CAVES AUSTRALIA

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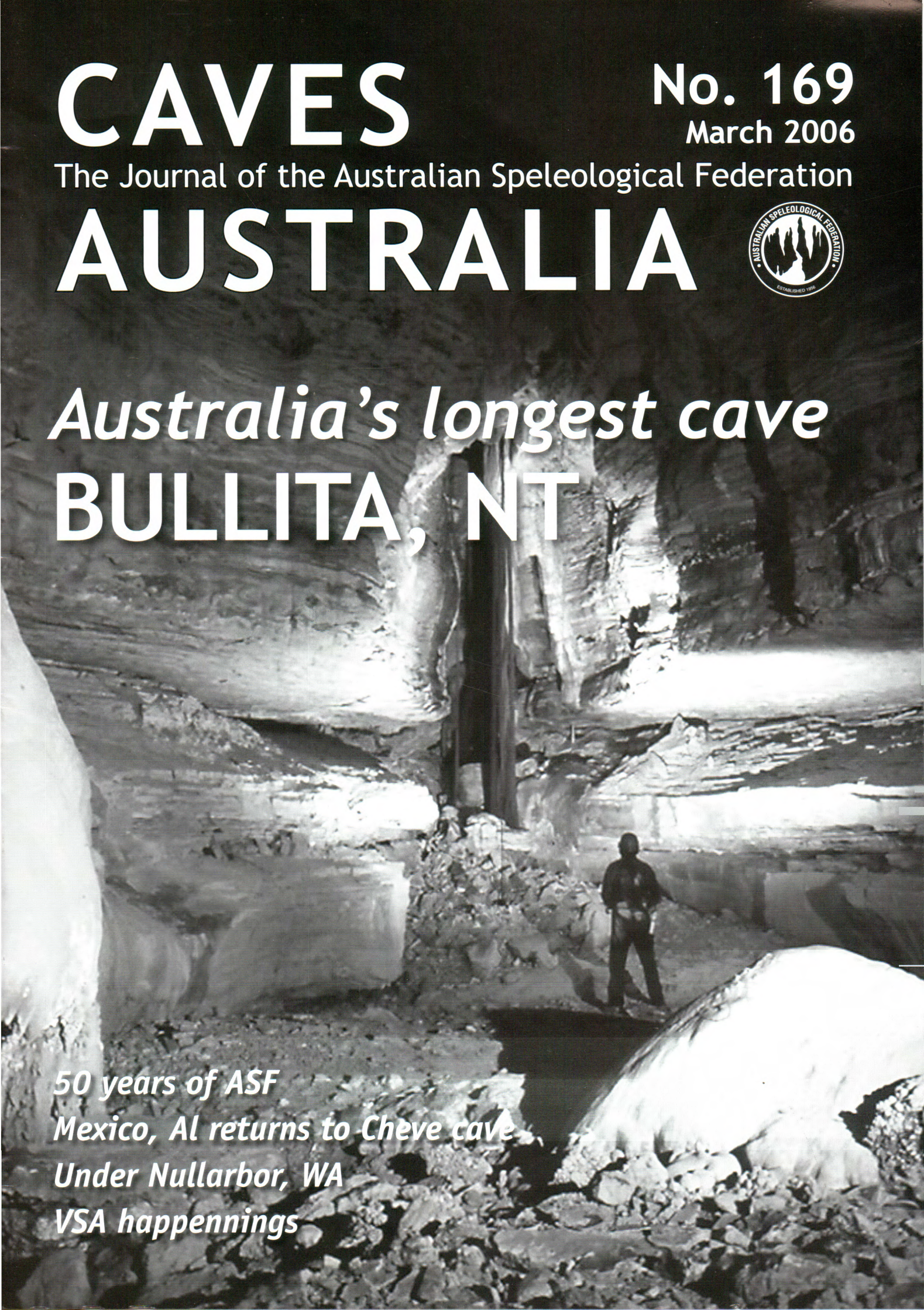
March 2006
The Journal of the Australian Speleological Federation



Australia's longest cave
BULLITA, NT

50 years of ASF
Mexico, Al returns to Cheve cave
Under Nullarbor, WA
VSA happennings

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 on elery@alphalink.com.au

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

April 19-21	Australasian Bat Society Conference, Auckland, N.Z.
May 6-7	NSW Speleological Council meeting, Cliefden, NSW, see page 5.
May 5-8	ACKMA Annual General Meeting, Kangaroo Island.
June	Karst Field Studies Program, Centre for Cave and Karst Studies, Mammoth Cave WHA, Kentucky. (Note: probably seven separate schools on various dates.)
June 27-July 2nd	International Karstological School on *Sustainable Management of Natural and Environmental Resources on Karst*, Karst Research Institute, Postojna, Slovenia.
July 3-7	Regional Conference, International Geographical Union on *Geomorphology, Hydrology and Management of Karst Terrains* At Queensland University of Technology, Brisbane.
July 3-8	International Symposium on Vulcanospeleology, Tepotzlan, Mexico.
July 14-16	Karst-o-rama, USA http://www.gcgcavers.com/karstorama/
August 14-19	International Union for Quaternary Research: *Sub-aerially exposed continental shelves since the Middle Pleistocene climatic transition*, Exmouth, Cape Range and Ningaloo Reef, W. Aust.
Sept 24-27	International Symposium on International Symposium on Environmental Geochemistry, Beijing, China
Sept 21-23	8th Conference on Limestone Hydrology, Neuchatel, Switzerland.

And Looking Further Ahead

2007 January	26th ASF Conference, South Australia, celebrating 50 years of the Australian Speleological Federation. Start planning now! See page 15.
2007 April 9-12	CAVEPS – Conference on Vertebrate Evolution, Palaeontology and Systematics, Museum Victoria, Melbourne.
2007 April 29-May 4	ACKMA Conference, Buchan. This will be part of the celebration to mark the centenary of the discovery of Fairy Cave.
2007 ?? 13-15	EuroSpeleo Forum 2007 – "BALTIC Speleological Congress" (BSC), Wisby Strand, Visby, Gotland, Sweden. http://www.speleo.se/bsc/
2008 Sept 19	The International Symposium on Subterranean Biology, 2008 – Perth WA.
2008 23-31 August	"VERCORS 2008", French Federation of Speleology (FFS). http://www.vercors2008.ffspeleo.fr

CAVES AUSTRALIA

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Change of address. Notify us immediately of any address changes to ensure your delivery of Caves Australia.

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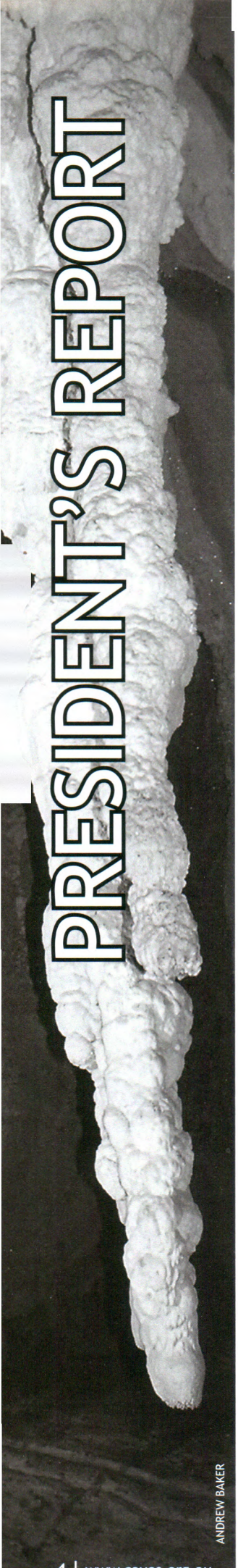
COVER: Main chamber with side passage in Skeleton Key cave.
Photo: Mark Sefton

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



ANDREW BAKER

President's Report

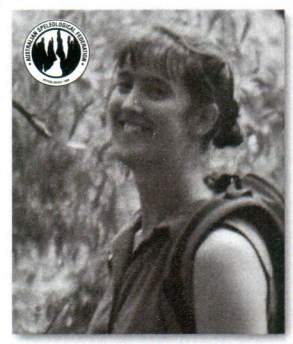
I hope everyone's year is going well. It's been interesting for me, and a few things have happened so I'd like to discuss the concepts of communication and consultation. As speleologists, we all know that these issues are important. In particular, that karst exploration and research is documented and that this information is communicated to those who have land management responsibility for the karst areas that we visit. Likewise it is important for land managers to consult with speleologists in regard to karst/speleological issues – ie in developing management plans. A recent document released in WA states very clearly that "decision-making and management processes for karstic environments should incorporate comprehensive consultation with government agencies, organizations including specialist speleological groups, the community and environmental experts" (Environmental Protection Authority, Draft Guidance Statement 33 – 2005: B9-3). This document also states that "Much expertise in karst systems lies with speleological groups. Consultation programs should ensure that people and groups with expertise are contacted and have sufficient time to provide input" (EPA 2005: B9-5).

It is well known that karst is a sensitive environment. Many of you know that the cumulative and indirect impacts of development, or management decisions, can be more effectively managed when recognised at an early stage in the planning processes. In particular, it is clear that the importance of communication and consultation should be found in both local area planning and in broadscale regional planning. With a county as big as Australia, with so many different karst areas – the need for consultation and communication are even more important.

When I use the word consultation I don't just mean "telling" a group/the public what is going to happen, or communicating decisions that are already made. The research in this area highlights that *Consultation* is about engagement, working in partnership and collaboration. It is also about interagency and intragency communication. As speleologists, we need to be actively consultative in our work with other groups and agencies, but also within our own organization. The ASF executive will be meeting in the next few months for Strategic Planning. If you have any issues regarding consultation, communication or internal feedback then please contact me.

I encourage members to keep a "lookout" (eyes & ears) for any proposed policy, development or management actions regarding karst. Do you know of any action, or proposed action that may be going to occur near a cave or a karst area? Then please ask the following questions – **Is the ASF involved?** And **does the ASF know about this?** I encourage you to send an email or call myself or another executive member regarding karst issues or general broader planning/policy documents. In many cases, it is by the unofficial means, word of mouth, and knowing someone in the "right place at the right time" that leads to information about issues that should have speleological input. Depending on the circumstances, you can remain anonymous, or have the source of your information held as confidential. It may be a simple issue that the ASF can be aware of and observe from a distance. The ASF could write letters or a submission on the issues, or meet with a Government Agency. Perhaps the issue may need some legal action. The key goals however are that karst environments are managed in a sustainable manner and that speleologists are involved in issues involving karst. Later on in this edition, there is a report on a recent karst development issue where speleolgists' were involved and had a positive outcome.

Yours in caving
Jay



Corrections

CA166/167, Page 12.
Amendment to unknown photo credit. Photo was by Dirk Stoffels, Wilburds Lake Cave at Jenolan, NSW

CA166/167, Page 2.
"Welcome to Country'

Please note that the last line was added by the Production Manager and should have read: *It is good to see that cavers and local indigenous Australians work so close together (PM).*

ASF 50th Celebration 'Club Poster Competition'

All clubs are invited to submit an A2 'poster' entry into the ASF 50th Celebration 'Club Poster Competition'.

This poster entry is to reflect the history of your club, the beginning, the historical highs, the lows, the fun times, the exploration\scientific achievements and more. Entries can be either posted to CEGSA or submitted by your club representative at the conference. Please advise CEGSA if you wish to enter.

All entries will be judged by independent judges and will be on exhibition at the ASF 50th Anniversary conference at Mt Gambier, SA.

ASF will award a prize of either a copy of 'Cave Minerals of the World' (or cash to the equivalent) to the winning club.

Posted entries must arrive by 1 December 2006 and can be sent to: Cave Exploration Group South Australia
'Club Poster Competition'
PO Box 144, Rundle Mall, Adelaide SA 5000

JENNY JOHNSON – SWCC/UK

Aussie Ex-pats

Thomas Aberdeen is a VSA caver currently living in the UK. Tom is seen here in Ogof Ffynnon Ddu, UK's second largest system.

Do we have any other Aussie ex-pats? Send a photo of yourself in a cave with description to Joe Sydney: jsydney@choice.com.au

Help Save Australian Caves & Karst

The ASF Environmental Fund is completely funded by donations from cavers, caving clubs and the public. Your donation or bequest to AEF will assist our work of informing Australians, and conserving Australian caves and karst. To contribute to AEF, send your donation\bequeth to: Australian Environmental Fund

Grace Matts
176 William St
Bankstown, NSW, 2200

Donations of $20 or more are tax deductible. All donations remain confidential. Visit www.caves.org.au for more information. AEF is registered as an environmental body by 'Environment Australia'.

BUNGONIA (Caves) STATE CONSERVATION AREA-NSW, 28th MARCH, 2006

Due to an acute water shortage the showers have been temporarily disconnected in the amenities block. If the water supply problem does not ease, the camping ground may be closed at short notice. Contact the Park for updates.

Please note that due to a water shortage, Bungonia SCA has had to temporarily turn off the showers within the campground until further notice. During this time of restriction camping fees will be reduced to $3 per adult and $1.50 per child (5-15 yrs per night.)

BUNGONIA CLOSED FOR FERAL CONTROL

Please note that this park and sections of adjacent Morton National Park will be closed for maintenance and feral animal control during 12th to 20th May inclusive and 13th to 27th September inclusive.

Phone: 02 4844 4277 or 02 4844 4277
bungonia@environment.nsw.gov.au
www.environment.nsw.gov.au

ASF welcomes a new club — CASM

At the January Council meeting, a new club was accepted into ASF – CASM: Cavers and Adventurers of the Snowy Mountains. Led by Angus Macoun who recently moved to Jindabine, NSW, the club is formed from cavers from Cooma, Canberra and within the region. CASM is based in Jindabyne and already has over 20 members, a good start to a caving club. Hopefully we will hear of great exploits from CASM in the near future.

Australian Honours List 26 January 2006

ASF congratulates Mr Norton on receiving an OAM.

Mr Kenneth Alfred NORTON. Medal of the Order of Australia (OAM).

Citation: For service to the community of Mount Gambier, particularly through the development and maintenance of Umpherson Cave as a tourist attraction

Source: http://www.itsanhonour.gov.au/honours_list/resultDetail.cfm?awardsID=1129048

NSWSC

NEXT NSWSC MEETING

Cliefden Caves, Cliefden, NSW May 6 & 7, 2006

Meeting will start 10am for formal start at 10:15.

Draft agenda and how to get to the location details will be sent to the ASF members email list, contact your club committee for details. Caving activities possible for the following Sunday.

Contact Megan Pryke, 02 9524 0317.
Visit www.caves.org.au for updates.

WANTED
ARTICLES FOR CAVES AUSTRALIA!

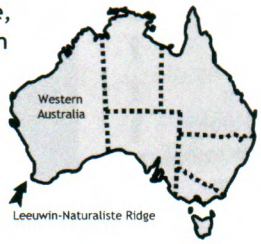
Whether caving, cave diving or a general exploration, Caves Australia readers are interested in YOUR story. It is only with YOUR contribution that we can produce a quality magazine for all to enjoy.

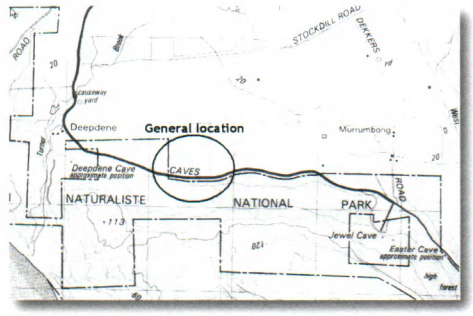
For writing and style guidelines, contact the Editor or Production Manager for further information.

JOE SYDNEY

Blue Gum Plantation — Potential Effect on Karst — Western Australia

Jay Anderson, WASG & Nicholas White, ASF Conservation Commission Convenor





The ASF was recently notified of a planning matter, which had not been adequately considered from the karst or karst ecosystem perspective. This involved a planning application near Jewel Cave and immediately north of Labyrinth Cave next to the Leeuwin-Naturaliste Ridge in Western Australia. The proposal was for an area of approximately 200 hectare Blue Gum plantation (Eucalyptus globulus plantation). The Shire of Augusta-Margaret River had granted approval subject to conditions concerning buffers and protection of surface wetlands, but the conditions did not cover the nearby karst subterranean wetlands. The proponent appealed these conditions. The matter was to be heard on Friday 17th February 2006 by the State Administrative Tribunal (SAT).

At the time of the ASF becoming aware of this situation, it appeared that no karst evidence was considered in the decision-making process. In particular, there were concerns regarding the effects of such a plantation on water table levels and hence the water in the connected Labyrinth-Easter-Jewel Cave System. Of particular concern, was the fact that this plantation was to be adjacent to the National Park and close by the karst system that contained the Nationally listed Threatened Ecological Community (TEC) referred to as the "Aquatic Root Mat Communities" in caves of the Park. The TEC is the Root Matt Community Number 1 — Leeuwin Naturaliste Ridge and the whole name is the Aquatic Root Mat Community 1-4 in the Caves of the Leeuwin Naturaliste Ridge. (See http://www.deh.gov.au/cgi-bin/sprat/public/publiclookupcommunities.pl). It was understood that CALM, Manager of the National Park, did not provide timely or sufficient advice regarding the potential threat to the karst systems. The Environment Protection Authority WA provided advice that it was "Not Assessed" and did not identify the karst issues.

Thus the EPA did not identify that the proposal could affect the cave water levels, the stygofauna or the listed Threatened Ecological Communities. During the pre-approvals process, none of the agencies involved, referred the proposal to the Federal Department of Environment and Heritage (DEH). Although it is understood that the Shire (the respondent) did discuss the issue with the DEH at a later stage. It is understood that the EPA are obliged to refer the proposal to the DEH if a proposal would put listed biota in jeopardy.

It was also understood that there was no expert witness for the Shire regarding biospeleology. Of particular concern was the fact that none of the Government agencies with environmental responsibilities identified the existence of the TEC and the potential threat that the plantation would pose. It seemed that during the pre-approvals process, both the respondent and the proponent had not consulted Dr Stefan Eberhard or his PhD thesis (http://wwwlib.murdoch.edu.au/adt/browse/view/adt-MU20051010.141551), or the commissioned report to the Augusta-Margaret River Tourist Bureau. Copies of the Jewel Cave report were widely distributed to relevant agencies in 2002, incl. the shire, CALM, EPA, DoE. This research covered the geomorphology of the caves of this part of the Leeuwin-Naturaliste Ridge, the hydrology and the biota including the root mat communities.

WA speleologists sought legal advice and consulted with the WA Conservation Council. The Environmental Defender's Office (EDO) acted on behalf of both groups and made contact with the DEH, Shire and the proponent's legal representatives. The legal advice given by the Environmental Defender's Office indicated that the Shire would not be able to include the extra evidence on the karst systems, as the hearing is to be specifically on the matters that the proponent has appealed. The EDO stated that there was an opportunity for further action and for a third party to bring in that extra information. Just two weeks before the SAT Hearing, the WA speleologists were gathering information and considering whether it was necessary to become officially involved in the proceedings. Only four days before the SAT Hearing, the proponent decided that they would not proceed with the Hearing and informed the Shire that they would not plant gum trees on the site.

This is a example of a planning decision which may have been detrimental to the caves and biota of the Leeuwin-Naturaliste National Park in which the karst aspects have not been given due consideration. These caves, the Park and the cave biota are significant nationally.

The main aim of the local Speleo's involvement was to get the hearing in the SAT adjourned because of the outstanding issue of the federal TEC assessment. An adjournment of the SAT hearing would be necessary as the DEH would need to conduct an assessment involving a decision to approve (or not) by the Minister that could render the SAT proceedings futile. It is understood that it was through the inquiries of local Speleologists that this proposal was eventually referred to the Federal Dept of Environment and Heritage for threats to the TEC and endangered root mat community issues.

This situation is a clear reminder to all ASF members, if you hear of an issue or proposal likely to impact on karst then find out if the ASF is involved, or should be involved. In many situations, a third party may be able to intervene or become involved in the process. Seeking Legal Advice is the most important action you can take Ð this will inform you and your group of the options and the legal methods that could be utilised in the situation. The Federal government is seldom drawn into these planning issues but when biodiversity is in question then the responsibilities under The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) are very powerful. It also shows the lack of protection for sites that are not listed under the EPA act. Most are not listed, nor will meet the criteria for listing. Lack of research knowledge is a major impediment.

The final outcome was that the Augusta Margaret River Shire had a meeting with key Agency representatives on the day scheduled for the SAT Hearing. An ASF member (Jay Anderson) attended this meeting where there were discussions on how to deal with future development applications near caves/karst in the are for the future. It was excellent to see the acknowledgement of the significance of karst and serious consideration of how to reduce impacts and to improve the decision-making process for the future. However, there is no room for complacency, there is a clear need for much more baseline research to understand the karst systems of the LN Ridge, and to integrate research knowledge into planning and decision making processes. Hopefully the "near miss" experienced at Jewel Cave will help to stimulate support for further research and better planning and protection for the many other cave and karst systems in this area which are potentially threatened by developments.

Barrow Island, WA considered for National Heritage listing

Sydney, 24th February, 2006

Humane Society International has nominated Western Australia's Barrow Island, one of Australia's oldest and most valuable biodiversity conservation reserves, for protection on the National Heritage list managed by the Commonwealth Government. The nomination comes at a time when a global oil and gas industry consortium is hoping to construct a major gas processing facility on the island which was classified as a nature reserve in 1910. Barrow Island is a place of rugged beauty, with its white dunes and beaches, turquoise waters, red sand, wave beaten cliffs, spinifex grasslands, mangrove communities, colourful reefs, and underground caves lined with spectacular stalactites and stalagmites. Being the largest island in Australia with no introduced pest species, Barrow Island is referred to as 'Australia's Ark'.

The island is a haven for rare and threatened animals; many that have gone extinct on the mainland. It is also one of the most important nesting sites for flatback and green turtles in the world. "Barrow Island's outstanding natural values are unparalleled anywhere else in Australia. It deserves a place on the National Heritage List", said Nicola Beynon, HSI's Wildlife and Habitats Program Manager. Chevron Australia, Shell and ExxonMobil (the Gorgon Venture) are currently seeking approval from Federal Environment Minister, Senator Ian Campbell, to establish the gas processing facility. The Western Australian Government has given the Gorgon Venture 'in principle' approval for the restricted use of the island for the development, despite clear warnings from their Conservation Commission of Western Australia and the Environmental Protection Authority, that it could be devastating for the island's unique natural values. "HSI has asked Senator Campbell not to give the development the go ahead. We hope our nomination will see the island given significantly greater protection instead", said Ms Beynon.

Of grave concern is the impact the gas facility could have on the marine turtle nesting sites. A gas processing plant has already devastated the most important green turtle rookery in Peninsula Malaysia. We are also seriously concerned at the quarantine risk the facility will pose to endemic species such as the Barrow Island spectacled hare-wallaby, Barrow Island golden bandicoot, Barrow Island mouse and the Barrow Island burrowing bettong (a species extinct on the mainland). "It would be a tragedy if Barrow Island lost its status as the largest pest free island in Australia, which could see its unique fauna follow mainland cousins to extinction", said Ms Beynon. A formal environmental assessment is still required by the Western Australian and Commonwealth Governments. The Gorgon Venture will release an Environmental Impact Statement in coming months. A decision on HSI's National Heritage nomination is expected later in 2006.

Contact: Nicola Beynon, HSI Wildlife & Habitats Program Manager
Humane Society International
02 9973 1728 / 0404 065 517 for comment and a copy of the nomination.

World Wetlands Day, ASF discusses subterranean wetlands at National Conference

The ASF President, Jay Anderson, was a presenter at a recent Conference in WA. The conference was held on Thursday 2/2/2006 — which is World Wetlands day. World Wetlands Day marks the signing of the Convention on Wetlands in the Iranian city of Ramsar on 2 February 1971.

The conference was titled: WA Wetland Management Conference. The primary objective of the Conference is to provide an annual opportunity for the exchange of information and ideas between wetland practitioners with a focus on the latest developments about how to effectively manage and restore wetlands.

This year's conference theme is 'Protecting and Appreciating Our Wetland Heritage'. Sub-themes include wetland management and restoration, wetland education and wetland policy.

There were 14 presenters, who spoke on a range of issues regarding wetlands. Jay was a co-author with Mia Thurgate, of the Department of Environment and Heritage, Canberra. Unfortunately, Mia was unable to attend the conference. The paper/presentation was titled: Protecting and Appreciating Australia's Subterranean Wetland Heritage.

Jay had attended the first conference, held on 2/2/2005 and had seen a need for inclusion of subterranean wetlands on the program. Jay was aware that many individuals, agencies or communities are not aware that there are wetlands underground that are of great significance and that require protection, conservation and appreciation. The paper focused on subterranean wetlands and outline their significance and occurrence in WA.

It was outlined that at the Sixth Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iranm 1971), the Parties agreed to include subterranean wetlands as a wetland type under the Ramsar Classification System. Subterranean wetlands include all underground areas containing water (including ice caves). The most striking subterranean wetlands occur in cave and karst systems. The audience was provided with images and information regarding the significant aspects of karst, its values and threats. In particular, the need to consider subterranean wetlands.

The Ramsar agreement now recognises that some subterranean cave and karst systems provide natural underground wetlands and constitute a resource of ecological, cultural, scientific, aesthetic and recreational value. They provide an environment for highly specialised fauna species. These fauna may have the following characteristics — be blind, lack pigment and have elongated antennae and legs. Many of these species are also local endemics, and are rare and endangered.

At the First International Ramsar Subterranean Wetlands Workshop, held at Naracoorte Caves, South Australia, in October 2004, delegates recognized that many sites within Australia are suitable for listing as Ramsar subterranean wetlands. Some of these potential sites were outlined or had images presented.

Subterranean wetlands have not had the public profile of some other types of wetlands, and there is a need to educate and inform land owners and managers, as well as the community about the importance of these sites. To assist with this need, the paper provided an overview of subterranean wetlands issues in Australia, including an explanation of their significance, identification of priority sites for listing (with a focus on Western Australia), and management issues. The presentation showed examples of significant subterranean sites in WA — sites that are karst systems in WA as unique environments that need recognition and protection. It was concluded that Speleological Groups and individuals with speleological knowledge and expertise are developing a profile of significant karst systems and unique subterranean wetlands. This could provide land managers and the Australian Government with a source of priority sites for listing and protection under international conventions or Australian methods.

SIERRA DE JUÁREZ

ANDREW BAKER

Return to Mexico's Sierra de Juárez region

Al returns to Cheve Cave with a potential for its main system to have tunnels deeper than 6,500 feet (2,000 meters). If the team breaks into them, they could establish Cheve as the world's deepest known cave, bypassing Krubera Cave, in the Republic of Georgia.

Al Warild

Still green on the outside – a personal account, which means that I don't have to bother telling what other people did.

...it's strange what finding a going cave can do to your common sense. In March-April 2004 we'd had a lot of fun hunting for caves in the jungle above El Ocotal in southern Mexico, and right at the end we even got into a going cave – Barbie we called it. Tight as...whoops, this is family reading. [CA162]

A going cave with an entrance at 2300 m means that you **have to** go back despite the latest Mexican government ruling of 'no foreign cavers allowed'. We got special one-off visas to go caving in Mexico and bit our tongues when negotiating about doing things 'the American Way'. The price is never too high.

Early April 2005 and we're on our way again. This time three Australians: Greg Tunnock, Mark Wilson and Alan Warild joining about 15 'foreigners' from Spain, Poland, Ireland, Holland & Britain, 15 Americans (the USDCT – US Deep Caving Team), and 4 Mexicans. Between five of us, we've filled the back quarter of the bus with the 'foreigner's' – that is non-American's – food for 5 weeks. At the last side-road before San Francisco Chapulapa, the bus doesn't stop as it usually does, instead it lurches up the lesser road and bumps it's way toward El Ocotal. The locals on board wonder what's going, but most of them don't mind because it saves them a few kms walking. We know what's happening: Pawel has paid the driver to deviate from his 'official' route and drop us and our gear at the front door – así es México...

On day four of the main group arriving, re-rigging of the top 450 m was done and there was new cave to be had. Four of us: Soriano (Mx), Mark (Aus), Pawel (Pl) and I (Aus) took over the lead at – 550 m and decided to go true alpine style with light bivvie gear and surveying as we went.

Several hours on and in a wet, breezy streamway without even a dry spot to sit down, 'alpine style' didn't look like such a good idea. But that was alright, I was out front rigging, so I didn't feel the cold. A small pool blocked my way, then beyond it, black, and the sound of a lot of falling water. It was a 25 m cascade down the side of the biggest chamber so far. What's more, there was a place to camp for the night. Windswept, misty, wet and noisy, but better than sleeping on a ledge in the streamway. After a little bit of work we had enough flat area to sleep and later groups stayed there and called it Camp II. We didn't even bother rigging a few short ropes to the bottom of the chamber – they'd still be there for the next group.

They were. But the cave diminished into a small, deep-looking pool at the foot of a small cascade. Oh dear! Week one into a six week expedition and the only show in town had just closed for the season. No amount of poking at it and trying not to fall in the sump showed up any good looking prospects. There was only a way-to-thin rift in the wall above, but nobody could fit into a place that so obviously didn't go. This however didn't stop the second next group from trying. Afterwards, they assured us that there was no hope – they'd spent two days burning paper in that rift and there was no draft. Anna-Mariah (USA) could only wiggle in about 2 metres from a ledge way above water level. Perhaps somebody thought of looking in the water, but nobody did...

Marta on log.

With a lot of people (25-30) in camp and only one real lead in the cave we had to find other things to do while waiting our turn at the sharp end – there's just so much resting you can cope with. The higher country here is rough karst. Ravaged by hurricanes and fires and choked with nasty regrowth that has mysterious cow paths through it that start and finish nowhere. We did however find one hopeful hole: 'Pozo de la vaca voladora' (Flying cow pit). But it only went to 110 m. There were no hoof-prints in the mud at the bottom.

When Team AustroEspaña's turn came around again we took a diving mask and a change of clothes. Nacho (Sp) suggested that after all that paper-burning, all we'd find were ashes. Down at the last lead in the water there were no ashes to be seen, they'd all been carried away by the spray from the cascade and the strong draft blowing on my right ear. Still, the rift was too narrow and as it extended underwater, even a desperate roof-sniff was out of the question (good!).

However

The sump also extended underwater and with no more than a mask and tiny torch I didn't get far. Next time perhaps I'll try some candles in a bathing cap so that the ghost of Casteret can show me the way. It did leave us with a dilemma though. The air could get through just fine, but us humans had a sump in the way. The cave was a goer, if only we could get through, but we had no dive gear with us. On our way up, Mark (Aus) & Zape (Sp) climbed about and checked a few high leads, but we *knew* there was only one way on.

After discussing the possibility of visiting a local dive shop, we decided that the owners wouldn't appreciate what we intended to do with their equipment and none of us wanted to use local rental gear anyway. There was a second possibility – Bill has some very good connections in Texas. After few satellite phone calls, Robbie (UK), Paula (USA), Soriano (Mx) & John (USA) were on their way north to pick up 'the stuff' in a carpark somewhere in Texas, and bring it back. The rest of us would wait...

Half a dozen of the team wandered off to the lowlands to try their luck there and were shown to a cave they called 'Ken', which eventually went to about 240 m deep, but more importantly, was near beer, good food, good weather, beer and a broadband connection (to a village in the hills that barely has a road to it).

The gear finally arrived and the travellers sent it up as soon as they could get four burros ready.

Despite my best efforts to keep the load down, we still ended up with 11 loads of dive gear. After a week of hanging around, there was no shortage of people ready to carry gear down there – just to do something – anything. So much so that we almost had to draw straws to decide who'd get the privilege of carrying a tank down, and who would wait outside to carry the next loads in – or out, once we had a result about the sump.

Next day, after hours of rebuilding regulators and kitting-up, Bill was ready to go. Three minutes later, he was back. The sump went all of five metres and narrowed down to a squeeze that he couldn't fit through, and he couldn't take his tanks off to give it a real try. Fortunately, the backup diver had trained at Jenolan. With one bottle hanging off my chest harness and the other on a short tape, I popped straight through to be greeted by the best ever post-sump sound: the roar of falling water and a draft blasting out of the rift above the sump. I dropped the dive kit (pretty easy when it's hardly attached) and took off down the passage to make sure that it *really* went. It did, and so did the draft. We were on our way again.

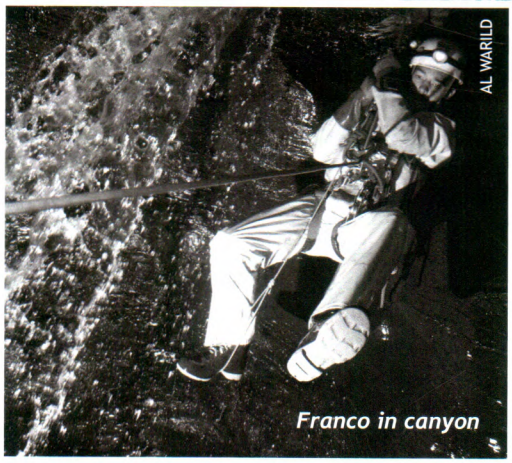
By now we'd reached week four out of six and there would only be a handful of people for the last few weeks anyway. Everyone had to get in to have their bit of cave. Sherpa team II took what they could – not quite all they needed, but all they could, and moved in. The only problem is that a 12 m sump with a squeeze in the bottom is not for the uninitiated. We got John (USA) and later Marcin (Pl) through to work on lowering the water level, while most of the team sat in camp II (see 'Windswept, misty, wet and noisy' above) and ate their precious food. Just as most of the team had to go home, the cave was "wide"-open.

Greg and I got one last trip down to the streamway for one more pitch and we too had to go home. Back at base camp a day later, the computer told us -810 m. And it was till going very well, but instead of changing our airline flights, we went home and left the glory for the derig team. While

700 Cascade

High Karst

Dive Kit



Pawel

perhaps they didn't actually push George W or Iraq off the headlines, they did get about 3 km more cave and pushed to about -1100 m. That's where my story ends. The rest is from emails sent by Pawel and Bill who stayed until the end... (loosely translated from Pawel's wonderfully flavoured Polish-Spanglish):

"children of chingones"!

Thanks so much to everyone who worked so hard to open up that whore of a sump for us. Each morning passing that thing woke me up better than the morning coffee. Getting through the first time I was so scared that I really wet myself (with water! What were you thinking?). Arturo, Kasia and I stayed at Camp II for a week and did three trips of about 20 hours each. On the other side there's chingones water. It's the first time I've ever been canyoning, but later on the galleries are big and dry and so 'chingones' that Arturo dropped his bag and took off like a loco with a rocket up his bum. I wonder what we should call the first dry gallery? 'Galeria de los piratas' for our caving 'famiglia' perhaps... Surely it's the best exploration of my life. There are also rockfalls. One is called "Where is Pawel?" The first time I passed through it, I had no idea how to get back. Another is called "The pirates are lost again"...."

1100 m+ and still going. Once again the USDCT guys are dreaming of a connection to the nearby Sistema Cheve and it being the deepest cave in the world, but each year the Soviets keep upping the ante by pushing Voronia even deeper. No matter. It'll be at least 1800 m deep before it connects, if it makes it that far and doesn't die in a rockpile or impossible sump. We'll be back in 2006 to find out.

What's happening in VSA

Marg James

VSA has had a real upsurge in activity over the last couple of years. There has been a welcome influx of enthusiastic and energetic newer members eager to challenge themselves, to develop their skills and knowledge about caving and speleology, and to contribute more broadly to VSA and the wider caving community. Added to the existing strong base of long-standing committed members, this has resulted in more trips to more places, more exploration, more skill development, and a lot more fun!

But there have been other notable changes too. In the last few years, VSA has organised an increasing number of significant expeditions. Since 2000 VSA has run annual trips to systematically explore and document a section of the Western Australian Nullarbor, using an ultralight aircraft to locate features which are located and documented by ground crews. (Except for last year, when the plane had to undergo some serious maintenance.) The Barkly Karst area of northwest Queensland received a solid exploratory visit on the recommendation of a VSA member in Mt Isa who could see plenty of limestone not too far away, but had nobody to explore it with (and there is certainly more work to be done there). There have been several rigorous expeditions to the Mt Owen area of the South Island of New Zealand as part of a continuing program of exploration and documentation, and further trips are on the drawing board. Last year VSA was invited to Pungalina (Northern Territory) which we visited mid year. An expanded team will return this June to further explore this fascinating area. Even the exploratory expeditions have been planned as continuing projects if the area warrants, and all have entailed serious exploration, and intensive mapping and surveying work. On average, VSA is running two major expeditions a year, on top of its regular trips program.

As if all this activity wasn't enough, some members are also involved in other expeditions as well. Several members are regular participants in the continuing exploration at Bullita in the Northern Territory. A couple of members visited Timor Leste (East Timor) last year to provide advice about a proposed hydro power station in a karst area at the eastern end of the island. A December trip to Mulu (Sarawak) and Niah Caves followed.

Isn't it good to see that rejuvenation can come from older retired members as well as from an influx of hew blood?!

Nullarbor and Roe Plains Expedition 05

This was the longest and most ambitious Nullarbor expedition undertaken for a number of years. 23 individuals from a number of caving clubs converged on the Plains during the month of January 2005.

Paul Hosie, WASG & ASF-CDG


ALAN SHARP

Our aim achieved objectives of caving, cave diving, underwater videoing, aerial survey, exploration, mapping, fauna and mineral collection. In terms of exploration, 1.1km of virgin passages were explored and mapped by ASF cave divers with major leads discovered in two caves which will be pursued further during 2005.

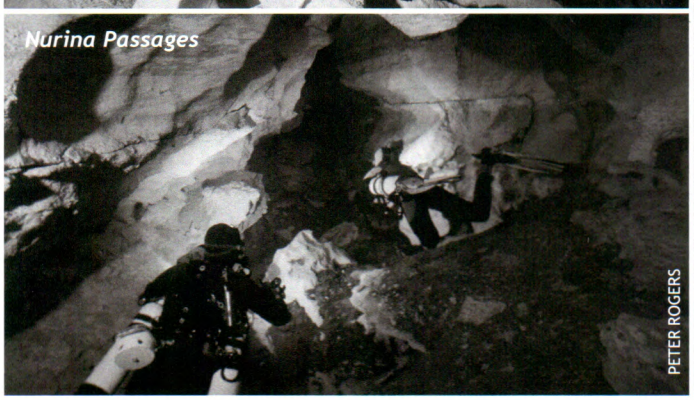
ASF cave divers from WA, VIC and SA converged at Olwolgin Cave on the Roe Plains on 27 December 2004. The objective was to video the main underwater passages before further exploratory diving was done. Like the other diveable caves on the Roe Plains (Burnabbie, Nurina & Slot Caves), Olwolgin is an incredibly silty cave in which some areas can take many days for the water to become clear again (ie Alien World). It was hoped to video the bacterial 'jellyfish' sighted on two previous occasions in a distant part of the cave near Babylon Lake, but this enigmatic bacterial colony organism was not to be seen on this trip.

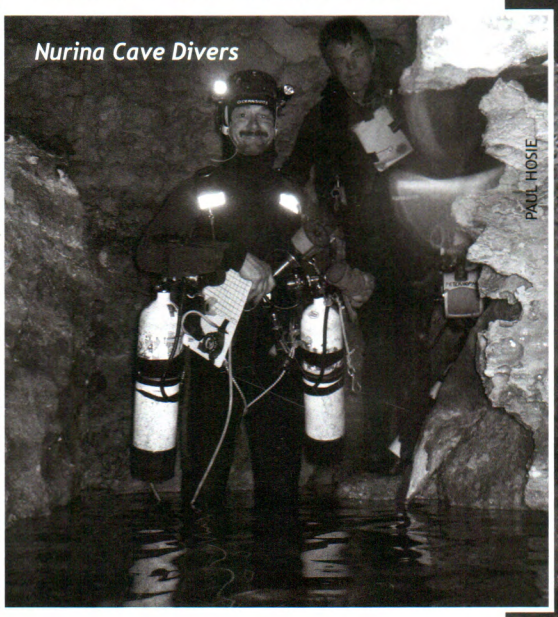
With the videoing of Olwolgin complete, the next objective was to complete the exploration and mapping of Nurina Cave over the following five days. Ken Smith, Peter Rogers (& family), David & Petra Funda (all CEGSA) did some excellent work in this period which resulted in a previously undiscovered section of the cave being explored and over 400m of new underwater passages mapped. Several unexplored leads remain in this complicated network of shallow, interconnecting fissures and bedding plane passages. Ken Smith's excellent radiolocation 'Pingers' were utilised to establish surface GPS positions for a number of the key underwater survey stations. The result of this was the identification of a possible underwater connection between two adjacent passages which was later physically made by David Funda. Most of the underwater passages were also video'd and some pleasing footage was obtained.

Whilst the divers were working away underwater, the group was joined by Peter Ripley and his young charges: Stuart, David and Richard (all WASG). Some effort was made in Nurina Cave to hone surveying skills in anticipation of work that was to follow in the far reaches of Mullamullang Cave. This period also saw the arrival of Sam Rolands and Alan Sharpe (WASG) from Esperance in Sam's Cessna 172 at the Madura Pass airstrip. Two extensive and fantastic flights were made to try and find new caves on the Roe Plains to explore. Although this objective wasn't entirely successful (one new feature was seen but couldn't be relocated on the ground !), the flights were awe inspiring because it was only from the air that a real appreciation was gained of the immensity of the Roe Plains and the Nullarbor. There is no doubt that many caves await discovery under the dense vegetation of the Roe Plains and the Hampton Tableland – the next generation, or maybe this one if enough speleos are willing to join the search!

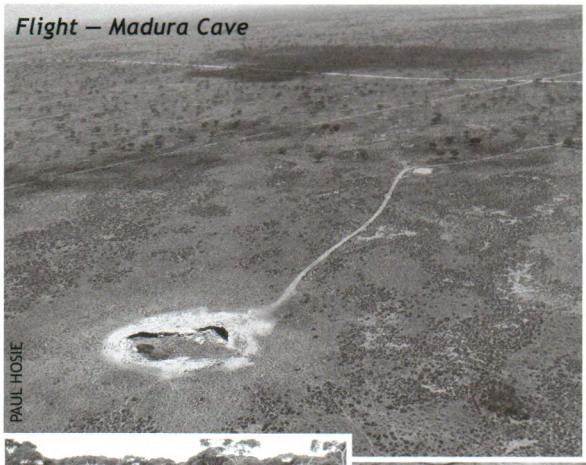
As soon as the flying was complete, another team of WA cavers together with a land manager representative joined the group from Perth and Kalgoorlie. WASG trip leaders Anne-Marie Meredith and Paul Hosie took all the new members and some of the land owner's station hands for a tour of some of the most impressive West Nullarbor caves including Cocklebiddy, Capstan,


Olwolgin Passages
PETER ROGERS

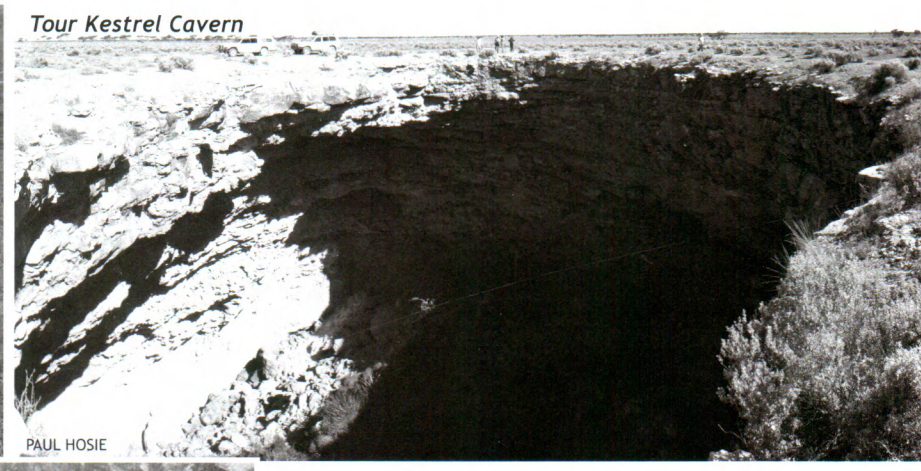

Nurina Passages
PETER ROGERS


Nurina Cave Divers
PAUL HOSIE


NULLARBOR
ANDREW BAKER

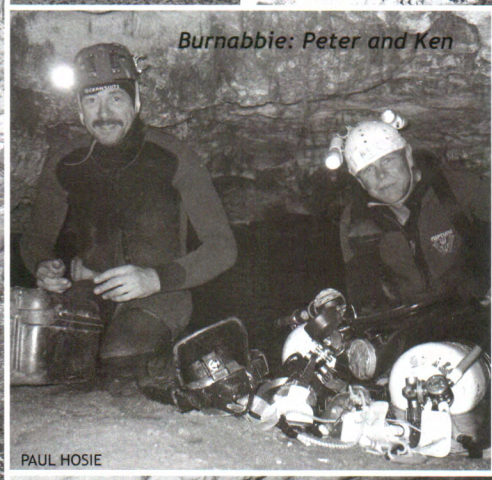


Flight — Madura Cave



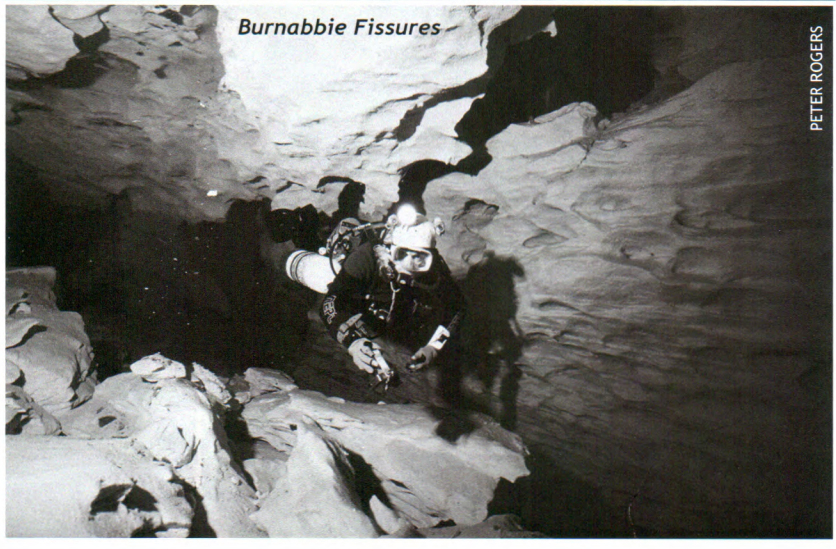
Tour Kestrel Cavern

Tour Roe Plains 6N1955



Burnabbie: Peter and Ken

Burnabbie Passage



Burnabbie Fissures

Tommy Grahams, Murra El-Elevyn, Mullamullang, Spider Sinkhole and the Kestrel Caverns. The entire group was duly impressed and satisfied with the little taste of Nullarbor caves they had been given. During this time, the cave divers back on the Roe Plains shifted camp from Nurina to Olwolgin Cave and continued mapping efforts there, together with fauna collection and tidying up the underwater track marking. Andy Nelson (NHVSS) arrived from Canberra and also recommenced Nullarbor diving after a three year 'work vacation' !

Introducing the land manager's representative to the important Roe Plains fauna site at Burnabbie cave facilitated further cave diving efforts in the area where a number of leads were pushed. Peter Rogers unleashed his extensive array of underwater camera equipment with the aim of obtaining some quality images. There is no doubt that Peter's beautiful results are proof enough that this was a highly successful and worthwhile exercise. Video footage was also taken and the line re-routed past a difficult restriction to take advantage of a short cut connection discovered during dives made by Ken Smith and Alan Polini (WASG) during 2004.

Slot Cave was also dived by David & Petra and they discovered a small extension and air chamber. They emerged from their dive one at a time due to the body sized entry/exit hole. Both were convinced that there is more passage to be discovered in this short, pretty, yet intriguing diveable cave.

It was at about this time that both diving air compressors in the group's possession decided to throw in the towel which resulted in limited diving on the Roe Plains until the NHVSS cavers from Sydney joined the group at Madura Pass on Tuesday 11 January. Mervyn Maher and family, Paul Boler and Bruce Callahan (all NHVSS) came to the rescue with air to top up some small cylinders that were to be taken to the end of Mullamullang Cave for exploration of the lakes there. This phase of the trip had been planned in detail after the last trip to the end of Mullamullang some of the group's members in 1998. The aim was to dive and survey all the lakes at the end of the cave, between five and six kilometres from the cave's massive entrance. Finally, a team of fit, enthusiastic individuals were prepared to take camping and diving gear to the end of Mullamullang to properly survey the cave diving prospects there. This was to be a highly memorable journey, physically and mentally very demanding, but the results were well worth it:

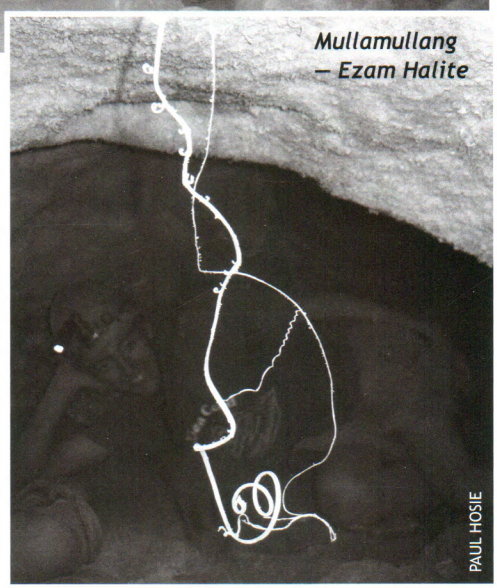
- 400m of new underwater cave passage explored and surveyed in lakes near The Dome.
- photos and video taken of underwater passages coated with spectacular crystal deposits

- subaqueous heligmites documented, photographed and mineral samples collected
- large (10cm long) dead centipede collected from Grotto Lake (near The Dome)
- Commencement of the Ezam survey.

One of the group's main objectives was to find out for once and for all, whether the Grotto Lake (on North wall before the Dome) provided an underwater bypass to the Dome and the possibility of continuation in this amazing cave. Grotto Lake is a beautiful and tranquil place located under the edge of the main passage. A short but careful climb down from the main passage into the lake chamber reveals the hidden beauty below. White salt decoration adorns the walls and a large roof slab hangs suspended over the middle of the lake. The crystallised walls and roof of the wide lake chamber are perfectly reflected in the still cave water. Paul H dived beyond the end of the lake through 60m of shallow submerged passage. Many yellow and white heligmites were seen along the way and in the deepest part (-7m), the walls are jewel encrusted with yellow and white dogtooth spar crystal. At the end of the dive, the passage rises up to a small lake and terminal air chamber. Above is a jumble of boulders which were climbed as far as possible but proved to be an impenetrable rock collapse which still falls well short of the Dome, alas !! Many who have visited Mullamullang Cave's nether regions dream of discovering a continuation of the cave beyond the Dome which will have to be sought elsewhere.

The other canal passages in this part of the cave were dived by Ken, David and Petra. These secret passages lie hidden directly beneath the main tunnel that everyone walks through and would normally be completely unnoticed. They are all stunningly beautiful with crystal clear water and multi-level phreatic passageways. Some leads remain to be extended and surveyed on the next trip. As the maximum diving depth was only 7m, it will be appropriate in future to take small oxygen rebreathers to extend dive time and reduce the volume of gas needed to be carried. Although some video footage was taken by the group, the results were disappointing. Returning to take properly illuminated, quality underwater video in these spectacular passages will be a highly worthwhile goal as they are completely encrusted in a thick coat of yellow and white 'dogtooth spar' type crystal. The diving done in Mullamulllang Cave during this part of the trip is without doubt, in the opinion of the author, the most spectacular and beautiful in Australia so far discovered.

During the dives, a large 7.6cm long (3") dark centipede body was seen and carefully collected from Grotto Lake for identification by the WA Museum. Early review of the Dome Centipede by subterranean fauna expert Dr Bill Humphreys indicates that it is a terrestrial, not troglobitic species. This suggests that at some point in recent geological history, the Dome has been open to the surface, thereby allowing terrestrial species to enter this remote part of the cave (5.5km from cave entrance). An unfortunate lack of survey data for the incredibly complex Ezam passages near the Dome gave the non-divers of the group a good objective of starting it again. Ezam is a multi-level maze system of tubes, flatteners and crawl-ways that lie in a stratum directly above the main passage leading to the Dome. A new survey of Ezam was commenced, with the group spending much time ogling the astounding gypsum and halite decoration there. Due to the complexity of the Ezam area, only a couple hundred metres of passages was surveyed. If a connection beyond the Dome is to be made, it is likely to be via one of the many leads in the Ezam – excellent incentive to spend more time surveying the passages in detail !



While the Dome Team were exploring the far reaches of Mullamullang Cave, the rest of the group conducted day trips into the near reaches of this, a most massive and impressive Australian cave. The additional discoveries from this trip (including more crystal coated phreatic passageways) brings to total more than 1.3km of underwater passages in Mullamullang which account for approximately 10% of the currently known passage length. The trip out of the cave after four days and three nights of intense activity and a bizarre diet of dehydrated foods was a grueling, hard slog with heavy packs of dive gear, drinking water and solid body wastes. Saving the worst until last, the final climb out of the cave to the surface delivered one final stroke to the already exhausted cavers who readily downed cold drinks and collapsed into the waiting camp.

After packing up camp the following day, Ken and Peter Ripley headed for home. The Dome Team relocated to Eucla and settled in for a much needed rest at Eucla. The Sydneysiders took this opportunity to dive Olwolgin Cave. A few days later on Sunday 16 January, the entire group gathered at Weebubbie

Cave and set up some impressive abseils for some of the younger members of the group. Following a marathon tank filling session with the only working dive compressor on the Nullarbor (Paul Boler's !!), the diving team set off to Koonalda Cave to continue the mapping efforts made by cavers and divers during the SUSS 'Escape the Olympics' expedition in 2000. To enable the team to dive in Koonalda Cave, the SA Dept of Environment and Heritage staff assisted the group greatly by processing the permit application and organized delivery of the cave gate key to Eucla. The Ceduna DEH staff would have joined the group at Koonalda Cave, but they were all fully engaged with the horrific bushfires on the Eyre Peninsula which hit the National News in January. There were two objectives for the visit to Koonalda Cave:

1. map the underwater sections accurately and in greater detail
2. map and explore the terminal sump of the cave for possible continuation of the cave

With some of the team's previous experience in Koonalda Cave, the group came well prepared with an inflatable raft for ferrying dive gear along the vast lakes in the easiest possible way. While David and Petra surveyed the beautiful Look Down Lake, Paul Boler, Andy and Paul H headed off to the end of the cave to pursue an objective they had waited years to return to. The water was very cool in the lakes (approx 14C) and the bubbling, sulfurous mud of Shit Lake was just as inviting as it never had been !!! Once the gear was ferried down the lake and carried up and over the massive rockpile, the enormous tunnel lake and the terminal sump beyond was dived. The divers traversed the short sump to –22m and surfaced in the crescent shaped terminal lake. Above the lake are two small avens and one main rockface climb which ascends vertically into the darkness high above. Whilst Andy & Paul B began climbing, Paul H surveyed the underwater chamber beyond the crescent lake. It soon became apparent to the climbers that the pitch height of 15m had been severely under-estimated. The climbers took turns to ascend the crumbly, soft rock and succeeded in attaining a height of 10m above the waterline but with at least another 15m to the top and a dome roof visible another 10m above that. Nine hours after entering the cave, the diving team exited tired and cold yet greatly excited about the future prospects of a properly equipped return trip [see Koonalda 2005 trip report].

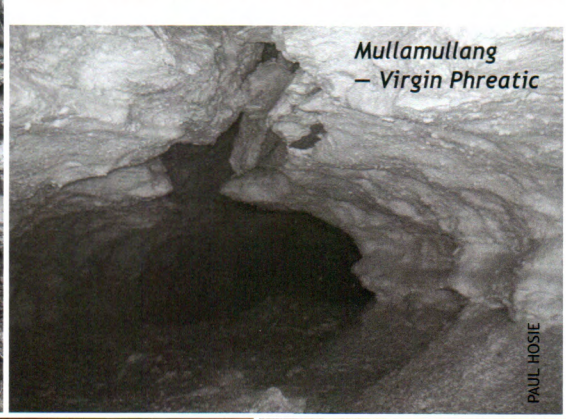
Andy Nelson parted company at the Koonalda Homestead and drove to his new home in Canberra while the remaining group reunited one last time at Weebubbie Cave for a final tank filling session and farewells. Paul H, David and Petra Funda drove back to the Roe Plains for their last cave dives of the trip. Cylinders and equipment were carried to Burnabbie Cave where it was hoped to discover a continuation of the cave's end. The 2004 'end' was extended from a 670m diving penetration to 760m by the author after a zig-zag restriction was passed, enabling access to a further 90m length of tunnel. To dive to the end requires the diver to pass more than eight restrictions requiring single file diving with sidemounted dive gear and staged cylinders – by all accounts quite a challenging cave dive!

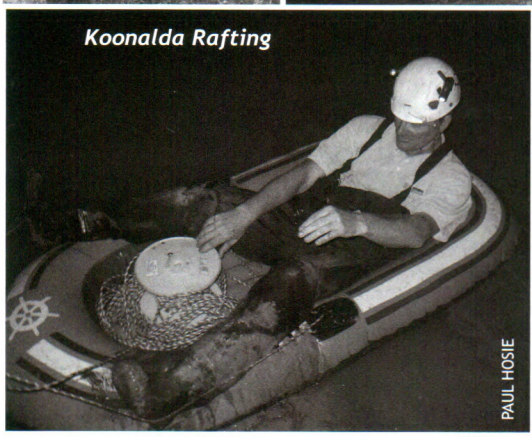
David and Petra dived first and checked all potential side leads at the end of the cave. David made the critical breakthrough and discovered a small low flat connection into a new section of passage, adding 120m to the end. After a thorough briefing by the Crazy Czechs, the author headed into the cave with the remaining cylinders of gas to survey David's lead. What a wonderful experience to dive in virtually virgin passage and have the opportunity to explore new leads! After surveying the line, there was enough gas left before thirds turnaround to allow Paul H to squeeze through a silty low flat restriction directly above a point where David had laid line down into a floor hole.

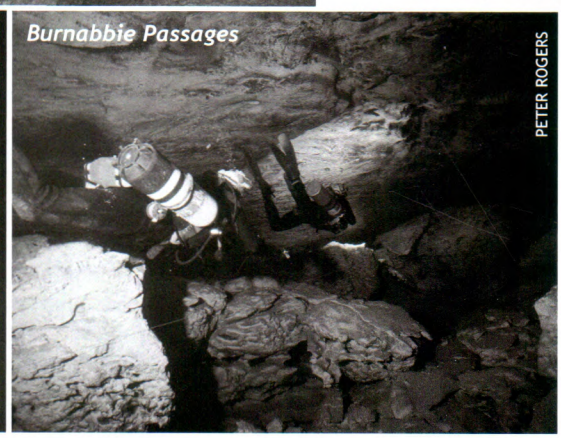
The silty low flattener was only 10m long before it opened into a large spacious chamber which had a number of leads running from it. The line was tied off and surveyed back out for the long, 60 minute swim back to the cave's entrance. It was later found that the end of cave had again been extended, now up to 940m penetration and continues to NE in the same general trend as the rest of the main passages in this extensive cave. The additional 200m of passage explored and surveyed in Burnabbie Cave on this trip brings to total 2.2km surveyed & 2.5km known passage length with many leads yet to be pushed. The celebrations back at camp that night summed up the emotions from the entire trip as preparations were made to leave the Nullarbor!

All in all, this expedition was successful in that no one was injured, the activities of all were co-ordinated and everyone participated in achieving the objectives for the trip. New discoveries were made and strong bonds made and hopefully, a new bout of exploration will begin. Much work remains to be done exploring the Hampton Tableland and Roe Plains where the potential for discovering extensive cave systems is high. Only one question really remains: When's the next trip ?!!


Weebubbie Abseil
PAUL HOSIE


Mullamullang – Virgin Phreatic
PAUL HOSIE


Koonalda Rafting
PAUL HOSIE


Burnabbie Passages
PETER ROGERS

26th Australian Speleological Federation Conference

Celebrating 50 years of Federation

C. E. G. S. A.

Caves, Craters and Critters.
Mount Gambier, South Australia.
January 6th – 12th, 2007
www.caves.org.au

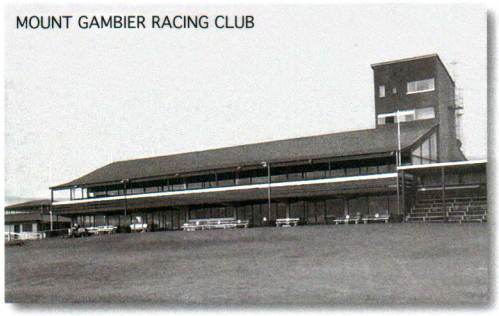
Join us in attending the 26th Australian Speleological Federation's Council Conference and help celebrate its 50th birthday where it all started — South Australia.

Meeting and celebrations will be held at the prestigious Mt Gambier Race Course Function Centre Jubilee Highway, Mount Gambier, South East — South Australia between January 6-12th, 2007.

The Mount Gambier Race Complex features two floors suited for Conference, presentations and Art show. The Function room will also host and cater the formal cavers dinner and of course, the bar will be open each evening of the Conference.

Local accommodation may be found close by at various bed and breakfasts, motels, hotels and cabin accommodation at local Tourist Park. Onsite facilities allow us to camp with access to toilets and showers! A bonus for those wishing to stay on-site.

MOUNT GAMBIER RACING CLUB

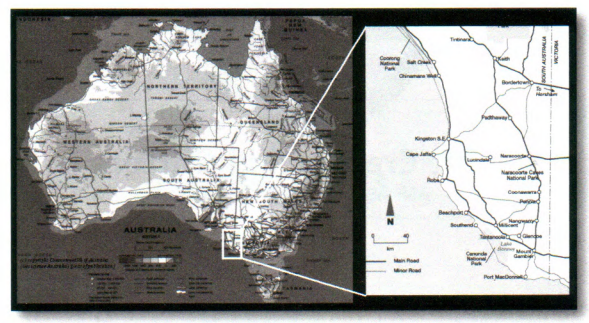


NARACOORTE CAVES NATIONAL PARK

Tour guide and tourists.

GARRY HARRIS

Floating over the main trench at Picaninnie Ponds.



Full day field trips will be happening at Naracoorte caves. The focus will be on cavers and community's contribution to Naracoorte. There will be cave tours, bat viewings and a range of presentations from those involved with Naracoorte.

Those that would like to do something a little different, 'snorkeling' field trips will be run at Piccaninnie Ponds and Ewens Ponds

Forestry SA will present their conservation work and clean up projects of caves found on their properties.

For those wishing to enhance their taste buds, why not participate in the various local wine tasting trips.

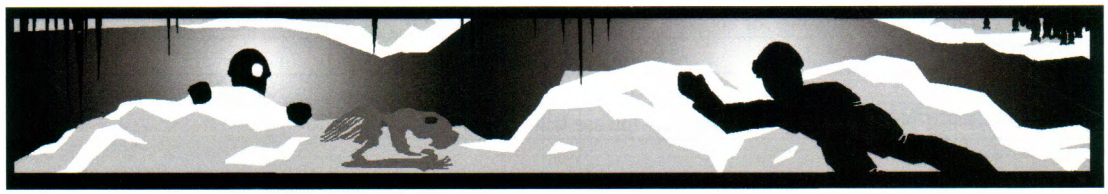
Pre and post conference trips will be run to Western Victoria, Naracoorte, Avenue Range, Yorke Peninsula and to other areas.

Those interested in presenting at the conference need to notify us of their intention by September 30th 2006 and Abstracts must be in by October 31st 2006. For further information on presentations, contact Marie Choi (Conference organiser) on 0429 696 299 or battymariec@picknowl.com.au.

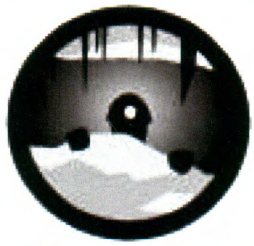
Stay tuned for further updates. Updated information on the Conference and events can be found on the Federation's website: www.caves.org.au

Summary of Conference events, features and facilities:

- Welcome BBQ on first night
- Use of function facilities
- Accomodation close to or on-site
- Visitation of some local caving sites: Reflections tour and more
- Full day field trip to Naracoorte, visiting various show caves Wonambi centre, bat viewing centre and limited wild caving, also includes BBQ dinner
- Transport provided if required (mini bus)
- Morning and afternoon teas, and yummy lunches
- Various local conference field trips eg: snorkeling at Ewan Pondsn and more
- Conference satchel and Conference insulated Mug
- 1 Copy of proceedings and satchel to full paying participants
- ASF 50th anniversary cavers dinner
- Bar facilities open each night of the conference at the function centre
- SRT races and SpeleoSports
- 5th Speleo Art Exhibition



Conference Registration Form



Caves, Craters and Critters
ASF ABN 15 169 919 964

26th Biennial Conference of the Australian Speleological Federation

Celebrating 50 years of Federation!

6 January to 12 January 2007

www.caves.org.au

Hosted by:
Caves Exploration Group South Australia inc

One application per applicant!

Name: (Mr/Mrs/Ms/Dr) .....Club or Affiliation: .....

Address:.....

Postal Address: (If different to the above) .....

Phone Number: (h) ..... (w) ..... (fax) .....

(M): .....Email:.....

Please ☑ where required

1. Your arrival Date: Saturday 6th January: ❑ Other specify) .....

2. Registration details: (* Includes one set of proceedings either CD or hard copy!)

ASF member: *(All member categories)* Early payment by 30 September*	@ $180.00 @ $160.00	$ $
ASF Members attending their first conference or Fulltime students Early payment 30 September*	@ $130.00 @ N/A	$ $
All others *(Non ASF members)* Early payment by 30 September	@ $200.00 @ $180.00	$ $
'First' 1956 ASF conference registered attendees	Complimentary	$
Single day registrations (include trips except Naracoorte or satchel\mug).	@ $40.00	
Single day registrations (includes Naracoorte trip Wed 10th. Does not include satchel\mug)	@ $60.00	
Children under 10 (no proceedings, satchel etc)	@ $50.00	

* Please provide my copy of proceedings on: Paper: ❑ or CD: ❑

SubTotal	**$**

Two adult families - deduct $50 from registration fee if you only wish for one conference bag which contains 1 proceedings, field guide, mug.

3. Extra Copies of Proceedings:

Paper @ $25.00 including postage within Australia	$
CD @ $15.00 including postage within Australia	$
Add extra $10 for overseas postage	$
Sub Total	**$**

4. Presentions:

I wish to present a: Paper (Name of paper): ..... Poster presentation: .....

Name of author/presenter:.....

Time required: Short (15 min): ❑ Medium (30min): ❑ Long (45 min): ❑

Presentations must arrive by 1 December 2006. Please send your presentation\paper to the address below.

5. Accommodation option 1:

Willow Vale Caravan Park - Share bunkhouse and cabin - per person. FULL REGISTRATION PEOPLE ONLY

- Cost: $110 per person for the week. (BYO linen or sleeping bag)
- 1km from the function centre.
- Limited number of share 'bunk' accommodation. Book early & don't be disappointed!
- Note: 12 double beds available for couples. Couples please indicate if you require a double bed.
- Swimming pool

Full stay @$110.00		**Sub Total**	**$**
Double bed (for couples)	**Yes ❑** (please tick)		

6. Accommodation option 2:
Willow Vale Caravan Park - Camping Full Registration Bookings have priority

- Unpowered site $15 per night or $50 for the week
- Powered site $20 per night or$75 for the week
- Site: one tent\limit of 2 persons per site. $5 per extra person Book early & don't be disappointed!
- Showers\toilets: use of main block, Kitchen and laundry area available
- Swimming pool

Unpowered site @$50.00 for week or $10 per night x number of nights ( )	**Sub Total**	**$**
Powered site @$75.00 for week or $15 per night x number of nights ( )	**Sub Total**	**$**

7. Accommodation option 3:
Mount Gambier Race Course - Camping - tent or small caravan

- Camping fee: $20 per night per site. 4 people per site. Extra person is $5 per night on same site. Tent or small caravan permitted.
- Power: All sites power available.
- Showers available: 3 male and 2 female showers
- Toilets: Lots of male & female toilets.
- Kitchen: Use of on course kitchen facilities available.

Site @$20.00 per night x number of nights ( )	**Sub Total**	**$**
Extra person @$5.00 per night x number of nights ( )	**Sub Total**	**$**

For those requiring only a few nights accommodation, or, other types of accommodation a list will be available on the website of recommended sites/ hotels etc.

Accommodation will be allocated on a first come first serve basis. The earlier you register the better your chance of being accommodated according to your wishes. *No guarantees on what you get*! Accommodation is also available in the area but is limited and is likely to be much more expensive.
Conference time is *'peak'* holiday season, book early!

8. Meals:

Meals	Dates required	Sub Total $	
Morning & afternoon teas included in fee	N\A	N/A	
Optional breakfast variety of cereals, toast and spreads, fruit Juices tea and coffee @ $25	Full conference dates	$	
Lunches included in fee	N\A	N/A	
Dinners not included, discounts on local cafes etc will be available	N\A	$	
		Sub Total	**$**

9. Dietary Considerations and Allergies to Food:
Vegetarian meal required: ❑ Vegan meal required: ❑
Other special meal requirements including food allergies: .....

10. Cavers'Dinner - *Celebrating 50 years of ASF!*

Mount Gambier Race Course Function Centre (Friday 12th January) @ $30 per head *Please see dietary consideration & allergies above!*	**Sub Total**	**$**
'First' 1956 ASF conference registered attendees	**Sub Total**	**Free**

11. Merchandise:

Item	Size & Number Required	Sub Total $	
Polo t-Shirts with front pocket @ $30 each	XS: S: M: L: XL:	$	
ASF Anniversary red wine @ $10 per bottle		$	
ASF Anniversary port wine @ $15 per bottle		$	
Conference mugs @ $10 each		$	
Extra Conference satchel @ $15 each			
		Sub Total	**$**

12. Fieldtrips, activities & events: conference/post conference

Naracoorte field trip * conference attendees - cost included in full conference registration - Wed 10 January 2007	N\A
Naracoorte field trip * individual day visitors @ $50.00pp - Wed 10 January 2007	$
Snorkelling at Ewen ponds free. BYO Wet Suit, or hire @ $10 BYO mask, snorkel fins, or hire $15 per person	$
Reflection tour of sinkholes and caves: Hear the gruesome history of the many cave diving mishaps $5 per person	$
Limestone Sculpting Workshops $50 Per Person all materials supplied	$
Wooden Bat decorating sessions, paint and decorate your own wooden bat great for young and old $5 per bat.	$
5th Speleo Art Exhibition	Free entry
	Sub Total $

*** Naracoorte field trip:** includes all tours & presentations, includes transport, BBQ dinner & lunch

13. Medical conditions:
Do you have a medical condition that we should be aware of:.....

14 Payment:
Early payment will result in a generous discount on registration only. See item 2.

I am making a deposit payment and will pay balance *before* 1 December 2006	❑	See item 2.
I am making a full payment now. (Full payment due *before* 1 December 2006.	❑	

If you are not an ASF member, by registering for this conference you will receive a complimentary ASF membership for the duration of the conference 6 January to 12 January 2007

Method of payment:

Cheque: ❑

Bank Cheque: ❑

Postal order: ❑

Send payment and papers to:

Cave Exploration Group South Australia
PO Box 144, Rundle Mall, Adelaide SA 5000

Total Payable: *(Full payment)*	$
Deposit: *(Minimum deposit = registration!)*	$
Balance: *(By 1 December 2006)*	$

Our 50th Anniversary sponsored by

Naracoorte Caves - DEH

Government of South Australia
Department for Environment and Heritage

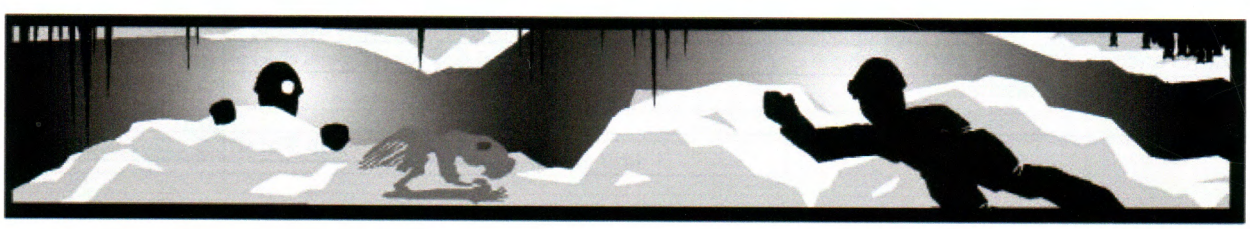
Willow Vale Caravan Park

Mount Gambier, SA

Conference enquiries: Marie Choi of CEGSA
mariechoi@adam.com.au **Mobile: 0429 696 299**

Register now to avoid disappointment.

ASF Celebrating 50 years of Federation!



What you get at the conference!

Category	Cost	All conference sessions, lunches & fees included	Satchel & bag	Proceedings		Naracoorte field trip	50th Anniversary publication	50th Anniversary Cavers dinner
				CD	Hard copy			
ASF Members Early payment by 30 September	$180.00 $160.00	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ASF Members attending their first conference, or Fulltime students Early payment by 30 September	$130.00 N/A	Yes	Yes	Yes	Yes	Yes	Yes	Yes
1956' Vets' full registration	Complimentary	Yes	Yes	Yes	No	Yes	Yes	Yes
Dinner only - 1956 'Vets'	Complimentary	No	No	Yes	No	No	Yes	Yes
Dinner only - Others	$30.00	No	No	No	No	No	Yes	Yes
Non-ASF members Early payment by 30 September	$200.00 $180.00	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Single day registration conference attendance	$40.00	Yes (Nominated day only)	No	No	No	No	Yes	$30 extra
Single day registration Naracoorte field trip Date: Wed 10 January 2007	$60.00	Yes And Naracoorte Day trip only	No	No	No	Yes	Yes	$30 extra
Children under 10	$50.00	Yes	No	No	No	Yes	No	Yes

Two adult families - deduct Two adult families - deduct AU$50 from registration fee if you only wish for one conference bag which contains 1 proceedings, field guide,mug.

Cave Rescue at Wyanbene Caves, NSW 6 February 2006

On 6 February 2006, Fire Services NSW was called (17:48) to respond to an incident at Wyanbene Caves, NSW. Fire Services immediately informed both Captains Flat area Police and NSW Ambulance (Braidwood) of the incident.

The initial report indicated a tourist was injured somewhere in the front section of the cave. On arrival, services found the tourist with a broken ankle at the bottom of slot entrance. The tourist was unable to climb the steel tourist ladder so the tourist was placed into a SKED stretcher and extricated using a tripod over the entrance. The rescue terminated at 20:40.

About Wyanbene Caves and recent cave rescue exercises.

Wyanbene Caves is located approximately 40km south of Braidwood (near Canberra). It has a short entrance section consisting of wet & cold river passage and a few medium sized chambers. The entrance section is accessible to tourists. The main cave is accessible via a gate by permit holders.

For the past 5 years, Braidwood Fire Services and Tim Fox of Fire Services Training have co-ordinated a series of cave rescue exercises at Wyanbene Caves as part of the regions risk management. All Services were invited to attend this exercise including the NSW Cave Rescue Squad. Each year saw a different section being worked on to understand what resources and times would be required to extricate an injured caver. 2005 saw the culmination of 5 years work. In August 2005, the final stage saw an extrication from Frustration Lake to Far Caesars Chamber, this section being roughly 2km from the entrance. Much was learnt from all 5 exercises. The end result is a better understanding of the cave and resources required to undertake a major cave rescue. Michael Holton of Fire Services NSW has also produced a 20 minute DVD on the 5 year project.

Section 7 — Frustration Lake team leader Joe Sydney briefs ex rescue team.

Joe Sydney holding stretcher at Frustration Lake.

Multi service stretcher entering the long wet crawl

Ex stretcher, team & tripod at entrance.

JOE SYDNEY

Bullita Cave System — Northern Territory: explorations in 2004 and 2005.

Caves in the Gregory National Park in the western part of the Northern Territory were first reported by Storm and Smith (1991). Subsequently, many trips to this area have been organised by the Canberra Speleological Society (CSS) and the Top End Speleological Society (TESS).

In 1993, a CSS trip located an entrance to 'Berks Backyard', and 11 km of passages were surveyed in that cave. During the following four years, the 'Backyard' was extended, two other major caves — 'The Frontyard' and the 'Neighbours Block' — were discovered and surveyed and these caves were all connected to form a 57 km system, named the Bullita Cave System. These early discoveries and some details of the Bullita Cave System and other nearby caves have been published by members of CSS (CSS 1992, Dunkley 1993, Brush 1994, Anon. 1998), TESS (Bannink et al 1995) and by Kershaw (2005a).

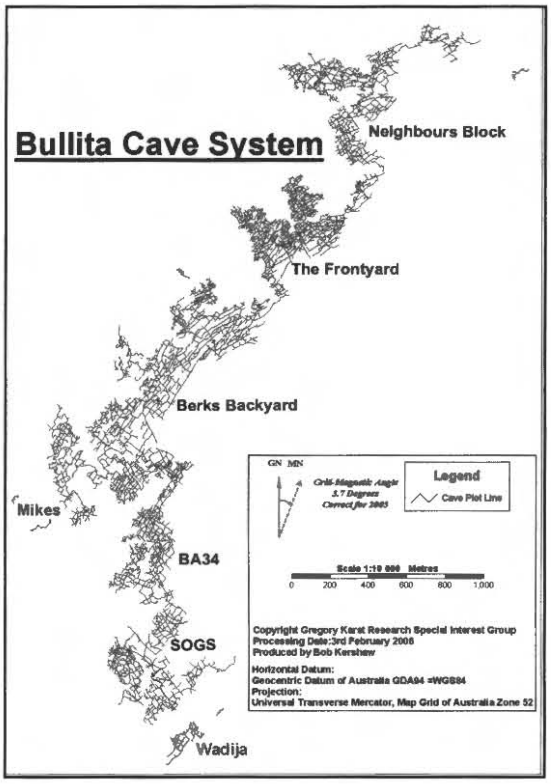
In more recent years, the survey of the Backyard, Frontyard and Neighbours Block continued, but expedition members also began to focus exploration on the karst immediately to the south. In 1998, an entrance, numbered BAA34 by TESS, was investigated and led to an extensive system that was linked to Bullita that same year. The following year, another substantial cave (SOGS) was discovered a kilometre further south and at the southern extremity of the karst under which the Bullita system is formed. SOGS included some of the biggest passages seen in this area and, unlike most of the Bullita system, also contained numerous pits and a separate lower level as well as occasional calcite speleothems — a relative rarity in these caves. In 2001, an entrance to a new cave (Odyssey), situated between BAA34 and SOGS, was found and more than two kilometres of easy walking passage was explored and mapped there. Odyssey was soon linked to BAA34 to the north, and SOGS to the south, thus joining the latter to the main system. Two other caves were also found and partly explored — North SOGS, to the north-west of the main entrance to SOGS, and Mike's cave, which was located in a separate block of karst west of BAA34. These, and several other small caves, were connected to Bullita during the following two years, bringing the surveyed length of the system to 93 km (Sefton 2004).

Mark Sefton began caving in Western Australia more than thirty years ago. Shortly after, he moved, for several years, to the UK where caving in the cold and wet potholes of the Yorkshire Dales was interspersed with expeditions every summer to the Picos de Europa in sunny Spain. Then, after spending three and a half years in South Africa, Mark moved to Adelaide where he has lived ever since, working at the Australian Wine Research Institute. Besides caving in Southern Africa, Europe and South-East Asia, Mark has spent most of his underground existence in South Australia and the Nullarbor, and more recently has taken part in the last eight expeditions to Bullita Cave in the Gregory National Park.

The cave

The Bullita cave system is formed mainly at the base of the 10-20 m thick Supplejack member of the Precambrian Skull Creek formation. The Supplejack member is finely laminated and comprises both limestone and dolomite (J. Martini, unpublished observations). The Bullita cave system is confined entirely to below where the Supplejack has been exposed to the surface. Here, the karst is highly developed, and the process of karst formation has enlarged many of the joints in which the cave below has formed. Frequently, this enlargement of joints from the surface has resulted in daylight connections to the cave. Most often, these are little more than narrow cracks and holes, but some passages have been substantially opened to the surface, and in extreme cases, open canyons have formed. Because of the closeness of the cave system to the surface, there are many areas of collapse. Bullita has, quite literally, many hundreds of entrances, although only a few dozen have been used by our group.

The various sections of the cave comprise a highly complex maze of joint-controlled passages, mostly easy walking, and of several types. Passages in the lower part of the Supplejack, which are tent-shaped or rift-like in cross section, are common throughout the cave, especially in the sections that are closest to the contact of the Supplejack member with the upper Skull Creek formation. Immediately below the Supplejack member is a 0.5 to 1m (occasionally up to 2m) thick shaly layer which is easily eroded, giving rise to passage widening at this level. In



some parts of the cave, this has broadened the original 'tented' passage at the base, in others the development is almost entirely in, and immediately below, this shaly horizon, and in extreme cases broad flat chambers have been formed in which the Supplejack roof is supported by pillars of remaining shale. The Hermitage Grange, and parts of Mike's Cave explored in 2004 are good examples of this broadening. Pits in the shaly layer and small passages at the base of these pits are largely confined to SOGS cave. In parts of the Frontyard, the passages appear to be predominantly phreatic, with numerous interconnecting tubes of various sizes in the lower half of the Supplejack member.

The surface of the karst is scattered with small fig trees, which send their roots down enlarged joints in search of water below. There are masses of tree roots throughout the cave, some of them extending many tens, and perhaps even hundreds of metres along the passages.

The sheer complexity of Bullita makes navigation problematic. Even in well explored areas, we normally equip ourselves with map and compass to find our way through the cave. The survey stations (now more than 10 000!) are all marked on the map sheets, and being able to relocate these numbered stations underground is invaluable to cavers trying to find a particular point in the cave. The current Bullita cave map comprises around 50 separate map sheets, each covering an area of 250 m x 250m. Kershaw (2005b) presented a paper at the most recent ASF conference outlining the problems faced during the surveying and mapping of such a large cave.

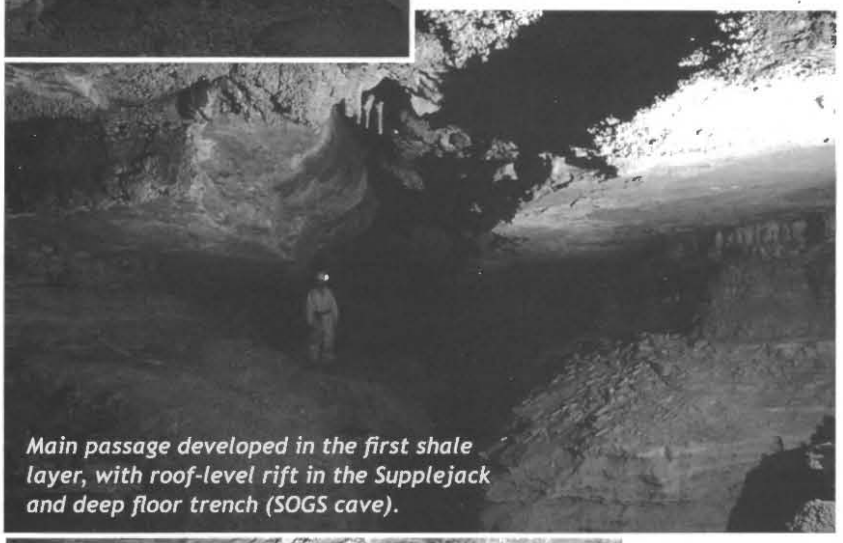
Exploration in 2004

In July of 2004, a team of 14 returned to continue work in Bullita. Our priorities were to continue exploring and surveying (never one without the other) in the southern part of the system, and also to investigate the geology of the cave. The trip got off to a less than auspicious start when, after nearly

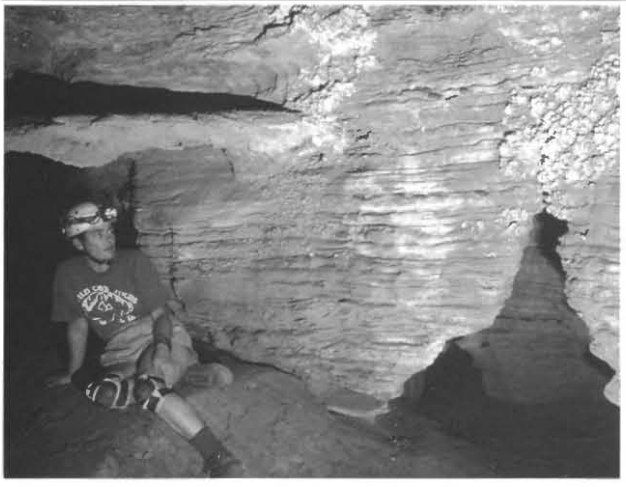
Fallen block in the Frontyard

PHOTOS: MARK SEFTON

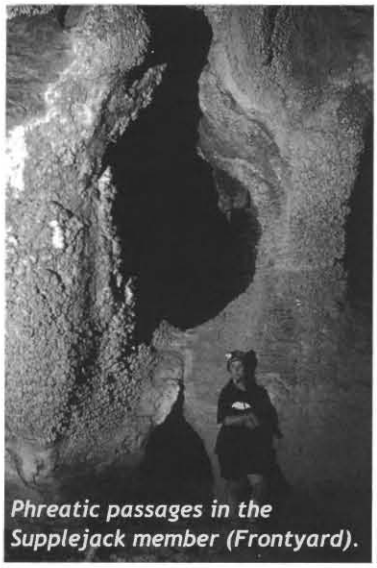
'Tented' passage in the Supplejack member, with fig tree roots (Frontyard).



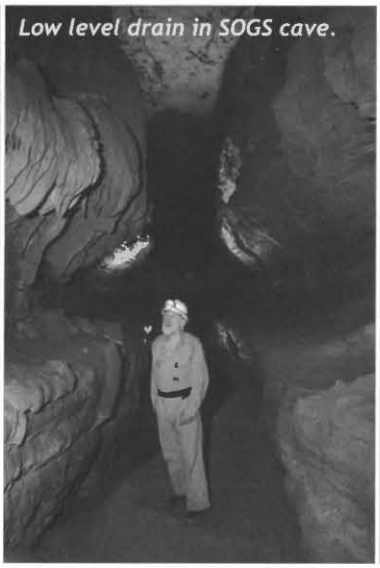
Main passage developed in the first shale layer, with roof-level rift in the Supplejack and deep floor trench (SOGS cave).



Immature passages in the Supplejack member, near the surface contact line with the upper Skull Creek. Note false floor, popcorn deposits.

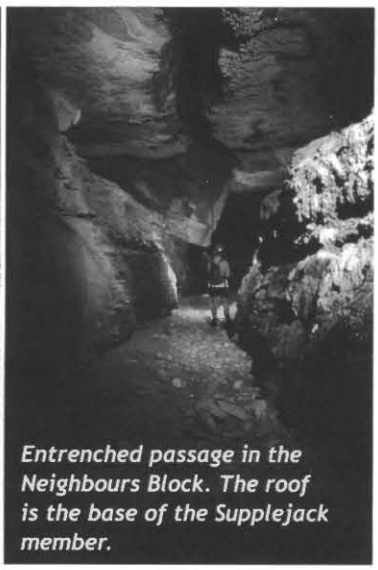


Phreatic passages in the Supplejack member (Frontyard).



Low level drain in SOGS cave.

Fig tree roots and popcorn deposits (BAA 34).



Entrenched passage in the Neighbours Block. The roof is the base of the Supplejack member.

3000 km of driving from Adelaide, the engine block of my car cracked just nine kilometres from camp, necessitating an engine transplant back in Adelaide, several weeks later.

Towards the end of the previous year, exploration had reached a point at what was, at that time, the northern extremity of Mike's Cave. From the final survey station was an appetising view down into a broad chamber with several passages leading off. Barely fifty metres back, we had passed an easy walk-in entrance. Unfortunately, it had been the end of a long day and there was no time to investigate further. On the very first day's caving of 2004, a party was able to find this easy walk-in entrance from the surface and within a few minutes were at the previous year's final survey point. It didn't take long to confirm what lay beyond – well over a kilometre of broad interconnecting passages, mostly easy walking and with well-developed floor trenches along the major routes.

The following day, a new cave (Wadija Cave), situated immediately south of SOGS and containing passages as large as seen anywhere in the Bullita system, was found and entered for the first time. Some additional surveying was undertaken in the central part of the Backyard near an area known as the Hermitage Grange, and nearly a kilometre was surveyed in the newly found section in the north of Mike's Cave. By the end of the day, the boundaries of this section of Mikes cave had been more or less established, with passages ending, to the north-west, against the edge of the karst overlooking the river and, to the north-east, against a major grike. At the furthermost point, we found a way to climb out of a daylight hole and up onto the karst, where a spectacular view down the river awaited us.

Surveying continued in the same three areas over the next few days. Further exploration in the north of Mike's led to a section where the passages had broadened to a point where the cave comprised not so much a series of criss-crossing joint-controlled passages but more resembled a mine stope with a series of pillars holding up the roof. Meanwhile, a second entrance was found in Wadija Cave, which was now around a kilometre in surveyed length.

On day 6, most of the group took time off from Bullita to do some work in an adjacent karst area where several new caves were surveyed, but a day later we were all back in Bullita again. Another half a kilometre was surveyed in the new section of Mike's Cave, and two parties returned to BAA34 for the first time that year. We entered by the northernmost entrance (Corner Cave) and after a 12 m chimney down into the main system, slowly worked our way south, checking out the remaining question marks in this area. Most of the passages here are smallish and 'tent' shaped in cross section. Although another 500 m was added, none of the question marks shown on our map went far, and by the end of the day, there were none remaining in the northern half of BAA34. Given the vast number of such question marks still remaining throughout the Bullita system, it was most satisfying to have at least one 'small' section virtually complete.

We had now been in camp for more than a week, having surveyed over four kilometres of new cave in the Bullita system alone. By superimposing the survey over an aerial photo of the karst under which the system was developed, it was clear that there were several areas of karst which had not yet been penetrated by known cave. One of these lay along the north-west edge of the southern part of the Backyard, and so it was here that we next focussed our attention. Three teams each investigated separate leads and soon entered new territory. The passages here are generally smaller than those in the main part of the 'Backyard' and, because the older sections of the cave are probably those closest to the river, there was much collapse in this area. Nevertheless, it proved to be fertile ground, with over 800 m of new cave being mapped there on that day. Some additional surveying was also undertaken in the southern part of BAA34, bringing the total length of the system to approximately 98 km by the end of the day.

Most expeditions have their ups and downs, and our final three days at Bullita in 2004 were no exception. During the first two of these, a team managed to install a camera in a lower section of SOGS called The Drain – a long and painstaking exercise. This was set up so as to be triggered by rising floodwaters in the wet season to take photos of the floodwaters underground. Another group investigated a question mark in a remote part of the karst which yielded only eight metres of passage. A full day was spent assisting a newspaper

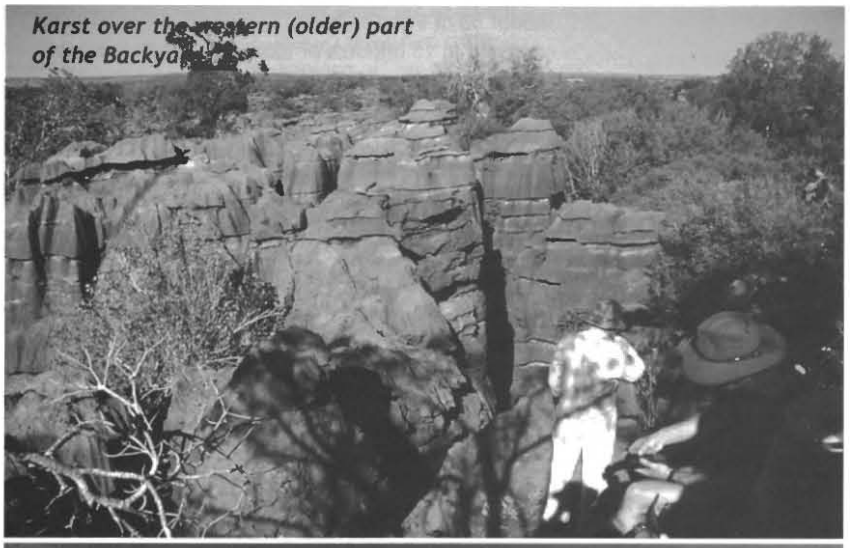
photographer to take surface and entrance photos. Yet another team found some new cave passage in a section of karst not yet connected to the Bullita system, but because of the lateness of the day were not able to do any surveying. Two teams managed to map around 400 m in the 'Backyard'.

Meanwhile, three of us had headed south, to spend two days surveying in SOGS, with an overnight bivouac close by. We entered SOGS via an entrance overlooking the river that had been found from the inside a couple of years previously. This section consists of a network of 10-15 m wide passages with numerous floor pits and some separate lower levels requiring the occasional crawl – something of a rarity in this cave! We first worked our way south, finally reaching a balcony overlooking an impressive canyon that had been surveyed the previous year. After tying in the two surveys, we returned to the entrance and worked our way north, keeping always to the west in order to complete all of the passages which ended against the edge of the karst overlooking the river. Many of these were small and crawly and, although progress was slow, it was satisfying to finish the day with this section completed. At dusk, we retired to our bivouac site – glad to be able to relax without the three hour journey back to base camp.

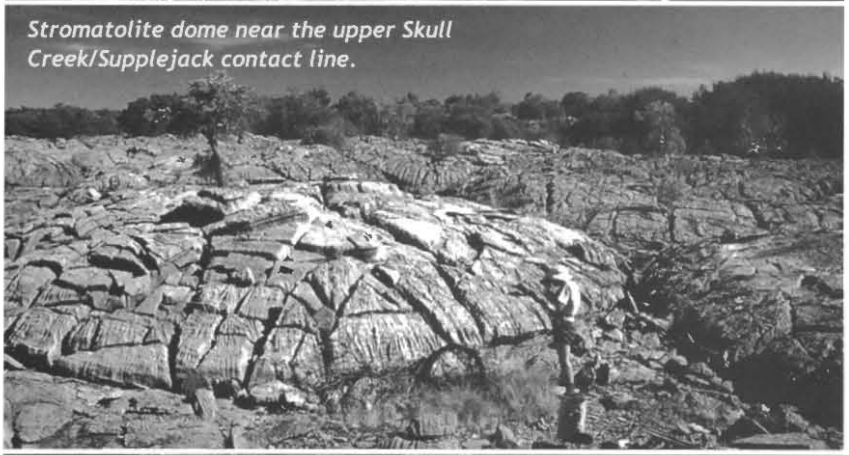
The following day, we returned underground bright and early. Over the next eight hours, we completed mapping an area north and west of where we had left off the previous day. The passages (The Centipede Runs) were broad, mostly five to fifteen metres wide, although some were quite low, and again, there were many pits down to a lower level which we had to leave for another day as we had no ladders or handlines with us. During this time, we found the route where one of us had climbed out from The Drain to reach another entrance three years ago. We also found a small but pristine calcite dome containing some calcited-in flood debris. Eventually, just on 4:00 pm, we closed our final loop, having surveyed close on 1200 m over the two days. There was just enough time left for the long walk back to the vehicle. Late that night, the penultimate of the expedition, we did a rough calculation of the total cave length. It now stood at an estimated 99.6 km., perhaps a little less once the occasional duplicate measurement had been removed from the survey.

On the final day, three teams returned to the north-west edge of the southern part of the 'Backyard' – south of the Hermitage Grange. It was not as promising as first anticipated, mostly comprising a series of crawls among narrow passages and fallen blocks. One team mapped around 300 m here, a second managed to connect their section via a series of low grovels to another area explored several days earlier. The third group ran out of stuff to do here after just 70 m and so returned to the main part of the cave to look for other possible targets. There was no shortage! There is still plenty of relatively easy unexplored passages here waiting to be mapped. After completing a 50 m low level sandy drain which went nowhere, they surveyed 150 m of a five metre wide walking passage parallel to the main drag, and a side passage which led to a short pitch down to a cross junction below, but which could not be descended without a ladder. Such is the nature of Bullita – it is a rare event indeed for a survey party to complete a section of cave without leaving at least several more appetising prospects for 'next time'.

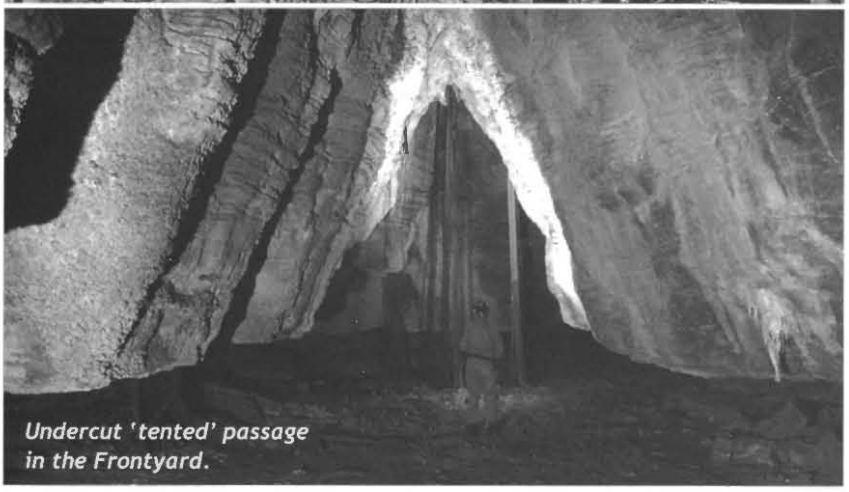
At 4:30, we all met at our prearranged rendezvous point with a combined total of 750 m of survey under our belts – enough, we estimated, to give us sufficient to reach 100 km, allowing for the inevitable 'shrinkage' that results from the subtraction of duplicate survey legs and legs along or across known passages. Nevertheless, we decided on one last celebratory survey leg – just off the main passage and about halfway back to the entrance. We found an old station, with an unmapped side passage running off, took the tape 30 m up to yet another junction and established our final station for that year – a cairn with a tag bearing the station number 04100K. Then, after a multitude of photos, it was time to return to camp for a final celebration before the long journey back to civilisation.



Karst over the western (older) part of the Backyard.



Stromatolite dome near the upper Skull Creek/Supplejack contact line.



Undercut 'tented' passage in the Frontyard.

Exploration in 2005

With the 'milestone' of 100 km behind us this was to be a year in which we not only continued with the colossal task of mapping the whole of the Bullita system, but also placed a much greater emphasis on studying both the surface and underground geology. We also allocated much of our time to investigating separate blocks of karst to the north and to the south-west of the Bullita system. At least one team engaged in these geological studies and reconnaissance trips further afield on a daily basis.

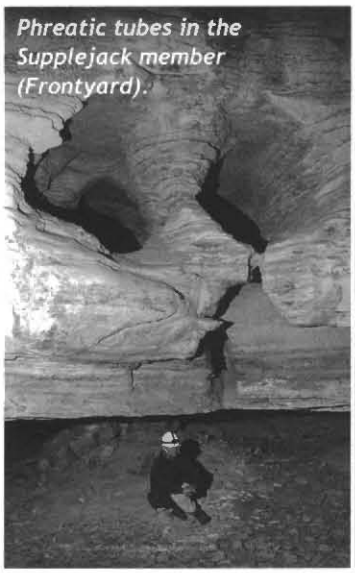
During the first three days of the 2005 expedition, we focussed our investigations on the periphery of the Bullita karst, approximately half a kilometre north-east of the northern extremity of Mike's Cave. A small cave with around 100 m of passage was found, and then a second (Gecko Cave) which appeared to be more extensive. A third entrance further south, about 50 m into the karst, looked equally promising, and within 15 minutes of looking around here, we broke through to the main Bullita system and found a station from last year. During this, and the following day, we surveyed some 400 m in the vicinity of this third entrance and another 250 in Gecko Cave which reached to within 50 m of Bullita. A day later, another significant cave south-west of Mike's was entered for the first time and several hundred metres of large passages were surveyed there.

On day three, a party also returned to Odyssey which had been found and surveyed in 2001, but not returned to since. It was Odyssey Cave that had provided the link between BAA34 to the north and SOGS Cave at the southern extremity of the Bullita karst. Most of the stuff here is easy walking and in the Supplejack. The main leads were to the north-west, but these all ended at passage sloping up to silted collapse. We had high hopes for the last lead, but it just went back around to several other known parts of Odyssey. By the end of the day, we managed to knock off every last question mark on the map – a very satisfying result despite us not finding a way across the line of collapse which separates Odyssey from the karst to the north-west. This section, at least, is ready for a final drawing. Bit by bit, we were getting there.

On day four, most of us travelled across the river to look at Claymore Cave which had been surveyed almost 20 years earlier by a British group and described by Storm and Smith (1991). With over 6 km of surveyed passage, Claymore is just about entirely developed in the Supplejack member, with passages typically tented/rift-like, but with phreatic bells and tubes here and there.

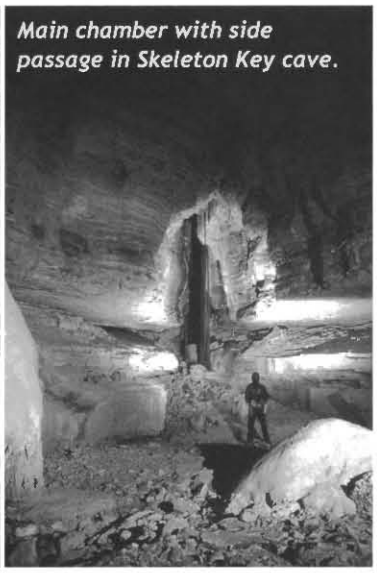
Over the following two days, one group went looking for entrances south-west of Mike's, but only got into short and unpleasant stuff. Others continued surveying small unfinished sections in the northern part of the system. A third group managed a good patch of 'tidying up' in an area south of the Hermitage Grange in Berks where they mapped around 350 m of new stuff, including a section which connected to where we had surveyed on the last day of the previous year, coming up underneath the three-way pit we had found on an upper level. Most of our surveying here was in a mixture of broad chambers and easy walking passages, several metres wide.

It was now the half way point for this year's expedition. The camera which had been specially designed to photograph rising floodwaters during the wet season and placed in The Drain in SOGS Cave last year was retrieved, but unfortunately it had not survived the deluge. Two complete traverses were surveyed from east to west through the northern part of the cave, with cross sections being drawn in every few metres to see how the cave changes from the youngest to the oldest sections. We also returned to BAA34 and determined the best route from the entrance right through to the southern end in order to by-pass a previously well-used passage that contained some tiny cave pearls. We then marked all the stations on this route with permanent metal tags. Next, after sorting out a couple of anomalies with the current map of BAA34, we headed for a station in the south-west corner of the map which showed a lead heading south. Before heading up this lead, we popped up a rock slope to the right, through a crawl in rock pile, and did not get back here until the end of the day! By then we had surveyed a total of 330 m of new stuff to the west and north-west of our starting point– a mixture of small/medium-sized 'tented' passage in the Supplejack and crawls through breakdown. Presumably, despite this being an older part of the cave, whatever passage was



Phreatic tubes in the Supplejack member (Frontyard).

Pit with fig tree roots. The roof is the base of the Supplejack member.



Main chamber with side passage in Skeleton Key cave.

Phreatic passage with fig tree roots, flowstone and popcorn deposits.

developed below the Supplejack has either been lost due to collapse or else has been silted up. We also found a new easy walk in entrance, and tied back into several other question marks on the periphery of the old survey, completing another corner of the cave.

A follow up trip to BAA34 the next day added another 250 m to this area, following the edge of the karst very neatly, finding more entrances, and leaving no patch of karst untouched. There is a high density of passage here. Nearby, a second survey party mapped a further 300 m and reported several more kilometres to go back to. Meanwhile, on the northern tip of the Bullita System, a tagged entrance that had been misplaced for some years was relocated.

While all this was going on, a reconnaissance party found several entrances to the north of Wadija Cave and east of SOGS. These led to a series of interconnecting passages which were partly surveyed on a follow up trip and were connected to the extreme eastern corner of SOGS. Various minerals (eg barytes), indicating hydrothermal activity in that area some time in the past, were found in this area.

Next, we returned to The Backyard for another attempt to find a connection to Gecko Cave. We pushed off one lead and spent a couple of hours in some low grovely stuff, getting to within 10-20 m of Gecko, but the leads petered out in rock pile. We then moved further along the passage towards Skeleton Key, through some low and very dusty crawls to a turn off which was only 30-40 m from the nearest point in Gecko. From here, we surveyed several easy legs into a biggish chamber. Then, after half an hour of poking around, we eventually found an inconspicuous crawl through to Gecko.

Several more 'tidying up' survey trips were conducted in various parts of the main system over the next few days. On one of these, two of us took one of the park rangers to the original (southern) part of Mike's Cave. We had intended to complete some of the wall detail to the north-east of the passage that had formed the connection between Mike's and the rest of the Bullita system two years earlier, but never got that far. Instead, we entered a question mark on the south-east side, tied into two other question marks just to the north of this, and mapped 400 m of new stuff in the process. Most of this was a mixture of crawls and walking-size passage in the upper shaly layer immediately below the Supplejack. We filled in a substantial patch, and left only one, somewhat improbable, question mark.

With just two days left for caving, it was time to revisit The Centipede Runs in SOGS cave, which we had explored and partly mapped towards the end of the previous year. We started with a question mark just before last year's final station which soon connected to three other question marks in the south-east corner of the Centipede Runs, completing this whole section. Next, we proceeded north along the main route and, where this turns right, we continued in a northerly direction for maybe 50 m to a lowish and dusty crawl which headed in the direction of North SOGS. Straight ahead, was an extensive and complex series of passages just below the Supplejack. In many places these intersected deep floor pits, most of which could not be descended without ladders. We lowered a tape down one – it reached a ledge at 14 m depth, and the pit

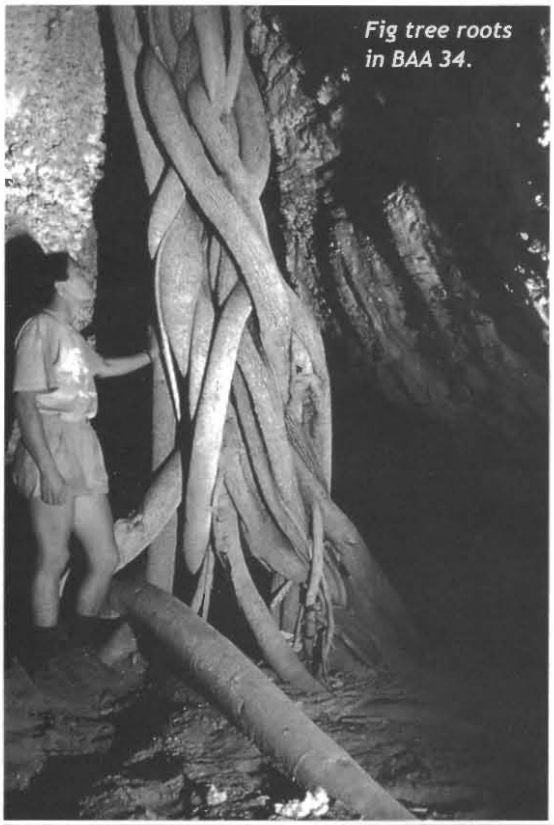


Fig tree roots in BAA 34.

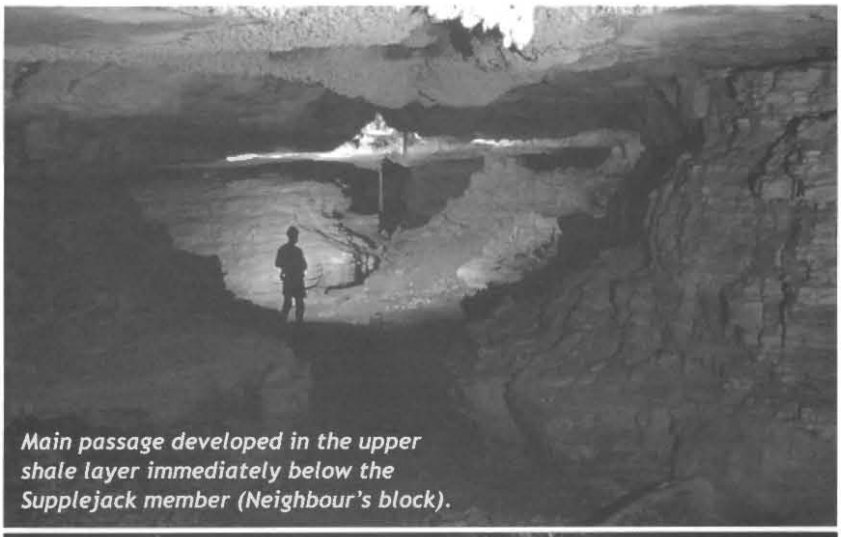
Corraloid cave pearl.

continued out of sight below. Eventually, we arrived at a most impressive area where there are several places overlooking a 10 m deep canyon. We returned to this area the following day and, before long, reached a climb down into a familiar-looking chamber and found the third survey station in from the entrance to North SOGS. The base of the Supplejack, where all of the passages that we had been following are developed, is only just a few metres below the surface at this point. From below, leads such as this connection must have looked like they were just heading back to the outside. Finally, we finished the whole of the upper area, and returned to our starting point from where we investigated a lead south. This continued for some distance into big walking passage with a low link to the west back to the main route, and a couple of leads to the surface. With no more than an hour left before our scheduled exit time, we then moved further along the main passage towards 'old' SOGS where several leads were noted on the map. The first of these, continuing north, ran straight

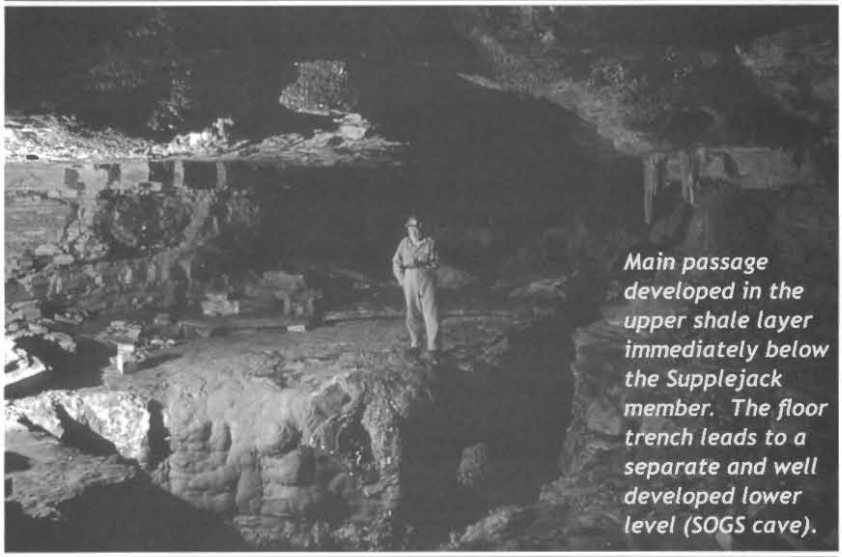
into another major series of 10 m wide passages, similar to those on the main route and in the Centipede Runs. Here, we had only enough time for a few exploratory survey legs which nevertheless put us over a kilometre for our two days here and pushed Bullita to over 105 km.

The future

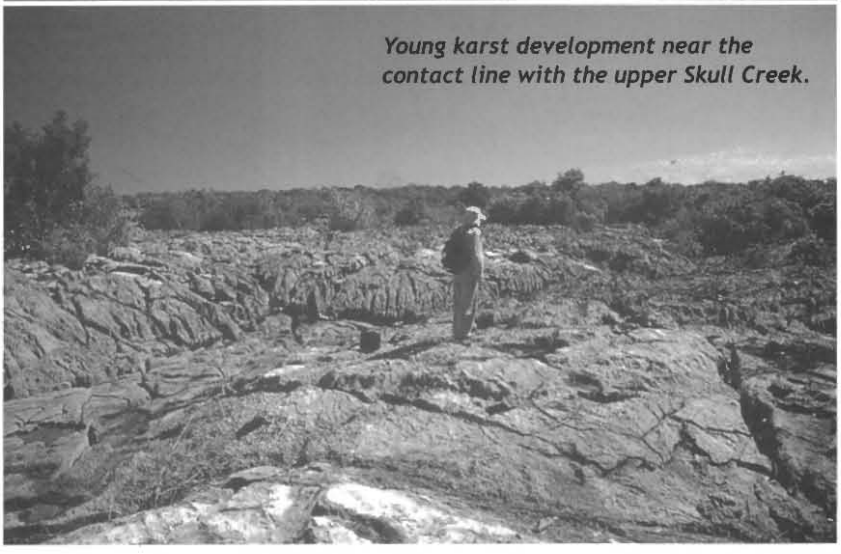
Despite directing our efforts in 2005 in more diverse ways than in the past, we still added over 5 km to the Bullita cave system. And there is still more to add yet, maybe even several tens of kilometres, before the mapping is complete. Of course, as more and more of the unexplored parts of the system are entered and surveyed, it is inevitable that future survey trips will increasingly focus on correcting and adding detail to the current maps. Completing these, as well as continuing our work in other nearby caves, will take us many years yet. In the meantime, the Bullita Cave System, with its twenty-something degree temperatures and endless walking passages is an ideal environment for the ageing caver who has no thoughts of retirement just yet!



Main passage developed in the upper shale layer immediately below the Supplejack member (Neighbour's block).



Main passage developed in the upper shale layer immediately below the Supplejack member. The floor trench leads to a separate and well developed lower level (SOGS cave).



Young karst development near the contact line with the upper Skull Creek.

Acknowledgements

We are indebted to the staff and management of the Parks and Wildlife Commission for their continued support, encouragement, and participation in the field work and for permission to work in the park and to publish this report. The caves of the park are sensitive and vulnerable, and the management authority wishes to avoid undue publicity or speculation about the caves. Accordingly, we ask that members of the caving community respect these wishes by not quoting or reproducing material from this article or publicising these caves with non-cavers. I thank Bob Kershaw who drafted the version of the map shown here and who commented on an earlier draft of this report, and Athol Jackson for scanning the photos. This article is published with permission of the Parks and Wildlife Commission.

Participants: (2004 and/or 2005). Chris Bradley, John Cugley, Jeanette Dunkley, John Dunkley, Ken Grimes, Deb Hunter, Bob Kershaw, Jacques Martini, Carolyn Redpath, John Redpath, Dorothy Robinson, Lloyd Robinson, Mark Sefton, Bruce Swain, John Taylor, Nick White, Sue White, Reto Zollinger, Yvonne Zollinger.

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SNIPPETS

Two Hungarian speleologists killed and seven others were trapped in Italy.

21 February 2006

A team of ten Hungarian cavers visited the cave Complesso diBila Pec (404 meters depth) in the Canin Mounth, Region Friuli Venezia Giuliaand. Italy. Three of them decided to interrupt their excursions in the cave and to ascent to the surface. After exiting the cave and descending to camp, a small avalanche of soft snow hit them. They survived and continued their way, but another avalanche bigger than the first hit them killing the two of them, a man and a girl. The third caver was trapped under snow for 3 hours but eventually freed herself. A quick search could not find the others so she continued to base camp call for aid.

In the morning, the Italian Rescue Services conducted a detailed search and found the bodies if the two dead cavers. The bodies were transported to a near city and many rescuers arrived to the place of the accident trying to locate the remaining cavers. In the evening, the three remaining underground cavers came to the surface without knowledge of the terrible news. They said that there are four more members still inside, not trapped, but exploring the cave at a depth of -350, -400 meters without knowledge of what happened and that it's possible to plan to stay inside the cave for one more day. When they exited, the remaining cavers were transferred by helicopter to Sella Nevea (UD). Soon after, the cavers returned to Hungary.

Source: Compiled from media and caver reports by Joe Sydney, Australian National Cave Rescue Commission.

Three Ukrainian speleologists killed in Abkhazia

Dear caving friends,
With a great pain and sadness, I have to inform the international caver's community about tragic accident with Ukrainian cavers in Abkhazia. There are many misleading and wrong information in media news spreading around, but cavers should be given facts. Since the mid of January the speleological club of Kharkov conducted an expedition to the Bzybsky Massif, the one adjacent to Arabika massif, to continue their many years' exploration of Bozhko Cave. In addition to Kharkov club members, cavers from Kiev, Sevastopol and Nova Kakhovka (Ukraine) and Samara (Russia) joined the expedition, all members of the Ukr.S.A. The cave exploration went smoothly and ended successfully.

During recent days, the group of nine expedition members were climbing down from the mountains by feet. Weather conditions were bad, with increasing snowfall. The group reached the tree zone and stayed for a night at the altitude of about 700m. In the early morning (5 am) a forceful avalanche struck the temporary camp. Five persons survived in the accident (although injured to a various degree) but four cavers were missing... In result of a search, performed by the surviving group members after the accident, one caver had been found dead. They were not able to transport him down, so they left him in a marked location. The other three victims were not found. Considering the bad condition of the group, dramatically deteriorating weather and virtually zero chance to find the missing people alive, the rest of the group went down and reached a village yesterday morning.

Continued snowfall precluded any possibility to perform an immediate search operation. The Ukrainian Speleological Association and the Sochi (Russia) rescue unit are organizing the search work but the operation will start when the snow condition permit, presumably in one week or so. Heavy snowfall during the last several days excluded any possibility of immediate action, although there was no hope for survivors. The lost cavers were: Danylo Nasedkin (Kiev), Maxim Gerasimenko (Sevastolol'), Dmitry Chernenko (Hova Kakhovka) and Igor Bednikov (Samara). The shock and loss are enormous for relatives, friends, for the Ukr.S.A. and the whole caving community.

Alexander Klimchouk

UIS KHS Commission website and The Virtual Scientific Journal: www.speleogenesis.info

Glenrocks long drop!

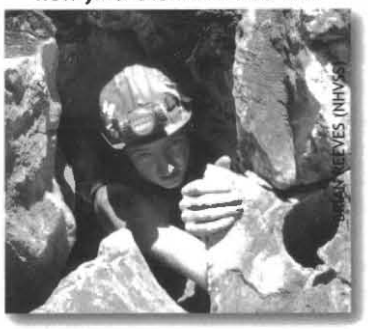
NHVSS Members have in recent months been exploring a newly found cave at Glenrock in the Upper Hunter, NSW. The cave that began as a small hole in amongst some loose rocks has now been explored down to -40m, making it the 2nd deepest known cave at Glenrock. The Deepest Cave "Hens Teeth Cave" only beats it by 7m. NHVSS members, Jodie, Kylie & Stuart had to cease exploration on the last trip due to high levels of carbon dioxide in the lower sections of the cave. It is hoped that the next trip the cave will have breathed a little more allowing further exploration. The cave has been named "Long Drop".

Jodie Rutledge, NHVSS.

Stuart Argent (NHVSS) Long Drop Cave at Glenrock.

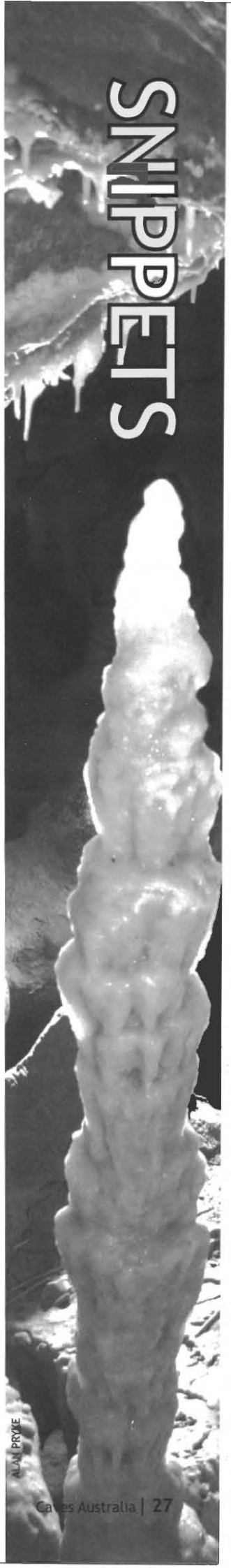
JODIE RUTLEDGE (NHVSS)

Arden finishes exploring new find Glenrock Feb 04.



Marcus LOVES Glenrock Karst Sept 04.

GEOFF MCDONNELL (NHVSS)



ALAN PRYKE

FROM OUTER SPACE TO INNER SPACE. NSS CONVENTION 2005.

In June 2005, three Aussies made the trek to the NSS Convention which was held in southern US state of Alabama. The city Huntsville, located in the foothills of the Appalachian Mountains, with 5000 Caves within 100km and 65m pits within the city limits was the perfect place to hold a caver's convention.

By Jenny Whitby.

Jenny Whitby is a member of Illawarra & Sydney University Speleological Societies. With her husband Gary this is their second NSS Convention attendance, the first being in West Virginia, USA in 2000.

Darren Dowler, Gary Whitby & Jenny Whitby all from Illawarra & Sydney University Speleological Societies attended the National Speleological Society convention which was held 4-8 July. Huntsville, also known as the 'Rocket City' which has a long history of contributions to the United States Space Program. It is home to the Marshall Space Flight Center, and the United States Space & Rocket Center and also the home and headquarters of the NSS. The convention's slogan was aptly titled "From outer space to inner space".

On route to convention a weeklong detour to South Dakota was made to visit friends who recently had taken up jobs with National Parks at Wind & Jewel Caves. Well, when you fly from Sydney to Los Angeles then almost across the US, a detour veering north a few states from California isn't really that far out of the way. Just like taking the scenic route. Jewel Cave is presently the 3rd longest cave in the world at 218.18Km. Wind Cave recently over took Lechuguilla in length and is presently 5h longest at 193.93km. Visits were made to both show cave systems and although only 35km apart, the caves are very different with Jewel Cave full of nailhead spar, and Wind Cave full of boxwork. Whilst in the area, trips to Devils Monument and the well known landmark Mt Rushmore were made along with visits to several other privately owned show caves. A highlight of the week was participating on some survey trips pushing new leads in Wind Cave.

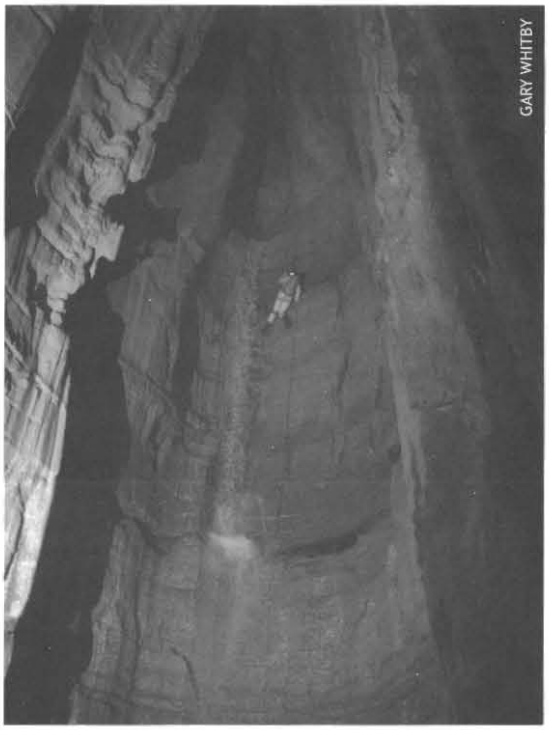
Then it was time to fly to the southeast to the TAG area, home of this year's convention. TAG stands for the states Tennessee, Alabama, Georgia. This area is best known for its wide variety of vertical pits and shafts, and home to over 13000 caves. So little time, so many caves! First cave of the south we encountered was McBrides Cave, a multi pitch, wet cave. This is a cave that was the scene of a major rescue in 1997, that has recently been made into a documentary "Expeditions to the Edge, Cave Flood". A trip where flood waters trapped a group of experienced cavers, of which about half ended up with injuries including broken bones. The night before the cave trip, our hosts showed us this film! There was no rain forecast for our trip and we made a safe journey.

Next, stop was the pre convention camp based at Rock Island, near Spencer Tennessee. This region offers some spectacular caving, with some mighty big caves and pits. We were fortunate to go on some amazing trips including a trip to the longest cave in Tennessee called Blue Springs cave with over 53km of passage. Our trip leader was Bill Walters who discovered and mapped a lot of this system, and also on the trip were Art & Peggy Palmer, authors and well known geologists. Probably the most impressive cave on the pre convention camp we visited was Rumbling Falls Cave. This cave first discovered in 1997 and had a length of 166m, until a passage was found in 1998 that led to an impressive 67m abseil named Stupendous Pit. This freehang abseil leads down the center of a 5-acre underground chamber named the Rumble Room, the 2nd largest cavern in the US. From here a river passage was found that went for many kilometres. The exploration was completed in late 2002, and the cave now has a length of 25.85km. We were fortunate to be accompanied on this trip by Marion O. Smith, who was a driving force in the exploration of this cave and who was the guy who found Stupendous Pit. So after 5 days of awesome TAG caving, and pit bopping as the locals call it, it was time to head to Huntsville to join the other 1360 cavers at convention!

It was Darren's first NSS convention, with Gary & I having been to one in West Virginia in 2000. Sessions and workshops were held during the day, then activities were also planned at night for the whole week. Opening night was celebrated by having a "Howdy Party" and this year, it coincided with 4th of July. The campground was ringside to the city fireworks display so along with a meal, band and free grog a good night was had by all 1360 cavers.

Orange coloured Salamander in Webster's Hole.

The stunning 78m Valhalla entrance pit, note 2 cavers on separate ropes.



Second pitch in McBrides Cave.

Stephens Gap Cave.

Other nights activities were an auction evening, Photo Salon, Banquet Awards night. The NSS booked out the U.S. Space and Rocket Center & Museum where a Space Party was held. Here we had a dinner, then looked at the exhibits, watched an IMAX space movie, crashed space simulators, and rode all sorts of space rides. Also there was an open house at NSS headquarters in Cave Avenue, which houses an amazing library, and they even have a cave in their backyard.

Many sessions were attended covering a wide variety of topics including, biology, geology, cave history, cave conservation, cartography, photographic and rescue workshops to name a few. US & international exploration sessions are always popular, this year we heard about trips to China, Cuba, Peru, Hawaii, Borneo, Saudi Arabia, Belize, New Zealand and heard Bill Stone speak about his deep dive trips in Mexico. If you got all sessioned out from the choice of talks, there was always the photographic display, Speleoart exhibition or the caving vendors where you could spend all your money. Cave shoppers paradise! Late in the week during convention, we were invited on an afternoon trip to TAG classic cave named Valhalla, with a 76m open single pitch, an offer we couldn't refuse. Then on the fifth day, the convention wrapped up with a banquet and awards presentation, followed by a final campground party. The next morning, holidays had come to an end for the three cavers from down under, and it was time to head back to Australia. For the rest of them, many headed off to post convention caving trips held around the area and adjoining states.

TAG is a vertical caver's paradise, an area abundant with caves, and where even today new ones are still being found. NSS convention was a fun time, we met some great people, and saw some awesome caves. If you ever get the opportunity to attend either an NSS convention (which are held annually) or go caving in TAG, it is well worth the experience.

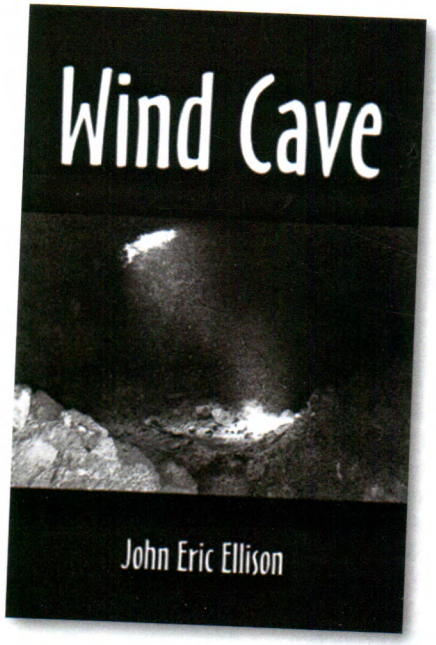
Bison at Wind Cave.

Thousands of publications to browse at the NSS Library, in Cave Avenue Huntsville.

BOOK REVIEWS

WIND CAVE

(2003) by John Eric Ellison
PublishAmerica, Baltimore
Paperback, 211 pages.
ISBN: 1-4137-0407-7
RRP $9.95 US. $6.95 US direct PublishAmerica.com

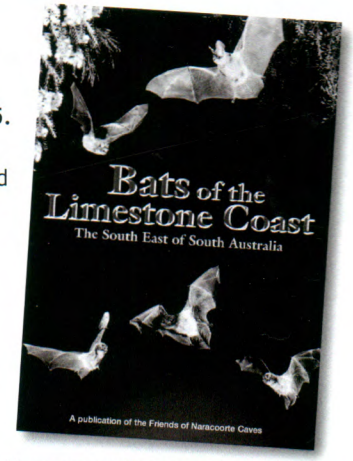


On Saturday, June 14, 1969, John Ellison, age 13, and his stepfather were exploring Wind Cave, a segment of the Arnold Lava Tube System in Bend, Oregon. Shortly after entering the cave, John had a sudden, overwhelming feeling of dread and a premonition that something was terribly wrong. John convinced his stepfather to leave the cave as quickly as possible. About a half hour later, two other men in the cave discovered the badly decomposed body of Mrs. Beverly Gayley. The body was wrapped in bedding and hastily buried under rocks near the entrance. She had an electrical cord around her neck and severe head trauma. Gayley, age 54, had been reported missing from her home since mid-April. An autopsy reported her death was due to "combined acts of violence." For young John Ellison, the memories of that trip and the ensuing murder investigation would have a profound effect on him for years to come. So profound in fact that as an adult, "the need to purge his soul of disturbing memories" would inspire him to write Wind Cave. In Wind Cave, Ellison (NSS# 50750) has relived the events of his youth through the eyes of Ronny Hazelwood and his young companions. When a woman's body is found in Wind Cave, the kids begin their own murder investigation and unintentionally get caught between supernatural forces of good and evil, culminating deep underground where the known laws of nature seem to have disappeared. It is the perfect book to read aloud the next time you find yourself trapped underground with a bunch of scouts. Anyone wishing to explore Wind Cave after reading this book should be reminded that the murderer of Beverly Gayley was never found. And you know what they say: the guilty always return to the scene of the crime.

Paul Jay Steward

A GUIDE TO THE BATS OF THE LIMESTONE COAST.

Terry Reardon and Steve Bourne.
Friends of Naracoorte Caves, December 2005.



The Friends of Naracoorte Caves have produced a booklet on the bats of the region, titled *The Bats of the Limestone Coast*.

This was produced as part of a grant received through the Australian Government Envirofund for the restoration of important wintering habitat for the Southern Bentwing Bat – *Miniopterus bassanii*.

The booklet was written by Terry Reardon from the SA Museum and Steve Bourne from the Department for Environment and Heritage, Naracoorte Caves and illustrated with images taken by them.

It contains descriptions and images as well as distribution maps for all sixteen species found in the region.

Other important information includes protecting bat habitat, what to do if you find an injured bat and where to go if you wish to observe bats. It will be a valuable educational resource for school children and those interested in nature in general. The booklet retails at $5.00 (Aus)

Enquiries to Steve Bourne: Bourne.Steven@saugov.sa.gov.au
Reviewed by Steve Bourne.

Caving number plates

So you think you're cave obsessive! Check out this site showing a list of over 100 cave related US number plates.
http://www.karst.org/pgrotto/licenseplates01.htm

SEVILLA 2006 JUEGOS MUNDIALES ESPELEOLOGÍA

SpeleoOlympia with a difference. Who will be the 1st world-champion caver?

The city of Seville will host large-scale games where the sports not included in the Olympic programme will be held. Games such as subaquatics, chesss, billiards, parasailing, bolos, car rallying and speleo events will take place in collaboration with the different Spanish sporting Federations. Seville Town Hall has created the first World Games to be held in September 2006.
http://www.sevilla2006juegosmundiales.com/espeleologia.htm

TIMOR PROJECT ASSISTANCE REQUIRED

NHVSS is calling for assistance in the documenting of the Timor Caves in the Upper Hunter Valley of NSW. Do you have...

- Experience in cave surveying?
- Knowledge of the local Timor Caves area history?
- Artistic skills and might like to assist us in drawing diagrams for the final production?
- Knowledge & Experience in identifying cave invertebrates?
- Fauna knowledge/identification skills?

We also would love to hear from you if you have any old photos of Timor Caves or if you or your club has done any tagging or survey work in the last 20 years.

2006 Field Trip list

29/30th July
5/6th August
16/17th September

Environmental TRUST

NHVSS

Reimbursement of some fuel costs will be offered to participants. For more information or to participate please contact the project manager Jodie Rutledge on jodie@rutco.com.au or during business hours on 02 49261889. This project has been assisted by the New South Wales Government through its Environment Trust.

Helictite

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Subterranean guano-collecting ants

Investigation of Pleistocene Large Mammal Bone Deposits from Victoria Fossil Cave, Naracoorte, SA

Abstracts in other karst journals:

A small cave in a basalt dyke, Mt. Fyans, Vic.

Ecology and hydrology of a threatened groundwater-dependent ecosystem: the Jewel Cave karst system in WA

Cave Aragonites of NSW

Karst and Landscape Evolution in parts of the Gambier Karst Province, Southeast South Australia and Western Victoria, Australia

Cover: *Thylacoleo carnifex* from Victoria Fossil Cave, Naracoorte. Assembled by Ed Bailey. Photo by Ken Grimes.

http://home.pacific.net.au/~gnb/helictite/

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

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