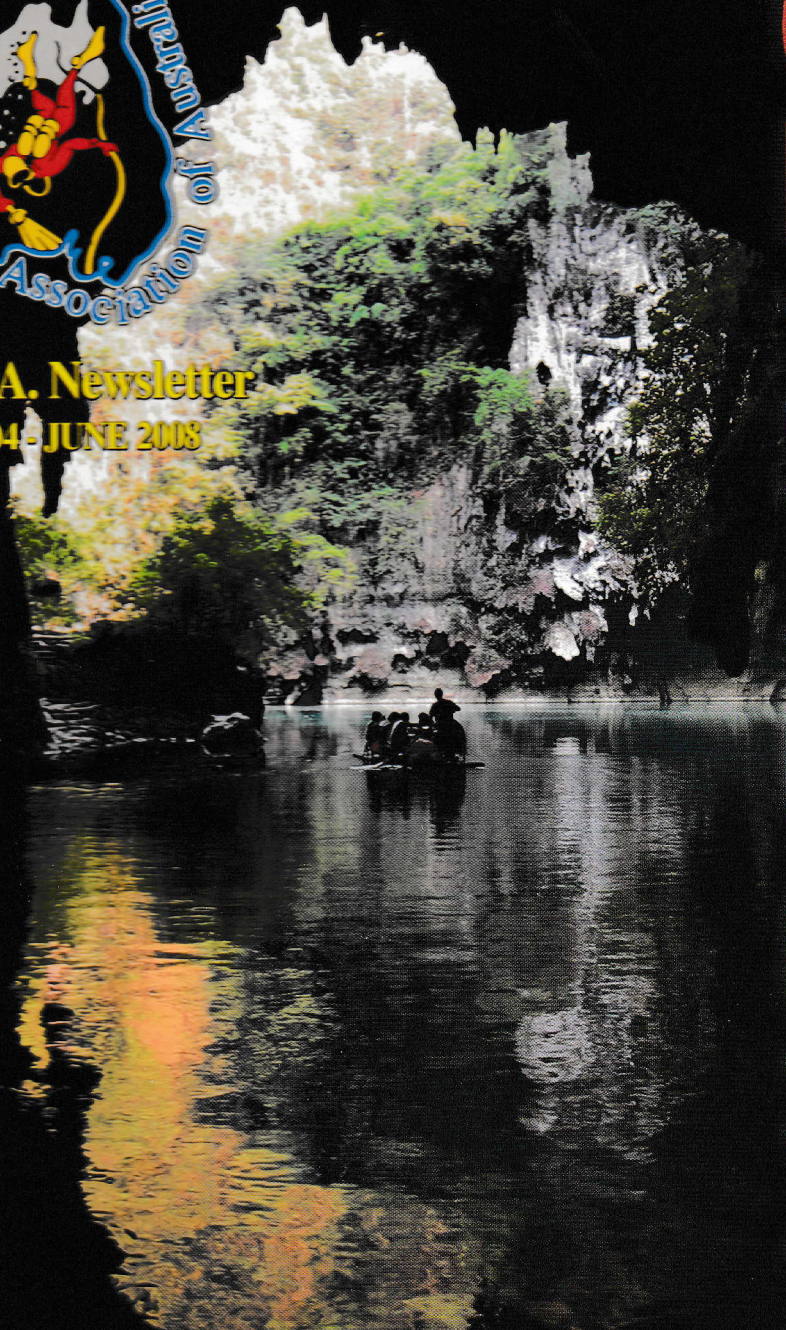




**C.D.A.A. Newsletter**

**No. 104 - JUNE 2008**



**SENTINEL**

**CAVE DIVERS ASSOCIATION OF AUSTRALIA**  
(Incorporated in South Australia)

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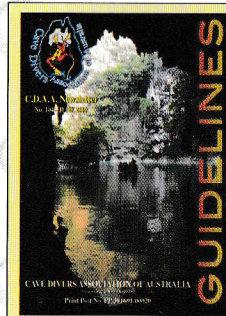
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**Front cover:**

Photo title:  
San Man Hei (3 Door Sea)  
in the city of Feng Shan,  
province of Guangxi,  
China.

Photographed by  
Jason Caldwell.

Composite art design:  
David Bryant

**CAVE DIVERS ASSOCIATION  
OF AUSTRALIA**

**ABN 65 062 259 956**

P.O. BOX 290, NORTH ADELAIDE 5006

GUIDELINES is a newsletter of the Cave Divers Association of Australia. All articles for the following issue are to be sent to the Editor, David Bryant, PO Box 2198 Rosebud Vic. 3939.

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## CONTACT LIST

Please contact the most relevant person or, if unsure write to:  
**C.D.A.A. P.O. Box 290 North Adelaide 5006**  
Website: [www.cavedivers.com.au](http://www.cavedivers.com.au)

**NATIONAL DIRECTOR** - Warrick McDonald  
Email: [national@cavedivers.com.au](mailto:national@cavedivers.com.au) Mobile: 0408 374 112.

**Manager Research & Mapping** - Stuart McGregor.  
Email: [research@cavedivers.com.au](mailto:research@cavedivers.com.au) Mobile: 0438 329 942.

**STANDARDS DIRECTOR** - Steve Trewavas  
Email: [standards@cavedivers.com.au](mailto:standards@cavedivers.com.au) Mobile: 0423 021 488.

**Instructor Records** - Andrew Higgins.  
3 Harris Crescent, Glen Waverley, VIC. 3150.  
Email: [ahiggins@optusnet.com.au](mailto:ahiggins@optusnet.com.au) Mobile: 0413 569 164.

**Instructor Materials** - Ian Taylor  
Email: [materials@cavedivers.com.au](mailto:materials@cavedivers.com.au) Mobile: 0411 118 134.

**BUSINESS DIRECTOR** - Heike Apps  
Phone: 02 6291 0566. Mobile: 0407 230 108  
email: [business@cavedivers.com.au](mailto:business@cavedivers.com.au)

**Treasurer** - Tammy Beattie. Email: [taztytam@dodo.com.au](mailto:taztytam@dodo.com.au)

**SITE DIRECTOR** - Gary Barclay  
Email: [garinda@bigpond.com](mailto:garinda@bigpond.com) Mob: 0407 527 921.

**Kilsby's Access** - Craig Larkin.  
Email: [kilsby@cavedivers.com.au](mailto:kilsby@cavedivers.com.au) Mobile: 0418 821 191.

**Tank Cave Access** - Noel Dillon  
Email: [tankcave@cavedivers.com.au](mailto:tankcave@cavedivers.com.au) - Mobile: 0407 530 103.

**Shaft Access** - Linda Claridge  
Email: [shaft@cavedivers.com.au](mailto:shaft@cavedivers.com.au) Mobile: 0408 052 070.

**Quality Control Officer** - Stan Bugg  
Email: [sbbugg@micronica.com.au](mailto:sbbugg@micronica.com.au) AH: 03 9379 8791

**PUBLICATIONS & RECORDS DIRECTOR** - Terri Allen  
Email: [publications@cavedivers.com.au](mailto:publications@cavedivers.com.au) Mobile: 0419 176 633.

**Records Officer (Membership matters)** - Jason Caldwell.  
Email: [records@cavedivers.com.au](mailto:records@cavedivers.com.au)  
PO Box 840, Beaconsfield VIC 3807

**Graphics** - David Bryant.  
Email: [seapics@alphalink.com.au](mailto:seapics@alphalink.com.au) BH/AH: (03) 59 863 104.  
Mobile: 0417 125 710. P.O. Box 2198 Rosebud VIC 3939.

**CDAA Products** - Helen Higgins - Mobile: 0411 720 440  
3 Harris Crescent, Glen Waverley, VIC 3150  
Email: [products@cavedivers.com.au](mailto:products@cavedivers.com.au)

**Webmaster**: Tony Richardson. Email: [web@cavedivers.com.au](mailto:web@cavedivers.com.au)

### AREA REPRESENTATIVES

**NSW**: Mark Jobbins ph: 0411 191 590  
Email: [nswrep@cavedivers.com.au](mailto:nswrep@cavedivers.com.au)

**South-East SA** - Grant Pearce Mob: 043 8833103.  
Email: [sarep@cavedivers.com.au](mailto:sarep@cavedivers.com.au)

**Public Officer** - Kevin Burrowes  
Phone: 08 8272 6833 Email: [kburrowes-cpa@senet.com.au](mailto:kburrowes-cpa@senet.com.au)

### CDAA INSURANCE

Public Liability policy limit \$10,000,000.00 Policy # DMV114781.  
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## EDITOR'S CORNER

Hi All

We have just enjoyed a bumper Queen's birthday weekend at Mt Gambier with the Ocean Divers gang and many other members. We had divers just finishing Deep Cavern, others at cave level, some guiding Tank, some diving Tank for the very first time (congrats Sara and Jim). The weather was kind for a change so we even managed to have a BBQ back at Pine Tank lodge. After a hard time on the director front with crazy allegations of "dysfunctional" it was nice to just go cave diving.

We have been very busy as directors, as well as having to go through 2 investigations, Warrick is working on insurance renewal and legal issues, Gary on Hell's hole clean up, Heike doing a great job on Stds, AGM and looking at capital purchase. Our money is in great hands with her. Hardly dysfunctional... My hat goes off to Steve as standards director. He has been involved with helping all of us but especially myself and also our new records officer in redesigning forms, standards, Q+A, helping to rewrite our ancient course notes, organising the symposium, giving talks on his recent trip to China. It is a real pleasure working with such a person, who I find is very fair and balanced in his approach. Well done and please take me to China next time!

Helen Higgins has done very well with products sales and look out for new products coming soon, suggestions most welcome. Jason is about to hit the very busy renewals time please do the right thing by him and get them in early and complete. These people are volunteers working for you!

This issue sees another great variety of articles from all around the world China, NZ, USA as well as closer to home down in the depths of Blue lake. A fantastic selection for your Winter reading, thank you to our many contributors.

Once again please remember to support our advertisers. While it may be tempting to look at buying stuff on the internet overseas please don't forget to support those that support us as well as getting excellent advice and back up service from our local distributors and retailers.

See you diving or at one of the State meetings. Get well soon Jane we missed you at Tank.



Terri Allen, Publications and Records Director,  
Email: [pubdir@cavedivers.com.au](mailto:pubdir@cavedivers.com.au)

## ~ ARTICLES FOR GUIDELINES ~

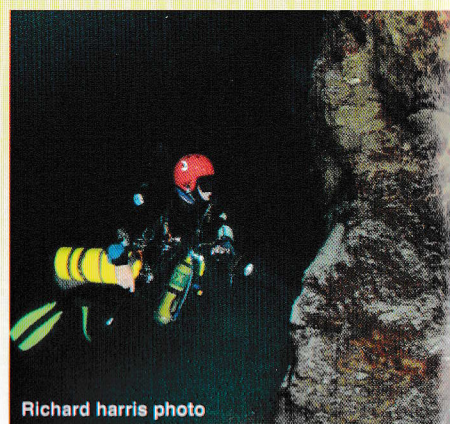
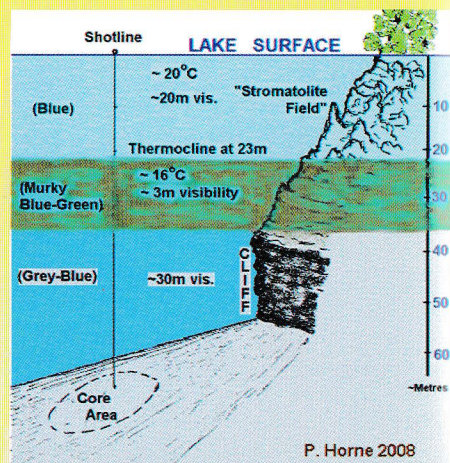
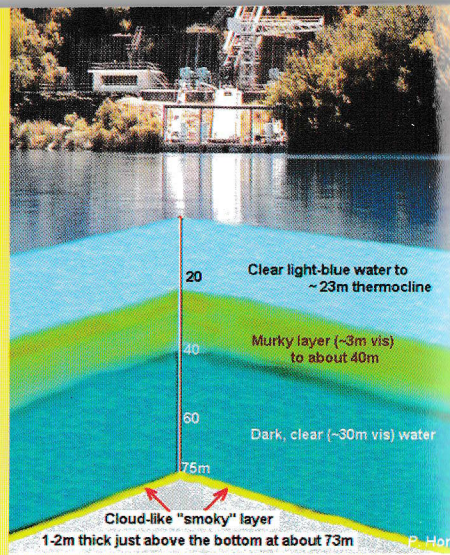
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Terri Allen, **PO Box 6492, Melbourne 8008.**
- Email to [publications@cavedivers.com.au](mailto:publications@cavedivers.com.au) and [seapics@alphalink.com.au](mailto:seapics@alphalink.com.au)
- Text files should be saved as Word files and pictures as separate jpeg files.  
If mailing please send pics and text on CD.
- Pictures saved from digital camera or scanned from photos must be at least 200-300 ppi at 15cm wide, RGB files, and saved as Maximum Quality JPEG's, or Tiffs if mailing.



# Report on Blue Lake Sediment and Research Dives, February/March '08



© R. Harris 2008



Richard Harris photo

During February and March this year, a team of cave divers utilized modern rebreather and trimix technologies to collect important samples and photograph/videotape the deepest regions of Mount Gambier's Blue Lake for the first time.

The project was organised for the purpose of supporting a number of South Australian Government agencies which were aiming to determine the impact of land-use practices to the Blue Lake and surrounding Groundwater Dependent Ecosystems (GDEs).

It was the first time in more than 17 years that Blue Lake had been studied since Peter "Puddles" Horne's initial exploration and research projects between 1985 and 1991 (see Guidelines issues 40 & 41, 1991).

The "trimix team" for the 2008 project consisted of core collectors Grant Pearce (Project Leader),

Linda Claridge and Chris Edwards; hi-def videographer John Dalla-Zuanna (aka JDZ) and underwater photographers Gary Barclay, Richard "Harry" Harris and Craig Howell, while Ian "Lewy" Lewis, Gerret Springer and Peter Puddles performed air diving and support work.



© C. Howell 2008

Following a couple of very successful trial dives in February the main project commenced in March. The first deep dive in the approximate centre of the Lake was undertaken by Grant and JDZ, with JDZ videotaping the entire dive. The surface visibility was good, around 20 metres, and the water temperature was around 25oC, dropping gradually to 16oC near the bottom (there was no thermocline layering which had always been encountered during summer-time dives in the past). At a depth of around 25 metres Grant and JDZ passed through a region of reduced visibility before breaking into a much clearer dimly-lit layer at around the 40m mark; however as they approached 65m they were surprised to see that the apparent "bottom" of the Lake some 10 metres below had taken on a foggy, cloud-like quality. Fortunately this 1-2m vis layer turned out to be just a few metres thick, and Grant deployed his jump-reel and swam off in the hope of

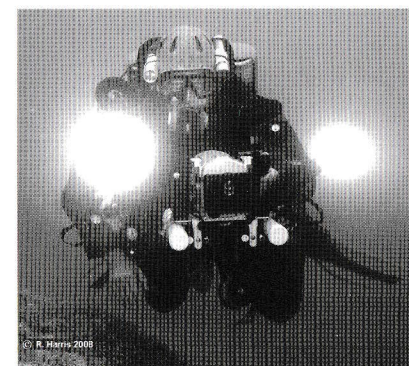
finding clearer water so that JDZ could video their silt-coring activities. Finding only more dirty water, Grant managed to collect one good core sample before he "lost" the other core tubes (and their expensive home-made carrying basket) in the murk! The second "trimix team" group comprising Harry, Gary, Craig and

within the Lake, the deep teams decided to conduct the final core-sampling dive in a sheltered bay-like area on the northern wall known as the "stromatolite field", as previous dives to the Blue Lake's floor in that area by Puddles and his teams had found very clear

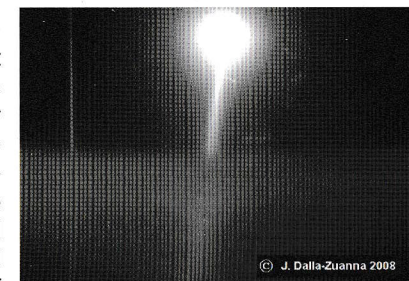
water there. Before the final deep team dive, Gerret, Lewy and Puddles explored the stromatolite field while Craig and Gary took a lot of very specky photos; Gerret also found an unusual whitish filamentous-like feature which he dubbed "Gerret's snototite"! Harry photographed similar bacterial/hydroid-type growths at 67m during his final deep dive, and Lewy and Puddles also had a closer look at the floor/cliff interface before Lewy snorkelled around the walls, noting various geological features of interest. The final deep team dive comprising Linda, Harry, JDZ, Grant and Chris resulted in some excellent cores as well as a great video of the dive by JDZ and many truly spectacular under-

water photos by Harry.

The efforts of the Blue Lake 2008 diving project team resulted in a considerable amount of new scientific data being collected which we hope will serve to better protect this extremely important icon of the southeast by identifying any potential pollutants that

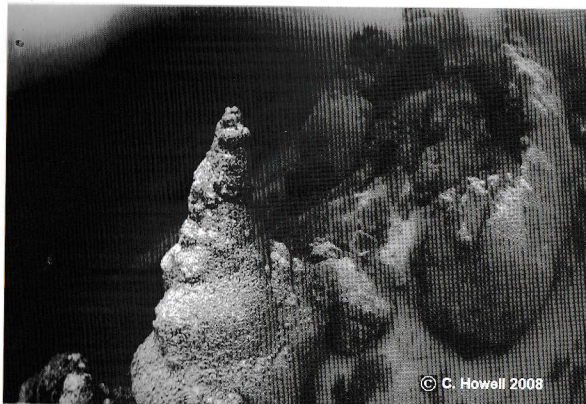


© R. Harris 2008



© J. Dalla-Zuanna 2008





Lake beyond 40 metres" or "the first dives to the bottom of the lake").

As with previous Blue Lake studies, this project left us with more questions than answers, and the study team expresses its appreciation to the many individuals whose support made this project possible. Special thanks must go to dive team members Gary Barclay, John Dalla-Zuanna, Richard Harris and Craig Howell for so successfully capturing many of the Lake's most visually spectacular features on digital media (including the photos in this article); in the case of Mount Gambier's Blue Lake, an underwater picture really IS worth a thousand words! Grant P and Dr Harry are also thanked for their editorial assistance with this brief report.

*(A more comprehensive report on this project is available as a PDF file; please contact Peter Horne via email at [ppuddles1@yahoo.com.au](mailto:ppuddles1@yahoo.com.au) if you would like a copy to be sent to you – the file size is just under 10 Mb. Also keep your eye out for an article on the Blue Lake in the next edition of Australian Geographic).*

may have been caused by historical land use practices around Mount Gambier and the Blue Lake. An important flow-on effect of the study was the considerable media attention and public interest in the team's findings, and especially the videos and photos that were obtained of Blue Lake's floor for the very first time; it was also good to see the media reporting our dives in an extremely positive and responsible manner (although some minor errors in reporting crept in – these were in fact not the "first dives in Blue

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**Contact Suzanne anytime on 0427 884 729.**

## CAVE DIVERS ASSOCIATION OF AUSTRALIA

### NOTICE OF 2008 ANNUAL GENERAL MEETING, ELECTION OF OFFICE BEARERS AND VOTING FOR MEMBER MOTIONS AND CONSTITUTIONAL AMENDMENTS

This notice is issued pursuant to Clause 32 of the Constitution and serves to advise members that the Annual General Meeting of the Cave Divers Association of Australia will be held on Saturday October 18, 2008 at the Comfort Inn Silver-Birch conference room, Mt Gambier, SA. The Annual General Meeting will commence at 6:00pm and will conclude no later than 7:00pm.

***This notice also serves to call for:***

- \* Nominations for Business Director and Standards Directors
- \* Member motions
- \* Amendments to the Constitution

The Returning Officer must receive nominations for the Directorate positions no later than the close of business Friday August 15, 2008.

Mail to:

Returning Officer

PO Box 7592

ST KILDA RD VIC 8004

The Business Director must receive member motions and proposals for amendments to the Constitution no later than close of business Friday August 15, 2008. Items received after this date will not be accepted nor will any extensions to this date be granted.

Mail to:

Business Director

PO BOX 292

CALWELL ACT 2905

Members intending to nominate for an Office Bearer position must be eligible members of the Association as defined in the Constitution. Nominations should be accompanied by a précis not exceeding two hundred and fifty [250] words detailing skills, experience and achievements relevant to the duties and responsibilities of the nominated position. The responsibilities of Office Bearers are contained in the Constitution of the Association. Nominations must be in writing and be signed by the nominee, the proposer and the seconder all of whom must be eligible members of the Association. The polling date close for the election (if required) is Thursday October 16th 2008.

The election of Office Bearers and voting on amendments to the Constitution will be conducted entirely by postal ballot.

If you wish to vote you must be an eligible, paid up member of the Association and you must only use the ballot papers to be provided in the next issue of Guidelines (#105) or by special mail out.

The ballot papers must reach the Returning Officer (Geoff Chambers #3484) no later than close of business, Thursday October 16, 2008. Detailed voting information will be provided with the ballot papers. Questions may be directed to the Returning Officer c/o [business@cavedivers.com.au](mailto:business@cavedivers.com.au).

Heike Apps, Business Director



Trip Report by Richard Harris #1360

# Pearse Resurgence 2008

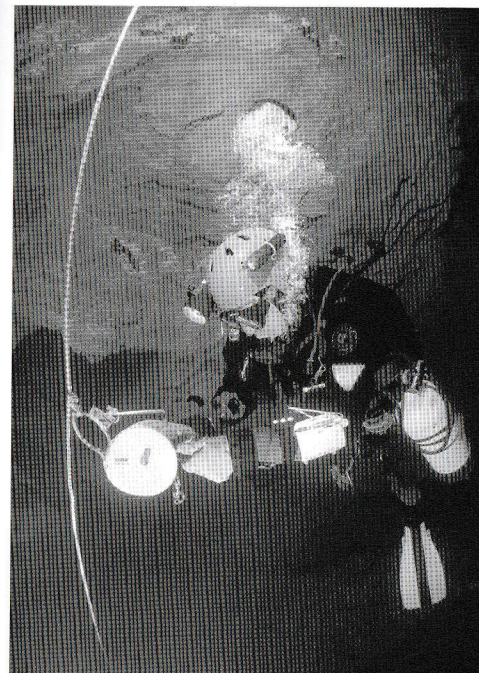
*Three CDAA members have recently returned from a successful expedition to dive the Pearse Resurgence in NZ. Richard Harris (Harry) was accompanied by Grant Pearce and Andrew Bowie in Feb/March on a trip lasting just over 2 weeks.*



Two pallets of diving and camping equipment were shipped from Adelaide before the divers arrived. A rental van (aka "The Slow Rocket") and a trailer got the lads from Christchurch to Nelson (about 8 hours drive). Local cavers in Nelson (the area is home to some world class vertical dry caves like Nettlebed and Harwood's Hole) assisted them further. From Nelson they drove to a logging clearing in the Pearse Valley from where they were ferried into the camp site by Syd Deaker from Action helicopters (5 trips each way). Amid pouring rain and a fairly gnarly looking resurgence, they pitched camp and prayed for an improvement in the weather!

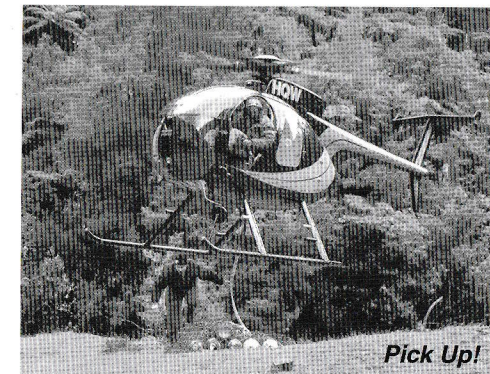
The weather gods must have been happy because the rain gradually faded away and they enjoyed some crisp sunny periods over the next 10 days. The first day was spent setting up the decompression habitat at 7m in the Nightmare Crescent. This involves securing an upturned IBC (Intermediate Bulk Container) in the passage, then filling it with air. A decom-

pressing diver can then sit in relative comfort out of the water breathing surface supplied 100% O<sub>2</sub>. With over a tonne of lift, the IBC must be well fastened to the granite and Dave Apperley (who has explored the site more than most) has spent many hours underwater drilling and inserting bolts to use as anchor points.



were noted in the Nightmare Crescent to 18m depth, and two fish (?Native Trout) of approximately 20cm length were seen in the entrance pool.

After diving the bone chilling 7 degree waters of the Pearse, the group were treated to a variety of culinary delights including Peas Harris, Pasta Oxygene with



Bacon Free Radicals (see "How to light a fire in the rain-forest using a G cylinder of O<sub>2</sub> and a Jerry Can of Petrol"), and coffee with one Snickers bar or two (OK someone didn't pack enough sugar).

After a number of buildup dives and with numerous cylinders now staged in the cave, Harry made a push dive on Saturday 8th March. Following line laid by Dave Apperley and Rick Stanton to -177m, Harry scootered down to -182m and examined about 20m of new horizontal passage before turning the dive at 15mins bottom time. At that point the passage appeared to be heading gently upwards, however it is entirely possible the cave descends again to greater depths. 4 hours later Harry emerged from the habitat still toasty warm thanks to the offerings of hot soup (delicious) and warm Gatorade (dis-

gusting) from the trusty support team.

Following this dive, the habitat was deconstructed, the stage tanks all removed and preparations for getting everything out and back to Australia were made. A quick half-day fossick in Nettlebed Cave in search of the elusive Hinkle Horn Honking Holes finished a great adventure.

## Acknowledgements

The expedition would like to thank the following for their support: The Honeybone family in Christchurch, Oz Patterson, Deb Cade and the NZSS, John Atkinson, Action Helicopters, Toll NZ, Pack 'N Send Norwood, Sea Optics Adelaide and BOC New Zealand.





## CDAA State Meetings Sept. 12, 13, 14, 2008

State meetings are defined in our constitution as the following:

State meetings may be called by the National Committee from time to time as the need arises. Such meetings can serve only for the exchange of information.

Please forward issues you wish to discuss with the directors present, to the business director to put on the agenda (business@cavedivers.com.au). These meetings will discuss the agenda items, local/statewide issues and act as a social get together for CDAA members in that State. The directors hope to provide you with an opportunity to express any concerns and to provide ideas to progress the association and bring you up to date with what we have been working on as well as future plans. They may also incorporate a separate instructor meeting to discuss proposed updates to our courses.

### Proposed schedule:

1. **Melbourne, AB Ocean Divers (upstairs)**  
**East Bentleigh, Friday September 12th,**  
**7pm onwards. (drinks available).**
2. **Adelaide, Adelaide Scuba,**  
**Saturday September 13, 2pm**
3. **Sydney, Location TBA,**  
**Sunday, September 14, 2pm**

Please come along and express your ideas on how to progress the association. Hope to see many of you there.

Steve Trewavas, Standards Director  
Heike Apps, Business Director

AAAT 3½ Star



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# CDAA Members Symposium - WEEKEND -

**12 Noon Saturday October 18, 2008**

• Comfort Inn, Silverbirch, Mt Gambier •

### Saturday:

- Andrew Cronan – China cave project video.
- Richard Harris – Pearse Resurgence 180m dive.
- Peter Buzzacott – DAN cave fatality paper.
- Craig Larkin – Cave diving photo presentation over afternoon tea.
- Grant Pearse/JDZ – Blue lake/Pics.
- Climbing workshop, presenter TBA.

*All welcome!*

*Afternoon tea provided.  
(Please RSVP for catering purposes).*

### Saturday Morning:

- Oxygen Provider course or Update (cost TBA)
- Climbing workshop

### *Also Member's Swap Meet:*

Bring along your old preloved gear to swap or sell during the symposium and afterwards. Must be personal members' gear, not commercial.

**Steve Trewavas, Standards Director**  
**Heike Apps, Business Director**





# Grant Sommer Barnoolut the Real Story

## It all started when we purchased a shack at Carpenters Rocks in early 2002 . . .

Through a diver friend I'd met on my charter boat some years before, I became friends with two of the Carpenters Rocks locals, Mick and Chris. We shared BBQs and fished the local waters for cray and, wouldn't you know, we ended up having a friendly BBQ on Barnoolut. Turns out Mick and Chris worked for Mr Scott on Barnoolut ripping the paddocks around the sinkholes.

The managers of Barnoolut weren't divers and knew nothing about sinkholes so we enlightened them over many beers and visits. I knew Peter Horne, as a keen cave diver, had vast knowledge and information on the sinkholes of Barnoolut so I approached him for help. He was very keen to supply anything I wanted and I paid him for the copying of some maps and articles on the history of the area.

After presenting the managers with the information on Barnoolut, they became quite interested and suggested we dive the sinkholes (Hugh Moore and I). The managers sought approval from Scott's Agencies and we began diving the site. At this point I thought there may be a chance to get the CDAA back into the site and proceeded to encourage the managers to help us approach Mr Scott. The managers told us that from what they had heard about Mr Scott and his relationship with the CDAA it would be next to impossible but we decided we would give it a go.

In the meantime, other groups started to turn up to dive. I guess I may have told the wrong people; the word got out and it all started to get a bit overwhelming for the managers when CDAA members began turning up at all hours, knocking on their front door.

I guess, in hindsight, I should have notified the directorate earlier about our intentions but not knowing about the politics of the CDAA I thought I would notify them when we knew more. This turned out to be my first mistake of the plan to regain Barnoolut for the CDAA because when the National Director realised we were diving the site without it being sanctioned by the CDAA, he said we were diving there without CDAA insurance. I hadn't thought of that but we had the approval of Mr Scott, after all it was his land, and figured it was ok. The National Director contacted Scott's Agencies and pointed out to them that we were not covered by CDAA insurance and subsequently our access was withdrawn by Mr Scott. It probably was a good thing in the end as the divers wanting access to the property was growing by the month and this would have interfered with my proposal to regain access for the CDAA.

Years marched on and my friendship with the managers



grew, sharing many BBQs and outings. I also helped out on the property at every opportunity spending many hours and sometimes weeks repairing fences, feeding stock etc.

In 2005 I felt I was in a better position to approach Mr Scott directly, so Hugh and I decided to write to the CDAA and apply to act as sub committee to approach Mr Scott on behalf of the Association. This was the correct protocol and I wished we had done this from the beginning. On the 31st of January 2005 we wrote to the then Site Director Mr Rob Brennan.

### Please note the extract of some relevant information

Dear Rob,

Diving Access on Barnoolut Station 31st January 2005.

As you are aware, I have a social relationship with the managers of Barnoolut. Through our relationship I believe we can negotiate access on behalf of the CDAA.

To facilitate access, the following is required by the CDAA initially and on an on-going basis:

#### Item 2 page 2

The sinkholes require improved access and fencing to keep stock out. The CDAA will be required to repair and maintain the fences surrounding Ten Eighty, Blacks, Bullock Hole and any other site that becomes available.

#### Item 3 page 3

Installation of a diving platform in Ten Eighty Sinkhole with access ramp and cut stairs making access easier.

#### Item 4 page 3

Installation of a diving platform in Blacks Sinkhole with access ramp and a stair case from the current gantry mak-

ing access easier. This can be on a staged construction basis.

### Following paragraph page 3

In lieu of the ongoing costs site access will incur and the regular attendance by a site co-ordinators, we recommend the introduction of a Diving Fee payable to the CDAA of say \$50 per day. This is to be as contribution to site improvements and payment to dive co-ordinator.

What took place was that I had to cover all costs (except the fence around 10-80) and then be reimbursed by the CDAA which put a financial burden upon myself. The fee of \$30 was eventually decided on because of the small amount of divers who would dive the site in the first year or so and this fee was to be reviewed when the site improvements were complete, more members were diving the site and other access officers were appointed. The fees are for the reimbursement of fuel and accommodation costs of the access officer which is the same situation as for the shaft. Money over and above reimbursement to the access officer would go to the CDAA for the site improvements and on going cost.

### Extract from the CDAA web site under "The Shaft"

A fee applies to Shaft dives; it is currently \$20 per diver per day but may be amended from time to time and notification in Guidelines or the CDAA regulations. This fee will offset the cave dive supervisors travel, accommodation and incidental costs.

As you can see from the above, the collection of fees for Barnoolut is for the same purpose as the Shaft fees. My mistake was to have it deposited into an account; I should have collected it in cash as is done at the shaft. We received written permission to act on behalf of the CDAA to approach Mr Scott from 4 directors 2/05/05.

### Please note the following extract from Diving Access On Barnoolut Station 2/05/05:

The letter is to confirm the appointment of Grant Sommer and Hugh Moore as our Barnoolut Station Officers.

We, the Directors;

National Director - Warrick McDonald

Business Director - Heike Apps

Standards Director - George Yarra

Site Director - Rob Brennan

Publications and Records Director - Terri Allen

confirm that we would like access to Barnoolut Station for suitably qualified financial members of the CDAA.

On approval to act on behalf of the CDAA Hugh and I collected as much information on what would convince Mr Scott to allow the CDAA access. We talked about the matter with some directors and members and came up with the access arrangements we thought would meet with Mr Scott's approval. The access arrangements were submitted to the directorate, approved, and returned with minor changes. Hugh and I then spent many hours writing the proposal, for access to Barnoolut, that was to be sent to Mr Scott.

I then had a brief trip to the Northern Territory with my charter boat for 4 months so the proposal was on hold until I

returned to S.A. Regular contact was made with the managers of Barnoolut and the CDAA directorate over this matter while I was in the N.T.

On my return to SA, I quickly picked up where we left the proposal and sent it first to the directorate for approval and then to Mr Scott. I received permission by telephone from Mr Scott's office in late January 2006 with tough conditions. I picked up the key from Mr Scott's office a few days later.

### Conditions set by Mr Scott

- Grant Sommer was to be on the property at all times while any CDAA members were there.
- No diving until the site was complete and access was made safe.
- No rope climbing by divers or lowering of equipment; all divers to be able to walk or fixed ladder climb to the water.
- We were to enter the property once and leave once, all together.
- No one to leave between dives.
- One sinkhole per day.
- No pets. • Non CDAA members not permitted.

### In conclusion

To the people who questioned my integrity, I have acted on behalf of the CDAA at all times, with the full approval of the Directorate in writing. The plan was always that the CDAA was to control the site, as I didn't want to have to commit to Barnoolut every month, and this was to occur once all of Mr Scott's demands had been met. The fees charged were to offset the access officer's travel, accommodation and incidental costs.

I have spent countless hours negotiating with the managers, Scott's Agencies and working on Barnoolut using my 4WD, personal tools, like generator and fuel, drill and bits, jackhammer and incurring damage to it, all without reimbursement of expenses. I set up a bank account in my name under Barnoolut to keep a track of expenses and I tried to have all members pay the fees into this account to keep a track of income while the ongoing site improvements continued. I could have been paid in cash on the day, (like the shaft) and no one would know what money changed hands.

I have been asked by a number of people to provide the financial details of Barnoolut. The Shaft guides are not questioned on how much they receive in a year? I wonder why that is?

I do not deserve or expect any harassment or accusations of impropriety or mismanagement relating to Barnoolut. I'm sure if the people responsible for access to The Shaft, Tank Cave, The Forestry, and DEH were attacked in the same manner, they would do the same and close or restrict access.

The Access conditions to dive Barnoolut came under fire with members interpreting them incorrectly. I stand by the access conditions as they were there to protect myself, Mr Scott, his employees and the CDAA from divers who are unsafe or irresponsible members. In my 20 years experience as a divemaster and charter boat owner/operator, I have

continues page 23



# NATIONAL DIRECTORS REPORT

The AGM this year is going to be another beauty with Steve Trewavas organising guest speakers and workshops, like last years fantastic effort. Terri and Heike did a brilliant job of organising it all to go together smoothly and we all learnt from the experience, so that this year will even be better.

It would be a dull report if I didn't have something to complain about and this one is no exception.

Allegations were made by a member, who is also the Director of a Training Agency that is in competition with us, against the Directors. The allegations were listed as "draft allegations" which is probably a term used to describe "Let's throw as much muck as possible and see if it sticks!" the emails sent around were asking for members to demand a "Special General Meeting" as per the Constitution. The only problem was that the whole effort was unconstitutional! My point is, why would anyone sign up to "draft allegations"? Is that like me saying that I want to make a number of draft allegations against another Training Agency and state that they "give away Instructor Specialty Certifications" to Instructors who are "mates and pay" that the Managing Director is "hell bent on gaining market share and doesn't give a damn about the CDAA". You see, making these "draft allegations" is just rubbish and a waste of time, and it's because ALL of the other Training Agencies, apart from the CDAA don't need to consult their members on matters or follow a Constitution, what they do is make a business decision and then act! The CDAA is bound by it's Constitution and Regulations and each member is accountable to these rules, therefore some unscrupulous members who, for example work for another Training Agency may try and use our Constitution against us and there's not a damn thing we can do about it but rely on the common sense of our members to reject such manoeuvres. It seems a small number were "sucked" in and actually agreed with these "draft allegations" (draft - don't have any real ones just thought these sounded good!) don't members realise if you have an enquiry you might find my offshore bank account in Vanuatu and know that I have been syphoning money out of the CDAA for the last 9 years? Of course that's just a "draft allegation" and as stupid as the rest! Some members need to open their eyes and see what is really going on and who has particular agendas, because believe it or not some would destroy this Association to get their way. The strain it puts on Directors, causing sleepless nights and with countless calls and emails interfering in their lives is a toll

that many would not stand for. No wonder so many previous Directors resigned rather than put up with the pressure. What amazes me the most is that those who would have Directors thrown out seem to think that if they or their cronies take office it won't happen to them! (Is that those pigs flying past my window again?) One member relates the running of the CDAA like Zimbabwe or Nepal, right intention but bad application.

Election time is coming and the positions of Standards and Business Director are going to be vacated. Steve Trewavas as Standards Director and appointed after George Yarra retired has done a great job and has been consulted on many projects Directors are undertaking. Steve is always willing to get involved and meets the responsibilities of a Director head on. Whether Steve will stand again is the question, he is yet to advise me of his decision, it would be a great loss to the Association if he goes. Heike Apps has put in many years as Business Director and I'm also unaware of her intentions about standing. Heike has been subjected to many barrages of questions over the years and her position requires her to be accurate and to note everything, which she has achieved. Because of some recent abuse and accusations of a "lack of transparency" Heike put forward that we should put the minutes (most done by email) of our meetings on the web site. Members have always been able to ask for the minutes at any time by addressing their request to the Director concerned. Some members think that by demanding this and that on the email list it will get them what they want, sorry that's just a chat site, so all requests to Directors must be made officially to their office as listed on the CDAA web site and on the "Contact List" in every "Guidelines". Perhaps the accusations may cease now (was that another pig I saw flying by my window?) about "secret Directors business" and "lack of transparency". Now all a member needs to do is go to the web site and they can see quite clearly what has taken place.

The problem with elections is that the majority don't really know who they are voting for. So, they don't vote and we get Directors who have agendas that may not be in the best interests of the Association, believe it or not some people are out to get what they can for themselves!!! Shock, horror you say but "what can I do about it?" Well, first don't be fooled by a name. Recently my mother who is a keen worker for the RSL at 83 and has her brain working at an extraordinary capacity was involved in elections at her RSL branch (a club that has

monthly turnover in the millions) she was elected vice president but the problem was that the person elected as President who is a well known Doctor and gallant Officer during the war and known for his leadership in years gone past in the RSL, is suffering from dementia or worse. This poor bloke wants nothing but peace and storms out of meetings, salutes everyone and has a couple of supporters who tell him what to do and say, which explains who is really running the show. So my point is, who do you elect? Maybe we will see someone stand who for example is against change, maybe they don't like manifolds or long hoses, maybe they are Instructors who want to reverse all the changes we are going through so they can keep their "patch" and teach how they used to, without interference (ching, ching) maybe they want to herald the glory of rebreathers and get rid of any training restrictions or dare I say .... They want to allow modified/homebuilt rebreathers into sites. Who knows, maybe they just want to get rid of whoever is there now and perhaps they don't give a damn about you, me or the Association just so long as they win. If you want to stand for the good of the Association (that "good" doesn't necessarily mean you agree with what happens now) and not what's good for you and once you achieve it you'll bail out, then please put up your hand!

Water levels are low, temperatures are down but cave diving is still the best fun you can have with your drysuit on! Let's not forget the big picture, we belong to the CDAA to go Cave diving not be constantly harassed by people with agendas and nothing better to do than cause dissection.

To address the concerns of members more fairly we have decided to call State meetings and these are announced in this issue of Guidelines on page 12. The members list has been the greatest source of input from members but is biased and many will not post in fear of being flamed. Now we wish to get greater, wider feedback about the Direction of the CDAA. Please forward your questions to the Business Director as we don't want to waste time on discussion that is not on the subject. Instructor issues will be covered at the same time in a separate session, this will include the new course formats and training issues.

An Officer of the Association resigned his position because of a clause in the Constitution in regard to the use of the mailing list. It was a regrettable incident and hopefully members and Office Bearers will be careful in what they do with confidential information, even if their intent is for the good of the membership.

News on Barnoolut opening up again should be also in this issue. Grant and I have held meetings and thrashed over a number of issues that have been put to the Landowner, so let's hope it can open and once again

become a prime dive location.

I want to close this report by reminding everyone of what can be achieved by co-operating with Landowners and trusting the Directorate to act in the members best interests. Who cannot say that Kilsbys has turned out, since I arranged the lease with the owner, to be a fantastic asset of the Association. Tri-mix courses are taught there regularly, access is greater for everyone, and apart from a few who complained about the \$10.00 levy it has been very successful. Tank Cave is the same but numbers have dropped off although income has remained stable to cover the cost. This has resulted in more access for those who are able to fill the spots but costs to the Guides have resulted in less access days. The new numbering system proposed by Stuart McGregor has been without doubt very helpful and is still being tweaked, thanks to Grant Sommer for our lighting system as well.

There has been no proposal to increase any fees again this year, that has to be good news!

Regards,  
Warrick McDonald.  
CDAA National Director.



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CDAA NUMBER \_\_\_\_\_

# CAVE DIVERS ASSOCIATION OF AUSTRALIA

(INCORPORATED IN SOUTH AUSTRALIA)

## Membership Application Form

Mail to: Records Officer, PO Box 840, Beaconsfield VIC. 3807.

Surname: \_\_\_\_\_

Given Names: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_ P/code \_\_\_\_\_ Mobile: \_\_\_\_\_

Phone: (h) (\_\_\_\_\_) \_\_\_\_\_ Date of Birth: \_\_\_\_\_ Gender: \_\_\_\_\_

(w) (\_\_\_\_\_) \_\_\_\_\_ Email: \_\_\_\_\_

Please  
email jpg  
or attach  
1 photo

In consideration of me being accepted as a member of the Cave Divers Association of Australia Inc. ('CDAA'):

1. I agree to indemnify and keep indemnified the Association, its directors, officers, employees, agents and contractors against any liability, loss, expense, damages, claims, suits, actions, demands, costs or proceedings whether arising out of statute or at common law in respect of personal injury (including illness) or death arising out of or in connection with or caused by any activity, function, event, dive, expedition, training or administrative task or obligation, including but not limited to equipment failure, damage of equipment during transportation, failure to check equipment adequately prior to entering the water, physical loss of equipment, lack of emergency, rescue or medical personnel or equipment at the site of an accident, loss of usable breathing gas, breathing gas contamination, incorrect measurement of oxygen concentration in breathing gas, incorrect measurement of gas fractions in breathing gas, running out of breathing gas, use of inappropriate breathing gas, mask flooding, becoming physically stuck underwater, collision with physical objects, line problems, including line entanglement, cut line, losing the line, line belay failure, line routing failure, lack of line junction, failure in line following, unexpected removal of line, route finding failure, unrecognised destinations, visibility failure, including poor visibility, deterioration of visibility, physical or mental health problems (pre-existing or otherwise), including hypothermia, blocked sinus, unable to clear ears, respiratory illness, physical or mental impairment due to alcohol or other substance, mental impairment due to narcosis caused by breathing gas, lack of diver fitness, sudden medical emergency, pulmonary barotrauma, fatigue, lack of sleep, animal attack (above and below water), lack of food, dehydration, vomiting underwater, psychological disturbance as a result of being present when a diving accident or other related activity occurs, traumatic injury or acute medical condition, weather problems, including underground and underwater flooding, cave problems, including falling natural and unnatural objects above or below water, physical changes in the cave whilst diving, strong currents, falling whilst entering or leaving the water (underwater or otherwise), falling underground whilst beyond a sump, air contamination in confined air spaces above water, nearby use of explosives, procedural problems, including inadequate or incorrect pre-dive planning materials, failure to observe gas margins, failure to interpret decompression tables correctly, inadequate understanding of decompression techniques, failure to observe correct decompression profile, failure to observe correct ascent or descent rates, lack of personal judgment of personal capabilities to execute a planned dive safely, communication failure between divers underwater, confusion over the expected actions of other divers whilst underwater, public interference by a non-diver, failure to locate alternative breathing supply during swapping of breathing supply, obstruction of alternative breathing supply during swapping of breathing supply, loss of above ground communications or lack of or unexpected loss of underground to surface communications.

2. WARNING UNDER THE FAIR TRADING ACT 1999 (Vic). Under the provisions of the Fair Trading Act 1999, several conditions are implied into contracts for the supply of certain goods and services. These conditions mean that the supplier named on this form is required to ensure that the recreational services it supplies to you are:

Rendered with due care and skill; and As fit for the purpose for which they are commonly bought as it is reasonable to expect in the circumstances; and Reasonably fit for any particular purpose or might reasonably be expected to achieve any result you have made known to the supplier. Under section 32N of the Fair Trading Act 1999, the supplier is entitled to ask you to agree that these conditions do not apply to you. If you sign this form, you will be agreeing that your rights to sue the supplier under the Fair Trading Act 1999 if you are killed or injured because the services were not rendered with due care and skill or they were not reasonably fit for their purpose, are excluded, restricted or modified in the way set out in this form. NOTE: The change to your rights, as set out in this form, does not apply if your death or injury is due to gross negligence on the supplier's part. 'Gross negligence' is defined in the Fair Trading (Recreational Services) Regulations 2004.

3. I have read and understand the Constitution and Regulations of the CDAA and am in support thereof. I hereby apply for membership.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

## Membership Renewal Instructions

- 1) Please print and fill out the Membership Application Form
- 2) **Enclose a stamped self-addressed envelope**
- 3) Include **1 Photograph** and please write your name on the back of the photos or email a good quality photo as a **jpeg** (3cm x 2 cm) to [records@cavedivers.com.au](mailto:records@cavedivers.com.au). Please do NOT staple to the form.
- 4) Enclose your payment. Save time, money and hassle, join for more than one year, no limit!
- 5) If you wish to have **Non Active** membership pay **\$35/yr**. You keep your membership going, receive copies of Guidelines, but cannot dive with such a membership and you do not receive a card so don't need a photo.
- 6) **After August 31st any unpaid renewals will incur a \$45 late fee.**
- 7) Anyone wishing to add a Nitrox or Trimix Endorsement will need to include a photocopy of their certification and pay a **once only** processing fee of \$10.
- 8) **Memberships cannot be processed until everything is sent in.**
- 9) Please send all question by **email only** to [records@cavedivers.com.au](mailto:records@cavedivers.com.au).

### Please tick applicable boxes

- ☐ I wish to pay **\$80 Renewal Fee 2008/2009**.
- ☐ I wish to pay \$ \_\_\_\_\_ being CDAA Membership for \_\_\_\_\_ years
- ☐ I wish to pay **\$35/yr** for Non Active Membership (no diving) for **2008/2009**.
- ☐ I wish to pay **\$35/yr** for Associate Membership (non diving) for **2008/2009**.
- ☐ I wish to pay **\$45/yr** being for \_\_\_\_\_ back fees (max 5 yrs)
- ☐ I wish to pay **\$45** being for late fee (Aug 31st onwards)
- ☐ TOTAL cheque / money order for the amount \$ \_\_\_\_\_
- ☐ I have electronically transferred \$ \_\_\_\_\_ on date \_\_\_\_/\_\_\_\_/08 to account:

Bank: NAB BSB = 085-070, Account No. 69-701-2377.

**PLEASE INSERT CDAA No. in HEADING**

Account Name - CAVE DIVERS ASSOCIATION OF AUSTRALIA INC.

- ☐ Please charge to my credit card for the amount: \$ \_\_\_\_\_
- ☐ BANKCARD ☐ VISA ☐ MASTERCARD

Credit Card No: 

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Expiry Date: \_\_\_\_\_ Signature: \_\_\_\_\_

Office use only: Database: \_\_\_\_\_ Payment: \_\_\_\_\_ Card: \_\_\_\_\_



# Dive Computer Review

## Uwatec Galileo SOL

Created at Uwatec's new factory in Switzerland, the new Galileo SOL computer boast impressive credentials. The Sol is the platform that Uwatec hopes to base all its next generation computers on. Currently the SOL operates in Nitrox/Air and gauge modes. I understand that eventually the new Trimix algorithm they are working on will be incorporated into the Galileo as an upgrade.

I normally dive an Uwatec Tec 2G a far less optioned model but In fact, the SOL proved to be an easy menu driven unit. It has three function buttons and is as easy to set up and use as my blackberry.

### Algorithm

Uwatec has introduced its new adaptive ZH-L8 ADT MB PMG algorithm. It's an eight-compartment, adaptive micro-bubble, and predictive multi-gas algorithm. In simple terms this is a new algorithm which also takes into account water temperature, breathing rate and workload.

In cold water a diver suffers vaso-constriction restricting blood flow to the peripheries. This naturally affects the rate of off-gassing in those areas such as arms and legs. The SOL has integrated radio transmitters for monitoring gas usage on up to four cylinders, three of your own and one of your buddies if you are so inclined. It records current pressure and remaining gas time. In partnership with sports watch maker Polar, Uwatec has incorporated incoming data with that of a submersible heart-rate monitor that the diver wears around the chest.

A diver can now choose whether heart or breathing rate takes precedence in deco calculations. Alternative the SOL can be programmed to calculate deco, on the worse or best case of the two, as they change during the dive. The prompt "Increased Workload", indicates that one of the factors is above a predicted normal and no-stop times may be shortened. The predictive multi-gas algorithm indicates at a glance your deco if you continue using the gas you are breathing, or alternatively the reduced deco time if you switch to a richer Nitrox mixture.

### Display Legibility

The unit is a similar size, slightly larger than perhaps the older rectangular shaped Uwatec's but considerably less bulky. The Sol is oil filled and can withstand dives to a depth of 330 metres. Unlike most oil filled computers the battery in the SOL is user changeable. The computer chip is reprogrammable over the internet with a claimed Infrared download time of 6 minutes to obtain new software versions. One of the features I found neat is the ability to personalise the interface via your PC and the supplied software. Underwater it can display your actual and your predicted dive profile as well as simple pictures such as caves maps.

During a dive the Galileo SOL gives a summary of deco obliga-



tions for all the gases you may be utilising and includes total ascent time. The remaining bottom time displayed relates to the initial gas you used on the dive. Switching mix can be done automatically or manually as pre-programmed by the diver. There is also an optional pre-programmed alarm when you reach a point of 2 minutes of no-stop time remaining, before entering deco. The Galileo has automated altitude settings even when turned off it samples and sets it via barometric pressure every 60 seconds.

At present the Galileo SOL is an open circuit only computer and can not be utilised for Closed Circuit Rebreather use, with standardised set points. Its Nitrox usage on all 4 sensors can be programmed between 21% and 100% oxygen. Maximum operating Depth (MOD) alarms can be set between 1.2 and 1.6 PPo2.

### Gauge Mode.

Personally I utilise gauge mode in my computers so I was keen to see how the new Galileo SOL worked in this configuration. It has a countdown timer which can be activated on the fly at depth for keeping track of deco stops. The numerals are large and easily read. I found the light easily illuminated the display which was intuitively interpreted. In gauge mode an average depth function is activated. I found this accurate during a dive, despite the multi-levelling we were undertaking. When the Galileo is set to gauge mode, it will only monitor depth, time, tank pressure, heart rate and temperature, and will not carry out any decompression calculation. Maximum depth in gauge mode is still 330 metres. Maximum displayed dive time in gauge mode is 99 hours and 59 minutes. You can only switch to gauge mode if the computer is completely desaturated. In Gauge mode the compass option can be bought up by pressing right button. During a dive in gauge mode, the following information is displayed:

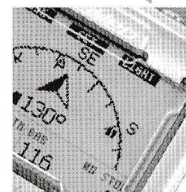
- current depth
- dive time
- tank pressure
- stopwatch
- maximum depth
- temperature
- heart rate
- average depth

In particular I like the gauge mode with automated average depth function. This allows me to keep track mentally with what my anticipated dive profile and time obligations are expected to be. During normal computer modes the Galileo automatically switches to gauge mode once you pass 120m. It then displays ascent speed and although allowing you to switch mixes it only displays tank pressure. The timer goes into stopwatch mode in hours and minutes.

### Digital Compass

The SOL has an incorporated full tilt digital compass with bearing memory. Uwatec claim it operates accurately tilted 80 degrees during a dive. At the same time the computer still displays essential information including depth, time, deco and tank pressure. This compass bearing is downloadable in the software at the completion of the dive.

In summary I found the Galileo SOL an easy to read, easily programmable, fully functioned Nitrox computer. The software and recording of data was very extensive coupled with the Smart-Trak software. I like the idea of a computer updatable version which will eventually include a new Trimix algorithm. The aver-



aging of depth and big display utilized in the gauge mode are also winners in my opinion. Those looking for a fully optional computer as a tool that can record and log data beyond the usual depths, should seriously consider the Galileo SOL.

**Cost:** \$2750 rrp (currently \$500 trade in deal on any old computer)

**Ascent rate:** variable 7-20mpm

**In water display:** Multi visual modes

**Depth rating:** 330 metres

**Logbook:** 100hrs at 4 second sampling

**PC Interface:** Infrared

**Diving Modes:** Air/Nitrox/Gauge

**Battery:** CR2NP

**Contact:** [www.scubapro-uwatec.com](http://www.scubapro-uwatec.com)



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PO Box 9286, Mount Gambier West, S.A. 5291



# 'Standards Direction'

The date of this years' AGM has been set and I am in the midst of organising speakers for the conference during the afternoon. A speaker list will be published on the website shortly but I am actively looking for additional people to present. If you have a topic that you think members may be interested in or something to present please drop me an email. We are also considering several workshops for the weekend including an Oxygen Provider certification and a roping/rappelling experience. I hope to see many of you there and aim to top last year's attendance numbers.

Welcome aboard to Scott Edwards who has volunteered to act as the new Instructor records officer. I want to take this opportunity to thank Ian Taylor for his enthusiastic efforts in this position over the last few years.

We are trying to coordinate a penetration course in the Nullarbor later this year so if anyone is interested in this unique opportunity please contact myself or Jane Bowman (penetration course coordinator).

We are about to commence revamping the CDAA cave course. I am interested in member's comments relating to the inclusion of arrow marking and jumps at this level. If you wish to comment on these or other points about the cave course please get in contact with me.

Stuart Macgregor is calling for interested divers who want to be involved in a project surveying, recording and detailing blue holes in Australia. This project is long term and interested divers should contact either Stu or I for further details. The first trip is out of MacKay in mid July first in best dressed with a total of 5 holes to be explored.

We have recently had a member suspended for 9 months due to comments made on the internet forum, which contributed in the closure of Barnoolut Station to all diving. We are working feverishly to open this to members again. Additionally an office bearer breached the confidentiality terms of his office. This appears to me to have been inadvertent and the member resigned from office. No sanction was imposed.

For the travellers amongst us the NSS CDS has there conference scheduled for 11-15 August 2008 in Lake City, Florida. GUE have there conference scheduled for October 31 to Nov 2, 2008 in Gainesville, Florida as do the NACD on 15 November 2008. Looks like a good time to coordinate a Florida trip. Hope to see some of you there.

Safe diving,  
**Steve Trewavas, Standards Director**



## TANK CAVE DATES... & A REMINDER...

A Tank Cave returning diver application form and the annual \$150 fee will be required before any bookings can be accepted.

July 12 - 13 2008	Rob Brennan	January 24 - 26 2009 (Australia Day)
July 26 - 27 2008; Linda Claridge	October 18 - 19 2008; Tim Payne	February 7 - 8 2009; Steve Trewavas
August 9 - 10 2008; Richard Irndorfer	November 1 - 2 2008; John DZ	February 21 - 22 2009; John DZ
August 23 - 24 2008; Jane Bowman	November 15 - 16 2008	March 7 - 9 2009 (Vic. Labour Day)
September 6 - 7 2008; Warrick McDonald	Jane Bowman & Warrick McDonald	Richard Irndorfer
September 20 - 21 2008; Andrew Higgins	November 29 - 30 2008; Gary Barclay	March 21 - 22 2009; Gary Barclay
October 4 - 6 2008 (S.A. Labour Day)	December 13 - 14 2008	April 10 - 13 2009 (Easter)
	January 10 - 11 2009; Tim Payne	

## Tank Cave fees of \$150.00 are due on August 1st.

Best option is direct deposit into the CDAA account and notate details on Tank Cave applications

Please include your CDAA Number and the word Tank in EFT deposit description if possible. eg 5678 Tank

...from page 15

seen first-hand divers not taking responsibility for themselves, diving with poorly maintained equipment, diving beyond their qualifications, diving without respect for their fellow buddies and I could go on....

Mr Scott has placed the access of Barnoolut for the CDAA in my hands and I would be derelict in my duty of care to Mr Scott and the CDAA if I didn't ensure the safe orderly access of the CDAA on Barnoolut to the best of my ability even if it meant I appeared abrasive or arrogant. I had very little help from the CDAA, in general, to assist me with these arrangements. I invited the site director to get involved but received no help from him.

I would like to take this opportunity to mention a few volunteers, and particularly a small group of CDAA members from Albury, who weren't interested in the politics but liked to dive and volunteered to help with site improvements. You know who you are and I thank you.

I have been asked to consider handing over all information and keys of Barnoolut to the CDAA directorate to manage, however with recent accusations of mismanagement and a no confidence motion put forward against the directorate on the CDAA list, I'm not so sure. Anyway, Mr Scott has indicated that he will not deal with the directorate or any other member.

All of the problems with the CDAA and access arrangements of Barnoolut have been caused by a minority of members publicly accusing me of impropriety. The rest of the members are simply people who share the same passion for "cave diving".

### The future for Barnoolut and the CDAA...

Scott's Agencies representatives have expressed concern over the political in-fighting within CDAA ranks and have confirmed that if Barnoolut is to be re-opened to the CDAA members, tighter control and conditions may be put in place. For the foreseeable future, they are not interested in entering into any discussions with anyone other than myself.

Barnoolut may only be available 4 to 6 weekends per year. 3 sites should be available per weekend, Blacks, Bullocks and 10-80 sinkholes. Access fees for Barnoolut will be the same as the Shaft and collected by the access officer on the day. This fee will offset the cave dive supervisors travel, accommodation and incidental costs.

I hope this letter will make all dealings with Barnoolut clear and transparent and we can all focus our efforts on safe, friendly diving for all members in the future.

Safe diving, Yours sincerely, Grant Sommer # 3523

## Report from the Business Director

Business is going along smoothly at present with the accounts again looking good. The next issue of guidelines will have a preliminary financial report.

In this issue of Guidelines you will find an invitation to the AGM in Mt Gambier which will be held at 6:00pm on Saturday October 18, 2008 at the Comfort Inn Silver Birch conference room. Accommodation will be available at cheaper rates with a 10% discount for CDAA members. Snacks will also be available during the afternoon for those attending the talks. Dinner will be held again at the motel after the conclusion of the AGM. It was very popular last year, so I would appreciate an email if you are definitely attending as this will help with catering.

The AGM announcement in this issue also serves to call for nominations for two director positions: Business Director and Standards Directors plus a call for Member motions and Amendments to the Constitution.

Please consider the options as this is your opportunity to either help run the CDAA as a director or to have a say in how things are run. If anyone has thoughts on standing for Business - I would be happy to let them know about the day to day running of the CDAA.

On other matters - I would like to hear members' opinions as to whether the CDAA should make a capital purchase such as a building or land. The CDAA has around \$280,000 and, as long as I remember, there has always been talk of saving up so that we could purchase

something to benefit of the CDAA.

Directors have discussed the purchasing options for a while now. It is pointless having the funds if there is no plan to do something to benefit members with them. Currently there are opposing views in the directorate [4 for a purchase, 1 against], so I would like to canvas members and seek your opinions.

**Please register / send your opinion for a Capital Purchase - YES or NO**

1. Online on the CDAA web page
2. to me at PO Box 292, Calwell, ACT, 2905 or
3. via email to [business@cavedivers.com.au](mailto:business@cavedivers.com.au)

**NOTE: You must provide your CDAA number for all of the above options. This will ensure that members can only voice their opinions once.**

I am happy if you add short comments.

I would like to receive all replies by July 30 and I will collate and put results on the web and in the next issue of Guidelines.

Regards, Heike







# NATIONAL PARKS & WILDLIFE SERVICE

A DIVISION OF DEPARTMENT OF ENVIRONMENT & CONSERVATION

BOX 1782 G.P.O.  
ADELAIDE, S.A. 5001  
TELEPHONE: 51.5862  
Telegraphic Address: NATPARK ADELAIDE

2nd FLOOR, TINSMITH BUILDING,  
135 WAYMOUTH STREET,  
ADELAIDE.

Date 13th August, 1974.

## PICCANINNIE PONDS CONSERVATION PARK DIVING PERMIT

(Issued in pursuance of Regulation 34, made under the National Parks and Wildlife Act, 1972)

This is to certify that: Mr. Graeme R. Smith  
of: 28 Caroline Street,  
ESSENDON, VIC. 3040.

has been granted permission to dive in Piccaninnie Ponds Conservation Park.

Permission covers swimming, snorkel diving and diving using self-contained underwater breathing apparatus. This permit should be in the possession of the above person at all times when diving in the Park and it must be produced upon the request of a Warden appointed under the National Parks and Wildlife Act, 1972.

The permit is issued subject to the conditions appearing on the back hereof, and non-compliance with any of these conditions may result in the cancellation of this permit.

Permission to dive in the Piccaninnie Ponds Conservation Park expires on 30th June, 1975, but the permit may be renewed on an annual basis thereafter, upon written application to the Director, National Parks and Wildlife Service.

### CONDITIONS UNDER WHICH THIS PERMIT TO DIVE IN PICCANINNIE PONDS CONSERVATION PARK IS ISSUED:

1. No person shall enter the waters of Piccaninnie Ponds while equipped with self contained underwater breathing apparatus unless accompanied by another diver also using underwater equipment.
2. No person, inexperienced in deep freshwater diving and/or cave diving shall enter the waters of Piccaninnie Ponds while equipped with self contained underwater breathing apparatus, unless accompanied by another diver experienced in these activities and also using underwater equipment.
3. No person shall dive using underwater equipment unless a depth gauge is worn.
4. No person shall dive to a depth greater than 120 feet (36½ metres). (Remember 130 feet is the maximum safe depth for diving with compressed air).
5. A guide line must be used when entering side caverns.
5. Weights must not be used when diving below 50 feet (15 metres).
7. All requirements of the National Parks and Wildlife Act, 1972, and the Regulations made under that Act, as applying to the use of Conservation Parks shall be adhered to at all times while within the Park. In particular it should be noted that:
  - (a) Camping is prohibited unless a camping permit is obtained.
  - (b) Vehicles may only be driven on established roads or tracks.
  - (c) Boats or other craft are not permitted on Piccaninnie Ponds.
  - (d) No fires shall be lit or maintained except in the places provided and fires in these areas must be extinguished before leaving.
  - (e) No fire shall be lit on a day declared to be a Total Ban day. (Note: The above regulations also apply to gas fires and gas lights)
  - (f) No person shall carry or discharge any firearm or other weapon (including spear gun).
  - (g) No person shall take, kill or disturb any animal (including birds, reptiles, and fish).
  - (h) No person shall cut, pick or damage any plants.
  - (i) Litter must be placed in the receptacles provided.
  - (j) Removal of stone, soil or other material is prohibited.

submitted by  
**Graeme Bartle-Smith,**  
Horsham, VIC.

# UP COMING COURSES

## DEEP CAVERN Courses

July 1 - 5, 2008 in Adelaide & Mount Gambier inc pool session  
Instructor: Steve Selbach 08 8121 5881 [steve@elitediveacademy.com.au](mailto:steve@elitediveacademy.com.au)

July 7 - 20, 2008 in Melbourne and Mt Gambier inc pool session  
Instructor: Terri ALLEN 0419 176633 [terri.allen@baker.edu.au](mailto:terri.allen@baker.edu.au)

July 25 - 28, 2008 in Mount Gambier SA  
Instructor: Linda Claridge Gary Barclay 03 5565 8793 [garinda@tpgi.com.au](mailto:garinda@tpgi.com.au)

August 9 - 17, 2008 in Melbourne and Mt Gambier inc pool session  
Instructor: Terri ALLEN 0419 176633 [terri.allen@baker.edu.au](mailto:terri.allen@baker.edu.au)

August 30 - September 8, 2008 in Adelaide & Mount Gambier inc pool session  
Instructor: Steve Selbach 08 8121 5881 [steve@elitediveacademy.com.au](mailto:steve@elitediveacademy.com.au)

September 15 - 28, 2008 in Melbourne and Mount Gambier SA inc pool session  
Instructor: Jane Bowman 03 9579 2600 [info@aboccean.com.au](mailto:info@aboccean.com.au)

September 15 - 18, 2008 in Mount Gambier SA  
Instructor: Linda CLARIDGE Gary BARCLAY 03 5565 8793 [garinda@tpgi.com.au](mailto:garinda@tpgi.com.au)

October 13 - 16, 2008 in Mount Gambier SA  
Instructor: Linda CLARIDGE Gary BARCLAY 03 - 5565 8793. E: [garinda@tpgi.com.au](mailto:garinda@tpgi.com.au)

October 29 - November 4, 2008 in Melbourne & Mt. Gambier inc pool session  
Instructor: Andrew HIGGINS 0413569164 [ahhiggins@optusnet.com.au](mailto:ahhiggins@optusnet.com.au)

## Cave Courses

July 4 - 6, 2008 in Mount Gambier SA  
Instructor: Linda Claridge 03 5565 8793 [garinda@tpgi.com.au](mailto:garinda@tpgi.com.au)

July 28-Aug 3, 2008 in Melbourne and Mount Gambier SA  
Instructor: Jane Bowman 03 9579 2600 [info@aboccean.com.au](mailto:info@aboccean.com.au)

August 9 - 11, 2008 in Mt Gambier  
Instructor: Andrew HIGGINS 0413569164 [ahhiggins@optusnet.com.au](mailto:ahhiggins@optusnet.com.au)

August 23 - 25, 2008 in Mount Gambier SA  
Instructor: Linda Claridge 03 5565 8793 [garinda@tpgi.com.au](mailto:garinda@tpgi.com.au)

October 6 - 8, 2008 in Mount Gambier SA  
Instructor: Linda Claridge 03 5565 8793 [garinda@tpgi.com.au](mailto:garinda@tpgi.com.au)

October 6 - 12, 2008 in Melbourne and Mt Gambier  
Instructor: Terri ALLEN 0419 176633 [terri.allen@baker.edu.au](mailto:terri.allen@baker.edu.au)

## CDA Penetration Courses

October 4,5,6 11,&12th (2 weekends). Contact Penetration program co-ordinator Jane Bowman  
[info@aboccean.com.au](mailto:info@aboccean.com.au) 03 9579 2600

Please download the latest application form off the webpage [www.cavedivers.com.au](http://www.cavedivers.com.au)



## 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 P = PENETRATION

SITE	LEVEL	OWNER	ACCESS DETAILS
<b>MOUNT GAMBIER - SOUTH AUSTRALIA</b>			
<b>DEH SITES</b>			
Ewens Ponds	Nil	DEH P.O. Box 1046 Mt Gambier 5290 (08) 8735 1177	Groups of 6 or more, phone/mail to Dept. for Environment & Heritage (DEH) Smaller groups, no need.  Fax: (08) 8735 1135
Gouldens	CN	DEH	<b>General Diving:</b> Divers to contact DEH and notify of date and site to be dived. Please make requests by phone or fax only.
2 Sisters	CN	P.O. Box 1046	Divers must have the correct CDAA diving endorsement for the site and carry current
Fossil	C	Mt Gambier 5290 Ph: (08) 8735 1177 Fax: (08) 8735 1135	financial CDAA membership card. The diver must have signed an indemnity with DEH before access is permitted. <b>Training:</b> The Instructor is to notify DEH 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	as above	Permit holders by phone or fax. Be aware of delicate vegetation. \$25/dive or annual Permit \$55. NOTE: Indemnity form to be completed with m'ship renewal & lasts same length as. M'ship. <b>NOTE: Divers should renew their Piccaninnie Ponds indemnities at least 2 weeks prior to their intended dive date.</b>
Horse & Cart	CN	Peter Cunningham	By phone or mail, 1 week prior. Ph: (08) 8738 4003.
Tea Tree	CN	PO Box 2168, Mt Gambier 5290	
Little Blue	S	District Council of Grant	Little Blue - permission not required - must carry card.
Allendale	C	District Council of Grant	Obtain key from Lady Nelson Tourist Information Centre.
Ela Elap	S	Mr. Peter Norman	Visit the house before diving.
One Tree	S		If no one home - no dive!

### FORESTRY SA SITES

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/P	Unrestricted days or numbers - Cave rated divers must not enter Penetration sections
Mud Hole	C	Unrestricted days or numbers.
Nettle Bed	P	Open every weekend. Maximum of 4 divers per weekend undertaking 1 dive only (check an update on CDAA website)
Stinging Nettle Cave	P	Open every weekend max 3 divers per day undertaking 1 dive per day (check an update on CDAA website).
Iddlebidy	P	Open every Saturday max 4 divers, 1 dive only (check an update on CDAA website)

Owner: Contact Forestry SA by email: [forestrysa@forestrysa.sa.gov.au](mailto:forestrysa@forestrysa.sa.gov.au). Fax: (08) 8724 2885 or Phone: (08) 8724 2876 or book on-line via the CDAA website to arrange permit. Collect permits from the Forestry Office, RHS of driveway to Carter Holt, Jubilee Hwy, Mt Gambier.

#### IMPORTANT:

- No diving on Total Fire Ban Days.
- Permit also required to run compressors during fire danger season.
- Keys for Hells Hole, Nettle Bed, Iddlebidy and Stinging Nettle Cave can be obtained from Lady Nelson Visitor Centre on presentation of Forestry SA permits.

Kilsby's	S	Landowner leased to CDAA	Access - Open Fortnightly. Refer to CDAA website. Twin Tanks - Maximum depth of 40 metres on Air. Meet at gate of property at 8.55am or 12.55pm. Book on-line at <a href="http://www.cavedivers.com">www.cavedivers.com</a> or contact Craig at <a href="mailto:kilsby@cavedivers.com.au">kilsby@cavedivers.com.au</a>
		No Visitors	No animals, visitors or mid-week diving allowed.

## CDAA SITE ACCESS

SITE	LEVEL	OWNER	ACCESS DETAILS
<b>MOUNT GAMBIER - SOUTH AUSTRALIA (continued)</b>			
<b>BARNOOLUT SITES</b>			
Ten Eighty	S	Scotts Agencies P/L	Access: Grant Sommer ph. 0412 266 826. Mail - 147 Kenihans Road, Happy Valley, SA 5159 Download indemnity and book online at <a href="http://www.cavedivers.com.au">www.cavedivers.com.au</a> . <b>DATES OPEN, TBA: see web page for details</b>
Blacks Hole	S	Scotts Agencies P/L	<b>DATES OPEN, TBA:</b>
Bullock's Hole	S	Scotts Agencies P/L	<b>DATES OPEN, TBA:</b>
Shaft	S	Generally open one weekend a month. Trevor Ashby	For access dates refer to Guidelines or the CDAA webpage. 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 Download form off website. Email: <a href="mailto:shaft@cavedivers.com.au">shaft@cavedivers.com.au</a> (Linda Claridge, 0408 052 070)
Hann's cave	P	P & A Lasslett Manager: Mike Haze	Groups of four divers only apply in writing to Site Director. Limited groups will be allowed access over the summer months. The site is very delicate and therefore only limited access is available. Divers applying will be notified as to further access details. Please include a stamped self addressed envelope.
Engelbrechts - East - West	C P	Mt Gambier Council Lessee Ph: (08) 8723 2299	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	P	Millicent Council	Download Indemnity from Web Page. Access available for experienced Penetration divers only. Low profile or side mounted independent air systems required. Access agreement must be signed prior to diving. Please allow 4 weeks for indemnities to be processed.
McKay's Shaft	S		Contact Email: <a href="mailto:site@cavedivers.com.au">site@cavedivers.com.au</a> .
Tank Cave	P	Mr. DYCE	Access Manager: Noel Dillon. Email: <a href="mailto:noel.dillon@macquarie.com">noel.dillon@macquarie.com</a>
Baker's Cave	C	Manager: Brad Dibble E: <a href="mailto:site@cavedivers.com.au">site@cavedivers.com.au</a>	Please write to the Site Access Director to dive in Baker's Cave. Include stamped self-addressed envelope. Climbing equipment required. Only open October to April.
<b>NULLARBOR - WESTERN AUSTRALIA</b>			
Cocklebidy	C/P		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	P/C		
Tommy Grahams	C		
Weebubbie	S/C	DPI	The Department for Planning and Infrastructure, Midland, State Land Services South East. PO Box 1575, Midland 6936. Contact Kim Allison, Email: <a href="mailto:kim.allison@dpi.wa.gov.au">kim.allison@dpi.wa.gov.au</a> Phone (08) 9347 5047 Fax (08) 9347 5004
<b>N.S.W. - WELLINGTON CAVES</b>			
Limekiln (McCavity)	P/C		Both Penetration and Cave Level are being accepted for this cave depending on it's 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)	C		Affected by high CO <sub>2</sub> levels during Summer/Autumn. Access is co-ordinated with the Wellington Caves management by Greg Ryan - <a href="mailto:greg@cs.usyd.edu.au">greg@cs.usyd.edu.au</a> . Phone (02)97434157
Rum Jungle Lake	S		Unrestricted access currently exists - Please refer advice Guidelines #68 or check CDAA website.
Burrinjuck	S/C/P		This is a tri rated site. Please see details in issue No. 73. There are no specific access arrangements.



Please send to: Helen Higgins  
CDAA, 3 Harris Crescent,  
Glen Waverley, VIC 3150.

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Cardholders Name: \_\_\_\_\_

Order Date: \_\_\_\_\_

Sub Total \$ \_\_\_\_\_

Address: \_\_\_\_\_

Plus P&H **\$8.00**

\_\_\_\_\_ Postcode: \_\_\_\_\_

TOTAL \$ \_\_\_\_\_

Card No. 

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☐ Bankcard    ☐ Mastercard    ☐ Visa

Expiry Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Ph: (    ) \_\_\_\_\_

Fax: (    ) \_\_\_\_\_



## CDAА INSTRUCTORS

NAME	Deep Cavern	Cave	Penetr
<b>A.C.T.</b>			
APPS, Heike (CDAА 2776) BH 02 6249 9170 AH 02 6291 0566 E: heike.apps@ga.gov.au	Yes	Yes	Yes
<b>N.S.W.</b>			
FEATONBY, Tim (CDAА 3372) Mob: 0402 129 253 E: tim.featonby@defence.gov.au	Yes	Yes	
GRILLS, Peter (CDAА 1780) AH 02 4955 4497 Mobile 0419 820 920 E: peter_grills@hotmail.com	Yes	Yes	Yes
WALTERS, DESMOND BH 02 6041 1405 AH 02 6025 3506 deswalters@westnet.com.au	Yes	Yes	
<b>SOUTH AUSTRALIA</b>			
MARRIOTT, Max (CDAА 1268) Mob: 0428 897 897 E: dive69@chariot.com.au	Yes	Yes	Yes
SELBACH, Steve (CDAА 3495) Phone: 0413 134 827 Email: steve.selbach@mac.com	Yes		
<b>VICTORIA</b>			
ALLEN, Terri (CDAА 3483) Mob: 0419 176 633 E: terri.allen@baker.edu.au	Yes	Yes	
AXTON, Paul (CDAА 2826) Phone: 0419 346 442 E: PALdiving@people.net.au	Yes	Yes	Yes
BARCLAY, Gary (CDAА 1735) AH (03) 5565 8793 E: garinda@tpgi.com.au	Yes	Yes	Yes
BOWMAN, Jane (CDAА 1880) BH: (03) 5979 2600 E: info@abocan.com.au www.abocan.com.au	Yes	Yes	Yes

NAME	Deep Cavern	Cave	Penetr
<b>VICTORIA. cont.</b>			
CLARIDGE, Linda (CDAА 2214) Mobile 0408 052 070 E: garinda@tpgi.com.au AH (03) 5565 8793	Yes	Yes	Yes
DALLA-ZUANNA, John (CDAА 236) Penetration instructor Phone: 0407 887 060 Email: jdz@paintandcustom.com.au	Yes	Yes	Yes
HARDMAN, Lorraine (CDAА 2824) Mob: 0418 304 120 E: PALdiving@people.net.au	Yes		
HIGGINS, Andrew (CDAА 3329) Mobile: 0413 569164 E: ahhiggins@optusnet.com.au	Yes	Yes	
LESLIE, Paul (CDAА 3184) Phone: (03) 9879 2868 Email: info@diverinstructionservices.com.au	Yes		
McDONALD, Warrick (CDAА 1882) BH: (03) 5979 2600 E: info@abocan.com.au Mobile 0408 374 112 www.abocan.com.au	Yes	Yes	Yes
MONACO, Rubens (CDAА 1731) BH 03 5984-1799 E: info@idcscuba.com.au Mobile: 0413-429-533	Yes	Yes	
TAYLOR, Ian (CDAА 3568) Phone: 0411 118 134 E: ian.taylor4@defence.gov.au	Yes	Yes	
WALTERS, Des (CDAА 687) Location: Albury Phone: (02) 6041 1405 Email: deswalters@westnet.com.au www.descend.com.au	Yes	Yes	
WEALTHY, Bob (CDAА 464) Mob: 0417 524 005 Email: somerset@iimetro.com.au	Yes	Yes	

# China Cave Project 2008

story and photos  
Steve Trewavas

**In April 2008 Jason Caldwell, Andrew Cronan, Gideon Liew and I were fortunate enough to be invited by the Chinese Government to assist with a caving project near the city of Fengshan in the Guangxi Province of Southern China. Coordinating our diving was David Deng a CDAА diver who recently returned to China after having worked in Melbourne for the previous ten years. During this time he completed his training from Deep Cavern to Penetration level with the CDAА.**

The aim of the project was to promote the area as an outdoor adventure destination. The project was covered by the Chinese Central Television (CCTV), China Geographic and China Outdoor magazine. Several other television channels were present including a number of local channels and a national sports channel. We were obligated to deliver HD video footage to the media outlets that were involved. In total 7 television channels and three magazines covered the project. Most days we did several media interviews and participated in several government level meetings discussing tourism to the area.

Assisting us were dry caving members of the China Cave Project. Without their information and support we would have achieved very little during our expedition. Julia Tien was interpreting and coordinating our site locations. Jean Bottazzi a director of the French Speleological Society, who lives in China, sorted all our roping access needs. Without these two people we may well be stuck there still.

Videographers were Jason and Andrew utilising a Sony FX1 in a mechanical Gates housing. Additional equipment and lighting was supplied by Halcyon including Four 50watt HID's. Scubapro supplied additional equipment and loaned us a new Galileo computer to put through its paces.

In the Fengshan area we dived a total of four caves;

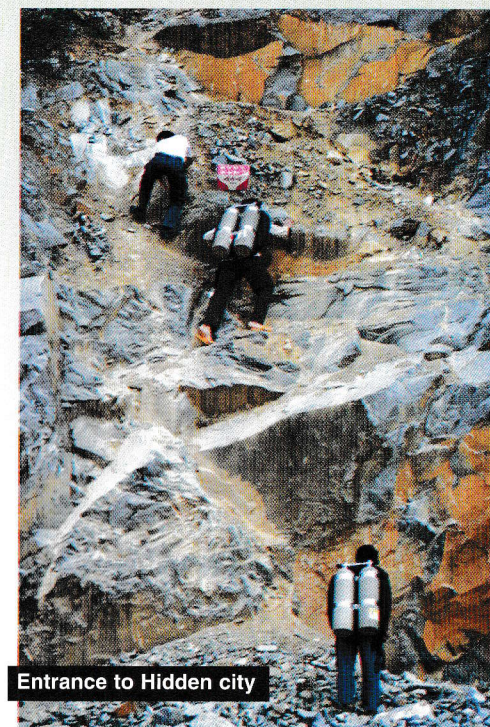
### Yan Yean Spring;

At the head of the valley draining into a river, which flows through the centre of Fengshan is Yan Yean Spring. There are two spring sources within 100m of each other. One is clear and the other dirty with no apparent connection. We placed divers in both sites, sampled water and mud and looked for ongoing passages. Both springs were low flow and no large tunnels were located. It appears the water seeps from a cavern up through the cracks in the rocks. Maximum

depth was 3 metres. Water temperature was around 23 degrees which was average for the province.

### Hidden City;

The initial entrance is a 30 metre scramble up a steep shale face before descending about 80 metres to the surface pool. The decent involves two vertical pitches each around 40m high. Initially the site was evaluated as being undiveable on this trip as we did not bring our drycaving/SRT equipment. 48 hrs later the



Entrance to Hidden city





Yuan Springs

Transportation  
Chinese style

locals had built ladders, platforms and a diving pontoon for our convenience. We deduced they were really keen for us to dive here! All equipment was shuffled to the waters edge by local people and members of the China Cave Project. Gideon, Andrew and

David did two short exploration dives determining the fissure type cave did not continue horizontally beyond about 30 metres. The water was substantially colder than the local rivers but was at a similar altitude.

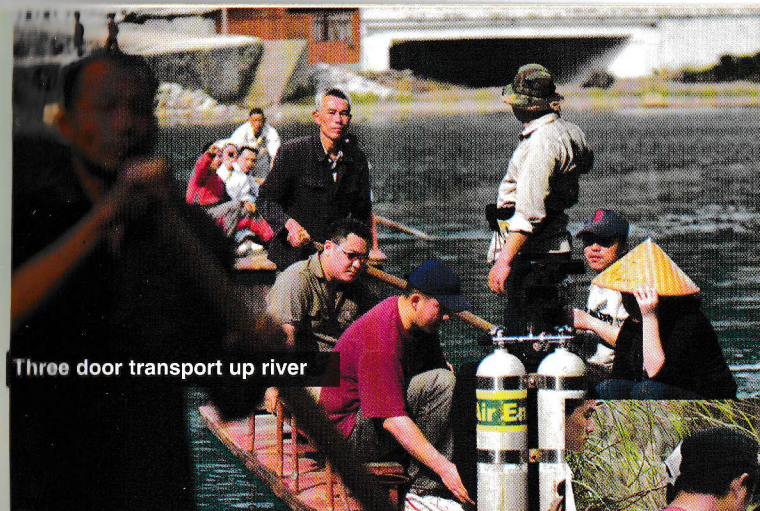
#### Three Door Sea;

The main exploration site dived was San Man Hai or literally in English - Three Door Sea. The system is a series of dry passages connected by a sinking river. The first three dolines are accessible via a tourist river boat which travels upstream through three cave tunnels. The last accessible karst window has a substantial dry cave diverging north. 100 metres to the South is a 4th karst window and it was this that divers were needed to establish a linkage of the river system. The China Cave Project divers have mapped the extensive drycave passages connected to the river but no cave divers had dived the site.

The visibility here was between 3-5 m on various days and exploration diving was challenging to say the least. We managed to connect and map the third and fourth windows to much excitement of the locals. We then set about laying line to the 5th window which was approximately 200 metres to the west. Here we ran into depth issues. We plumbed the floor with a weighted reel and were astonished to find it bottomed at 70 metres near the west wall and 50 metres in the centre. We decided it would have to be relegated to our next trip when we would have the benefit of appropriate helium. Out of interest a helium G-cylinder is about \$90 au.

#### Zhongting Sink Hole;

As our diving had been pulled up short by the unex-



Three door transport up river

pected depth discoveries at San Man Hai we were quickly redirected to the next dive site. Zhongting Sink was an 800 metre long crawl cave at the side of a flood plain. We were followed the complete distance by three television crews and china geographic photographers who weren't going to take no for an answer. David completed a quick dive to about 5 metres where he established in zero visibility that the cave pinched down to a very tight restriction. We then crawled and hunched our way back to the entrance.

Each day we conducted a number of television interviews. In fact it felt like we could not go anywhere without a film crew. One evening we conducted a meeting for China Geographic, which was attended by all the provincial heads of Government, the military heads, police and the local chief Magistrate, quite daunting when all of this was recorded and filmed. Jason's phone calls home continually confirmed we had not created a negative international incident that caused the breakdown in Australian/Chinese relations.

The province is known for its caves. It is a huge limestone karst area rivalling that of the Nullarbor Plain. The possibilities for caving and cave diving are endless. The local saying is that "Every mountain in the area has a cave". This is in my opinion an understatement. Every mountain has about five!

We are greatly indebted to the people of Fengshan especially Mr Winston WEI who is the Mayor of the city. We were shown the most generous hospitality, respect and kindness by the government and local people. At all dive sites we had our own Government official, doctor, nurse (complete with hat) and most days we were escorted by the local police. Despite this I never sensed they were an intrusion and we were allowed to film and photograph whatever we

wanted. Additionally I want to thank David Deng who unselfishly battled both television directors and grumpy divers managing a sterling effort ensuring the project was a success. Truly a remarkable expedition and an experience I will remember for the rest of my life. •



TV interview



bellum hotel

**Room discounts to  
CDAA members**

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# Sinkholes of the Great Lakes, Michigan.

by Peter Buzzacott

*The loudspeaker announced "All stations secure, dive party and tenders to the dive deck, everyone else stand down, get some rest", and rest they needed. The entire ex-navy vessel was crewed by 14-17 year olds, who had been taking shifts through the night to get us here. We had arrived at Middle Island and we were about to dive an amazing sinkhole.*

Captain Luke Clyburn, of the *Pride of Michigan*, produced a documentary in 2006 called "Great Lakes, Ancient Shorelines. Sinkholes" and I had watched this movie again and again. At last, following a flight to Detroit, an eight-hour overnight trip to Alpena by boat, followed by another two hours north under steam as the sun arose during breakfast, we anchored near Middle Island, at the northern reach of the Thunder Bay Underwater Sanctuary and Preserve.

The *Pride of Michigan* is a US Naval Sea Cadet Training vessel, on which cadets conduct research whilst scuba diving, and it was on a diving research trip that the Captain explored a karst sinkhole beneath Lake Huron. The area is rich with indigenous history and, on land, there are many flooded sink-



holes, some with signs of ancient human settlement nearby. When the water-level was much lower the crescent-shaped limestone feature would have formed a land-bridge between what is now the USA and Canada. The broad limestone feature disappears under the lake and the Captain has been searching for signs of human habitation around this sinkhole. It has been underwater for at least 7000 years.

Today, he was taking the time

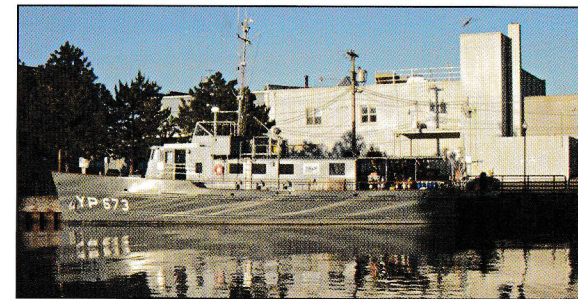
to be my guide, and we were shooting film for another documentary planned for release this year. We geared-up and dropped 2m from the deck to the lake. The water was crisp and clear, 7m below me I saw large boulders everywhere, covered in fine yellow-brown algae. We finned towards the lip and dropped down inside the hole, turning right I followed the Captain around the outside at a depth of 10m. Below me the floor of the hole leveled-out at 26m, the bottom consisting of mud, and a lonely three-tier temperature-monitoring station. It looks like the local NOAA office is taking an interest in this unique geological feature.

The Thunder Bay Preserve is managed by the NOAA office based in nearby Alpena, a delightful small town of less than 20,000 people. Just a few



years ago the legendary Dr Robert Ballard conducted a bathymetric survey of the area, discovering a second sinkhole nearby, one that is reportedly 100m deep and NEVER BEEN DIVED! Lake Huron is the least populated of the five Great Lakes, covering 23,000 square miles, and reaching as deep as 250m just 58 miles from Thunder Bay. There is much more here awaiting discovery.

We approached a crater-like feature on the north-eastern side of the sinkhole, probably 5m wide, and the Captain waved at it. Around the lowest edge strings of white algae danced alike long-hair in a strong wind. I reached towards one and immediately felt a sharp drop in temperature. Looking around the inside of the crater I spotted the source, a spring from between an opening amongst the rocks. Tests have shown this water to be anaerobic, and mineral-rich. This spring-water fills the crater and, being colder and denser, overflows down into the sinkhole, feeding the long-white strands of algae hanging within the steady current. The water shimmers like a mirage and, hovering, we marveled at this natural underwater fast-flowing stream. I followed the waterfall



downstream towards the bottom of the sinkhole, where I found a dead fish here, a dead crayfish there.

Reaching our agreed turn-pressure we started back, pausing to video each other along the way till we reached the *Pride of Michigan*, made our planned safety stops and surfaced to mugs of hot chocolate. My sincere thanks to my hosts the Nobel Odyssey Foundation and the US Naval Sea Cadet Program, and to the Divers Alert Network for sending me to Michigan. The DVD "Great Lakes, Ancient Shorelines. Sinkholes" is available from the Nobel Odyssey Foundation. Check-out [www.nobelodysseyfoundation.org](http://www.nobelodysseyfoundation.org) for details.

## Product of the Month for the Ladies!

Here are some great products for all the ladies.



### Travel Mug \$12

Ideal for that hot chocolate or steamy cup of soup!



### Ladies Contrast Tee \$25

Ladies cut stylish tee in white with marle grey sleeve. Sizes 8, 10, 12, 14.

### Polar Fleece Vest \$50

Stay snug and warm through the winter chill. Navy and Black. Sizes, S, M, L, XL, XXL.



This quarter there are no new products to introduce. However, we have some great favourites stocked up for coming into the colder months. Polar fleece jumpers will keep you nice and warm teamed with a matching beanie. The polar fleece vests are great for under your dry suit. Please note a change in price for the vests to \$50. Last but not least, a travel mug for that hot cuppa between dives or for the car trip. To order these or any other products, please visit the online store or use the order form in Guidelines.



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