

CEGSA NEWS



Newsletter of the Cave Exploration Group (South Australia) Inc.

Volume 49 Number 1

Issue 193

FEBRUARY 2004



CAVE EXPLORATION GROUP (SOUTH AUSTRALIA) Inc.

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<http://www.cegsa.org.au>

Meetings held on the fourth Wednesday of each month, except December, at 7.30 PM usually in the Royal Society of South Australia meeting room, Natural Science Building, South Australian Museum.

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**Cover Photograph: 'Tented' passage in the Supplejack member – Bullita Cave System.
Photo: Mark Sefton.**

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QUARTERMASTERS NOTE.

High usage equipment will now be stored at the quartermaster's residence. Please make arrangements with the QM well in advance of required date for equipment. The QM can be contacted at the telephone numbers on the previous page.

NEWSLETTER MATERIAL

The deadline for copy or background material for Volume 49 Number 2 (Issue 194) must reach the Editor by Wednesday **12th MAY 2004**. Material not meeting this deadline may be retained for possible use in a following issue. The preferred method is via E-MAIL at atholjax@adam.com.au as an attachment or on 3.5" IBM floppy disk, in Word or ASCII text format. Of course other forms of communication will still be gratefully accepted.

The views expressed in this publication are those of individual authors and not necessarily those of the Cave Exploration Group (South Australia) Inc., its Committee or the Editor.



PRESIDENTS SPOT

A new year. A new activity. At the AGM, which most of you melted away from (44°C did not deter a quorum) we decided to instigate annual club projects. This year our target is 5A1 – Reynella Quarry Cave. It has recently come under pressure from housing development both from “construction” activity and as a playground for the new locals. The cave site is being absorbed into a parkland that follows the nearby creek but we need to help the Local Council by delineating the cave (that is, produce a detailed cave map), documenting the karst (including inside the cave), cleaning up the site (especially inside the cave), and helping in preservation measures. To do this we will be calling on ALL members. Being in metro Adelaide, distance is no excuse for our Adelaide members! Grant Gartrell will be our prime leader but others will be assisting in the activities. Please call with your offers to help before someone calls you. Since Grant is often hard to contact you can ring me.

The Group has returned to meeting at the Royal Society Rooms at the SA Museum except for May and November when the Royal Society think that they have priority to use their own rooms.

Graham Pilkington

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2003 AWARDS SUMMARY

Leather Medal	No Recipients
Spirit of Caving	Chris Fischer For a beginners enthusiasm in helping others to cave.
Golden Compass Award	Petra Fundova and David Funda For livening up underwater discoveries in the South East, especially the “Avalanche Chamber” in Nettle Cave.
Golden Compass Award	For helping to preserve a Naracoorte Cave by finding more of nothing
Rivett’s Reward	Marie Choi For never letting CEGSA rest with her constant ideas for new activities, then carrying them out.
Mundrabilla Marble	No Recipient For initiative, problem solving or overcoming obstacles.

Graham Pilkington.

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2003 Annual General Meeting and Dinner report

Approximately twenty members turned up for the AGM and Dinner on Saturday 14th February despite the 44 deg heat of the day.

The awards as above were presented by President, Graham Pilkington followed by the presentation of the Annual Report. Then came the election of Officers.

The new executive and committee for 2004 was elected as follows:

President:	Graham Pilkington.
Secretary:	Bill Binks.
Committee:	Paul Deer, Chris Gibbons, Athol Jackson, Eddy Rubessa and Mark Sefton.

The election was followed by a discussion on directions for CEGSA and it was thought that a Group Project might give the members something to strive for during the year. See Presidents Spot.

Athol Jackson.

TRIP REPORTS

Bullita Cave system – Northern Territory 7-19th July

Unless otherwise stated all photographs are by the author.

Introduction

The Bullita Cave system is situated in the Gregory National Park in the western part of the Northern Territory. Caves in this area were first recorded in the speleological literature by Storm and Smith (1991), and subsequent trips have been organised by the Canberra Speleological Society (CSS) and the Top End Speleological Society (TESS) every year since 1991. In 1993, a CSS trip located an entrance to 'Berk's Backyard', and 11 km were surveyed in that cave. During the following four years, the 'Backyard' was extended, other nearby caves were discovered and surveyed and these caves were all connected to form a 57 km system, named the Bullita Cave System, after the local homestead. 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) and TESS (Bannink et al 1995).

Recent exploration – 1998-2002

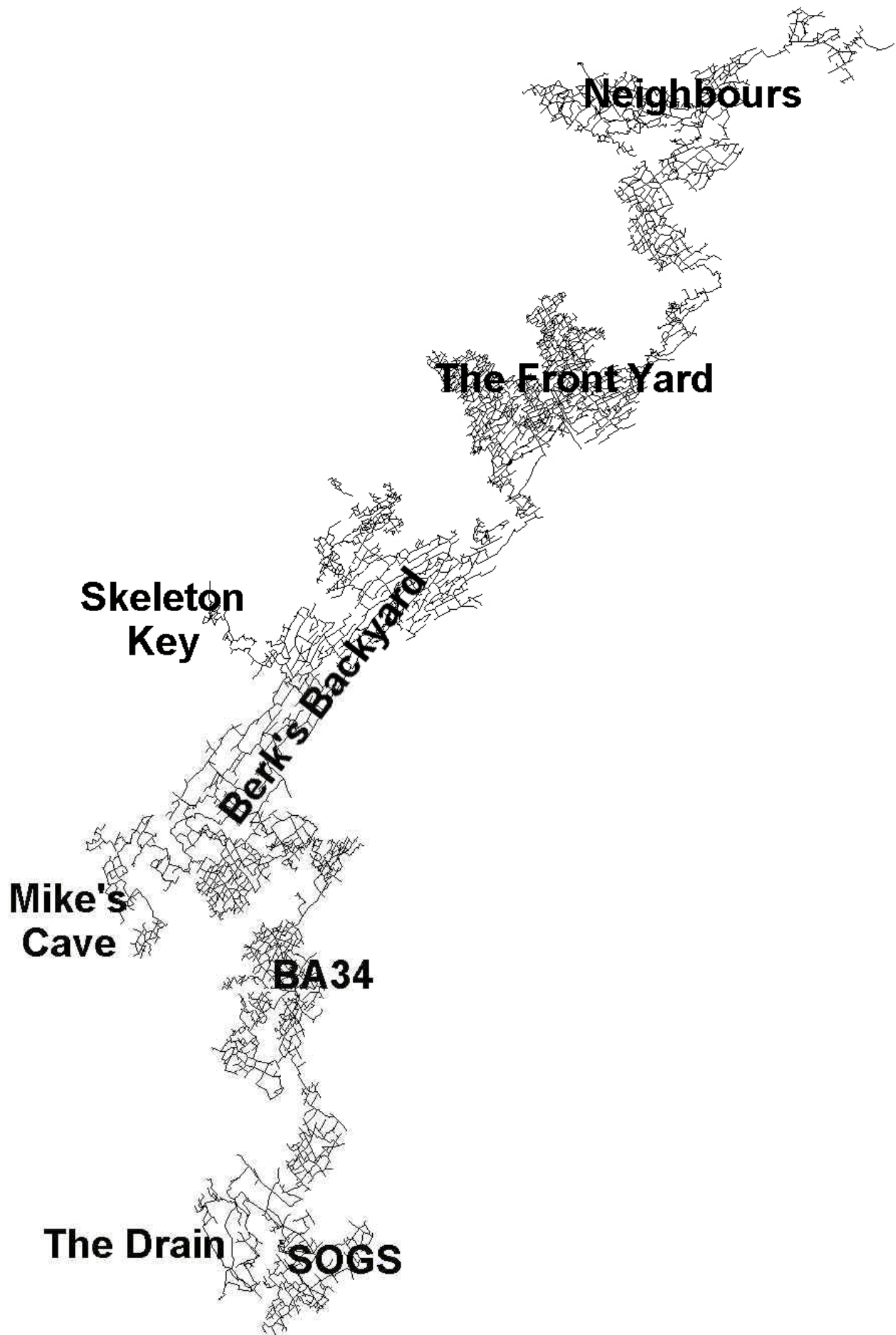
I first joined the Bullita exploration team in 1998, and have been back every year since then. In 1998, John Dunkley and I entered a numbered entrance (BAA34), south of the known extent of the Bullita system, and explored and surveyed several hundred metres of passage. By the end of the expedition, several kilometres of big walking passage had been surveyed in BAA34, and this section had been connected to the main Bullita system via a small hole, just big enough to squeeze through. The following year, another substantial cave (SOGS) was discovered by Lloyd Robinson and Nick White a kilometre further south of the far end of BAA34, and at the southern extremity of the karst under which the Bullita system is formed. SOGS contained 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 flows – a relative rarity in these caves.

The following year was mainly devoted to surveying unexplored passages in Bullita and SOGS (all passages were surveyed as they were found). Then in 2001, an entrance to a new cave was found (Odyssey Cave - in honour of the Stanley Kubrick film '2001') and more than two kilometres of easy walking passage was explored and mapped. Within a few days, two linking passages to BAA34 to the north, and two to SOGS in the south had been found, thus joining the latter to the main system. Two other caves were also located and partly explored – North SOGS, to the north-west of SOGS cave and Mike's cave, in a separate block of karst west of BAA34. Between Mike's cave and the Bullita system to the east lay a small valley which cut through the karst. A connection further north was possible but looked to be a long way off.

In 2002, North SOGS was connected to the main cave. North SOGS itself contained a low level 'Drain' which ended at a tiny pool of water (the only standing water I have ever seen in six years of caving in Bullita), and a climb up to a chamber with routes through to higher (main) level passages, and also to a parallel drain system. Scattered throughout this corner of the Bullita system are several pristine calcite flows and other speleothems. Further exploration and mapping also continued throughout the length and breadth of the system, bringing the length of the main cave to 86 km. The northern, eastern and southern extremities of the system had been reached, but there was still a substantial amount of internal passage to survey, and the south-west block of karst containing Mike's cave was largely unexplored.



The Drain, North SOGS



Line Survey of the Bullita System. North to South is approximately 4 Kilometres.
Map produced by Bob Kershaw

The cave

The Bullita cave system is formed mainly at the base of the 10-20 m thick Supplejack member of the Skull Creek dolostone formation. The various sections of the cave comprise a highly complex maze of joint-controlled passages, mostly easy walking, and of several types. In one section of the cave, the passages appear to be predominantly phreatic, with numerous interconnecting tubes of various sizes in the Supplejack member. More commonly seen are passages in the lower part



Phreatic Tube in the Frontyard.

Photo by J. Martini.

of the Supplejack dolostone which are tent-shaped or rift-like in cross section. 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 'tent-shaped' 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. Pits in the shaly layer and small passages at the base of these are largely confined to SOGS cave.

The karst on the surface of the Supplejack dolostone 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. Approximately 5% of the Bullita system comprises such passages. While they are certainly part of the Bullita system, they cannot be considered as genuine cave. Accordingly, such passages have been excluded from the calculated cave length, and only sections of cave linked by genuine cave passages are considered to

form the Bullita cave system. The system is not divided into separate caves by giant grikes - as recently suggested in Webb et al. (2003).



Tented passage in the Supplejack member, with widening of the shaly layer at the base

Because of the closeness of the cave system to the surface, there are numerous areas of collapse. It would be no exaggeration to say that Bullita has many hundreds of entrances, although only a few dozen have been used by cavers.

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

The sheer complexity of Bullita makes navigation extremely problematic. Even in well explored areas, we normally equip ourselves with map and compass to find our way through the cave. The survey stations (over 9,000 of them!) 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 46 separate map sheets, each covering an area of 250 m x 250m, which should give an idea of the size of the system.

The 2003 trip

After a long three-day drive of more than three thousand kilometres from Adelaide, we arrived at our destination in the Gregory National Park. I was accompanied by John Dunkley of CSS who had led several earlier trips to Gregory, and Jacques Martini, an old friend from my South African caving days and an extremely experienced geologist, cave mineralogist and cave surveyor. The rest of the party had arrived a day earlier and, after setting up camp, had spent a short day in the field attempting to find a connection between the main Bullita cave system and a small cave (Skeleton Key) to the west. Although several new leads were followed and surveyed, no connection was achieved.



Fig Tree roots in cave passage.

The following day, the entire party headed for a section of karst south of the 'Backyard' of Bullita



Passage developed in the shaly layer at the base of the Supplejack Member, with narrow rift in the Supplejack roof, and deep floor trench

where an extensive cave had been entered and partly explored the previous year. Although this area (known as 'North Mike's' because of its proximity to Mike's cave further south) could be reached from the main Bullita system, the connection involved traversing two short sections of open canyon which could not be considered genuine cave. However, given the multitude of cross-linked passages throughout the rest of the system, we were confident of eventually finding a bypass. The walk from the

car park to the start of this section took us two hours, and despite the short time available for surveying once we had worked our way underground to our destination and split into four groups, we still managed to survey some 7-800 m of new passage. Although much of this section of cave was not exactly the most attractive we had explored here, being mostly dusty, flat, often low passage in the shaly layer below the Supplejack, there were a substantial



Coralloid cave pearls in gour pool. Each 'pearl' is approximately 5 cm across.

number of leads left in many different parts of the cave by the time we had finished. A welcome dip in the local creek (crocodile-free!) followed the long walk back.



Pendulite (approx. 2.5 metres in length).

After a short trip the following day to do some 'tidying up' surveying in the northern part of Bullita we made plans for another attempt to join the system to Skeleton Key Cave. On the fourth day, one party went into Skeleton Key itself and a second into Bullita. These two groups then headed underground towards each other, towards the most likely spot for a link. Jacques Martini, John Redpath and I formed a third team which travelled over the surface to an entrance that had been noted on a previous occasion and which was in close proximity to where we were trying to establish the link. Once inside this entrance, the three of us surveyed approximately 100 m towards the main cave. The area we broke into had obviously been visited before as we found several cairns, but there was no obvious way through to the main cave. Perhaps it had been visited some years ago from the surface via an alternative unmarked entrance. Fortunately, because of our prearranged exit time we didn't have time to finish this section, and so were back at our entrance, just in time to hear muffled voices coming from a low crawl – the Skeleton Key team. We connected the two surveys, and learned that they had also linked up with the third team in Bullita, thus adding another kilometre to the main system. After a pleasant lunch spent sitting in the shade of a giant Boab on the edge of the karst, we then wandered back towards where the Bullita karst is separated from another karst area by a narrow valley, only a few metres wide. We

poked around for a while, and while there was some rather degraded cave passage in this block, there was certainly no obvious way to cross the valley underground. Jacques pointed out the scalloping in a large remnant phreatic tube in the side of the valley which indicated that water had once flowed here towards the west.

Day five was mainly devoted to photography and a bit of 'tidying-up' surveying in the Frontyard. Despite the short day, we still managed to map another 450 m of new cave between us. We all took a few photos of a mud 'volcano', and then split up into our separate parties. Jacques and I were accompanied by Sue White – so there was much discussion of the geology of the cave throughout the day. There were no problems in using the map to find our way through the cave – although the compass was essential and being able to find marked stations every now and then was almost equally useful. Our destination was an area known as the Bourke Street Mall – a most attractive section of cave, and at around 11:30, the sun was ideally positioned to shine down a roof hole and light up this area in a variety of colours. This section is pretty much entirely phreatic – with remnant tubes everywhere, and no development below the base of the Supplejack. After taking photos, we did a couple of hours surveying, then made an early exit.

The following day, the parties worked in different areas of the system, one in North Mike's, one in North SOGS, and myself with Jacques, Deb Hunter, and Bruce Swain of TESS in a recently explored part of SOGS. In this area, which is in the far south of the system, there are numerous pits in the floor of the passages. We first descended one of these and surveyed 180 m of low level passage some 10 m or more below the base of the Supplejack. This was a mixture of walking and crawling in irregularly shaped passage containing some highly crystalline flowstone – similar to that seen in 'The Drain' in North SOGS. Much of this section was quite dusty. It eventually emerged at the base of another pit from where we could climb back into the main system. We then surveyed another 120 m of 10 m wide main passage before heading out for the long walk back.

On the walk back, we passed by 'The Efflux', a boulder pile against the side of the valley from which water obviously poured during the wet season, as evidenced by the deep gully that led down towards the river. This had been discovered four years earlier by Lloyd & Nick but had defied attempts to squeeze through the boulders into what promised to be passage behind. Bruce was curious about whether there wasn't really a way in, and within 5 minutes of poking around high up among the boulders, he found an obscure squeeze which reached a passage behind with a pronounced echo. A quick 5 minute recce by Bruce revealed around 100 m of mostly walking passage, ending at a boulder choke with possible ways up. But there was no time for us to do anything further if we were to be off the karst before dark.



Blind pit in SOGS Cave. The roof is the base of the Supplejack member

In line with our policy of alternating short days with long ones, we spent the following day doing some more mapping of 'loose ends', this time in the extreme north of the system. We had now been in action for a week.

Next we returned to North Mike's again, splitting into two teams of three (the rest of the party were having a surface day). Here, three of us (Jacques, Bob Kershaw and I) did some 'tidying-up'

surveying while the other team of Deb, Bruce, and Carolyn Redpath continued surveying further south. We joined the second group for lunch, then our two groups surveyed parallel routes, 20-40 m apart, towards Mike's cave. Deb's group surveyed 300 m but came up against rockfall 30-40 m short of Mike's. Our group, however, had better luck. With a combination of Bob's map skills and Jacques' nose for ways on we were through after an hour of 10+ m survey legs. We then tried to push north-west from Mike's to meet up with Deb's group, but ran up against the other side of the same breakdown that prevented them from reaching us. In the end, there wasn't enough time left to go back the way we came and find the others so we exited via Mike's Cave, made our way up the valley to our morning entrance and waited for the others. All up we mapped 800 m of new cave that day, and the connection to Mike's added another 650 m. This would bring the cave to 90.5 km once we had found a real-cave alternative connection to the Bullita system rather than the current traverse which included the two short non-cave sections.

I then took the next day off for camp duties while the rest of the party continued the program to tidy up loose ends. While some such loose ends turn out to be nothing significant, others can sometimes lead to substantial sections of new cave, adding kilometres of mapped passages over the duration of any one expedition.



Main chamber – Skeleton Key

The next target was to try and see if, and where the passage behind 'The Efflux' led to the Bullita system, and whether a small isolated cave nearby known as BAASGL also linked in. Three separate teams tackled these targets in one go and soon found several connections. The Efflux passage emerged not far from the lower level passage we had surveyed in SOGS four days earlier. Meanwhile, a fourth team of Jacques, Sue White and I returned to North Mike's cave to continue exploring and mapping where we had left off earlier. We surveyed a mixture of low, but wide crawls which all seem to run up against a valley on the north-west edge of our survey. At one point, we reached an easy walk-out entrance from which the valley could be clearly seen, and from up on the karst, there was a good view of another deep valley/grike coming in from what appeared to be the East. Perhaps the valley to the west was the source of the silt which seemed to half-fill our passages. Back underground, we continued to push north-east, always keeping to the left, and eventually we came to a climb out and around an entrance and back down into big walking passage with leads everywhere. Fortunately, there was also an underground bypass connecting the two sections. There was only enough time left to survey to the start of this new section, which looks well positioned for getting around the valley and heading west again, but we will have to wait until next year to find out.

There were only two days left before the majority of participants were due to head home. The first was another 'tidying-up' day. The final day was spent by most of us in BAA34, where there were still several substantial blocks of unexplored cave. The remainder opted to take a prearranged flight over the area to get a bird's eye view of the karst and take lots of photos. The first team mapped 580 m in the central part of BAA34, while our group mapped 300 m of relatively immature passages up against the Supplejack/Upper Skull Creek margin which marks the eastern boundary of the cave. Although it was a bit grovelly at times (quote from Jacques – "I am in a good position for studying sedimentology"), we knocked off all of the remaining question marks in our patch, and made a start a bit further south. So it was a pretty satisfying day. It also helped satisfy Jacques' curiosity about the nature of the younger passages along this boundary of the system.

Our penultimate day was devoted to some photography in the northern half of the system. Once we had said our goodbyes to the others before their drive to Darwin, it was a late start for me, Jacques and Lloyd. Because of the lateness of the start, the walk was pretty hot, and I felt a bit tired by the time we got to the cave entrance. We spent the next 6 hours taking photos in some nice-looking passages of various shapes and sizes. There is lots to photograph here. But even more so, there is still lots to survey here as well, even though there is a greater density of passages in this section of the cave than practically anywhere else in the system. Most of the unsurveyed passages are phreatic tubes or triangular-shaped in cross section, which run off main passages or cut through large pillars.

On the final day, Jacques Lloyd and I returned to North Mike's cave to try and find alternative 'real-cave' connections to the Bullita system. There were actually very few options. One possibility which looked good at first had been investigated a few days earlier, but had a climb up to a higher level that had been missed. Even at this level, which is only a few metres below the surface, this passage was choked with clean young-looking calcite, the origin of which is something of a mystery to me, considering the absence of a soil cover above. We then found a detour around the larger of the two non-cave sections with a fairly obvious lower level passage which emerged just beyond the first overhang. The smaller section of non-cave (just a few metres of open space) was also by-passed, this time by a low crawl, investigated by Lloyd who would have made the traverse quite easily except for the presence of a snake half way through the crawl. Fortunately this soon disappeared. These two connections gave us a link of continuous cave, and Mike's/North Mikes can be considered as part of the Bullita system, which now stands at 93 km.

There still remains much work to do in the Bullita system, not least, completion of the exploration and survey. Substantial sections of the southern and south west sections of the system remain unexplored, and numerous small gaps need to be completed throughout the rest of the system before we can produce a final map. This year, an initial study of the geology of the system was undertaken, but an investigation of the biology of the cave is still needed. All in all, Bullita will keep us busy for many more years yet!

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 John Dunkley who commented on an earlier draft of this report, and Bob Kershaw who drafted the version of the map shown here.

This article is published with permission of the Parks and Wildlife Commission.

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Mark Sefton

Report on Air Photo Features visited in WA Nullarbor during May 2003

During May 2003 Eve Taylor and myself spent some time on Ken Boland's Nullarbor trip with members of VSA, CEGSA & CLINK and helped in the task of logging total over 210 karst features with the other ground parties, Ken's flying time was cut short but he managed to locate around 200 features from the air.

After and prior to meeting up with Ken, Eve and myself spent some time checking Air photo features. This report is an account of the air photo features we visited.

Over the past year I had spent a fair amount of time studying air photos covering sections of WA Nullarbor. Prior to April 2003 I had examined approximately 280 air photos that represents an area roughly equivalent to two thirds of a 250,000 map sheet. This means there is still approximately 8 more map sheets to examine in WA or an additional 36000 dollars worth of WA air photos...

Off the air photos examined, up until May 2003 I had gathered a database of around 300 definable visible features. I have designated these as NXP series. (e.g. NXP98 is the 98th feature I have identified. I refer to these features in this article as P98 etc.). A further 200 features are slightly less definable these are also included in the NXP series. I had also noted another 2000 odd air photo points (APPoints). APPoints are points of interest which I have identified on air photos. Some are only reference locations, but most take the form of smaller unusual anomalies. A large percentage of these anomalies are unlikely to be karst features.

As with most forms of exploration on the Nullarbor the number of features noted as opposed to the real number on the ground is rarely edges close to 50%. The complexities of using air photos and interpretation mean that the number noted is always going to be a much further reduced percentage. The air photos are a very useful tool but require careful study and comparisons to define smaller features.

The objectives for this trip were to locate, visit and log a number of interesting visible features. Along with visiting more APPoints to continue comparisons between discernible patterns and possible features on the air photos, with what is found on the ground. This added insight greatly enhances accuracy in visually defining features, in future examination of air photos.

On this trip in late April 2003 we arrived at N3 and then traveled towards N1602.

N1602 "Sarib Cave" is a Jennings doline NX390 (5/5247, [Lowry 1967]), relocated by Max Hall both on air photos then later, on the ground in April 1999 [Kershaw & Dicker 1999].

On the same trip in 1999 I searched for another Jennings Doline NX391 (5/5245, [Lowry 1967]). This is one for which I have now defined a position. This new position is approximately 5km further west than previously listed [Meth 1997] & current records. It is most likely P301 which is at air photo derived amg coordinates 462150 6514540, P301 is a broad degraded, shallow sided depression 300m in diameter, with approximately 5m depth visible. It is located on the NE brow at the crest of a rise. The only notable visible change in its shallow sides is a bush located on the Sth slope of the depression.

Time did not permit us to travel that far east, so NX391/P301 still remains to be visited.



N2255 Air Photo view.

On this occasion our destination was P312 an air photo feature lying further to the ENE from N1602.

N2255 (P312), has an interesting structure. This structure stands out on the air photos as it appears on the western side of a large flat, which along with others further to the east all drain into the side of a low rise. This drainage point can be defined as a diamond shaped shallow doline, in which there is the possibility of two BH's being just visible.

Upon arrival we found an exposed rock and pavement doline which measuring 35*25m* 2.7m deep. The doline was found to contain 4 BH's .

One of these is a 2m diameter shaft

which is covered by a thin cap of loose Rocks , this BH is not visible on the surface and thus poses a hazard, as the shaft underneath has a depth of over 10m.

The bare eroded flats that lay to the east of the doline, have a shallow channel running from their western edge into the deepest of the open BH's (10m deep).

All 4 BH's join at around 3-5m depth into one large, 5m wide entrance. This entrance opens via a 4m drop into a chamber roughly 30m by 20m and up to 5m high.

With such a large drainage area, there was always a possibility of big chambers below but unfortunately this cave is silted up to a depth within 14m from the surface. At the time of our visit standing on top of the silt was a large pool water .

This pool stretched the entire arc of the base of the chamber, around 20m long and up to 5m wide. Detritus and high water marks show that flooding occurs to a depth of around 3m. Once flooded to this depth, the water then seems to find other routes of flowing further on. From the observations on this occasion it would appear that at least for a period, possibly weeks following heavy rain the cave retains a fair amount of water.

The next air photo feature we visited N2401 (P555), is a large pavement doline measuring 27*29m*3.5m deep. At its base is a 2.5m diameter, 6m deep BH.

A little further west another 3 features were logged N2402 (K486), is one of Ken's features, a RH found in 2001. N2403 an air photo point (E22257) is a Pavement with a minor RH, and N2404 (P346) is an extensive set of pavements with a blind dead shaft and many RH's.

The following 2½ weeks were spent mostly with Ken's party, where Eve and myself helped out by logging another 94 features as N Numbers.

Following the end of Ken's Trip Eve and myself traveled Nth to Loongana

Around 20 km Nth of Loongana we located another air photo feature (P177) N2455.

From air photos I had deduced a depression 250m*150m*3m deep, with a possible central 3D collapse.

This feature is possibly the rumored (from various sources) "Cave" meant to be in the region and it was undoubtedly known to rabbiters.

The sides of the depression were found to consist of mostly pavement, with varying amounts of shallow soil cover. On the pavements several rockholes are present. The largest may hold 300-400 gallons when full. In the base of the depression is a choked BH along with two (bridge joined) shallow collapse dolines, measuring 9.5*6m*3.5m deep and 12*8.5m*2m deep. In the collapse Dolines are 3 entrances which lead to around 200m of passage.

While time restrictions meant we did not survey the cave, it is now the only other, known substantial cave in length, Nth of the rail. The longest surveyed is N55, listed as 120m long.

In the East Cave (Entrance 1) at the furthestmost point from the entrance, one lone (sheet web spinning) *Tartarus sp.* spider was noted. This is the northern most record of this Genus on the Nullarbor.



View from a distance of N2255 Doline and flat beyond.



N2455 Collapse Area @ 270deg



Eve in Entrance 2 N2455.

The cave consists mainly of open dendritic flood passages with large areas of flood washed rubble and sediment. Sections of windblown coraloid decoration were also noted, some showing signs of recent activity. One area of decoration includes several wind affected, flat sided, linear coraloid columns in the center of a main flood passage. Possibly indicating a slower rate of floodwater flow in this section, or that major flooding necessary to move the floodwash rubble in the passage has not occurred for an extended period of time.

A full day was spent in the cave and also logging the surface. The cave still had ongoing leads only a little more restricted than the passages which we explored.

Unfortunately we did not have the time nor

resources to visit any further features in this area. This was due mainly to the type of surrounding terrain. Razor rocks abound and apart from the remoteness they are probably the major cause for lack of exploration in these northern areas.

After the rugged trek back along the Trans rail line we called in to Haig Cave N55.

The relict paleoriver in the region of Haig cave, is the probable residual southern extension of the Throssell/Carey paleoriver system [Van de Graaff 1977, Lowry & Jennings 1974]. It has a broad well defined surrounding area of calcareous soil cover which stands above the surrounding plain [Lowry 1970, Lowry & Jennings 1974].

Within this area, there is over 200 new definable features. I have located these features using air photos (Report in prep).

Whilst in the area we logged 11 of these features.

Mostly they consisted of eroded soil dolines similar in form to N143, differing only in most had areas of jointed or broken exposed pavement.

Caves where they exist in these features were found to be mostly BH, joint controlled, or collapse entries to shallow flattner collapses similar to N141.

N2237 (P165) Soil Doline with shallow collapse area & shallow overhang cave 5m length.

N2516 (P509) Soil Doline & narrow Joint opening, No Cave.

N2637 (P507) Shallow collapse Doline & flattner collapse cave 10m+.

N2638 Blowhole impenetrable.

N2639 Blowhole & flattner collapse cave 6m.

N2640 (P506) Doline & Joint holes.

N2641 (P508) Doline with shallow collapse areas & holes

N2642 (P512) Extensive Degraded Doline with Holes & 2 Joint openings to shallow caves.

N2643 (P511) Degraded Soil Doline & small holes.

A few differing exceptions were:-

N2515 (P560) which is a Pavement Depression with a collapse Doline (12m*9m*4m) and a small 18m*12m collapse chamber where sedimentation has filled the cave to within 10m of the surface.

N2238 (P166) a shallow collapse Doline (22m*15m*4.5m) which has a short (10m) unstable collapse cave in very friable green-grey clay & white kaolin along with weak limestone. Within the surface of the calcareous soils forming the eroded depression surrounding the collapse, small outcrops of massive gypsum were noted.

N2138 (P164) is a large open Hole/collapse (11m*6m*6.5m) which again has an unstable 25m cave. Large massive gypsum



Collapse Doline N2515@315deg.

infills up to 1m diameter are present in voids within this feature, along with green-grey clays also infilling voids.

N2517 (P510) is a BH leading to a cave. This cave was found originally by A J Carlisle and shown to Harry Wheeler on the 8th of February 1956, as marked by the initials (H W W) and dates in the cave. Although CEGSA records show that Harry Wheeler was in the area at the time no records of this cave are known. The down side is the original initials have attracted more scrawlings as more than one visit to the cave is evident.

The cave consists of two small breakdown chambers 13m*10m*3m and 15m*5m*1.5m, the breakdowns are in limestone with abundant larger up to 1.5m diameter soil filled phreatic voids. The soil is dark brown/red in colour and fills nearly all visible cavities.

The gypsum noted in N2238, N2237 & N2138 is a similar occurrence and form to that noted by David Lowry around Lake Nyanga further to the North, [Lowry 1970].

Clays present in N2138 & 2238 appear to be of similar form as to those noted [Benbow 1995] in N55.

On the return trip to Kalgoorlie we called into Balgair Stn. although no further features were located or logged.

So far I have visited and allocated N Numbers to app 45 air photo features.

On this trip from the air photo NXP series, around 25 features were visited & located, along with a few more APPoints which also yielded features.

In total in 4 weeks Eve and myself visited app 126 features, of these 114 were new features, (app 40 of these were located by Ken Boland from his Ultralight). All 114 of the new features were logged as N Numbers.

Since writing this report more additions have emerged, a following article will appear in the next CEGSA News.

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Paul Devine.

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New passages and a hidden chamber discovered in The Pines (5L61), July-November 2003

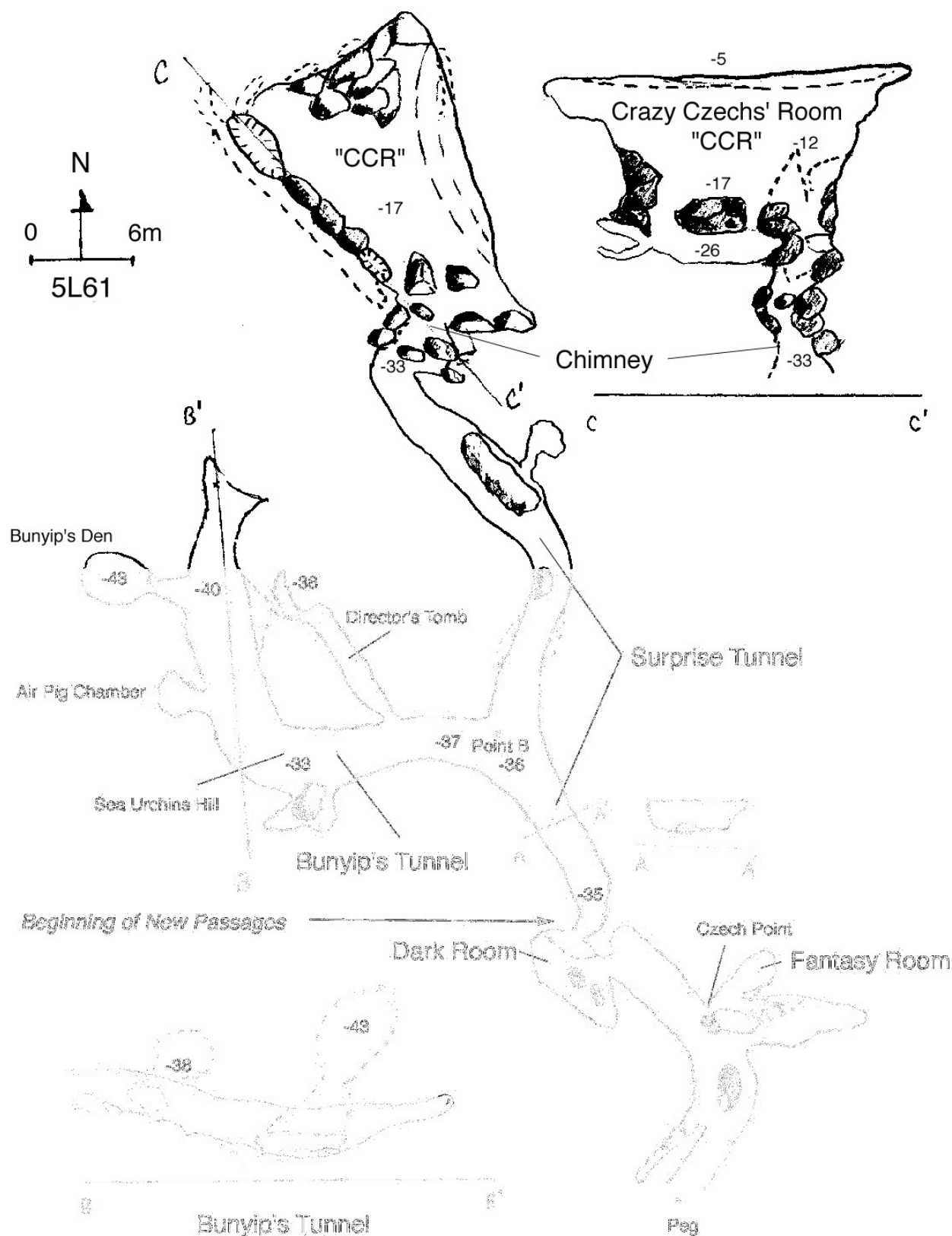
by Petra Fundova and David Funda

Who would have expected it? One of the most frequently dived caves in Mount Gambier as well as a popular CDAA training site, yet over 100 metres of absolutely virgin deep passages and an uncollapsed chamber recently discovered, which together about doubled the volume of this dive site!!

It all started soon after our penetration course in 2003. As freshly certified penetration divers we immediately dismantled our back mounted twin tanks and went for new challenges in the caves of Mt. Gambier with side mounted configurations. Our primary focus was The Pines cave

New Passages in The Pines (5L61), Mt. Gambier, South Australia

Explored and surveyed by Petra Fundova & David Funda, 12.7.2003-10.1. 2004



(Cave Exploration Group of South Australia reference number 5L61). Such a mysterious cave with so many luring passages - including the rumours described in Peter Horne's *Lower South East Cave Reference Book* about an old collapse in the Main Chamber which blocked deeper section of Pines, and the inviting question-marks on Jurgen Gehrre's sketch! "Let's check them first and then the rest of the cave", we thought; boulder by boulder, slot by slot. We soon realized that it was going to involve many dives in Pines, and we made good use of Phil Argy's slim 10l cylinders and our 2m hoses.

The question-mark passage on Jurgen's sketch on the way to what was called the "Dark Room" opened up through a squeeze entrance, which we light-heartedly called the "C(z)eck/h Point". It really checks the configuration of your gear, guys, especially if you are about to enter into a small room behind which we called the "Fantasy Room"! From there, there is a connection to a silty wall which drops from passages above so you can dive it as a loop. However, as we continued down to the Dark Room we had fun checking the walls of the room, remembering that many passages at the Nullarbor don't start right from the bottom but rather from the ceiling.

And so it was in Pines; at the very end of the Dark Room there is a low flattener at ceiling height, from where we found a steep passage going about a metre and a half down through a tight squeeze and ending at a small 50x40cm-wide window. "Hmmm, maybe another Fantasy Room?" So we pulled out a 25m jump-reel and headed down.

The restriction was too tight for two cylinders, so we had to do some gear removal with our side mounts. When we went through we couldn't believe our eyes ... what a surprise! Not a small, silty room, but a spectacular, beautiful passage - "Surprise Tunnel"! A spacious tunnel, with the bottom covered with thick, smooth silt without a single marking or scratch. Wow! - it took away our breath!

We swam next to each other for about 12 metres and got to a crossing. It was getting even better - two tunnels! We firstly turned left ("Bunyip's Tunnel"), where the passage drops down to a depth of 37 metres and then goes up over a small rockpile to 33m with a large slab on the left hand side. The tunnel here was getting larger and went down the rockpile again (2 or 3 divers can



Restriction at the end of the Dark Room – October 2003



Beginning of the Surprise Tunnel



"Point B Crossing"
Surprise Tunnel (right) & Bunyip Tunnel (left)

easily swim together there) to about 40m. This was when we found that our bloody jump-reels were hopelessly short! Nevertheless, we had a brief look around and noted that a flat restriction led a little bit deeper. It was now time to swim back as breaking into such new passages did not improve our air consumption at all. What an unforgettable dive this was in Pines on July 12, 2003. Needless to say where in Pines we would be diving next time!

With bigger reels and more tanks for staging and decompression, we explored these new passages during about 15 dives until the beginning of October 2003. At the beginning of the Bunyip's Tunnel there is a very short restriction, which opens up into a more spacious and straight passage - "Director's Tomb". We originally thought that this could be the deepest lead but after another restriction it quickly ends at 38m. There is however a visual connection back to the Bunyip's Tunnel, opposite the entrance to the "Bunyip's Den" (see below).



Surprise Tunnel
On the way to the "Crazy Czechs" Room, CCR



Surprise Tunnel – Large boulder before chimney

Close to the top of the small rockpile in the Bunyip's Tunnel, we came across a flat boulder with two prominent fossilized sea-urchin shells. They looked so intact that they made us feel the need to taste the water. Fresh - so they must be fossils! This was so amusing for us; but seriously, please take care when diving around "Sea Urchins Hill".

Following the tunnel downhill we explored two other rooms on the left as well as some fissures in the ceiling. The second room starts as a longer, very silty flattener from the deepest point of Bunyip's Tunnel, which opens into a low oval room (Bunyip's Den), the deepest point we found within the new passages. Its bottom was nicely covered with a thick layer of untouched silt and there is a huge lantern-like boulder hanging from the ceiling. Very low vis on the way back though, so take care there. The Surprise Tunnel continues from the crossing (our survey reference station Point B) to the right for another 30m before it ends at a vertical 'Chimney' choked with huge boulders with small windows here and there. It has some beautiful features such as two prominent boulders, scalloping and a small side passage-room.

Our frequent diving in Pines brought us to the attention of Peter Horne, who was looking for some volunteers for his revamped, detailed early-1990s SAUSS mapping project in Pines (as surprising as it sounds, there is no proper and complete map of Pines available at present). Of course we agreed, but suggested that we would prefer to start from the bottom up - later we explained why ☺.

We got a little bit distracted from diving Pines by our discovery in Nettle Cave (5L186) and then diving three new caves on the Nullarbor (SRGWA-CEGSA trip, October 2003), but we thought we were finished with exploring the new horizontal tunnels in Pines by November 2003. How wrong we were! On Saturday, November 1, 2003, yet ANOTHER big surprise!...

When venturing into new territory one always imagines what is going to be around the next corner. During our diving in Pines we had a dream of an "Inner Sanctum" there (probably inspired by our first Nullarbor trip); going up the 'Chimney' into an air chamber, taking a break and then diving back or walking out from Nettle Cave! A Joke? - well, close to the truth!

Two questions were coming back to haunt us all the time; how far are we from Nettle Cave (imagine a traverse!)?, and where does the 'Chimney' go? The large boulders in the Chimney looked a bit scary and we weren't happy with the idea of attempting any gardening there. Maybe we can send a liftbag? But on that Saturday we went to have yet another closer look at the bottom of the Chimney again, where we found one window which looked OK for side mounts. We started at 32m and after getting through the first restriction we found that the Chimney opened up and kept going! The gaps among boulders were getting bigger and as we swam up we were in a state of disbelief - was this really happening?

"So it is not a joke, there really IS an Inner Sanctum in Pines"! was going through our heads. The passage opened fully, we were at -18m and two huge rocks were now blocking our view in front; there was a beautiful darkness behind them. We put our chins over the edge of a triangle rock and saw a big chamber!! We were in another cave!

We swam around at the bottom and at the ceiling which were formed by several layers of limestone coming from one side like scales. The shallowest point was only at 5 metres, and the bottom of the room was on average 17m. The chamber had big boulders on its northern side and a quite large opening leading to a 26m deep side tunnel which goes back to the room and is on the same side as the Chimney. We swam around this unbelievable room several times but then had to leave; two restrictions on our way back and a long deco to do. It was late when we sat together, speechless, at the entrance doline. It was a very special dive indeed.

Later that night we celebrated the discovery at Phil's concert in an Irish pub. We had to dive this room several times more to convince ourselves that it is there. It is actually about 14m long at the bottom but more than 20m across at the ceiling. We tried to come up with several suitable names but it seems that "Crazy Czechs' Room" as suggested by our friends stuck. It has a neat abbreviation "CCR" (also used for 'closed circuit rebreathers') anyway.

In November 2003, Peter Horne and Phil Argy put us in touch with Ken Smith, the "Pinger Guru". Although we initially only talked over the phone, Ken was very enthusiastic about pinging in Pines and arranged two trips to the Mount after very short notice. We were so lucky meeting the right people at the right time! During two pinging weekends in November and January we placed pingers into various locations within the new passages. It was very exciting locating all the different features such as Dark Room, CCR and Bunyip's Tunnel on the surface. Another benefit of these two weekends was to see Peter "Puddles" Horne once again getting wet in the Back Passages and sharing our discovery underwater with Ken. More details about these two pinging weekends are nicely described in Ken's article.



Petra exploring "CCR"



Petra exploring "CCR" around a mapping tag

So, how far are we now from Nettle Cave? Well, the end of the Crazy Czechs' Room is located on the other side of the road (Benara Hundred-Line Road), only about 65 metres from the SE extension of the Nettle Cave! We looked hard for any leads in all the new passages and the CCR, and we are quite confident that there are no easy ones to push further there. Similarly we checked the whole area below the pegs in the Back Passages. Maybe a dig on the opposite site of the Nettle doline would be the best answer? If more passage exists there it would bring divers much closer to the CCR than the present 65 metres. The horizontal bedding plain in Pines is also at about 36-37m, which is where the Nettle Cave ends at present.

When diving the new passages we usually left a 12-litre deco Nitrox tank at 6 metres and swam down as fast as possible with side mounts and one travel/stage tank to the Dark Room. Then we left our travel tanks there and went into the new passages with our two full side-mounted cylinders. Because of the small restriction in Dark Room and others further in, we aimed to be in the Dark Room no later than 6 minutes into the dive. This gave us a nice long dive in the new passages - about a 90 minute dive time including 40-50 min deco (if done all on air). When something went slow or did not feel right we changed our plans and went mapping the Back Passages above the Dark Room. You can also go riding horses in the Dark Room, but that is another story!

During our last pinging weekend in January the restriction in the Dark Room suddenly "opened" quite substantially, making diving in the new passages and CCR much easier and safer. We still however found side-mounts to be better for diving there in general, and one would most likely need them when going through the Chimney to the CCR, or when exploring such places as the Bunyip's Den, Director's Tomb or other such features. We have not left any fixed lines in these new passages for a number of reasons, one of them being that it would take a little bit of fun out of the diving there.

Exploring and mapping the new passages and the Crazy Czechs' Room together with other discoveries kept us quite busy, so we have not pushed or checked in detail many other areas in Pines. There is a good chance for finding more there! We have had a great time cave diving in Australia; also thanks to the many friends we have met along the dark tunnels and holes. Hope to be back one day. Enjoy Pines - it is great fun!

We wish to thank Ken Smith (and his wife Linley) for the pinging explorations; Peter Horne for his continuous support when exploring caves wherever in Australia and his help with mapping; Peter Hein for a very useful surveying tape, and Trevor Wynniat, Phil Argy and Darren Walters for all their long-term support of our diving in the Mount.

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CEGSA CHRISTMAS BBQ

One of the best attended trips on the Fleurieu Peninsula in recent times was the CEGSA Christmas barbecue at Gartrell's Mount Compass berry farm. It was a time for some old and not-so-old armchair cavers to actually sit in armchairs and talk about the good old days, while marauding bands of young kids enjoyed the old-fashioned novelty in the soft evening light of falling out of trees and attacking everyone and everything around them with willow fronds instead of light-sabres.

It would have been a perfect evening if we'd been able to focus all that youthful energy on destroying the flies. It has been a pretty bad year for flies, and while we might have looked really friendly from a distance we were in fact just practicing our Aussie salutes. That's the country for you, especially dairy farm country.

On the other hand, as evening fell, it was great to know that there were no mosquitoes because the trout in the nearby creek, which all have names, were doing their job.

There was some talk of a late night trip over to Sellicks Hill, only 20 minutes away, to go caving, but nobody was silly enough or desperate enough to take up the challenge, so instead the evening finished with a test drive of the Gartrell's blueberry icecream machine.

Grant Gartrell.

TECHNICAL and OTHER ARTICLES

MEMBERSHIP

CORRECTIONS TO ANNUAL REPORT

F Bill Binks **9412** Add Mobile No. 0427-852-628 & Delete Home No.

CHANGE Of DETAILS

L Athol Jackson **5701** New Email address (E) atholjax@adam.com.au

WELCOME TO NEW MEMBERS

A Harry Harris **0401** C/- Vila Central Hospital, PMB9013, Efate
VANUATU

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REPUBLIC, Europe

A Petra Fundova **0403** Cajkovskeho 8, 130 00 Prague 3, CZECH
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With 9419 (H) 8266-6951 (E) hubycz@senet.com.au

MEMBERSHIP FEES ARE DUE

Just a reminder to Members, that Membership Fees were due on 1st January, 2004.

Would current members intending to re-join, please pay their accounts as issued with the November 2003 CEGSA News by 31st March. Under the Constitution, if fees are not paid by the 31st March, written re-application for Membership will need to be submitted, to be approved by the Committee and the \$12 Joining Fee paid. To assist with the ASF database, alterations and additions need to be finalised by the 31st March.

CEGSA MEMBERSHIP FEES FOR YEAR 2004

These fees are due on 1st January, 2004

Full Membership	\$ 44.00
Full Country Membership	38.00
Associate Membership	36.00
Long Term Associate	44.00
Joining Fee	12.00

ASF LEVY FEE FOR YEAR 2004

Single	\$ 68.00
Family	121.50
3 Month Introductory	20.00

YEAR 2004 FEES

	CEGSA	+ASF	TOTAL
Full Membership	\$44.00	\$ 68.00	\$112.00
Full Country Membership	38.00	68.00	106.00
Associate Membership	36.00	68.00	104.00
3 Month Introductory	5.00	20.00	25.00

Variation for Family Membership1st Full Member + 2nd Full Member

Less \$16.00 for only 1 CEGSA News \$72.00 \$121.50 \$193.50

1st Full Member + 2nd Associate Member

Less \$16.00 for only 1 CEGSA News \$64.00 \$121.50 \$185.50

1st Associate Member + 2nd Assoc Member

Less \$16.00 for only 1 CEGSA News \$56.00 \$121.50 \$177.50

The New Member fees are adjusted at the time of the joining date.**Fees do not include the Joining Fee of \$12.00****Please make sure the payment of fees includes both CEGSA and ASF if applicable. If there are any queries regarding the fees please give me a ring on 8258-9847.***Chris Gibbons*

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LIBRARY AND RECORDS**Records:**

Received from Peter Ackroyd five A4 maps of two caves on the Nullarbor where the mega fauna was found in 2002 which included the specimen of the complete Thylacoleo and three new species of kangaroo. The most interesting being the horned kangaroo.

As yet, these maps are not available to members as WA Museum have not completed their research but possibly will be available for general use in the year 2005.

Received from Kevin Mott twenty A4 maps of Lower South East features. These maps have been drawn by two members, some by Kevin Mott and others by Adam Branford. Kevin also handed in 107 location maps of various karst features.

Newspaper Cuttings:

June MacLucas handed in an article 'Horned kangaroo found in desert cave' in *The West Australian*, May 24th 2003 page 16.

Kevin Mott handed in multiple articles from 2003 publications mostly on areas of the South East caves from *Border Watch*, *The Advertiser*, *The Naracoorte Herald* and the *Green Triangle Holiday News*. As well, Kevin presented some old news articles from *Border Watch* dating back to 1884.

Handed in by George MacLucas an article titled 'Extreme dives lead to snorkel deaths' in *The Weekend Australia* January 3-4th 2004, pp 4. The article reports that five men - all fit and aged in their 20s - have died last year in Queensland waters while snorkelling compared with four deaths from scuba diving. These snorkelling deaths were all linked to a phenomenon known as shallow water blackout. Apparently this is caused by the victims hyperventilating and then holding their breath to extend their snorkelling dive duration. The New Zealand extreme sport champion Richard Wells, drowned in a swimming pool on the Gold Coast after passing out under water while attempting to perform lung capacity exercises.

Monographs:

As a point of interest, I found an article in *National Geographic* January 2004 as rather conflicting on previous known data on the subject of "radon". This article mentions a mine in Montana USA known as the 'radon health mine'. Here it mentions miracle cures are undertaken for rheumatoid arthritis, multiple sclerosis, depression and cataracts which it states are cured by ten days of visits to the mine while breathing the radio active gas and drinking radio active water. Hence the well documented ill effects of high dose radiation on the body are contradicted here. The owner of the mine makes a statement, "ya cant smell it, but there is something in there that does ya good".

George MacLucas.

PIGEON POST**From:** antitrust@vandervecken.com**Sent:** Sunday, 14 December 2003 7:13 AM**To:** sfbc@yahooogroups.com**Subject:** [SFBC] New Zealand uses carrier pigeons to carry caving photos...<http://www.stuff.co.nz/stuff/waikatotimes/0,2106,2756987a6004,00.html>

Pigeon post

12 December 2003

By SIMON O'ROURKE

Nick Andreef's pigeons are faster than the internet, but no match for falcons.

In October Mr Andreef - who runs Waitomo Adventures - began commercial operation of what he reckons is a world first - using homing pigeons to deliver digital photographs.

Mr Andreef's company runs tours through a network of caves spread across a 20km radius. A spin-off from the trips is for customers to buy pictures of their adventures. But by the time tourists were bussed back from their caving adventure to base office, they often did not have time to wait for photos to be downloaded and printed.

Mr Andreef said he rattled his brain to think of a way staff could work on the digital images before the tourists got back. "We don't have phone lines and telephone exchanges of sufficient quality to transmit the data, so we came up with the pigeon concept."

Caving guides took the memory stick from their cameras and attached it to a velcro pack on the pigeon. "It only takes the pigeons about six minutes for their journey," said Mr Andreef.

"They can transfer three gigs over 20km faster than the internet." Some tourists were sceptical - but the pigeons were 99 per cent reliable, Mr Andreef said. "They also work for peanuts."

The concept had just hit a snag however. Nesting karearea (native falcons) have attacked and killed some of the pigeons mid-flight. "A pigeon can fly at a cruising speed of 65km/h, 100km/h when pushed," said Mr Andreef. "But native falcons fly at up to 250km/h."

Once he discovered what was happening to his birds Mr Andreef grounded his 50-pigeon operation. He expected the falcons' nesting season to finish within the next few weeks.

Josh Bailey (josh@vandervecken.com)

(Submitted by Damian Grindley)

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"The more data we add to CEGSA's records the more holes we have in it"

(based on a quote from Kevin Mott)

INDEX TO VOLUME 48

Volume 48 contained the following issues

48 (1) February 2003	Issue 189
48 (2) May 2003	Issue 190
48 (3) August 2003	Issue 191
48 (4) November 2003	Issue 192

The index is divided into the following categories

Caving activity by region

Technical and Other Articles

Key to abbreviations used in the index

B Biological	Bo Botanical
D Description	Di Diving
E Exploration	F Fantasy
H History	L Location
M Map	P Photography
Pa Palaeontology	S Surveying
Sc Scientific	SR Search and Rescue
T Tourist	Tg Tagged
Tr Training	W Work

CAVING ACTIVITY

Caving activities are listed by Cave Number, Newsletter reference, Author and Type of activity

If a cave has listed at the start of an article, but not described in the article, the reference will be that listing at the start.

ADELAIDE HILLS

A5	48 (1) p14	G Pilkington	W
	48 (1) p15	G Pilkington	W

EYRE PENINSULA

No trips reported

FLINDERS RANGES

No trips reported

KANGAROO ISLAND

No trip reports

LOWER SOUTH EAST

L146	48 (4) p80	P Horne	B, E
L186	48 (4) p72	P Fundova et al	Di, E, H
	48 (4) p76		M
L279	48 (2) p32	K Mott	E, L
L478	48 (2) p32	K Mott	D, H, L, S
L479	48 (2) p32	K Mott	D, H, L
L480	48 (2) p32	K Mott	D, L

MURRAY PLAINS

No trip reports

NULLARBOR PLAINS

N2	48 (1) p14	L Hoey	
	48 (4) p86	M Meth	H
N3	48 (4) p86	M Meth	H
N46	48 (1) p14	L Hoey	
N47	48 (1) p14	L Hoey	
N48	48 (1) p14	L Hoey	
N50	48 (1) p14	L Hoey	
N83	48 (1) p7	P Ackroyd	S
	48 (4) p77	G Pilkington	S
N171	48 (4) p85	M Meth	H
N206	48 (3) p65	K Boland	H
	48 (3) p66	K Boland	M
N265	48 (1) p5	P Ackroyd	S
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N373	48 (4) p78	G Pilkington	L, P
N374	48 (4) p78	G Pilkington	L, P
N375	48 (4) p77	G Pilkington	L, P
N380	48 (4) p78	G Pilkington	L, P
N400	48 (4) p78	G Pilkington	L, P
N402	48 (4) p78	G Pilkington	L, P
N403	48 (4) p78	G Pilkington	L, P
N527	48 (1) p5	P Ackroyd	Tg
N745	48 (1) p7	P Ackroyd	W
N772	48 (4) p78	G Pilkington	L, P
N773	48 (4) p78	G Pilkington	L, P
N1123	48 (1) p14	L Hoey	
N1216	48 (4) p78	G Pilkington	L, P
N1278	48 (4) p78	G Pilkington	L, P
N1712	48 (4) p78	G Pilkington	L, P
N1713	48 (4) p78	G Pilkington	L, P
N1734	48 (1) p6	P Ackroyd	E, H
N1313	48 (4) p78	G Pilkington	L, P
N1314	48 (4) p78	G Pilkington	L, P
N1363	48 (4) p78	G Pilkington	L, P
N1364	48 (4) p78	G Pilkington	L, P
N1744	48 (4) p78	G Pilkington	L, P
N1745	48 (4) p78	G Pilkington	L, P
N1992	48 (1) p5	P Ackroyd	Tg
N2000	48 (1) p7	P Ackroyd	Tg
N2396	48 (4) p77	G Pilkington	L, D, P
N2397	48 (4) p77	G Pilkington	L, D, P
N2398	48 (4) p78	G Pilkington	L, D, P
N2399	48 (4) p78	G Pilkington	L, D, P

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U1	48 (1) p10	C Fischer	P, T
	48 (2) p31	K Mott	S
U2	48 (2) p31	K Mott	S
U3	48 (2) p31	K Mott	S
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U12	48 (1) p13	M Choi	T
	48 (2) p30	A Jackson et al	W
	48 (2) p31	K Mott	S
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U15	48 (2) p31	K Mott	S
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U176	48 (2) p38	A Branford	D, S
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U200	48 (2) p39	K Mott	D, E
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	48 (3) p52	C Fischer	E
	48 (4) p82	G Pilkington	E
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INTERSTATE & OVERSEAS

4J1	48 (3) p58	N Pledge	T
4J8	48 (3) p58	N Pledge	D
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4O1	48 (3) p58	N Pledge	T
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6SH20	48(1) p13	L Hoey	
6WI21	48 (1) p13	L Hoey	T
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TECHNICAL AND OTHER ARTICLES

Technical and Other Articles list the Title of the article, Newsletter reference and the Author

A sabre toothed possum	48 (2) p42	N Pledge
Assistance for bat cave study	48 (1) p22	T Moulds
Awards summary	48 (1) p3	G Pilkington
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Errata – 47 (4) pp 100-104	48 (1) p17	
Gear Review – female cavers rejoice	48 (3) p67	M Choi
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Origins of CEGSA	48 (3) p61	N Mollett
Out of the Glass Case	48 (1) p22	S Bourne
Paul Deer – profile	48 (2) p40	L Deer & M Choi
The life & times of Dave Glowacki	48 (4) p88	M Choi
The story of 6N206	48 (3) p65	K Boland
Tindale and Albala Karoo	48 (4) p85	M Meth
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Vale Ed Bailey	48 (1) p24	G Gartrell
2002 AGM & Dinner Report	48 (1) p3	M Choi

CALENDAR OF EVENTS

Date	Type of Event	Description	Contact
25/02/04	General Meeting	Royal Society Room, SA Museum, Adel.	Graham Pilkington
29/02/04	Working Bee	Library and records	George MacLucas
06-07 /03/04	Working Bee	Clean-up Australia. Probably at Reynella Quarry Cave.	Graham Pilkington
10/03/04	Committee Meeting	TBA	Graham Pilkington
24/03/04	General Meeting	Royal Society Room, SA Museum, Adel.	Graham Pilkington
28/03/04	Working Bee	Library and records	George MacLucas
9-12 /04/04	Easter Long Week End		
14/04/04	Committee Meeting	TBA	Graham Pilkington
24-26 /04/04	Anzac Long Week End		
28/04/04	General Meeting	Royal Society Room, SA Museum, Adel.	Graham Pilkington
02/05/04	Working Bee	Library and Records	George MacLucas
12/05/04	Committee Meeting	TBA	Graham Pilkington
12/05/04	CEGSA NEWS	Articles due	Athol Jackson
15-17 /05/04	Long Week End		
26/05/04	General Meeting	TBA Museum not available	Graham Pilkington
29/05/04	Working Bee	Library and Records	George MacLucas
	Caving	Ongoing Vic Fossil Survey contact	Garry Woodcock
	Caving	Regular trips to Sellicks Hill contact	Grant Gartrell

Don't forget to register your trip with the Trip Liaison Officer so that the trip becomes official and is covered by insurance. If it is not registered then it is not covered and you may be liable. You must also be an accredited trip leader with the appropriate skill endorsement to take a party underground. Also, please make sure that a report of the trip is submitted.