

CEGSA NEWS



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

Volume 62 Number 2

Issue 246

MAY 2017



CAVE EXPLORATION GROUP (SOUTH AUSTRALIA) Inc.

PO Box 144, Rundle Mall, South Australia, 5000.

<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.

2017 Committee

President	Ian Lewis	(H) 8295 6582 (M) 0427 284 051 (E) Ian.Lewis2@sa.gov.au
Secretary	Mark Sefton	(H) 8277 9086 (W) 8313 0096 (E) seftons@adam.com.au
Public Officer / Library & Records/ OzKarst admin.	Graham Pilkington	(H) 8258 8877 (W) 8258 8877 (E) p-c-h@bigpond.net.au
Treasurer / Membership Committee	Graham Pilkington Ken Smith	as above (W) 8375 1946 (M) 0407 603 118 (E) kendiver@gmail.com
Committee	Matt Smith	(M) 0419 830 575 (E) matt@speleorovers.org
Committee	Steve Milner	(H) 8370 6570 (M) 0402 884 121
Committee	Mark Corbett	(M) 0439 042 707 (E) macorbett@gmail.com
Museum Representative	Neville Pledge	C/- SA Museum

Other Office Bearers

Publications	Athol Jackson	(H) 8337 8759 (E) atholjax@adam.com.au
Webmasters	Graham Pilkington and Matt Smith	As Above As Above
Land manager Liaison (records) Quartermaster / Key & GPS Holder	Garry Woodcock Paul Harper	(H) 8380 5154 (E) gary.woodcock@sa.gov.au (H) 8297 8878 (W) 8222 5615 (E) paul.harper@health.sa.gov.au
Search & Rescue Co-ordinator	Harry Harris	(H) 8431 5395 (W) 8273 5666 (E) divedoc@adam.com.au
Safety Officer	Matt Smith	As Above
Science Officer	Ian Lewis	As Above
Training	Ian Lewis and Matt Smith	As Above As Above
Website Trip Log	All Trip Coordinators	See list p30

Area Coordinators

Eyre Peninsula, Murray Mallee, Gawler Ranges, Torrens, Pitjandjara lands, NW of SA	Records Officer	As Above
Upper & Lower S E(dry), Glenelg River	Kevin Mott	(H) 8723 1461 (W) 8735 1131 (E) jkmott@internode.on.net
Lower South East (wet), Narinna (wet)	Peter Horne	(H) 8295 6031 (E) ppuddles@yahoo.com.au
Adelaide & Kangaroo Is.	Grant Gartrell	(H) 8556 9100 (E) farm@blueberrypatch.com.au
Nullarbor Plain (SA & WA), Yorke Peninsula	Graham Pilkington	As Above
Flinders	Eddie Rubessa	(H) 8336 4775

Representatives

ASF	Graham Pilkington	As Above
SA Speleological Council	Ian Lewis	As Above
Kanawinka Geopark Liaison	Ian Lewis	As Above
CDAA liaison	Ian Lewis	As Above
SA Scout Liaison	Ian Lewis	As Above

Cover Photograph: Decorations in SWXKRM20 Cave in Western Victoria.

Photo: Kevin Mott.

CONTENTS

Volume 62 Number 2

Issue 246

May 2017

CONTENTS

	AUTHOR	PAGE
Committee and Office Bearers		19
Contents		20
Presidents Spot	Ian Lewis	21
Merit Award		21

TRIP REPORTS

Corra Lynn Cave trip 28 th March 2017	Graham Pilkington	22
Nullarbor from 8-25 April 2017	Graham Pilkington	22
Lower South East and Western Victoria 17 th April 2017	Kevin Mott	25
Past Trips (from February General Meeting minutes)		27
Past Trips (from March General Meeting minutes)		27
Past Trips (from April General Meeting minutes)		27

TECHNICAL AND OTHER ARTICLES

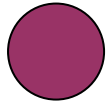
Membership Fees	Graham Pilkington	29
Approved CEGSA Trip Leaders	Committee	30
South East Bat Count	Kevin Mott	30
Unique Aquifer System Explored	Sandra Morello The Border Watch	31
Natural Wonder Explored	Leon Rademeyer The Border Watch	32
Sinkhole Emerges	Leon Rademeyer The Border Watch	34
FUSSI Program - February to July 2017	FUSSI	35
Calendar of Events	Committee	36

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 62 Number 3 (Issue 247) must reach the Editor by Wednesday **9th AUGUST 2017**. 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. Photos are preferred to be in colour as separate files and a note placed in the article where to be inserted. (*.jpg format under 500Kb unless for the cover). 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

There's been a lot of activity going on across the Nullarbor over recent years which builds a bigger picture of current investigations and discoveries. A few academic papers have been published over the last few decades on the Roe Plain, on Blowhole Meteorology, on the use of a Gravity Meter to detect big voids and about the delicate Mantles in underwater caves there. However the research extends into bat studies, flint studies, reassessing rainstorm inflow impacts, reconstructing ancient patterns of cave entrances, blowhole and microkarst discoveries, cave spotting with ultra-lights, spectacular cliff cave exploration and documentation and considerable high-quality mapping of new extensions in dry caves in the WA section of the Nullarbor.

The last publication collecting Nullarbor research was written by John Dunkley and CEGSA's own Tom Wigley 50 years ago. That's sooooo long! Since that time, cave diving began and has flourished and all the above research has been undertaken. There is more than enough to fill another book. People have been considering setting up a Nullarbor Research Group under the ASF umbrella as a place to pool our knowledge and discoveries with the idea in mind that the information is of benefit to all cavers, to scientific specialists, to the new Native Title holders on the South Australian side and to the land managers DEWNR (SA) and DPAW (WA).

Adelaide seems to be the logical place for a centre of Nullarbor studies, records and information. A beaut suggestion is that we look at hosting a Nullarbor Conference in several years' time here in Adelaide in combination with field trips. This is likely to attract interstate cavers and researchers but will also be of interest to international visitors as well as the Nullarbor has a strong overseas reputation, being one of the world's largest karst fields but *flat* and with different cave characteristics. Now that mobile phone coverage is across the area and modern camping comforts are readily available, field trips for visitors from afar are a real and enticing possibility.

CEGSA began the first ASF expeditions to the Nullarbor Caves in 1956/57. We wrote the Mullamullang book in 1966. The Dunkles and Wiggles book was published in 1967. Now seems a propitious time for South Australian speleos from CEGSA, FUSSI and the Scout Caving Group to combine for a major event here focused on the mighty Nullarbor and followed up by Go-pro documentaries and a collated publication of 21st-century knowledge. How lucky are we to have such a brilliant caving region on our doorstep..... hey, it's only a day's drive to the border for the determined caver!

Ian D Lewis.

%%%%%%%%%

Notice of AWARD of MERIT

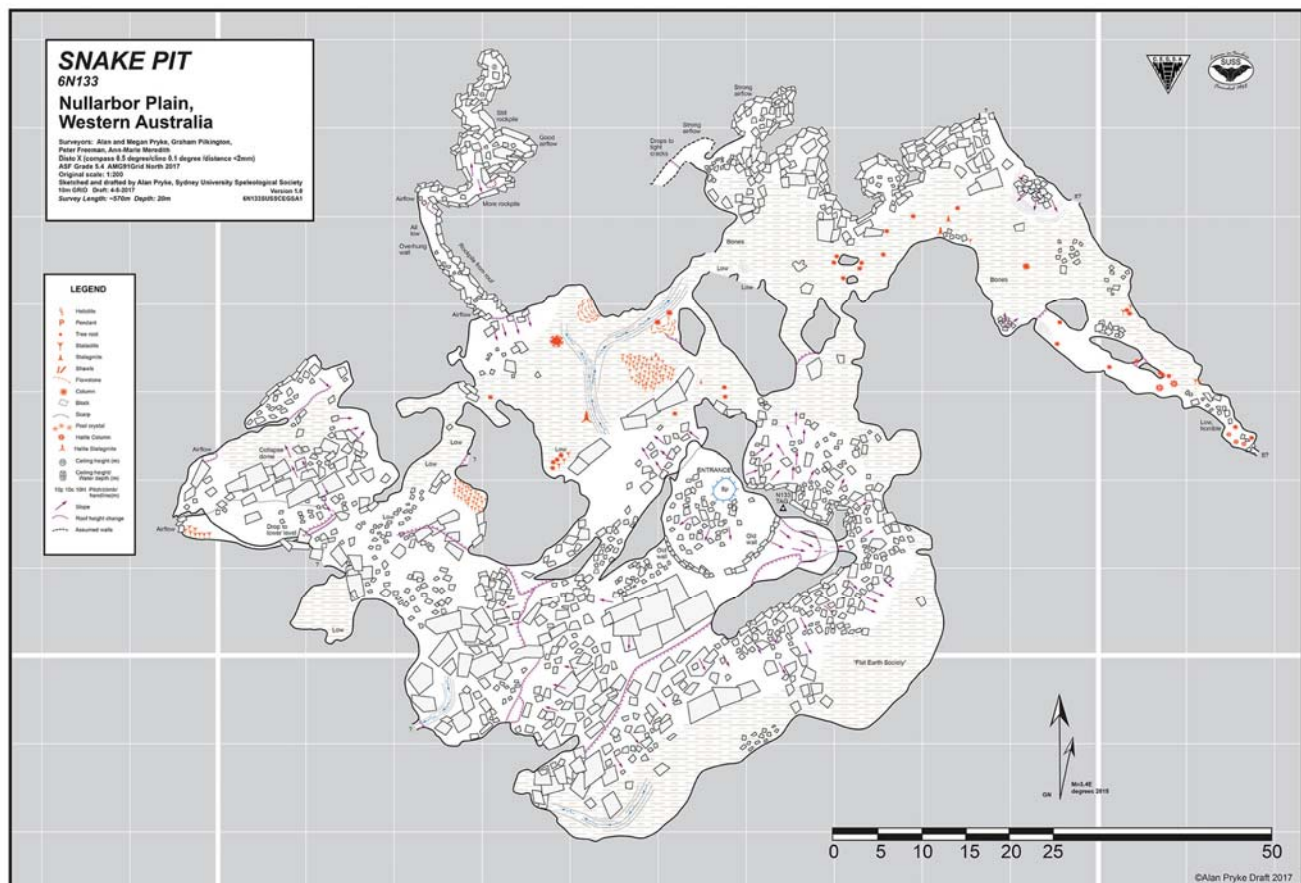
The Committee has awarded Dave Lawson a Certificate of Merit for his continuing dedication to the task of updating CEGSA's digital records in OzKarst, especially western Victoria, even to the extent of conducting field work to get it right. And he's not a caver!

Corra Lynn Cave trip 28 March 2017

They all professed to enjoy the caving experience but I heard whispers of wanting to get out real soon before they couldn't move anymore.

0%0%0%0%0%0%0%0%0%0%0%0%0%0%0%0%

The survey shows that Snake Pit is ~570m long and 20m deep.



While the others were doing the usual DistoX mapping, I used a Zebedee unit loaned to me by Tim Featonby to do a 3D survey of the doline, entrance chamber and eastern passages. This was my first attempt at using a “Zeb” and I was learning on the job. However, unlike normal surveying there’s no feedback to tell you if you’re doing it right. The data has to be processed first. This meant that getting my hands, arms, feet, legs, and head in the survey beam while navigating rockpiles and crawl

The end of *Inthinity* was the last target on the list. After a prolonged attempt to chisel a way past a 1m long constriction, this was abandoned for a thicket negotiation on the opposite wall that led into ~170m of chambers and passages. The survey was terminated by time with several going leads left for the next trip. Interestingly, this new section is heading directly for the end of the *West Thicket* and is over halfway there from the end of *Inthinity*.

Webbs is now ~6.4km “long” and 25m deep.

On one day only, a Death Adder was seen sunning itself on the track into the cave. It was ~0.8m long with alternating light and dark brown bands 1-2 cm wide and ~10cm diameter. It had a clearly defined head and a ridiculously stunted thin tail ~0.2m long.

Welcome swallows were out and about in daylight hours, going in to roost just before dark and maybe a quarter of an hour before the first bats came out for the night.

N4321-Go cave

After a two-year absence, we were keen to continue the dig into N4321 hence we took a day off to do so. All piled into Ann-Marie’s 4WD together with anything remotely useful in gaining entry, including a well-stocked fridge of cool drinks. Two years ago we left after just gaining entry to the first chamber – all of 2m long, 1m wide and 1m high. This led to a horizontal tube containing a floor rift, maybe 4m deep, blocked by boulders. There was just enough space for a sledge hammer to do its work and descent was made into another horizontal passage that had another drop into a streamway going SE. However, this terminated after about 20m in an impenetrable but breathing rockpile at about 10m depth. The cave now waits for some future desperate caver.

Horehound

The introduced weed Horehound was the dominant vegetation in and around the Webbs Cave doline. During our stay I removed all the plants growing outside the doline, those along the usual access tracks and most of those in the southern half of the doline. All those taken away (in plastic to prevent seed dispersal) were burnt to kill the seeds. The removal will hopefully delay the spread of the weed and allow some recovery of native vegetation. It would help to reduce dispersal if cavers removed horehound from all cave access tracks on first entry to any cave before the seeds attached themselves to visitors.

Only 4 plants were found at Snake Pit which were all removed in a plastic bag and later incinerated.

Horehound was also noted along some of the station tracks but none were seen at N4321, N2098, or at Old Homestead Cave. The agents of seed dispersal should be investigated instead of it being assumed to be cavers. However, cavers must ensure that they remove all seeds from all apparel, including boots, before leaving an infected site.

Old Homestead Cave

Most of the trip was dedicated to surveying OHC. By the end of the trip a COMPASS plot gives the cave a length of ~39km and a depth of 80m.

A resurvey was started of the *South Cave* from the doline because the 1987 map showed accurate wall positions but little of the internal detail even though the passage is 15m wide. This completes a DistoX traverse from the surface control point through to the *Mouse Holes*.

A DistoX traverse was made from RDFNA to RDFNC to link up with last years RDFNC to RDFND DistoX traverse. The latter traverse was extended to RDFNG giving a control traverse of about 1km and confirming that the RDFNG surface location is ~70m in error.

The *Spring Series* resurvey was continued. We have now completed from 10m south of the *Lizard Link* entrance at the north end of the *Spring Series* down to 40m past the *Mouse Holes* turnoff. Most of the previous survey was poorly done but with the occasional good bit; this obviously reflects the team who did it out of the 20 or so school children on the expeditions. Almost all of the *Mouse Holes* was completed, the kids had stopped surveying about halfway along, as soon as it got small, but did explore most of the main two pathways. A couple of side tunnels still need to be done as does the “end” of each of the two main legs – these were stopped by mutiny when the passages that were almost too small to get through just kept on going. I’d had to pull out earlier when digging to get me through had become impractical. What we need are a few trained but disposable five-year-olds. Where are those chimney sweeps that we’ve all heard stories of?

A section of the *Spring Series* called *Africa* had only ever had a traverse done though it. *Africa* links the *Great White Bite* to the *Lord of the Rings*. This was rectified by Alan and Megan with Peter's help at the north end.

I made a Zeb survey of the doline and the *South Cave* main passage as far as the start of *Whale Way* where the pre-1984 cave ended. Doing a Zeb survey of the whole of OHC would be much faster than the 33 years taken so far and could be done by only one person. However, I've yet to evaluate the results for tiny passages of which OHC has plenty. Zeb surveys also pressure the surveyor to keep moving whereas the standard method encourages pushing those tantalizing constrictions that often end of in vast new cave extensions.

On boulders in the south doline during daylight, I saw an orange/red Scutigermorph – a long-legged centipede. And as they are well known for, it moved very fast to get out of sight

Three kestrels visited the doline each day causing a ruckus in the welcome swallow population who rapidly dived for cover.

Two dead bats were found inside the toilet block. They probably entered when the door had been left open and subsequently trapped inside when a visitor closed the sliding door. One was collected for the SA Museum and identification.

The Link Track

While the others were surveying in the *Mouse Holes* of OHC, Ann-Marie and I went for a drive along the *Link Track* to see if we could reach a group of features noted by Ken Boland from the air more than a decade ago and never visited. What surprised me most was not that it became obvious why no one had been out there before – bluebush country for 10km – but the state of the *Track*. It had vanished or was extremely faint for long sections after only about 5 years of disuse. The premise that tracks last for decades if not hundreds of years on the “delicate” Nullarbor was once again disproved. It would make a good research project to study the recovery of the landscape after being driven over.

While we only got to within about 5km of our target area, we did locate 5 more blowholes along a bluebush ridge. Of course we were on foot trying to find a way through the bluebush that wouldn't end up with innumerable punctures. All the blowholes were blocked by debris by 1m depth. We also noted several patches of caprock that rabbits had dug underneath. One contained a fox that took one quick look at what was approaching and decided to go caving as far underground as it could.

N-2098

During our stay at the Hut, two 4WDs turned up with 5 people in each, all from Penong, on a touristy caving trip over the Easter period. They were using published maps and Google Earth to locate and visit caves. They were fully equipped for camping and driving but lacked all but the minimum of gear to enter caves. On arriving they mentioned that they had just come from a blowhole that they lacked the gear to enter but reported that it dropped into a “football-sized chamber”. We declined to immediately go back to it with them but did get the GPS coordinates.

During a “rest day” from surveying in OHC, we went out to the coordinates to see what was there. What we found was a very well defined track that led directly to the cave off the Mundrabilla-Forrest track. The last half kilometre took a right-angle turn off the trend of the track that Google Earth shows goes on for kilometres but with no use has faded into obscurity. It appears that people have been driving to the cave instead of parking well away to protect its location. It turned out to be one of the fossil-containing caves that the WA Museum has been excavating. Now anyone with no knowledge of cave conservation can very easily find it.

Graham Pilkington

%%%%%%%%%

LOWER SOUTH EAST AND WESTERN VICTORIA

Date 17 April 2017

Party K Mott F Aslin

Caves visited L696, L697, L698, SWXKRM17, SWXKRM18, SWXKRM19, SWXKRM20, SWXKRM21

While going through old records Fred found reference to a runaway hole in the Mingbool area and some caves in quarries in western Victoria. One of these caves was where Edmund Gill collected bone of a kangaroo that was eventually named after him by Duncan Merriliees; *Sthenurus gilli*.

The Mingbool location was a runaway hole that used to contain standing water and was used as a monitoring site for recording water levels. Over time the conditions have changed and the site no longer holds water and the old monitoring reference marks have gone. The main basin is a doline 20m diameter by 4m deep. There are two other dolines, one 20m diameter by 0.6m deep and another 20m diameter by 2.5m deep. Collectively these have been numbered L696.

Moving on the western Victoria we looked at a quarry that contained a small with an entrance 1m wide by 0.7m high that was about 3-4m below ground level. The cave extended back several metres and contained some rubbish. It was shown to VSA in 1982 but quarry extensions have now destroyed the cave. The cave has been given a temporary designation of SWXKRM17.



Small cave near SWXKRM19.

pristine decoration of stalactites, stalagmites, columns, flowstone and rim pools. Kangaroo bones were found on the floor. A smaller cave with an entrance 0.7m by 0.4m is located nearby. SWXKRM20 has an entrance 2m by 1m by 1.6m high and was exposed through battering of the quarry wall. This also has two smaller entrance holes 10m to the north. The entrance leads to a chamber 6m by 3m by 1m high with a passage leading to the entrance holes. This cave also has some good decoration.

A nearby quarry contained a cave from which specimens of *Sthenurus gilli* were collected by Edmund Gill in the late 1950's. The cave has now been quarried but has been given the temporary designation of SWXKRM18. Whilst there, several other caves were found within the quarry. SWXKRM19 is located partway up the wall and has an entrance 4m wide by 0.7m high that is partially blocked by rocks. The cave extends back for 10m and has an average roof height of 1m and is 3m wide. There is extensive



Decoration in SWXKRM20.



Overhang entrance to SWXKRM21.

SWXKRM21 is a series of three features. Feature 1 is an entrance 0.4m by 0.1m high that extends back for 3m. It is at the floor level of the quarry with the entrance being in flowstone covered rock. Feature two is a small hole part way a quarried ramp. The rubble around the entrance contained large amounts of crushed flowstone. Feature 3 is an overhang in the southern wall of the quarry. It is 10m wide by 2m high and approximately 4m deep.

Moving back to South Australia we followed up on a report by Tony Beck of caves in a nick point of a dune. The site was soon located and the feature easily found. A hole in the toe of the dune leads to a small caves that is blocked by wire. This feature has been given the number L697. A search of records found a reference to a visit in 1981 where Fred noted the presence of flowstone on the western end of the dune overlooking a swamp.

The final feature investigated was a doline 90m by 80m by 4.9m deep. This was first noted on aerial photography and appeared to have a small scarp on the SW side. A subdivision was proposed for this site and the agent gave permission to document the feature before it was filled with soil from site excavations. When we arrived the excavations had already commenced and the doline was being filled. The outcropping limestone in the SW corner had already be graded to a gentle slope. The feature has been allocated L698.

Kevin Mott.

%%%%%%%%%

Past Trips from General Meetings

February 2017

1. **Mark Corbett & Michael Woodward** visited Corralynn on the 19th of February. Trip went well. Area at the top of Skeleton Crevasse was assessed for bolt placement. Venturers who attended the trip are preparing for a trip to the Nullarbor in April. 15 attended in total.
2. **Grant Gartell** went for a surface visit to a system near Delamere. Hopes that recent rain could have improved access, but will most likely need to head out there with some enthusiastic diggers.

March 2017

1. **Matt Smith & Mark Corbett** + Beefacres Venturers went to Lower South East visiting Monbulla, Wrecked Car, Snake Hill Cave, Tantanoola Sinkhole and Hells Hole, and experimented with using red LED lights in order to minimise bat disturbance. This seemed to be successful with what appeared to be less disturbance of the bats. Hells Hole pine forest surrounding Hells Hole has been harvested. Also visited the Tantanoola Tourist Cave.
2. February 2017 **Mark Corbett** visited Corra-Lynn cave, and investigated the anchors at the top of Skeleton Crevasse. A number of options – a cross bar across the passage of Wombat Run

placed inside a couple of notches. Two ring bolts could also be considered, however nervous about bolts in the Corra-Lynn environment. Cross bar is the most likely candidate. Scout Caving Group has lots of spare ladders, and will leave one at the entrance of Corra-Lynn for all groups to use.

3. **Grant Gartrell** visited Delamere to visit blackberries spraying around some possible cave entrances.

April 2017

1. **Steve Milner** visited the Bunda cliffs plus Weebubbie and Abrakurrie in the Nullarbor during mid March. A full report will be given to a subsequent CEGSA meeting.
2. **Neville Skinner** and **Ian Lewis** attended a FUSSI scientific research trip to Koonalda and Warbla Caves (Nullarbor) during April. Due to the unusual weather pattern on the surface, clouds were seen in the entrance chamber of Koonalda. An unusual sediment, possibly an ancient guano deposit, was observed in a dry chamber that can now only be reached by diving.
3. **Kevin Mott** and **Fred Aslin** found some small caves in an old quarry in south-west Victoria over the Easter period.
4. **Graham Pilkington** led a group to do exploration and surveying in the Nullarbor during April. They added 200 m to the survey of Webbs Cave which is still not finished, surveyed Snake Pit cave and opened up N4321 to find a small cave of about 25 m in length. In Old Homestead Cave, they did a substantial amount of mapping in the Spring Series and an accurate traverse between the entrance and RDP G using a Disto-X2. Production of a map of this cave is advancing well. Graham also mentioned that there is now a much greater amount of horehound (weed) around cave entrances (Thampanna, Webbs Cave and Snake Pit) than he had seen in previous years.
5. **Grant Gartrell** described a visit to a glow-worm cave near Te Anau in New Zealand.
6. **Mark Sefton** and **Karin Sefton** visited Luxmore Cave on the Kepler Track, also near Te Anau
7. **Ken Smith** and **Kevin Mott** did some accurate surveying measurements in Cathedral and Blanche caves at Naracoorte to determine roof thickness as an aid to the safe installation of infrastructure on the surface.
8. **George MacLucas** described showing Cocklebidy Cave in 1995 to some American cyclists who were cycling across the Nullarbor. One of their group has returned and hopes to catch up with George and June in the near future.
9. **Graham Pilkington** took a group of 21 Mercedes College students to Corra Lynn cave on the 21st March.

%%%%%%%%%

TECHNICAL and OTHER ARTICLES

MEMBERSHIP FEES

The ASF has introduced an Introductory Family membership.

To join CEGSA as a 3-month introductory family Associate, the fee will be \$45.

To join CEGSA as a 3-month introductory Associate, the fee remains as \$25.

For persons applying for a 3-month Associate membership after having been a 3-month introductory Associate, the fees, including the ASF levy, are as follows:

3-month Associate	\$38.00
student or retired 3-month Associate	\$32.00
2-parent family 3-month Associate	\$64.00
1-parent family 3-month Associate	\$55.00

Persons applying for CEGSA membership should contact the Treasurer or a member of Committee to obtain the membership fee applicable. Except for 3-month Associates, membership becomes renewable on the first of January each year. For persons joining during the calendar year, a joining fee of \$12 plus a pro rata fee is applied.

A \$12 re-joining fee is added to membership fees paid after March to make up for all the paperwork that the member has forced the Membership Officer to do. A membership application form may also be requested – this makes sure that our records do not contain obsolete information such as who to contact in an emergency or your new address that resulted in the renewal notice going astray.

Typical fee for the year, including the ASF levy, is:

\$113 for Full membership or Associate membership after 2 years (\$45 + \$68 ASF)

\$105 for Associate membership for the first 2 years (\$37 + \$68 ASF)

\$90 for Full membership, retired (\$45 + \$45 ASF)

\$82 for Associate membership, student (\$37 + \$45 ASF)

\$209 for dual Full family membership (2x\$45 + \$119 ASF)

\$193 for dual Associate family membership (2x\$37 + \$119 ASF)

Add \$25 for a printed copy of the NEWS and Annual Report

Subtract \$6 for persons living more than 80km from the Adelaide GPO (\$12 for dual families)

Membership fees can be paid direct into CEGSA account BSB 105-900 # 950661040. Make sure that you reference your name if you want to get accredited!

Graham Pilkington

Treasurer/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
Lance Hoey	Horizontal and Laddering
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
Matt Smith	Horizontal and Laddering
Tom Szabo	Horizontal and Laddering
Gary Woodcock	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.

%%%%%%%%%

SOUTH EAST BAT COUNT

Date 11 & 12 February 2017

Party Emmi Scherlies, Ian Lewis, Steve Bourne, Jake Manser, Kevin Mott.

Caves L5, L15, L26, L35, L60, L69, L77, L119, U4, U12, U17, U28, U38

Researchers from La Trobe University, Arthur Rylah Institute for Environmental Research and South Australian Museum have microchipped many southern bent-wing bats at Naracoorte to help study their activity and survival. Over summer it was noticed that less microchipped bats were being detected in Bat Cave than expected. The researchers began to wonder whether bats could be overwintering in other caves in the region, which contrasts with conventional thinking of bat behavior during the summer.

To try and assess what was happening a count of bats in caves throughout the region was planned prior to the bats dispersing for the winter. A full count of all caves was impractical so those with known levels of high visitation were selected.

On Saturday 11 February, Emmi, Jake and Kevin surveyed L15, L35, L60, L69, L77 & L119. Bats were only found in L77 and L119. Despite the use of red lights the bats in L77 quickly became unsettled so minimal time was spent in the cave. L60 had no bats and there was some discussion about the gates causing a reduction in numbers. One vertical opening is still clear but may not be the preferred entry. In L35 some mounds of guano were found beyond the water.

On Sunday Ian, Jake and Kevin visited L26, Ian visited L5 while Steve and Emmi visited U4, U12, U17, U38.

Emmi and Terry Reardon subsequently visited L77 and counted 2000 bats exiting the cave, over a hundred of which were microchipped. The research forms part of Emmi's PhD on the southern bent-wing bat which has been funded in part by the ASF's Karst Conservation Fund.

Summary of count

Cave	Count	Comment
L5	105	Est cluster +5 scattered individuals
L15	0	
L26	1500	Est as bats skittish
L35	0	Signs of guano
L60	0	
L69	0	
L77	1000	Est as bats skittish
L119	9	Scattered individuals
U4	0	
U12	16	
U17	24	Est due to bats flying
U28	7	
U38	0	

Kevin Mott

%%%%%%%%%

UNIQUE AQUIFER SYSTEM EXPLORED

University students gain insight to region's underground cave network

An Australian cave diving trailblazer has returned to the Limestone Coast to give interstate university students a unique insight into the region's patchwork of underground caves and extensive aquifer systems.

La Trobe University lecturer Ian Lewis - a cave diving pioneer and hydrogeologist - hosted 18 students for four days across the region.

The students explored the depths of the cave network, toured the Blue Lake and snorkeled the picturesque Ewens Ponds.

Mr Lewis said students would compare the region's regional underground water catchment to the river system in the Snowy Mountains as part of the curriculum.

"By the time they leave this area, what they have seen is a region that has no rivers, apart from the Glenelg River, and all the water moves underground," Mr Lewis said during a tour of Engelbrecht Cave.

Describing the region's expansive limestone system as "amazing", he said this geology was mirrored by only a few places across the world. "What we have here is similar to limestone in the Florida Peninsula and the Yucatan Peninsula in Mexico, which are riddled with underground caves and water," Mr Lewis said.

Not only did the students meander through the various landscapes in the region, they also learned about how caves were once used as dumping pits by industry and farmers up to the 1960s.

"They just chucked stuff in and filled them up," Mr Lewis said.

"Once cave divers started exploring these caves, we found some 44 gallon drums filled with nasty toxins."

Alarming, he said the mills at that time were also flushing treated pine logs into the caves. This prompted cave divers to start a campaign to end the pollution and to educate the community on the needs to keep the under- ground water system pristine. This led to regulations being swept in by government.



DEEP KNOWLEDGE: Cave diving pioneer, hydrogeologist and university lecturer Ian Lewis joins interstate university students for a tour of Engelbrecht Cave in Mount Gambier. Picture: SANDRA MORELLO

"Caves are windows to the water resource and we now have had 40 years of that legislation," Mr Lewis said. While there were reports of pollution in pockets of the resource, he said these had been tracked over the years. "The cave divers have made a huge difference".

While the industry was close to being banned because of a string of deaths in the 1960s and '70s, he said the then SA Premier Des Corcoran was finally convinced to keep the sinkholes open for recreational use. This sparked the formation of the Australian Cave Divers Association, which has since trained a staggering 5000 recreational divers.

"We had a period of 38 years trouble free, then a few years ago three divers died in one year - they were all highly trained," Mr Lewis said. These tragedies sent shockwaves through the tight-knit cave diving sector, which was perplexed over the cause of their deaths.

"We knew them, they were friends of ours," he said.

He said the coroner - who investigated the deaths - concluded they were deaths by misadventure.

"They were trained properly, but they went beyond the limits where we normally stop in different circumstances," Mr Lewis revealed. He said the cave divers would never know fully why these tragedies occurred.

Conceding the cave diving sector has at times held its "breath" about its future, he said the recreational sport was in good shape moving forward. He said the South East was a hot spot for international cave divers. While the sport was once branded as madness, he said it was now deemed safe given the extensive training and regulations.

"We now have people jumping off cliffs with wings and they think they are crazy, they are the ones who take all the risks"

Sandra Morello.

Reprinted from "The Border Watch", Friday, May 5, 2017

%%%%%%%%%%

NATURAL WONDER EXPLORED

Pristine prehistoric cave system exposed on Mount Gambier outskirts
due to a record 19th century earthquake.



SPECTACULAR: Cave diver Paul Battersby drifts almost motionless in the main chamber of Pines Cave on the outskirts of Mount Gambier. With its crystal-clear water and myriad of underwater tunnels and chambers the cave is a favourite among cave divers from across the world. Picture: GREG ADAMS.

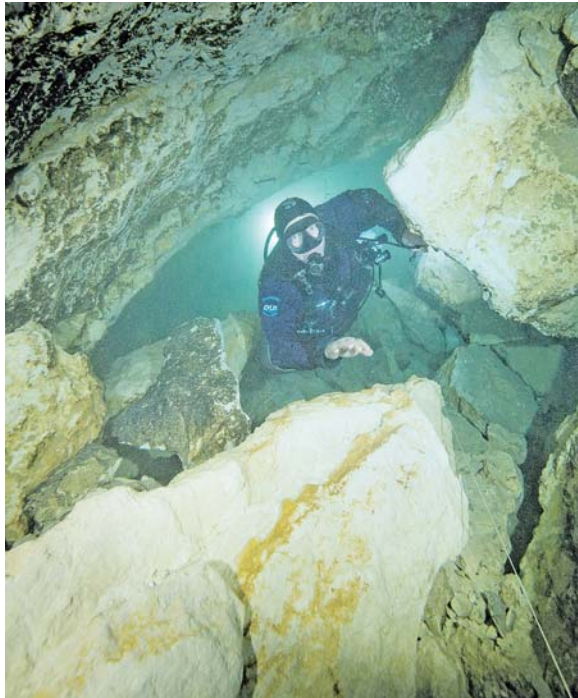
Hidden in a vast pine plantation on the outskirts of Mount Gambier lies one of the Lower South East's most valued treasures – a picturesque water filled limestone cave system known as The Pines.

Also known as Pines Cave or simply Pines among cave divers, the cave's limestone formations are thought to have formed perhaps half a million years ago and feature an intricate combination of

underwater tunnels and chambers with names like Dark Room, Surprise Tunnel, Director's Tomb and Air Pig Chamber.

The entrance lake of this cenote style hole is situated only a few metres below ground level and its crystal-clear water is easily accessible from a set of steps leading to the water's edge.

Under the water's surface a diver first encounters a large cavern to a depth of around 25 metres lit by gentle daylight from above.



EXPLORATION: Paul Battersby explores an underwater chamber in Mount Gambier's Pines Cave. The cave features 200 metres of twisting tunnels and chambers and reaches a maximum depth of 43 metres.

Picture: GREG ADAMS.

From there a restriction leads to an array of tunnels and chambers stretching around 200 metres and ending in a large chamber - the CCR Room.

An abbreviation for Crazy Czechs' Room - the chamber was discovered in 2003 by Czech Republic cave diving couple Petra and David Funda.

The restrictive entrance to the room is at a depth of 36 metres, but its ceiling comes up to just five metres below the surface.

Overall The Pines reaches a maximum depth of around 43 metres.

Veteran cave diver and Cave Divers Association of Australia (CDA) life member Peter "Puddles" Horne said the hole has been one of the Australian cavediving community's most popular sites since the mid-1960s and it gained its descriptive name because of the large 1953 plantation of Californian pines (*Pinus radiata*) which covered this area before being felled for replanting in 2003.

"The Pines really first came to the attention of the wider cave-diving community in the late 1960s after pioneering Australian underwater adventurers and film-makers Ron and Valerie Taylor heard about the cave from local divers," Mr Horne said.

"They recorded what was probably the first underwater footage of the cave for their film - The Cave Divers.

"The Taylors and the film's producers demonstrated amazing foresight by including discussion about scientific aspects of both the cave and the region in their film.

"These included a fossil deposit discovery at what they thought was the bottom of a yet to be named hole in a pine forest." CDA science officer and hydrogeologist Ian Lewis said The Pines is shallower than the deep sinkholes around Mount Schank because the regional limestone is thinner further inland in the Mount Gambier-Tantanoola area.

"There is a string of small caves and waterfilled cavities in this area between Burrungule, the Bluff and Tantanoola Cave.



WATER'S EDGE: Cave Divers Association of Australia cave diver Leon Rademeyer at the surface lake of Pines Cave outside Mount Gambier. The cave is one of the most popular cave diving sites the region has on offer.

Picture: ANNIE RADEMEYER

"These occur along the large regional Tartwaup Fault Zone which stretches from the Blue Lake volcano complex through Tantanoola Cave to the Mount Burr volcanic range beyond Mount Muirhead.

"The Pines and other caves including the renowned underwater 7km long Tank Cave were formed by groundwater dissolving the limestone along fractures caused by movements and volcanic forces on the Tartwaup Fault Zone. "As you drive along the Mount Gambier/Millicent highway, you are also driving along the Tartwaup Fault Zone and can see various springs and swamps where groundwater comes up through the limestone fractures, giving early farmers an excellent water supply."

In terms of aquatic life The Pines does not appear to contain large aquatic vertebrates such as native trout or introduced fish like red fin perch which are found in many of the region's other sinkholes.

But Mr Horne said it is nevertheless a very important biological site in relation to a variety of rare crustaceans and for this reason divers should take care not to unduly disturb or contaminate the water.

"The cave is one of only two sites in the world known to contain a special genus of the blind, cave adapted amphipod (*Uronyctus longicaudus*) - looking something like tiny curled shrimps.

"It is also home to relatively rare syncarids (almost certainly *Koonunga crenarum*) which I discovered in nearby Fossil Cave and has a fairly healthy population of common yabbie which are particularly abundant in the shallows at night.

The Pines became Mount Gambier's first dual rated cave diving site giving access to both cave and advanced cave rated divers affiliated with the CDAA.

To be tackled safely, the silt filled, more restrictive areas in the cave require a high degree of competency in the skills and knowledge related to penetration cave diving techniques and equipment.

The entrance to these areas is clearly marked and restricted to advanced cave divers only.

Until the early 1980s divers had no idea whatsoever about the overall shape of the cave or its underwater extent.

And it was only in 2003 with the Fundas' discoveries that the cave's full scope was realised.

Leon Rademeyer.

Reprinted from "The Border Watch", Friday, May 5, 2017

%%%%%%%%%

SINKHOLE EMERGES

THE Pines sinkhole may not be nearly as old as the other sinkholes of the Mount Gambier district, CDAA science officer and hydrogeologist Ian Lewis told *The Border Watch*.

Explaining why, Mr Lewis said the limestone roof at the entrance to the sinkhole is thinner and a bit more brittle than the solid limestone around most other sinkholes across the South East.

"Below the waterline of the surface lake, divers can see a flat limestone block with a large tree stump poking up from the middle.

"Because the wood is not fossilised it's likely the tree stump (probably a Sheoak tree) was on the surface not so long ago - growing on the limestone roof of the sinkhole before its collapse."

"It would have been powerful enough to shake the limestone above the hidden lake chamber at The Pines, causing it to cave in.

"The process was helped significantly by the weight of the tree growing on the thin rock of the roof above.

"So The Pines is likely to be only 120 years old."

Mr Lewis said once it was opened and discovered, it was known for 60 years as "The Springs" which ties in with the earthquake explanation.

It only became named The Pines after forests were planted.

Leon Rademeyer.

Reprinted from "The Border Watch", Friday, May 5, 2017

FUSSI PROGRAMME

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

May 13–14 th	Flinders Ranges Trip.	Great trip, suitable for all. Clare coordinating: fussi@fussi.org.au
Thurs May 18 th	AGM.	Yep, come along and add some impressive roles to your CV. New members needed on the Exec. Out with the old and in with a new lot. Noel Stockdale Rm, Flinders Uni Library. Bring a bribe! Or just watch the blood flow.
Tues May 30	Sprigg Lecture,	Given by Dr Alan Cooper. The Aboriginal Heritage Project. SA Museum 6pm - 7pm. The Museum will open to guests at 5:30pm, with a complimentary glass of wine available prior to the talk. Booking essential. http://www.samuseum.sa.gov.au/learn/sprigglectureseries?mc_cid=52b39449db&mc_eid=5ec9edb8b0
Thurs June 15 th	Library and pizza night.	At the club store. On Campus, under Union Hub.
Sunday June 18 th	One day trip.	Yorke Peninsula. Thomas Coordinating. fussi@fussi.org.au
June 17/18 th	Workshop, (part two).	Vertical Skills and Rigging. Bungonia NSW. <i>Run by NSW Cave Rescue squad.</i> Contact: be.somewhat.insane@gmail.com
July 3–24 Mid-Year break		
July 8– 16 th	Nullarbor trip	A FUSSI fun trip to the WA side of the Nullarbor. See the Nullarbor in winter. Thomas Coordinating. fussi@fussi.org.au
July 27 th	Workshop	Using Nesty and Working Out How Rescue Yourself. <i>Noel Stockdale Rm. NOTE meeting date.</i>
August 12/13 th	Search and Rescue Practice.	Flinders Ranges. Putting the Theory into practice. Weekend Coordinators: Dee, Tania, Clare A hands-on weekend. Date to be confirmed.

Sept 18–Oct 3 Mid-Semester break

Conferences:

IUS international Caving conference: 23–29 July.

Jenolan, NSW, with pre- and post-caving trips around the country and New Zealand.
www.speleo2017.com

Training days: To be announced. Other trips being considered: Tassie in Dec, Yarrangobilly in Feb 18.

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

CALENDAR OF EVENTS

Date	Type of Event	Description	Contact
24/05/17	General Meeting	Royal Society Room, SA Museum, Adel. TBA	Ian Lewis
??/06/17	Committee Meeting	TBA	Ian Lewis
10-12/ 06/17	Queens Birthday long W/E		
28/06/17	General Meeting	Royal Society Room, SA Museum, Adel. TBA	Ian Lewis
??/07/17	Committee Meeting	TBA	Ian Lewis
Jul/Aug/ 17	Caving	UIS Congress Field Trips See: www.speleo2017.com	
23-29/ 07/17	Conference	UIS Congress, Penrith, NSW	Graham Pilkington
26/07/17	General Meeting	Royal Society Room, SA Museum, Adel. TBA	Ian Lewis
??/08/17	Committee Meeting	TBA	Ian Lewis
09/08/17	CEGSA NEWS	Articles due	Athol Jackson
23/08/17	General Meeting	Royal Society Room, SA Museum, Adel. TBA	Ian Lewis
26/08/17	Working Bee	Library and Records	Graham Pilkington
??/09/17	Committee Meeting	TBA	Ian Lewis
27/09/17	General Meeting	Royal Society Room, SA Museum, Adel. TBA	Ian Lewis
30/09/17	Working Bee	Library and Records	Graham Pilkington
	Caving	Ongoing Vic Fossil survey	Gary Woodcock
	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 in a timely manner.