CEGSA NEWS

Newsletter of the Cave Exploration Group of South Australia Inc.

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CAVE EXPLORATION GROUP SOUTH AUSTRALIA Inc.

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

http://www.users.on.net/smilner/index.html

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

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Cover Photograph:- Damian Grindley abseiling into 5L412c (see trip reports). (Photo - Marie Choi)

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Volume 43 Number 3 **Issue 171** **AUGUST 1998**

The deadline for copy or background material for Volume 43 Number 4 (Issue 172) must reach the Editor by Wednesday **11th NOV 1998**. Material not meeting this deadline may be retained for possible use in a following issue. The preferred method is on 3.5” IBM floppy disk or via E-MAIL at atholjax@cobweb.com.au as an attachment, in Word or ASCII text format. Of course other forms of communication will still be gratefully accepted.

PRESIDENTS SPOT

It's a shame that many of you missed the July general meeting, I guess that there being five Wednesdays in the month tricked you all! At the July meeting Mark Sefton gave us a great account of his recent trip to a very very long cave in the Northern Territory (as much of the work carried out in the area is still somewhat confidential, I am afraid that Mark cannot mention its name or its length). Grant Gartrell also gave us the low-down on the soon-to-be discoveries on the Fleurieu Peninsula in the region of Sellicks Hill, this is a very important area and we all need to get involved in this very worthwhile exploratory project. Personally I enjoyed the informal structure of the last meeting and actually talking about caving, rather that complicated political issues. Let's hope that the August general meeting is just as interesting. Don't forget that the September and the November general meetings are at a pub venue, see the advert later in this issue.

Caving activities are on the rise with some solid work being done in the Upper and Lower South East by Marie Choi and others, a most notable discovery is a cave accessible only by descending a well, and in it are 200,000 year old whale bones. The end of the cave is nowhere in sight and the surveying of the cave as it is discovered is in progress. No doubt a full report in the CEGSA News will appear soon. Elsewhere in the State, caving activities are ongoing both in the Flinders Ranges and on the Yorke Peninsula (cavers social weekend) and of course on the Fleurieu Peninsula.

As ever, check out your award-winning website for more details of caving activities (the website was awarded 1st Prize in the Open Amateur category at the South Australian Internet Association website competition).

Steve Milner.

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Call for Design/Artwork for Spirit of Caving Medals.

Below are 7 examples of artwork for consideration for the design of the Spirit of Caving Medal. As you will see they are at the concept stage and we have a long way to go before the finished version is ready. The designs presented here are for everyone to see before we get together at the September general meeting to make a decision on which design to develop for the finished product. Comments on the designs, their layout and so on are most welcome, please get in touch with Steve Milner or anyone on the committee before the September general meeting, so that these issues can be discussed at the meeting. Please participate and give some feedback on the design of the medals for past and future awardees of the 'Spirit of Caving'.

Thanks, CEGSA Committee.

TRIP REPORTS

A "C" TO AN "E" 17 May 98

Or the connection of 5L335 with 5L69/70

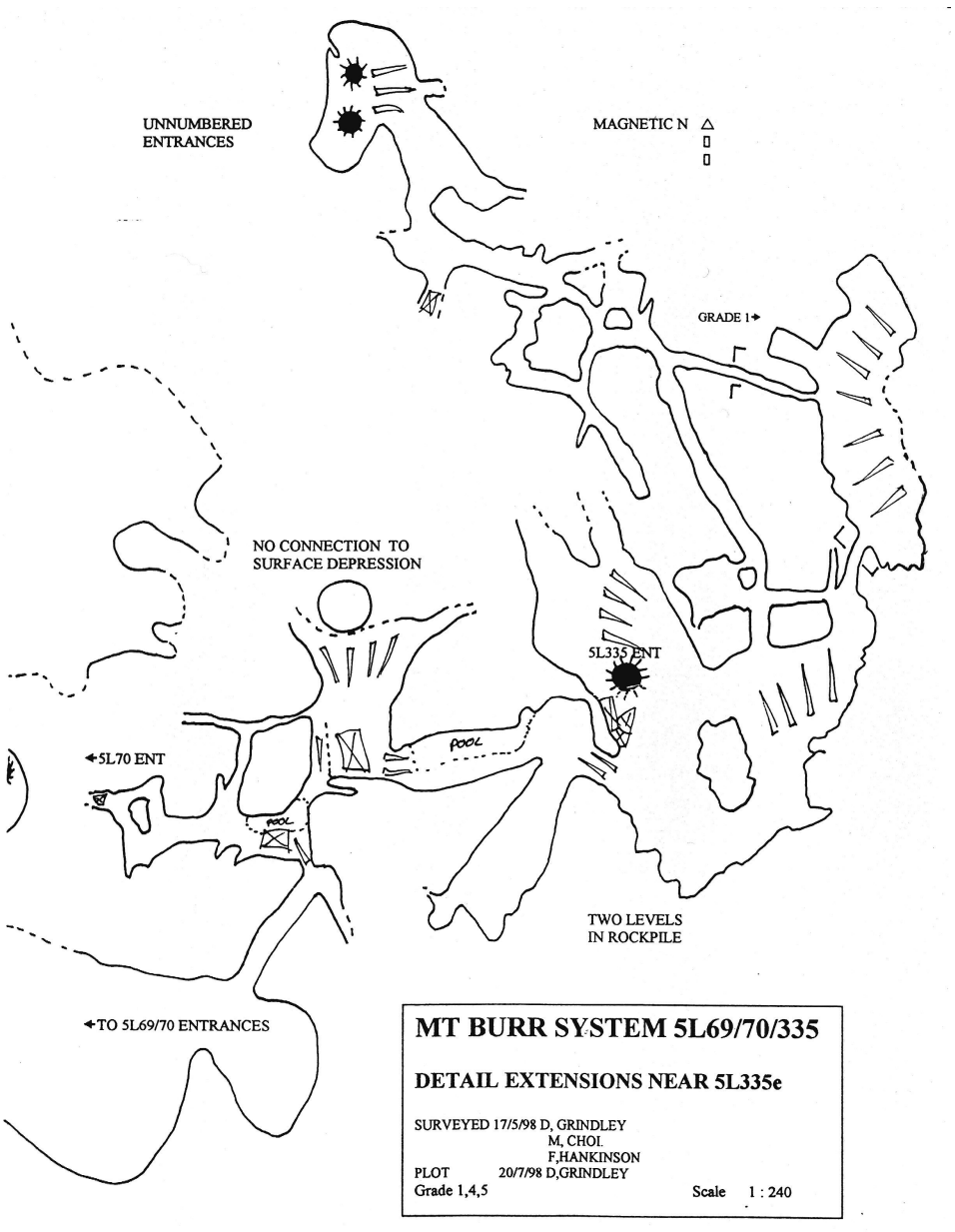
Damian "Pom" Grindley; Marie "Mum" Choi; Frank "Bushman" Hankinson & Steve "Lucky Bast'd" Bourne.

As reported in CEGSA news Vol 42: N°3, Presidents Pot (**5L335c**) is a bit bigger. In fact quite a bit bigger and seemingly rather close to Mt Burr cave (**5L69/70c**). Now not being one to leave any proverbial squeeze unsqueezed, myself and Marie were back with an unsuspecting Frank exactly a year later to survey our squalid extensions.

Totally convinced a link must exist we even brought instruments to draw up our data over lunch thus ensuring we were looking in the right place. However, in the event, the connection was so obvious that we spotted it whilst surveying. How we missed it previously I am unsure, unless we were distracted by having to straddle over an ickie pool of water which had miraculously disappeared by this second trip.

Initially I didn't think it was possible from my perspective to make the connection but it only took Frank about a bucket load of spoil from his direction before he had made it big enough for me to worm through. Thus relegating **5L335c** to **5L335e**. We had broken through into a rift that connected with a decorated chamber that contained an obvious cairn and a few footprints. This then lead to another decorated chamber and a squeeze over calcite into the main often frequented part of the Mt Burr system. A line traverse was surveyed to the **5L69c** entrance just to tie things in. And not a drop of water was seen on the way. Water levels must be low at present.

Since the Mt Burr side of the system has been known since at least 1862 it seems odd to a Pom that a connection was not made previously. (only in Australia-Eh!.) Mind you, having said that, even we've left a few squeezes unsqueezed. Another trip I suppose.



Caving with and at a Lucky Bast'd! (5L401) + 5L413 18 May 98

Now we can't have less caves in the Lower South East can we? So it was time for a little "cave exploration".

First stop Steve's property near Penola to investigate Lucky Bast'd Cave (**5L401**). So named because only a few days after the author had explored the property and wiggled his Jemmy in a small depression! Steve came across the hole made by said bar; thought, "Hummmm that's new, I wonder what's down there". Dug for five minutes and the lucky, well you know what, found a cave. What a wind up Eh! Hummph. Anyway, the cave proved much more extensive and prettier than I expected. One of those basically endless hollow bedding planes with indistinct walls, lots of moonmilk; stalls, cave pearls and remarkably wafer thin slabs of limestone.

A couple of extensions where made, doubling the volume if not the length of the known cave. The first was found behind some decoration leading to a relatively large 1.6m high almost tunnel like continuation then another area of flatteners and a twin ascending solution tube. The second was made down a hole. Steve had previously experienced trouble exiting, and chivalrously shoved me down. A way was then forced into a 6m round pretty chamber with another solution tube. Unfortunately a continuation looped back to the known system at the entrance area connecting close to some cave pearls. Perhaps these pearls distracted previous visitors including ourselves from observing the extension.

The cave is now gated but as yet unsurveyed. A rather daunting task, one for that never ending must do list. Yet another trip I suppose.

Finally we hopped the fence to an adjacent property to inspect a draughting hole spotted by the landowner. After removing a few rocks we could see a void dropping away. Only ten minutes more rock chipping and we where in to a steeply descending 6m wide rubble pile ending at approximately minus 7m. Lots of moonmilk, a few modern bones and numerous draughts. The cave (Now **5L413**) has been resealed pending a full survey. Yep we'll be back.

All by
Damian "The Pom" Grindley

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MUCH TO DO ABOUT CAVIN

The following reports are presented for expediency as a series of diary excerpts that may be of relevance for the record. This somewhat personal view, both displays the factual information as well as the "feel" of the exploration. No excuses are made for the English, however, annotations have been added in brackets for clarity.

LONG WEEKEND 6/7/8 JUNE 98

With:- Marie Choi, Linda Deer, David Glowaki, David Trehearne, Amanda Wagener, Matt Pritchard, Reto Zollinger, Yvonne Ingeme, Damian Grindley, Fred Aslin and Kevin Mott.

Essentially a tour to familiarise ourselves with some of the lesser holes of the Mt. Gambier area and to check out one of Fred's Hot Tips on the Monday (now **5L412c**).
The first two days were spent locating and exploring**:- 5L1, 5L40, 5L83, 5L106, 5L109, 5L110, 5L111, 5L136, 5L183**. This sometimes frustratingly involved lots of forest stomping in the rain as a few glitches in the location data were ironed out.

"Day 2; Looking for 5L183 again; Soon found under fallen timber, as described (right coordinates this time); hole considered passable; Dave T rigged; me first in. Wood rotten in some places but not too bad. A 4m drop or so led to a small chamber (not the log blockage at minus 9m described in P Horne's book). Then small strongly draughting, descending hole at base of rubble cone enlarged to human proportions by self. Entered for 2m before spoil started to block the draught and the way on became unclear. Reto and Amanda surveyed (Later drawn up by self)."

***"5L111**, Meant to be filled in in the 60's; Clearly not; Just a blocked sand sided solution tube. Soon opened up into previously recorded chamber; Fantastic shawl of pine roots!; Dig back under entrance started but unfruitful"*

*"Mon; The big project for weekend; a well (Now **5L412c**) near Mt Gambier said to intersect a void which could be seen to go for at least 20m. The well was:- "well good!" (1.8 x 1.4 x 33m deep) with a bore on top. Dave T rigged, muggins first down. Plenty of weta's in shaft. In fact two caves intersected approx 6m apart, both hollow bedding planes; Opened up first one with feet but decided to go in second (Deeper @ -22m) as bigger. Consisted of a basically endless hollow bedding up to 1.5m high, lots of mud cracking, mega draught out of hole and up well. Approx 100m explored with rough survey (Reto, Dave T & G + Me). Meanwhile Linda explored 20+m of the upper cave.*

Barrier tape a must for next trip as mud cracking easily trashed, some great calcite flake and crystal pools, a few straws & flowstone. Echinoderms (Sea urchins) plentiful in roof with many spines on floor. Must be in Gambier Limestone. Needs proper survey- Big mongrel of a project, property soon to be sold so must rush.

Interestingly landowner initially wanted us to be lowered on his winch complete with a wooden seat attached which he last used years and years ago (Marie conjured up images of white ant infestation). Dave T & Myself looked at each other and went Noooooooo Way.."

Whale vertebrae in situ in 5L412c

A Whale in 5L412c !! 11 July 98

With:- Marie Choi, Amanda Wagener (Not The Whale!), Damian Grindley, Fred Aslin, (Surface coordinator!), Kevin & Adrian Mott.

*"Sat. Back at **5L412c**. Various methods for decent/ascent. Continued survey with aid of Mott & son. Kevin even surveyed depth of bore and water level in it with a nifty electronic tape. I was well impressed (Groan) Results interesting. Lower cave continued in the expected NW/SE direction; First found easy way into a pretty area previously accessible only to Dave Glowaki. Great calcite flakes. Then through another low section to further flatteners.*

Looking up the shaft of 5L412c

Whale vertebrae on cm graph paper

Photographs:- Marie Choi

Later as surveying towards pretty area, Amanda who had been helping Marie Photograph spotted an interesting coloured rock!!!. Closer inspection revealed a huge vertebrae (Disc 15cm in diameter) just sitting in the mud. Lots & lots of WOWs!, particularly as the cave was almost devoid of any other bones clearly being completely sealed prior to the digging of the well. Bone removed for identification using Pom's helmet to protect it (The only one big enough?? ed.) and a 20L bucket to haul it up the entrance pitch. Landowners so stoked that cups of tea, rock cakes and sandwiches started to flow. (Nice people). Suggestion that find was a whale vertebrae which had completely eroded from the Gambier Limestone, making it some 30 million years old!!!

Returned to cave to find surveyors surveyed out! So went for a little wander, soon passed Adrians previous limit finding another chamber of crystals and flakes, another vertebrae and numerous flatteners. Suspect all pretty bits will line up on survey when complete."

The vertebrae along with a couple of small jaws (Probably Rat and Dasyurid) were expertly packed by Fred and delivered by Amanda & self to Jim McNamara at the S.A Museum. He confirmed the probability of whale and was most informative on the subject showing examples of diagnostic bones to look out for on future trips to the cave.

Bugs in Mt Burr!! (5L69/70/335) 12/July/98

*"Checked out semi open lead which had been bugging me due to a tantalising view of some large lumps of old stall unusual for the decoration free area just inside the **5L335** entrance. The squeeze (first spotted 17/5/98) was soon passed by Amanda revealing a small 15m x 4m x 3m high chamber with some active stall on ceiling and filled with sand from a couple of solution tubes. Unfortunately the proposed continuation beyond the major breakdown zone making up the **5L335** entrance chamber was not found, however a visual link was made to one of the lower level rifts.*

Other ?? marks / surveying not attempted due to onset of advanced fever symptoms. Yet more things to bug me!!"

Over and Out for the foreseeable future...

Damian 'Pom' Grindley.

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NULLARBOR (MADURA, MUNDRABILLA AND KOONALDA*)

Monday 13 Apr 1998 to Thursday 23 Apr 1998

Participants:
Max Meth – CEGSA, Max (Dave) Hall - SRGWA, CEGSA, Norman Poulter, Norman Martin, Michael Bradley – SRGWA
and from National Parks & Wildlife Service (NPWS):
Brett Dalzell - Ceduna office, ranger, David Farlam - Port Lincoln office, ranger.

Features visited:
Listed in the order visited:
W AUST: 6N1327 c, 1489 d, 46 Nurina c, 1490 d, 1491 d, 1492 f, 1493 d, 1494 d, 1495 d, 37 Mullamullang c, 1496 bh, 1497 d, 1323 d, 518 d, 1498 rh, 699 bh, X740 d, X741 d, X742 d, 327 c, (X738 bh), (X739 bh), 1499 d, 1500 d, 370 Matilda c, 1419 Dynamite c, 1501 rh, 1502 rh, 1503 bh, 1504 bh.
S AUST*: 5N21 Bunabie c, 1052 bh, 1053 bh, 882 Turkey c, 4 Koonalda c, (1024 bh), 1018 bh, (1023 bh), 1022 bh, 1505 c, (1021 bh), 1020 bh, 1019 bh, 1506 bh, 1507 bh, 992 bh, 223 Harrys c, 994 c, 995 Shellsign bh, 26 Homestead bh, 15 Weekes c, 1004 bh, (5 Eyeball c), 1508 bh.

Listed in numerical order: N4 (5) 15 26 37 46 223 327 370 518 699 882 992 994 995 1004 1018 1019 1020 (1021) 1022 (1023) (1024) 1052 1053 1323 1327 1419, 1489 to 1508, (X738) (X739) X740 X741 X742.

Key: ( ) = not located, bh = blowhole, c = cave, d = doline, f = fissure, rh = rockhole, X = feature on temporary list.

***** ***Note: Permission to enter caves in South Australia in the Nullarbor National Park must be obtained from NPWS, Ceduna.***

Objectives of trip:

- To gate cave 6N1327 as an aid to fauna protection.
- To examine the fauna in cave 6N327, that was gated in Jan 1998.
- To conduct a fauna survey in caves in South Australia (for which purpose a collecting permit was obtained).
- To establish a working relationship with NPWS staff in Ceduna.

For a comprehensive report of cave fauna found on this trip, see the separate report by Norman Poulter[1].

Daily account of activities:

Monday 13 Apr 1998

Dave, Norm, Norm and Michael arrived at Madura around sunset and set up camp near 6N1327, South of Madura on the Roe Plain. Max travelled by bus from Ceduna to Madura and arrived at 2.00am the following morning. Dave met the bus and all were in camp by 2.30am.

Tuesday 14 Apr 1998

The first task was to collect material for the gate left with Denis Nash at Madura Homestead since the Jan 1998 trip. While Norm was attending to that, Max went for a short walk. A very shallow doline, 6N1489 was found 350m NW of camp on the west face of a NS rise. This is a clay depression 60x50x0.4m @070 with no limestone exposed.
The rest of the day was spent pouring the concrete foundation for the cave gate.

Wednesday 15 Apr 1998

Norm, Norm and Michael went to Nurina Cave 6N46 to take photos. Max and Dave went looking for caves, Max on foot, Dave on motorbike.
Max found a doline 6N1490 about 600m NE from camp. This is a depression 55x40m in which is a rock sided doline 7x5x1m. A breeze issued from between rocks. Tag.
Denis Nash had told Max of a doline on the east side of the main road south from Madura Motel. This proved to be a clay depression, more of a dry lake than a doline, 100x50x0.3m. This had been numbered as X110, it is now 6N1491.
Dave found 2 karst features also. 6N1492 is a blowing fissure 0.2m wide and 1m deep and 6N1495 is a 3m diameter doline. These are both in the area east of Madura Cave.
In mid afternoon a start was made fabricating the cave gate.

Thursday 16 Apr 1998

The gate was completed and painted in mid afternoon. After packing the vehicles and just before driving to our new camp, Dave went for a quiet nature walk. Surprisingly, he found not one, but two dolines within 300m of our camp, on the south side of the 1896 telegraph line track. These are 6N1493 & 1494. The camp was then moved to Mullamullang Cave 6N37.

It is worth giving the tally of karst features known on the Roe Plain. Currently there are:

- On the 290km long sloping edge of the escarpment:
  99 (a mixture of rockholes and rock shelters, a few shelters are moderately large caves).
  That is an average of 1 feature per 2.9km.
- On the flat plain area (of approx. 3100 sq. km):
  23 – made up of:
  4 caves, 8 rockholes and 11 dolines.

That is an average of 1 feature per 135 sq km, which is a very low occurrence rate. Note that there are no true blowholes known on the Roe Plain, although all 4 known caves do breath quite strongly, as does one of the dolines.

Friday 17 Apr 1998

Norm, Norm and Michael went into Easter Extension to do some restoration work.

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[1] **POULTER, Norman**; 1998, in prep (*TRIP REPORT Nullarbor April 12-25, 1998*); Cavers Chronicle.

Dave went looking for karst features on motorbike. A 5m deep blowhole 6N1496 was found 3km E of Joes Cave and a shallow doline 6N1497 NE of Joes Cave.
Max went for a walk SW of camp to shallow doline 6N1323. This had active rabbit burrows in it. 300m further SW; the larger doline 6N518 had no rabbits. A small rockhole 6N1498 was found 1.5km south of camp. This was only ¼m deep. About 100m north of camp is rockhole 6N699. A large rock that had fallen into the rockhole was removed.

Saturday 18 Apr 1998

The intention today was to drive east to Mundrabilla Station via the old coach road. All went well for a while until we noticed a dark cloud overtaking us from the west. Then it started to rain. Then a minor navigation error saw us heading west instead of east and we returned to Madura Motel. Had we continued east, the remainder of our trip would have been a dry one, because the thunderstorm producing the rain was quite small, and it headed south over the Roe Plain. We did notice 3 shallow dolines X740 X741 and X742, beside our track, which were not currently in records.
We travelled to Mundrabilla homestead via the Eyre Highway and chatted with the roo shooter before setting up camp 1.6km west of 6N327. This is the same campsite that Norm was at in January 1998, when a member of his party wandered from camp and was lost overnight.
Norm, Norm and Michael went into N327 to check on the cave fauna. The cave had been ventilating freely since its discovery[2] in Jan 97, but had a more restricted airflow since the gate was built in Jan 98. Several spiders were seen in the cave. Michael discovered a *Troglodiplura lowryi* spider. This is possibly the first time a live specimen has been found in Western Australia since the species was described from body parts found by Jackie and David Lowry in Roaches Rest Cave 6N58 in 1968[3].
This find significantly enhances the importance of the cave as a research site, and certainly vindicates the gating of the cave.

On the Jan 97 trip, two blowholes were found in the process of searching for the lost caver. This entire area had been searched in April 1995 by Plane Caving group of Perth. They used ultra light aircraft, and several new caves had been found. There was some interest in the 2 new blowholes, as these were in the area supposedly searched by Plane Caving. Dave searched for X739, which was about 2km south of camp, but could find nothing at the indicated location.

Max searched for X738, which is about 500m north of camp. He was surprised to find a 5m diameter doline 6N1499, just 100m north of camp. This proved to have a breeze issuing from a small hole in clay ½m below ground level. The blowhole X738 was not located.

Sunday 19 Apr 1998

The next morning, Max found yet another doline about 200m north of camp. This one, 6N1500 was much larger, being 30x20m and 1.3m deep, also with a breeze issuing from a hole.

Next we drove north east to Matilda Cave 6N370. This is a somewhat dry and dusty cave, and did not contain any cave fauna. This cave had been found by Plane Caving in April 1988.
From there we drove on station tracks to Mundrabilla Roadhouse. The first stop was at Mundrabilla Homestead to see the manager. In the gully behind the motel are two dams, and above the higher one is a small cave. This is 6N1419 and was used as an ammunition store during World War 2.

After this we headed east on the track to Winganna Well. About 3½km before Woolshed Dam we stopped to examine a rocky hilltop. There was a small rockhole 6N1501 about 200m north of the track.

About 4½km past Woolshed Dam there is a large rockhole 6N1502. The track crosses the south portion of the rock pavement area. A mound of earth across the pavement area forms an effective dam. There was about 0.3m depth of water over an area of about 30x15 metres. The rockhole has been increased in size by blasting evidenced by two piles of broken rock.

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[2] **POULTER, Norman**; in prep; Cavers Chronicle.

[3] **MAIN, B Y**; 1969; *A Blind mygalomorph spider from a Nullarbor Plain Cave*; J Proc, R Soc W Aust, 52: 9-11.

400m west of Cheeta bore and 15m south of the track was blowhole 6N1503. This had a top of 0.6x0.4m but tapered toward the bottom. A snake in the blowhole deterred any would be explorers. There is a possible low tunnel heading north at the bottom.

Another blowhole 6N1504 was found 19m east of the track 7km NE of Winganna Well. This is in a small depression 6x5x1.2m and the blowhole is 0.7x0.5m. It is only 1m deep but there is a cave about 2m long heading southwest.

We spent some time at Diana Wynne's place at Eucla before moving off and setting up camp after dark near Bunabie Cave 5N21.

Monday 20 Apr 1998

We explored the entrance chamber of Bunabie Cave. The entrance chamber is 30m long and about 10m wide with the blowhole near the east end. The entrance is located 18m north of the old (unsealed) Eyre Highway and the chamber is oriented at about 045º so that the far end of it is further from the highway. There is no map of this cave, apart from a memory sketch done by Elery Hamilton-Smith in 1957. I guess 41 years has not been long enough to motivate people.

Bunabie Cave was for many years, NOT a very pleasant cave to visit with travellers on the highway evidently stopping to admire the 5m deep blowhole entrance, which often blows out very strongly. And they also threw all manner of rubbish down.

Since the highway was moved a few km to the south, no further rubbish is being thrown in. But a major effort is now required to clean up the cave. It is pleasing to note that the Ceduna State Emergency Service (SES) has undertaken to remove this rubbish.

It was also pleasing to see that the colony of cave crickets is alive and well, but little other cave fauna was seen in the cave.

Next stop was an attempt to locate a pair of blowholes that had been reported by Harry Wheeler as QW137 (6N1052) and QW167 (6N1053). Harry reported these on 10 Jan 1958 and 10 Feb 1960. 6N1052 is a 6.6m deep blowhole located 45m south of the old Eyre Highway. Harry's notes indicate that he did not descend this. It requires a short ladder. Descent only revealed a 1m long offshoot at the bottom with fist sized holes extending deeper.

6N1053 is a 3m deep blowhole located 19m nearer to the highway.

Next stop was Turkey Cave 6N882. This consists of a single wide chamber, but it extends well into dark zone. We had hopes of finding cave fauna, but this was not to be. We completed a map of the cave. Whilst doing this we were joined by NPWS Ranger, Brett Dalzell. That night we camped at Koonalda Homestead.

Tuesday 21 Apr 1998

First stop was 6km north of the homestead on the road to Hughes for a look at the entrance of Koonalda Cave 5N4. This is currently closed to cavers and members of the public.

The usual access point for vehicles visiting the cave is in the erosion depression next to the doline. Water running down the roadway is eroding a deep channel, currently about ½m deep, and this is making access for cars quite difficult. It is suggested that visiting cars be directed to an alternative site, and that the road north be routed around the edge of the depression.

20km further north we failed to find a track that heads east to blowhole 5N1024. This had been reported by Harry Wheeler as QW181 on 14 Feb 1961.

11km further north is blowhole 5N1018, 5m west of the road. This was only 1.5m deep. It was QW175 of 13 Feb 1961.

Returning 3km south we drove east on a track that connects with the Guinewarra to Denman road. At 1km we failed to locate blowhole 5N1023 (reported by Harry Wheeler as QW180 on 14 Feb 1961).

At 4km we did locate blowhole 5N1022 4m south of the track (reported by Harry Wheeler as QW179 on 14 Feb 1961). It is 1.8m deep.

2.5km east we noticed blowhole 5N1505 about 15m south of the track. This had not been reported by Wheeler. It is a 2.6m deep blowhole with a 4m long cave heading NE.

2½km east we noticed a cairn of rocks beside the track. This marks the way to a blowhole 5N1021 that is 800m north of the track. But no one was interested in going for a walk to locate it. Maybe it was the threat of impending rain. Harry Wheeler recorded it as QW178 on 14 Feb 1961. His description is a little confusing. So another visit is required to check it out.

1km further we located 5N1020 6m north of the track. (Reported by Harry Wheeler as QW177 on 14 Feb 1961). It is a 2.6m deep blowhole.

> Note that in 1880, South Australian government surveyor James W Jones[4] was investigating the Nullarbor. In particular he had been asked to select sites for the sinking of bores for water. He made 3 excursions, on one occasion crossing from Coompana Tank to the north edge of the Nullarbor to a point about 80km north of (what is now) Cook railway siding. On 9 May 1880 he noted in his journal that he had found a "pipe-like cavity, 6 ft. deep, in grey crystalline limestone"
>
> The location of this would be within 1 or 2km of 5N1020. But given the difficulty that Jones would have had in navigating and recording the location, it is not possible to say with certainty which blowhole Jones actually visited.
>
> It is worth noting that there is an EW grouping of blowholes in this vicinity. It is evident that such groupings occur, and that blowholes are not distributed evenly over the entire Nullarbor Plain.

3km east we also located small cave 5N1019 8m south of the track. This has a blowhole entrance 2.2m deep and a cave 4m long that heads east. (Reported by Harry Wheeler as QW176 on 14 Feb 1961). An additional blowhole was found about 200m south. This is 5N1506, a 2.7m deep blowhole.

3km east was yet another blowhole, also unrecorded by Harry Wheeler. This is 5N1507, a 1m deep blowhole, 5m south of the track.

3½km east we turned south toward Guinewarra, and in 6km came to blowhole 5N992 5m east of the track (reported by Harry Wheeler as QW40 on 29 Jan 1955). It is a 1.8m deep blowhole with a possible low tunnel heading east.

Toward late afternoon we located Harrys Cave 5N223 about 600m west of the main NS track. Oddly, it is not recorded specifically if Harry Wheeler visited this. It is a reasonable guess that he did, and that he may even have been the first to visit it. We set up the temperature and humidity recorder in two locations in the cave before leaving it to the swallows for the night.

Wednesday 22 Apr 1998

In the morning we explored the cave, both to locate any cave fauna, and to determine the extent of the cave. The previous description described the entrance chamber as being 20m long and 10m deep. We found that the cave descended further in rockpile to a depth of about 35m and this places it in the top 35 deepest caves on the Nullarbor. Its total cave length is at least 70m placing it in the top 100 longest caves. The cave is rather dry and dusty, but does contain old dead decoration. There was no cave fauna in the dusty lower passages, and only surface forms in the entrance chamber. The cave may descend deeper than 35m as there is at least one tight blockage, beyond which the cave can be seen descending sharply.

On the surface, it can be seen that the cave drains an area of about 1km radius. That means a very

[4] **JONES, James W**; 1880; *Examination of country North East of Eucla*; SA Parliamentary Paper, No 191; 9pp + map.

large volume of water flows into the cave on rare occasions. Water would clear the cave of rock breakdown material, but it appears that exudation processes are accumulating debris faster than the floods of occasional rainstorms can clear it. And the cave does seem to be in the process of blocking off.

Next item on our agenda was to visit Weekes Cave, so we headed south. Our plans all went astray when Dave's landcruiser stopped in mid stride. Somehow the oil pressure had fallen to zero and the motor had activated a safety shut down. The problem could not be fixed, so Brett towed the vehicle to Koonalda Homestead. On arrival, Dave and Norm Poulter began to determine the cause of the problem. Eventually they concluded that the problem could not be fixed outside of a workshop.

Brett mentioned to Max that he knew of a blowhole near the homestead, so Brett and Max went to see it. It is located about 1km NE of the homestead. On checking the records, this turned out to be 6N994. Our records show it as a 1m deep blowhole, as per Harry Wheeler 31 Jan 1955 who numbered it as QW46. But on descending it, there was a 10m long crawlway, which opened into a fair sized but dusty cave. Clearly, this needed to be checked out.

Next Max showed Brett blowhole 5N995. This is beside the old Eyre Highway and used to be opposite a sign advertising petrol for sale at the Homestead (when the old highway was in use). Hence it is called the Shellsign Blowhole.

As well we looked at 5N26 Homestead Blowhole. Named because at one time, the Gurney's (that ran the Koonalda sheep station) remarked that they should have built their homestead on the blowhole to provide free air conditioning. This blowhole is one that has a rather strong and easily audible breeze. But in the event, the Gurney's decided to use it as a rubbish dump, and so it is full of old rubbish. Another clean up job to add to the list for the Ceduna SES.

Toward evening Max and Michael Bradley walked to 5N994. It was evident that Wheeler's description of it in 1955 as a 1m deep blowhole would have been correct. Wheeler noted that the blowhole had a particularly strong breeze, which is still has. At some time, water flooding into the cave (it has a catchment of at least 300 sq m), has eroded a channel about ½m deep through rocky sediment for about 10m, giving access to a cave. The cave was a disappointment. Very dusty, and blocked at about 35m length, at a depth of 10m. And no sign of any cave fauna.

That night another NPWS ranger, David Farlam, joined us.

Thursday 23 Apr 1998

The whole group travelled to Weekes Cave 5N15 (leaving Dave's landcruiser at the homestead). The cave has 2 entrances 25m apart at 140º. The SE entrance is 4.2x3.2m and the NW entrance is 2.9x2.8m. Both entrances drop 7m into a spacious chamber.

Heading north to the old highway we stopped at blowhole 5N1004 which is located 30m south of the highway 1km west of Guinewarra. It is a 1m deep blowhole, numbered by Harry Wheeler as QW110 on 28 Jan 1956.

2km west, an attempt to locate Eyeball Cave 5N5 failed. But in the process of searching for it, a new blowhole 5N1508 was found. It is 2m deep and blocked by silt. It was evidently known to the Gurney's, as it was covered by a few pieces of wood.

In conclusion:

- Another successful Nullarbor trip with visits to some rarely seen caves.
- Thanks to NPWS staff at Ceduna for their cooperation and support.
- Speleos venturing across the Nullarbor are encouraged to contact NPWS at Ceduna re conditions of access to caves in South Australia.

Max G Meth, 11 May 1998

THIRTY METRES UNDER THE EARTH

SURVEYING AT WIRREALPA, Flinders Ranges

Dates: June long weekend. 5/6/98 – 8/6/98

Participants: Bill Binks, Ray Gibbons, Julius Gheude and Gary Woodcock

Caves Visited: F12, F73, F78, F110, F111 and F113

Trip Objectives: Survey F111, F12 and F121. Tag and photograph entrances of caves visited.

Introduction

Fighter Cave, F111 was discovered at Easter, 1995. After visiting nearby Cistern Cave F73, in fading light Gary Woodcock and Eddie Rubessa stumbled across a small hole in an outcrop of dolomite limestone. With only enough time for a cursory inspection, Eddie squirmed down into the hole and reported a 2 metre drop to a floor, which he did not climb down. After that it was unknown. Roughly marking the position on the topographic map, we vowed to return soon to explore our discovery.

One year later, Easter 1996, Ray's son Terry, Eddie and myself returned to F111, this time with a ladder. With the ladder rigged around a convenient rock bridge at the entrance we climbed into the hole, down a 2.5 metre drop, past some dry decoration, then a further 3 metre drop to a small chamber. Leading off this chamber, down into the hill, was a very narrow rift that appeared too tight to enter. We could not see how long or deep the rift was, but by rolling a few rocks off the edge we knew it had potential. We would have to come back again, with more time and gear.

In June 1996 we returned to F111. This time, armed with a bolting kit and enough vertical gear to make an attempt on Everest, we were determined to explore the rift and the rest of the cave. After discovering two ladders were not long enough to reach the bottom and placing two extra bolts, one in the rift directly above the drop, Bill finally reached the floor of the chamber below by abseiling down the estimated 20 metre pitch. The rift widened out from its initial 30 cm into quite a substantial cavern below. At the bottom there was a damp sump and a short side passage to a small chamber, both dead ends. But with some pristine decoration, a large number of bones at the bottom and a 20 m internal vertical drop, we knew this was a significant new cave for the Flinders Ranges. I began pondering how to survey it.

Later that year we assisted Graham Medlin, from the SA Museum to remove some of the bones from the bottom of F111 for identification. Among the animals identified were the western quoll, the western barred bandicoot, the brushtail possum and the lesser stick-nest rat, all of which are now extinct in the area.

The owner of a nearby homestead discovered Reale Cave, F121 while he was flying over the area looking for sheep. We heard about the cave from him at Easter 1997 and followed it up. After sliding over a large rock he described as blocking the entrance, we entered the cave. The main chamber slopes down into the hill at about 45^{o}, contains small amounts of decoration, a dry sump and is about 30 metres long. Another cave to survey in the area.

Backwater Cave, F12 has been known of for much longer than F111 or F121, but it too had never been surveyed. While looking for caves is fun, I really wanted to organise a trip to the area to survey some of the new caves.

The trip

Setting off from Ray's in Adelaide on Friday afternoon, we rocketed north for three hours or so, reaching our much awaited destination: not a cave, but Port Augusta Pizza Haven, of course. This seems to be becoming a bit of a tradition, and the staff are enticing us back with hand fulls of 2-for-1 vouchers. Oh damn!

Julius was beaming with pride over his newly purchased GPS, and the Pizza Haven store did not escape being zapped. We continued north, Julius tracking the speed of Ray's Landcruiser, and light rain beginning to fall when we got to Hawker. When we finally arrived at our campsite the rain eased but the air felt calm and balmy – maybe a change was coming.

Change is an understatement. A hurricane started blowing at about 1 am just as we went to bed and the temperature plummeted. The wind was so loud, sleep was virtually impossible. Julius was hit in the face by the distended wall of his tent! I got about 2 hours sleep that night, not ideal preparation for the next day.

The entrance to F111 is only about 5 minutes walk up the hill from the campsite. We began sorting out the ropes and other gear and as Gary, Jules and myself began surveying the entrance, Ray tagged and photographed the entrance then slipped away saying something about going for a walk over the hills looking for holes. I started rigging while Gary and Julius followed, surveying the top section of the cave.
The top part of the cave didn't take long to survey but I placed a second back-up bolt in the rift above the main drop and this took much longer. Julius had gone out to the surface for food and when the bolt was done, Gary and I joined him for lunch. Ray was no where to be seen and the wind was still blowing a gale so we soon returned to the calm below. I abseiled down to the rock ledge half way down the pitch and tied off on the ladder. Gary followed with the tape, drawing as he descended. As Gary and I surveyed, we eventually heard snoring sounds from above. Amazingly, Jules had managed to fall asleep waiting for us, whilst wedged at the top of the 20 m deep rift (tied off of course)!

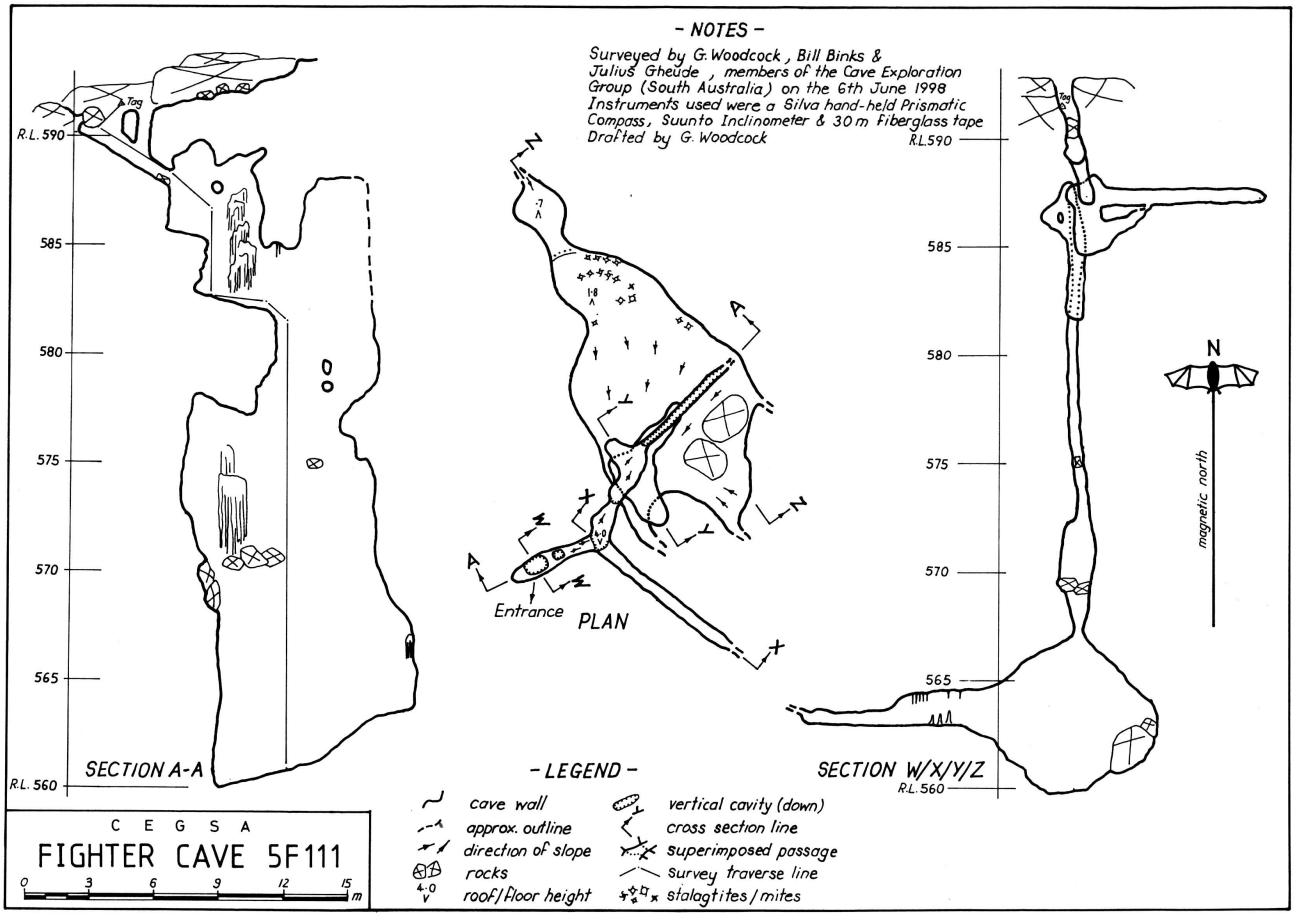
After all descending to the bottom, we fortunately were able to finish off the survey on this single trip. The drop from the bolt to the floor measured in at 20.7 metres. After each employing our own novel way of reaching the bottom of the ladder (it was about 3m off the floor), we made it to the surface in darkness after about 9 hours underground. The cave was left rigged for a possible photo trip later. That night was freezing, but at least calm, and we caught up on some sleep.

Sunday morning was a late start. I felt about as energetic as the water around camp that had frozen solid overnight. We drove around to the Wirrealpa spring, up the ridge a short way, then left the car and headed for the hills and F12, Backwater Cave. Thinking we were being smart, we entered our location for the cave into Jules' GPS and pressed 'Goto'. Unfortunately that location was about 1 km out, and we wasted about 2 hours looking for the cave. That's what you get for trusting technology! I had been to the cave before, but the GPS set us off in the wrong direction. Eventually finding the cave, we got an accurate 'fix' and then surveyed the main passage, but unfortunately had to leave some for next time. We did employ the GPS again though, pressing 'Goto' and walking straight to the car, then mapping our route back to the main track.
I found out at the campfire that night that Dunlop Volleys have very little heat resistance.

We returned to F111 on Monday morning, but only to de-rig, leaving the photo trip. Jules and Ray walked down the ridge for a dig in an interesting 1.5m deep hole Ray had found on Saturday. We then walked to F73 Cistern Cave, which Ray had tagged, photographed and surveyed on Saturday. We got an accurate GPS location then walked on to F78: tag, photo, GPS fix, then returned to camp and packed up. We left surveying F121 for another trip.
On the way home we photographed and tagged F110 Narrina Road Hole, and dropped in to Angorichina HS to say hello.

F111 turns out to be over 30 metres deep, as can be seen from the map Gary has quickly produced. The cave is a sensitive and relatively dangerous environment. Unfortunately we have already noticed the visible signs of our trips, particularly at the top of the pitch. The cave would be easily damaged by too many visitors and is not suitable for groups of novice cavers.

Bill Binks



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TECHNICAL and OTHER ARTICLES

THE OTHER SIDE OF CAVING - Part the One

"Horse Vanished into Cave" was the title of a page 16 article in the Mt Gambier newspaper "The Border Watch" of 15 November 1952. But which one you ask? Read on.

"Destruction of 'Government' rabbits, spreading from pine forests to farm lands, has always been a costly business to farmers. However, in the case of two Glencoe men, it recently proved more costly than usual, Cr. JL Dwyer told Thursday night's meeting of Tantanoola Council. In an effort to destroy rabbits coming into their properties from the forests the two men, Messrs EJ Ryan and CD Case decided to purchase a fumigator for their joint use.

Everything was working well, until Mr Ryan began fumigating the bank of a basin which led down to a cave. The horse slipped on the bank, and, with the fumigator attached, vanished into the cave. 'They couldn't get the horse out and had to shoot it' Mr Dwyer said. 'The fumigator was hauled out again a little battered and bent, but has been straightened out and is back on the job again'."

In October 1997 I delved into my trusty electoral rolls and phone book and a couple of phone calls later I was being told the story by Mrs Marjorie Monica Ryan, wife of the late Edward John Ryan who died 26 June 1978. Mr Ryan was born in June 1920 and lived on the property, on Ryan Rd Glencoe, that his father had acquired around 1914.

Mrs Ryan remembered the day well. She had gone to Mt Gambier for a medical check, as she was 8 months pregnant with her third child. On her arrival home one of her 3½ year old twin boys excitedly told her "Nobby is in the hole". Nobby the horse was usually called "Scotty Nobby", because he was "scotty" or "frisky". The horse landed on its back and was shot about 6pm because the people, who had come from everywhere to help, were not able to rescue it.

On 5 Jan 1997 I had found a large sinkhole whilst fire fighting at Glencoe west and this we had subsequently numbered L374. Lo and behold the newspaper article, and in turn, Mrs Ryan, had given us some history of a feature that has been in CEGSA records for less than a year. Mrs Ryan confirmed that the trickle of water that enters the southern bank is a permanent feature.

F Aslin, 30 July 1998

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OBITUARY

MEREDITH JOAN SMITH 1943 - 1998

Meredith Smith would not be known to many cavers. Indeed, she did not do much caving except in connection with her association with Rod Wells and his excavations in the Victoria Fossil Cave in the early 1970s.

I'm not sure when I first met Meredith, but it could have been at the University of Adelaide in 1963 when I was doing Zoology II and sharing a lab bench with her future husband, Murray Smith. Meredith was then doing her Honours degree, and could well have tutored us. It was not until seven years later that our paths crossed again, when she started studying the smaller vertebrate fossils being excavated in the Victoria Cave at Naracoorte (now a World Heritage Site), and I was at the SA Museum curating the specimens that were beginning to come in increasing quantities from the South-east caves.

Meredith's work on the Naracoorte fossils, which was blessed with an embarrassment of riches so far as the amount of material was concerned, continued over a number of years and culminated in a series of five scientific papers on this part of the late Pleistocene vertebrate fauna of South Australia, four under the covering title "Small fossil vertebrates from Victoria Cave, Naracoorte, South Australia". These dealt with, in turn, the Potoroidae (rat kangaroos), Petauridae (ringtail possums and gliders), and Burramyidae (pygmy possums); Peramelidae (bandicoots), Thylacinidae and Dasyuridae (carnivorous marsupials); reptiles; and birds (with the late Dr Gerry van Tets). The fifth paper established methods for distinguishing between the vertebrae of four different elapid snakes whose remains are such a common component of the fossil fauna. Two new species emerged from Meredith's studies of the Naracoorte fossils: a giant mallee-fowl *Progura naracoortensis*, described with van Tets in 1974, and a giant primitive snake *Wonambi naracoortensis* in 1976. The latter species was the last of its kind, the Madtsoiidae, which originated during the Cretaceous Period and spread throughout the Gondwana land-masses before that supercontinent broke up. Her interest in fossil snakes continued, and in 1985 she described a new boid snake *Montypythonoides riversleighensis* from the World-Heritage Miocene deposits (say 20 million years) at Riversleigh, Queensland.

Born Meredith Clark, on 10/2/43, in Adelaide, Meredith attended the Magill Primary School and Norwood High School before entering the University of Adelaide in 1960, studying zoology, She gained First Class Honours degree in 1963, and after working for two years at CSIRO Wildlife in Canberra, she returned to Adelaide and gained her Ph.D. on the subject of the delayed implantation in the reproduction of kangaroos in 1969. Her scientific work was excellent, as one might expect from such a single-minded person, and she was awarded the Bolliger Award by the Australian Mammal Society in 1967, and received the highest praise for her thesis. ("A study of embryonic quiescence in diprotodont marsupials"). She married fellow student Murray Smith in 1967, and they had three children. After two years in Armidale, NSW, they returned to Adelaide. They bought a property at Norton Summit where they could enjoy the country life and keep plenty of animals, and Meredith got part-time work as a demonstrator, first at Flinders University, then at the University of Adelaide. Tragically, Murray died of cancer in 1980.

To support her family and herself, Meredith started part-time work shortly afterwards with the Institute of Medical and Veterinary Science as an animal laboratory scientific officer, working on the breeding biology and husbandry of Australian mammals, particularly marsupials. This aspect of the IMVS, then housed at Gilles Plains, was ultimately transferred to the administration of the SA Museum as the Evolutionary Biology Unit (EBU) in 1983. When EBU was moved into the city, into the new Natural Sciences Building in 1992, the live animal work was terminated, causing Meredith much grief. However, she was able to retain a number of animals, particularly bettongs, at home and continue her research while still working part-time at the Museum. In all, Meredith published about

fifty scientific and six semi-popular articles, many of them on aspects of the reproductive biology of marsupials.

Meredith involved herself in a number of activities. As a teenager, she joined the Adelaide Bushwalkers, at a time when that club was beginning to spawn other interest groups such as the Cave Exploration Group (South Australia), of which she was later an associate member. Meredith was always ready to help. This showed in her wide interest in animals. She owned a couple of horses, a pony, and several donkeys, and was a long-time member of the Black Hill Pony Club. She was a member of the Australian Mammal Society and edited their news Bulletin and, in 1976, *Australian Mammalogy*. Also, she was a member and one-time Secretary of the SA Waterfowl Club Inc., and the SA Poultry Association, and had a large flock of bantams and ducks of different breeds that she would exhibit very successfully at the various shows. Earlier this year, when the Natural Science Division of the SA Museum held an Open Day, Meredith helped me in the Palaeontology Section when other staff were unavailable. We were kept very busy and had little time to chat, but she was clearly excited about her forthcoming holidays that she was taking on safari in Africa. I hope she made the most of it, for, three weeks into her trip, she was taken ill and spent a week in hospital in Nairobi before being flown back to the Royal Adelaide Hospital. Being treated there by chemotherapy for cancer, Meredith died of an aneurism on 18 July, aged 55 years.

Meredith is survived by her mother, two daughters, Felicity and Tiffany, and her son Matthew.

Some Publications:

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Smith, M.J. 1972. Small fossil vertebrates from Victoria Cave, Naracoorte, South Australia. II. Peramelidae, Thylacinidae and Dasyuridae (Marsupialia). *Transactions of the Royal Society of South Australia* **96**(3): 125-137.

van Tets, G.F., & Smith, M.J. 1974. Small fossil vertebrates from Victoria Cave, Naracoorte, South Australia. III. Birds (Aves). *Transactions of the Royal Society of South Australia* **98**(4): 225-227.

Smith, M.J. 1975. The vertebrae of four Australian elapid snakes. *Transactions of the Royal Society of South Australia* **99**(2): 71-84.

Smith, M.J. 1976. Small fossil vertebrates from Victoria Cave, Naracoorte, South Australia. IV. Reptiles. *Transactions of the Royal Society of South Australia* **100**(1): 39-51.

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Hope, J.H., Lampert, R.J., Edmondson, E., Smith, M.J. & van Tets, G.F. 1977. Late Pleistocene faunal remains from Seton rock shelter, Kangaroo Island, South Australia. *Journal of Biogeography* **4**: 363-385.

Smith, M.J. & Rogers, P.A.W. 1981. Skulls of *Bettongia lesueur* (Mammalia:Macropodidae) from a cave in the Flinders Ranges, South Australia. *Transactions of the Royal Society of South Australia* **105**(4): 217.

Smith, M.J. 1982. Reptiles from Late Pleistocene deposits on Kangaroo Island, South Australia. *Transactions of the Royal Society of South Australia* **106**(2): 61-66.

Smith, M.J. & Medlin, G.C. 1982. Dasyurids of the northern Flinders Ranges before pastoral development. Pp. 563-572 *in* "Carnivorous Marsupials", vol. 2, ed. M. Archer. Royal Zoological Society of New South Wales. Mosman, New South Wales.

Smith, M.J. & Plane, M. 1985. Pythonine snakes (Boidae) from the Miocene of Australia. *BMR Journal of Australian Geology & Geophysics* **9**: 191-195.

Neville Pledge.

It's Winter and Time to Avoid Bat Caves.

This short article is simply a reminder that as part of our code of caving practice, we are obliged to care for caves and their fauna. Part of this care includes not disturbing bats, especially during the cold months when they are most vulnerable. What should one do when bats are encountered in caves…

In South Australia, three bat species are commonly encountered in caves - the Chocolate Wattled Bat (*Chalinolobus morio*) is resident in several caves of the Eyre Peninsula and Nullarbor, and allegedly Punyelroo Cave; Finlayson's Cave Bat (*Vespadelus finlaysoni*) is found in caves and fissures in the Flinders Ranges and to the north; and the Large Bent-winged Bat (*Miniopterus schreibersii*) which is found in caves of the upper and lower south east. Two other species are less frequently encountered - the Large-footed bat (*Myotis macropus**) is found in small holes and caves in the Lower Glenelg River region and also along the Murray River; and Hill's Sheathtail Bat (*Taphozous hilli*) occurs in small caves and rock fissures in the ranges to the very far north of the state. All five species are vulnerable to disturbance by cavers.

Of course, seeing bats can be one of the pleasures of cave exploration, and by observing bats in their natural state, we can appreciate and learn much about them. Moreover, cavers contribute vital information on the distribution and status of bat populations. As general principle, cavers should always act to minimise their impact upon bats. The following is a protocol for planning and caving in such a manner as to reduce adverse impacts upon cave bats yet allowing the opportunity to appreciate bats and to contribute to their conservation.

A simple protocol to minimise your caving activities on bats

If you are planning a caving trip, you should check CEGSA records to see if any of the caves you intend to visit are known to have bats roosting in them.

If your trip is planned for the period of the beginning of May through to the end of August, then consideration must be given to the following options;

- do not visit any caves which have bats roosting in them, or
- do visit bat caves but only those parts of the cave where bats are not roosting

The reason for avoiding sleeping bats in winter is that disturbance (light from your torch, or noise) may cause them to awaken from their sleep. Sleeping bats in winter are very cold (a few degrees above the ambient temperature), and it requires considerable energy for them to fully awaken. This energy is drawn from fat reserves that the bats have built up in the warm months and which may be finely balanced to get them through the winter. Therefore purposefully or inadvertently waking bats in winter could ultimately cause their death.

If your trip is planned for the warmer months, try to plan your time so that visits to bat caves happen during the night when the bats are already active and where your presence will have minimum impact. This is a good time to see bats at close hand.

If you encounter bats during the day or night, they may be asleep, in which case it may be possible to observe them for a short moment without causing too much distress. If you cause a bat to awaken, they will generally fly to another part of the cave and without much adverse effect, but do not continue to pursue them. Given the potential of acquiring viral diseases from being bitten by a bat, no one should attempt handle bats. In fact, unless you have a permit to do so, it is illegal to trap or catch bats.

Following these simple steps should not be a great impediment to your caving activities and hopefully they will enhance your enjoyment of the cave environment.

* until recently known under the name *Myotis adversus*

Terry Reardon and Steve Milner

SPELEO ART

HIDDEN ASPECTS - Caves of Australia

The 9th exhibition of Speleo Art by June MacLucas was by invitation and was opened by Mr. David Wools-Cobb, B.Pharm., M.P.S. member of Northern Caverneers Club, Tasmania, on the 9th August 1998 at Burnie Regional Art Gallery, Burnie. Tasmania. There were 30 pastel drawings of over 24 different caves from areas of Nullarbor, Yarrangobilly, Wombeyan, Abercrombie, Alice Springs, Flinders, Mt. Gambier and Tasmania. Over half of the works were completed while in the field. Of the others, 5 pieces were adaptations taken from slides kindly lent by **Chris Hales** of CEGSA, Adelaide, **Arthur Clarke** from Southern Cavers, Tasmania and **Jude Matthews** of SSS in Victoria. These were of caves I had caved in but their photographs caught my interest. Many thanks Chris, Arthur and Jude for your support and interest.

Although Burnie is a small town the gallery itself has one of the largest exhibiting areas in Australia. On opening night there were several other "happenings" in the same Civic building at the same time, yet over 60 people, including quite a few cavers attended. David Wools-Cobb gave quite an informative speech on the difficulties of drawing and photography in caves while at the same time relaying the joys and enthusiasms of caving.

The gallery created a central interest with the aid of several northern cavers by installing a mannequin dressed in full caving gear. The model appeared to be climbing out of a pile of carefully placed rocks by an extended cable ladder. The effect was unusual and interesting and was made with a view to combining both speleo art and caving. It was very encouraging to see that cavers from both north and south of Tasmania were interested in not only their caves but my art work from caves around Australia.
Many thanks to David Wools-Cobb and David Heap for their help in dressing the mannequin.

JUNE MACLUCAS, August 1998.

Burnie Regional Art Gallery

"Pleasure Dome", Kubla Khan

"Key Hole", Croesus Cave

"Large Passage", Croesus Cave

Thampanna Cave, Part 2

Ken Boland

In my first article in this series on *Thampanna Cave* [6N-206], I gave an overview of this extensive cave, located in the Western Australian part of Nullarbor Plain (Boland, 1997). In that article I stated that "Cave development appears to have descended rapidly to about 50 metres ... and stays more or less on that level..."

As no-one has objected to this suggestion, I shall do so myself. The problem is that the statement assumes development occurs from the surface downwards, via chambers, perhaps numerous, before eventually petering out into small remote passages, not unlike the trachea, bronchial passages and alveoli of our respiratory system.

The thought that accompanies this image is that where the air flows, water has previously flowed to form the cave. Now, while this model may reflect part of the process, it may not be reflecting the whole process, or even the principal one, all of which affects how one views the cave and what one expects to find.

In this article I intend to discuss the entrance chamber, the Drain, the Crypt and the U-Tube passages. It may be useful to try to see the development of Thampanna Cave as being "from the bottom up".

Except for the Crypt, the exploration and early survey of these four areas pre-date my experience. As exact details of early work are far from complete, any information is most welcome and will be documented if forwarded to me. Particularly lacking are details of just who did what and when.

Geomorphology

Nearly all the floor of Thampanna Cave is composed of either talus, fine sediments or a mixture of the two. Rarely does one see bedrock. The origin of the talus is easily explained — it fell from the roof above. This process is normal although, in a human time frame, rare. We were recently reminded of this by the fall of rock in the entrance area of another Nullarbor cave, *Weebubbie* (Ackroyd, 1996).

Sediments, on the other hand, may have originated from either inside or outside the cave and may have been moved some distance by water. *Thampanna Cave* lies in a catchment of several square kilometres and the cave entrance is many metres below the "rim" of the area. Is this the natural lay of the land or is it that much of the surface soil has been washed into the cave, leaving the wide catchment area as a result?

There are two factors which may incline one to the idea that the catchment area and the cave are not the result of cause and effect: passage size and doming.

Passage size

The uppermost passages, consisting of the entrance shaft, the Drain, the U-Tube and the Crypt, are not particularly large passages, suggesting that not a lot of solution and certainly very little mechanical abrasion has occurred. These passages contrast markedly with the large, wide passages farther in the cave.

These larger passages are almost all floored with talus or sediment so their original size is not really known, but think of the immensity of *Abrakurrie Cave.*

So, the smaller passages may simply be fortuitous links and not be particularly responsible for the creation of the larger passages deeper in the cave. Perhaps the major passages all formed independently of the smaller "linking" passages, without there being any connection to surface water apart from numerous anastomosing tubes.

Doming

There remains the happy reality of the entrance shaft. This is clearly not a collapse entrance. Three possible origins are presented here.

Gnamma Holes (rockholes) occur frequently on the Nullarbor Plain. These are holes formed in the surface of the limestone and look rather like corrosion pits. They vary in size from a few centimetres in width and depth to several metres across and quite deep, although beyond a couple of metres is rare. Max Meth has now compiled a register of these features and has numbered and estimated the volumes of many hundreds. They fill with rain water and have long been used as a water source by humans and animals alike. It is possible that one of these penetrated the hard kankar layer and extended into the cave below.

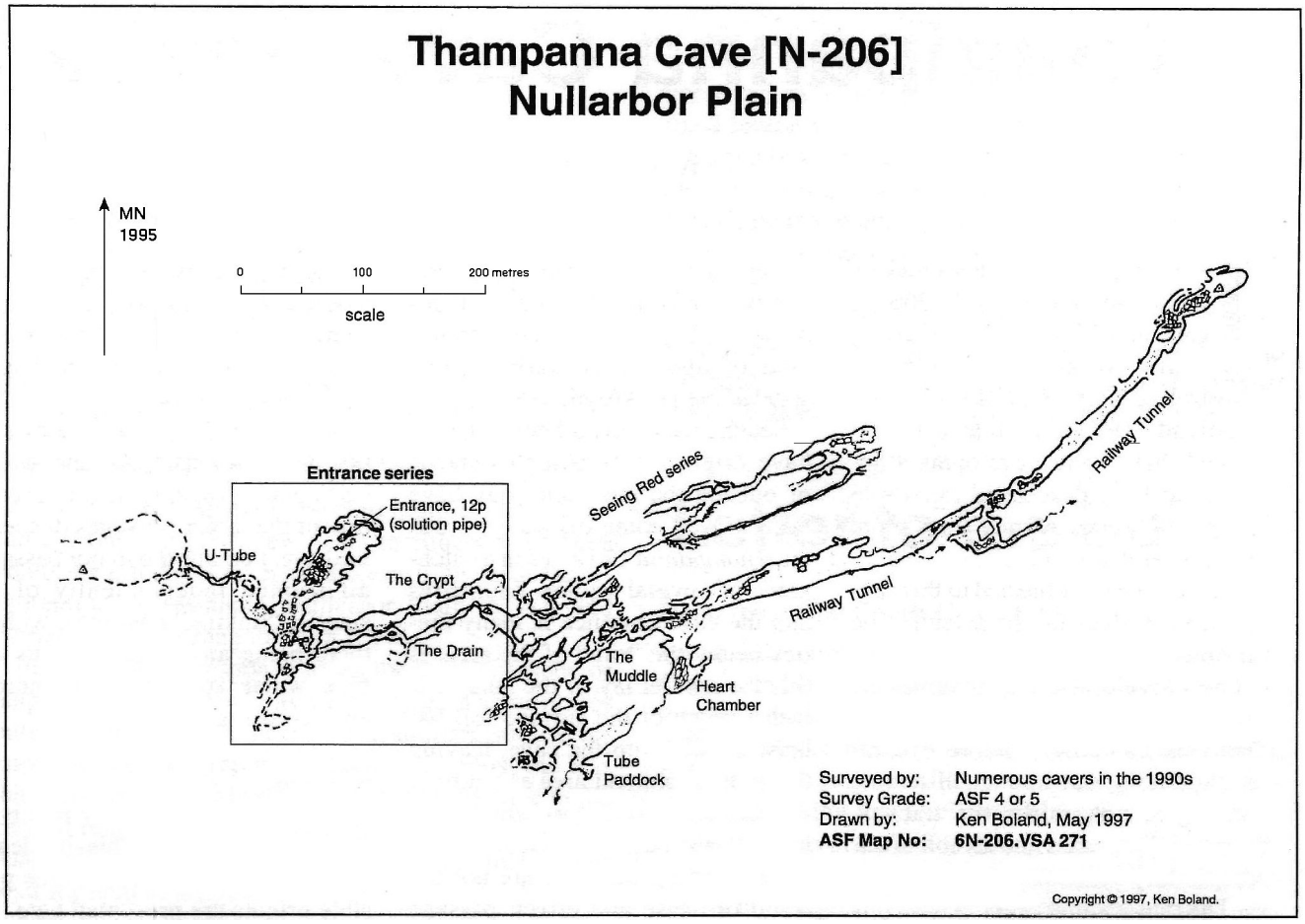
Typical upper level passage in *Thampanna Cave*
Photo: Ken Boland, April 1995.

Another possibility is that small solution tubes penetrating the surface layer may be enlarged due to solution by aggressive surface water.

Thirdly, there is doming. Doming is common in Nullarbor caves. It is the upward stoping action inside caves and is caused by chemical and/or mechanical action resulting in the development of a chimney-like space.

Presidential Cave [6N-1218], near the track to *Old Homestead Cave,* is a fine example of doming. It is essentially several domes, connected side by side.

Such domes also occur in *Thampanna Cave.* The walls and roofs of these are covered in soft sediment, suggesting a salt wedging action which is further suggested by the presence of piles of beautifully coloured, fine flour-like sediments below.



The entrance chamber

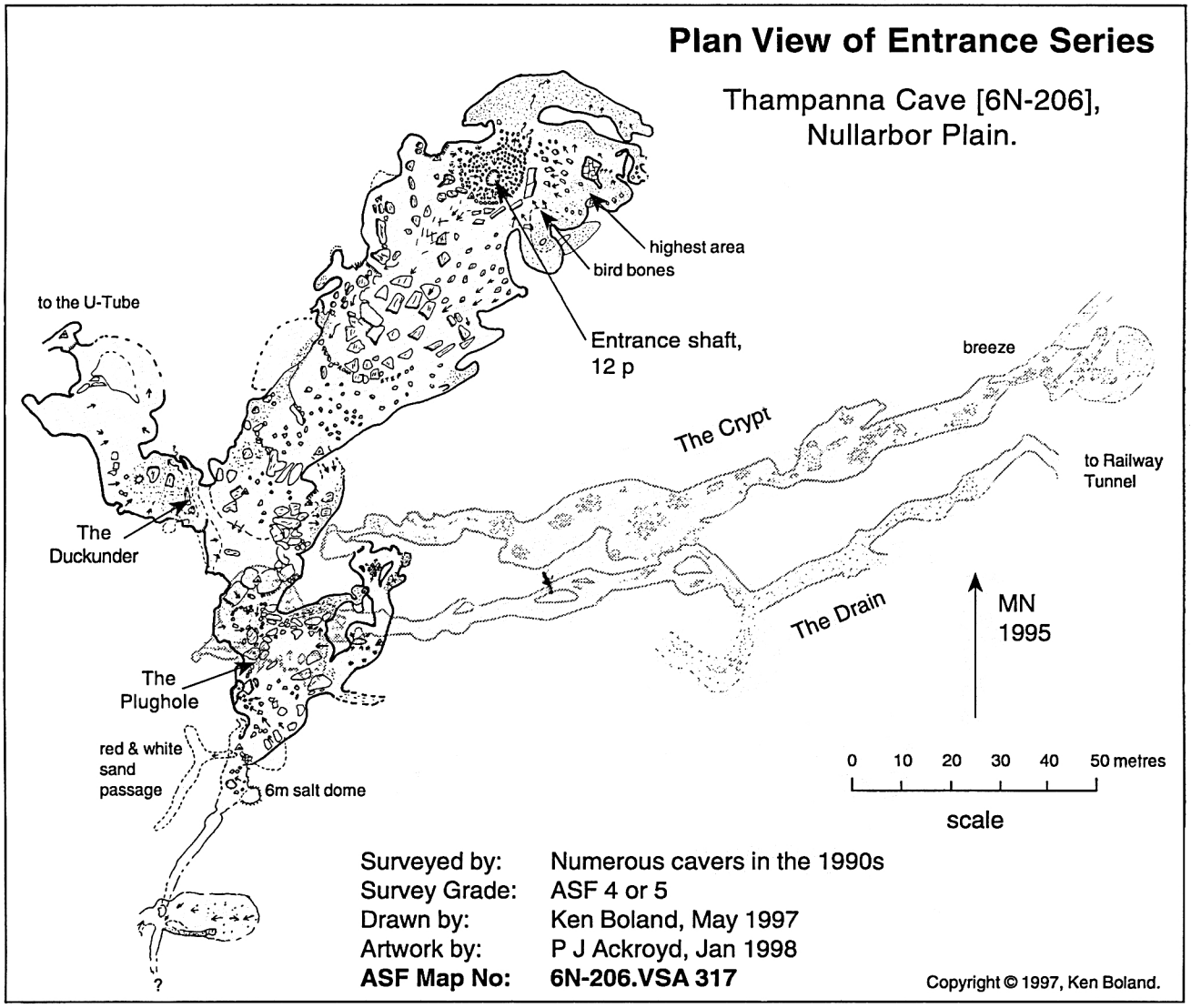
The earliest survey I have of the entrance chamber is from the Cave Exploration Group, South Australia (CEGSA). It is dated 22nd April 1982 and consists of a single centre-line with several rays to the sides. The map of the chamber has "first collapse series" marked on it, followed by the "duckunder" which leads to "the tube", an inverted siphon or u-tube.

The most recent survey of the entrance chamber was by Peter Ackroyd and Glenn Baddeley in April 1994. It has many stations in a complete wall survey. The two surveys agree to within a few centimetres at the U-Tube, both horizontally and vertically.

In the past the entrance area has suffered badly from "Dome Syndrome"†. This is unfortunate as there are many noteworthy features.

Entrance of *Thampanna Cave,* viewed looking east.
Photo: Ken Boland, Aug 1987.

† *Dome Syndrome: the urge to visit, with haste, the farthest point of a cave while doing nothing useful en route save recording the time taken. Derives from 6N-37. [KMB.]*



In the north-east of the entrance chamber there is an area which is covered with fine mud sediments. It is different from many of the other sedimentary areas in the cave which are more usually of fine to coarse sand. The bowl shape to the rock-fall area below the entrance shaft suggests a swirlpool in a flood and so perhaps the area to the north-east captures only the finest particles with anything coarser heading straight on down the main part of the cave to the south-west.

Directly east from the entrance shaft is a high, dry, dusty area from which vantage it could be interesting to watch a flood. This area contains the remains of many birds.

It has been said that birds get trapped by the strong drafts in the entrance shaft and are swept into the cave. However, this may not be the only explanation as I have seen kestrels nesting inside blowholes.

On one occasion a healthy looking magpie seemed quite content to wander around the chamber in *Thampanna.* Could the birds be simply resting, and occasionally dying, as happens above ground?

South-east from the entrance shaft, one rises to within a few metres of the surface. This is the highest point in the cave and could well have become the cave's entrance. There is a good view of the "bowl" below the entrance shaft from this point.

To the south-south-east one can crawl over a high level area to a one metre diameter hole dropping two metres to a lower chamber.

In the south-west region a low chamber off the western side has some wonderful red and white sediment piles. There is also an excellent six metre high salt dome of a very light colour.

People suffering from Dome Syndrome do not visit these areas, making them a little special. While dallying in the entrance area, look out for the wind-aligned speleothems and the little lizards which live happily in the bowl.

Kestrel nesting in Nullarbor blowhole.
Photo: Ken Boland, Aug 1997.

The U-Tube

The U-Tube seems to have been first surveyed on 22nd April 1982. There are no names on the survey but the hand is CEGSA and the notes include "estimated horizontalness".

On the way to the U-Tube there is some phreatic sculpting in the crawl-way known

as the Duckunder. The U-Tube has a bedrock floor, one of the few places in the cave that does. However, it is not nearly as low in the cave system as the Drain and the Railway Tunnel complex.

The Drain

The earliest survey appears to have been carried out on 20th January 1983 by a combined party of CEGSA and SUSS members. I understand that the Drain was discovered when the U-Tube was found to be flooded and so CEGSA members burrowed in the "Plughole" area, a short vertical section that brings corkscrews to mind.

Just beside the Plughole, perched above the lower chamber leading to the Drain, you may be lucky enough to find a small, one metre diameter, lake. The presence of this lake indicates clearly that it is not all rock-pile. In fact, the lower chamber appears to have an almost completely bedrock ceiling. Moreover, the point of entry for flood-water is several metres west of the Plughole.

It was here, right in the wash line, that the only pre-European artefact found to date was discovered. I collected a small, two centimetre chert chip which has since been lodged with the South Australian museum. The lack of any other evidence suggests to me that entry by humans was only in very recent times.

The Drain itself, while quite long, is easy to traverse. It is mostly carpeted with a thick layer of coarse sand sitting atop an occasionally exposed bedrock base. The Drain has been "gardened" clear of knee-cracking rocks by responsible† caving.

The passage is just high enough to crawl easily, unless you have a backpack. One method is to wear your pack with loose straps, allowing it to hang down on your side. With suitable technique and modest fitness, the Drain is easily passed in eight minutes. The known records are six minutes and 1½ hours. The latter included a period of sleep in the Drain and the former caused a longer one out of it.

The Drain is remarkably uneven in its chemical erosion. The ceiling presents as a grossly pitted surface from which the above mentioned knee-cracking carbonate clumps are all too easily dislodged. The bits of the roof still *in situ* hold an array of vegetable debris, mud and almost recognizable parts of snails, beetles and bugs.

The appearance suggests this is not a good place to be while clouds are gathering outside. No-one has reported anything more than small pools of water here so nothing is known of the speed with which water rises and, importantly for anyone trapped in the vast dry caverns beyond, falls. During our years of surveying we have exercised caution when rain seemed possible but the reality is that we just do not know if the danger is significant.

Bottom up development

It was during my exploration of the remote areas beyond the Drain that the idea of cave development "from the bottom up" first presented itself to me.

I have long thought that a nice clean cross-sectional cut across the Nullarbor Plain would reveal what, in general, one might hope to find in the way of cave systems.

Such a cross-section exists, in the form of the present coastline cliffs of the Great Australian Bight, and it suggests that not very much cave development has occurred at all. Perhaps the coastal cliffs are not typical of the plain.

Thampanna Cave suggests to me a "clustered" passage development forming from the bottom up: that is, a series of parallel passages with fortuitous cross connections that have taken us some time to find. Perhaps there are more?

June MacLucas emerging into the entrance chamber from the solution tube
Photo: Ken Boland, April 1995

There could be large passages quietly lying in solitary confinement until a suitable cross link is found ... or manufactured. Passages may be clustered under some ancient, now long dry, water course or lake — "Yikes and away" passages.

† *Responsible: The ability to respond constructively to the present situation be it animal, vegetable, mineral or people — rocks in the instance cited. [KMB.]*

References

Ackroyd, Peter (1996) Closure of Weebubbie Cave. *Nargun* 29(6):45.
Boland, Ken (1997) Thampanna Cave [6N-206]. *Nargun* 30(2):23-26.
Boland, Ken (1998) Thampanna Cave [6N-206]. *CEGSA NEWS* 43(2):43-46.

This article is reprinted from NARGUN Vol 30 No.7 with kind permission of the author and editor. Thanks to Peter Ackroyd for putting the time into scanning the pictures for this article.

FLINDERS RANGES RECORDS UPDATE

Documentation of features and records keeping for the Flinders Ranges region had suffered from neglect up until 2 or 3 years ago. A renewed interest in the region, particularly exploration has revived matters somewhat. While new caves continue to be found, the backlog of surveying and location work is being nibbled away at by a core group of people.

In early 1997 Ray Gibbons initiated an unofficial 'five year plan' to tag, photograph and survey every known Flinders feature. This huge task has progressed steadily, and in the process of visiting some less frequented areas, we have been able to follow up some previous hazy reports of caves and verify some hazy locations. Numbering mix-ups have been sorted out, and our explorative walks have yielded many new numbered features.

Peter Kraehenbuehl compiled and presented at the 1997 ASF Conference, Occasional Paper No. 9, which documents caves up to F115. This now needs considerable updating, as the numbering mix up around F107 to F116 has been sorted out, and the new features now need to be added. Krunchy has also been active in surveying a number of Flinders caves (e.g. F9 Wooltana Cave) and redrawing older surveys (F1, F3-F8, F11, F15, F29 & F33).

The Flinders Karst Index is now looking significantly healthier. As new features are found and numbered, known ones are progressively being tagged and surveyed. The number of recorded features stands currently at 159 (up from about 100 two years ago). There are an additional 13 or so "X-files" (FX prefix) which are generally very small features, too small to enter, or in non-limestone etc. but are still worthy of noting. Some have potential and may warrant future inspection or digging.

Of the 159 features, 44 (27.5%) have now been surveyed (some still to be drawn up) and others have been sketched. Our aim is to survey all the known features. This shouldn't be too hard, as many are quite small, but given the size of the area and the rate of new discoveries, we'll need to hurry up if we are to catch up. At Easter this year, F100 Collapse Cave, north of Blinman, was finally relocated (its grid reference checked by GPS and updated) and was surveyed (see accompanying map).

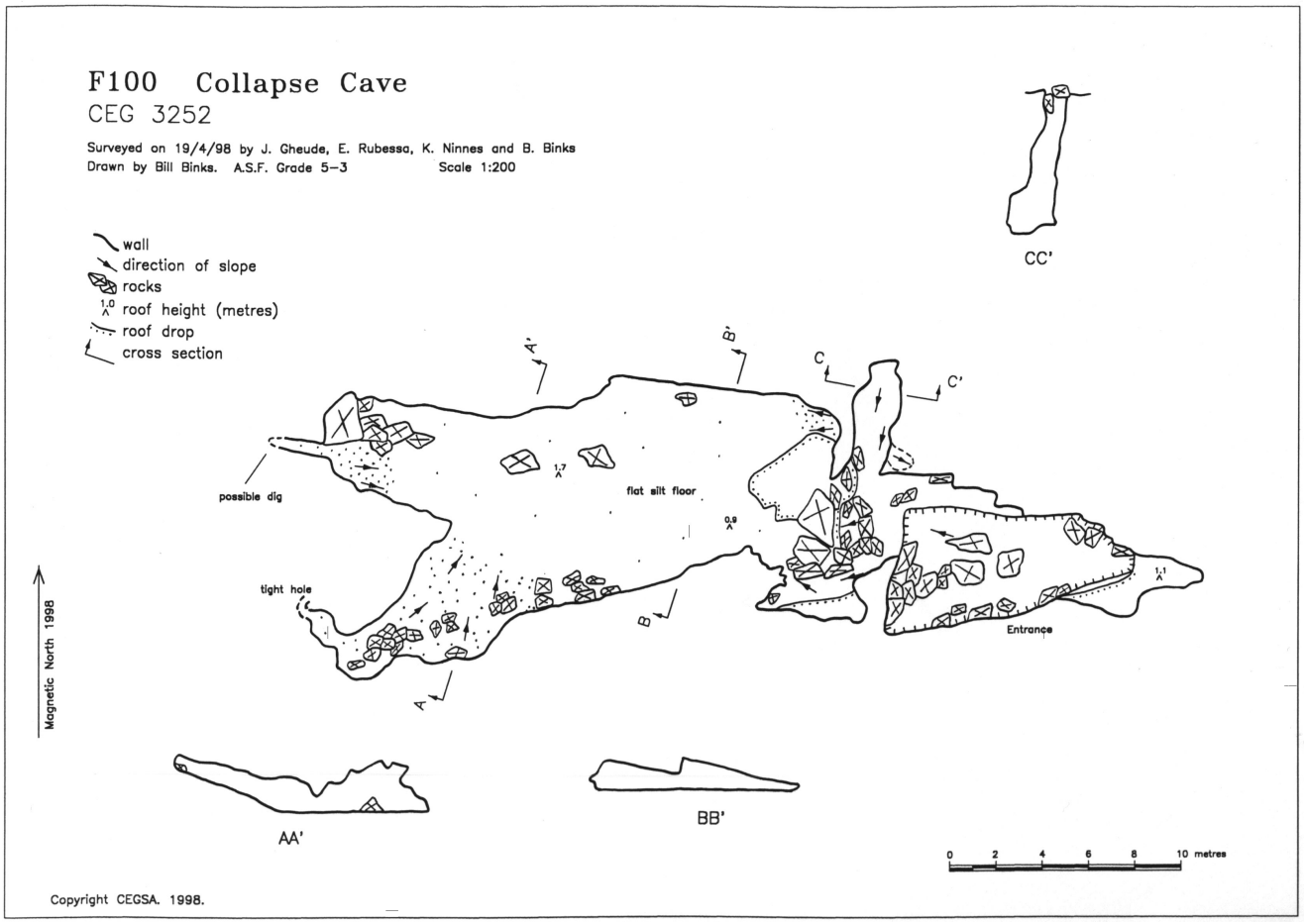
43 features (27%) have now been tagged, and 44 have had their entrance photographed in standard format (for the records files), thanks to Ray Gibbons. We are gradually working our way through the list, in the process checking the location information and improving the accuracy where necessary (35 locations have been checked by GPS).

We will continue this work, but it would be significantly faster if we had more help. It is difficult for one or two core groups of people to do this work, as the Flinders is such a large area. If there were several groups, each targeting a different sub-region, I'm sure we could achieve much more. This karst region is one of the most scenic in the state, and exploring it is very rewarding. We have occasionally even found a significant new cave that inspires us further. For example F111, found early in 1995, is over 30 metres deep and contains active decoration – pretty impressive stuff for the Flinders! (It has now been surveyed- see article in this issue)

We KNOW the area has much more potential and we KNOW where to look.

So if you're interested in caving and walking in a stunning location, getting into surveying in some easy caves, tagging and recording known features or exploring new areas for caves, please contact Peter Kraehenbuehl, Eddie Rubessa, Ray Gibbons or myself. We all want to run trips to the Flinders.

Bill Binks,
Flinders Ranges records coordinator



MEMBERSHIP

TRANSFERRED TO FULL MEMBER

Ken Smith 9210 6 Joslin Street, WAYVILLE, SA 5034 (H) 8271 7064 (W) 8297 6144

Greg Croser 9507 7 Alpine Road, SEACOMBE HEIGHTS, SA 5047 (H)8384 8400 (W)8377 1594

CHANGE OF ADDRESS

Pam Alvaro (Payne) Locked Bag 40, Washington, DC. C/- DFAT, CANBERRA ACT 2600

Max Meth (change of e-mail address) maxmeth@arcom.com.au

MEMBERSHIP ID CARDS

Your Full Membership cards are now available at a cost of $1 each and can be picked up at a General Meeting or forwarded to you by post at a cost of $1.50.

ENCOURAGING NEW MEMBERS

There seems to be a drop in membership this year especially Associate Members.
We are a small minority group and to survive we need to encourage new members and indeed encourage long time members back into the group. Ring someone on the Committee, talk to us, let us know what your interests and needs are with regards to caving. Encourage new interested parties to join CEGSA, talk to your friends and point out the advantages, finding and surveying caves, recreational caving, training trips and the availability to hire caving equipment with SRT gear, helmets, lights, ropes, ladders etc.

This is a great club that has been in existence for over 43 years promoting a worthwhile and interesting sport, spread the word.

June MacLucas, Membership Officer.

LIBRARY AND RECORDS UPDATE

The South Australian Underwater Speleological Society (SAUSS) records and documents have been handed over into CEGSA records as SAUSS has recently disbanded. Amongst the items handed over were ten (10) Occasional Papers No.1 ***Introduction to Underground Aquatic Ecosystems of the Lower South East***. Also included were project reports, folders and a video of one project.

We Received an article from Neville Pledge, a monograph written by geologist Tony Waltham on ***The Limestone Hills Gunungmula National Park,*** Sarawak that mentions some of the largest cave passages in the world and provides new insight into rock stability, karst processes and landscape evolution.

George MacLucas donated a 300 page publication ***Who owns the Murray? A Multi-Use Resource***, Edited by Peter S Davis & Phillip J Moore and taken from a conference by the same name held in 1985.

Peter Horne handed in an article on Villaluz Cave, Mexico from New Scientist, June 1998. A cave with hydrogen sulphide gas. This cave also supports the theory that microbes help to create caves.

Damian Grindley passed in a map of Sacrat Cave 5L381c, surveyed by Damian Grindley and Stuart Deer.

Next working bee will be held on 29th August 1998 at 11 Gulfview Parade, Valley View at 2pm until late. Ring 8261 4180 if you are attending as meal is included but please contribute something e.g. biscuits, cake, drink, or during winter any firewood.

GEORGE MACLUCAS
RECORDS AND LIBRARY OFFICER.

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NOSTALGIA CORNER

NEWS FROM PAST NEWSLETTERS

10 YEARS AGO [33#2 Sep 1988]
• Jun 1988, There was a search and rescue exercise on Kangaroo Island involving National Parks staff, and local emergency services personnel.

20 YEARS AGO [23#4 Dec 1978]
• Oct 1978, Neil Smith gave us part one of a guide to cave mapping, including the reason that CEGSA adopted the 1:250 scale for cave maps instead of the non-standard (but fairly common) 1:200 scale.

30 YEARS AGO [AUG-OCT 1968]
• A reprint of a letter from “Mr Redden, Forrester” written on 27 July 1908 regarding Naracoorte Caves and the finding of fossil bones, including those of a marsupial lion.

40 YEARS AGO [26 Sep 1958]
• Jun 1958, a trip to Curramulka resulted in the discovery of a skull and jawbones of a marsupial lion.

HISTORICAL ITEM
90 YEARS AGO
• An example of politically incorrect cave exploration is the inscription on several Naracoorte caves that reads, “JM 1908”. JM was James Mason a compatriot of William Reddan. James was one of the first to explore Naracoorte caves. Had it not been for his graffiti, we may not have known anything of him. (and see the item from 30 years ago) (My thanks to Kevin Mott for help with this one).

Max G Meth

~PUB MEETINGS~

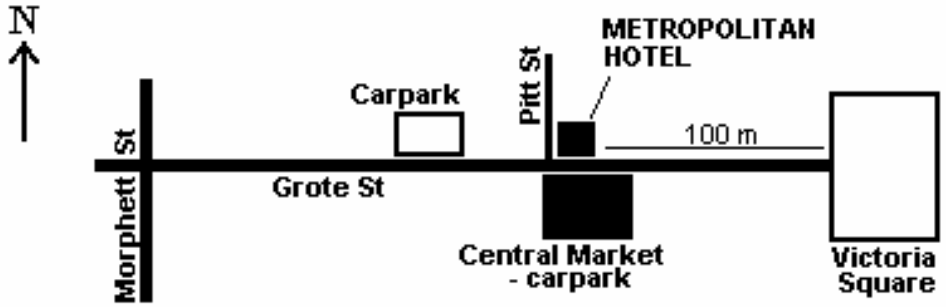
CEGSA general meetings on
Wednesday September 23rd

and Wednesday November 25th

will be held from 7 pm, at the

METROPOLITAN HOTEL, Grote St, Adelaide

Food available. Close parking. We hope to see you there.



CALENDAR OF EVENTS

Dates	Type of Event	Description	Contact
29/8/98	Working Bee	Library and Records	George MacLucas
29 & 30/8/98	Caving	Lower SE (Trip Full)	Marie Choi
September (TBA)	Rescue Practice / Training	TBA	Frank Hankinson
3/9/98	Caving	Sellicks Hill 5A25	Grant Gartrell
9/9/98	Committee Meeting	Bill's Place	Steve Milner
12/9/98	Working Bee	Library and Records	George MacLucas
17/9/98	Caving	Sellicks Hill 5A25	Grant Gartrell
23/9/98	General Meeting	Metropolitan Hotel 7:30pm	Steve Milner
26/9/98	Working Bee	Library and Records	George MacLucas
Springtime	Draining	Adelaide	via Steve Milner
Still Coming!	Caving	Foray Interstate	Marie Choi
2nd - 11th October	Caving	Mundrabilla HS. Survey & Exploration	Steve Milner
28/10/98	General Meeting	Royal Society Rooms 7:30pm	Steve Milner
31/10/98	Working Bee	Library and Records	George MacLucas
11/11/98	Copy for CEGSA NEWS due	Don’t forget your trip reports & articles	Athol Jackson
25/11/98	General Meeting	Metropolitan Hotel 7:30pm	Steve Milner
28/11/98	Working Bee	Library and Records	George MacLucas
4-8/1/99	Cave Queensland	ASF Conference & Caving	Debbie Roberts

For information on any trip contact the person listed in the right hand column.
For future information on trips contact Steve Milner or view the calendar on the CEGSA website at http://www.users.on.net/smilner/index.html.