

CEGSA NEWS



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

Volume 54 Number 1

Issue 213

FEBRUARY 2009



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.

2009 Committee

President /	Mark Sefton	(H) 8277 9086 (W) 8303 6600 (E) seftons@adam.com.au
Secretary / Public Officer / Library & Records	Graham Pilkington	(H) 8395 6713 (W) 8395 6713 (E) p-c-h@bigpond.net.au
Treasurer / Membership	Chris Gibbons	(H) 8258 9847 (E) ragchg@bigpond.com
Training / Safety / Search & Rescue Co-ord	Tim Payne	(M) 0448 147 927 (W) 8259 5724 (E) payne.tim@bigpond.com
Quartermaster / Key & GPS Holder	Paul Harper	(H) 8297 8878 (W) 8222 5615 (E) paul.harper@health.sa.gov.au
Land Manager Liaison	Stan Flavel	(M) 0407 600 358 (E) tadarida@bigpond.com
	Ian Lewis	(H) 8295 6582 (M) 0427 284 051 (E) kanawinka1@yahoo.com
Museum Representative	TBA	C/- SA Museum

Other Office Bearers

Publications / Trip Log Book / Website Coordinator	Athol Jackson	(H) 8337 8759 (E) atholjax@adam.com.au
Landowner Liaison (records)	Garry Woodcock	(H) 8380 5154 (E) woodcock.gary@saugov.sa.gov.au
New Member Liaison	Marie Choi	(H) 8322 0895 (M) 0429 696 299 (E) mariechoi@adam.com.au

Area Coordinators

Eyre Peninsula	Stan Flavel	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)	Peter Horne	(H) 8295 6031 (E) ppuddles@yahoo.com.au
Adelaide & Kangaroo Is.	Grant Gartrell	(H) 8556 9100 (E) blueberrypatch@bigpond.com
Nullarbor Plain, Yorke Peninsula & Murray Mallee	Graham Pilkington	AS Above
Flinders	Eddie Rubessa	(H) 8336 4775

Representatives

ASF	Ian Lewis	As Above
SA Speleological Council	Graham Pilkington	As Above
The Nullarbor Karst Project Steering Committee of Western Australia	Paul Hosie	(H) 08 9259 5815 (M) 0428 992 109 (E) paulhosie@trimixdivers.com
Kanawinka Geopark Liaison	Ian Lewis	As Above

Cover Photograph: Two primitive Pleistocene Megafauna at Naracoorte with bad hair and breath problems.

Photo: Ian Lewis

CONTENTS**Volume 54 Number 1****Issue 213****FEBRUARY 2009****CONTENTS**

	AUTHOR	PAGE
Committee and Office Bearers		1
Contents		2
Ex-Presidents Spot	Graham Pilkington	3
Karstaway Konference Report	Graham Pilkington	3

TRIP REPORTS

A Two State Nullarbor Trip 4 th – 22 nd October 2004	Peter Ackroyd	4
Naracoorte, 22/23 November 2008	Mark Sefton	9
Pre conference Trip, Sale Victoria – 3 rd January 2009	George MacLucas	10
Buchan et al, 10 th to 16 th January 2009	Graham Pilkington	11
June-Florentine Karst, Tasmania. January 2009	Richard Harris	12
Past Trips (from November General Meeting)		14
Past Trips (from January General Meeting)		14

TECHNICAL AND OTHER ARTICLES

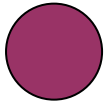
Website Request	Athol Jackson	14
Membership	Chris Gibbons	15
Membership Fees	Chris Gibbons	15
Approved CEGSA Trip Leaders	Committee	16
How to Kill an Organisation	Anon.	16
Time Flies	Ian Lewis	17
Annual General Meeting Report	Athol Jackson	17
Reminder	Committee	17
Caving Word Find		18
Index to Vol 53	Kevin Mott	19
Get Well Card for Fred Aslin	Greg.	29
Calendar of Events	Committee	30

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 54 Number 2 (Issue 214) must reach the Editor by Wednesday **13th MAY 2009**. 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 3.5" IBM floppy disk, in Word or ASCII text format. Of course other forms of communication will still be gratefully accepted. Photographs are preferred to be in colour (jpg format). 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.



Ex- PRESIDENTS SPOT

CEGSA does not really exist.

What does exist is the collective memory of everyone who has had contact with us, including our own members.

This makes it both easier and harder to alter the way that CEGSA operates. Easier in that CEGSA has no will of its' own; harder in that it's necessary to change the attitude of many people if a new direction is proposed. For an organisation, inertia is probably a good thing – it retards rapid changes that would destroy credibility.

But like individuals, this group is vulnerable to what others believe we are, not what we are. As they say, it takes decades to generate trust but only minutes to destroy it. As for any organisation, this makes us exceptionally vulnerable to “rogue” members. Even if the person involved is not a member! They only have to be perceived to be a member. Many times I can remember incidents that have involved cavers doing “the wrong thing” and CEGSA getting the blame – after all, everyone knows that CEGSA equals cavers; it therefore follows that anyone caving is a CEGSA member.

We must ensure that everyone we have contact with can tell the difference. Displaying your membership card helps, but talking with people is much better because you can discuss our ethics and our aims.

To back this up we need to educate new members by both example and by instruction. Teaching people how to “cave” is the easy part; ensuring an attitude to caves compatible to our ideals is much harder. And both aspects are a lifetime endeavour. Not only does equipment evolve but techniques change, our knowledge of consequences improves, and our focus shifts from ourselves to the caves.

Graham Pilkington.

%%%%%%%%%

The ASF's 27th Biennial Conference, 4-9th Jan 2009

CEGSA attendees: Stan Flavel, Graham Pilkington, June and George MacLucas

Held in Sale, Victoria, it was a very successful conference with nearly 80 attendees. The proceedings are expected to be available within a few months (on CD only). I will not repeat the content – abstracts are available from Records – but highlight below some items that affect CEGSA and its' members.

Notable happenings (at least in my opinion!) were:

- Stan Flavel was re-elected as the ASF President for the next two years.
- June MacLucas organized yet another picturesque art display and workshop
- June MacLucas was awarded an ASF Certificate of Merit.
- Our KIDSA was accepted by the ASF Council as the recommended club-and-field-based karst database template for use by all ASF members after modification to interface with the web-based ASF KID and provision for a full GIS interface so that it becomes a true karst database not just a karst feature database.
- The next Conference is proposed to be held near Chillagoe around Easter 2011.
- The Caving Club of Victoria announced its' demise.
- CEGSA is by far the largest ASF club. According to the ASF Treasurers' method of calculating voting membership (which amongst other things discards all Introductory memberships for which we have many more than anyone else), CEGSA has 27.5 “members”, the next largest is VSA with 17.8, the typical size is 6 to 8.

Graham Pilkington

TRIP REPORTS

A Two State Nullarbor Trip – 4th to 22nd October 2004

Party: Peter Ackroyd and Ray Gibbons.

The Departure

Ray and I left Adelaide in Ray's Holden Rodeo utility with 160 litres of fuel, the same amount of water and a complete change of tyres and wheels (the bush set) for our two weeks in the Nullarbor.

Arriving at Max Meth's house in Ceduna on the evening of 4 October, I gave Max (the then Nullarbor records keeper) the final release version of the Nullarbor Karst Index database that my wife, Jenny Smith, and I had laboured on for the past two years. It was a complete redesign and rebuild of the original, rather messy database to which Max had been painstakingly adding data for the past few years.

I gave Max a tutorial on the database and he was in business. We left him to it and drove for half a day to Koonalda Station, which we noticed had been given a new roof by the National Parks people.

The Trip Begins

From Koonalda we continued north to Parkin Cave (N-1010) to fit a reflective tag to it and to take GPS coordinates. Nearby, on a graded track heading westerly, was an old bore casing labelled "KN1", which appeared to have been drilled around July 1961, according to faded marks on the bore capping.

The next day was spent on a fruitless search for N-28, a cave number allocated in 1960 that had poor location information and was not even described. Having given up, we drove west into the late afternoon sun along the graded track, the existence of which we had learned from Ceduna resident, Murray Collins. Murray had no name for the track so we named it for him — the MC Track.

Camping on a hard surfaced claypan alongside the track that evening, we spent a pleasant time in shirt sleeves in sultry conditions and, while watching the setting sun, having a couple of cooling drinks with our meal. The eerily still conditions — it is rare to have no wind at all on the Nullarbor — continued till after we retired to our tents. Around 11 pm I was awakened by a short burst of wind that managed to pop one of my tent pegs. Scrambling out of the tent to replace the peg, I was caught completely unawares by a very strong southerly wind that burst from nowhere.

Fighting to hold the tent and replace the popped peg, I was aghast to see every other peg let go, leaving me, stark naked, holding on to my tent with all my strength to stop it from heading into the bluebush and beyond. I found that I could do nothing else. Fortunately, Ray, roused from his own slumbers, came over and, once he'd stopped laughing, helped me to get the tent down and rolled up, with everything still in it, and bundle it all into the ute's cabin. I received one of CEGSA's leather medal awards for that effort — a tent peg "to help obtain a good night's sleep".



A wind-proofed tent on the Nullarbor.
Photo: Peter Ackroyd, October 2004.

The camp was a bit of a shambles next morning, but nothing was actually missing. So, after cleaning up the mess, I carried out the usual data recording and other 'office' work from yesterday's cave tagging, while Ray changed over to his bush tyres and generally made the vehicle 'Nullarbor ready'.

We continued west along the MC Track, passing an abandoned grader tyre, a few blowholes, which we explored, numbered and tagged, and a 20L drum labelled "Ampol Transmatic" hydraulic fluid, suggesting the track was graded around 1975.

The country here consists of many shallow, clay-bottomed depressions on a very flat plain. The area appears to have a thick (perhaps up to 2m) soil cover over the limestone concealing nearly all the karst features. The further west we drove, the thinner the soil cover became, resulting in the gradual emergence of the gently undulating Nullarbor Plain that we know.

In April 1973, Harry Wheeler, an early Nullarbor karst explorer and recorder from Kalgoorlie (later from Adelaide), had taken an extraordinary solo trip in a Holden station wagon. He drove north from Warbla Cave (N-1) up to the 'Trans' railway line in an apparent attempt to follow the path of ill-fated early explorers Farie and Woolley, who perished in 1878. Their story is fascinating and I can well imagine Wheeler being interested in searching for any remaining signs of their journey. Our immediate interest was that Wheeler had come across two blowholes in this trackless area. The MC Track had enabled us to reach the correct area and, due in no small part to the care with which Wheeler committed his findings to paper, we found one of these blowholes, which we tagged N-990. Nearby, we found two more blowholes. Both appeared to have opened recently, judging from the surrounding signs of fresh erosion. We tagged these N-3015 and N-3016.

Continuing west, we reached and crossed the border into Western Australia before camping. The next morning, as was our usual practice, I recorded the previous day's karst work while Ray took a lengthy (usually 8 or 9 km) walk searching the surrounding area for karst features. This particular area yielded only a few, despite the thinning soil cover. In addition there was extensive bluebush, increasing the risk of tyre punctures. While we were driving west during the afternoon, I spotted a couple of acacias and a few thorn bushes that seemed interesting. We walked over to them to find a small cave (N-3019), which we recorded and tagged. Upon our return to the utility we found the left rear tyre was flat — our first serious puncture. It was a bad split in the side wall which needed a patch. Tubeless tires are notoriously difficult to get off the rim and so this one proved to be. By the time the tyre was patched (using a very large patch) it was evening, so camp was made on the spot.



Ray Gibbons searching for caves from top of vehicle.

Photo: Peter Ackroyd, October 2004.

The next morning, Ray found several new karst features nearby, mostly blowholes about 3m deep. After tagging these we continued west only to have the utility overheat due to a buildup of speargrass seeds and saltbush in the radiator. So, we made leisurely camp and decided it was a 'three can' night. We sipped these under a warm night sky.

The following day was spent driving on, finding a few more features, including N-3033, Kestrel Chick Blowhole. As suggested by the name, we found a resident kestrel and its five chicks who were all huddled up together to form a single warm, fuzzy ball of down. Only their beaks and eyes allowed us to count them individually.

We looked at and photographed them from afar, then left them in peace as we drove further west, finally reaching an area searched from the air by Ken Boland in 2001. We commenced locating and tagging a few 'NXK' features.

By mid-afternoon on 10 October, we reached the Eucla-Forrest road at which we turned to head north in order to search for two Wheeler features, which he'd marked "position approximate". Before we quite reached that point we suffered our second major puncture. We made camp for the night.

We spent the next day tracking down one of the missing Wheeler features (N-959) to add to the nearby N-958, which



Female Nankeen Kestrel (*Falco cenchroides*) in Kestrel Chick Blowhole (N-3033).

Photo: Peter Ackroyd, 10 Oct 2004.

had been located by Paul Devine and me in 2001 (Ackroyd, 2002). I think that the remaining one (N-960) is not in the position indicated by Wheeler — possibly a mistake in his directions.

That night was quite hot. The flies, which had been bad for most of the trip so far, were particularly persistent until well after sunset. The following day they were even worse, crawling into every facial orifice and needing to be physically removed by scraping or gouging. Our eyes suffered, becoming quite sore and slightly infected.

We continued our westward trek, this time along the Link Track, to reach Lake Gizzard Cave (N-1761). I had intended pushing this cave since May 2000 when I was stopped by a nasty roof-sniff and inadequate lights (Ackroyd, 2005). This time was better — the sump-pool had dried out leaving a simple earth floored squeeze. The cave had a strong draught and was very enticing but exploration was stopped at the ends of two, 10–15m long passages (see map). Tartarus spiders inhabited the cave. After surveying all accessible passages and returning to the outside world, the map was drawn up whilst Ray went on a karst walk and located a couple of additional features.

We continued driving west to stay the night at Old Homestead Cave hut. Here we spent a rest day carrying out karst documentation duties on the computer, washing ourselves and our clothes, and baking bread. The next morning, we did some tagging of features that we had recorded on October 2001 but could not tag because we had used all our tags! We then continued slowly north-west, locating features and tagging as we went, and camping each night wherever we found ourselves.



Tartarus spider in Lake Gizzard Cave (N-1761).

Photo: Peter Ackroyd, April 2005



Typical campsite, showing our windbreak.

Photo: Peter Ackroyd, 12 Oct 2004



River cobbles exposed in wall of doline N-3063, (scale=150mm).

Photo: Peter Ackroyd, 16 Oct 2004

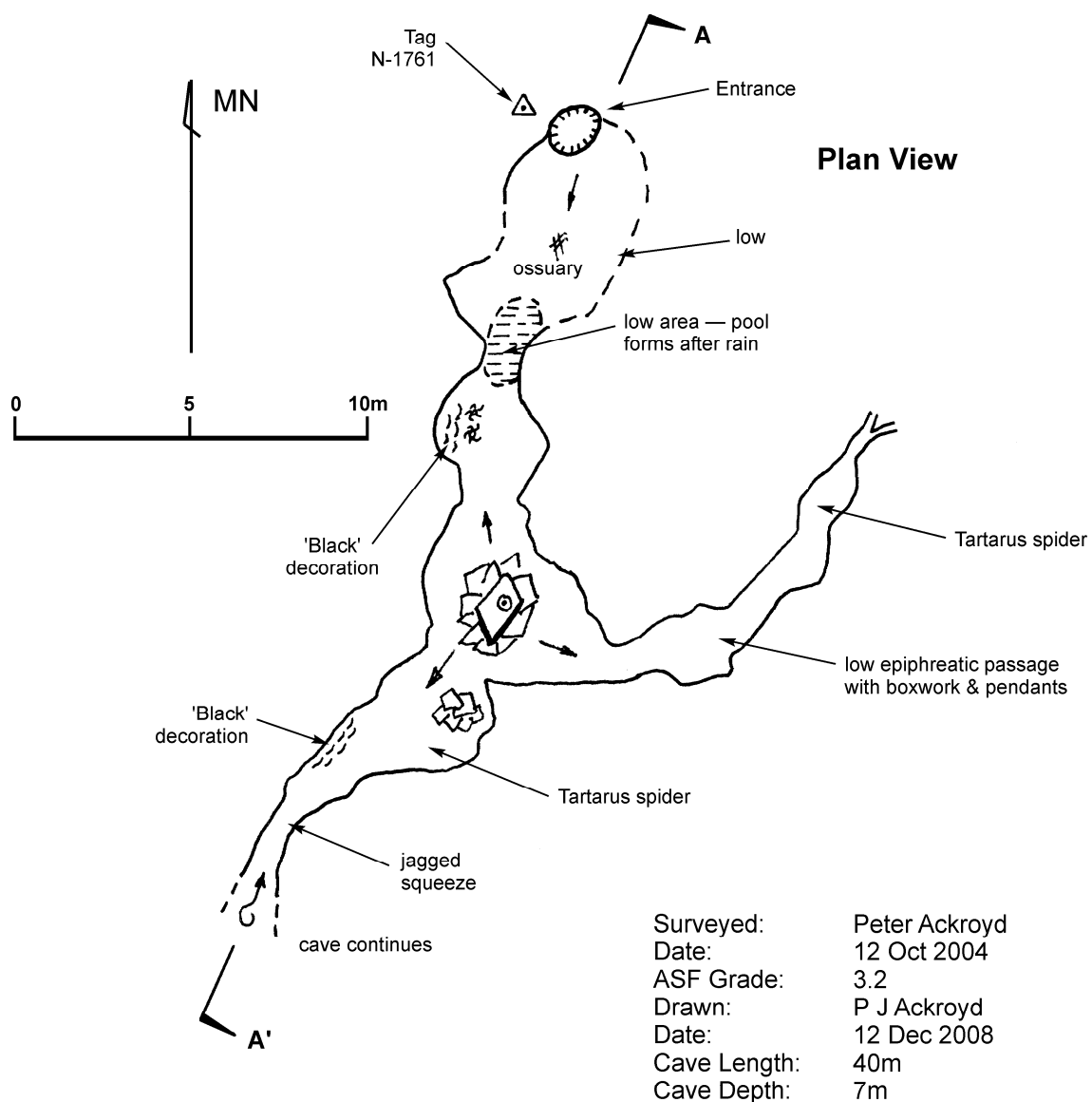
We also properly recorded and tagged some features from another group's excursion of May 2000. Most features in this area were blowholes or drafting holes in dolines. Some blowholes held kestrels and chicks and so could not be fully explored.

Not far from this area, Ray, on his morning karst walk, discovered a significant, though small, cave (N-3060). It was 25 m long and had developed in existing paleokarst with two separate epiphreatic passages leading through "black" flowstone and cave breccia. The cave contained pendants of cave breccia and also had many skulls and bones of marsupials, geckoes, wetas and redback spiders. Reinforcing the conclusion that N-3060 is epiphreatic, was a nearby small doline, N-3063, which had well exposed river cobbles in its wall (see photo).

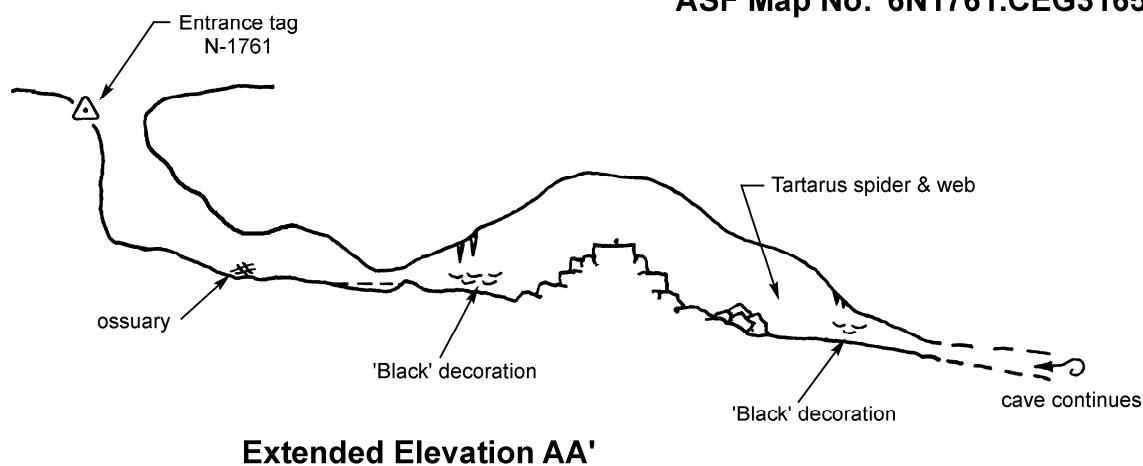
An example of how much erosion is currently occurring out on the Nullarbor was at a freshly opened blowhole, N-3075, which was at the bottom of a 1m deep soil collapse with an acacia root growing straight across the opening, indicating the blowhole had been covered until very recently.

Memorably, on one morning while Ray was on his karst walk searching for new features and I was adding data to the Nullarbor karst index, I noted a

6N-1761: Lake Gizzard Cave, Nullarbor Plain



ASF Map No: 6N1761.CEG3165



wedge-tailed eagle hunting directly overhead. In high winds there was barely a wing beat, the eagle was in total control as it carried out its search pattern of overlapping circles. It was magnificent to watch. Ray returned from his walk to inform me that he'd had his own wildlife experience. He had seen a dugite (snake, *Pseudonaja affinis*) and two bustards — large birds that were once very common on the Nullarbor.

The Trip Winds Down

Late on 19 October, we headed back to Old Homestead Cave hut, arriving there at 5 pm. The following day Ray changed back to road tyres and repacked the vehicle while I collated the data and the photo tag pictures and entered everything into the Nullarbor Karst Index database ready to be used by others. Ray and I had added 87 new features and had updated the records of 12 old features (including tagging those without tags) to make a total of 99 features documented (see appendix for details).



Peter Ackroyd exploring N-3095.

Photo: Ray Gibbons, 19 Oct 2004]

We headed south the next day calling in to Arachnid Cave (N-140), which appears to be attracting a considerable amount of local interest judging from the rather well-established track into it. Continuing south, we soon reached Eucla and finally Ceduna, where I was able to hand over to Max Meth an electronic file of the complete data set of our trip.

The next morning, 22 October, I spent more time with Max showing him the finer points of the Nullarbor Karst Index database before Ray and I headed back home, arriving in Adelaide that evening.

Appendix: Listing of features examined and karst numbers allocated

New 'N' numbers allocated, tagged and documented:
5N-3014–3016, 6N-3017–3100 (Total = 87).

Existing 'N' numbers visited, data collected and feature tagged (when no tag found):
5N-4, 6N-83, 6N-140, 6N-959, 5N-990, 5N-1010, 6N-1761 (survey), 6N-1879, 6N-1881, 6N-1889, 6N-2041, 6N-2045 (Total = 12).

Temporary numbers visited and 'N' numbers allocated (where applicable):
NX-590, NXK-26, NXK-27, NXK-34, NXK-598, NXK-687, NXK-688, NXK-690 (=rabbit warren), NXK-691 (=rabbit warren), NXK-693, NXK-694 (=animal den, not karst), NXK-719, QW-294, QW-317A (Total = 14).

All available cave information was entered into the CEGSA Nullarbor Karst Index (now KIDSA) in October 2004 and so is accessible to all cavers.

References

Ackroyd, Peter, (2002) On a Wing and a Prayer. *CEGSA News* **185 (Vol 47 No 1)** p.10.

Ackroyd, Peter, (2005) Nullarbor Flights of Fancy — May 2000. *CEGSA News* **200 (Vol 53 No 2)** p.90.

Peter Ackroyd, 18 January 2009

Naracoorte: 22nd/23rd November 2008

Participants: Mark Sefton, Alistair Sefton, Will English, Neville Skinner, Stuart Reedman, Peter Ashenden and Alex Ashenden

On the Saturday morning, the seven of us set off bright but less than early, to visit Smoke/Tortoise Cave. It was probably something like 15 years or more since I had last made my one and only visit to this cave, and the others had not seen it at all. Thanks to Graham Pilkington's systematic documentation of all of the entrances in this region and the wonders of GPS, we were able to locate the entrances without difficulty. This was just as well, as I had marked what I thought was the approximate location of the cave on my 1:50,000 map of the area many years ago but was out by nearly two kilometres! We also managed to find the entrance to Great Expectations (U116) which is now in the middle of a vineyard. The entrance is covered over with logs which look like they haven't been moved since first being placed there. Unfortunately, the entrance to U117 is now lost – buried somewhere beneath the vineyard, although I got a GPS reading at a spot where the soil appeared to be washing down beneath an exposed bit of limestone.

Without any idea of which of the two entrances gave the easier access to Smoke/Tortoise, we laddered the nearest to the track – the Tortoise entrance, only to find that it was virtually blocked by silt at the bottom, with only a tiny hole leading on. So we next tried the Smoke entrance which turned out to be an easy 6m ladder climb into some roomy walking passage. From here, we headed SW to a pleasant sandy-floored chamber and gradually progressed clockwise around the cave. We looked at two boulder choked ends to two passages at the western extremity of the cave. These were low, the boulders were very heavily consolidated with calcite and there was no breeze to encourage what would have to be a major excavation effort to make further progress. So we continued on, through some low crawls, to the chamber below the Tortoise entrance. This entrance chamber was pretty squalid – the floor was littered with bits of broken bottles (the last remnants of the rubbish that had once filled the sinkhole above), and the aroma of a freshly deceased lizard didn't exactly add to the ambience of the place. We spent 20 minutes or so removing silt from around the bottom of the entrance pipe, and the cave is now accessible from this point. We then headed back to the Smoke Cave entrance and out for lunch.

After lunch, Alistair and Will decided to listen to music in the car while the rest of us returned to the Smoke Cave entrance. This time, we headed SE to a point where the survey showed two ways on - an obvious continuation of the passage we had just come through, and a route to the south which we took, but probably would never have found without the map. A squeeze through the largest part of a flattener was right at the limit for me and Neville, and was followed by more flat out crawling before we reached a small chamber where we could sit up at last. We then followed the wall around, crawling through boulders until we at last arrived in a spacious chamber, full of sand cones and some decoration. After having a good look round here, we decided to continue north to where the map showed a route leading via another squeeze – the 'Letterbox' – back round to where we first left the main passage near the entrance. Unfortunately, the 'Letterbox' was too tight for half the party, so we were forced to head back the way we came, finally emerging from the entrance three hours after we had started and with a thirst appropriate for the evening's festivities. Despite five hours in the cave, we still didn't get to see all of it. The rest is waiting for another day.

The next day, Neville, Stuart, Peter and Alex went to Beekeepers Cave where they went to the very end and pushed all the nooks and crannies there. I took Alistair and Will on a trip through Wet Cave preceded by an overly large lunch at the kiosk accompanied by Damian Grindley who was over from the US on a work visit and had bumped into us at Wirreanda.

There are many fine caves in this area which most of us haven't seen for quite a few years now – if at all. Hopefully, we will be able to redress this situation over the next year or two.

Mark Sefton.

PRE CONFERENCE TRIP AT SALE, VICTORIA - 3rd JANUARY 2009.

When June and I arrived at Sale a day early for the ASF Conference and with information that there was no caving at Sale, a visit to the Information Centre was necessary and truly enlightening. As an old sea dog for 30 odd years I was surprised and pleased to hear that steam ships came up the canals to the Port of Sale.

How was this so? Sale is 90 km from Lakes Entrance which leads to Lake Victoria and Lake Wellington and the La Trobe River. This I had to see. The early settlers in 1850s built various canals to Sale as well as a large swing bridge to allow traffic over the La Trobe River

At the local airport, I arranged a flight over this area; I had to see the canals, the lakes, the wetlands and the swing bridge from the air.

Using my confined space training (not a visual work place for me,) I arranged a flight in a two seater Chinese Training plane "Nan Chong", with the pilot in front and myself in the back. I was told, "Enjoy the flight, but do not touch the pedals or throttle".

This was a very enjoyable flight, see photos.

George MacLucas

Caver, but old Mariner of 32 years in the Australian Merchant Navy.



I am airborne.



Port of Sale and canal.



Do not touch.



Lakes and canals.

Buchan et al, 10-16th Jan 2009

A post-conference trip attended by myself.

Caves visited: Federal, Shades of Death, Oolite, New Guinea 1, Fissure, Sub-Aqua and nearby caves.

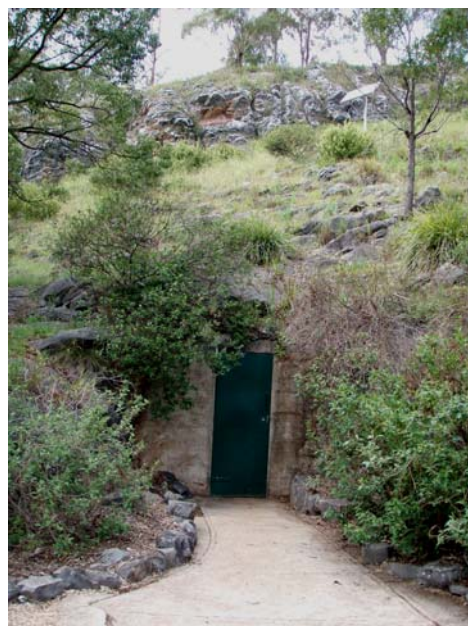
I stayed at the caver's lodge in Buchan – Homeleigh. The trips I attended all set out from there led by VSA members.



Homeleigh



Royal Cave Entrance



Federal Cave Entrance

Federal Cave is in the Buchan Caves Reserve and is an ex-showcave that is being renovated by the Friends of Buchan Caves, which includes members of VSA. It's a parallel (abandoned?) system to the show cave set of Fairy-Royal-Duke but is stopped by a massive calcite infill. Renovations include using solar-powered LED lighting. All the tourist caves had similar entrances and exits – a door in the cliff face. The exits were simple doors but the entrances were jazzed up so that people had something to do or sit on while waiting to enter as well as giving a better impression and increasing anticipation.

Shades of Death is a large cave in both size and length. It also has abundant large calcite speleothems. A past attempt was made to make it into a show cave but work stopped after only a hundred metres or so. It's privately owned.

Oolite is in the Potholes area. Just one of many caves in a doline-strewn landscape. A fascinating solution cave in a complex of interconnected vertical rifts and dipping connectors that descends about 30m.

New Guinea One (named after its' code 3NG-1) is a river cave. The entrance is at the bottom of a very large doline that intersects the linear passage which away from the doline is typically 2m wide and 4m high. In places collapse debris provides interesting navigation but most of the time you just follow the stream as it meanders through the rock. If you are interested in cave sediments, this along with many other caves in the Buchan region are a wealth of opportunity.

We went for a walk over the "Pyramids", a hill of limestone that has all the Murrindal river running through it in low-flow. However, the river in high flow goes around the hill. The cave is not all accessible. It starts where the river hits the limestone and sinks into boulder-choked entrances and exits via Sub-Aqua Cave (the name of one of the two caving groups to later form VSA). The top of the hill has a large 20m deep doline in it – a bit like a volcanic crater where the peak is a ring - but formed by collapse into a previous higher level version of the Sub-Aqua cave system. Downstream from the Sub-Aqua outflow, the creek periodically abuts limestone cliffs but you can still travel along the bank by ducking into caves that breach the headlands. One of these caves was mined for lead. Where the river enters the limestone, there's a high-level valley the cuts across the limestone band. On the side of this is Fissure Cave – a dry dusty fissure.

Graham Pilkington

Junee-Florentine Karst, Tasmania. January 2009

Participants: James Arundale (VSA), Dean Chamberlain (CDAA), John Dalla-Zuanna (CDAA), Richard (Harry) Harris (CEGSA), Grant Pearce (CDAA), Liz Rogers (CDAA).



L-R Richard Harris, Grant Pearce, Jim Arundale, Liz Rogers, Dean Chamberlain, John Dalla-Zuanna.

Background

After a wonderful family tour around the Apple Isle, including a great couple of days visiting the main show caves at Mole Creek (King Solomon and Marakoopa); I (Harry) headed out to Maydena with John Dalla-Zuanna (JDZ). There we met up with the rest of the group who were already settling in at the idyllic cabins at the "Giants Table".

Our main objective was Junee Cave (JF8), which lies in State forest just outside the Mt Field National Park; only a very short drive from our accommodation. The cave is famous for its stunning dry chamber ("For Your Eyes Only"), which lies between the 2 sumps. In cave diving circles, it is

famous for a few other things also: firstly its temperamental conditions (being prone to high flow, flooding, razor sharp suit eating limestone and frigid water), and secondly its potential for many kilometres of new passage. When dye tracing in 1973 connected Growling Swallett to Junee, the concept of the Junee Master Cave...a 9+km connection was born.

But to temper our enthusiasm was the knowledge that South Australian divers Tim Payne and David Doolette had on 2 occasions (2002 and 2004) visited the terminus of sump 2 and failed to find a way through a breakdown area there (Speleo Speil Issue 349 July-August 2005).

Anyway we decided to try and see for ourselves and regardless of the outcome, we wanted to experience the glory of For Your Eyes Only (FYEO).

January 4th 2009: Dive Day 1

First impressions for those in the group that had been to the cave before was that the water level was quite high. From the carpark to the public platform overlooking the cave entrance is about a 10 minute walk through the picturesque rainforest. The first job is to carry all the dive gear up the 100m streamway inside the cave to the beginning of the first sump. The 7 degree water necessitates the use of drysuits for any such activity but one soon warms up whilst battling against the flow.

On arriving at the setup area by sump 1, we were somewhat surprised to see a diver's gear neatly laid out on the "beach". The lack of a car in the carpark saved us undue worry but for a fleeting moment we wondered what might have happened to the owner! We quickly surmised it belonged to Dave Apperley, a Sydney based cave diver who said he may be in the area. It seems he had started diving but retreated for a few days once the water levels started to rise. During the course of our stay Dave came and went and in fact saved us a great deal of effort by repairing a lot of line in the majority of the second sump before we dived there.

Although several of the group planned to use rebreathers in the cave, all except Dean performed the initial first sump dive on open circuit. The thick line laid in the first sump is still in a good state of repair except for a few belays, which had broken or come loose (these were repaired). In order to protect the line from the intermittent high flow, it has been laid to guard against rubbing on the sharp projections. This means it doesn't always pass through the best route for a diver to follow. Several line traps exist as the line passes flatteners especially in the first 50m of the sump. Visibility varied between zero and 4m for all our dives (obviously worse on exiting the cave, or following someone else in). In low viz conditions these line traps can cause some delays during exit especially. Dives through sump 1 consistently took from 15 to 25mins depending on whether video was being taken. Flow was moderate initially but improved as the water levels fell during the trip. Temp 6.8.

JDZ and Harry dived through the first sump together and then walked to the end of FYEO simply to admire the passage and get a feel for the work involved to bring more gear through. Based on the

size of the passage they decided using backmount CCRs would present a challenge in some of the flatteners but they should be passable (as Dean had proven). The rest of the group also came through without incident and everyone enjoyed a relaxing chat in the beautiful chamber.

January 5th 2009: Dive Day 2

Water levels fallen further today and weather perfect. Everyone dives through sump 1 and the 3 divers using backmounted CCR find the sump squeezezy but manageable. The group transported the 5 stage cylinders required by JDZ and the author to dive sump 2, up to the end of FYEO. Photos and video of FYEO were recorded and we all exited again via sump 1. A small drop in water levels was noted to make a large difference in flow in the streamway of FYEO. Dave Apperley dived sump 2 and spent considerable time repairing the line down through the deep section at 63m. After working on the line he was short of time and unfortunately didn't get to the end. However this effort certainly paved the way for JDZ and I to dive the second sump the next day.

Dave reported the flow through the deeper restrictions was very high and quite difficult to pass.

January 6th 2009: Dive Day 3

Weather holding up, river continues to drop. More video and stills in all areas today. JDZ and Harry hauled their rebreathers to the end of FYEO and the group kindly brought the rest of their kit. Sump 1 was becoming pretty familiar and comfortable. Regular sightings of depigmented brown trout were made, as well as white syncarids and? shrimps.

JDZ and Harry set off for their second sump dive using the rebreathers. They used a trimix diluent to limit narcosis and decrease the work of breathing at depth. Each carried 2 large bailout cylinders and a further cylinder of decompression gas was staged at 20m.

The dive started with a 5-minute swim over silt dunes at only 5-10m. The line disappeared into the silt intermittently. Multiple line patches were seen and really the entire line needs replacing at some point with thicker rope. The cave then descended steeply and the restriction known as the "Teeth" was clearly visible at 40m. This presented only a minor obstacle and was easily passed. The entire tunnel was a single conduit with no side passages seen in the 4-5m visibility. At 50m the tunnel was flat centrally and on the right. On the left side it was scooped out and this was the obvious place to swim. However Harry found the flow to be very strong here whilst JDZ had a much easier time of it sticking to the middle. Through 62m the maximum depth was passed and the cave then ascended to 56m. Dave's line ended here and Harry tied on some 6mm rope, which he ran to the breakdown area, which only lay another 20-30m further on. They had arrived at their destination. It took 28mins battling the flow to get to this point, much longer than they had hoped but certainly sooner than if they had to repair all that line themselves. This gave only a few minutes to have a good look at the breakdown area, which was blocking further progress into the cave.

Harry: "My firm impression is that the cave continues beyond the breakdown. There was no sign of another route around the collapse. The breakdown is made of very large boulders with good size chinks between...clear water is tantalisingly glimpsed beyond the rockpile. Some apertures perhaps 30cm across are the largest gaps...certainly too small for a diver in any configuration to pass. Whilst it might be possible to move some rocks and force a route, this would be very time consuming and not without risk so far from the air chamber, and nearly 1km from the entrance. So for the time being, the Junee master cave will keep its secret! Total dive time in sump 2 was 104 very chilly minutes!"

January 7th 2009: Rest Day

Took a day to recover from the bumps and scrapes of carrying gear up those streamways! A quick tour of the district to have a look at some of the magnificent local scenery. Visited Growling Swallett (JF36); one of the major feeder siphons for Junee. Next, over to Lawrence Rivulet (again following in the footsteps of Dave Apperley who had just dived here and was doing his line repair work for us again!). Lawrence looked very inviting (apart from the leeches and mossies which were abundant).

January 8th 2009: Dive Day 4

Snow on Mt Field and hail on us! The Junee River was rising and it was time to get our gear out while we could. Approx. 5 hrs total in the cave to bring all the cylinders and other gear out and back to the cars. Red wine and a good feed the order of the day for cold cave divers!

Thus ended our exploration of the Junee Resurgence. Tassie cave diving has made a big impression on all of us and there are already plans being made to return!

Took a day to recover from the bumps and scrapes of carrying gear up those streamways! A quick tour of the district to have a look at some of the magnificent local scenery. Visited Growling Swallett

(JF36); one of the major feeder siphons for Junee. Next, over to Lawrence Rivulet (again following in the footsteps of Dave Apperley who had just dived here and was doing his line repair work for us again!). Lawrence looked very inviting (apart from the leeches and mossies which were abundant).

Richard Harris.

. %%%%%%%%%%

Past Trips from General Meetings

November 2008

1. Mark Sefton described a weekend trip to Naracoorte attended by five members. They visited Smoke/Tortoise Cave, Beekeepers and Wet Cave.
2. *Ray Gibbons described a three week trip to the Nullarbor.* They relocated some missing features and found a few new ones near Eucla. They then moved to another area where they looked along an ancient paleochannel where they found five new caves which look like they could go further. One was a 13 m deep blowhole with a very strong breeze, well decorated the whole way down which led into horizontal passage.
3. Graham Pilkington also went to the Nullarbor where he was joined by Ann-Marie Meredith of WASG. Two hundred and forty eight features were visited, locations of these features were noted and photos taken. All of the features were on Mundrabilla station. Included in these were 10 that were previously 'lost' and 16 new ones. During the last few days, the temperature reached 47 degrees in the shade. A day later, it poured with rain – the first decent downpour in 18 months.

January 2009

1. Marie Choi went to Tasmania where she saw Simon Kendrick. She had heard, but was not able to confirm, that a connection has recently been made between Midnight Hole and Exit Cave.
2. Grant Gartrell and Mark Sefton went to Naracoorte to participate in the 10th anniversary of the Wonambi Fossil Centre. While they were there they had a look at U216 and did some digging there. A light breeze was coming through the rock pile on the left hand side near the bottom.
3. Graham Pilkington described some of the caves he visited during the ASF conference. These included Federal Cave, Shades of Death, Fisher Cave, Oolite Cave and New Guinea 1.

%%%%%%%%%%

TECHNICAL and OTHER ARTICLES

WEBSITE REQUEST

I intend to do some updating to the website during this year so I am appealing to members to let me know if they have any suggestions they would like to make about the website.

I would also like to update the gallery of photos so am appealing to members for photos they would like to see on the website. Dig out those wonderful photos you have taken and let the rest of the world see them on our website.

Athol Jackson.

MEMBERSHIP

Changes to Members Mailing List:-

6701 Ian Lewis 12 McLachlan Avenue GLENELG NORTH SA 5045
 (E) kanawinka1@yahoo.com.au
 or (E) ian.lewis@immi.gov.au

7401 Kevin Mott (E) jkmott@internode.on.net

9210 Ken Smith (E) k.smith@bigpond.com

9806 Paul Hosie (E) paulhosie@trimixdivers.com

MEMBERSHIP FEES

CEGSA MEMBERSHIP FEES became due on January 1st **AND ARE NOW OVERDUE** To ensure continuity of membership and privileges (particularly insurance) please pay by 31st March, otherwise re-application for membership and the Joining Fee will be imposed in addition to the current fees.

CEGSA MEMBERSHIP FEES FOR 2009 YEAR

Full Membership	52.00
Full Country Membership	46.00
Associate Membership	44.00
Long Term Associate	52.00
3 Month Introductory	5.00
Joining Fee (N/A to 3mth Intro)	12.00
Discount for e-mail CEGSA News	15.00
Discount for Country Membership	6.00

ASF LEVY FEE FOR 2009 YEAR

Single	68.00
Family	121.50
3 Month Introductory	20.00
Student	61.00
Journal Subscription	25.00

2009 YEAR FEES

	CEGSA	+ASF	TOTAL
Full Membership	52.00	68.00	120.00
Full Country Membership	46.00	68.00	114.00
Associate Membership	44.00	68.00	112.00
3 Month Introductory	5.00	20.00	25.00

Variation for Family Membership

1 st Full Member + 2 nd Full Member			
Less \$16.00 for only 1 CEGSA NEWS	\$88.00	\$121.50	\$209.50
1 st Full Member + 2 nd Associate Member			
Less \$16.00 for only 1 CEGSA NEWS	\$80.00	\$121.50	\$201.50
1 st Associate Member + 2 nd Assoc Member			
Less \$16.00 for only 1 CEGSA NEWS	\$72.00	\$121.50	\$193.50

Discount for Country Membership and e-mail CEGSA NEWS applies for Family Memberships.

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

Chris Gibbons.

Treasurer/Membership Officer.

Approved CEGSA Trip Leaders

Name	Caving Leader level
Marie Choi	Horizontal, Laddering and Vertical
Stan Flavel	Horizontal and Laddering
Grant Gartrell	Nil
Chris Gibbons	Nil
Amanda Grindley	Horizontal
Damian Grindley	Horizontal, Laddering and Vertical
Paul Harper	Horizontal, Laddering and Vertical
Richard Harris	Horizontal
Lance Hoey	Horizontal and Laddering
Peter Horne	Horizontal and Laddering
Paul Hosie	Horizontal, Laddering and Vertical
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
Phil Prust	Horizontal and Laddering
Eddie Rubessa	Horizontal and Laddering
Mark Sefton	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.

%%%%%%%%%

How to Kill an Organisation

- 1.** Don't come to meetings.
- 2.** If you do, come late.
- 3.** Find fault with officers and members.
- 4.** Never accept an office; it is easier to criticise than do things.
- 5.** Nevertheless, get annoyed if you aren't appointed to the committee.
- 6.** If appointed to the committee, don't attend meetings.
- 7.** If asked by the chairman to give your opinion, say nothing. Afterwards tell everyone how you think things should be done.
- 8.** Do no more than necessary. When others roll up their sleeves to help things along, say the club is run by a clique.
- 9.** Hold back your dues as long as possible or don't pay at all.
- 10.** Don't bother about getting members, but if you do, be sure they are moaners like yourself.

CAVING WORD FIND

F E C C H A M B E R O C K S T
 L T A R Y Y G O L O E L E P S
 O I L A R E N I M X U V C T R
 W M C F M C R O U C H W A Y A
 S G I E N O T S E M I L V C K
 T A T F A J G T W D A N E J B
 O L E Q O L R A J C H I P R C
 N A E N A R R E T B U S E E E
 E T P C O T M I K C D A A L L
 G S I I S T T A O N K B R O O
 Y E U A N E S N T D U P L H H
 R M D M Q C D P O I T L C T K
 N O S W P U H W I R O T E O N
 S D C H I M N E Y R I N I P I
 G N I T U L F Z D P D E R V S

Can you find these words?

- | | | |
|----------------|------------------|----------------|
| 1. BASIN | 2. BREAKDOWN | 3. CALCITE |
| 4. CAVE PEARL | 5. CAVER | 6. CHAMBER |
| 7. CHIMNEY | 8. CONDUIT | 9. CROUCHWAY |
| 10. DOME | 11. DRIPSTONE | 12. FLOWSTONE |
| 13. FLUTING | 14. FORMATION | 15. GLACIER |
| 16. KARST | 17. LIMESTONE | 18. MINERAL |
| 19. PINCHED | 20. PITCH | 21. POTHOLE |
| 22. ROCKS | 23. SINKHOLE | 24. SODA STRAW |
| 25. SPELEOLOGY | 26. SPELUNKER | 27. STALACTITE |
| 28. STALAGMITE | 29. SUBTERRANEAN | 30. SUMP |

INDEX TO VOLUME 53

Volume 53 contained the following issues

53 (1) February 2008	Issue 209
53 (2) May 2008	Issue 210
53 (3) August 2008	Issue 211
53 (4) November 2008	Issue 212

Note: The Header for Volume 53 (3) is "Edition 210 Volume 53 Number 2". The pagination is correct.

The index is divided into the following categories

Caving activity by region

Technical and Other Articles

Key to abbreviations used in the index

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

CAVING ACTIVITY

Caving activities are listed by Cave Number, Newsletter reference, Author and Type of activity. If a cave has been listed at the start of an article, but not described in the article, the reference will be that listing at the start of the article. Some caves may also be referenced in Technical and Other Articles. Where a group of caves is only mentioned in a summary they have similarly been grouped in the index.

ADELAIDE HILLS

A25	53 (1) p9	G Gartrell	E
Delamere	53 (4) p68	G Gartrell	E

EYRE PENINSULA

No trips reported

FLINDERS RANGES

F	53 (3) p55	E Rubessa	
	53 (4) p71	E Rubessa	E
F7	53 (4) p71	S Flavel	H, Sc
F11	53 (1) p9	P Horne	Di

KANGAROO ISLAND

No trips reported

LOWER SOUTH EAST

L16	53 (3) p55	P Ashenden	
L46	53 (1) p9	P Horne	Di, S
L72	53 (4) p70	R Harris	Di

MURRAY PLAINS

M1	53 (3) p55	L Hoey	
	53 (3) p55	P Deer	
M14	53 (1) p9	L Hoey	E
M15	53 (1) p9	L Hoey	E
M16	53 (1) p9	L Hoey	E
M18	53 (1) p9	L Hoey	E
	53 (3) p55	L Hoey	

NULLARBOR PLAINS

N2	53 (3) p42	P Wright	H
N43	53 (4) p66	P Ackroyd	Tg
N48	53 (4) p70	H Harris	Di
N85	53 (3) p42	P Wright	H
N96	53 (3) p42	P Wright	H
N97	53 (3) p42	P Wright	H
N98	53 (3) p42	P Wright	H
N100	53 (1) p5	P Ackroyd	L
N127	53 (1) p8	P Ackroyd	Tg
N128	53 (1) p8	P Ackroyd	Tg
N129	53 (1) p6	P Ackroyd	L,M,S
	53 (4) p66	P Ackroyd	Tg
N130	53 (1) p8	P Ackroyd	Tg
N166	53 (3) p47	P Ackroyd	Tg
N168	53 (3) p42	P Wright	H
N182	53 (3) p53	G Pilkington	Bi
N328	53 (3) p47	P Ackroyd	Tg
N484	53 (1) p5	P Ackroyd	H
N485	53 (1) p5	P Ackroyd	
N605	53 (3) p47	P Ackroyd	Tg
N609	53 (1) p8	P Ackroyd	Tg
N610	53 (1) p8	P Ackroyd	Tg
N694	53 (3) p47	P Ackroyd	Tg
N707	53 (1) p8	P Ackroyd	Tg
N714	53 (1) p8	P Ackroyd	Tg
N722	53 (1) p8	P Ackroyd	Tg
N741	53 (1) p8	P Ackroyd	Tg
N744	53 (2) p18	P Ackroyd	L
N946	53 (1) p8	P Ackroyd	Tg
N982	53 (3) p47	P Ackroyd	Tg
N993	53 (3) p52	G Pilkington	
N1014	53 (3) p50	G Pilkington	
N1017	53 (1) p8	P Ackroyd	Tg
N1027	53 (3) p49	G Pilkington	
N1033	53 (3) p49	G Pilkington	
N1059	53 (3) p52	G Pilkington	
N1060	53 (3) p50	G Pilkington	
N1064	53 (3) p53	G Pilkington	
N1213	53 (1) p8	P Ackroyd	Tg
N1229	53 (3) p47	P Ackroyd	Tg
N1240	53 (1) p8	P Ackroyd	Tg
N1317	53 (4) p66	P Ackroyd	Tg
N1318	53 (4) p66	P Ackroyd	Tg
N1319	53 (4) p66	P Ackroyd	Tg
N2141	53 (2) p20	P Ackroyd	Tg
N1242	53 (1) p8	P Ackroyd	Tg
N1698	53 (1) p8	P Ackroyd	Tg

N1699	53 (1) p8	P Ackroyd	Tg
N1810	53 (1) p5	P Ackroyd	H, L
	53 (3) p44	P Ackroyd	Tg
N2048	53 (3) p47	P Ackroyd	Tg
N2098	53 (2) p18	P Ackroyd	P
N2147	53 (1) p8	P Ackroyd	Tg
N2148	53 (1) p8	P Ackroyd	Tg
N2149	53 (1) p8	P Ackroyd	Tg
N2150	53 (1) p8	P Ackroyd	Tg
N2151	53 (1) p8	P Ackroyd	Tg
N2152	53 (1) p8	P Ackroyd	Tg
N2153	53 (1) p8	P Ackroyd	Tg
N2154	53 (1) p8	P Ackroyd	Tg
N2155	53 (1) p8	P Ackroyd	Tg
N2156	53 (1) p8	P Ackroyd	Tg
N2157	53 (1) p8	P Ackroyd	Tg
N2158	53 (1) p8	P Ackroyd	Tg
N2159	53 (1) p8	P Ackroyd	Tg
N2160	53 (1) p8	P Ackroyd	Tg
N2161	53 (1) p8	P Ackroyd	Tg
N2162	53 (1) p8	P Ackroyd	Tg
N2163	53 (1) p8	P Ackroyd	Tg
N2164	53 (1) p8	P Ackroyd	Tg
N2165	53 (1) p8	P Ackroyd	Tg
N2166	53 (1) p8	P Ackroyd	Tg
N2167	53 (1) p8	P Ackroyd	Tg
N2168	53 (1) p8	P Ackroyd	Tg
N2169	53 (1) p8	P Ackroyd	Tg
N2170	53 (1) p8	P Ackroyd	Tg
N2171	53 (1) p8	P Ackroyd	Tg
N2172	53 (1) p8	P Ackroyd	Tg
N2173	53 (1) p8	P Ackroyd	Tg
N2174	53 (1) p8	P Ackroyd	Tg
N2175	53 (1) p8	P Ackroyd	Tg
N2176	53 (1) p8	P Ackroyd	Tg
N2177	53 (1) p8	P Ackroyd	Tg
N2178	53 (1) p8	P Ackroyd	Tg
N2179	53 (1) p8	P Ackroyd	Tg
N2180	53 (1) p8	P Ackroyd	Tg
N2181	53 (1) p8	P Ackroyd	Tg
N2182	53 (1) p8	P Ackroyd	Tg
N2183	53 (1) p8	P Ackroyd	Tg
N2184	53 (1) p8	P Ackroyd	Tg
N2185	53 (1) p8	P Ackroyd	Tg
N2186	53 (1) p8	P Ackroyd	Tg
N2187	53 (1) p8	P Ackroyd	Tg
N2188	53 (1) p8	P Ackroyd	Tg
N2189	53 (1) p8	P Ackroyd	Tg
N2189	53 (1) p8	P Ackroyd	Tg

N2544	53 (4) p66	P Ackroyd	Tg	N2626	53 (2) p19	P Ackroyd	L, Tg
N2545	53 (4) p66	P Ackroyd	Tg	N2627	53 (2) p19	P Ackroyd	L, Tg
N2546	53 (4) p66	P Ackroyd	Tg	N2628	53 (2) p19	P Ackroyd	L, Tg
N2547	53 (4) p66	P Ackroyd	Tg	N2629	53 (2) p19	P Ackroyd	L, Tg
N2570	53 (2) p20	P Ackroyd	Tg	N2630	53 (2) p19	P Ackroyd	L, Tg
N2571	53 (2) p20	P Ackroyd	Tg	N2631	53 (2) p19	P Ackroyd	L, Tg
N2572	53 (2) p20	P Ackroyd	Tg	N2632	53 (2) p19	P Ackroyd	L, Tg
N2573	53 (2) p20	P Ackroyd	Tg	N2633	53 (2) p19	P Ackroyd	L, Tg
N2574	53 (2) p20	P Ackroyd	Tg	N2634	53 (2) p20	P Ackroyd	Tg
N2575	53 (2) p20	P Ackroyd	Tg	N2635	53 (2) p20	P Ackroyd	Tg
N2576	53 (2) p20	P Ackroyd	Tg	N2644	53 (4) p66	P Ackroyd	Tg
N2577	53 (2) p20	P Ackroyd	Tg	N2645	53 (4) p66	P Ackroyd	Tg
N2578	53 (2) p20	P Ackroyd	Tg	N2646	53 (4) p66	P Ackroyd	Tg
N2579	53 (2) p20	P Ackroyd	Tg	N2647	53 (4) p66	P Ackroyd	Tg
N2580	53 (2) p20	P Ackroyd	Tg	N2649	53 (4) p66	P Ackroyd	Tg
N2581	53 (2) p20	P Ackroyd	Tg	N2651	53 (3) p47	P Ackroyd	Tg
N2582	53 (2) p20	P Ackroyd	Tg	N2652	53 (3) p47	P Ackroyd	Tg
N2583	53 (2) p20	P Ackroyd	Tg	N2653	53 (3) p47	P Ackroyd	Tg
N2584	53 (2) p20	P Ackroyd	Tg	N2654	53 (3) p47	P Ackroyd	Tg
N2585	53 (2) p20	P Ackroyd	Tg	N2655	53 (3) p44	P Ackroyd	D
N2586	53 (2) p20	P Ackroyd	Tg		53 (3) p46	P Ackroyd	Sc
N2587	53 (2) p20	P Ackroyd	Tg	N2656	53 (3) p47	P Ackroyd	Tg
N2588	53 (2) p20	P Ackroyd	Tg	N2657	53 (3) p47	P Ackroyd	Tg
N2589	53 (2) p20	P Ackroyd	Tg	N2658	53 (3) p47	P Ackroyd	Tg
N2590	53 (2) p20	P Ackroyd	Tg	N2659	53 (3) p47	P Ackroyd	Tg
N2591	53 (2) p20	P Ackroyd	Tg	N2660	53 (3) p46	P Ackroyd	Bi
N2592	53 (2) p20	P Ackroyd	Tg	N2661	53 (3) p47	P Ackroyd	Tg
N2593	53 (2) p20	P Ackroyd	Tg	N2662	53(3) p46	P Ackroyd	D
N2594	53 (2) p20	P Ackroyd	Tg	N2663	53 (3) p47	P Ackroyd	Tg
N2595	53 (2) p20	P Ackroyd	Tg	N2664	53 (3) p47	P Ackroyd	Tg
N2596	53 (2) p20	P Ackroyd	Tg	N2665	53 (3) p47	P Ackroyd	Tg
N2597	53 (2) p20	P Ackroyd	Tg	N2666	53 (3) p47	P Ackroyd	Tg
N2598	53 (2) p20	P Ackroyd	Tg	N2667	53 (3) p47	P Ackroyd	Tg
N2599	53 (2) p20	P Ackroyd	Tg	N2668	53 (3) p47	P Ackroyd	Tg
N2600	53 (2) p20	P Ackroyd	Tg	N2669	53 (3) p47	P Ackroyd	Tg
N2601	53 (2) p19	P Ackroyd	L, Tg	N2670	53 (3) p47	P Ackroyd	Tg
N2602	53 (2) p19	P Ackroyd	L, Tg	N2671	53 (3) p46	P Ackroyd	Bi, D
N2603	53 (2) p19	P Ackroyd	L, Tg	N2672	53 (3) p47	P Ackroyd	Tg
N2604	53 (2) p19	P Ackroyd	L, Tg	N2673	53 (3) p47	P Ackroyd	Tg
N2605	53 (2) p19	P Ackroyd	L, Tg	N2674	53 (3) p47	P Ackroyd	Tg
N2606	53 (2) p19	P Ackroyd	L, Tg	N2675	53 (3) p47	P Ackroyd	Tg
N2607	53 (2) p19	P Ackroyd	L, Tg	N2676	53 (3) p47	P Ackroyd	Tg
N2608	53 (2) p19	P Ackroyd	L, Tg	N2677	53 (3) p47	P Ackroyd	Tg
N2609	53 (2) p19	P Ackroyd	L, Tg	N2678	53 (3) p47	P Ackroyd	Tg
N2610	53 (2) p19	P Ackroyd	L, Tg	N2679	53 (3) p47	P Ackroyd	Tg
N2611	53 (2) p19	P Ackroyd	L, Tg	N2680	53 (3) p47	P Ackroyd	Tg
N2612	53 (2) p19	P Ackroyd	L, Tg	N2681	53 (3) p46	P Ackroyd	D, W
N2613	53 (2) p19	P Ackroyd	L, Tg	N2682	53 (3) p46	P Ackroyd	Tg
N2614	53 (2) p19	P Ackroyd	L, Tg	N2683	53 (3) p46	P Ackroyd	Tg
N2615	53 (2) p19	P Ackroyd	L, Tg	N2684	53 (3) p46	P Ackroyd	Tg
N2616	53 (2) p19	P Ackroyd	L, Tg	N2685	53 (3) p46	P Ackroyd	Tg
N2617	53 (2) p19	P Ackroyd	L, Tg	N2686	53 (3) p46	P Ackroyd	Tg
N2618	53 (2) p19	P Ackroyd	L, Tg	N2687	53 (3) p46	P Ackroyd	Tg
N2619	53 (2) p19	P Ackroyd	L, Tg	N2688	53 (3) p46	P Ackroyd	Tg
N2620	53 (2) p19	P Ackroyd	L, Tg	N2689	53 (3) p46	P Ackroyd	Tg
N2621	53 (2) p19	P Ackroyd	L, Tg	N2690	53 (3) p46	P Ackroyd	Tg
N2622	53 (2) p19	P Ackroyd	L, Tg	N2691	53 (3) p46	P Ackroyd	Tg
N2623	53 (2) p19	P Ackroyd	L, Tg	N2692	53 (3) p46	P Ackroyd	Tg
N2624	53 (2) p19	P Ackroyd	L, Tg	N2693	53 (3) p46	P Ackroyd	Tg
N2625	53 (2) p19	P Ackroyd	L, Tg	N2694	53 (3) p46	P Ackroyd	Tg

N2845	53 (4) p66	P Ackroyd	Tg	N2905	53 (4) p66	P Ackroyd	Tg
N2846	53 (4) p66	P Ackroyd	Tg	N2906	53 (4) p66	P Ackroyd	Tg
N2847	53 (4) p66	P Ackroyd	Tg	N2907	53 (4) p66	P Ackroyd	Tg
N2848	53 (4) p66	P Ackroyd	Tg	N2908	53 (4) p66	P Ackroyd	Tg
N2849	53 (4) p66	P Ackroyd	Tg	N2909	53 (4) p66	P Ackroyd	Tg
N2850	53 (4) p66	P Ackroyd	Tg	N2910	53 (4) p66	P Ackroyd	Tg
N2851	53 (4) p66	P Ackroyd	Tg	N2911	53 (4) p66	P Ackroyd	Tg
N2852	53 (4) p66	P Ackroyd	Tg	N2912	53 (4) p66	P Ackroyd	Tg
N2853	53 (4) p66	P Ackroyd	Tg	N2913	53 (4) p66	P Ackroyd	Tg
N2854	53 (4) p66	P Ackroyd	Tg	N2914	53 (4) p66	P Ackroyd	Tg
N2855	53 (4) p66	P Ackroyd	Tg	N2915	53 (4) p66	P Ackroyd	Tg
N2856	53 (4) p66	P Ackroyd	Tg	N2916	53 (4) p66	P Ackroyd	Tg
N2857	53 (4) p66	P Ackroyd	Tg	N2917	53 (4) p66	P Ackroyd	Tg
N2858	53 (4) p66	P Ackroyd	Tg	N2918	53 (4) p66	P Ackroyd	Tg
N2859	53 (4) p66	P Ackroyd	Tg	N2919	53 (4) p66	P Ackroyd	Tg
N2860	53 (4) p66	P Ackroyd	Tg	N2920	53 (4) p66	P Ackroyd	Tg
N2861	53 (4) p66	P Ackroyd	Tg	N2921	53 (4) p66	P Ackroyd	Tg
N2862	53 (4) p66	P Ackroyd	Tg	N2922	53 (4) p65	P Ackroyd	H
N2863	53 (4) p66	P Ackroyd	Tg		53 (4) p66	P Ackroyd	Tg
N2864	53 (4) p66	P Ackroyd	Tg	N2923	53 (4) p66	P Ackroyd	Tg
N2865	53 (4) p66	P Ackroyd	Tg	N2924	53 (4) p66	P Ackroyd	Tg
N2866	53 (4) p66	P Ackroyd	Tg	N2925	53 (4) p66	P Ackroyd	Tg
N2867	53 (4) p66	P Ackroyd	Tg	N2926	53 (4) p66	P Ackroyd	Tg
N2868	53 (4) p66	P Ackroyd	Tg	N2927	53 (4) p66	P Ackroyd	Tg
N2869	53 (4) p66	P Ackroyd	Tg	N2928	53 (4) p66	P Ackroyd	Tg
N2870	53 (4) p66	P Ackroyd	Tg	N2929	53 (4) p66	P Ackroyd	Tg
N2871	53 (4) p66	P Ackroyd	Tg	N2930	53 (4) p66	P Ackroyd	Tg
N2872	53 (4) p66	P Ackroyd	Tg	N2931	53 (4) p66	P Ackroyd	Tg
N2873	53 (4) p66	P Ackroyd	Tg	N2932	53 (4) p66	P Ackroyd	Tg
N2874	53 (4) p66	P Ackroyd	Tg	N2933	53 (4) p66	P Ackroyd	Tg
N2875	53 (4) p66	P Ackroyd	Tg	N2934	53 (4) p66	P Ackroyd	Tg
N2876	53 (4) p66	P Ackroyd	Tg	N2035	53 (4) p66	P Ackroyd	Tg
N2877	53 (4) p66	P Ackroyd	Tg	N2936	53 (4) p66	P Ackroyd	Tg
N2878	53 (4) p66	P Ackroyd	Tg	N2937	53 (4) p66	P Ackroyd	Tg
N2879	53 (4) p66	P Ackroyd	Tg	N2938	53 (4) p66	P Ackroyd	Tg
N2880	53 (4) p66	P Ackroyd	Tg	N2939	53 (4) p66	P Ackroyd	Tg
N2881	53 (4) p66	P Ackroyd	Tg	N2940	53 (4) p66	P Ackroyd	Tg
N2882	53 (4) p66	P Ackroyd	Tg	N2941	53 (4) p66	P Ackroyd	Tg
N2883	53 (4) p66	P Ackroyd	Tg	N2942	53 (4) p65	P Ackroyd	H
N2884	53 (4) p66	P Ackroyd	Tg		53 (4) p66	P Ackroyd	Tg
N2885	53 (4) p66	P Ackroyd	Tg	N2943	53 (4) p66	P Ackroyd	Tg
N2886	53 (4) p66	P Ackroyd	Tg	N2944	53 (4) p66	P Ackroyd	Tg
N2887	53 (4) p66	P Ackroyd	Tg	N2945	53 (4) p66	P Ackroyd	Tg
N2888	53 (4) p66	P Ackroyd	Tg	N2946	53 (4) p66	P Ackroyd	Tg
N2889	53 (4) p66	P Ackroyd	Tg	N2947	53 (4) p66	P Ackroyd	Tg
N2890	53 (4) p66	P Ackroyd	Tg	N2948	53 (4) p66	P Ackroyd	Tg
N2891	53 (4) p66	P Ackroyd	Tg	N2949	53 (4) p66	P Ackroyd	Tg
N2892	53 (4) p66	P Ackroyd	Tg	N2950	53 (4) p66	P Ackroyd	Tg
N2893	53 (4) p66	P Ackroyd	Tg	N2951	53 (4) p66	P Ackroyd	Tg
N2894	53 (4) p66	P Ackroyd	Tg	N2952	53 (4) p66	P Ackroyd	Tg
N2895	53 (4) p66	P Ackroyd	Tg	N2953	53 (4) p65	P Ackroyd	E, Pa
N2896	53 (4) p66	P Ackroyd	Tg		53 (4) p66	P Ackroyd	Tg
N2897	53 (4) p66	P Ackroyd	Tg	N2954	53 (4) p66	P Ackroyd	Tg
N2898	53 (4) p66	P Ackroyd	Tg	N2955	53 (4) p66	P Ackroyd	Tg
N2899	53 (4) p66	P Ackroyd	Tg	N2956	53 (4) p66	P Ackroyd	Tg
N2900	53 (4) p66	P Ackroyd	Tg	N2957	53 (4) p66	P Ackroyd	Tg
N2901	53 (4) p66	P Ackroyd	Tg	N2958	53 (4) p66	P Ackroyd	Tg
N2902	53 (4) p66	P Ackroyd	Tg	N2959	53 (4) p66	P Ackroyd	Tg
N2903	53 (4) p66	P Ackroyd	Tg	N2960	53 (4) p66	P Ackroyd	Tg
N2904	53 (4) p66	P Ackroyd	Tg	N2961	53 (4) p66	P Ackroyd	Tg

N2962	53 (4) p66	P Ackroyd	Tg	NXK976	53 (2) p20	P Ackroyd
N2963	53 (4) p66	P Ackroyd	Tg	NXK977	53 (2) p20	P Ackroyd
N2964	53 (4) p66	P Ackroyd	Tg	NXK978	53 (2) p20	P Ackroyd
N2965	53 (4) p66	P Ackroyd	Tg	NXK979	53 (2) p20	P Ackroyd
N2966	53 (4) p66	P Ackroyd	Tg	NXK980	53 (2) p20	P Ackroyd
N2967	53 (4) p66	P Ackroyd	Tg	NXK981	53 (2) p20	P Ackroyd
N2968	53 (4) p66	P Ackroyd	Tg	NXK982	53 (2) p20	P Ackroyd
N2969	53 (4) p65	P Ackroyd	D	NXK983	53 (2) p20	P Ackroyd
	53 (4) p66	P Ackroyd	Tg	NXK984	53 (2) p20	P Ackroyd
N3000	53 (4) p66	P Ackroyd	Tg	NXK985	53 (2) p20	P Ackroyd
N3001	53 (4) p66	P Ackroyd	Tg	NXK986	53 (2) p20	P Ackroyd
N3002	53 (4) p66	P Ackroyd	Tg	NXK987	53 (2) p20	P Ackroyd
N3003	53 (4) p66	P Ackroyd	Tg	NXK988	53 (2) p20	P Ackroyd
N3004	53 (4) p66	P Ackroyd	Tg	NXK989	53 (2) p20	P Ackroyd
N3005	53 (4) p66	P Ackroyd	Tg	NXK990	53 (2) p20	P Ackroyd
N3006	53 (4) p66	P Ackroyd	Tg	NXK991	53 (2) p20	P Ackroyd
N3007	53 (4) p66	P Ackroyd	Tg	NXK992	53 (2) p20	P Ackroyd
N3008	53 (4) p66	P Ackroyd	Tg	NXK993	53 (2) p20	P Ackroyd
N3009	53 (4) p66	P Ackroyd	Tg	NXK994	53 (2) p20	P Ackroyd
N3010	53 (4) p66	P Ackroyd	Tg	NXK995	53 (2) p20	P Ackroyd
N3011	53 (4) p66	P Ackroyd	Tg	NXK996	53 (2) p20	P Ackroyd
N3012	53 (4) p66	P Ackroyd	Tg	NXK997	53 (2) p20	P Ackroyd
N3013	53 (4) p66	P Ackroyd	Tg	NXK998	53 (2) p20	P Ackroyd
N3869	53 (3) p54	G Pilkington		NXK999	53 (2) p20	P Ackroyd
N4303	53 (3) p54	G Pilkington		NXK1000	53 (2) p20	P Ackroyd
N4304	53 (3) p53	G Pilkington	Bi	NXK1001	53 (2) p20	P Ackroyd
NXK29	53 (3) p47	P Ackroyd		NXK1002	53 (2) p20	P Ackroyd
NXK31	53 (3) p47	P Ackroyd		NXK1003	53 (2) p20	P Ackroyd
NXK35	53 (3) p47	P Ackroyd		NXK1004	53 (2) p20	P Ackroyd
NXK36	53 (3) p47	P Ackroyd		NXK1005	53 (2) p20	P Ackroyd
NXK65	53 (3) p47	P Ackroyd		NXK1006	53 (2) p20	P Ackroyd
NXK66	53 (3) p47	P Ackroyd		NXK1007	53 (2) p20	P Ackroyd
NXK67	53 (3) p47	P Ackroyd		NXK1008	53 (2) p20	P Ackroyd
NXK68	53 (3) p47	P Ackroyd		NXK1009	53 (2) p20	P Ackroyd
NXK71	53 (3) p47	P Ackroyd		NXK1010	53 (2) p20	P Ackroyd
NXK72	53 (3) p47	P Ackroyd		NXK1011	53 (2) p20	P Ackroyd
NXK73	53 (3) p47	P Ackroyd		NXK1012	53 (2) p20	P Ackroyd
NXK74	53 (3) p47	P Ackroyd		NXK1013	53 (2) p20	P Ackroyd
NXK75	53 (3) p47	P Ackroyd		NXK1014	53 (2) p20	P Ackroyd
NXK955	53 (2) p20	P Ackroyd		NXK1015	53 (2) p20	P Ackroyd
NXK956	53 (2) p20	P Ackroyd		NXK1016	53 (2) p20	P Ackroyd
NXK957	53 (2) p20	P Ackroyd		NXK1017	53 (2) p20	P Ackroyd
NXK958	53 (2) p20	P Ackroyd		NXK1018	53 (2) p20	P Ackroyd
NXK959	53 (2) p20	P Ackroyd		NXK1019	53 (2) p20	P Ackroyd
NXK960	53 (2) p20	P Ackroyd		NXK1020	53 (2) p20	P Ackroyd
NXK961	53 (2) p20	P Ackroyd		NXK1021	53 (2) p20	P Ackroyd
NXK962	53 (2) p20	P Ackroyd		NXK1022	53 (2) p20	P Ackroyd
NXK963	53 (2) p20	P Ackroyd		NXK1023	53 (2) p20	P Ackroyd
NXK964	53 (2) p20	P Ackroyd			53 (3) p47	P Ackroyd
NXK965	53 (2) p20	P Ackroyd		NXK1024	53 (2) p20	P Ackroyd
NXK966	53 (2) p20	P Ackroyd		NXK1025	53 (2) p20	P Ackroyd
NXK967	53 (2) p20	P Ackroyd		NXK1026	53 (2) p20	P Ackroyd
NXK968	53 (2) p20	P Ackroyd			53 (3) p47	P Ackroyd
NXK969	53 (2) p20	P Ackroyd		NXK1027	53 (2) p20	P Ackroyd
NXK970	53 (2) p20	P Ackroyd			53 (3) p47	P Ackroyd
NXK971	53 (2) p20	P Ackroyd		NXK1028	53 (2) p20	P Ackroyd
NXK972	53 (2) p20	P Ackroyd		NXK1029	53 (2) p20	P Ackroyd
NXK973	53 (2) p20	P Ackroyd		NXK1030	53 (2) p20	P Ackroyd
NXK974	53 (2) p20	P Ackroyd		NXK1031	53 (2) p20	P Ackroyd
NXK975	53 (2) p20	P Ackroyd		NXK1032	53 (2) p20	P Ackroyd

NXK1033 53 (2) p20 P Ackroyd
 NXK1034 53 (2) p20 P Ackroyd
 NXK1035 53 (2) p20 P Ackroyd
 NXK1036 53 (2) p20 P Ackroyd
 NXK1037 53 (2) p20 P Ackroyd
 NXK1038 53 (2) p20 P Ackroyd
 NXK1039 53 (2) p20 P Ackroyd
 NXK1040 53 (2) p20 P Ackroyd
 NXK1041 53 (2) p20 P Ackroyd
 NXK1042 53 (2) p20 P Ackroyd
 NXK1043 53 (2) p20 P Ackroyd
 NXK1044 53 (2) p20 P Ackroyd
 NXK1045 53 (2) p20 P Ackroyd
 NXK1046 53 (2) p20 P Ackroyd
 NXK1047 53 (2) p20 P Ackroyd
 NXK1048 53 (2) p20 P Ackroyd
 NXK1049 53 (2) p20 P Ackroyd
 NXK1050 53 (2) p20 P Ackroyd
 NXK1051 53 (2) p20 P Ackroyd
 NXK1052 53 (2) p20 P Ackroyd
 NXK1053 53 (2) p20 P Ackroyd
 NXK1054 53 (2) p20 P Ackroyd
 NXK1055 53 (2) p20 P Ackroyd
 NXK1056 53 (2) p20 P Ackroyd
 NXK1057 53 (2) p20 P Ackroyd
 NXK1058 53 (2) p20 P Ackroyd
 NXK1059 53 (2) p20 P Ackroyd
 NXK1060 53 (2) p20 P Ackroyd
 NXK1061 53 (2) p20 P Ackroyd
 NXK1062 53 (2) p20 P Ackroyd
 NXK1063 53 (2) p20 P Ackroyd
 NXK1064 53 (2) p20 P Ackroyd
 NXK1065 53 (2) p20 P Ackroyd
 NXK1066 53 (2) p20 P Ackroyd
 NXK1067 53 (2) p20 P Ackroyd
 NXK1068 53 (2) p20 P Ackroyd
 NXK1069 53 (2) p20 P Ackroyd
 NXK1070 53 (2) p20 P Ackroyd
 NXK1071 53 (2) p20 P Ackroyd
 NXK1072 53 (2) p20 P Ackroyd
 NXK1073 53 (2) p20 P Ackroyd
 53 (3) p47 P Ackroyd H
 NXK1074 53 (2) p20 P Ackroyd
 NXK1075 53 (2) p20 P Ackroyd
 53 (3) p47 P Ackroyd
 NXK1076 53 (2) p20 P Ackroyd
 NXK1077 53 (2) p20 P Ackroyd
 NXK1078 53 (2) p20 P Ackroyd
 NXK1079 53 (2) p20 P Ackroyd
 NXK1080 53 (2) p20 P Ackroyd
 NXK1081 53 (2) p20 P Ackroyd
 NXK1082 53 (2) p20 P Ackroyd
 NXK1083 53 (2) p20 P Ackroyd
 NXK1084 53 (2) p20 P Ackroyd
 NXK1085 53 (2) p20 P Ackroyd
 NXK1086 53 (2) p20 P Ackroyd
 NXK1087 53 (2) p20 P Ackroyd
 NXK1088 53 (2) p20 P Ackroyd
 NXK1089 53 (2) p20 P Ackroyd
 NXK1090 53 (2) p20 P Ackroyd

NXK1091 53 (2) p20 P Ackroyd
 NXK1092 53 (2) p20 P Ackroyd
 NXK1093 53 (2) p20 P Ackroyd
 NXK1094 53 (2) p20 P Ackroyd
 NXK1095 53 (2) p20 P Ackroyd
 NXK1096 53 (2) p20 P Ackroyd
 NXK1097 53 (2) p20 P Ackroyd
 NXK1098 53 (2) p20 P Ackroyd
 NXK1099 53 (2) p20 P Ackroyd
 NXK1100 53 (2) p20 P Ackroyd
 NXK1101 53 (2) p20 P Ackroyd
 NXK1102 53 (2) p20 P Ackroyd
 NXK1103 53 (2) p20 P Ackroyd
 NXK1104 53 (2) p20 P Ackroyd
 NXK1105 53 (2) p20 P Ackroyd
 NXK1106 53 (2) p20 P Ackroyd
 NXK1107 53 (2) p20 P Ackroyd
 53 (3) p47 P Ackroyd
 NXK1108 53 (2) p20 P Ackroyd
 53 (3) p47 P Ackroyd
 NXK1109 53 (2) p20 P Ackroyd
 NXK1110 53 (2) p20 P Ackroyd
 53 (3) p47 P Ackroyd
 NXK1111 53 (2) p20 P Ackroyd
 NXK1112 53 (2) p20 P Ackroyd
 NXK1113 53 (2) p20 P Ackroyd
 NXK1114 53 (2) p20 P Ackroyd
 53 (3) p47 P Ackroyd
 NXK1115 53 (2) p20 P Ackroyd
 53 (3) p47 P Ackroyd
 NXK1116 53 (2) p20 P Ackroyd
 53 (3) p47 P Ackroyd
 NXK1117 53 (2) p20 P Ackroyd
 NXK1118 53 (2) p20 P Ackroyd
 NXK1119 53 (2) p20 P Ackroyd
 NXK1120 53 (2) p20 P Ackroyd
 NXK1121 53 (2) p20 P Ackroyd
 NXK1122 53 (2) p20 P Ackroyd
 NXK1123 53 (2) p20 P Ackroyd
 NXK1124 53 (2) p20 P Ackroyd
 NXK1125 53 (2) p20 P Ackroyd
 NXK1126 53 (2) p20 P Ackroyd
 NXK1127 53 (2) p20 P Ackroyd
 NXK1128 53 (2) p20 P Ackroyd
 NXK1129 53 (2) p20 P Ackroyd
 NXK1130 53 (2) p20 P Ackroyd
 NXK1131 53 (2) p20 P Ackroyd
 NXK1132 53 (2) p20 P Ackroyd
 NXK1133 53 (2) p20 P Ackroyd
 NXK1134 53 (2) p20 P Ackroyd
 NXK1135 53 (2) p20 P Ackroyd
 NXK1136 53 (2) p20 P Ackroyd
 NXK1137 53 (2) p20 P Ackroyd
 NXK1138 53 (2) p20 P Ackroyd
 NXK1139 53 (2) p20 P Ackroyd
 NXK1140 53 (2) p20 P Ackroyd
 NXK1141 53 (2) p20 P Ackroyd
 NXK1142 53 (2) p20 P Ackroyd
 NXK1143 53 (2) p20 P Ackroyd
 NXK1144 53 (2) p20 P Ackroyd

NXK1145 53 (2) p20 P Ackroyd
 NXK1146 53 (2) p20 P Ackroyd
 NXK1147 53 (2) p20 P Ackroyd
 NXK1148 53 (2) p20 P Ackroyd

NXK1149 53 (2) p20 P Ackroyd
 NXK1150
 -1753 53 (4) p66 P Ackroyd
 QWRH90 53 (3) p44 P Ackroyd

TORRENS

No trip reports

UPPER SOUTH EAST

U8	53 (1) p9	M Sefton	E
	53 (4) p66	M Sefton	D, E, P
U15	53 (1) p8	M Sefton	E
	53 (4) p66	M Sefton	W
U34	53 (1) p9	M Sefton	E
U47	53 (1) p8	M Sefton	H, S
U217	53 (3) p55	P Ashenden	
U218	53 (3) p55	P Ashenden	
U230	53 (4) p66	M Sefton	W

YORKE PENINSULA

Y1	53 (2) p24	N Skinner	E
	53 (3) p55	G Pilkington	
	53 (4) p69	G McLucas	P
	53 (4) p71	I Lewis	E
Y2	53 (4) p70	G McLucas	H

INTERSTATE & OVERSEAS

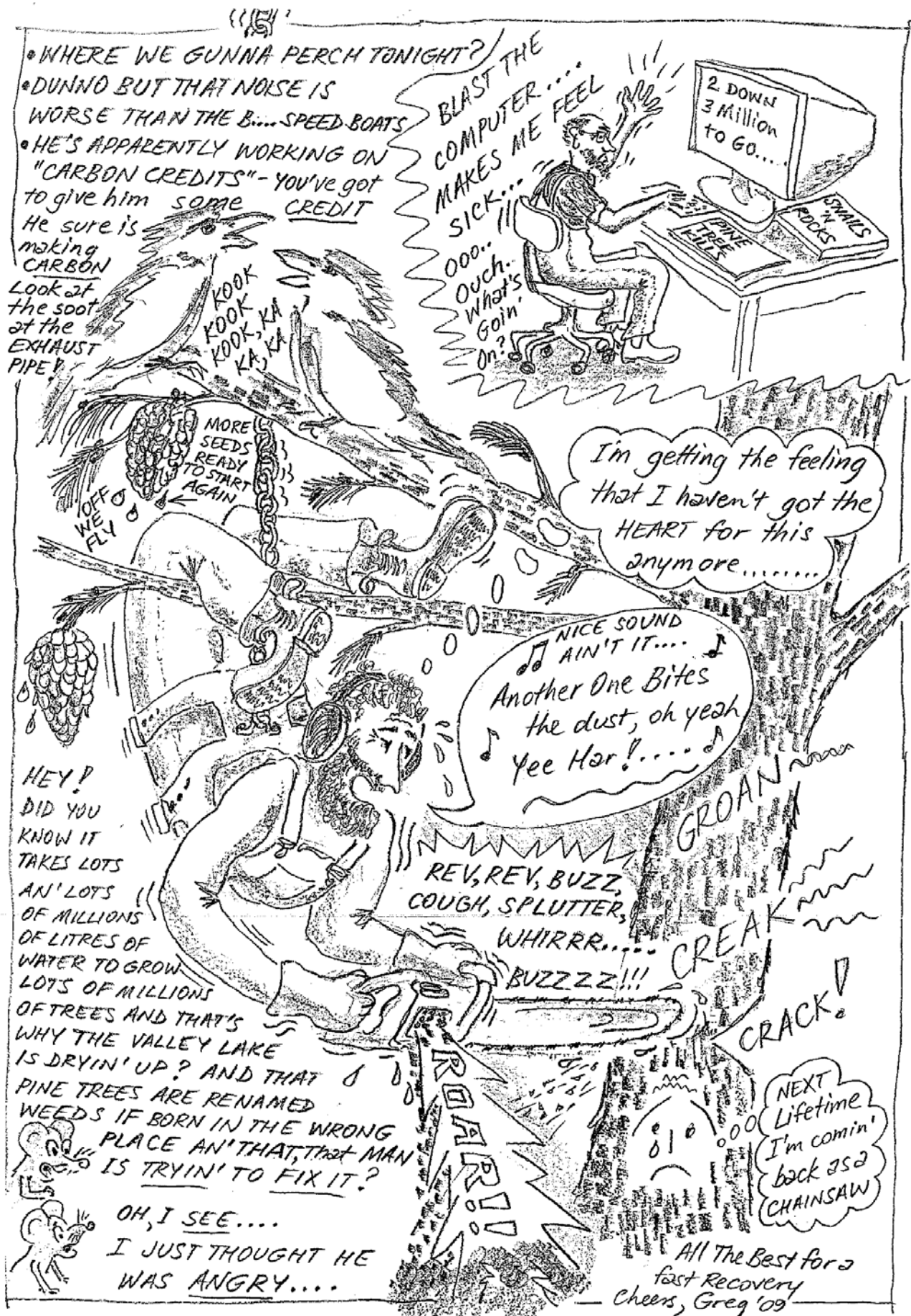
Bullita	53 (3) p55	M Sefton	
Nettlebed (NZ)	53 (2) p23	R Harris	
Pahara Caves	53 (3) p55	N Skinner	
Pearse Resurgence	53 (2) p21	R Harris	Di
	53 (2) p22,23	R Harris	M

TECHNICAL AND OTHER ARTICLES

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

Answer (Article Vol 52 No 3)	53 (2) p27	
Annual General Meeting	53 (1) p4	A Jackson
Australia's Kanawinka Geopark	53 (4) p74	I Lewis
Book Review – "Caves"	53 (1) p11	M Choi
Caving word find	53 (4) p78	
CEGSA Projects	53 (4) p63	
Donation to CEGSA	53 (1) p11	G Pilkington
Excerpts from early newsletters	53 (3) p57	
Freshette (Feminine Urinary Director)	53 (2) p28	J McLucas
Grant Gartrell Grotto	53 (2) p30	P Horne
Index Volume 52	53 (2) p31	
KIDSA Inconsistencies	53 (2) p30	G Pilkington
Nullarbor – Xmas 1954	53 (3) p40	P Wright
Obituary (P Clarke)	53 (2) p27	K Mott
Photos wanted	53 (1) p12	M Choi
Putting CEGSA's assets to good use	53 (3) p58	M Sefton
To be or not to be (project plan)	53 (1) p12	G Pilkington

Kevin Mott.



Get well card to Fred Aslin during his hospital stay after a heart attack early this year.

CALENDAR OF EVENTS

Date	Type of Event	Description	Contact
25/02/09	General Meeting	Royal Society Room, SA Museum, Adel. Kanawinka Geopark Part 1	Ian Lewis
28/02/09	Working Bee	Library and records	Graham Pilkington
03/03/09	Caving	Corra Lynn Cave (school trip)	Graham Pilkington
07-09/ 03/09	Adelaide Cup WE		
11/03/09	Committee Meeting	TBA	Mark Sefton
25/03/09	General Meeting	Royal Society Room, SA Museum, Adel. Caving Video	Mark Sefton
28/03/09	Working Bee	Library and records	Graham Pilkington
28/03/09	Fun Caving	Corra Lynn Cave	Paul Harper
08/04/09	Committee Meeting	TBA	Mark Sefton
10-13/ 04/09	Fun Caving and Survey	South East of SA.	Marie Choi
10-26/ 04/09	Survey	Old Homestead Cave, Nullarbor	Graham Pilkington
17/04- 08/05/09	Exploration	Nullarbor	Peter Ackroyd
19/04/09	Fun Caving	Punyelroo and Gloop Caves	Mark Sefton/ Ian Lewis
22/04/09	General Meeting	Royal Society Room, SA Museum, Adel. Kanawinka Geopark part 2	Ian Lewis
02/05/09	Fun Caving	Corra Lynn Cave	Paul Harper
09-10/ 05/09	Fun Caving	Naracoorte	Mark Sefton/ Ian Lewis
13/05/09	Committee Meeting	TBA	Mark Sefton
13/05/09	CEGSA NEWS	Articles due	Athol Jackson
27/05/09	General Meeting	Royal Society Room, SA Museum, Adel. Underwater Caves and Fossils	Diver and Buddy.
30/05/09	Working Bee	Library and Records	Graham Pilkington
30/05/09	Fun Caving	Corra Lynn	Paul Harper
???????	Caving	Kangaroo Island sometime this year	Grant Gartrell
	Training	Ad Hoc training	Tim Payne
	Caving	Ongoing Vic Fossil survey	Gary Woodcock
	Caving	Continuing Fleurieu Peninsula Exploration	Grant Gartrell

It is desirable that caving trips involving club members should, where possible, be registered as CEGSA Trips. To do this, the nature and timing of the trip must be nominated to the Trip Liaison Officer and/or minuted at a General Meeting of Members. 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 in a timely manner.