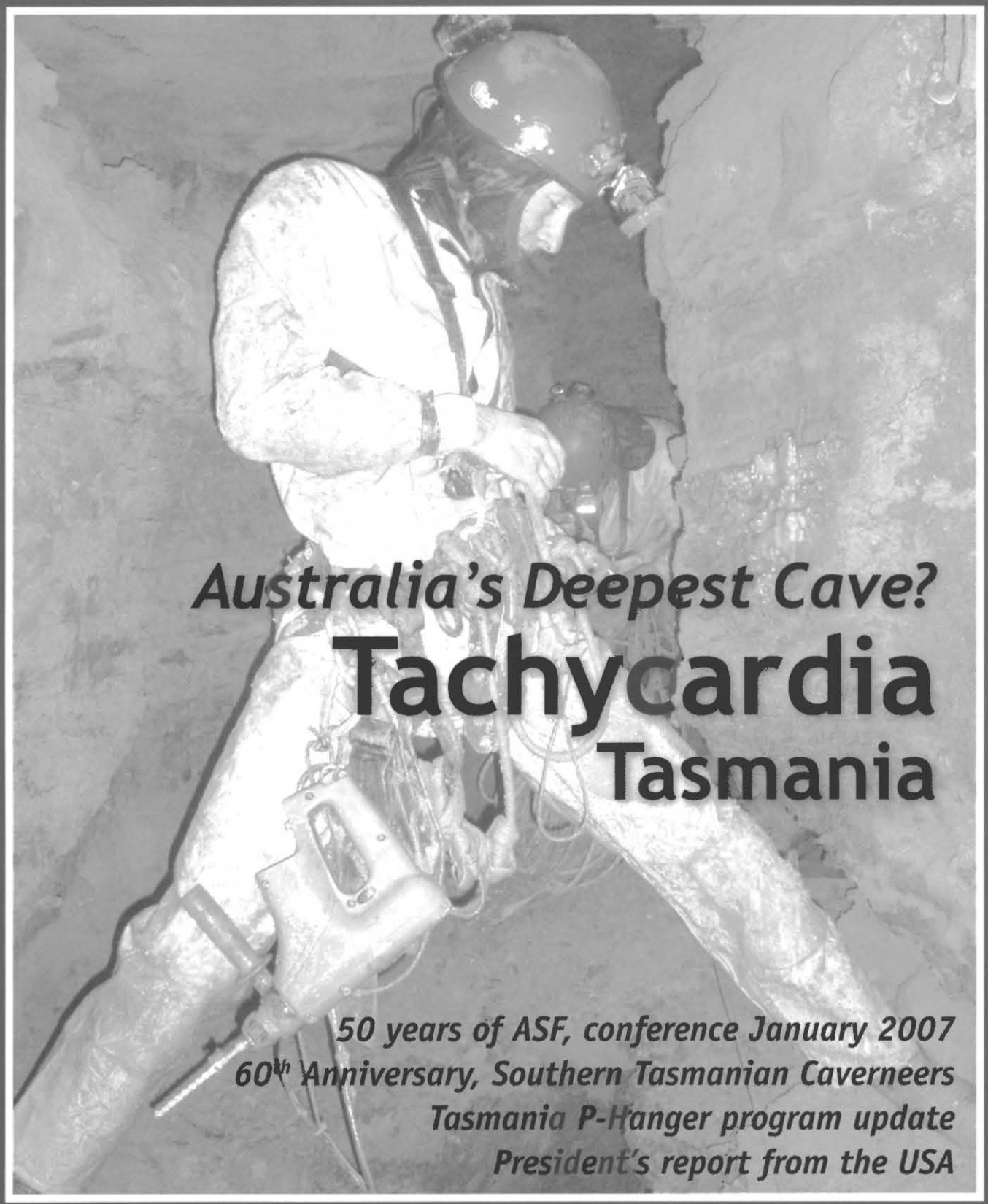
CAVES AUSTRALIA

No. 171
September 2006

The Journal of the Australian Speleological Federation



Australia's Deepest Cave?

Tachycardia

Tasmania

50 years of ASF, conference January 2007

60th Anniversary, Southern Tasmanian Caverneers

Tasmania P-Hanger program update

President's report from the USA

Coming Events

In particular, this list will cover events of special interest to cavers and others seriously interested in caves and karst. This list is just that. If you are interested in any listed events, contact Elery Hamilton-Smith for further details or [redacted]. The chair of the ASF International Commission is Nicholas White who will also have international information.

If you plan to visit North America or Europe, we can probably also provide details for some of the local-regional meetings that take place there.

2006

December 3-6	Sustaining Social and Natural Capital, Australia New Zealand Systems Society Conference, Katoomba, N.S.W.

And Looking Further Ahead

2007: January	26th ASF Conference, South Australia, celebrating 50 years of the Australian Speleological Federation. Mt Gambier, S. Aust.
2007: March 10	BCRA Cave Science Symposium, Huddersfield. Presentations of short papers on Cave & Karst Science topics.
2007: March 10-11	DCA / BCA Cavers Workshop 2007, Upper Limits Climbing Centre Longnor, nr Buxton.
2007: March 14 to 18	Symposium on "Time In Karst" Karst Research Institute, Postojna, Slovenia.
2007: April	BCRA Cave Technology Symposium (Provisional), Derbyshire. Presentations on cave surveying, electronics, computing, cave radio and radio-location.
2007: April 15-20	European Geographical Union General Assembly Vienna. Session GM7 Surface and Subsurface Karst Geomorphology, Session NH8.03 Natural and anthropogenic hazards in karst areas.
2007: April 9-12	CAVEPS — Conference on Vertebrate Evolution, Palaeontology and Systematics, Museum Victoria, Melbourne.
2007: April 29 — May 5	ACKMA Conference, Buchan. This will be part of the celebration to mark the centenary of the discovery of Fairy Cave.
2007: May 15-18	International Cave Rescue Conference, Aggtelek-Jósvafö, Hungary.
2007: May 25-28	36th Annual Kentucky Speleofest — "Underground Heaven!" Upton, KY.
2007: July 23-27	NSS Convention - Marengo, Indiana. Back Underground in Indiana!"
2007: July 28-August 3	XVII INQUA Congress, Cairns. Quarternary Research & Global Change.
2007: July 29-August 4	V FEALC Congress & I FEPUR Congress, Puerto Rico Speleological Federation.
2007: August 13-15	Baltic Speleological Congress 2007 - Northern Lights on Speleology Visby, Gotland, Sweden.
2007: August 13-19	International Conference on Karst Hydrogeology and ecosystems, Western Kentucky University (and a cast of hundreds).
2007: September 17-21	UNESCO International Conference on Geoparks, Belfast, Northern Ireland.
2007: September 18-21	Swiss Speleological Society Congress.
2007: October 8-12	National Cave & Karst Management Symposium — St. Louis, Missouri.
2008: February	Australian and New Zealand Geomorphology Group Conference.
2008: August	Inaugural Global GeoTourism Conference, Perth WA.
2008: September	19th International Symposium on Subterranean Biology, Perth, W.A.
2009: January	27th ASF Conference.
2009: May	ACKMA Conference, Margaret River, W. Aust.
2009: July 7-12	ANZ IAG Int. Association of Geomorphologists Conference.
2009: July 19-26	International Congress of Speleology, Texas, USA.

CAVES AUSTRALIA

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COVER: Tachycardia JF270 — Alan Jackson rigging the Bermuda Triangle.
Photo: Matt Cracknell
Layout and design: Jacqui Fry — 0418 882 462

HELP SUPPORT ASF

The Federation is run solely by subscription to ASF. Your donation or bequest will assist our work in lobbying to save karst, ensure continued scientific projects and more. To make a contribution or receive an information pack, contact The Secretary or visit www.caves.org.au

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JOE SYDNEY

PRESIDENT'S REPORT

ANDREW BAKER

PRESIDENT'S REPORT 12/2006

Jay Anderson

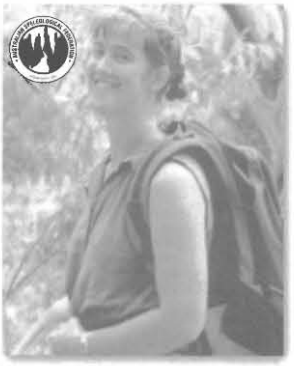
As the ASF celebrates its 50th anniversary, we take time to reflect on the many changes over the years. Our history is important, as is our future. This organization has developed from the growth of the state "caving clubs" and from volunteers interested in caving and the science of speleology. Where this organization is today, is a result of a lot of hard work by a large number of dedicated individuals, working as volunteers and as a team across Australia!! Over the last few months I have been receiving letters, notes and best wishes from cavers who were involved in the creation of the ASF, and in the first ASF conferences, all those years ago. I have been interested in hearing what those people achieved and how it contributed to the organization that we have here now.

Over the past year I have been able to see how cavers and speleological organizations operate in other parts of the world. I have had the opportunity to gain some insight into the operation of groups similar to the ASF. I feel that as an organization we can do well to develop and maintain links with our International speleological counterparts and our local environmental groups. There are several opportunities where we can regularly learn from each other, sharing ideas and collaborating together.

I have a vision for the ASF, and with the executive I am working to progress our organization into the future. I see the need for the ASF to become stronger financially, whilst maintaining our independence. The ASF needs to be able to focus on our core objectives rather than being over burdened by the many (often necessary) administrative tasks. I see an organization that is able to free up valuable volunteer time, time that can be better spent undertaking the true objectives of the ASF, that is to increase knowledge, educate and preserve Australia's karst and caves. I have a number of ideas that will strengthen the ASF financially, but do not claim to have all of the answers. I would appreciate additional input regarding streamlining some of the ASF's costs and ideas for simple additional income sources.

It would be excellent if the ASF was better able to support our valuable volunteers and better able to fund projects and progress important publications. However in many cases, we realise that obtaining funding for projects either means significant fundraising or seeking grants and donations. All of this takes considerable volunteer time. I'd like to see the ASF plan to become a financially independent organization – not an organization reliant on whatever we can scrape together from membership and occasional grants. I outlined in the 2005 Annual Report that I feel that the ASF should have a paid administration person to handle the day-to-day operations of the organization, thus enabling volunteers to focus on important projects and publications. Some of our International speleological counterparts are doing this.

It is important that the ASF undertakes some forward planning, some strategic goal setting and examines its future aims and objectives. The ASF executive has been considering these issues in depth. Have you thought about what the ASF has achieved so far? What does the ASF have to promote itself and those acheivements? The importance of organisational identity is a key issue that I would like to see addressed. The ASF now has opportunities for reflection, future planning and change. What's your vision for the ASF? I'd like to discuss this further at the Conference and would love to hear your thoughts.



The Southern Tasmanian Caverneers 60th Anniversary Celebrations

Roll Up!, Roll Up!, Roll Up! was the cry ...

The Tasmanian Caverneering Club, the first caving club in Australia and possibly in the Southern hemisphere celebrated 60 years of 'formal' or 'organised' speleology in Australia. Derwent Sailing Squadron club rooms (Marieville Esplanade, Sandy Bay) was the place of action Saturday 16 September. All past and present members of TCC, SCS, TCKRG, STC, any other Australian caving group were enthusiastically invited to attend and chew the fat on caving.

Over sixty people attended and made entries in to a commemorative attendance booklet pertaining to the era in which they were active. A founding member of the club, Jesse Luckman was there. Jesse is a Tasmanian "living treasure" more noted for her bushwalking exploits than her caving although she was able to relate a few tales from the clubs' earliest trips into Hastings Cave. Rien de Vries and Albert Goede presented slides from the fifties. Andrew Briggs and Stephen Bunton then updated the presentation with slides from the eighties to the modern era.

Word is a fantastic night was had by all!

Sources: Alan Jackson and Stephen Bunton.

Jesse speaking with Albert & Arthur.

Aleks Terauds, Barry James & Rien DeVries.

An enjoyable night of food and drink and caving history.

Mt Etna

Many of you will have heard the exciting news about Mt Etna. This was one of Australian speleology's biggest and most traumatic campaigns. Currently ASF is awaiting details from Cement Australia for a formal Memorandum of Understanding.

28 September 2006

ASF TO OWN LAND AND CAVES AT Mt ETNA

Dear Members

We wrote to all ASF member clubs a week or two ago with an important announcement. As that was a conventional letter, the details may not reach you until your next club meeting, hence this message. You will no doubt be aware of the long dispute over limestone mining and cave destruction at Mt Etna in Central Queensland, a dispute which ran for more than 40 years with the predecessor of the current lessee, Cement Australia. It reached the High Court of Australia, was lost to conservationists at huge financial and personal cost, but has now been resolved in a manner far beyond expectation.

Mining ceased a few years ago. Following several years of negotiation with Central Queensland Speleological Society and more recently ASF, Cement Australia has offered, and ASF has agreed to accept as a gift through our tax-deductible Gift Fund, freehold title to land on the eastern slopes of Mt Etna, adjacent to Mt Etna National Park. We believe this offer is without precedent in Australia's environmental history. The total land area of about 14 hectares includes some original vine thicket forest, the former Eastern Quarry site, the former Manager's house, some sheds, yards and other improvements, sub-tropical karst and most importantly, two caves. These are Resurrection Cave — widely regarded as the best decorated on Mt Etna — and Winding Staircase.

A condition is that the former quarry will be rehabilitated to a standard enabling it to be offered to Queensland Parks and Wildlife Service at some future time, and some of you will have seen the early rehabilitation during the ASF Conference in Yeppoon in 1999. The Company will pay ASF to manage the rehabilitation program for five years, a task which we expect to contract to a professional landscaper. The deal is fully self-funding and there will be no call on ASF recurrent funds.

The ASF Executive has set up the Mt Etna Land Management Committee (MELMAC) to handle the details and to liaise between ASF, our Gift Fund Directors and Cement Australia on the details. We have retained a Brisbane solicitor to handle the legal aspects and a Memorandum of Understanding has been substantially agreed upon by the parties which we expect to be formalised in October.

These will, of course, be the first caves we have ever actually owned. This remarkable achievement coincides with ASF's 50th Anniversary Year, and it comes as 20 or 30 of our members prepare a book celebrating the many conservation issues involving Australian speleologists, publication of which is expected in 2007. A full report will be presented to the ASF Council Meeting in January 2007.

There is a great deal more to do, but this outcome is a fine testament to the dedication of numerous members of ASF and particularly CQSS since the campaign commenced over 40 years ago. It will greatly enhance the image of speleology in Australia.

Nicholas White (ASF Acting President),
Peter Berrill (for CQSS)
John Dunkley (for ASF Gift Fund)

340 Million years ago — the world's oldest cave?

Many if you would have seen in the newspapers reports of Dr Armstrong Osborne's work at Jenolan, NSW on dating cave sediments. An extract of Dr Osborne's paper is below, indicating that Jenolan Caves are the oldest caves to be dated by absolute techniques and that the Carboniferous clays are hundreds of millions of years older than absolute dates of cave deposits reported in recent reviews and appear to set a record for the absolute age of deposits found in currently open caves.

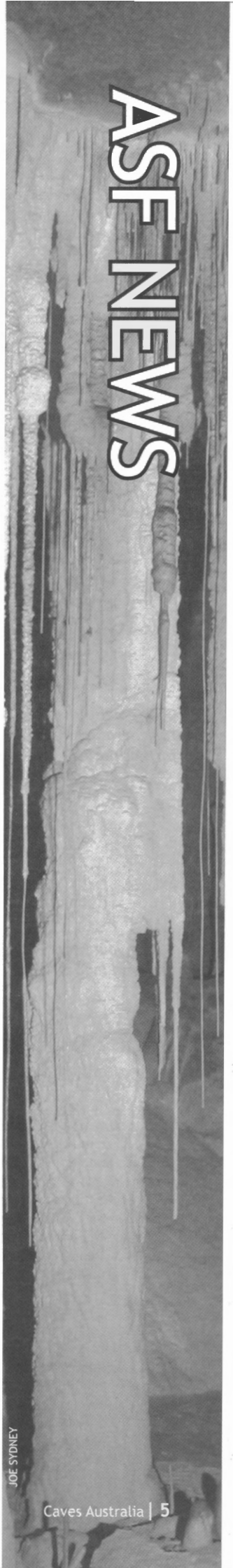
"INTRODUCTION

It is now well accepted that landforms in Australia have considerable antiquity, with many features surviving since the Mesozoic (Gale 1992). This idea arose from unexpectedly old K-Ar dates for basalt reported by Wellman and McDougall (1974) and their application to landscape evolution by Young (1977, 1982). We report here extraordinarily old K-Ar dates for illite from unlithified clays in Jenolan Caves. We provide evidence that the clays formed in situ in the caves and argue that sections of the cave regularly visited by tourists formed in the Carboniferous some 340 million years ago, making them the oldest caves so far dated by absolute techniques.

Reported dates, for example 12 Ma for alunite (Polyak et al. 1998) and 92 Ma for calcite spar (Lundberg et al. 2001) from caves in the Guadalupe Mountains, New Mexico, indicate that modern caves have origins extending back into the Cenozoic and Late Mesozoic. While accounts of open cavities surviving since the Palaeozoic are found in the palaeokarst literature, and modern caves intersect Palaeozoic Palaeokarst deposits (Osborne 2000), absolute dates for deposits older than the Late Cretaceous have not previously been reported in caves that are accessible today."

Contact:
Dr Armstrong Osborne, Senior Lecturer Coordinator, Science Foundations Faculty of Education and Social Work, A35 University of [redacted].

Reference:
Osborne, R.A.L., Zwingmann, H.R.E., Pogson, R.E. & Colchester, D.M., 2006. Carboniferous Cave Deposits from Jenolan Caves, New South Wales, Australia. Australian Journal of Earth Sciences 53(3): 337-405 Stapleton and James Madden.



Cocklebiddy cave, WA closed to public

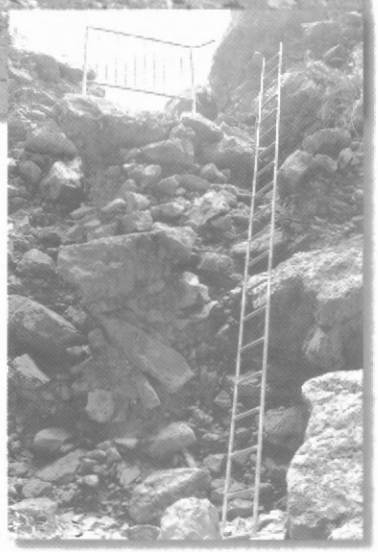
Owing to safety issues, Cocklebiddy Cave is for the time being closed to the general public. Based on a geotechnical engineers report — the safety issue relates to the area where the ladder used to be.

The local DEC office will however on merit consider applications by accredited cavers/cave divers.

Contact the Esperance DEC District Manager for applications and further information.

Esperance District
Department of Environment and Conservation
PO Box 234 Esperance WA 6450
email: klaus.tiedemann@dec.wa.gov.au
Ph: (08) 90832100 Fax: (08) 90713657 Mob: 0427 973729

Cocklebiddy cave closed to general public until further notice.

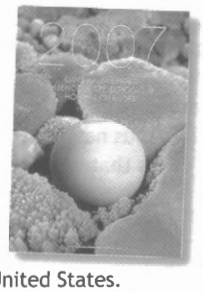


KLAUS TIEDMANN – DEC, WA

Watch your step — the removed ladder!

2007 Speleo Projects Calendar

Now available in Australia



One of the best caving calendars just got even better. Make a tax deductible tax donation of $35 or more to The NSW Cave Rescue Squad and receive a gift calendar for your enjoyment! 12 stunning images takes you on an enchanting subterranean journey to caves around the world. This year's destinations include the wild caves of France, Germany, Greece, India, Iran, Italy, the Ukraine and the United States.

Features include the world's longest salt cave (3N Cave, Iran), spectacular speleothems and passages, an underground lake, an ice formation, and siphon diving.

Make your donation soon and don't miss out on this great gift! Send your cheque to:

C\- Grace Matts, NSW Cave Rescue Squad Inc
[redacted]

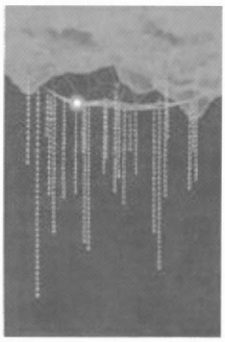
Or contact: Joe Sydney [redacted]

Preview the calendar: http://www.speleoprojects. com/html/detail/speleo projects/kalender_06_en.html

Bright wishes

GLOW-WORM CARDS

Illustrations Janet Fenton



Two beautiful designs (Ten cards and envelopes per pack. Five each of two designs).

Cost: $16.00 per pack plus p&p*.

$1.00 per pack donated to the ASF conservation fund.

*p&p: 1 pack $2.40
2-3 packs $6.05
4-10 packs $9.75

Please email for wholesale and bulk order prices.
Cathie Plowman
[redacted]

TEN CARDS WITH ENVELOPES
(five each of two designs)

The inside greeting on both cards is *Bright wishes*

Short informative text on glow-worms printed on the back of each card

A portion of the proceeds from the sale of this card assists cave conservation projects

Published by Cathie Plowman
[redacted]

HCG 50th Anniversary Invitation

10 & 11 March 2007
Bungonia Conservation Area — Near Goulburn (NSW)

Friends, cavers and past members of Highland Caving Group (HCG) are invited to attend HCGs' 50th celebration at Bungonia Conservation Area — near Goulburn on 10 & 11 March 2007.

HCG has been very active for over 50 years and still is today. HCG is also one of largest and earliest clubs within the Australian Speleological Federation

Enjoy a weekend of leisure or activity... it's your choice! The weekend will be jam packed with lots to do with trips into most caves (easy and technical) as well as local canyons. If you feel like just a lazy weekend away, we'll cater for that too. The Saturday evening will be entertaining as HCG will screen a DVD of its 50 year achievement!

Families most welcome!

A main meal will be catered for on the Saturday evening with a fine selection of food and wine.

Please note this auspicious occasion in your diary and contact me now to reserve your place! It also helps with catering.

Cost: $20 per adult, $10 children up to 16 years.

Camping fees extra: Fees apply and may be discounted. More on this later.

We hope to see you there.

Bruce Waddington
HCG President
[redacted]

JF-270 Tachycardia — a brief history of Australia's new deepest cave

Tachycardia is considered one of the deepest caves in Australia at 375 metres. The Junee-Florentine karst area in southern Tasmania has a lot to offer the cave explorer during summer.

By Alan Jackson

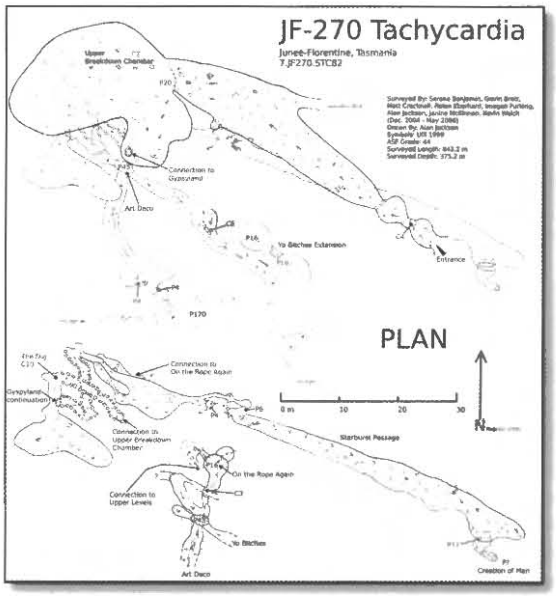
If you keep an eye on the Ozcavers or STC email servers or the *Speleo Spiel* then you probably would have noticed that the claim of a new Australian depth record has been made as a result of exploration in JF-270 Tachycardia in the Junee-Florentine karst area in southern Tasmania. We're sticking to the claim and have banged together a bit of history on this impressive hole in the ground.

At a club social meeting in late 2004 Rolan Eberhard convinced Gavin Brett and myself that the contact area up hill from Chrisps Road in the Junee/Tyenna Valley was worth a look. He had passed through the area in the 1990s when working for Forestry Tasmania and taped a few entrances that didn't look like they'd been looked at before. The vertical relief of the limestone in this area is in the realm of 400 m. We were sold.

On 20 November 2004 a party of three tackled the scrub off the end of the left branch of Chrisps Road and made its way to the contact zone (a climb of around 250 m). We found plenty of promising looking holes and explored a few of them. Entrances were so common and easily found that we dubbed the area Smorgasbord. Near the end of the first day in the area Gavin stumbled across the small strongly drafting entrance that would keep us entertained for some time to come. A quick recce on the initial trip to the area yielded some 40 m of depth and enormous passage development accessible without any rope. Exploration halted at the head of ~20 m pitch.

In early December we returned to the cave with Rolan, our 'informant', in tow. We descended the ~20 m pitch into a large breakdown chamber and rummaged around for a way on. In the process we found gumboot prints in the mud and eventually a rock cairn beside a tight drafting lead in the rockfall, below the lowest point in the chamber. The cave was finished and someone had beaten us to it anyway. We surveyed out (we had achieved about 80 m of depth to the constriction) and were promptly distracted by another find in the area, JF-268 Pooshooter — but that's another story.

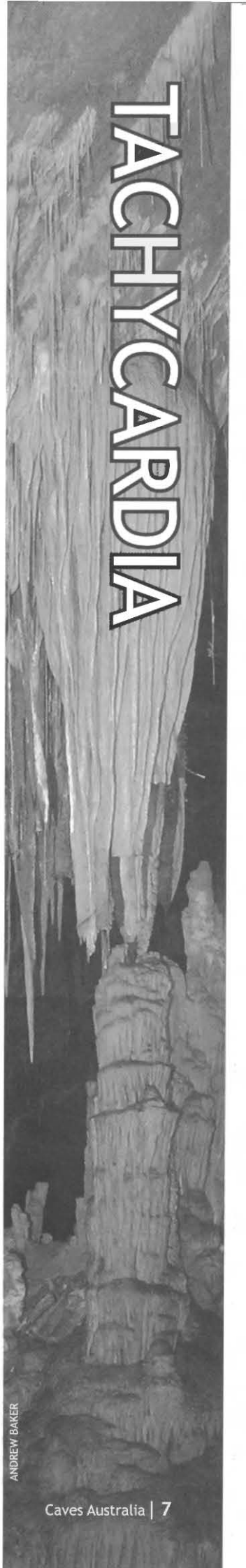
Subsequent searches of old club publications failed to shed much light on earlier exploration in this area. Activity in the late 1980s and early 1990s centred on the areas East and South of Wherretts Lookout and the catchments of Chrisps Creek. JF-237 Niggly Cave was one of the results of this period. However, it would appear that systematic exploration, tagging



and documenting of caves by TCC slipped during this period and virtually any caves found between JF-236 Bunyips Lair and the Cave Hill/JF-365 Satans Lair area were not well recorded. Hume (1990) covers surface exploration activity both west and east of JF-270 including the place where the track to JF-270 begins and the area it traverses. Reference is made to previous surface exploration in this general area but reports on these do not seem to have been published. It seems reasonable to expect that a cave of Tachycardia's dimensions and depth, even before its recent extension, would have been a significant discovery and worthy of being reported.

Descriptions of the cave to Trevor Wailes (one of the main drivers behind the golden era of vertical cave exploration in Tasmania during the 1980s and 1990s) lead to his suggesting that we had refound JF-X53 Wherretts Cave. He remembered doing a trip to the cave and thought it was probably he who called it Wherretts Cave (at this time the GPS was not a common piece of equipment and good topographical maps of the area were non-existant; cavers thought this area was much closer to Wherretts Lookout than was actually the case — geographical landmarks are difficult to spot from within the rainforests of the JF!) Very little background could be gleaned on this cave either. It is listed in Clarke (2000) as JF-X53 and JF-Z56. The X numbering scheme is based on the Karst Index protocol for assigning X numbers to described features that have not been formally tagged. To quote Clarke (2000):

"The "JF-Z" numbers represent another different informal system for description of un-numbered caves (independent to the ASF system), used by Rolan Eberhard in his first report to Forestry Tasmania which details JF caves and karst sensitivity zones (Eberhard, 1994)."



Wherretts Cave also gets a mention in Eberhard et al. (1991) where it is referred to as JF-x6 (just when you thought we had seen enough 'informal' numbering systems!) Stefan Eberhard lists the cave as a cave fauna collection site in that report. Checking with Stefan yielded the following in an email:

"Yes x6 was my fauna cave numbering system, but is same cave. I recall, vaguely, 'pretty' entrance with ferns, small waterfall over short contact cliff, can't remember much but prob. grotty & forgettable? Pitch into large rf [rockfall] *chamber, with waterfall pissing onto the rocks making it look unpleasant to want to go hunting around in it. I collected a* Goedetrechus *cave beetle there – it was "sick" being infiltrated with fungal infection/hyphae growing out of its body – poor thing, like invaded by alien. I fixed it in alcohol. Anyway, I recall I drew a profile sketch of the cave, published in* Spiel *????, maybe not, or in archives ?????, if not then probably it's in my cave fauna field note book."*

It seems that the early stages of Tachycardia's history weren't considered sufficiently significant enough at the time to warrant proper documentation; if it was found around the same time as Niggly it probably didn't deserve much attention. This has now changed, as has the cave.

After pushing Pooshooter to 159 m depth and a few other forays we turned our attention to the drafting lead in Tachycardia with a trip in July 2005. Armed with only a cold chisel and a lump hammer all we succeeded in doing was dropping the chisel through the constriction and having a lovely walk in the snow. A second attempt was made a couple of weeks later and with superior technology we squeezed through and recovered our chisel. A steep down-climb lead to another smaller breakdown chamber abounding in dead ends. The large amounts of water entering the cave had made the rock and clay matrix, so abundant in this cave, very mobile. I managed to almost crush my ankle when the floor gave way on me and we made a hurried retreat from the cave (but not before noting a possible lead that Gavin tempted fate by following for a short length). A little shaken, we vowed to leave this cave till summer conditions.

Summer came and went. We knew Tachy would be waiting patiently. 4 March 2006 saw us hiking up that bloody hill again. There was almost no water and the cave was quiet. Our intention had been to push the lead Gavin had soiled his underpants at previously and survey the extension. No one told us we would need the instruments to be able to survey! Whoops.

The dig hadn't got any bigger and back at the frontline again my ankle started to remind me of past experiences in this manky rockfall. We both had a dry-reach at the climb Gavin had previously stopped at and then gingerly descended trying to simultaneously hang on really tightly but not touch anything in case it all fell in on our heads. Just when we thought it was all over I noticed a squeeze between boulders and we popped out into a small chamber with sections of moderately solid looking wall. We had negotiated the breakdown. Now for the real stuff!

Two leads were investigated with 5 m and 16 m pitches respectively. We dropped the larger of the two (dubbed On the Rope Again pitch) and scaled a 3 m climb-up to bypass a constriction in the floor. We soon found ourselves below the constriction and bridging over what would prove to be a 45 m pitch. Further horizontal development above the pitch was investigated but with no more rope at our disposal we headed out.

The following trip saw us survey from the upper breakdown chamber down through the rockfall, now christened Gypsyland (it would take an article in its own right to explain the nomenclature in this cave). My thanks go to Serena Benjamin for assisting with this appalling task. A quick look down the 5 m pitch on the alternative lead from the previous trip indicated that there was more passage to be had in that direction too.

The following trip saw a transformation from a dry and quiet cave to a wet and noisy one. Summer was over and the rain had come. Our next task was to descend the fabulous 45 m Art Deco pitch. This is a superb pitch and easily one of the most spectacular in Tasmania. The cascade entering from one end only added to the scene. Two small 4 m pitches followed from the end of Art Deco (originally free climbed in the haste of exploration mode!) and these led to our first encounter with Bermuda Triangle pitch. No amount of scientific rock dropping could gauge how big this pitch was or where it went. We scurried back to the surface with the knowledge that we had a pitch somewhere between 25 and 200 m. Exactly how big was anyone's guess.

A subsequent survey trip put the top of Bermuda Triangle pitch at 204 metres deep. 200 m had been our initial goal for this cave so everything after here would be a bonus.

Progress down Bermuda Triangle was slow. The amount of water flying about (April turned out to be Hobart's wettest on record) made life difficult and rebelays were going in everywhere in an attempt to stay vaguely dry. The next trip saw us hanging a couple of metres from the knot in the end of the rope, with yet more inky void looming between our legs, placing yet another rebelay for the next trip. We knew at this stage that we were approaching the

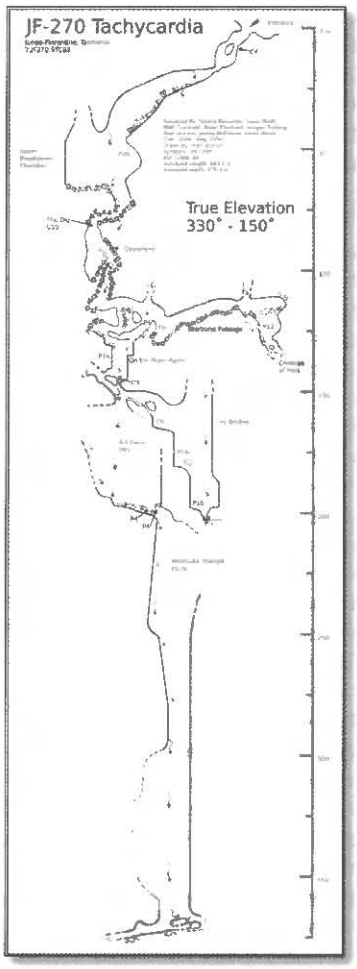
ALL PHOTOS BY MATT CRACKNELL

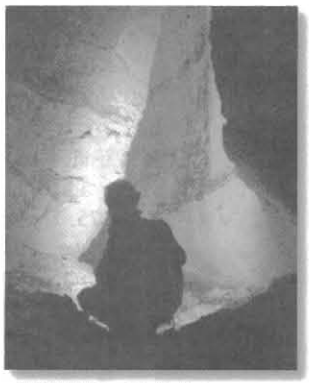
JF270 Surveying at top of Artdeco – Gavin Brett (foreground), Alan Jackson (middle) and Janine McKinnon (back, on rope at pitch head) surveying a leg to the top of the 45 m Art Deco pitch.

JF270 Gavin going down Pitch 1 – Gavin Brett descends to the pitch head proper of the first pitch (~20 m).

*JF270 Rigging the Bermuda Triangle — **Alan Jackson bridges over the head of Bermuda Triangle pitch installing bolts (unaware at the time that this pitch would prove to be 170 m!) Gavin Brett assisting in the background***

*JF270 **The Bermuda Triangle — the 170 m Bermuda Triangle pitch head (not an overly inspiring photo, I know, but it's all we've got!)***





JF270 Lower stream passage Artdeco — Matt Cracknell illuminating the streamway passage along the base of the 45 m Art Deco pitch

theoretical depth potential for the area and that the floor would come flying up to meet us soon.

The day finally came when we knew we had enough rope in our bags to reach the theorised bottom. It was a pity when I discovered I had left my Petzl Stop at home! We filled in the day by sharing a Stop down the first pitch (20 m) and exploring the other lead via the 5 m pitch from the end of Gypsyland. This extension yielded almost 100 m of horizontal passage with a 12 m pitch and a further 20 m+ pitch at the end that needs a little expanding to access. A small explosion of superb helictites at the end of the horizontal passage led to the name Starburst for this section.

The real 'day' (29/04/2006) finally came and Gavin and I, armed with a full SRT kit each, got back to the former limit of our exploration. It was really wet this trip and surveying between rebelays was an abomination. Yelled instrument readings between rebelays would not be heard so I operated tape, clinometer, compass and book — a fun task when hanging on a rope in a waterfall. Gavin hung around shivering at the last rebelay while I slipped off into the darkness with the extra rope that Gavin had thankfully handed to me with the message "just in case." 40 m or so down I could only just make out the bottom and I was about to run out of rope. A large natural spike beckoned to be used to make changing to a new rope easier and would pull us out of the water some more. After tying the new rope in I realised that it still didn't reach the bottom. I would have to use the last 5 or 6 metres of the previous rope and a knot crossing to make it go. This all took time and my thoughts were constantly with Gavin as he dangled in the 'rain' above me. Not surprisingly Gavin's thoughts were also with Gavin as he felt sorry for himself and his predicament.

Finally I got off on a large platform with a few inches of rope to spare and called out "rope free" to Gavin. Through chattering teeth he repeatedly bombarded me with "Holy shit. That's a big pitch." The final 4 m stage of the pitch was rigged and we escaped the windy and wet zone. A quick tally of the survey legs indicated that we had just completed a pitch of around 170 m. Gavin was right; it was a big pitch. Adding this on to our previously attained 204 m of depth made our hearts sink when we realised we had another cave in the mid 370s. A clear winning or losing margin would have been preferred. The horizontal development had kicked in and unfortunately it didn't go far before it became too tight. I grovelled through a low wet crawl and obtained a few extra metres but it was definite floor digging time and no one wants to do that at -370 m. The draft that roars from the entrance was not present here so it would probably be a futile dig anyway.

A few nibbles and high-fives later we departed the scene, leaving the cave rigged and scrambled from the entrance in a little over three hours. The survey data was entered within minutes of getting home and the result was 375.2 metres. JF-237 Niggly Cave is generally referred to as 375 m deep but a closer look at the data indicated it was rounded up from 374.8 m. On paper it was a new depth record. In reality, making allowances for survey error, it was too close to call with authority. Neither of us claimed to have any authority so we went ahead and called it. We also called, with confidence this time, that Bermuda Triangle is the second biggest pitch in the country at 170 m, 20 m shy of the Black Super Giant in Niggly and well ahead of the next closest (118 m Heartbeat pitch in Anne-a-Kananda?). It is nice to have filled in the gap a bit.

A couple of subsequent trips set out with the intention of swinging across into parallel development on the bottom section of the last pitch but water levels conspired against us and the system

was partially derigged. The second derig trip saw exploration of the passage accessed by bridging over the 45 m Art Deco pitch. This extension, dubbed Yo Bitches, yielded two 16 m pitches but appeared to terminate at the ~200 m level. There are leads yet to be explored in this section. Similarly, unexplored leads exist on the final pitch, between On the Rope Again and Art Deco pitches and at the end of the Starburst Passage. Once again we'll leave it till next summer, when the water levels drop, before we give Tachy another run.

Is it really a new depth record? My spin on it is that essentially Tachycardia, Niggly Cave and Anne-A-Kananda are all too close to declare a clear winner for the title of deepest. The initial survey of Anne-A-Kananda from 1983 indicated a depth of 373 m and a survey to the same point via a different route by Jeff Butt et al. in 2002 yielded a depth of 371 m (Butt 2002). The range of 371 to 375.2 from data collected using hand held instruments and tapes (i.e. ASF grade 4) has a much lower error tolerance than 5 in 375. The ASF website suggest +/- 5% for such data. However, the data collected in all three caves has been via the same methods and hence should have identical error tolerances. I therefore believe that until additional surveys are conducted in the future using equally or more accurate methods then for the sake of preparing a list ranking the longest, deepest, biggest, coldest and all the other 'est' adjectives (which humans love to do) we have no choice but to go with the data we currently possess. With so many new caves awaiting discovery and exploration out in those rainforest clad slopes I don't have the time or patience to dedicate to debating the finer details of the argument; I'd rather be out there chasing drafts and getting mud on my face.

Thanks to Matt, Rolan, Serena, Janine, Imogen and Kevin for their help in pushing and surveying this great cave.

Do you want to visit Tachy? Is it worth visiting? It should be noted that Tachycardia is a particularly challenging cave by Australian standards. It is exceptionally grotty, wet and cold, it contains extensive areas of poorly consolidated rockfall and at last count we had tallied in excess of ten particularly annoying squeezy bits. If you're really stupid and keen then Jackson (2006) lists a pretty comprehensive rigging guide. Plan and section surveys appear in *Speleo Spiel* 354 and trip reports detailing each and every trip and discovery appear in recent issues of *Speleo Spiel*.

REFERENCES

Butt, J. 2002 Three lightweight Expeditions to Anne-A-Kananda (MA9) at Mount Anne. Good caving and some new surveyed finds. *Speleo Spiel* 333:3-11

Clarke, A. 2000 A Complete List of the Known Caves in the Junee-Florentine Karst. *Speleo Spiel*, 318:13-27

Eberhard, R. 1994 *Inventory and Management of the Junee River karst system, Tasmania*. Report to Forestry Tasmania. 125pp.

Eberhard, S.E., Richardson, A.M.M. & Swain, R. 1991 *The invertebrate cave fauna of Tasmania*. Zoology Department, University of Tasmania. 174pp.

Hume, N. 1990 The Finding of Niggly Cave (JF 237) on Wherretts Lookout *Speleo Spiel*, 260:5-7

Jackson, A. 2006 JF-270 Tachycardia Rigging Guide. *Speleo Spiel*, 354:13-14

ASF 50th Anniversary Conference January 2007 Update

Celebrating 50 years with Presentations, Competitions, Club History, Equipment Savings & More!!

Conference planning has been going well. Quite a few family groups are attending the conference and the total number of attendees at the time of this report is 105. Conference organisers have attempted to cater for the many varied tastes and interests of cavers, as a result, for those who have always wanted to try out their artistic skills, a limestone — sculpting workshop has been organised. June advises that the Speleo Art show will be the biggest held in Australia to date with a variety of art work coming from around Australia and overseas

Because Mt Gambier is famous for its sinkholes, snorkelling and field trips out to the sinkholes have been organised and there are opportunities for daily wild caving to occur. We also have a number of cave divers making presentations on their various projects.

Being the 50th Anniversary of the first Conference we really wanted to make it a celebration and we are lucky enough to have a small number of Veterans attending the conference or caver's dinner, who'll will be able to pass on the history of what the early years were like.

Although slow to start organisers have been able to obtain some financial support from a number of State and local government agencies, including Tourism SA, Limestone Coast, Dept of Environment, Mt Gambier City Council and Grant District Council, along with prizes being donated by the Scout Outdoor Ccentre for the SRT Competition and Speleo Sports. In addition, they are offering 20 percent discount to conference attendees for the mMonth of January, so if you are travelling through Adelaide on the way to or from the Conference then you may want to pop in and grab a bargain.

So we look forward to a celebration of 50 years of the ASF and cavers contributions to a wide range of areas.

Vandalism Restoration

Crystal Cave 6YN-1 Yanchep National Park Western Australia

Vandalism at Crystal Cave damaged a 133kg column, which required a detailed design and construction plan to return the column to it's rightful place.

Norman Poulter OAM
Speleological Research Group
Western Australia Inc.

Yanchep National Park is situated approximately 50km north of Perth's CBD. Once a "country retreat", now, due to population increases, it is almost part of the northern suburbs, the nearest housing estates being only a couple of kilometres away. The Park has figured prominently in Western Australia's recent history, much infrastructure being carried out during the Depression era by "sustenance workers" [Bolton 1972].

Several caves were developed for tourism, but now, only one cave, Crystal, is open for regular daily inspection with a couple of others available for "adventure" tourism. Another, the highly modified Cabaret Cave [6Yn-5] is periodically available for social functions.

Early in 2006, several persons broke into Crystal Cave and committed acts of vandalism, destroying several glass fish tanks, [recently used to house endangered troglobitic aquatic fauna], light fittings, electrical distribution cabinets and power cables as well as smashing many cave decorations. The resulting damage was estimated to be worth several thousand dollars – the cave however, was back in operation within a couple of days.

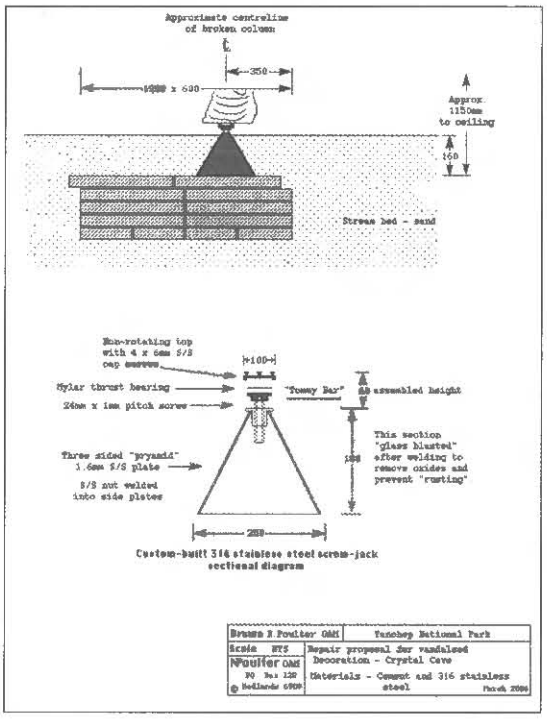
Damaged Decoration Identified

As a speleologist well known to the Park's managing authority [Department of Conservation & Land Management – CALM] Rob Foulds was called in for assistance and plotted the location of broken decoration pieces, most of which had been broken above pathways. A suspended column, located under a low ceiling above a streambed quite close to an access path near a feature known as the "Elephant's Foot", was the largest piece broken. The Police were called in and following investigations, arrests were made a short time later. The Police removed several broken sections for use as evidence, and later also removed other pieces found at suspect's residences. At the time of writing, a court case is in progress.

Rob Foulds quickly called for specialist assistance amongst cavers and members of SRGWA visited the cave shortly after the event. I was fortunate to be able to identify several matching pieces that could ultimately be glued back together – although full restoration cannot proceed until the release of the sections held in Police custody.

Repair of a heavy Suspended Column

Rob asked if I would undertake the repair of the suspended column, the weight of which I estimated to be in the order of 200kg. The column was some 900mm long and had been joined to the highly friable ceiling rock in three places with an approximate area of 700mm2. The calcite covering these rock projections was extremely thin. The column, which



was no longer actively forming, had been cleanly snapped off at ceiling level – possibly the result of a kick.

I submitted a repair proposal in mid-March, advocating a buried cement block [later modified to cement slabs] that would serve as a platform for lifting jacks and foundation for a purpose-built 316 grade stainless steel screw-jack that would [forevermore] hold the decoration in place, reasoning that it was too difficult and impractical to consider using mechanical or epoxy anchors. The proposal was accepted in early June by which time, construction of the jack was well under way. The jack was finished by the end of June.

A party of six arrived at the cave on July 2 and over a 6 hour period a five tier layer of cement slabs laid at the correct depth to provide a working area of 1200 x 600mm and 150mm thick. Once the slabs were in place, the column [now known to weigh 133kg] was gently placed onto a domestic hydraulic kerb jack and wheeled into approximate position. Over the next half hour or so, minor manoeuvring took place to achieve a perfect fit – a summary of the entire operation was captured on video-tape – a CD copy should be submitted to the ASF library soon.

With the column now in place, more jacks came into play so that the stainless steel jack could be slowly manoeuvred into a central position and tensioned, allowing the removal of all the other jacks. Once I was sure that the column was securely in place, tools were removed and area landscaped. The bulk of the stainless steel jack is buried under the streambed sand [see diagram] and the column's broad base, light shadowing, path orientation and approach angles combine to make the remaining part of the jack virtually invisible.

A follow-up trip one week later allowed the tension of the jack to be checked and cleaning of the decoration to take place.

P-HANGER PROGRAM

Tasmanian P-Hanger Program Update and Rigging Guides

In an effort to make Tasmania's popular vertical caves safer and free from "bolt-rash" the P-Hanger installation program has been a success.

By Alan Jackson
STC

The p-hanger bolt replacement program in Tasmanian caves was initiated by Jeff Butt several years ago. I won't provide a list of background references because the list would probably be bigger than the article! If you're really interested then comb your *Speleo Spiel* archive from early 1999 onwards. Jeff also wrote a good article that appeared in *Australian* Caver (146:19-29). The program is now more or less finished and all but one of the caves initially earmarked by Jeff for re-bolting has been completed. The following is a summary of the project's results and I hope it acts as a useful guide and reference for cavers who may visit our caves in the future.

By initiating the p-hanger program Jeff's aim was to combat what he coined 'bolt-rash' in popular Tasmanian caves; the excessive placement of short life bolts on some pitches is unsightly, potentially dangerous if someone picked the wrong (really old) ones and not particularly friendly for the cave (we should be minimising our impacts on the caves wherever possible). After much research he chose the DMM eco-hanger, or p-hanger; its principle benefits being its ability to be removed and replaced using the original hole and its one piece marine grade stainless steel construction (virtually all other non stainless steel bolts with two or more separate metallic parts are an instant candidate for accelerated corrosion). *Check your secondary college chemistry text books for why!*

Jeff's next step was to find some way of getting the job done using someone else's money (this was perhaps one of Jeff's most finely tuned skills!) After much harassing and liaison he managed to get Wildcare (a volunteer 'friends-of-parks' type hands-on organisation run through DPIWE) onside and they funded the vast majority of the materials required for the project under the auspices of 'Cavecare South'. Two funding proposals were compiled by

Table 1. P-hangered caves and rigging guide. Publication details in alphabetical order by cave name.

Cave No.	Cave Name	Rigging guide reference
JF-14	Dwarrowdelf	JACKSON, A. 2005 Dwarrowdelf P-Hanger Rigging Guide. *Speleo Spiel* 350:12
JF-4/5	Khazad Dum	BUTT, J. 2003 Khazad Dum (JF4)-An Updated Rigging Guide. *Speleo Spiel* 337:29
MC-1/29	Kubla Khan	JACKSON, A. 2004 Stuff n' Stuff. *Speleo Spiel* 345:2
IB-11	Midnight Hole	There is no one report that lists a rigging guide - it is a pull through trip after all and rigging is not that complex! Note, however, that due to excessive wear problems maillons and rings were added to p-hangers in 2004 and the rope should be passed through these rings, not the p-hangers
IB-38	Milk Run	JACKSON, A. 2005 Milk Run P-Hanger Rigging Guide. *Speleo Spiel* 349:20
IB-8	Mini Martin	BUTT, J. 2002 P-Hanger Rebolting Program: Mini-Martin (IB8). *Speleo Spiel* 330:2-3
IB-131	Old Ditch Row (a.k.a. Old Ditch Road)	BUTT, J. 2003 Old Ditch Road (IB-131), a P-hangering trip. *Speleo Spiel* 336:26
JF-221	Owl Pot	BUTT, J. 2002 P-Hanger Rebolting Project: Owl Pot (JF221). *Speleo Spiel* 329:13-14 *Note - an extra bolt on the entrance 'pitch' was added in 2003. See: BUTT, J. 2003 Beginners Luck and Owl Pot. *Speleo Spiel* 336:28
JF-337	Slaughterhouse Pot	JACKSON, A. 2004 JF-337 Slaughterhouse Pot - P-Hanger Installation. *Speleo Spiel* 345:17
JF-223	Tassy Pot	BRETT, G. 2004 JF-223 Tassy Pot - P-Hanger Testing. *Speleo Spiel* 341:7-8

JOE SYDNEY

Table 1. *P-hangered caves and rigging guide. Publication details in alphabetical order by cave name.*

Jeff over the years and almost $2500 was awarded to the project. PWS also invested in a several thousand dollar test rig for bolt testing.

Numerous caves were p-hangered before Jeff's death, in April 2004, after which things stalled for a while. With a little prompting from Damian Bidgood we restarted the project and in June 2005 we finished the last cave on our list (with the exception of IB-9 Big Tree Pot which we decided wasn't a high priority).

Table 1 lists all the caves that have had p-hangers installed in them and references to the publication (all *Speleo Spiel*) that the final rigging guide appeared in. The majority are comprehensive guides, including a table of pitches and suitable rope lengths for each. Others are less helpful but it would be wrong to take all the fun out of rigging these caves!

I hope this makes your next visit to Tasmania's more popular vertical caves safer and more enjoyable. Please remember that things change and while the guides listed here should be pretty accurate it is always worthwhile contacting a local caver to get a feel for the latest developments.

Alan Jackson testing a p-hanger in JF-221 Owl Pot.

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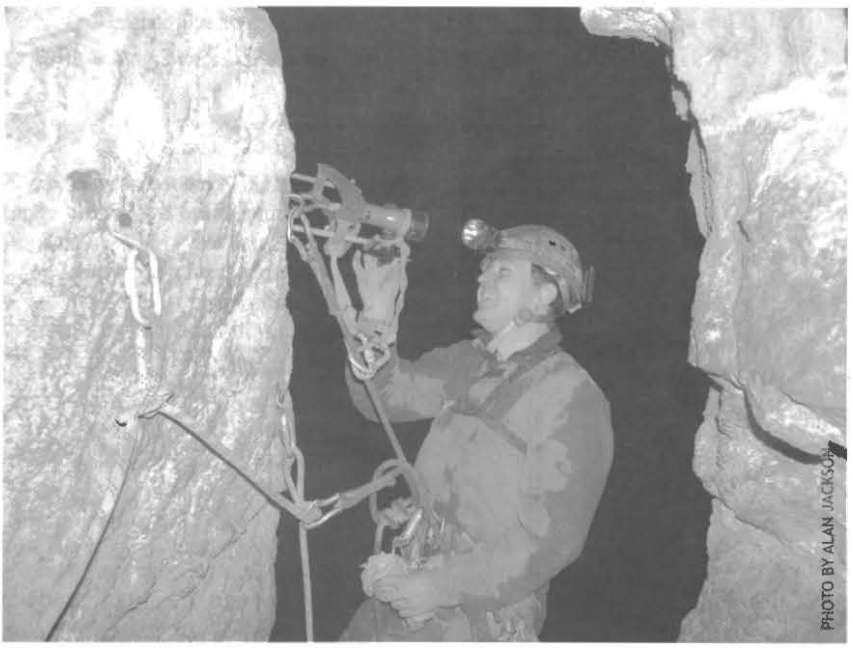
ARTICLES FOR CAVES AUSTRALIA!

Whether caving, cave diving or a general exploration, Caves Australia readers are interested in YOUR story. It is only with YOUR contribution that we can produce a quality magazine for all to enjoy.

For writing and style guidelines, contact the Editor or Production Manager for further information.

Janine McKinnon drilling in JF-14 Dwarrowdelf.

Gavin Brett drilling in JF-223 Tassy Pot.



Gavin Brett testing a p-hanger in JF-223 Tassy Pot.

BUNGONIA STATE CONSERVATION AREA

29th November, 2006

Please note that due to the acute fire danger and current fire operations in the Great Horseshoe Bend area, the Shoalhaven Gorge section of Morton National Park and Bungonia State Conservation Area is closed temporarily south of the Trestles Track to Nerrimunga Creek.

Due to an acute water shortage at Bungonia SCA, the campground amenity block has no operating showers and no running water available. Flushing toilets available only. All visitors and campers are encouraged to bring their own water.

Car entry and camping fees apply. Check the website or contact the Park

The Camping ground includes a kitchen, hot showers and amenities block A conference room is available for hire. Supplies can be bought at Marulan or Goulburn.

A coin and card public phone is located at the office. Mobile phones are out of range in this area.

A permanent ban exists on the use of wood fuel fires within camp-grounds and the Shoalhaven and Bungonia Gorges.

Self-contained heating devices such as braziers with heatbeads and LPG heaters are permitted outside Fire-Ban periods. Heatbeads are to be lit with fire-starters, not wood, and you are also required to take all ash and residue with you on exiting the park.

There are three picnic areas: Adams Lookout and David Reid picnic areas have free gas BBQs.

Access to The Lookdown, Bungonia Creek and Adams Lookout is suitable for people with limiting disabilities.

All bushwalking and adventure activities must be registered at the office. This is a safety requirement.

There are five walking tracks ranging in degree of difficulty for day walks. Hikes of longer duration are possible and depend upon the level of the Shoalhaven River. Bush camping is permitted in certain areas. Apply at the office for more details.

Walkers should ensure that they carry copious supplies of water and plan their journey according to their physical fitness levels and the prevailing weather. During acute bushfire conditions or heavy rain — walks into the Bungonia and Shoalhaven Gorges, plus canyoning and climbing are not recommended.

There are no cave tours at Bungonia:
Bungonia caves require experience and special equipment for entry and are not suitable for young children or people with limiting disability.

For tourist cave information contact Wombeyan Caves 02 48 43 59 76.

Drum Cave closes for the bat breeding season between the 1st November and the 30th April 2006.

Chalk Cave closes between May 1st and September 30th for the winter bat roosting season.

Cavers should be cautious of Carbon Dioxide levels in the caves and possible flash flooding

Spring Creek canyon is closed indefinitely.

Our telephone number is 4844 4277, fax is 4844 4331. Our mail address is 838 Lookdown Road Bungonia 2580. You can email us at: bungonia@environment.nsw.gov.au or visit the website: www.environment.nsw.gov.au

Sculpting Workshops at ASF Conference by Ivo Tadic

Come and learn about Limestone Sculpting under the watchful eyes of a professional, you will learn about:

Design and form
Sculpting tools and how to use them
Finishing and sealing your sculptures

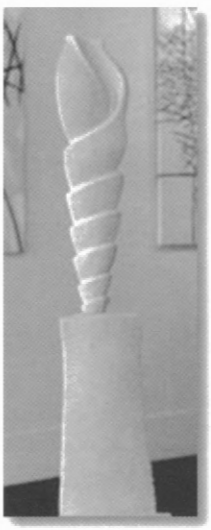
Workshop will run on Saturday January 6th, 12 – 5pm
Cost: $50 per person
Minimum 6 people at the session

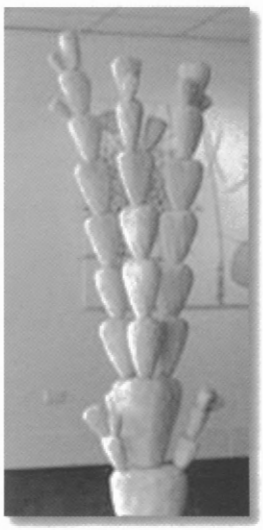
Should we have enough to have 6 at a second session the artist is willing to run a second one on Monday 8th Jan at the same times. But we must have a minimum of 6 people and money must be paid up prior to the conference

Ivo has been sculpting in limestone for the last 10 years and runs workshops for many school children in the Mt Gambier area so you are in good hands.

Contact Marie Choi at [redacted] or call on [redacted]

Book early!





(PHOTO: UNKNOWN)

Cenotes and Other Encounter Marking the entrance to the park leading to Umpherston Cave.

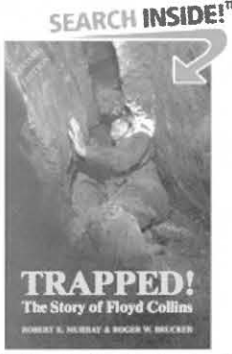
ALAN PRYKE

TRAPPED — New cave rescue movie

Hollywood Movie — 1925 cave rescue based on the book "Trapped" by Roger Brucker

Cave explorer Floyd Collins became trapped in Sand Cave in 1925, making headlines for two weeks as rescuers tried unsuccessfully to pry him free. Reliving it, cave explorer and author Roger Brucker sneaked into the Kentucky cave in 1977 and later wrote "Trapped," [with Robert Murray] a book about the Collins rescue attempt. Paramount Pictures is planning to make a movie out of the book. Billy Bob Thornton will direct the movie and star in it.
Source: http://www.cantonrep.com

..."It was a very scary place," Brucker said. "It was kind of an eerie feeling to be there. Floyd was alone. He must have had the utmost sense of panic." When Collins died following the failed rescue attempt, Sand Cave was sealed and gated to keep cavers and curiosity seekers out. But in 1977, Brucker felt he had to see the cave for the book "Trapped," which he later wrote with Robert Murray. He and several fellow cavers tramped through the woods at night and slipped into the off-limits cave, opening the bolted-shut gate and then digging through the earthen seal. "We treated it as a clandestine operation," Brucker said.



He soon discovered why the cave had been sealed. "If you brushed against the ceiling, a rock the size of your fist would fall on your back," he said...

By James Hannah, The Associated Press

Source:http://news.enquirer.com/apps/pbcs.dll

DUO Range of Headlamps

The DUO range of headlamps provide economical waterproof* hybrid lighting.

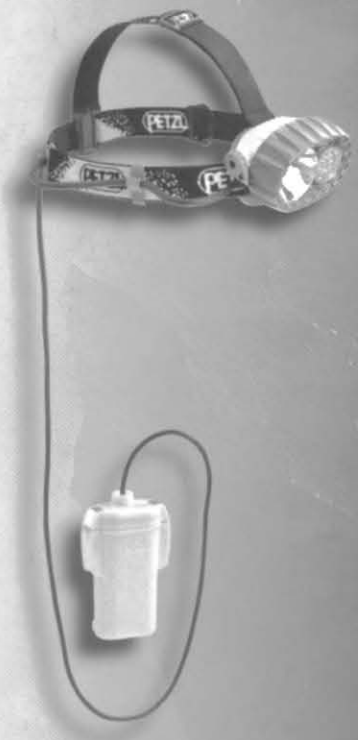
DUO LED

The DUO LED comes in two models with either 5 or 8 LEDs, giving a very white close proximity light and a long burn time, alongside a halogen bulb for long range light (up to 100m).

The 8 LED model has three switchable lighting levels and a long duration survival light function. Uses 4AA batteries in a battery pack carried on the head.

DUOBELT LED

The DUOBELT LEDs are 6V headlamps with dual light source. Available with 5, 8 or 14 LEDs and a halogen bulb for long range light (up to 100m).



The 8 and 14 LED models have three switchable lighting levels and a long duration survival light function. Includes 4 x C Cell batteries in a rigid, belt mountable pack.

*Waterproof to 5m using IP X8 standard. These lights are NOT intended for diving!

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Photo: Reseau de Bufo Fret, in the French Pyrenees. © Christophe Levillain

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