British Technical Diving Instructor, Mark Powell, whilst presenting on this contentious subject, it struck a chord I could relate to. When it comes to the diving community it is no exaggeration to say it is massively divided on solo diving. In my own experiences I've found a plethora of different views that fall anywhere on a sliding scale. At one end are people like myself who openly support it, or explorers that endorse it (generally because they require it). Then as you progress towards the middle of the scale there are a lot of people who don't necessarily oppose it but are nonetheless rather uncomfortable about admitting their support for it in public. At the opposite end of the spectrum are those that totally oppose it and this includes some that will go so far as to publicly criticise the individuals making a case for it (no matter how well defended their argument may be). This article is not intended to make such divisions wider but rather encourage more open discussion on the subject. I strongly feel that no subject should be off limits and that everyone should feel able to openly express their views without the fear of being on the receiving end of vitriol for daring to have a different opinion.

I first started diving in 1996 and since then have gained broad experience in different areas of the sport. I was once an instructor but let that lapse after moving out of the industry. In fact I actually spent several years completely out of the water during this time. Just before I left, one of the hot topics of discussion was that Scuba Diving International (SDI) had just released the first solo diver course for recreational divers. There was talk of other training organisations following suit and people were starting to accept that solo diving had a place providing the following considerations were adhered to:

1. Undertake the specific training or gain the relevant experience necessary.
  2. Carry a totally independent redundant source of air capable of getting you to the surface with a margin of conservatism.
  3. Avoid 'Pinnacle Dives' (dives where you push beyond your experience and training).
  4. As with all diving, be extra disciplined to properly plan your dive in advance and stick to the plan.
- Other considerations that were highly recommended included: Carrying redundancy on other items too (ie 2 masks, 2 cutting devices, 2 dive computers etc), being extra vigilant with equipment maintenance and staying fit and healthy. If one was diving only within the recreational SDI framework there were also a few other areas not recommended, as those required technical training.

It was a work in progress but to my relief people were finally openly discussing the subject.

I had already developed a view that I was in favour of solo diving, having come from a background in distance open water swimming where a great deal of my training had been by myself. I noted that pilots, sky divers and many other individuals undertaking activities with significant perceived risk were not just permitted to go solo but were actually required to, in order to demonstrate full competency. I also noted that just about every diver that I recognised as a real pioneer, would not have been able to do some of their exploration without being totally independent, due to the tight confines they often found themselves in.

In just about everything I've done I've always worked quite well joining the dots by myself so it was only a matter of time before this became my direction with diving too. It wasn't long before I started researching the most effective way to do it as safely as possible. It was refreshing that the diving industry seemed to also recognise that it was important to have this discussion with people. We were on our way forward, or so I thought...

So fast forward to 2013. After being sidetracked by other adventure sports for a while, I found myself back in the water. In the process of acquiring new equipment I visited a number of dive shops and wanted to pick up where I left off, developing a set up and philosophy based on being independent and self reliant. However I quickly found that the subject of solo diving was again being frowned upon by many in the industry. Out of curiosity I spent a few hours one afternoon contacting a handful of dive shops located in various locations around the country via social media (shops I was already somewhat familiar with), just to find out their position on the solo diving question. The responses ranged from a minority of shops openly supporting it and permitting it on their boats, to those who were somewhat nervous about it but at a push agreeing that they too would support it for suitably qualified individuals, through to those who did not permit it at all.

Interestingly enough those that fell into the 'may permit' category weren't prepared to state their opinion openly on social media and asked me to ring them up to discuss. Clearly despite recognised training being in existence, there were a lot of external pressures being exerted from other sources too, most of which were generally negative. From my observations, when solo diving was spoken about in public it was still often in hushed tones and off the record. "Yes, we know it happens but shhh don't speak about it too publicly because we don't want new divers to know that." To say the least, it was an immense source of disappointment to me that the industry had reverted to this way of thinking. This clandestine



approach has always been a source of tremendous hypocrisy and in my opinion is part of the problem compared to having an open and properly regulated approach. However back in 2013 I was more perplexed by what could have caused this turnaround in attitude after the promising signs a decade before. Was it the rise of a few major technical training organisations that had sprung up whilst I was away which had stated views opposing solo diving? Perhaps in part. Or was it that we have just become so much of a risk averse society due to the growing fear of litigation, that nobody was prepared to endorse activities deemed to be even slightly more hazardous than the norm? Very likely!

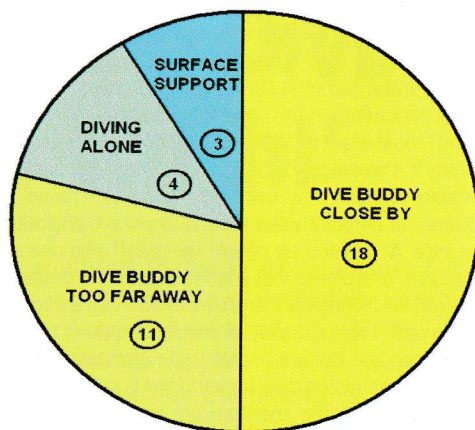
Even if the latter has some truth, is it a valid argument? Well... it might be if such activities were in actual fact significantly more hazardous, rather than that being an opinion arrived at with no particular basis.

Out of those of us who support solo diving (and privately there are a great many), nobody I know is condoning or suggesting that anyone should use a standard recreational set up (single tank, single first stage) to do it. In such instances clearly one's redundancy is their buddy and that is the way they should continue to dive. This is a point lost on some individuals and even organisations that use statistics when such divers have come to grief to support their agenda that solo diving should be banned. Far from an example of the short falls of properly equipped solo diving, when you look at the case studies in more detail it becomes clear that many of these were more accurately examples of buddy diving where the divers had become separated and the buddy system had broken down. Statistics are frequently misused and cherry picking particular aspects of one case study to support ones view, whilst overlooking all the other aspects is rather disingenuous.

Someone who started objectively looking into the statistics in the local South Australian scene earlier than most was well known diving personality Peter 'Puddles' Horne. In the book "South Australian Diving Fatalities 1950 – 1985" (which was updated in 2005) he established that most South Australian diving fatalities (and at the time all cave diving ones) involved dive buddies being nearby or present. Only 4 deaths occurred whilst actually solo diving and they all involved people diving beyond their limitations and without the appropriate equipment.

#### Evidence Based Fact or Opinion?

The buddy system has long been advocated by most training organisations as the best system to use for managing risk. Done properly it is indeed a good system and I have no argument with that. There is also much pleasure to be had by finding good buddies and enjoying diving together. In fact I would go so far as to say the social side of diving is one of the biggest attractions to diving



in the first place. But when divers assert that the buddy system is the only system that is acceptable, I think this is demonstrably wrong and has to be challenged. Like so many ideas that have been around for a long time, if they are repeated with conviction often enough by figures of authority, those ideas can be accepted as fact when in reality they are more likely to be opinions passed down in turn from others who have used a similar amount of conviction.

You may scoff at some of the following assertions but remember they were also considered statements of fact once too:

- "The Earth is flat"
- "The speed of sound can't be broken"
- "Mount Everest can't be climbed without supplemental oxygen"

This list could be extensive (see what other ones you can think of based on your own subjective experiences).

The same goes for diving. You may remember these if you've been diving long enough:

- "Dive Computers are Dangerous"
- "Buoyancy Control Devices are Dangerous"
- "Using Nitrox is Dangerous"

We now regularly accept that the above 3 statements are incorrect. With time and ongoing development the use of dive computers, buoyancy control devices and nitrox have become so accepted by the majority that they are now part of the landscape when one is talking about scuba diving. I would assert that solo diving (providing it is done with correct equipment and training) should be no different when you look at it objectively. It's not for everyone (it's certainly not for beginners) but I believe it should be an option for experienced divers. That's not to say that properly equipped and trained solo divers are bullet proof because they aren't, but neither are those diving within the buddy system. Any activity done in an

environment which we would not be able to survive in without special equipment comes with some risk. You try and mitigate that risk as much as you can but you cannot totally remove it.

Many training organisations are nervous about condoning solo diving but some have gone one step further and actually have a stance against it as one of their core values. Should you wish to fully embrace their methodology there is a certain amount of peer group pressure to accept such views too. You can see how it would be difficult for an individual who has done all their courses with such an organisation to stand up in the face of such group solidarity and state that their own independent research had brought them to a different conclusion!

#### The Buddy System Done Badly

While I've agreed that done properly, the buddy system has merit, it is also important to point out that it can and all too often is done extremely badly. When that is the case, contrary to what many will assert, it actually provides a false sense of security. I'm sure we can all relate to the following examples:

#### Example 1

Imagine you are buddied with a complete stranger on a dive charter and you have no idea of the capabilities of that diver or how well maintained their equipment is. Is this the diver you really want to be depending on should you have an emergency?

#### Example 2

Imagine you are buddied with a complete stranger on a dive charter that doesn't speak the same language and you have no idea if they were trained to use the same hand signals. As it happens this diver's alternate air source is integrated into their inflator which means that you need their cooperation in the event of an emergency (as obtaining air from such an equipped diver involves them donating their primary regulator whilst they go onto the shorter inflator integrated one). The middle of a life threatening out of air situation is a poor time to find out that you have some misunderstandings. Is this the diver you really want to be depending on should you have an emergency?

#### Example 3

Imagine you are diving with someone who is more focused on the photography they are doing. They are after the perfect shot to show their friends and families and have little interest in discussing with you the various contingencies should something go wrong with your equipment. Predictably, during the dive your buddy's focus is seldom on you. Is this the diver you really want to be depending on should you have an emergency?

#### Example 4

Imagine a diver, who despite your best efforts, has little interest in waiting for you and in their impatience disappears out of sight, despite signalling them to slow down on several occasions. You end up physically exerting yourself more than you normally would and go through your air quickly. Is this the diver you want to depend on as your only back up in the event of an emergency?

#### Example 5

Imagine you are buddied to a diver who is well matched to your ability and experience. You plan your dive together; however during your dive the conditions are so clear that you end up 10 – 15 metres apart. Now imagine you are the diver behind and you have a failure to an upstream first stage (fails in the closed position). Without a separate redundant air supply you need to try and catch up to the diver in front in order to share their air whilst holding your breath. It will probably take at least 25 metres of hard swimming in order to do it (assuming the diver in front remains unaware of your plight and doesn't turn around to meet you halfway). By diving without a redundant air source close at hand (which is the norm for most recreational diving) you are totally dependent on your buddy should such an emergency occur. Such instances (even if this amount of separation is only for a moment) are buddy diving in name only and yet they are common place. Is this a situation you want to be in?

Truth be told we've all got our nightmare buddy stories and it's not always due to ability. Even two well intentioned and otherwise well trained divers can make mistakes. We're all guilty of occasionally misunderstanding

Stance on solo diving?	Dive Shops
WILL PERMIT QUALIFIED SOLO DIVING	3
MAY PERMIT QUALIFIED SOLO DIVING (BUT DOESN'T RECOMMEND)	5
DOES NOT PERMIT QUALIFIED SOLO DIVING AT ALL	3
DID NOT RESPOND	3
Some very impromptu informal research I did whilst considering whether I look at the subject more closely.	



the rather crude hand or tactile signals that come with diving. Two brains can be a benefit if they are working together, but it's not uncommon for two divers to misunderstand each other which can lead to further complicating a situation. As a solo diver you have only your own thought processes to concern yourself with which means that it can often simplify problem resolution. It's counter intuitive for most divers to think that though, because of the constant reinforcement they have had throughout their diving career that anything other than diving with-in the buddy system is unsafe.

I couldn't write an article like this without also bringing up the typical recreational diving professional. It's very common for an instructor teaching a basic open water course to have up to 8 students by themselves, all of which have no prior diving experience. Are these students realistically expected to save the day if the instructor has an emergency? It's wishful thinking but in practice I doubt it! The reality is that the instructor is effectively solo diving. They are also diving with the extra impediment of looking after 8 students!

I struggle to understand how so many of the outspoken critics of solo diving (even when done with proper training and equipment) are so quick to overlook these situations that are common place in the diving community which carry more apparent objective risk.

#### **Attitudes Towards Solo Diving**

In my experiences I believe there are roughly speaking 4 types of divers. When it comes to our dive practices and attitude (particularly when considering solo diving) we can all identify with one category or another (or in some cases more than one category). It's not uncommon to move between categories in a diver's career either:

1. The Open and Honest Solo Diver – Because of all the stigma that currently exists these are rare, but I believe this is the best category to be in if you advocate solo diving. These divers are generally extremely experienced divers who openly admit they solo dive. They have done appropriate training and have significant experience. They are diving with the correct equipment (in particular redundant air sources, but also back-ups of anything else that could be important). They dive within their training and experience using significant risk management and planning. These divers believe that solo diving is an acceptable practice when done correctly and think it has an important place within exploration. They are happy to engage other less experienced divers in conversation about it and make a point of explaining the proper protocols that are necessary before considering it. These divers don't tend to encourage others to do it but are not in denial that it takes place.

2. The Closet Solo Diver – Due to the stigma that cur-

rently exists these divers are quite common. They are generally dishonest about their solo diving exploits to the masses.

The will solo dive when they feel like it but tell most others they don't. Indeed many of them will assert that solo diving is not a safe practice whilst in public in order to be accepted by the masses. Many recreational instructors fit in here and their employment may depend on them staying 'in the closet' on this issue. One day they are teaching a course saying, "Never ever dive alone!" but the next day they are out diving alone! They commonly apply a double standard on the subject. While I think it would be massively more productive if they were open about it, the reality is that their attitude needs to be changed from the top down. If diving businesses everywhere accepted solo diving (providing the safety requirements were met) then many of these divers would 'come out of the closet'.

3. The Recreational Buddy Diver – These are the majority of pleasure divers. Those who have always tried to dive within the buddy system as they understand it. They generally use the standard single back mounted tank and single first stage, complete with a primary second stage and octopus (back up) second stage. Nevertheless on closer inspection they will normally admit that they haven't been as disciplined as possible throughout each and every dive they have ever done. Whether through being distracted by photography, poor conditions or through inadequate diving discipline (not keeping track of where their buddy is), in all likelihood at some stage they have been in a situation when they had sufficient separation from their buddy, that they would not easily have been able to get to them quickly enough in the event of an emergency. Most divers I know would admit that they have been in this situation at some stage even if it was earlier on in their diving career, and without redundancy it's this group that are most at risk. C'mon people, be honest and think of times when this has applied to you. We've all been here!

4. The Technical 'Team' Diver – This training model really surged while I was on my decade away from the sport. Those divers who have specifically chosen to do most of their technical diving training with an organisation that has a strict 'team diving' policy with standardised equipment. The organisations they dive for strongly oppose solo diving and it's no real surprise to me that many who undertake such training end up adopting the same view. One's mentors after all, have a profound effect on an individual's career direction in many sports and diving is no different. These divers usually have excellent dive skills and practice them regularly. Indeed within a good buddy system these are probably the best divers to have

with you due to their discipline. They rigorously promote the buddy system and may acknowledge that some Recreational Buddy Divers occasionally do it inadequately, but in my experiences I've found that they seldom condemn bad buddy diving nearly as much as they do solo diving (even when it is done properly)! Despite their strong preference for diving in a team of well trained divers, occasionally they still have obstacles to deal with where they don't have immediate access to their buddy. In such situations they are effectively relying on their own training and equipment.

In essence I am asserting that ALL divers at some stage have dived (even if for just a portion of a dive) in a situation where they are wholly and solely dependant on their own skills and equipment should an emergency occur. I am asserting that some people are honest and open about it and others are not. It is my strong opinion that open honest conversation about this subject is always preferential compared to pretending it doesn't happen.

As things stand Scuba Diving International (SDI) is probably still the most well known organisation that teaches a Solo Diving Course. So shortly after getting back fully into diving, I decided to do it. I wasn't really under any illusion that this course was designed for extreme diving or exploration, as it is much more basic in nature (which just serves to underline the need for more advanced solo courses focusing on exploration too). The SDI Solo Course can be done in a single day but I felt it would be worthwhile. My main motivation was to start a conversation on the subject with other like minded individuals without being constantly being told that it was unsafe. That being said, I've never thought it's a subject to be taken lightly. There are many considerations that need to be put in place and there's no room for short cuts.

During the course the most valuable thing was the discussion where we were encouraged to challenge our own view on our dive practices. This was important because in many respects safe solo diving is about attitude and keeping ones ego in check. In addition to the redundant equipment and training, a few other new points came up which I have since adopted. One involved servicing considerations and the realisation that if a regulator is going to fail it's most likely going to be at one of two different times;

1. Just before it's due for service (having gone the longest time without attention).

2. Immediately after service (in the event of human error during the service or faulty parts).

As a result I now offset the servicing of both my primary regulators by at least 3 months so they are done at different times. I also take this one step further (although

admittedly this arose by a bit of a happy accident that I've decided to keep in place). I have a different make of regulator for both of my primary sidemount tanks. They are both high performing, balanced and environmentally sealed but as they are from different manufacturers they require different service kits. The chances of a faulty kit being installed on both of my primary regulators, is therefore almost non-existent.

Another solo consideration that we discussed was extra levels of conservatism with air management. If a dive site is more complex then consideration should be given to using more conservatism than rule of thirds. For those of you unfamiliar with what the rule of thirds is in the first place, it's one of the golden rules of overhead environment diving where you penetrate using no more than a third of your air source to allow for a third to exit and an additional third to deal with something unexpected (or in buddy diving to donate to your buddy if they have a problem). Using a quarter for example, is clearly more conservative but if for some reason you lost a tank you would still only have just over double the air that you need for the exit. This isn't as impossible as it sounds if you are doing a more complex dive, staging your tanks as you go then you are assuming they will be there when you exit. On the way back what will happen if you find that somebody has accidentally taken your tank by mistake (it does happen unfortunately, albeit normally not in Australia). A more likely situation is that one of your first stages fails which may render the tank virtually unusable, or that you haven't shut your tank valve with just your hoses pressurised (which is recommended) and a free flowing second stage has drained it. Just having the extra air whilst solo will make it more likely for the diver to remain calm, be able to think more clearly and make the correct decisions to safely exit the overhead environment.

Another consideration that I have put in place is to use 300 bar DIN valves for both of my sidemount tanks despite using 232 bar steel tanks. The valves are actually 2 sides of a plugged manifold (a practice that is common in sidemounting in order to have two tanks set up opposite to each other with handles pointing in the same direction. The additional thread coverage gives me some more security if any accidental bumps take place with the environment. This is not the case for 232 bar DIN valves where some of the thread on the first stage is normally exposed. I'm actually considering doing something similar to all my additional stage tanks (although when overseas you have to make do with whatever you can rent, so it pays to practice with a less than ideal set of tanks occasionally, just to work out how to optimise them).

In researching this topic I wanted to touch a bit deeper on the subject of solo diving within overhead environ-



ments, which can be an even more divisive topic. I made contact with a number of underwater explorers that have needed at times to dive solo in complex cave systems and wrecks. One of those was Dr Peter Buzzacott who was kind enough to send me some great information regarding some of his travels. In one of his articles, that was released to a local cave diving newsletter, he described a course he had done which focussed on solo sump diving (a term for caves with a series of water filled chambers and air chambers in between). As a point of amusement I have to include a picture he sent me from an Italian cave. In it a sign states "No Diving With Other People". Apart from an inner desire to get a T-Shirt made of this particular sign, I thought the whole attitude espoused in that particular story by the training organisation and local authorities (French and Italian in this case) was a breath of fresh air. It was a good illustration that it's not just a small group of isolated divers or noted explorers that feel solo diving has its place in cave diving. A number of organisations around the world also endorse it as being the more practical (and sometimes less risky) option due to the unique nature of some of the caves. This is a point lost on some people who will claim otherwise and that a blanket approach of non-allowance should apply to all sites.

Some of the most valued insights I received whilst doing the research for this project was from the well known Australian cave explorer, Chris Brown. Brown is a bit of an icon of the sport and amongst his many achievements was a dive he did in the mid 1990's. He was a member of one of the first teams to properly explore the elusive third sump of a cave system on the Nullarbor Plain in Western Australia called Cocklebidy. This sump extends to over 6 kilometres from the entrance making it one of the longest in the world. When the cave got too tight to continue in the normal method, he proceeded by himself, pushing his air supply in front of him (a practice known as 'no mounting'). It should be apparent to most that trying to squeeze a second diver into such a place would have only added to the risk, potentially blocking the path out or at the least having the potential to cause complications. In any case when you are that far extended as an explorer, if a catastrophic problem occurs what is the more likely outcome? That a second diver saves the day, or that there is a double fatality? This same point comes up time and time again when considering any number of fatalities involving solo exploration. Thankfully it's been rare but

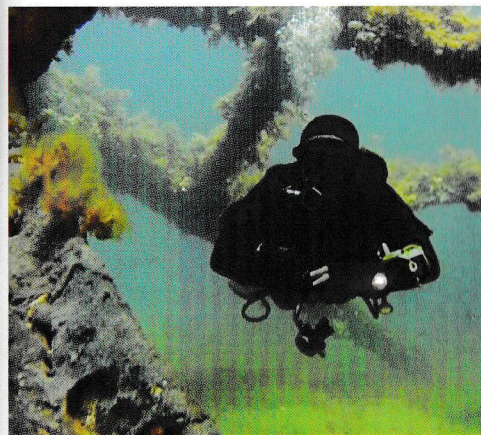
when it does happen it becomes highly emotive and those who don't support solo diving can be quick to point the finger of causation in that direction. In the sober light of day it always needs to be raised (morbid as it may sound), that the even worse consequence of a double fatality would often have been a very real likelihood.

There is no doubt that many discoveries (in cave diving in particular) would not have been possible without solo diving. This makes it all the more unusual to me that for the most part the main cave diving authorities in Australia don't permit it at this time. Underwater explorers who break new ground, understand that they only have their own equipment and training to depend on. Some have used terms like 'temporary buddy separation' when describing how multiple divers can get past tight restrictions, but in my opinion that's just a way of avoiding bringing up the dreaded 'S' word. I believe it's more

useful to call a spade a spade and spell it out for what it is – solo diving masquerading as something that sounds a bit less controversial!

Diving is for enjoyment and while I have acknowledged that there is definitely enjoyment to be had by finding like minded buddies to share the experience with, sometimes there is also much enjoyment to be had by diving solo. Once an experienced diver has put into place the various safety and planning considerations necessary, it is my firm opinion that they should be permitted

to dive by themselves if they so desire. The attraction is similar to going for a walk in solitude for peace and quiet. It's not for everyone, it's not to be taken lightly but solo diving has its place and done properly I don't see any real evidence that it's any more hazardous than buddy diving. It is my stated hope that diving businesses and charters will follow in the footsteps of the well known 'Mike Ball Diving' boat, 'Spoilsport' which has permitted it for some years. It is also my hope that the authorities that oversee cave diving within Australia eventually re-evaluate their position on solo diving. Of interest to me is that the highest current certification currently offered by the dominant cave diving organisation in the region, was derived from a previous course, initially written around the demands of solo exploration. Somewhere along the way it would seem that its purpose took a different path. I live in hope that will change someday, with an advanced course around solo cave diving exploration being offered. Privately I know I'm in good company with this desire...



As a post script, since initially writing this article and releasing it on my website [www.EnduranceSwimmerAustralia.com](http://www.EnduranceSwimmerAustralia.com) I've also put together some anonymous surveys on this subject which will be used for an upcoming article. There will be a link to the one targeting technical divers on the CDAA Form under Solo Diving Survey. Many thanks to the following people who assisted me in my research: Chris Brown, Dr Peter Buzzacott, Bob Halstead, Peter Horne, Mark Powell.

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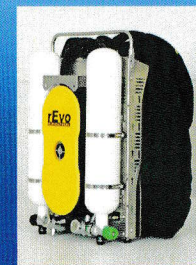
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Destination:: MEXICO

# Exploring the famous cenotes of Yucatán

By Josefin Thelander

*What's unique about cave diving in Mexico? In the amazing cenotes in the Riviera Maya you have an extraordinary chance to dive in diverse but equally breathtaking underwater environments, whether you're a cave diver or open water diver. Here you'll find all the best diving conditions combined, making it one of the best spots in the whole world. The caves that still seem to hold a whisper from their Mayan history in their walls are hauntingly beautiful and have enthralled many since their discovery, so take a deep breath and let yourself be drawn into the magic of Tulum.*



Death Arrow passage, Cenote Mayan Blue

© Richard Schmittner

The peninsula of Yucatán in the southeast part of Mexico has been transformed through thousands of years of sea level fluctuations, and what once was a massive coral reef is today the biggest cave system in the world. The porous limestone platform that rose from the sea thousands of years ago was slowly hollowed out by slightly acidic rainwater that falls in excess in the region, creating underwater rivers that in some cases united with the Caribbean sea. During

the Ice Age the sea levels were low enough to expose the caves to air, allowing the formation of millions of stalactites, stalagmites and columns that today decorate the once again water filled caves. Cenotes (Mayan: dzonoot - sinkhole or well) were created when the roofs of such caves collapsed and presented an entrance into the depths. The Mayas that populated the area before the Spanish Conquest believed the cenotes to be sacred gates to Xibalba,



From Cenote car wash on the way to the room of tears

© Richard Schmittner

the spirit world, and thus the centre of communion with the gods. One of the most important gods was Tzuultaq'a, the lord of the earth, and one of the ways to try to please him was by sacrificing treasures, animals and even humans down into the depths. To this day, human skeletons, animal bones, jewellery and other historical objects can still be found at the bottom.

Today Yucatán draw tourists from all over the world, and diving is an important part of that pull. Not only diving fanatics come here of course, but also sun worshippers who are attracted by the spectacular beaches and accidentally discover the magic of diving in search for something to do while giving their skin some well needed rest from the sun. Many of them are amazed by what they see and instantly fall in love with diving. Some come with an Open Water Certification and leave with a desire to one day do the full cave course. Others keep coming back year after year to enjoy the endless possibilities for cave diving. That's the beauty of the diving here; it suits everyone. Recreational divers can be amazed by discovering the entrance to the caves through cavern diving, which gives a taste for what is to be found for the one who dares to venture further in. The cracks and holes in the cavern roofs produce a magnificent show as the rays of sunlight penetrates the crystal clear waters, creating an image that can hardly be made justice with a camera. It feels like a passage to another world and it is not hard to imagine why these natural wonders were once considered sacred. For the more experienced divers there are fantastic caves with great variety, or for the really adventurous ones, exploring.

The first cave divers came to the Yucatán in the mid 80s and started to explore the massive systems one metre at a time, Jim Coke and a few more being the pioneers, and although today the Quintana Roo Speleological Survey (QRSS) has over 1300 kilometres of explored underwater cave passage recorded, a lot remains to be discovered. When asked about what's the pull in exploring, JC, cave diver and owner of Zen Diving in Tulum answers this "When you go exploring you never know what you are going

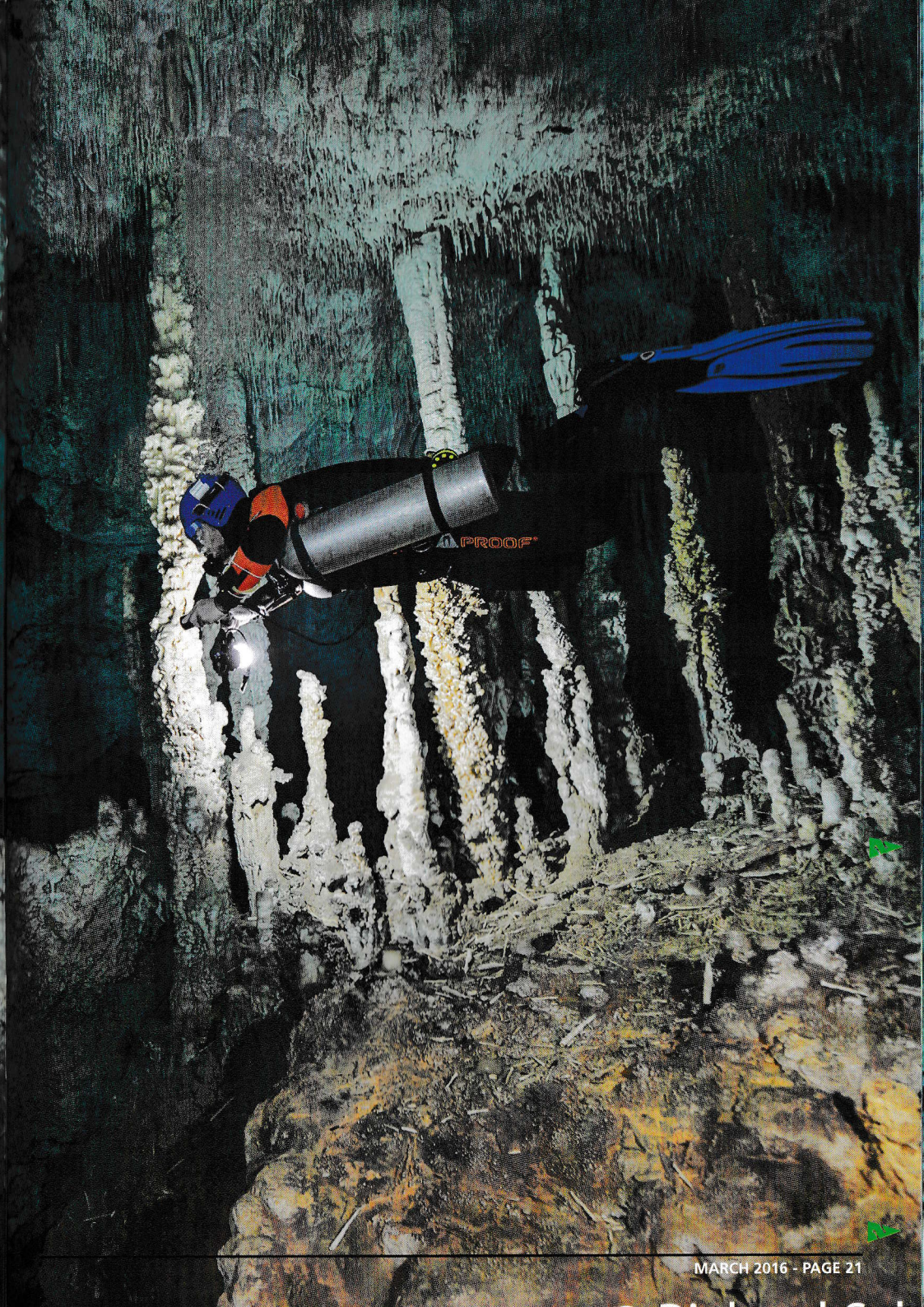
to find. Maybe it's nothing at all, just a dead end, or maybe it's this massive, incredibly beautiful big room or a whole new cave system. You can always go further and what you discover down there is something that no one has ever seen before. Your eyes are the first ones to ever see the beauty hidden in a world that modern technology has given us access to, and that's a thrilling thought. It's simply a part of our planet that has yet been untouched by humans. Some people discover the space and what's around us, whereas we explore the earth, where there is still a lot to discover."

Some of the cenotes are isolated water bodies, others are enormous sub-horizontal cave networks connected through thousands of metres of caves, in some cases even connected to the ocean. The biggest systems are Ox Bel Ha and Sac Actun and they alone consist of hundreds of cenotes, which means that you could dive every day here for years and still discover new places and lines. The dives vary a lot in their style as well. Some contain tiny restrictions and others have huge rooms, some have white walls and some have black, some are shallow, some are deep. In Cenote Angelita, at 30 metres deep you'll find an island of debris and old trees surrounded by a sulfur cloud that creates the dreamlike impression of an underwater river. Dive in and suddenly the only thing you can see is the dim light from your torch.

In Cenote Carwash you'll find millions of formations of every kind both above and underneath you. The Pit is famous for its massive room where sunbeams light up the water down to 30 metres, creating a majestic scenery that is any photographers dream. In many cenotes you'll find mind-blowing haloclines



*Cristal Clear.*  
*Photo: Richard Schmittner*





*Tannic acid and cool formations  
in the cristal palace.  
Photo: Richard Schmittner*





*So many little tiny and fragile stalactites  
and such big beautifully decorated  
stalagmites and columns, what a place!*  
Photo: Richard Schmittner







**Cavern tour for Open Water  
certified in Gran Cenote**  
Photo: Jean-Charles Erba

© Jean-Charles Erba

where the fresh water lays on top of the warm salt water, creating a blurry interface and an effect so surreal that you might have to pinch yourself to make sure your not dreaming. Most caves are beautifully decorated with incredible rock formations, sometimes massive columns and sometimes thousands of tiny stalactites and stalagmites that will spark your imagination as you pass them. The only thing that the caves have in common is the crystal clear fresh-water that often gives up to 150 metres of visibility and stays around a pleasant temperature of 25° C all year around. All these different attributes create an atmosphere and experience that will make you want

to come back again and again and again. In other words if you are looking for the divers paradise on earth, then search no more. Come and explore Tulum and find everything that you have been looking for... and more!

**Special thanks to:** All the explorers and cave divers who made the way for the ones who came later. Quintana Roo Speleological Survey for making the information easily accessible and clear

**Contact: Zen Diving Tulum**  
E: [contact@zen-diving.com](mailto:contact@zen-diving.com)  
[www.zen-diving.com](http://www.zen-diving.com)



**Gran Cenote.**  
Photo: Jean-Charles Erba

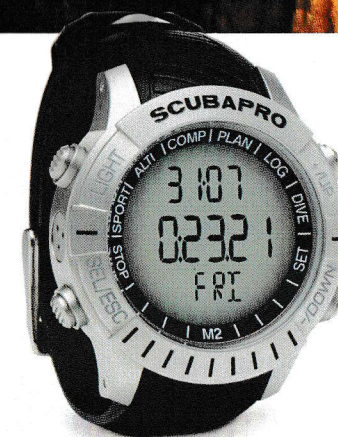


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- Heart rate monitor uses a SCUBAPRO HRM belt that also estimates skin temperature.
- Full dive planner is included, along with a countdown timer in Scuba mode.
- CR2450 user replaceable battery is rated for two years or 300 dives.
- USB data interface (using a dongle) is PC/Mac/Android compatible using LogTRAK software/App.

By providing more vital, individualized information in an intuitive delivery system, the M2 enables divers to make smart decisions based on biometrics and additional personal data to make their diving safer, help improve their diving skills, and as a result, make the time they spend under water a lot more fun. And that, after all, is what diving's all about.



# SCUBAPRO NOVA 720R WIDE & 720 WIDE LED

### A GIANT LEAP FORWARD...

LED lights are the dive lights of choice among today's divers. Able to burn brighter and longer relative to the amount of power they expend, LED lights inspire divers to dive more by unlocking the door to the world of night diving. Lights turn even the most routine day dive into a more memorable underwater experience.

The Nova 720 WIDE and Nova 700R WIDE are machined from heavy-duty aluminum and both lights are lightweight yet built to last, while delivering powerful illumination. They both use the same light head, equipped with the newest CREE XML2 LED, capable of pumping out between 720 and 800 lumens. Both lights use simple twist-on/twist off activation backed by double-O-ring seals. Strategically placed knurling, raised-up diamond-shaped indentations in the metal, improves grip and makes the twist activation that much easier. A shock-proof rubber protection over the end of the light head safeguards the electronics and provides an additional no-slip surface. Rated to a maximum depth of 300m (1000ft), both models are equipped with an overpressure valve on the end cap, an important safety feature not normally found on torches in the Nova 720/720R's price range.

The two lights differ in size and power. The Nova 720 WIDE is the larger of the two, measuring 22.2cm (8.7 inches) in length. It is powered by three C-cell batteries—which can be either disposable or rechargeable. The Nova 7200R WIDE is a more compact rechargeable version, as indicated by the 'R' and measures 14cm (5.5 inches) in length. It is powered by a single 18650 Lithium-ion or Lithium-ion polymer (LiPo) battery. The Nova 720 WIDE provides 10 hours of burn time while its smaller colleague, the 720R WIDE, gives 2.5 hours.

### THE NOVA 720/720R AT-A-GLANCE

- Rugged black aluminum body offers a stealthy "tech" look while providing lightweight long-term durability.
- Interchangeable light head is equipped with the newest CREE XML2 LED.
- 700 lumen illumination ranks among the best in its class (see below).
- Double O-ring seals ensure watertight integrity.

- Diamond-shaped knurling (metal indentations) on both handle and light head guarantees a firm grip, with or without gloves.
- Easy twist on/twist off activation allows for trouble-free operation, regardless of depth.
- Shock-proof rubber protections keeps the light head from knocks and bumps.
- Over-pressure valve releases any battery off-gassing—the ultimate dive light safety feature not normally found on torches in this price point.
- A depth rating of 300m (1000 feet) ensures worry-free lighting in virtually all diving conditions.
- The Nova 720 WIDE is powered by three C batteries, either disposable or rechargeable.
- The Nova 720R WIDE is powered by a single 18650 Lithium-ion rechargeable battery, available worldwide.
- Both torches are sold without batteries, providing choice for the diver while keeping downward pressure on both price and potential transport issues.
- 80 Degree beam

### Illumination:

When it comes to cranking out brightness, the Nova 720 and Nova 720R run well ahead of the pack. Producing higher lumens than most primary dive lights—including many large pistol-grip styles—and out-pacing virtually all secondary dive lights, the Nova 720 and 720R lead the market in sheer light intensity.



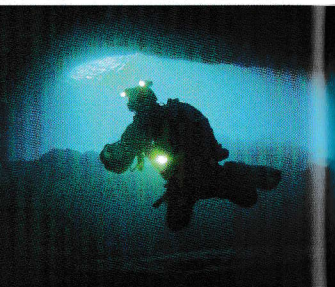
### Burn Time:

Using a set of three C-cell batteries the Nova 720 delivers intense maximum illumination which gradually settles into a steady light output, delivering 10-plus hours of total burn time. On a fully charged lithium-ion battery, the Nova 720R maintains its maximum light intensity well through its charge, delivering a maximum burn time of approximately 2.5 hours.





# CDA A MEMBER PROFILE



## Ian 'Lewy' Lewis

*There aren't many people around these days who can claim to be South Australian cave diving pioneers or long-term CDA A supporters who have "been there" from the beginning, but Ian "Lewy" Lewis is definitely one of them! Like myself, Ian has had an obsession with volcanoes, caves and related sciences for as long as he can remember, and I never cease to be amazed by his boundless enthusiasm, inspirational friendliness and generous spirit which I first experienced when he went out of his way one day in 1980 to belay my group the 30 metres into and out of Hell's Hole the hard way (no harnesses, and he didn't even get into the water himself!). And as a special friend, Ian has helped me out of a number of difficult situations over the years.*

*I know that what Ian would really like to achieve would take many lifetimes, but he has already done so much since becoming a cave diver in 1971 that you could literally fill a book with his achievements. Some of these include his numerous pioneering scientific studies, explorations and conservation work in the caves of the Nullarbor, Mount Gambier, interstate and overseas; authoring publications on diving and safety, including "Cave Diving" (published around 1975 while he was National Representative on the I.U.S. Cave Diving Commission) and the groundbreaking "Cave Diving in Australia" (which he co-authored with former CDA A President Peter Stace in 1980 and which is also how we first met at Pete's front door); and many important roles such as teacher, scuba instructor and numerous CDA A committee roles including President, inaugural Research Group member and Scientific Officer. Ian is also still a very active Life Member of both the CDA A and Adelaide caving group CEGSA, and is an accomplished musician!*

*While serving in his role as Australia's only qualified cave diving geologist, Ian is a true professional, but we often meet casually for our Boys' Nights whereupon Lewy and I greet each other with an arm-spreading hug and "Mayyyyyyte!" before rattling off "Goon Show" expressions and generally carrying on (such displays can also sometimes be seen while we are diving!). It has been a real privilege to share the past 35 years of my life with such a great friend, and I look forward to many more rewarding years of exploring and documenting our wonderful underground realm with Ian, even if it'll mainly be from our desks from here on in!*

*Introduction by Peter "Puddles" Horne*

Tell us a bit about your youth, where were you born, what started your interest in diving and more importantly cave diving?

I grew up in Mt Gambier as a kid because my old man was a forester out in the forests. I was in Scouts and our scoutmaster worked with the CSIRO. He was interested in Bat Banding so we went out one day with him to do some dry caving and it was just the most amazing experience and a day that changed my life. I have always thanked him for it as I got in to

Caving very quickly after that. In a couple of years I realised there was water in those caves and you could see the tunnels going further down so I took up scuba diving just to find where those tunnels went. I did a dive course at Adelaide University with a couple of Instructors and they told me I had to do 3 or 4 open water dives, but I told them I knew of a much better place, so they came to Mount Gambier and I did all my training dives in the sinkholes (this was 5 years before the CDA A started!). I had other friends who then taught me about the scientific side of Caves and that got me interested right from the start.

**Peter Horne writes that you BOTH have a passion for Caves, and that even at your current age you haven't lost the love of a Cave Environment, or what lives inside a Cave. Can you explain what fascination you had as a child, and to this day how does just being in a Cave effect you? Describe the emotion, the wow factor, and how your fascination for Caves has led to a career involved with Geology. If I'm not on the right track, correct me if you will please . . .**

My diving experiences were the reverse of everybody else's. For the next 15 years I dived only in caves and sinkholes, including the early Nullarbor expeditions and never went in the sea in that time, so I was into Cave Diving from the very beginning. With others, I was also involved with some of the Government enquiries at the time. After the CDA A had been up and running for a few years with a structure in hand, we made a decision that if you were going to examine someone in the water by removing a mask and regs etc you would need to have formal training and a proper qualification because you were depriving cave diving candidates of a life support during the examination process. So the CDA A decision was that we should all become qualified scuba instructors with one of the agencies. I went off and did a FAUI Instructors course in Adelaide with a whole lot of



*A youngster - before the beard!*

mates, had a great time, and the dives on the FAUI Instructors course were my first time ever in the ocean! Shortly after that, Paul Lunn and John Bent of Adelaide Skindiving Centre offered several of us instructing work and I had my eyes opened to ocean diving which I also loved. I especially liked teaching new divers and building their confidence and love of the ocean.

My cave diving has been in three phases, each of them different. This is the reason why I have kept

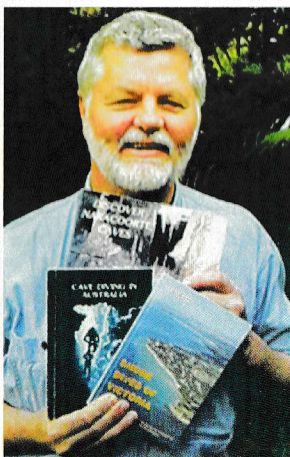
such enthusiasm and interest in cave diving from 1969 to the current day - nearly 50 years.

The first phase was Exploration; I did this with all my mates in the Mt Gambier sinkholes and out on the Nullarbor for 15 years. I was the first Australian Cave Diver to go to Britain and then Florida where I met Sheck Exley and Aussies have been going over here ever since.

The second phase was Instructing because I really enjoyed training people, showing them how they could dive in caves and sinkholes safely and the CDA A set a good standard in training. Once people acquired cave diving skills it made them much better divers and their whole diving experiences improved in caves and in the sea, eg for wreck diving. I reckon I did examining/instructing for almost 25 years. Peter Stace and I wrote the book 'Cave Diving in Australia'







in 1980 to provide good training and planning information for cave divers. At the 40th Anniversary Dinner a couple of years ago they presented Linda Claridge and myself with certificates. Linda had trained the most number of students at 450+ and I came second with about 400. So between us we had trained nearly 1000 cave diving certifications and that showed how we really loved to teach. All of those divers have improved their diving for the rest of their lives.

The third phase of my diving



Ian with Peter 'Puddles' Horne at Piccaninnie Ponds

has been Research. Lots of that has been done with Peter Horne but many others as well and more divers are becoming interested in their cave environment. I did my Geology degree at Adelaide University, basically because I was a cave diver and explorer and I had started learning about Limestone, while many other geologists were specialised more in hard rocks and petroleum. Limestone isn't a big side of geology but I really wanted to know about it and realised that only cave divers can access these places. If I could understand what the geology of the cave environment is all about and if I'm the only one who can so, I can interpret it and explain it so everyone else can benefit as well. That has been a shining motivation for me ever since and I reckon I will go on cave diving for another twenty years researching. Quite a lot of the dives I now do are shallow sinkhole dives and I might spend an hour or two chuffing around in 20 to 25 metres finding so much new geology and science to think about!

**In your five decades of diving, what else have you achieved throughout the years?**

After working as a FAUI Instructor with Adelaide Skin for 6 months, Russell Kitt opened up five diving centres in Melbourne and he was looking for FAUI Instructors from all over and asked me to come across for the summer. 20 years later I was still there! I ran Instructing courses in Port Phillip Bay and had the pleasure of diving all the reefs and wrecks and I have to say I absolutely loved it. I love the cold water diving, the wrecks, going for scallops and those beaut fast drift dives! I found that new divers always asked "Where can we go diving?" and most dive centres wanted them just to keep coming on their boats and pay \$50 per trip. I said "No, take them down to the beach, give them time to get used to their gear, give them a few months to get their confidence and read sea conditions and then they will come on the boats!" I used to hand out some basic notes about which jetty to go to, such as Portsea or Flinders, and eventually it grew in to a book which became the

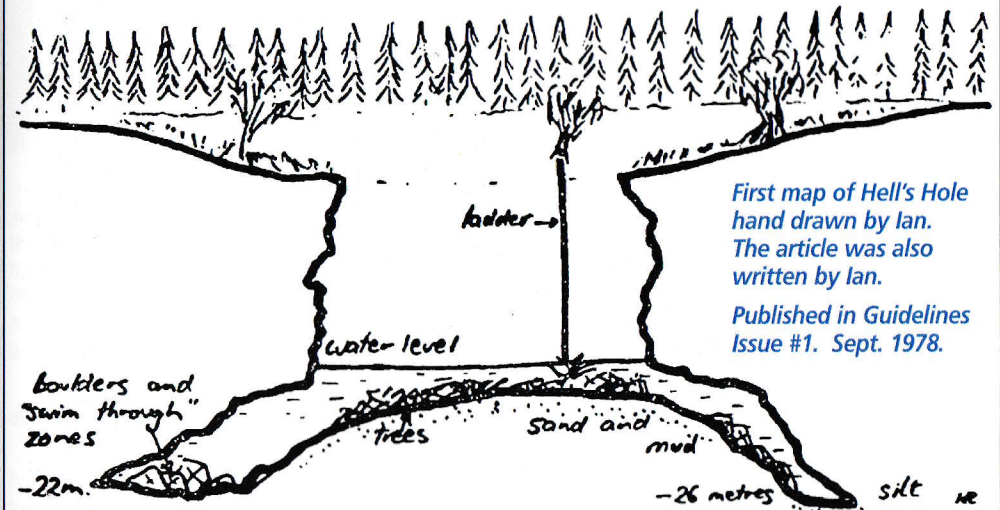
## Memories of the early days of the CDAA - by Ian Lewis ...

**WOW – isn't Guidelines #1 a hoot!** AND it's so full of our historical stuff, people, decisions etc.

I didn't realise how big a step it was to formalise and organise a national newsletter. You can see the modern CDAA just taking shape right there in that first Edition. I'm quite emotional!!

I was very proud of Guidelines #1 and getting it up and going. I chose the name for it and that name has stuck ever since. Who would believe it is so good today nearly 40 years later!

I reckon it's one of my best achievements and I also give heaps of credit to Peter Stace who was the other driving force behind getting proper, organised quality and timely information to CDAA members.



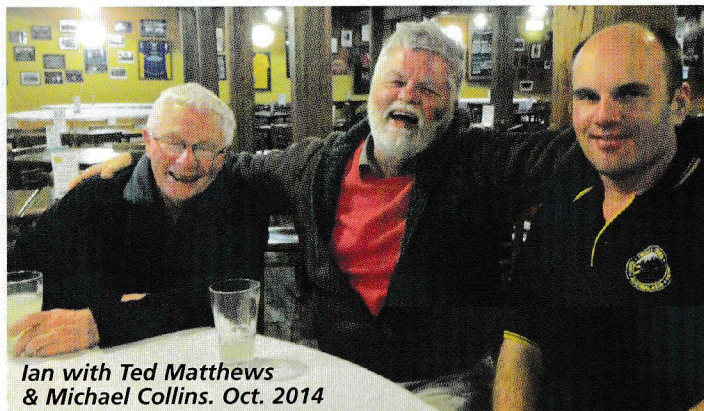
### .... AND A "HOLE" DAY AT HELL'S HOLE.

After all the testing, the majority of the Cat 3 people and the testers got together over a decent meal (should I say "descent" meal? Upon my word!) at the Jens Hotel. We all decided to go and dive Hell's Hole because the weather was great, we had the gear and a keen bunch of people all wanting an interesting dive. We got permission from the Woods and Forests at Myora and organised the 11 divers into buddies. 30 metres of ladder was tied to a tree on the eastern side of the hole, but it was only necessary to climb 20 metres to get to the water, which was welcome after the hot sun. Everyone not diving just lazed around sunbaking.

To our credit, 11 divers managed to keep the silt down to nearly nothing, and we all got a look around. Visibility was fair and the water fairly cool. Several teams circumnavigated the hole at a depth of about 10 metres and reached a maximum depth of about 26 metres at the north end overhang. There are several places where large boulders have collapsed in, giving rise to "swim-through" sections, and it could be considered that Hell's Hole may rate a Category 2 label. The climb up the ladder is the killer! It was a good team effort and a successful and enjoyable dive, and a map was produced afterwards while all the detail was clear in our minds. Hell's Hole is the largest sinkhole by far in the South East, being 50 metres in diameter and dropping 30 metres to water. Here it is . . . .



"Shore Diving Guide to Victoria". When I published the first edition, several dive industry people said "Who goes shore diving any more? You're an idiot!" But I have so far ended up selling 25,000 copies over 25 years, would you believe! They are still selling, and every diver who has a copy learns better about the sea and then goes to the dive shops asking to learn more, to do another course or buy some better gear.



Ian with Ted Matthews & Michael Collins. Oct. 2014



Check out the yellow fins, may the Force be with you Ian. The Henderson silver drysuit was the first Drysuit ever worn in Australia.

#### What are your favourite dives and why?

In a cave sense I have to say Weebubbie and Warbla, but in fact any dive in Mount Gambier really. I just love the cave diving environment. In the sea I just love sitting in 5 metres under a pier discovering what lives on the bottom or on a pylon, or any night dive. It's not big gung ho diving but I really like showing people stuff underwater.

#### If you had your time all over again, would you do anything differently?

I think I would have liked a couple of scooters and much better lights for the early trips I did to the Nullarbor. Having those now would allow me to do even more research and I'm also thinking of a Rebreather for extended research time. One project I am seriously looking at doing in the next couple of years and in talks with Tim Featonby, Steve Coulter and others is a slow, systematic and careful examination of the geology and structure of the whole length of the first main sump of Cocklebidy. It's about 1km long and people have been diving it for 40 years but I'm finding that diver descriptions and occasional photographs don't show well what it is in reality. I have a real ambition to take a good look in there with a team to help me photograph, measure and document it. That will give us an great insight and understanding of Nullarbor Cave geology and hydrology. Cave Divers have a unique perspective in some of Australia's special aquifers and our recording of underwater cave science contributes to vital knowledge in the driest continent in a world that has to manage its water resources with increasing care. Could I do this cave science research in dry caves? Yeah of course. But that's boring by comparison - I always wanna get into the water like all of us!

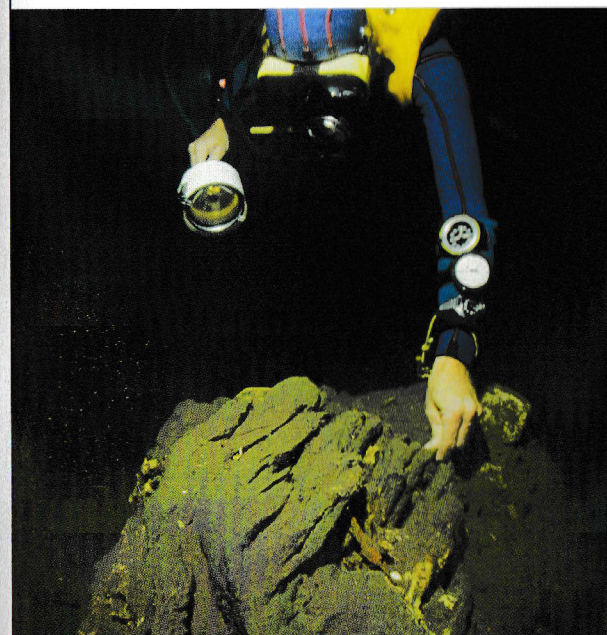
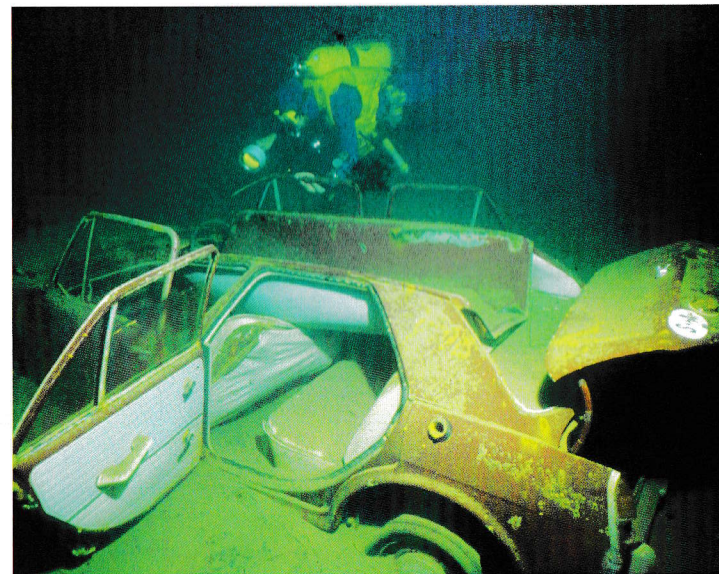
#### The guy in the blue wetsuit and yellow BC is me!

I had organised a special team of several of us to systematically photograph and record sinkhole features in the early 1980's (hence the older gear style) but at that time the car in Little Blue was nowhere near as silted up as today. We took the photo to show the car with bright-colored gear as contrast and also to demonstrate the buoyancy skills which cave divers are trained in to keep above the silt floor of sinkholes.

The car is a Morris 1100 1966 model and this photo was taken in 1981 so it was pushed into the

sinkhole somewhere between these years. - I think probably about the early 1970's.

The boot's open because when the car was first found by the Mount Gambier Scuba Divers Club, they jemmied it open and found a chainsaw in it. When they dried it out at the surface it started OK because it had only been in fresh water! There's a story about Little Blue and the car on the local ABC website which I did with Kate several years ago. Photograph by Peter Thompson. Copyright Ian Lewis.



#### Investigating inverted stromatolites on boulder in One Tree, 1978.

Those were the days of Conshelf regs, Otter BC's and wrist-mounted multi-gauges!

Photograph by Peter Thompson. Copyright Ian Lewis.



# Caves of the Mikea Forest

*Two years had elapsed since my last cave diving explorations on the Mahafaly Plateau, in the great south of Madagascar. Stimulated by new information and a recent video realized in October 2014, I was keen to push ahead in a new direction.*

*This time, it was not going to be south, but north of Tulear, on the karstic Belomotra Plateau around Salary Bay and even further on the way to Andavadoaka. The recent discovery of significant bone deposits in Vintany sinkhole (Aven) in Tsimanampetso National Park, south of Tulear, had led the Malagasy government to the closure of all caves and sinkholes within the park, for obvious conservation reasons and scientific research as well, since National Geographic had poked a nose in there.*

Between 2012 and 2014, Ryan, - an Australian diver operating Atlantis Dive Centre with his wife in Anakao- had been the only operator authorized by the park authorities to lead recreational dives in Vintany. Unfortunately, after they sold out the business, the dive centre went into new hands and soon the 'cave diving permit' was extended to other dive operators in Anakao. This surely created havoc. Everyone wanted a piece of the cake, no one had the expertise or training for cave diving, not to mention any respect for the place or for the bones that laid in there. The cave treasures were being vandalized. Some unscrupulous type was turning bones over, handling skulls or collecting samples of prehistoric horned crocodile teeth... A real shame, that could only induce sadness.

After initially discovering the site in August 2011, with already an idea in mind, I was fortunate to dive the famous Vintany cave in the company of Ryan. Back in mid-2012, I took pictures of skulls and jaws and even a full skeleton of a dwarf horned crocodile underwater -which

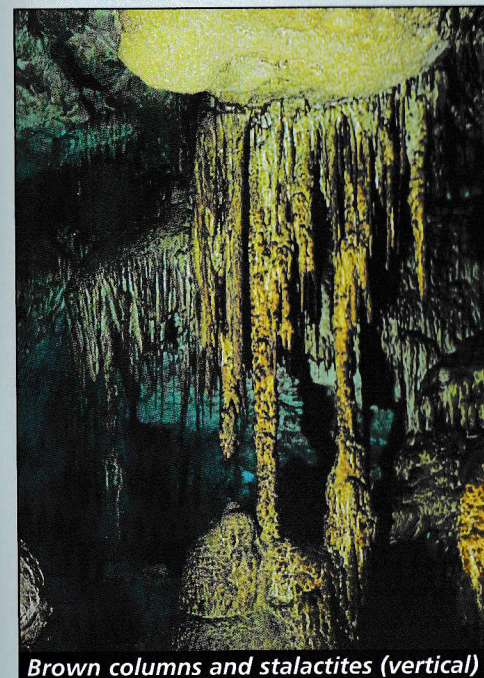
I had first identified with the help of a crocodile specialist from southern France- before it was touched by others. Subsequently, I was the first to publish articles on these Mahafaly sinkholes, before the word spread out. All this was history now. I had to venture elsewhere for my research and explorations.

**May 2015.** The faithful José was waiting for us with his 4x4, as Christina and myself were disembarking on the mud flats of Tulear, into a bullock cart loaded with 5 tanks and our bags. We were just returning from Anakao, where Ryan had agreed to put some tanks at my disposal. I could not find any lead weight belt anywhere, and had to resort in buying some iron weights for a scale, at an Indian hardware shop. Early morning, we set off for Salary Bay, with 70 litres of diesel plus a full jerrycan.

Following the rocky and sandy shore of the Mozambique channel, we headed north for 110 km through the spiny bush of *Alluaudia* cactus like trees and *Didiereaceae* octopus trees, reaching Salary North in



**Our 4x4 in a landscape of bottle baobabs, Ambatomilo**



**Brown columns and stalactites (vertical)**

4h40. We call in at 'Sirena del Mare' for the night, a little resort with rounded thatched roofed bungalows on a sand dune with panoramic views. Francesco and Claire, the Italian-Malagasy owners, are happy to see some visitors in such a God forsaken place. Looking like a weathered long haired bearded pirate, Francesco reminds me at once of Johnny Depp in 'Pirates of the Caribbean', in more real even!... I ask him about a cave in the area. "In 20 years that I have been here, I have never heard of such a place...", he confesses. "However, there is a site like this a short walk away from the village, but I don't think it is worth it and it has very little water".

At the village, some locals accept to take me for a small fee. The 15 minutes walk leads to an insignificant collapsed sinkhole, with hardly any cave visible. The small puddle of water found in the middle, is as big as a wash basin... A tamarind tree stands nearby, with a few shells and an empty rum bottle at its foot. It is a site of rituals for offerings to the spirits. The pan of water is so ridiculous that I smile at my misfortune. Somehow, my eyes are attracted to the unexpected figure of a snake -about a metre long- on watch in the very heart of the pond. It is a stunning Dumeril's ground boa, "*Acrantophis dumerili*" in reddish brown and white colors, with an artistic diamond design on its back. Rare and endemic, the snake is probably waiting for the night, to catch prey coming to the waterhole. As I come close for a few shots, the boa remains



unalarmed. It is also 'fady' or taboo for the locals, who will not disturb it.

The sun sets on the Mozambique channel, with gorgeous glittering lights. Francesco tells us of the existence of at least two historical shipwrecks on the reefs of Salary. Dating from the 18th century, they have been discovered by the Belgian archeologist Robert Stenuit in 1985-86. One is Portuguese: 'Nossa senhora do Monte do Carmo' (1774) and was loaded with 60 cannons bound for Goa. The other one, the 'Winterton' (1792) was English and transporting the bounty of 300000 silver pieces of eight. "Cannons everywhere underwater!...", boasts Francesco. "But if someone comes in search of them, I am the guardian of this sanctuary", he warns, dead serious with a dis-suasive grin. Fortunately, I am not interested in that sort of treasure. Mine is of geological wonder, on the natural scale. The warm light of dawn sees us off to Ambatomilo, and Andalambezo on the southern shore of Baie des Assassins. The area is full of water ponds covered in lilies, where huge bottle baobab trees "Andansonia rubrostipa" stand guard like time-less giants. Funnily, many of them are covered by esthetic 'cloud shape' designs on the bark. These are due to a growth of fungus or lichens, reminiscent of Tibetan tantric paintings. The sun is almost at its apex when we pull in into Andalambezo, a clusters of wooden huts in the middle of nowhere. Sitting on the ground in the shade of a baobab, some locals are playing dominos. In the hope of some information, I ask again. Nobody knows, but I am told about 3 caves on the way to Andavadoaka, which I had heard about earlier. Someone offers to take me there, but first I'll have to buy a little bottle of rum and three packs of tobacco for the

compulsory ritual. From the road junction to Andavadoaka, a turn off leads into the Mikea forest. Partially overgrown by vegetation, it is a very sandy track. A concern for Jose, who does not wish for having scratches all over his vehicle! With the guide's help, I clear the way of spiny branches for a painstakingly 2 hours under the scorching sun. A stop is called in a small clearing. By the time I get to the first cave of Anjanomaïke, I am rather exhausted.

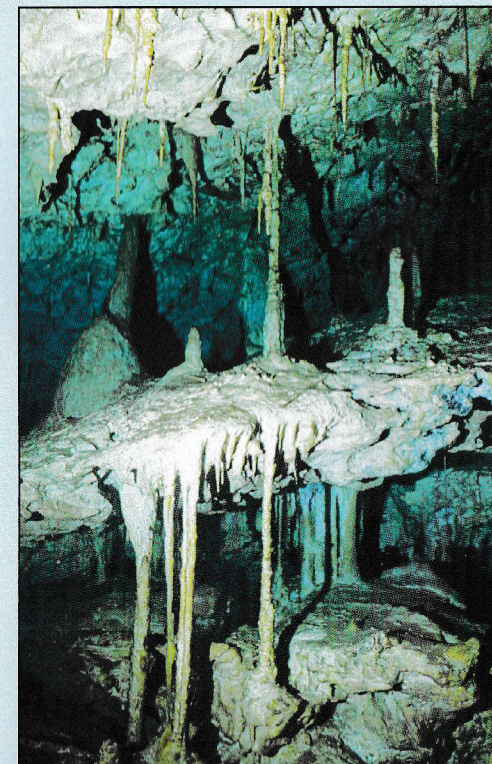
The collapsed sinkhole is located on an elevated plateau, in the Mikea country. Known as such for the presence of Mikea, a wild group of humans surviving into the bush, probably related to bushmen from southern Africa. The slanting slope into the cave reveals the occurrence of white limestone and red clay, apparent both on the cave floor and on the ceiling. Some rounded stalagmites stem here and there like gross mushrooms. Straight down to the left, I find a shallow water access and further to the right another water pool with no underwater passage in sight. The floor is covered in bat guano. By chance, I encounter an unusual frog species. Grey and brown in color, it has a white line along the back, extending from the tip of the snout to the base of the tail. A species never seen by my eyes before. Considering that, out of 150 spp. of frogs in Madagascar, 99% are endemic, it is safe to say that this one is another endemic wonder! The cave is very dark and I have an inauspicious feeling about it. I am exhausted and not in the mood. I exit without turning back.

Nearby, the other cave of Antaikikike –meaning 'cave of the pooh bats'– is but one deep hole with different narrow passages and dry. From what I understand, the third cave of Andakatobe is much further away in a different direction. Not

today, I reckon. Guide Michel does not even speak a word of French, which makes him helpless, as far as I am concerned.

We move on to Andavadoaka in the mid-afternoon, on a challenging track for heavy duty 4x4 only. A sleepy fishermen village with a busy market. The scenic coastline is dotted with limestone islets and rock arches, with the occasional sail canoe drifting by. Perched on a sand dune, Coco Beach Resort is a well deserved stopover, for a memorable night under the stars. I temporarily forget about the frustrations of the last couple of days, but keep thinking that I have to find a cave to dive!...

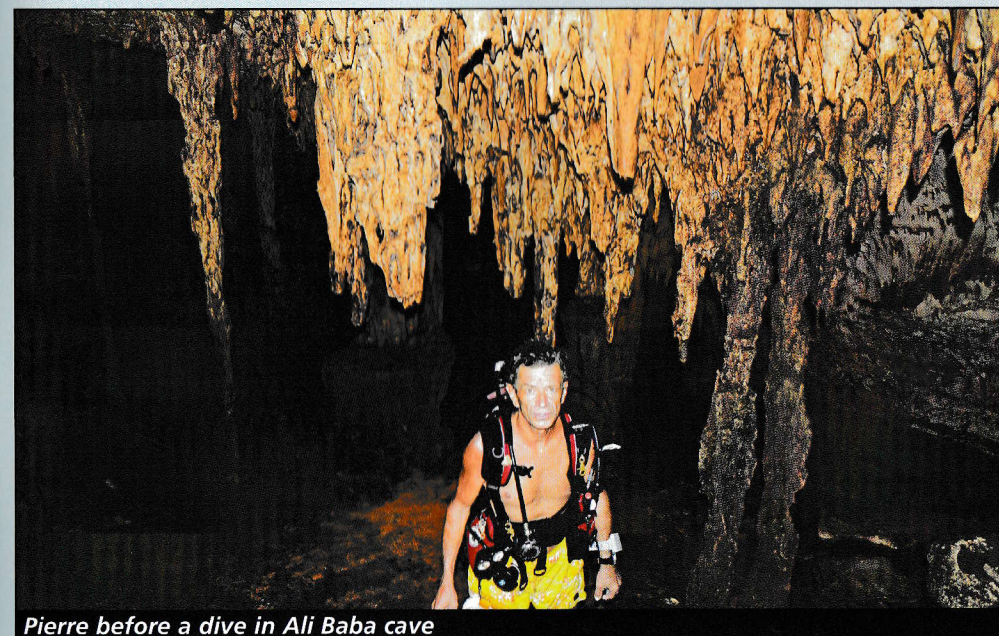
Back to Andalambezo, my aim is now to check the cave of Andakatobe – which means 'Big hole' in the local dialect. The sun is already high when I get going on foot with André, my new guide. South of the Andavadoaka crossing, a cart track branches off to the south east, into the dry spiny forest. This is the way to Mikea country, where a race of primitive men hide from civilization and shy away from any encounter with humans. The indistinct trail rises slowly into the sand, onto the Belomotra plateau with spiny shrubs, among baobabs and Pachypodium. This is where all the 'avens' are. After 1h15 of forceful trekking at André's fast pace, we reach a first cave with 3 openings in the roof. A thick wine comes down through the middle. There is water at the bottom, but not enough for a dive! The second cave is dry and deep. Fifteen minutes further is the third cave, known as Andakatobe. A lentil shaped opening under a conspicuous overhang. At once, André approaches an 'aviavy' (figus tree) with a small altar covered in shells. Serious as a pope, he undertakes the ritual, sprinkling rum as he mumbles a litany begging the cave spirits to allow us safe passage inside. Only then, can we proceed underground. A



**Shelf sandwiched in between pillars**



**Inside Anjanomaïke cave**



**Pierre before a dive in Ali Baba cave**

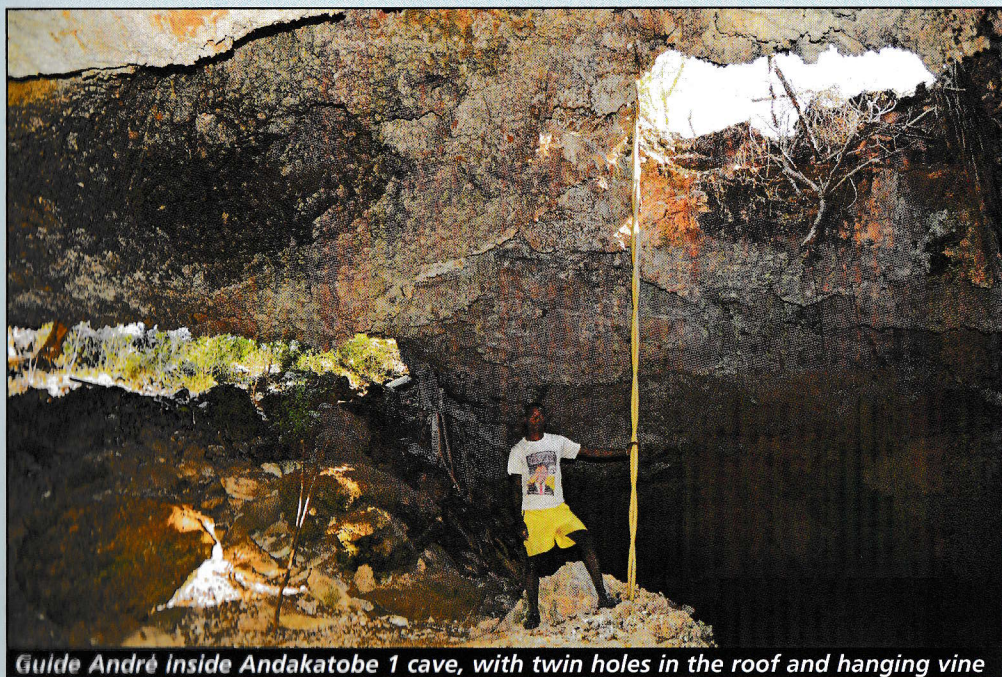


long gentle slope brings us to the bottom part of a large chamber, carpeted with brown guano deposits. To my surprise, I notice fire places with remains of burnt wood, as well as strange looking brooms. Made of branches, with large hooked seeds attached with rattan – resembling hairy rambutan fruits – these are traditionally used to catch rats, or presently bats. In search of survival food, the Mikea are responsible for such a practice. A small lake appears in the beam of my torch at the far end, which goes into another chamber under the rock ceiling. Naked as a worm, André slips into the water to cool off. I also undress, don mask, fins and snorkel and slide into the water with UW torch in hand. A big noise ahead -as if the water was streaming somewhere into the unknown- catches my attention. The depth of the pool comes gradually down to 1.5m. A swarm of chalk white blind fish of the Typhleotris genus, hover aimlessly over bat guano in the perpetual darkness. “Typhleotris pauliani” was discovered by French scientist René Paulian in 1959. Swimming around the chamber, I cannot find a lead anywhere. A dead end it is. Drawing a circle, I return to my entry point and exit in sheer disappointment. My trip comes to an end, but I shall not give up. Somewhere, sometime soon, I’ll be on track again.

**September 2015.** I return to Madagascar to lead a trip for some British and Swiss clients. Back in Tulear, I am excited at the idea of returning north along the coast to continue my explorations on the Belomotra Plateau. Fresh information and a new contact give me a positive outlook. However, I have a hard time to find tanks for hire, as Ryan is not willing to help

anymore. Protective of what he believes to be ‘his’ discovery –when the caves were actually discovered by the French in the 1960’s-, he wants to control access of the sites and tries to dissuade me to venture into them. In a very unfriendly manner, he insinuates that I don’t know what I am doing, that I am irresponsible and un-experienced. A flow of bad ‘vibes’, that I shall brush aside with sheer irritation.

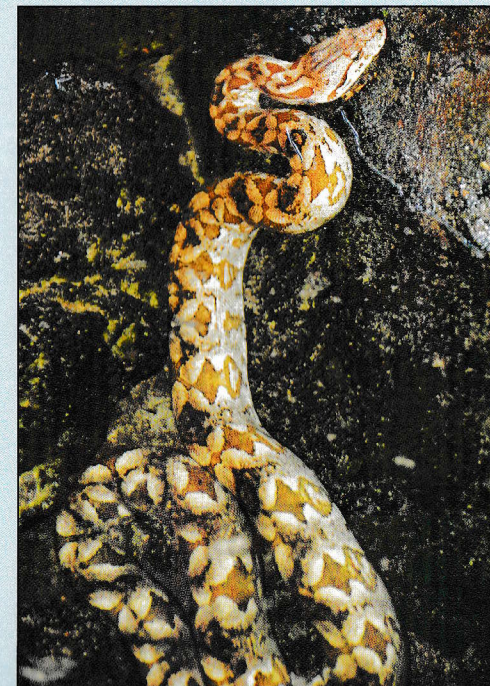
My base this time will be Itampolo Ve, a fishermen village on the Baie des Assassins, where a 50 year old Swiss settled down 5 years ago. Overlooking the beach -with an extended reef flat- is charming place on the top of a bluff. The entrance channel to the Baie des Assassins, in emerald green color, is on the other side. A location out of this world!... The dirt track to get there is no piece of cake, 4x4 beware! Diana, the charming Malagasy wife cooks us a delicious lunch of rice and jack fish in a tasty sauce, while the cute 3 year old Esperanza – with blue eyes and blond hair- stares at us wide eyed! “Ici, c’est à la bonne franquette!...”, declares Pierrot with a bright sense of humour, when he returns from his work in the Mikea forest. Nothing formal. Just the plain authentic hospitality of a mountain man from the Swiss Alps. I feel immediately at ease with this colorful character, who is an unquenchable source of stories. “Yes, I know about some of these caves, I’ll take you there”, he says as to comfort my expectations. Too late to do anything today, too far to go and some clearing work will be necessary. The man mentions a hole which connects to another one underwater, something like 300 metres in length. I might be able to do that on a single tank.



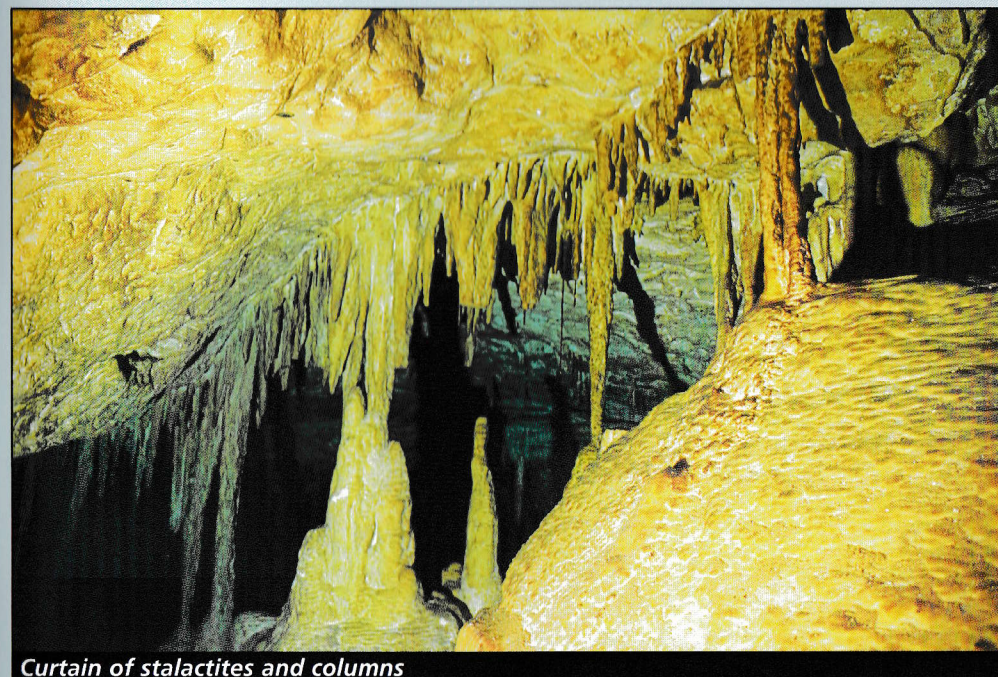
**Guide André inside Andakatobe 1 cave, with twin holes in the roof and hanging vine**

After a hearty breakfast, we are all set. From the main road north, the 8km track into the Mikea forest takes ages. All smiles, with a dark green ranger’s hat on his head, helper Fiacre hops off from the back of the Toyota. Bush knife in hand, he goes in front of the car to clear the way of spiny branches or shrubs that grow in the middle of the road. “Once upon a time, trucks used to come here to collect guano from those caves, and this was transported into sacs”, explains Pierrot. “It gave work and an income to 200 people in the village, but then a big guy came and all this was stopped overnight”..., he laments. By the time we get to our destination, the sun is at its apex, it is like a stove outside! The Swiss leads me to a cave with a double entrance: “This is the exit cave...”. We walk through the spiny bush for a few hundred metres, before we pass by a big baobab, with a slit hole in the trunk. A stone throw away, is the abandoned camp of some Mikea people. Two or three huts in a tented shape, made of wood and baobab barks. A yellow jerrycan has been thrown into the bushes. “They are around in hiding...”, observes my guide, who remarks that they came to look for water. “They are probably watching us, but we can’t see them”.

We climb down through the lentil shaped entrance and find our way in the darkness to the water edge, some 50m away. Surprisingly, a small outrigger canoe lays there, hidden from view. What for? This the question. Somehow, I recognize the pool of water on the left, with the fireplace and the scattered brooms with the hooked ‘Farehitsy’ seeds, which are used to catch the bats... Yes, I have been here before! This is



**Dumeril's ground boa “Acrantophis dumerilii”, at La Grotte, Salary nord**



**Curtain of stalactites and columns**

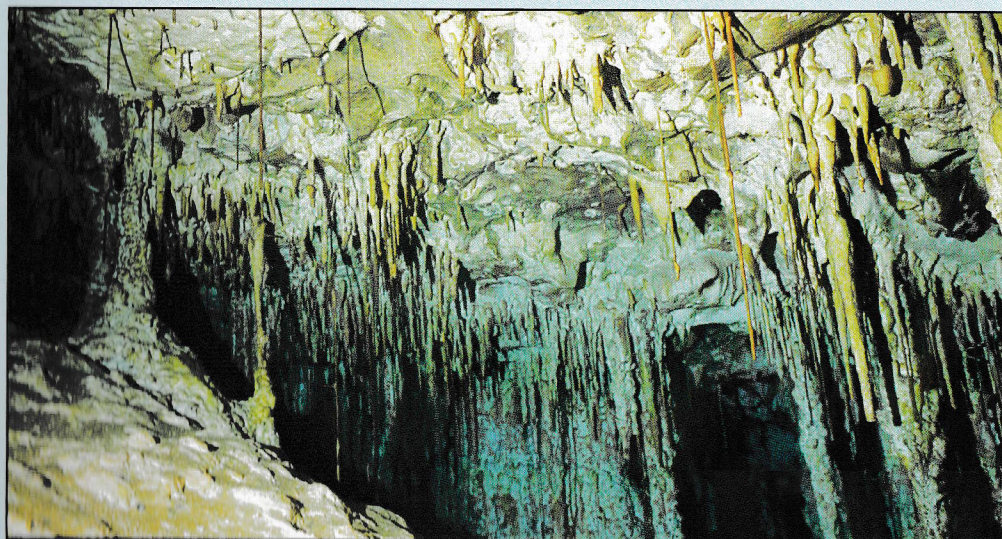




**Pierre, with José and Fiacre unloading dive equipment**

Andakatobe, which I now call 'Baobab cave'. A swarm of bats are making a whooping roaring sound as they swirl swiftly under the ceiling. Fully equipped, I enter the water surrounded by lots of white blindfish, "Typhleotris pauliani", prehistoric looking. At the far left end of the pool, there is a side crack and a dark slope. At once, I notice some big stalactites hanging down from the roof in black color. Bat guano fills the cave floor everywhere, deep enough to plunge the arm in. Very volatile, it creates an instant cloud of silt. A big chamber, with some stubby stalagmites, plunges to the left, then slowly rises to the right towards the exit of another cave. This is the one with a double entrance, where Pierrot took me earlier. The total cave length is maybe 100-150m, with nothing really attractive. I turn around completing a 45 minutes dive, with a maximum

depth of 17 metres. On the way out, hidden in the darkness, a white browed owl "Ninox superciliaris", endemic to Madagascar, is staring at us with red eyes. Upon return, the Toyota stops in the middle of nowhere. "This is it", warns Pierrot to a halt. Jumping out swiftly he searches for his marks, 3 cuts on a tree trunk. An un-distinct trail goes from there into the forest, for the next 20 minutes. Fortunately, Fiacre carries the steel tank, Pierrot has stuck some cushions under his arm and holds a big lamp. I carry the mesh bag with equipment and Nikonos V camera at arm length. Like an Egyptian eye into the limestone bedrock, the entrance hole is small. No choice but to bend down and crawl into the dark on a rubble slope with loose rocks, to negotiate the narrow passage before the cave opens. The descent in zig-zags goes for about 70 metres. Very dark in the dim light of our torches, the main cathedral chamber is stunningly impressive. Giant pillars are stemming out of a central lake. The cave floor is again full of guano and slippery if one is not careful. I gaze at a natural ledge on the right and signal Fiacre to drop the tank there. It is hot, musty and incredibly humid. We sweat like pigs. Not the ideal environment for a claustrophobic! Fire places around attest to the regular visit of Mikea people, in search of water and bats. When I enter the lake, my feet sink into guano soil, maybe 15-20cm at each step. Bats flying around my head, I submerge and follow the wall on my right. Depth is 1 to 2 metres at first. At the far left end of the pool chamber, the cave sinks into the void along the left rock face,



**Forrest of stalactites and pillars on the left slope**

revealing some exquisite white shawls. White blindfish hovering in mid-water are sometimes attracted to the beam of my torch, frantically diverting their course in the last second. With their helmeted head and duck like bill, they look truly out of this world. I pass by a small stubby stalagmite, heading north, past some stalactites and elegant pillars in cream white or golden color. Some have been naturally broken, pile on top of one another and cemented together. For a moment, I have the hallucination of a dinosaur jaw resting on a ledge, grinning with full teeth... I take a close up photo for verification later.

The progression zig-zags left, then right in sharp angles. Steadily downwards along the wall, as the corridor is getting narrower. I enter a mind blowing chamber full of stalactites and straws, in honey or dark brown color. Hanging down like organ pipes, some of the straws have the consistency and elasticity of rubber.

Suddenly aware of this amazing, breathtaking environment, I am under an awesome spell. Is this the 'Enchanting forest' or 'Ali Baba's cave'? what a magnificent piece of nature... well beyond imagination. I squeeze in between restrictions, being careful not to kick or destroy anything. Until I reach an even larger chamber, with pillars, stalactites, stalagmites, straws in all directions. This 360° panorama, has a fabulous depth of field and perspective. I don't know where to stare anymore! Colors vary in shades of white, grey, pale blue and golden. An enticing vision, a marvel of geological times defying description. And yet, in its alluring beauty, it could very well be a death trap... the curiosity that killed the cat. Should I get lost in there, run out of air or simply get stuck somewhere without the possibility of escaping... A chilling thought, a dreadful experience, an hallucination of the senses, a mirage of the mind! What about cave narcosis? I thoughtfully gaze at my pressure gauge: 100 bars left. I am far beyond the safety rule of thirds. One third of air to go in, one third to go out, and one third in case anything goes creaky! I turn back without a second thought. On my way up, I realize with apprehension that I haven't reached the end of my roll of film. The lever keeps winding alarmingly beyond the 36 frame mark. Holly smoke!... The film has not been set properly. With stupor, I understand that I haven't taken any photos after all.

Meanwhile, José and Christina waiting by the car, are wondering why we haven't returned yet. What if anything happened to me? As we drive back to the Swissman's whispering heights, I am quite upset about my misfortune. Malediction! On top of it all, José the driver informs me that we are running low on diesel. Meaning that we cannot afford back and forth trips to



**Villagers carrying 'bush tucker' from the Mikea forest**

the caves anymore. Our host makes a revelation that he has discovered a new one...

In the soothing lights of dusk, I sip a rum and pineapple juice, watching the sun go down from the top of the sand dune. Thinking to myself that I cannot decently leave Itampolo Ve, over such a disappointment. It would be a waste of time and efforts!... My decision is 'sine qua non'. I shall be back to Ali Baba cave, early morning, with a new roll of film in the camera.

The sun is already high when we walk the sandy trail into the Mikea forest. My spirits are focused and my concentration optimal. I carry the strict minimum and we climb down rather fast into the darkness of Ali Baba cave. Pierrot and Fiacre are with me until the end. I return underwater to the stunning chamber with the enchanted forest of stalactites, and even push further down. A very narrow restriction leads all of a sudden to a large tunnel, with a high ceiling. Gothic and dantesque!

How far does this go?... That will remain a mystery for now. A sensible mind shall not push his luck or venture any further on a single tank. I turn around with 100 bars again, mission completed at last!

Unexpectedly, when I squeeze again thru the restriction, I get stuck. For a minute, I fear that I am in serious trouble... No option but that to move backwards, before I am able to slip through it sideways. Back to the surface, it is almost cool in the Mikea forest. Around noon, the Toyota stops briefly at the crossing of the roads to Andavadoaka and Itampolo Ve. Our guides will return on foot, while we move on to Salary Bay. We shake hands, sharing smiles. The story of life is quicker than the wink of an eye... Veloma!

Deep down, I have no doubts that the thrilling adventure is not over. Somewhere, someday, hopefully soon. The Mikea forest conceals more than the eye can meet. It is still a chest of hidden treasures. "The essential is invisible to the eye...", said the fox to the little prince.



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Photo: Brian Kakuk www.BahamasUnderground.com

# CDAA INSTRUCTORS

## NAME

Deep Cavern Cave Adv. Cave

### NEW SOUTH WALES

	FEATONBY, Tim (CDAA 3327) Worrorring Heights, NSW Mob: 0402 129 253 E: tim.featonby@hotmail.com	Yes	Yes	Yes
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### SOUTH AUSTRALIA

	PAYNE, Timothy (CDAA 2640) Mob: 0448 147 927 E: Tim@diveessentials.com	Yes	Yes	Yes
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### VICTORIA

	ALLEN, Terri (CDAA 3483) Mob: 0419 176 633 E: terri.allen@bakeridi.edu.au	Yes	Yes	Yes
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	BARCLAY, Gary (CDAA 1735) Mob: 0407 527 921 E: garinda@bigpond.com	Yes	Yes	Yes
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	BOWMAN, Jane (CDAA 1880) Mob: 0407 566 455 E: janelbowman@hotmail.com	Yes	Yes	Yes
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	CHAMBERS, Geoffrey (CDAA 3484) Mob: 0438 059 886 E: geoffie1@gmail.com	Yes		
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	CLARIDGE, Linda (CDAA 2214) Mob: 0408 052 070 E: garinda@tpgi.com.au	Yes	Yes	Yes
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## NAME

Deep Cavern Cave Adv. Cave

### VICTORIA Continued

	DALLA-ZUANNA, John (CDAA 236) Mob: 0407 887 060 E: jdz@paintandcustom.com.au	Yes	Yes	Yes
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	EDWARDS, Chris (CDAA 2247) Mob: 0417 116 372 Email: cedwards@aanet.com.au	Yes		
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	McDONALD, Warrick (CDAA 1882) Mob: 0408 374 112 E: info@oceanivers.com.au	Yes	Yes	Yes
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	MONACO, Rubens (CDAA 1731) Mob: 0413 429 533 E: info@idscuba.com.au	Yes	Yes	Yes
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### WESTERN AUSTRALIA

	Josip BICANIC (CDAA 4691) Mob: 0421 571 779 Email: joseph_b@me.com	Yes		
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	PAYNTER, Geoff (CDAA 3784) Mob: 0407 445 112 E: gpaynter60@bigpond.com	Yes	Yes	
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# CDAA SITE ACCESS - [www.cavedivers.com.au](http://www.cavedivers.com.au)

Remember: Access is a privilege, not a right. Please be considerate of landowners wishes.  
CN = CAVERN S = SINKHOLE C = CAVE AC = ADVANCED CAVE

SITE	LEVEL	OWNER	ACCESS DETAILS
<b>MT. GAMBIER - SA</b>			
Ewens Ponds	Nil	DEWNR - P.O. Box 1046 Mt Gambier 5290	Groups of 6 or more, phone/mail to Dept. for Environment, Water & Natural Resources (DEWNR). Smaller groups, no need. (08) 8735 1177 Fax: (08) 8735 1135
Gouldens	CN	DEWNR	<b>General Diving:</b> Divers to contact DEWNR and notify of date and site to be dived. Please make requests by phone or fax only.
2 Sisters	CN	DEWNR	Divers must have the correct CDAA diving endorsement for the site and carry current financial CDAA membership card.
Fossil	C		The diver must have signed an indemnity with DEWNR before access is permitted and original copy must be received by DEWNR prior to diving. <b>Training:</b> The Instructor is to notify DEWNR of the date the sites are needed and to forward signed indemnities from each student and their temporary card number/ membership number.
Piccaninnie Ponds	S	DEWNR	Bookings can be made online via the CDAA web site.
Horse & Cart	CN	Dale & Heather Perkins	At least 1 week prior by email: dhperkins@bigpond.com or phone (08) 8738 4083.
Tea Tree	CN	Dale & Heather Perkins	
Little Blue	S	District Council of Grant	Signed indemnity required and must carry card.
Allendale	C	District Council of Grant	Obtain key from Lady Nelson Tourist Information Centre.
Ela Elap	S	Dean & Carol Edwards	Key available from Simon Livingstone at the Bellum Hotel.
One Tree	S	Mr. Peter Norman	Visit the house before diving. If no one is home - no dive!
Dave's Cave	C		Maximum 3 divers all weekends between May & November inclusive (check and update on CDAA website).
Hells Hole	S		At least 4 divers in group - 1 with previous site experience.
Pines	C/AC	<b>Forestry Sth. Australia</b> Phone: (08) 8724 2876 Fax: (08) 8724 2870	Unrestricted days or numbers - Cave rated divers must not enter Penetration sections (stop signs)
Mud Hole	C	or book on-line via the CDAA website to arrange permit.	Unrestricted days or numbers.
Nettle Bed	AC		Open every weekend. Maximum of 4 divers per weekend undertaking 1 dive only (check an update on CDAA site).
Stinging Nettle Cave	AC	email: conservationandrecreation@forestrysa.com.au	Open every w'end max 3 divers per day undertaking 1 dive per day (check updates on CDAA website).
Iddlebiddy	AC	<b>Forestry Sth. Australia</b>	Open every Saturday max 4 divers, 1 dive only (check an update on CDAA website)
			<ul style="list-style-type: none"> <li>• No diving on Total Fire Ban Days.</li> <li>• Permit also required to run compressors during fire danger season.</li> <li>• Keys for Hells Hole, Nettle Bed, Iddlebiddy and Stinging Nettle Cave can be obtained from Lady Nelson Visitor Ctr on presentation of Forestry SA permits.</li> </ul>
Kilsby's	S	Landowner leased to CDAA	Refer to CDAA website. Twin Tanks - Maximum depth of 40 metres on Air. Diving slots are 8am, 11am, 2pm. Book on-line at <a href="http://www.cavedivers.com.au">www.cavedivers.com.au</a> or Contact Craig at <a href="mailto:kilsby@cavedivers.com.au">kilsby@cavedivers.com.au</a> No mid-week diving allowed. <b>No diving on Total Fire Ban Days.</b>

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SITE	LEVEL	OWNER	ACCESS DETAILS
<b>MT. GAMBIER - SA (continued)</b>			
Shaft	S/C	Generally open one weekend a month. Trevor Ashby	For access dates go to the CDAA web page. Nitrox as a diving mix is not allowed in the Shaft unless a trimix endorsement is held but deco mixes attached to the shot line are permissible. Refer to Shaft access bulletin within CDAA Regulations. Divers applying to dive in the Shaft for the first time must document dive experience with twin tanks. <b>Download form off website.</b>
Engelbrechts - East - West	C AC	Mt Gambier Council Lessee: Ph: 08 8723 5552 Owner: John & Sue Douglas	Obtain key from Mt Gambier Tourist Information Centre. Access agreement must be signed prior to diving. 2 divers must sign out keys, all divers must sign in advising which groups they are diving with. Diving should be avoided after heavy rain due to possible water contamination. Diving hours are now restricted to 8am to 8pm CST.
Three Sisters	AC	Millicent Council	Download Indemnity from Web Page. Access available for experienced Penetration divers only. Access agreement must be signed prior to diving. Allow 4 wks for indemnity process.
Tank Cave	AC	CDAA	Access Manager: Noel Dillon. Email: <a href="mailto:tankcave@cavedivers.com.au">tankcave@cavedivers.com.au</a>
Baker's Cave	C	Janet & Bruce Saffin	Access Manager: Matthew Skinner. Email: <a href="mailto:bakerscave@cavedivers.com.au">bakerscave@cavedivers.com.au</a> Climbing equipment required. One member must have previous dive experience at site.
<b>NULLARBOR - WA</b>			
Cocklebidy	C/AC	DEC	Apply in writing for permission to dive at least 4 weeks in advance of trip to: District Manager, Department of Environment and Conservation (DEC), PO Box 234, Esperance, W.A. 6450. Phone: (08) 9083 2100 Fax: (08) 9071 3657.
Murra El Elevyn	C/AC	DEC	
Tommy Grahams	C	DEC	
Burnabbie	AC	Department of Lands, WA	Apply in writing or email for permission to dive at least four weeks in advance of trip.
Olowgin Cave	AC	Department of Lands, WA	Miss Shannon Alford, Email: <a href="mailto:Shannon.alford@lands.wa.gov.au">Shannon.alford@lands.wa.gov.au</a> Phone: (08) 6552 4661 Fax: (08) 6552 4417
Weebubbie	S/C	Department of Lands, WA	P.O. Box 1143, West Perth WA 6872. A site indemnity form must be filled out for each visit to the site. Diving permission acknowledged by official letter from Land Owner.
<b>WELLINGTON CAVES - NSW</b>			
Limekiln (McKavity) cave	C/AC	Wellington Caves	Both Penetration and Cave Level are being accepted for this cave depending on its water level at the time. The cave has a restriction at the entrance which is underwater making it a Penetration Dive. During drought, the water level drops to form a small lake below the restriction allowing experienced Cave Divers access to this delicate cave.
Water (Anticline) cave	C	Wellington Caves	Affected by high CO <sub>2</sub> levels during Summer/Autumn. Access is co-ordinated with the Wellington Caves management by Greg Ryan - Email: <a href="mailto:gjryan@gmail.com">gjryan@gmail.com</a> . Phone (02) 9743 4157.
Rum Jungle Lake	S	Coomalie Community Govt Council	Unrestricted access currently exists - Please refer to website.
Burrinjuck Dam	S/C/AC	NSW Parks & Wildlife	Please refer to website. There are no specific access arrangements.





Tank Cave  
Photo: Peter Mosse