CEGSA NEWS

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CAVE EXPLORATION GROUP (SOUTH AUSTRALIA) Inc.

PO Box 144, Rundle Mall, South Australia, 5000. **http://www.cegsa.org.au**

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SA Scout Liaison	Matt Smith	As Above

Cover Photograph: Descending into Punchbowl Cave,Wee Jasper

Photo: Matt Smith.

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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 64 Number 3 (Issue 255) must reach the Editor by Wednesday **14th August 2019**. Material not meeting this deadline may be retained for possible use in a following issue. The preferred method is via E-MAIL to atholjax@adam.com.au as an **attachment** or on a memory stick or CD, in Word *.doc(x) or *.rtf files. Of course other forms of communication will still be gratefully accepted. Photographs are preferred to be in colour as separate files and note in the article where to be inserted. **(*.jpg format** under 500Kb unless for the cover).

EX PRESIDENTS SPOT

Your highly-esteemed El Presidente has written a beaut article in this CEGSA News about the ongoing amazing discoveries in the Bullita Caves in the Northern territory. As his writing hand has cramped up and his fountain pen has run out of ink, I have volunteered to write a 'Guest Spot' here in a similar way to my screeds of the last couple of years. This time I am writing about a huge contribution to Naracoorte caving knowledge….

This weekend Dr Ruth Lawrence (formerly CEGSA in Adelaide and now in Bendigo, Victoria) and I are running our annual Latrobe University 'Regional Catchment Studies' field trip to Naracoorte and Mount Gambier. Ruth lectures this subject at Latrobe Uni and between us we developed a full-on but exciting and engaging 4-day field trip package. Early in Semester 1, Ruth's students study a river catchment zone – the Kiewa River in the Australian Alps from the Bogong High Plains and Mount Beauty down to Kiewa and Tangambalanga, looking at the effects on creeks, tributaries, water storage, agricultural and town use and changing effects through different vegetation areas – that is, all aspects of a 'Surface Water Catchment' in granite and mountain/valley environments. When we bring them to Naracoorte and Mount Gambier, they study an 'Underground Water Catchment' in a limestone environment and pine forest environment where there are almost no flowing creeks at all. It is a great contrast for them.

Over the four days, we show them wetlands and changing water levels (Deadman's Swamp south of Naracoorte), 'Adventure caving' with the Naracoorte Cave Guides, take them to a wild cave eg VDC, Beekeepers Cave etc where they do survey or other photographic and scientific work, then to the Blue Lake Tour in Mount Gambier to study water supplies and pollution issues, then to a number of sinkholes and finally to Ewens Ponds where they swim in the aquifer and see where the groundwater flows out to sea near Port Macdonnell. They draw up their surveys and/or reports during the four days and we mark them on the Saturday night so they have to crack on and finish the work before they head home!

Ruth and I have run these field trips every May for 18 years and the students rave about them. They do a number of other outdoor field trips but say they learn *so much* from the Naracoorte-Mt Gambier trip that although they are stuffed at the end of the trip, it is the most popular of the courses where Ruth teaches. A couple of times former students have come along as leaders on subsequent trips to Naracoorte and several students have come a second time even though they passed their year as they enjoy the trips and information so much!

One result of this is that I have set a different survey or scientific exercise each year so that (1) no-one repeats work done by previous years' groups, (2) a new set of data is created which no-one has done before, including CEGSA or Palaeos etc and (3) that all their names are recorded on all the mapping work they do so they get the credit for generating the new knowledge, not me. CEGSA now has a series of major maps, complex long sections and cross-sections etc of many of the major caves at Naracoorte and several times over the years I have unrolled these large documents across the front table at CEGSA meetings, impressing everyone! The Latrobe Uni students' combined contribution to Naracoorte caving records is very substantial and has added up over those 18 years. Most years we have had 30-40 students surveying in teams of four – that's a lot of mapping and recording! They have improved and upgraded many older CEGSA maps from the 1950's-1970's. It's been great work and they feel very pleased that their work is useful; they understand the context of it and are acknowledged and recognised for it.

Why is this weekend a special occasion? Because this year is the last one where that 'Regional Catchment Studies' subject will be run there as Ruth is moving on to other academic things after several decades of very hard and enthusiastic work. However, the legacy will be the students' major contribution with their own names and authorship on it. Many thanks to Latrobe Uni and Ruth for all that contribution and exposing keen young people to the world of speleology! And all the very best to Ruth in her future endeavours!

Cheers to everyone from Ian Lewis

TRIP REPORTS

Thampanna Cave, 2nd-13th April 2019.

I first became acquainted with the caves of the Nullarbor some 30 years ago after returning to Australia from overseas and finding a job here in Adelaide. The Nullarbor soon became one of my favourite caving areas, with its opportunities for new discoveries and with most of the caves there quite unlike those I had experienced elsewhere. While Nullarbor caves are not noted for classic pristine calcite speleothems (although old, non-active calcite formations are widespread), other and more unusual secondary deposits could be found in many different caves. These included stegamites – a form of cave shield – condensation-corroded stalagmites and gypsum chandeliers (in Thampanna), weird mushroom-looking objects (in Bug Hole) and calcified dried mud and boxwork (in Old Homestead). Halite (salt) deposits, occur as crusts in Thampanna and, most famously, as tiny but wonderfully shaped helictites in the Salt Cellars in Mullamullang. There may well be other strange forms of cave decoration in Nullarbor caves that I have not yet visited.

After ten years of Nullarbor caving I was seduced by the massive cave systems in the Northern Territory and with a young family to also consider, my trips to the Nullarbor virtually ceased for the next 20 years. A FUSSI trip five years ago was my only visit in that time. So when I had the opportunity to join Alan Pryke (SUSS), Peter Freeman (VSA) and Graham Pilkington on a two week trip back planned for Thampanna and Old Homestead in April I decided it was time to reacquaint myself with these two caves where I had previously spent many a long day exploring and mapping the unknown. Besides, I had become aware that there was a chance to see some recently discovered halite decoration in Thampanna.

We arrived at Mundrabilla Homestead on the April 1st, having spent the previous night camped on Steve and Fran Milner's new block at Denial Bay, and after stopping to talk to Brie Campbell at the homestead and letting her know of our plans, we drove to Thampanna. Plan A was to spend just a few days there before continuing on to Old Homestead. In the end we spent the entire trip at Thampanna.

Some 12 months earlier, Graham had organised a visit to this cave as part of a wider Nullarbor trip, expecting to spend just a day or two there. It turned out that recent rains had left both the start of The Drain and The Tube as sumps, thus blocking the two ways on into the main parts of the cave. But on their way back to the entrance pitch the party, which included Graham, Alan and Megan Pryke (SUSS), Peter Freeman and Max Midlen (SUSS), realised that there was still a good breeze in the cave and so began to look around. Eventually they found an obscure but blowing crawl that was not on the map and started to explore the cave beyond which they named 'Cryptography'. After the initial exploration and a follow up survey trip, a way was found through a convoluted series of low crawls. Max, Alan and Megan finally came out in an open chamber full of halite speleothems which they named 'The Jungle'. Six months later on a return trip, Alan and Megan, together with Jim Crocket of MSS, completed a partial survey of Cryptography and The Jungle.

My first trip back in Thampanna after 20 years got off to a less than auspicious start when my Scurion light failed barely an hour into the trip. Back out of the cave at the end of the day a change of battery confirmed that it was the light, not the battery, that was at fault. So the rest of the expedition was done with my backup which I ran on a low setting so that the rechargeable battery would last for the whole of our time here. Once at the start of Cryptography, we began surveying off to the side of the 'main run' and quickly found a floor hole that was breathing air. Alan started to remove a few rocks and by the time an hour had elapsed the strength of the breeze had increased to the point where the blasting air could be heard from several metres away. This made it easier to pinpoint which tiny hole the air was coming from and Alan squeezed through. An hour later he returned, having pushed a very low flattener than eventually became too tight but was still blowing strongly. We then finished mapping the surrounding area, left the cave and returned to camp. Here we met Peter, who had driven from Melbourne and arrived a day after the rest of us. The evening ended with my chair falling apart so that it ended up in little better state than the fence around Thampanna which had been bulldozed by feral camels during the past 12 months.

The next day, Alan, Peter and I returned to Cryptography and made our way through to The Jungle – a painfully slow process for me who had not caved for 12 months and had spent the past six months recovering from a semi-arthritic knee which I had aggravated while descending Mt Snowden in North Wales last year. I had also made the mistake of dragging along two caving bags – no problem at Bullita but not a good idea here. I didn't make that mistake twice! At the Jungle I was able to enjoy seeing the halite formations first hand for the first time.

This was a splendid place and included a pristine 2.7m high salt column (measured with the Disto-X) and a mass of long halite straws and straw columns around 2m long – the Big Bamboo. We started surveying off to the side in a slightly higher and unexplored level (The Canopy) which kept us busy for the rest of the day. This was also a halite decorated passage at the end of which was a simply magnificent section chock full of pristine 2.5m high variously shaped salt columns, straws, tiny hairs and tiny helictites of every shape and size. Tasting confirmed that nearly all the speleothems were salt with just a few gypsum formations here and there. Some of the salt stalagmites and columns had a delicate lemon colour through them. All in all it was the best halite decoration I had seen anywhere. Actually, this halite is everywhere once you first pop up into the Jungle, it's just that the decoration is more condensed in some places than others. The straws and straw columns number in the many hundreds. Smaller speleothems are pretty much uncountable.

Over the following days we returned to Cryptography several times to explore and map a host of question marks. Most were just low side passages but one, an easily accessible hole in the floor led to a lower section from where a further climb down reached the main part of the cave beyond The Drain. The upshot of this discovery is that, for the first time, it is now possible to access most of Thampanna even when the Drain is sumped and cavers need no longer fear being trapped by an unexpected downpour. Subsequently, a second route bypassing the Drain was also discovered but this is quite constricted and unlikely to be used. Otherwise, there was little to enthuse about in much of these side passages though I rather liked seeing the various fossilized echinoid spines scattered about and a small side chamber that was found during preliminary exploration last year contained more halite and gypsum speleothems – smaller than those found further on but in pristine condition. I particularly liked a small sparkling yellow gypsum chandelier here with several halite straws growing from near the bottom.

Our activities in Thampanna were not just limited to Cryptography and environs. We managed a trip beyond the Drain where a bit more surveying was accomplished and a couple of trips through The Tube to the Enigma Chamber and beyond. On my first trip to the Nullarbor in 1987 Max Meth, Garry White, Ken Boland and I had started surveying this area, beginning at the start of The Tube, and I had continued on with the mapping here over the following years but because of my non-existent digital drawing skills and the multi-level complexity of this area I had never completed a final map. On our first trip here this April we investigated a low alcove which was previously drawn as incomplete. This was pushed and extended by Alan and Graham and the wall positions properly marked with a Disto-X (a near impossible task with tape and compass). It still continues with a gentle breeze but is too low for human progress. At the end of the day we moved on to the Mudmen Chamber off the western extremity of the Enigma Chamber. It is not easy to find but fortunately Graham remembered the way. This area had been surveyed previously but the notes had then been lost. So we started a resurvey here before calling it a day.

On our second trip we completed our resurvey of the Mudmen chamber, finding a low pocket at the bottom of one wall which I had not seen before. Here there were some small but perfectly white translucent gypsum stalactites that looked like they were made of glass. But the thing that caught my eye was something really weird – two small calcite stalagmites with what looked like white crusty hoops looped over the top and stuck part way down. They looked a bit like white doughnuts on a stick. There were also other deposits of the same white material nearby, one of which looked like a large pavlova. We didn't progress right up to these for fear of trundling floor material further down the slope and into this pocket which we named 'The Bakery'. So a good day in which the mapping of everything beyond the Tube was finally completed and the drawing up of this area in digital form is now in Alan's capable hands.

As a break from Thampanna we also visited Hurricane Hole. An extension found by Paul Devine and colleague in 1999 was mapped at that time with tape and compass but the previously known part of the cave had not been mapped at all. So we mapped/remapped all of the known cave over three trips. The use of a Disto-X allowed wall detail in the new extension to be depicted accurately without the need to cross the heavily decorated floor on the sides.

This year's trip delivered all I had hoped for. I have described the speleothems we saw as halite, gypsum or calcite but obviously this is just an assumption, based on morphology (twinning in the case of gypsum) and taste (in the case of halite). And no, I did not apply my tongue to every single column and straw in sight. There was plenty of broken material littering the floor for this purpose. Halite is a very delicate material and great care will be needed in visiting these areas in future. One thing to be very careful of is not to disturb floor boulders as even the slightest movement could shatter the largest of columns. In addition, the prolonged crawling to reach these areas results in cavers being covered in dust. So a change of clothes to be put on at the start of The Jungle etc and/or a good dusting off just beforehand will help prolong the pristine nature of these speleothems.

The reader might wonder why this article is not accompanied by some photographs of some of our finds. Let's just say that the film is still at the chemists (figuratively speaking) and that you will hopefully get to see them eventually.

Mark Sefton.

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Corra Lynn Cave, 25 April 2019

Attendees: Damien, Charles, Anabelle, and Graham Pilkington

One of the purposes of this trip was to introduce Anabelle Pilkington to Corra Lynn and for myself to learn more of the cave. It was a good experience for me as this was the first caving trip I have lead assisted by Graham. Once arriving at the cave and opening the door we identified that there was some corrosion to the door that was restricting its ability to close. After some running repairs to the door we proceeded to the *Grand Central* section of the cave. And I began learning. We walked past several of the features and were able to identify them by name then we proceeded to some more difficult sections for the children.

It was a good lesson for me in how to assist those who are spooked or panicked in calming down. The progress was slow but we took the time do go down as many side passages as we could.

During this time I realised that I needed to get fitter and skinnier to assist in cave exploration and also I learnt to ensure I only direct others to do things I can also do. In one section near the *Woodside* area we identified a crevice that should be marked off for safety as it opened up to a 3m drop. However, Graham was able to dig down a side passage to the base of this cavern and noticed that there were parts of the cavern that may not have been correctly surveyed.

A number of passages were noted for future possible dig locations to see if there is a way into *The Woods* currently blocked by cave fill.

Following time in the cave, we took an hour to clear the steps of debris and also water some Yakka bushes to assist in soil stabilization. Looking forward to my next trip.

All in all it was a good caving excursion.

Damien Pilkington.

Wee Jasper Caving Trip April 2019

Attendees: Matt Smith (CEGSA), Heather Siebert (CEGSA) with five other Scout Caving Group leaders

Seven members of the Scout Caving Group headed over to Wee Jasper caves, located in in NSW on the final weekend in April, joining members of the Greater Western Sydney Caving Team.

Descending into Dip 4

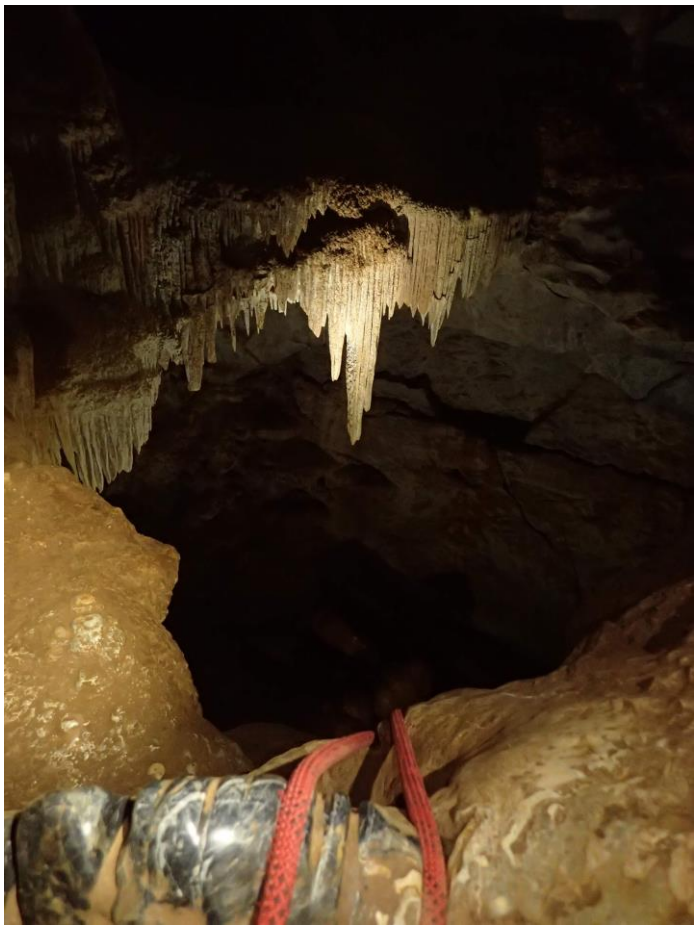
The first visit of the day was to **Dip Cave**, entering via the 20m rift that descends into Dip 4. The Dip Cave consists of 5 sections referred to as Dips, each of which is a long chamber which runs roughly parallel to the others. The abseil into Dip 4 starts in a relatively narrow, but long hole which goes down to a natural constriction about 50cm wide. Once this part is negotiated, you enter into a quite long, though not very wide chamber with about 15m below you. This main chamber has plenty of beautiful decoration, mostly high up on the walls a ceiling.

Part of the many speleothems in Dip 4

We moved on through a narrow oblique slit into a nicely decorated chamber that marked the beginning of Dip 5. After a quick photo stop we moved further into Dip 5, climbing over a small crevasse and into a section known as the Rift. There were plenty of bats present, frequently buzzing past our helmets. Not wanting to disturb them any further, we made our visit to this pretty section of the cave brief.

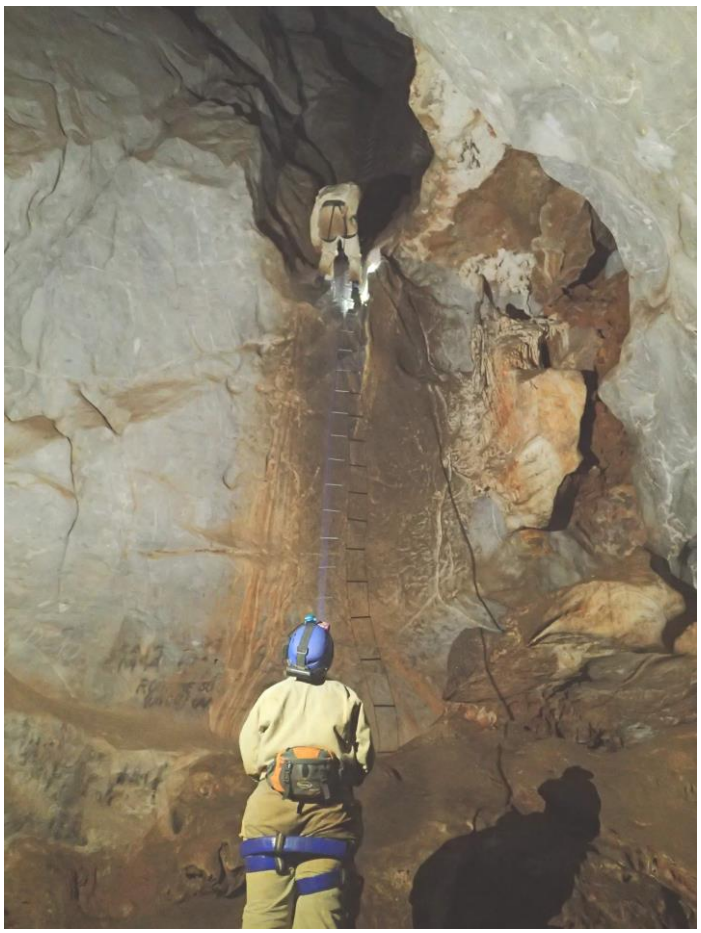
Inside the Rift in Dip 5

Moving back through Dip 4, we walked around some flowstone and rock piles into Dip 3. We didn't spend much time in the section, mostly just making our way to the passage to Dip 2. This is known as the Rathole, and is a small passage which ends in a 15m abseil. The tricky part of this is that you need to rig your descending device with midway through this tight chamber, and then head immediately down into the Stalagmite Chamber.



Once all down into Dip 2, we explored the lower reaches of the cave, checking out the large Daylight Chamber and a brief exploration in the maze at the bottom of Dip 1. The best thing about Dip cave is that it's a through trip! No arduous climb back out of a narrow rift - we were able to walk out of Dip, and then head back to camp for lunch. Quite civilised!

Looking down from the top of the Rathole *Geology in action at the Fossil Wall in Punchbowl Cave*



Descending into Punchbowl Cave

That afternoon we split into several groups, each joining a patrol of Scouts and exploring the caves with them. Some went back into Dip cave, while others headed to **Signature Cave**.

In the evening we headed to **Gong Cave**, which is really a part of Dip, however connected only by voice.
This cave has a 10m pitch to enter and exit, rigged with a ladder off the towbar of a car. This cave contains quite a bit of crawling and climbing, by Wee Jasper standards anyway. After working our way through numerous crawls and rock piles, we eventually made it to the Gong Chamber, which is full of many beautiful thick shawls.
After a good night's sleep, we were up early to visit the final cave of the weekend - **Punchbowl**. This cave is the largest in the region, and also contains one of the longest pitches. The entrance pitch is 35m, and is rigged with a large column as the main anchor point. The cave was rigged for both laddering and SRT depending on the preference of the ascender.

We didn't have as much time to explore this cave as we'd like, but we were able to see a range of sites in the cave, including the Ballroom, the Fossil Wall Chamber, Strawberry Shortcut and parts of Loxin. Once done exploring, we tackled the 35m pitch once more, not being as much fun going up as it was coming down!
In summary, it was a great weekend. The camping facilities in Wee Jasper are excellent, and the caves are well worth visiting! Access to the caves is easy to obtain, and they are easily visited by cavers with a range of abilities.

Report by Matt Smith
Photos taken by Matt Smith & Minky Cockshell (Scout Caving Group).

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Visit to a cave in an embankment somewhere.
A5, May 4th (be with you), 2019

As with all caving trips, I check my trusty log book before heading out to see what "helpful" notes I've made previously:
Date: 16/1/1994, **Trip Leader**: Ivan Riley, **Trip time:** 2h
Location & Access: Sellicks Hill / embankment / 1st carpark / Gated / Permission from CEGSA.
Description: Cave is vertical *i.e.* straight down (*sic*) / double ladder climb / unstable walls
Equipment Required: Two cave ladders with traces.

OK… so I'm looking for a cave that goes "straight down" and is on an embankment somewhere, I know a few people from CEGSA, I don't need to worry about anything like ropes and I should be out in a few hours, too easy! As the bloke from Redgum said "I was only 19". I've got better at taking notes and as you will see if you continue reading, A5 is at least twice as long as when I was there previously. Very fortunately I didn't have to take all my advice from my 19 year old self and a very helpful article written by Clare Buswell in the FUSSI newsletter provided me with more recent and detailed advice on the cave and the equipment we would need [1].

We met in the carpark at 9:45 following a bit of a delay to pick up some coffee, a jar of extremely hot chilli sauce [2], Joel and Heather along the way. Grant and Matthias were already there as they, unlike the trip leader, know how to be on time for things. Clare had intended to join us but was unfortunately double booked in the morning and sent apologies. We had ambitiously planned to visit both A25 and A5 on the day and had decided to start with a warm up in A25. Although disappointing, it is perhaps fortunate that one of the locks on the gate was stuck and we could not get in so we shifted our attention to A5. Grant opened the gate for us and we set about heading underground. Nugget and Matthias rigged a safety line to a little tree at the entrance while Joel and Heather rigged the ladder for the first pitch

(Fig. 1 *Grant Heather & Joel at the A5 entrance*).

I just stood around admiring the view and watching everyone work. Grant headed off to see if he could fix the gate on A25 and we descended into A5.

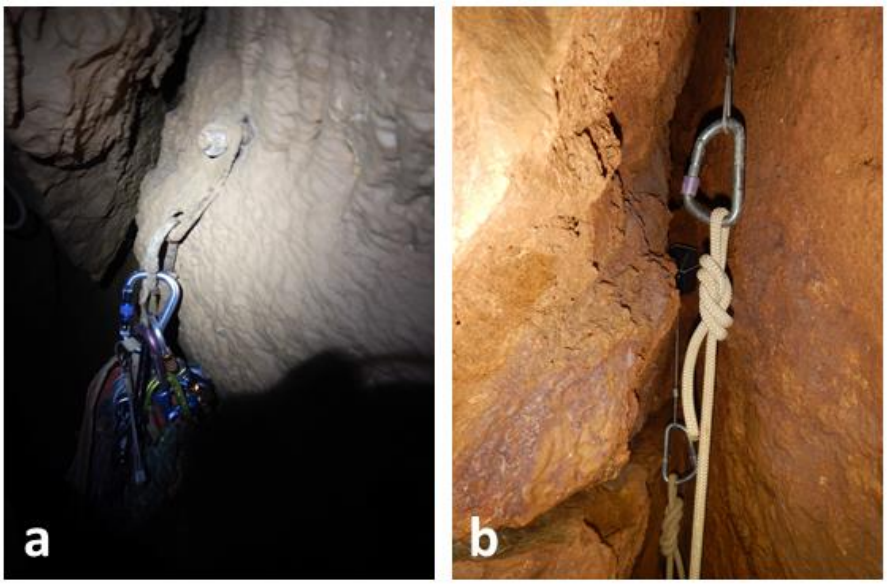
The first pitch is not quite vertical and has plenty of large blocky boulders to climb down, though with the 60m rope I was carrying I was glad to just rap down to the bottom of it. Our 30m rope made it to the bottom with only a few metres to spare though next time we could easily save some length by anchoring to some of the large boulders in the entrance chamber. At the foot of pitch one there is a short hairpin before the second pitch starts.

(Fig, 2 *Matthias at the foot of pitch one*)

Pitch two has a double bolt belay, one with a fair bit of surface rust and a very rusty steel krab and a second stainless bolt (Fig 3 *a. Rusty bolt on pitch 2. b. Nugget descending pitch 2*). The steel krab has seen much better days and our attempt to remove it with a pair of pliers failed (need a hacksaw for the next trip). Pitch two also slopes steeply downwards with a mostly red clay floor. I believe this pitch used to be much looser but seems fairly stable now. The pitch ends in a reasonable sized chamber with a small bit of flow stone and some active dripping (Fig4 *The team at the head of pitch 3*).

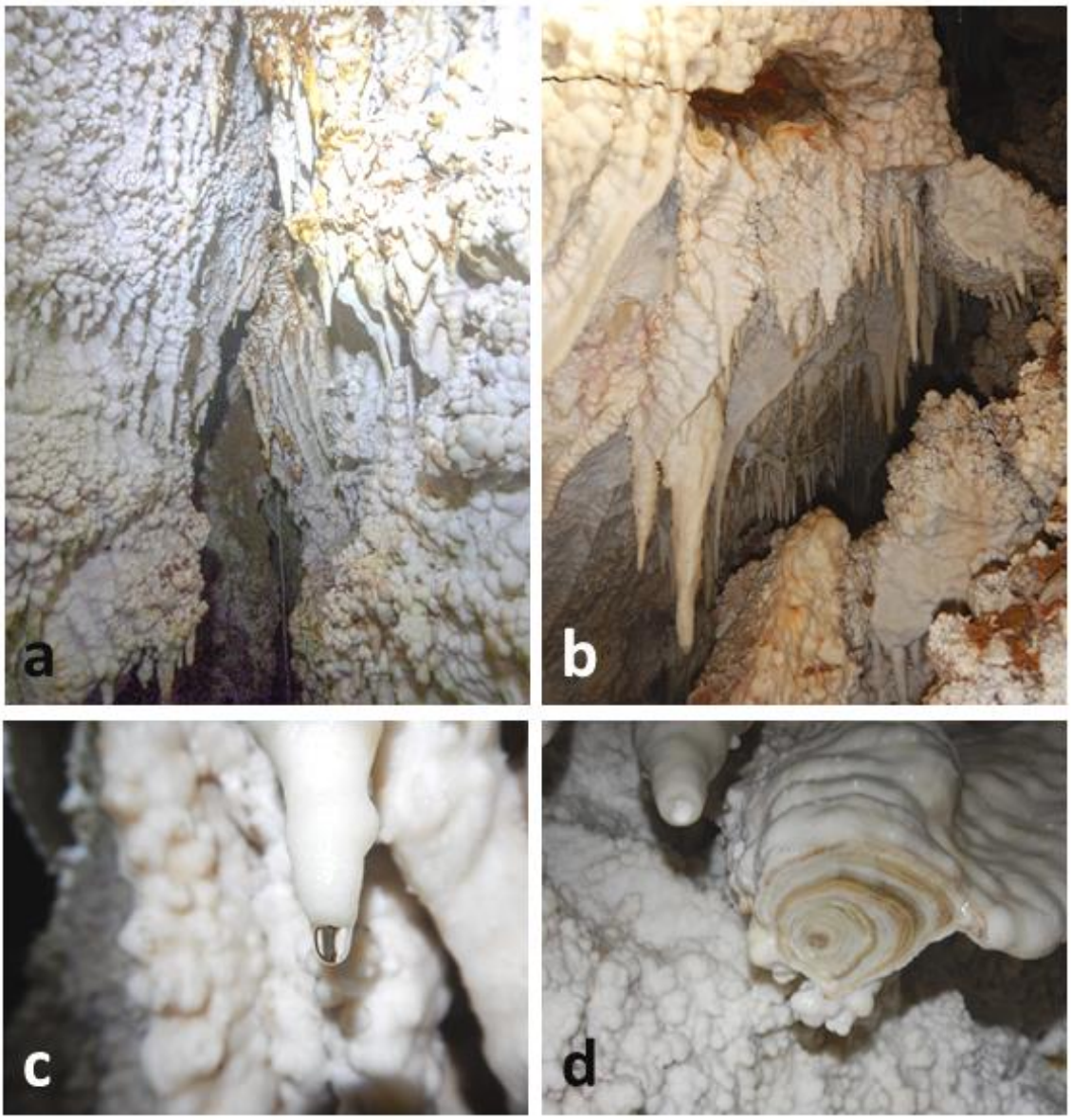
For pitch three there is a fixed ladder in fairly good condition and a fixed static line of unknown age. We rigged a rebelay (not a very challenging one) from a large boulder in the middle of the chamber with the end of the 60m rope anchored above on pitch two. The abseil into pitch three starts with a small crawl then an awkward slippery boulder overhang which both Matthias and I negotiated awkwardly, to a small mud-cone that slopes away in two directions. At this point, the fixed line goes one direction and the ladder goes the other. We decided to follow the ladder. Later Grant told us that the passage way with the fixed line leads to fossil deposits but we ran out of time to visit that section of the cave this time. On the ladder side, pitch three continued into another red clay and boulder almost vertical drop. At the bottom of the pitch the nature of the cave changes a little as you enter a fissure that is a little more similar to what you see in A25. The rock becomes darker and the abseils genuinely vertical. There is a short rocky crawl way between the base of pitch three and four. There is some evidence here that to get to this spot a little bit of modification to the diameter of the crawl way was needed at some point

(Fig. 5 *Something to nervously crawl past. photo Matthias Fresacher)*)



Pitch four leads down to the pretties. At this point there is a single bolt that is very rusty and the top of a fixed ladder (the bottom bit of which had been removed by FUSSI on their trip) attached to it. There is another rusty steel krab here which only a very brave person would consider to use as their only anchor point. Having read Clare's article we had come prepared with various bits of natural protection and found two excellent placements for an 11 and a 10 Black Diamond hexagonal.

(Fig. 6 *a. Rusty bolt pitch 4 photo Nugget Hue. b. Our natural anchor*).

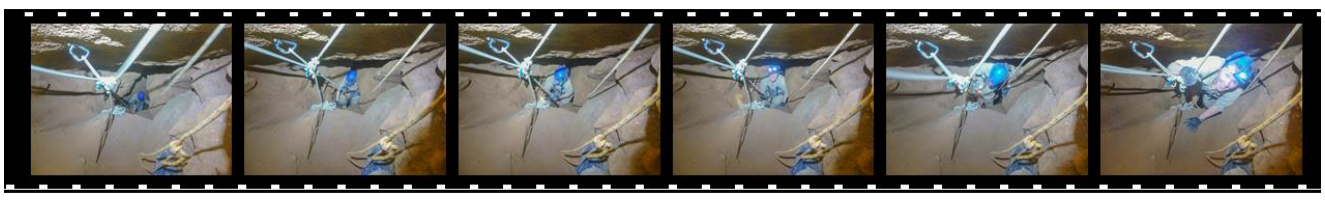


(Fig 7 *a. Decoration in the final chamber photo Matthias Fresacher b. Stals and shawls*

Thus, safely anchored to the equivalent of two QANTAS plane wheel chocks, we used the rusty krab for a redirection and dropped into the final (for us) chamber. The walls of this large fissure are heavily decorated with coral like formations and there are one or two pure white shawls The floor of the chamber is loose and damp red clay that is so important for making great wine in the region on the other side of the hill to the cave.

At this point, we calculated it was time to turn around and start the long climb out. Pitch four is a little tight at the top, testing SRT technique, my ethos is no one is judging me for style so anything goes as long as it moves you upwards. A large and loose head-sized boulder that sits precariously at the top of pitch four was tethered in place with a tape by Nugget while we made our ascent.

The way out was fairly painless, we decided it was best for the group to keep moving through the pitches and regroup at the top. Nugget and I derigged as we went lugging an increasingly heavy bag up the remaining pitches. It was a good work out.



(Fig. 8 *Heather ascending pitch 2 photos Matthias Fresacher*).

(Fig 9 *Joel, Heather, Nugget & Grant with the spectacular view from the cave entrance behind*).

We made it out by 5pm just as the sun was beginning to set over the gulf.

I'd like to thank Grant for coming out for the day, sharing his knowledge with us and spending his time upstairs, while we did our quick bounce to the bottom and back (undercutting the FUSSI speed record by a mere 3 hours).

Mark Corbett.

References & Notes:

1. Clare Buswell. *A long overdue trip to A5*. FUSSI Newsletter 2018; 30(3); 9-12.

2. The chilli sauce has no relevance to this story at all but if you like it hot then talk to Joel about his secret recipe.

Past Trips from General Meetings

February 2019

No Trip Reports.

March 2019

- FUSSI- *Neville Skinner*- went to Naracoorte with 16 people including 2 VSA members, visited Fox Cave, Vic Fossil Cave and VDC cave- found an alive rabbit and a dead brown snake inside the cave.
- *Grant Gartrell* went to Delamere and tried to spray blackberries but it rained.

April 2019

- *Ken Smith* joined a FUSSI/CEGSA trip to the Flinders Ranges. 6 Days were spent at Warraweena Homestead. Very nice bushwalking on limestone, however no caves of note found. Met the Irelands at the Narrina, however was expecting Stan Flavel to be there, who was not. Visited Second Glance cave. A small cave on the edge of Eregunda Creek. Small cave, three short low crawls, is a drain that floods when the creek flows
- *Matt Smith* with the Scout Caving Group visited Naracoorte in late March. Visited S102, Beekeepers, SOS and Lost Cave (entrance only). Meet the son of the Beekeepers land owner Steve Hole, who expressed an interest in being informed when groups visit the cave.
- *Graham Pilkington & Mark Sefton* visited Thampanna Cave on the Nullarbor. Further mapping and discoveries in the Cryptography and The Jungle sections. Interesting discoveries regarding the “levels” of the cave, including one large chamber on top of an existing known chamber. Many more discoveries to be had in the cave!

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TECHNICAL and OTHER ARTICLES

MEMBERSHIP FEES

CEGSA MEMBERSHIP FEES become due on January 1st. To ensure continuity of membership and privileges (particularly insurance) please pay before March 31st.

Joining fee applies to renewal after March 31st.

CEGSA MEMBERSHIP FEES FOR 2019 YEAR

Full Membership	$ 45.00
Full Country Membership	39.00
Associate Membership	37.00
Long Term Associate	45.00
3 Month Introductory	5.00
Joining Fee (N/A to 3mth Intro)	12.00
Discount for Country Membership	6.00
Print Form CEGSA News	25.00

ASF LEVY FEE FOR 2019 YEAR

Single	$ 63.00
Family	114.00
3 Month Introductory	20.00
Journal Subscription	25.00

2019 YEAR FEES

	CEGSA	+ASF	TOTAL
Full Membership	$45.00	$ 63.00	$108.00
Full Country Membership	39.00	63.00	102.00
Associate Membership	37.00	63.00	100.00
3 Month Introductory	5.00	20.00	25.00

Variation for Family Membership

1st Full Member + 2nd Full Member	$90.00	$114.00	$204.00
1st Full Member + 2nd Associate Member	$82.00	$114.00	$196.00
1st Assoc Member + 2nd Assoc Member	$74.00	$114.00	$187.00

Discount for Country Membership applies for Family Memberships.

Please make sure your payment of fees includes CEGSA and ASF, if applicable.

Membership Fees can be paid direct into CEGSA Account BSB 105-900 Account No 950661040 and reference with your Name, CEGSA Fees or Membership Number.

Graham Pilkington. Membership Officer.

Approved CEGSA Trip Leaders

Name	Caving Leader level
Marie Choi	Horizontal and Laddering
Stan Flavel	Horizontal and Laddering
Grant Gartrell	Co-ordinator
Paul Harper	Horizontal and Laddering
Richard Harris	Horizontal
Peter Horne	Horizontal and Laddering
Peter Kraehenbuehl	Horizontal, Laddering and Vertical
Ian Lewis	Horizontal and Laddering
George MacLucas	Horizontal, Laddering and Vertical
June MacLucas	Horizontal
Steve Milner	Horizontal, Laddering and Vertical
Tim Payne	Horizontal, Laddering and Vertical
Graham Pilkington	Horizontal and Laddering
Eddie Rubessa	Horizontal and Laddering
Mark Sefton	Horizontal and Laddering
Neville Skinner	Horizontal, Laddering and Vertical
Matt Smith	Horizontal and Laddering
Tom Szabo	Horizontal and Laddering
Michael Woodward	Horizontal, Laddering and Vertical

All the above named are also CEGSA Trip Coordinators.
Members may query the classification of any Trip Leader at any time with the committee.
It is a requirement that each trip be organised by an approved Trip Coordinator to be classed as an official CEGSA trip. It is also a requirement that dependent party trips be led by an approved Trip Leader at the appropriate skill level for the cave being entered. Trip Leaders are expected to maintain their First Aid training.

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IT'S TIME THE NULLARBOR CAVES HAD WORLD HERITAGE STATUS

Australia's Nullarbor caves are a precious time machine to millions of years ago, and crucial to understanding our future climate. So, why aren't they World Heritage listed?

By Professor Jon Woodhead, University of Melbourne

Many children dream of travelling back in time to a land populated by dinosaurs.
Unfortunately, while Einstein's special theory of relativity suggests that travelling forward in time is theoretically possible if we approach the speed of light, the chances of doing so in reverse appear remote.
There are, however, rare places that you can visit – especially here in Australia – where time has stood still for millions of years, allowing us a glimpse into a very different world when our continent was far less arid than today. These places are ancient underground caves and to walk into them is perhaps as close as we can come to stepping back in time.
Australia's Nullarbor caves are a precious time machine to millions of years ago. Video: Jon Woodhead. Production: Paul Burston/Sarah Fisher
For most travellers, the desert-like Nullarbor Plain is primarily an encumbrance; notorious only for the considerable time required to traverse its vast landscape.
Indeed, 'crossing the Nullarbor' has become a rite of passage for generations of Australians. But the Plain is a mecca for scientists and holds a subterranean secret - its enormous network of shallow caves spread over an area of more than 100,000 square kilometres.
Rarely visited except by avid cavers, the age and origin of the Nullarbor Caves has remained a subject of debate for many decades.

The problem is simple: caves require water, and generally lots of it, to form and yet the region today is semi-arid, receiving on average only 180-270 millimetres of precipitation a year (compared with Sydney's 1200 millimetres per year).
Clearly these caves belong to a time in our distant past.

SOLVING THE RIDDLE

The key to solving this riddle lay in the development of new technologies to date the geological formations found inside caves like stalagmites and stalactites.
In new research published in *Nature Scientific Reports* we demonstrate the great antiquity of the Nullarbor cave systems, which formed almost entirely in the Pliocene epoch some three to five million years ago.
Amazingly, even the most delicate of cave formation like the thin 'soda straws' (hollow tubular stalactites) have survived seemingly untouched since this time. These are, in effect, ancient worlds 'frozen in time' – an accidental product of Australia's drift into aridity some 2.5 million years ago which effectively shut down many of the geological processes that might have otherwise obliterated these landscapes.
This ancient 'cavescape' is almost certainly unique worldwide and provides a vast natural laboratory for the study of ancient climates – in this case one particularly relevant to our future since the Pliocene is regarded as the best geological comparison for global warming.
Through chemical signals preserved when cave formations grew we can reconstruct temperature, and likely precipitation levels at the time of formation, and even extract fossil pollens to reconstruct contemporary vegetation profiles. The Nullarbor caves are also famous for their fossils like the exceptionally well-preserved vertebrate faunas from the mid-Pleistocene Epoch (around 130,000-780,000 thousand years ago), including the magnificent marsupial lion – *Thylacoleo carnifex* – which has been found here.

Well-preserved fossils of the extinct Marsupial Lion (Thylacoleo carnifex) were found in the Nullarbor caves. Picture (reconstruction): Roman Uchytel

So it's surprising that the region has received such little recognition.
The Nullarbor Caves meet many of the *outstanding universal value* criteria for World Heritage listing – they contain "superlative natural phenomena" and are "an outstanding example representing a major stage of Earth's history".

Globally, similar landscapes marked by underground caves and sinkholes (called karst terrain) have achieved World Heritage status, including the Mammoth cave in Kentucky State in the US, the Mulu National Park in Malaysia's Sarawak, and the South China Karst.

BALANCING RECOGNITION WITH SECRECY

In Australia, however, only two regions – the Naracoorte caves of South Australia and the now collapsed caves of Riversleigh in Northern Australia – have attained World heritage listing, based in both cases, on their outstanding mammal fossils.

Despite their unique attributes, the caves of the Nullarbor have, unfortunately not yet received such accolades.

A report commissioned by the Commonwealth government in 1992 on the suitability of the region for World Heritage listing wasn't supported at the time. Indeed, only one cave in the Nullarbor – Koonalda – has even made it onto Australia's own National Heritage list of places with "outstanding significance to the nation".

That was in 2014, and largely in recognition of the role it has played in our understanding of Aboriginal art and occupation.

How best then to recognise and preserve the unique caves of the Nullarbor?

Unfortunately, this is a complex problem. The region is huge – it is the world's largest exposed karst terrain and spans two states. It encompasses many pastoral leases, Crown land, and areas of native title claim.

Also, with the exception of a few larger caves which are well known, like Cocklebiddy which is one of the world's longest cave dives, the locations of most 'wild caves' are closely guarded secrets and so could never be opened up to larger scale tourism ventures.

The reasons for secrecy are obvious – for as long as humans have taken an interest in caves there have been people willing to remove or vandalise cave formations.

The lure of megafaunal remains has also attracted rogue fossil collectors intent on plundering caves for financial gain. In addition, many of the caves are refuges for important cave-dwelling invertebrates such as crustaceans, centipedes and spiders.

But not all the caves need to be kept secret and there may be a future role for limited adventure tourism operations in the Nullarbor, offering the prospect of 'time travel'.

Whatever their future holds, the Nullarbor caves are, undeniably, one of the few landscapes on Earth that have survived intact for close to five million years.

We should make every effort possible to preserve them for future generations. They are a National treasure, and should be part of our national conversation.

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Notice of motion

The following motion will be moved at the CEGSA GM in June:

"CEGSA contributes $352 toward the purchase of a set of Michie phones by the SA Speleo Council"

Committee

FUSSI PROGRAMME May- Oct 2019

Note: FUSSI holds a general get together/meeting on the Third Thursday of each month except where notified. Programme subject to change.

Sat 4 May	9.30am		Joint clubs Sellick Hill caves clean up.
Sun 5 May	2.00pm		Film: *Sixteen Legs* Palace Nova Prospect Cinemas, 98 Prospect Rd, Prospect. Booking link: https://palacenova.com.au/
Tue May 7th			South Australian Speleo Council Meeting.
Thurs 16th May	General Meeting 6.30pm.	&	Guest Speaker: **Mark Sefton. Bullita Exploration**. Noel Stockdale Rm, Flinders Uni Library.
Thus 23 May			Speleology in the PUB. Uni Pub. Union Hub building. Flinders Uni.
Sat June 1st June 20th	One day Trip General Meeting	& &	Yorke Peninsula. Dee Coordinating. Thurs Guest Speaker. **Dr. Rian Dutch**. Geological Survey of SA. ***The Geology of the Nullarbor.*** Noel Stockdale Meeting Rm. Central Library.

EXAMS 24th June- 3rd July.
8th July – 29th July MID YEARBREAK

July 5th			Harry Harris. Cave rescue. Venue to be confirmed Fundraiser for Operation Flinders. SASC coordinating
Thurs July 18th	General Meeting	&	Film Night. "Descent 2" Multi Media Rm Union Hub. To Be Confirmed. Dee Coordinating
July 20-21th			Flinders Ranges Trip. Great trip suitable for all.
Sun, Aug 11th	A Comms Day		Walkie Talkies, Michie Phones, Cave link. On Campus. Flinders Uni. Start time 10am Full Details available later.
Aug 15th	6.30pm		General Meeting. On campus
Aug 24/25			Naracoorte Trip. A training weekend. RSVP **19th July** 12 Noon. Don't miss out put your name down, Clare Coordinating.
Sept 14-15			ASF ACRC training weekend. Flinders Ranges. Clare Co ordinating.

Mid Semester Break 23 Sept -7th Oct

For the long term.
ASF National Rescue talk fest weekend to be held in SA. 21-22 Sept 2019.
Nullarbor Research trip Sept 27 Sept to 0ct 6th. Dates set in stone.
Buchan Caves Vic Jan/Feb. 2020 Tentative at this stage.

CEGSA members are welcome to attend. Contact Mark Sefton or Neville Skinner.

CALENDAR OF EVENTS

Date	Type of Event	Description	Contact
22/05/19	General Meeting	Royal Society Room, SA Museum, Adel. Geophysical methods to find and map caves	Dr. Ian Moffat
28/05/19	Caving	Corra Lynn with Mercedes College	Graham Pilkington
??/06/19	Committee Meeting	TBA	Mark Sefton
26/06/19	General Meeting	Royal Society Room, SA Museum, Adel. TBA	Mark Sefton
??/07/19	Committee Meeting	TBA	Mark Sefton
08-18 /07/19	Caving	Bunda Cliffs, Nullarbor	Steve Milner
24/07/19	General Meeting	Royal Society Room, SA Museum, Adel. TBA	Mark Sefton
??/08/19	Committee Meeting	TBA	Mark Sefton
14/08/19	CEGSA NEWS	Articles due	Athol Jackson
28/08/19	General Meeting	Royal Society Room, SA Museum, Adel. Bunda Cliffs update	Steve Milner
??/09/19	Committee Meeting	TBA	Mark Sefton
25/09/19	General Meeting	Royal Society Room, SA Museum, Adel. TBA	Mark Sefton
		Grant Gartrell will run a Kelly Hill Caves trip in 2019, hopefully around June.	Grant Gartrell
14-15/ 09/19	Training	National SAR Workshop	
	Caving	Continuing Fleurieu Peninsula Exploration	Grant Gartrell

****Extra trips will be notified in the Calendar on the Website or at General Meetings****

To be covered by insurance it is mandatory that caving trips involving club members must be registered as CEGSA Trips. To do this, the nature and timing of the trip must be entered in the Calendar of events in CEGSA NEWS, minuted at a General Meeting of Members or entered in the Website Calendar. The member registering such a trip must be an accredited CEGSA Trip Coordinator and must agree to act in this capacity for the trip. There must also be an accredited trip leader with the appropriate skill endorsement to take a dependent party caving.
Also, please ensure that a report of the trip is submitted to the Records Officer and editor in a timely manner.

Notes.