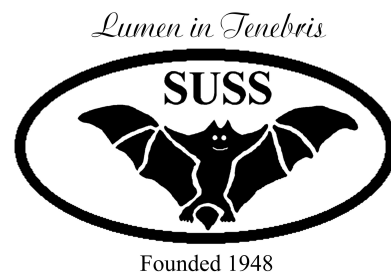


SUSS BULL 49 (1)

APRIL – JUNE 2009



Bulletin of the Sydney University Speleological Society

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**Cover Photo: Deborah in Blacks Cave Mahoenui, NZ Easter 2009.
Alan Pryke**

Brian O'Brien in the News Again

From our Federal Correspondent, John Dunkley

Founding President of ASF, sometime (ca. 1955) President of SUSS, keynote speaker at the ASF Conference in Bunbury in 2002, and famously lost in a Yarrangobilly cave in 1954, Brian O'Brien has been in the news several times lately. He appeared in the ABC Program "The Collectors" on Friday, 21 August 2009, talking about the previously lost NASA tapes relating to his dust detectors which still sit on the surface of the Moon, designed when he was Professor of Space Science at Rice University, USA. He had to go to a computer museum to find some hardware that was capable of running these tapes.

For more online info, Jill Rowling supplied this address: "An Update on SpectrumData / NASA 7 Track Data Restoration Project" <http://www.tsn.net.au/spectrum/newsletter/May-2009/>

Rent a Cave and New Species Under the Nullarbor

From our reporter, Guy McKanna

★ Set amidst towering escarpments, the Hat Cave is a huge sandstone cathedral, sculpted by nature to provide an ideal bushland retreat for modern cave dwellers (troglodytes). <http://www.hattershideout.com.au/Cave%20to%20Rent.htm>

★ Australian researchers have discovered a huge number of new species of invertebrate animals living in underground water, caves and "micro-caverns" amid the harsh conditions of the Australian outback. <http://www.physorg.com/news173346378.html>

Bizarre Bats

From our reporter, Guy McKanna

A bizarre New Zealand bat that is as much at home walking four-legged on the ground as winging through the air had an Australian ancestor 20 million years ago with the same rare ability, a new study has found.

The discovery overturns a long-held view that the agile walking and climbing skills of the lesser short-tailed bat – *Mystacina tuberculata* – evolved in the absence of any ground-dwelling mammal competitors or predators, says an international team of researchers led by Dr Suzanne Hand, a bat expert at the University of New South Wales, Sydney.

Along with the American common vampire bat – *Desmodus rotundus* – the NZ bat is one of only two of 1,100 bat species worldwide that has a true four-legged walking gait when manoeuvring on the ground. It uses its wings as forelegs. Its thumb and toe claws have a unique extra talon for extra grip, plus a system of adhesive, gecko-like grooves in the soft, deeply wrinkled soles of its feet,

The team has found that other special muscle and bone adaptations were also present in one of its extinct rainforest-dwelling Australian ancestors, fossils of which have been found at the rich Riversleigh World Heritage Fossil Site in north-west Queensland, it says in a report published in the journal BMC Evolutionary Biology.

"The lesser short-tailed bat seems to be the sole survivor of an ancient Australian lineage now found only in New Zealand," says Dr Hand. "This study shows that, contrary to existing hypotheses, bats are not overwhelmingly absent from the ground because of competition from, or predation by, other mammals."

"Unlike for birds, there is currently no evidence that any bat has evolved a reduced capacity for flight as a result of isolation on islands. Rather, it would seem that walking is rare in bats because it has advantages for them only in special circumstances. Competition with other mammals and pressure from terrestrial predators does not deter modern vampire bats from walking. Likewise, the rich rainforest environment in which the ancestors of the mystacinid bats evolved in ancient Australia was teeming with ground-based competitors and predators."

A small secretive creature with velvety fur, the lesser short-tailed bat is New Zealand's only terrestrial mammal: it spends long periods on the ground in heavily forested areas, hunting insects and seeking out fruit, nectar and pollen. It also appears to have evolved a special relationship as a pollinator for the Hades flower, or woodrose, a parasitic plant that produces nectar from blooms near ground level at the base of tree trunks.

Among other unusual traits, the bat is thought to use its teeth and claws to excavate roosting burrows and males appear to compete for mates by gathering for singing competitions in their breeding season.

Reference: http://www.eurekalert.org/pub_releases/2009-07/uons-bwb072909.php

The online paper can be found here: <http://www.biomedcentral.com/1471-2148/9/169>

WYANBENE, THE PLACE TO BE IN +40 TEMPERATURES 7 & 8th FEBRUARY 2009

BY ROWENA LARKINS

Participants: Shannon Crack, Deborah Johnston, Josh Sehion, Sam Morin, Rowena Larkins



Rowena avoiding getting wet. Photo by Deborah Johnson

Wyanbene cave is about 5 hours drive south of Sydney. It is a very long river cave heading south. There are several large rooms off the main river passage to the west.

After a 4 hour drive, Shannon got me to drive from Goulburn while he had a sleep. On the drive to Braidwood we encountered wildlife: Roos – avoided; Wombats – missed them; bunnies – scampered off, PIG – AHHHHH!! on went the brakes and we skidded about 20 metres. When the car stopped the pig got up and ran off. We drove down the road 100 metres before checking the car. We didn't want an angry pig charging us. No obvious damage to the car so we were on our way.

We had a bit of trouble finding the cave camp site at night. Note for next time – type “Wyanbene Cave” into Google directions rather than just “Wyanbene”. We had downloaded the directions to the farm called Wyanbene which was about 2 km from the cave camp ground.

The road was quite different to the one I came on last time, some 20 years ago. Then it was a goat track with a ford across the Shoalhaven river, and being non-drought time, one of the 2wd cars got bogged. Back then everyone got out of the car and pushed it while the driver spun the wheels. The trick was to avoid getting splattered by mud and get the car out of the bog. No bog this time though.

Saturday Morning

I was up first. I got out my mending and got stuck into the needlework. I needed to stitch cordura patches over the holes in my cave suit. I was told to use dental floss instead of cotton. I was completed by the time the rest of the group got up around 9:30. Ahh, the aroma of fresh percolated coffee & cinnamon scroll in a bush campsite. Yum!

Once we were all trogged up it was off to the cave. The car park is about 300 metres from the cave so an easy stroll and we were there. The cave has a low entrance at the base of the hill, which is a flood overflow in times of wet weather, and a higher entrance with a gate and fixed ladder up the hill.

The inside temp was a welcome relief from the 38 degree plus temp outside. I left my small esky just inside the entrance chamber with my vegies and chockie bars.

I got out the map (shameless plug – buy the SUSS Map Library DVD. There is an excellent map of Wyanbene included) and Shannon exclaimed “This is a worry – getting out the map at the entrance”. Hey, the stream flows through the entrance chamber East/West and the cave runs South. Onto hands and knees to crawl under the first bit of the river and then it was walking space. The river level was high enough so it was just over the top of the gumboots. Slosh Slosh Slosh was the sounds we were making, followed by pauses to take pictures. This is an awesome cave with fabulous river bends and decoration on the walls. The walls are nice and clean, washed by the flow of the river. There are still some crystal areas in the tourist section which are sparkling white. After about 30 mins of wading we came to the sump1 at which point the permit only area starts.

From the river level you could hear the howl of the wind. I had the pleasure of climbing up to the “Blow Hole” and playing with the padlock to open the gate. The 60km/hour gale blowing through the hole made this an annoying task. Once through we rigged the cave ladder and belay rope and went down the 6 meter ladder climb. Sam, Deborah's young nephew, was not happy about the ladder climb and it looked like he and Deborah would go no further, but after much debate, Deborah convinced him to try it. Once he was on the ladder we knew he was cool to go. At the base of the ladder is a large dry area and I decided it was a good place to put on thermals.

More wading past “The Jail house” a section of the river where stals used to block the main way through. When I last came we had an awkward climb up and over but now, thanks to a missing stal, it is a crawl through between the jail bars. To the side of this is Cleopatra’s bath. Shannon had a go at climbing up to it, but with the group we had we decided that this would be something to do next trip. Our next detour was to the “Helictite Room” off to the west. This was a photo opportunity and to show off the helictites. Some loops were about the size of a cavers helmet.

Back to the river, past the triangle squeeze, aptly named, and then a lunch stop before we entered “The Wet Stretch”. Here the water is about 10 cm deep, but the roof is about 50 cm from the floor, meaning you get wet. Last time I came here, with cotton overalls and no thermals, this was as far as we got. Hyperthermia? No thanks!. (Back then we were a group of poor uni students and luxuries like thermals were not an option. It was also before cordura cave suits were invented.) The wet stretch is about half way into the cave.

Today, as we crawled the roof became lower, the water deeper, and the passage narrower. I saw a gap off to the right and had a quick look. It might have been Aitcheson’s Bypass but I could not be sure. Anyway, might as well do the full water crawl experience.

I was at the front of the crawl and when I got the narrow wet part let out a groan, but was soon through. Once past this I was able to chuckle as I heard those following come through this section, each one letting out a squeal (was that a squeal of delight or of agony?) or a scream.

Past this section we stopped to dry out. I scampered back down a side passage and confirmed that we could have avoided the deepest part of the crawl down Aitkinson’s Bypass. We will know for next time. The thermals kept us warm.

Shannon scampered off to find the Gunbarrel Aven. This is an aven that is more than 100 metres high. I know of no one getting to the top. Josh and I followed him and with our combined lamp light could barely make out the roof of this majestic aven, and we were on a ledge about 20 metres from the bottom. Deborah and Sam had set themselves up in the “Rockfall Chamber” a largish room, and Shannon performed some acrobatic manoeuvres down an tricky climb to reach them. Josh and I took the easy way down and soon we were back with the others. Sam was feeling a bit tired and we had heard rumours that the way through to Caesar’s Hall was through a tricky rockpile. I decided to try and find the way through. Yes, it was tricky, but by following trusted caving techniques, looking for the smooth rocks and following the breeze, I ended up popping out a hole half way down a slope of one of the biggest chambers I had seen. The floor below me was on a 45 degree slope and the chamber behind me rose up so that it was above the “Rock Fall chamber”. My light disappeared into the gloom below. The map on the SUSS DVD shows this chamber as being 100 metres long and 30 metres high. This chamber is about 3/4 of the way through the cave.

I called out for the others to follow me through and could hear through the echos respond that they were coming. While I waited I went across to the east wall. It was covered in almost clean crystal cave coral and crystals. I guess that few people get this far into the cave and those that do are careful not to do any damage. I called out again and again I heard Shannon call back that he was coming. I didn’t want to go down the hill by myself, preferring to stay in contact with the others. It was enough to wonder at the size of this hall way.

Fifteen mins went by and I called out again. No answer this time, so I gathered up my pack and headed back into the rockpile. Shannon was there. He said he had gone through the rockpile and come back where he started. The others had decided to head back as Sam was getting tired. “Frustration Lake” at the end of the cave was living up to it’s name. There is always next time.

Back at the start of the water crawl we could hear Sam singing “I feel Good” (James Brown) as he plunged into the water. He was actually enjoying the water crawl! I took Shannon down Aitcheson’s Bypass, avoiding the worst of the water crawl. Above us were supposed to be 60 meter high avens, but we didn’t have time to stop and look at them. More things for next trip. We could hear the squeals of delight as people again went through the narrow bits.

More pictures as we headed out, and then up the ladder pitch. I stopped to close the padlock and lowered my cave pack to Shannon below. I asked him to untie it so I could release the handline, and wondered where he had got the dolphin torch from? I then puzzled at why he was wearing a T shirt, and realised it was not Shannon, but some locals who had come in to the cave to avoid the heat. I checked the padlock was locked and the gate couldn’t be opened, chatted to the guys and then left. It was a total fire ban so no fires tonight. I was in my tent asleep by 9:30 pm.



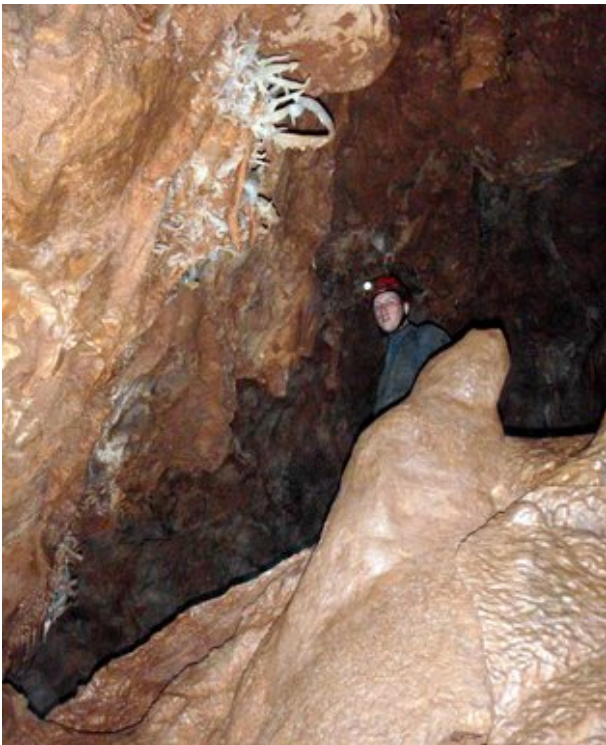
Shannon coming through the triangle squeeze in Wyanbene. Photo by Deborah Johnson

Sunday Morning

It was hot when I got up. We breakfasted early and tried to get into the cave as soon as we could as it was *really hot*. It was great to get into the water. Today we went into the Mud chamber, the old tourist area of to the west of the river just before the gate.

In this chamber was an awesome column which was clean on the side where dirty fingers couldn't reach. This chamber had several old fixed ladders when I came before but now only two remain. I checked the map from the SUSS DVD and yes, there were other ladders shown, and we could see some of the mountings left in place. There was a fairly dry streamway which we grovelled through; this room had a separate stream in it which joined the main stream at the gate. I illuminated some nice shawls on the walls from behind. Lots of Ohhs and Ahhs, and Josh, who has spent a lot of time on a farm said "That is awesome, kind of like shining a light through the cartilage of a sow's ear". Umm ... Ok!!! Lunch and pickies and phoons and it was time to go out.

We stopped for a wash on the Shoalhaven. The temp was still in the high 30's if not above. at Braidwood we stopped at the bakery for a snack, and noticed that every other car had an ACT number plate. The people from Canberra were stopping off from their day at Bateman's Bay. On the road to Goulburn we scanned the road for skid marks which I had left when I hit the pig, but they were not to be found. We got back home in time for dinner.



Shannon Crack in the helictite room in Wyanbene. Photo by Deborah Johnson



**Shannon Crack checking out an alternative climb or "Shannon Crack in a crack" ... oowww bad pun!
Photo by Deborah Johnson**



Shannon climbing past a water pool in Wyanbene. Photo by Deborah Johnson



***Sam enjoying the water crawl.
Photo by Deborah Johnson***



***Sam getting really wet in the water crawl.
Photo by Deborah Johnson***



Samuel Morin trying to act cool. Photo by Deborah Johnson



***Sam and Deb in the tourist section of Wyanbene.
Photo by Deborah Johnson***

NEW CAVES AROUND AROUND PUKETITI. YOU JUST HAVE TO ASK! 10–14th APRIL 2009, NEW ZEALAND

BY GUY MCKANNA

Participants: Grace, Romy and Guy McKanna

One evening while driving back from caving, we bumped into one of the older farm hands and struck up a relationship (on account of Guy and he both being Mr Moms and full time single dads).

He told us of a pit in the hillside close to the southern boundary, a pit where it took four seconds for a rock to hit the bottom. He noticed we were quite excited about this prospect of a new cave (as Guy knew the map showed no caves on that part of the property) and offered to show us exactly where.

Robert and Guy quickly grabbed a few lengths of rope, tape and SRT gear and jumped in the 4WD to follow his quad bike. We drove through paddocks, gates and more paddocks to one of the higher points on the property.

We parked right next to a small hole in the hillside. As Guy rigged the rope off the car, Robert put on his gear and was in the hole within five minutes of us pulling up. Our farm guides were impressed at the show.

Unfortunately, the pit only went down about 15 metres and Robert was back up the rope and at the car in about as many minutes. The tube sloped down to a mud-filled floor, he said. We tentatively named it Taylor's Tomo after farmer's son who came along to watch.

A few days later we were prospecting the series of dolines up the monocline hill just east of the hut. There was a nice little stream flowing into one big doline. But the crawl entrance through mud – yes, not rock, just mud – put Max off from pursuing it. Just 20 metres east and above that is a very narrow rift that might join up with it. The drop was a very tight and required a ladder. We thought this might be the hole marked “No-Go” on the map.

South-west of this doline and directly north of Blizzard Cave doline we found another pit. The ground appeared to have recently subsided, opening access to a tight rift. Guy scurried in, wearing just his thermals to check it out. It went, well at least to a drop that required a ladder, after a very sharp-walled rift. Max and Alan went back later in the day with a ladder along what became known as “Sand paper shuffle” due to its abrasive affect. They dropped the pit to find another 10 metres of cave, which again ended in a mud-filled floor.

On the surface, Grace found several small alcoves in the cliffs of the dolines in this area, including Grace's Grotto and Romy's Roost. These were interesting in that they had some significant-sized decoration within their metre or two of cavern. There must have been some nice caves here once upon a time.

There were a few other side trips venturing beyond Alan and Megan's realm, including the tourist trips of BlackWater Rafting and Lost World. Twelve-year old Grace particularly enjoyed the latter and its spectacular 100 metre abseil into the fern-encrusted entrance cavern. The tourist operator has done a good job with the exit winding up through some very scenic areas of the cave, accessed by a 30m ladder climb, which was scarier for the tourists than the abseil.

Further afield - the thermal areas around Rotorua include peculiar caves – a sulphur cave is to be found at Wai O Tapu. It is basically an overhang formed by a collapse over a thermal vent and has become covered with sulphur deposits.

The mud baths at Hells Gate were a warm change to that within the caves earlier in the trip. The sea cliffs of the Coromandel peninsular provide a few interesting caverns – especially at Cathedral Cove.

JENOLAN – 13 & 14th JUNE 2009

BY MARK EUSTON, SHAE JENEVIEVE & DEBORAH JOHNSTON

Participants: Blake McCarthy, Brendon McCulloch, David Lee, Mark Euston, Martin Bruhlmann, Ashley Crocker, Matthew Clyne, Michael Everston, Nicole St Vincent Welch, Rick Grundy, Shae Jenevieve, Stephen Kennedy and Deborah Johnston

First Trip Report – by Mark Euston

On Saturday, Steve took a trip of Jenolan virgins (Dave & Nicole, Ashley, and Rick) and Mark (A NUCC/SUSS mutant) into Mammoth Cave. First was the standard trip to see Lower River and Oolite Chamber, where Nicole proclaimed during one squeeze “I like doing it on my back, it saves energy”. The group was fairly fast so we decided to go into Railway Tunnel and on to Ice Pick Lake via Unsurveyed Connection. The water level in Ice Pick lake was within two steps of the down climb so there was only just enough room to get everyone in. We then went up to Naked Lady chamber (Nicole: “How come there isn’t a Naked Man chamber?”, common sense: “Because no one would want to see it!”) and back to Railway Tunnel via Hell Hole, with Steve performing his usual hazing ritual and tricking everyone into going head first on their backs. Once back in Railway Tunnel we made a quick side trip to Davy Jones’ Locker where we saw a lone bat half way up the 40-foot drop. On the walk back a pair of Lyre birds were spotted on the road singing, “Give up, Deborah. It’s never going to go ... Give up, Deborah. It’s never going to go.”

Second Trip Report – by Shae Jenevieve

Friday night, we gather in the icy cold outside the garage as the NUCCers exclaim over the snow they passed on the drive in. Naturally the bearer of the keys is in the last car to arrive, though luckily their delay was not great. Greetings are made and names shared as we get to know the people who we will share the next two days with. The spelunkers who have joined this trip are Bill, Blake, Brendon, David, Mark, Martin, Mathew, Micheal, Nicole, Rick and Shae with Deborah and Steve as our leaders. Caves are discussed, stories are swapped and the laughter is shared along with the alcohol. Then we resign to the beds we have claimed, though Deb promptly changes hers on discovering a snorer in the garage.

Saturday

We awake to a bearably cold morning, with many of us rather thankful for the presence of a toilet. The caves for the day are decided on and our groupings settled. We then separate and the day really begins. Deb leads a group, consisting of Bill, Blake, Brendon, Martin, Mathew, Micheal and Shae on a short walk down the hill to Aladdin. Steve leads David, Nicole, Mark, Ashley and Rick down a larger hill to Mammoth. The natural slide created by a steep rock provided some novel entertainment for many of us. However such entertainments were not to distract us from the beauties and adventures the cave held and, beginners though we were, our eagerness towards the caves exploration meant that despite side tours and a lunch break Aladdin was completed earlier than expected. This gave us time enough to extend our trip to Rho hole and still be finished in the mid-afternoon. Having no extra keys on hand we resigned ourselves to returning to the cabin somewhat earlier than planned, giving the handy little workers of the group plenty of time for chopping firewood.

The Mammoth goers returned an hour or so later but had evidently had too good a time to stop because half the group then ran off with the Aladdin cave to squeeze in one more scramble. Many hours and hot showers later, when all had reconverged in the fire warmed and some what smoke filled hut, the newbies were educated on the entertainments to be had with a bench and a table. Strange bodily shapes were made, Some pain experienced and it was ensured that none of us could ever look at a gorilla pod the same way again. This was all washed down wonderfully when Martin proved to us that the swiss make the best apple pies.

Sunday

After a morning of packing and eating leftover food we got ourselves moving, once again in two groups. Deb lead Bill, Mark, Blake, Mathew and Micheal to Mammoth, whilst Steve led Brendon, David, Nicole, Martin, Rick, and Shae through Serpentine.

Entering serpentine we were greeted by the beautiful river carved passages to which, I hope, it owes it’s name (I don’t want to consider what the alternative explanation may be). However drama struck when it became apparent that two of the group members, David and Martin, weren’t going to make the 180 degree squeeze. They were forced to turn back but, refusing to have the cave defeat them, went on to do some minor exploration of their own. A number of enjoyable squeezes and scrambles later and the group was reunited outside the cave. With much of the day remaining the serpentine group then went on to explore some of the more open caves in the area. In the two caves explored a variety of old signatures, accompanied predictably by some not so old graffiti, were displayed. In

one section of caves our ears bore witness to the sound of tree roots sucking up drops of water. We were disappointed to find that a bat colony was absent from one of their usual haunts, but that they had been kind enough to leave large quantities of guano behind as a greeting to our nostrils. When our caving was concluded we returned to the hut to finish our packing and say our good byes. A short trip, but a fun one.



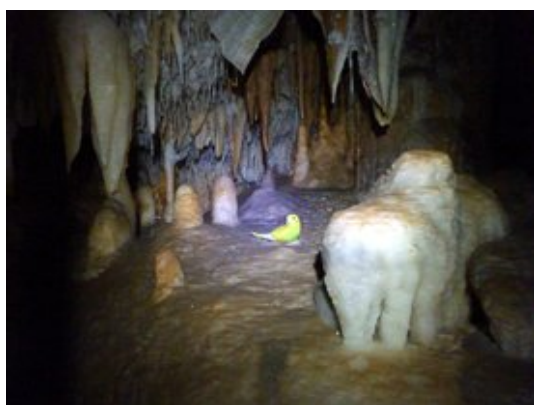
Blake McCarthy, Michael Clyne, Bill Lamb and Matthew Everstone survive Mammoth Cave.
Photo by Deborah Johnston



Bill Lamb inspects the Skull & Crossbones in Mammoth. Photo by Deborah Johnston



Bill Lamb in Aladdin Cave.
Photo by Deborah Johnston



Budgie visits Aladdin Cave.
Photo by Bill Lamb

WATCH OUT FOR THE DRAGONS IN ALADDIN CAVE

6th JULY 2009, JENOLAN

A VERY EARLY MORNING SURFACE TROG

BY ROWENA LARKINS

Participants: Rowena Larkins

Mark had inspired us over the weekend with stories of the high aven which goes up from water cavern in Jubilee Cave. When it rains the water apparently pours down this aven and fills the chambers below very quickly. He expected there to be an entrance hole somewhere which let the water in. He had mapped the location to somewhere below the creek on the track down from the cabin to the Rho Hole entrance. The best way to find such an entrance would be to explore the area at dawn in the winter looking for steamers. The warm air inside the cave meets the cool air outside and causes steam. Rowena was inspired enough to set her alarm for 6 am on the Monday, not a typical SUSS time to get up.

Rising quietly she trogged up – headlamp was needed as it was dark and headed down the hill. The thermometer registered -2 degrees and there was a heavy frost. There was no obvious signs of steamers at the dry river bed by the fence. Dawn was coming fast and Rowena could see the daylight outlining the hills to the east of the Jenolan valley. Wallabies were startled to see people wandering around at this time of day and hopped off.

Rowena wasn't really sure what a steamer looked like so she headed down to the known caves to check them out. As she came around the corner of Aladdin there were clouds of steam coming out. The time was about 6:45 and the sky was getting lighter. She rested her camera on a steady rock and took a few photos.

As she came within 5 metres of Aladdin cave a blast of warm air fogged her glasses instantly. A blast of hot air; steam (which could be mistaken for smoke); caves which intrepid explorers could enter and fall to their deaths. You can see where the legend of the fire breathing dragon comes from.

Rowena headed across to the Glass entrance. No steamer here. No blast of hot air. Down to Rho. Again no hot air or steamer here. The ground was still frozen and the muddy dirt path to Rho was slippery.

Now that Rowena knew what a steamer looked like she headed back up to the dry river course. The creek bed showed no steam at all. Rowena headed back down the creek bed and worked her way to the path at the bottom of the valley. No more steamers.

She headed back up the track to Aladdin and it was still smoking at about 7:30 am. When she got back to the cabin just before 8am the rest of the group were getting up and starting to organise breakfast.

Summary: No obvious steamers in the creek bed. Aladdin blows out. Glass sucks. Rho sucks.



Steam coming out of Alladin Cave in the early morning. Photo by Rowena Larkins

THE GLASS CEILING IS A FALSE FLOOR

11th JULY 2009, JENOLAN

BY ROWENA LARKINS

Participants: Max Midlen, Glen Smith, Neil Smith, Bee Carr, Jeremy Sutherland, Rowena Larkins

“Hey”. A shout came in the darkness.

“Hey come here”. It was Max.

“We are having lunch Max” Rowena called back.

“Hey come here. I have found the river in Glass cave” was the response from Max. “Hang on”.

Intrigued, Rowena put her sandwich into her lunchbox, sealed it to stop crumbs and headed in the direction of Max’s voice. But this is half way through the trip, lets start at the beginning.

A few hours earlier a group of six of us headed off from the Jenolan Cabin with scaling poles. On an earlier trip to Glass, some avens had been spotted. When John Bonwick (discoverer of Loubens) was asked about these other avens his response was “Are there other holes in the ceiling of Glass?”. The permit Mark Staraj had organised included the use of scaling poles in Glass, but specifically excluded Loubens and Chevalier.

After setting up the abseil we formed a chain and passed the scaling poles and other gear into the entrance tube and lowered them down the 11 meter abseil pitch. Once the gear was down Rowena led the group to where the poles were to be placed. The first room to be checked out was a room which isn’t shown on the old Blue Book map. This room is directly opposite the Loubens aven. The poles were chained into the room.

Once there we attached the ladder and assembled the poles. As the poles were raised heading to the hole in the ceiling Rowena was telling the party about what she had imagined up in the ceiling during her three months of enforced cave withdrawal while working in Viet Nam. Would there be fabulously decorated chambers like Chevalier? Would there be a series of passages leading to the infamous river?

Finally the seven poles were together and up in the hole and Rowena climbed. The poles were 1.2 metres long each which made the climb 8.4 metres. While she got to the top and was looking around cries of “what is up there?” came from below. “Nothing, it is a blind aven!” came the response as Rowena got off the top of the ladder. She was in a small room about a meter high and a meter wide. Greg’s brother clambered up the ladder behind her.

As is usual when exploring you miss things when you first check out new areas. Rowena turned and looked behind her and saw a passage off the other side of the ladder from where she had climbed. She directed Greg’s brother, following her, to get off the ladder on the other side and he crawled into the passage. “There is nothing in here” he called back to her. When he had retreated Rowena climbed into the passage and there was a room about half a meter high, 4 metres long and a meter wide. It was decorated but nothing exciting. The marks on the floor showed other people had been here before. Rowena sketched it and returned to the base of the scaling poles. The rest of the party headed up for a look. We headed back to the base of the entry pot for lunch and while there Max went for a look at other parts of the cave. This is where Max’s call came in.

We scurried off to see what he was on about, visions of a small squeeze to a river the size of that in Spider coming to mind. When we found Max he was sitting on a rock in the rift chamber (the only room marked on the Blue Book map). “Where is the river Max?” He pointed to a small hole opposite. It was the crawl to the crystal room that we had checked out on a previous trip and we knew there was no river in it. Max pointed out the signature on the wall below the hole “John Smith, Fish River”. He had seen the guys address, saw the hole and got excited. Sadly there was no river there.

Back in the main chamber was our next target. To the north of the entry crawl was a balcony with an exposed climb to it. From the balcony was a hole in the ceiling which we could see went above the main abseil pot. We had got to the balcony before. Max, known for his climbing ability, scurried up and free climbed into the aven. No need for scaling poles with Max around. He attached a tape and came back down. Rowena went up to survey it and while she was in there a couple of others stuck their heads in to check it out.

The aven into this room is about 15 metres above the floor. The room is well decorated with one small piece of graffiti on the wall. People had been here, but not many and you could imagine what the rest of Glass cave looked like before the tourists had trashed it. The room is an inverted triangle, 4.5 metres long, 1.8 metres high and 2.5 metres wide. It had a flowstone floor flowing from the south side down, with decorations up, down, left and right. Rowena surveyed it, sketched it and then scrambled down the tape and out.

Rowena led a cooks tour of the rest of the cave. Some of the rooms not shown on the blue book map were very hard to get into and hence have not been trashed. One room which had an evil squeeze requiring helmets to be removed had a lovely flowstone floor on one side. Max and Bea got through, Glens brother tried twice to get through and

failed, but after Glenn got through his brother tried again and succeeded. Rowena called through the hole making sure they knew not to climb the flowstone floor. Once back in the main room, the macho men discovered a new game; they challenged each other to see who was the puniest of all. They challenged to see who could get through the smallest squeezes.

After the frivolities we chained the scaling poles back up the pitch and were out by dark.

*During this July week long trip a Jubilee Cave cleaning trip was undertaken.
Here are some pics by Rowena of the cleanup.*



**Mark Staraj and Simon Goddard – Clean up Kings of Jubilee.
Photo by Rowena Larkins**



**The clean up team of Simon Goddard, Blake and Mark Staraj
with rubbish collected from Jubilee.
Photo by Rowena Larkins**

NORTH WEST PASSAGES, J13 MAMMOTH CAVE

BY MARK STARAJ

North West Passage (NWP) has been an exploration frontier in Mammoth Cave since at least the 1950s. Some people conjecture that Jeremiah Wilson may have also made it this far should he have conquered the relatively easy Middle Bit Rockpile back in the 1880s. He could well have done so but little in the way of hard evidence supports this to date.

A glance at the Mammoth Cave map easily shows what the excitement is all about. A lengthy and for the most part spacious passage pushes far up the valley at a respectable depth of some 50m below the entrance – which means 50 m below the valley floor and therefore only scant metres above the supposed depth of the Jenolan Underground River (Woolly Rhinoceros section). The Woolly Rhinoceros is supposed by most pundits to lie west of Mammoth Cave.

The first major portion of NWP is a speleo's delight. Walking along clean washed limestone streamway with impressive formations tastefully placed along its length. It only lacks for the acoustic magic of the stream itself. The source of this stream is not hard to find. The appealing clean washed look finishes where the unappealing Infinite Crawl joins in from the east. This arduous and monotonous crawl parallels the remainder of NWP to its east but rejoins NWP at its far end. The Crawl however bends eastwards here before continuing northwest in a decidedly serious style.

Very clearly Infinite Crawl held the major penetration northwest but progress much beyond what is depicted in the map has not been forthcoming despite a number of what can only be described as heroic efforts over the years. Clearly too Infinite Crawl and NWP are only incidentally related. Fortuitously the active Crawl streamway has intersected the older NWP and scoured out some lovely passage but it does not represent NWP itself. The active stream seems to align nicely with Serpentine Cave if it remains on its current direction. There is much to suggest that this would make sense if it actually was the Serpentine Intermittent Stream.

But what about NWP? These conjectures led me to believe that NWP should also continue in its own right. The fact that the intersection at its known end with Infinite Crawl is marked by rockpile fuelled possibilities if the rockpile were to be pushed in its northwest extent.

And just what is the NWP? At a glance it's tempting to look at it as the upstream continuation of the Middle Bit passage lying to the south east. For size and orientation it would seem a match. It would mean that NWP represents an older portion of Central River. There is however a catch. The tendency of stream migration is lower and westwards. This is also obvious from the maps looking at Middle Bit and even further downstream where Central River once flowed more easterly along Snakes Gut into Ice Pick Lake. A look at the map shows an obvious problem. Central River flows today in Risky Business which is both to the east of NWP and at roughly the same level. Only downstream of Risky Business does Central River lose some height and jags westwards to end up lower than NWP. So it would seem it cannot be Central River. And it's not the Serpentine Intermittent Stream. Could it be a truncated fossil section of the Woolly Rhinoceros?! Also hard to substantiate – where could it have gone to downstream?

The forestry compass backbone survey was carried successfully at the start of the July week-long trip on 8th July 2006 from the Junction through to the beginning of the Guzova connection to Infinite Crawl. As before my duties here were investigating side passages for Ian Cooper and Phil Maynard who manned the instruments. In this I had the help this time of Gary Whitby. Anything westwards was of the most interest. One passage went some metres that way and in years past I had negotiated a sloping flattener to see it continued through another squeeze impossible to negotiate. Further upstream at one of the westward jags of the NWP another network of small passages headed off to the west. Part of this had a voice connection to Gary in the aforementioned passage so that closed out one question mark. This set of passages petered out in some tight rifts but some sort of continuation was not ruled out.

Very close to the Guzova climb another hole beckoned westward. This opened into a room which was clearly the underside of a surface sink somewhere above with the water for the main part debouching into NWP but a small choked lead westwards may mark its current path.

With the intention of seeking out further westward trending passages and the hypothetical northwest continuation of NWP Simon Goddard and I set out on July 16 2006 for the last foray of the week-long trip to begin scouring the west walls of the passages leading from Guzova to Infinite Crawl. We set up the tape handline down the Guzova drop into the stream passage below and began to look. I shortly saw that the streambed wall receded west and away from the route leading to Guzunda. It receded dramatically in height to be an uninviting squeeze over thick undisturbed mud. It was obvious why no one had bothered but to be thorough I threw myself in. When I struggled across to the wall I immediately got a pay off! A spacious hole beckoned upwards and up I climbed to find myself in a comfortably sized hands and knees crawl. After beckoning Simon to follow we crawled down the new passage for

some 15m where to where rocks had collapsed. A poke around and we noticed a gap upwards through rocks that went back over the top of our passage. We soon had this opened into a comfortable squeeze.

And then we had a surprise. The next passage was also generally roomy and continued as before with our new passage. But it was heavily trogged and not recognised by either of us! Where could we possibly be? We had no idea but again there were westward leads. Right nearby a small hole dropped to clean washed stream gravel. Down here things were tightish with sharp freshly carved limestone and stream gravels indicating an active sink above. Further along the trogged passage a rift sliced west and a low passage appeared to lead onwards. Unfortunately the rift pinched at its start and was here defended by some large rocks that had slumped and jammed themselves in. Tantalising but would need to await a later trip.

We continued down the now diminishing but still well trogged passage. It ended but a tight chimney showed where others had removed rocks to gain entry. We climbed out and found ourselves in a spacious room just behind the Guzova climb. We no longer needed tape for the Guzova! We had ourselves the Guzaround!

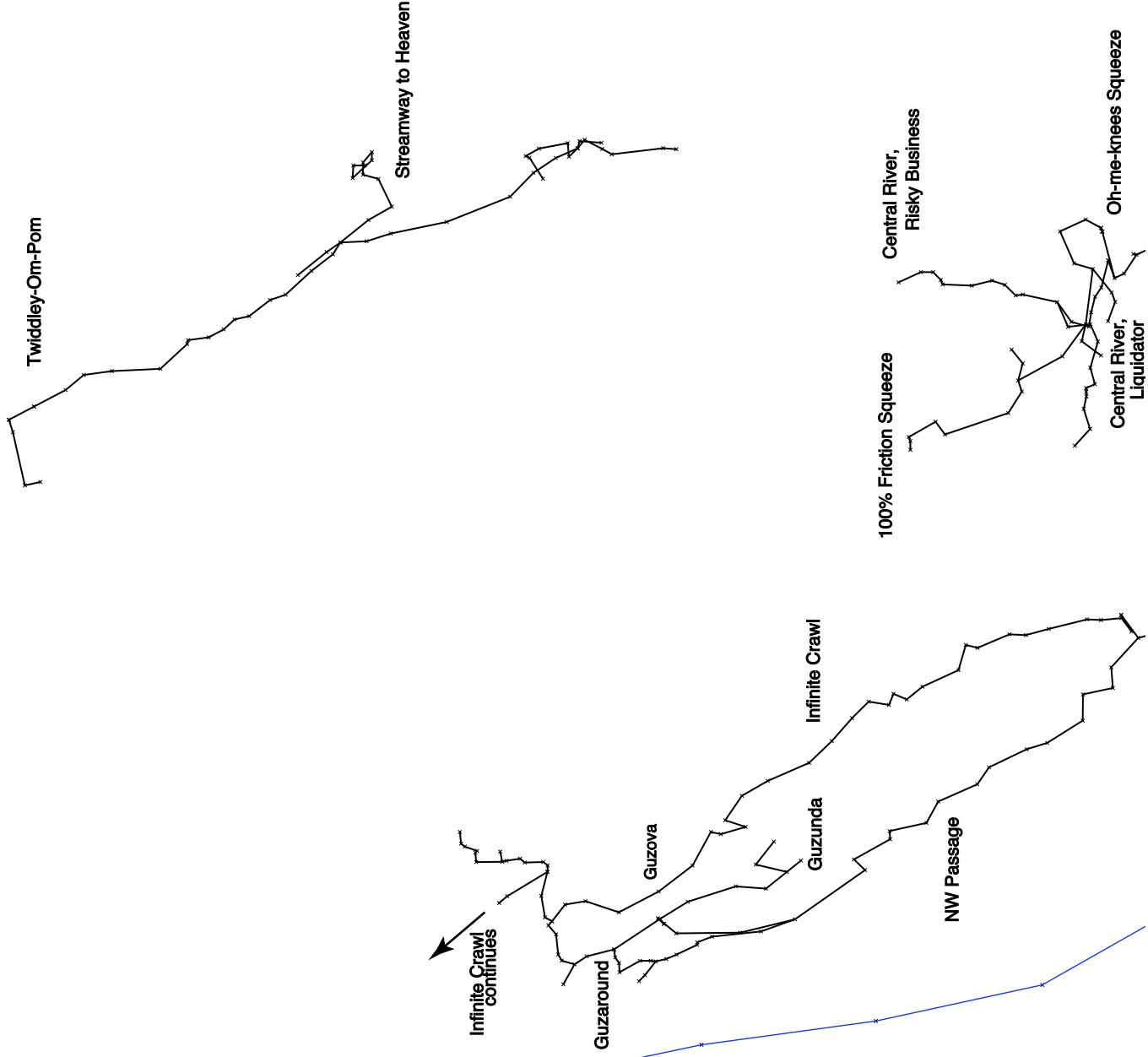
Simon departed for overseas and the investigations continued with Steve Roy. Moving on from our Guzaround passage we entered the rockpile of Guzunda. To the side of the exit to Infinite Crawl we spotted a very low and tight passage entering from the northwest. A cursory dig here showed great promise – wet stream gravels and silt. Very wet in fact. Opening up the snug body length squeeze was not difficult but was cold and unpleasant work. On the second trip we were through and I wormed out to where it was a bit bigger. The passage ended 2m further on but I pulled myself up on my side to a gap near the ceiling. On the other side was a room probably 3m in height and 4m across floored in fresh washed cobble stones. Try as I might I could not quite fit my chest through the gap and unfortunately Steve couldn't either. It was an exciting prospect and our first hard evidence that passages existed on the other side of the rockpile. We spent the rest of this trip looking up the high avens above this section. With Steve's help I got into the top level but despite stream gravels no leads were evident.

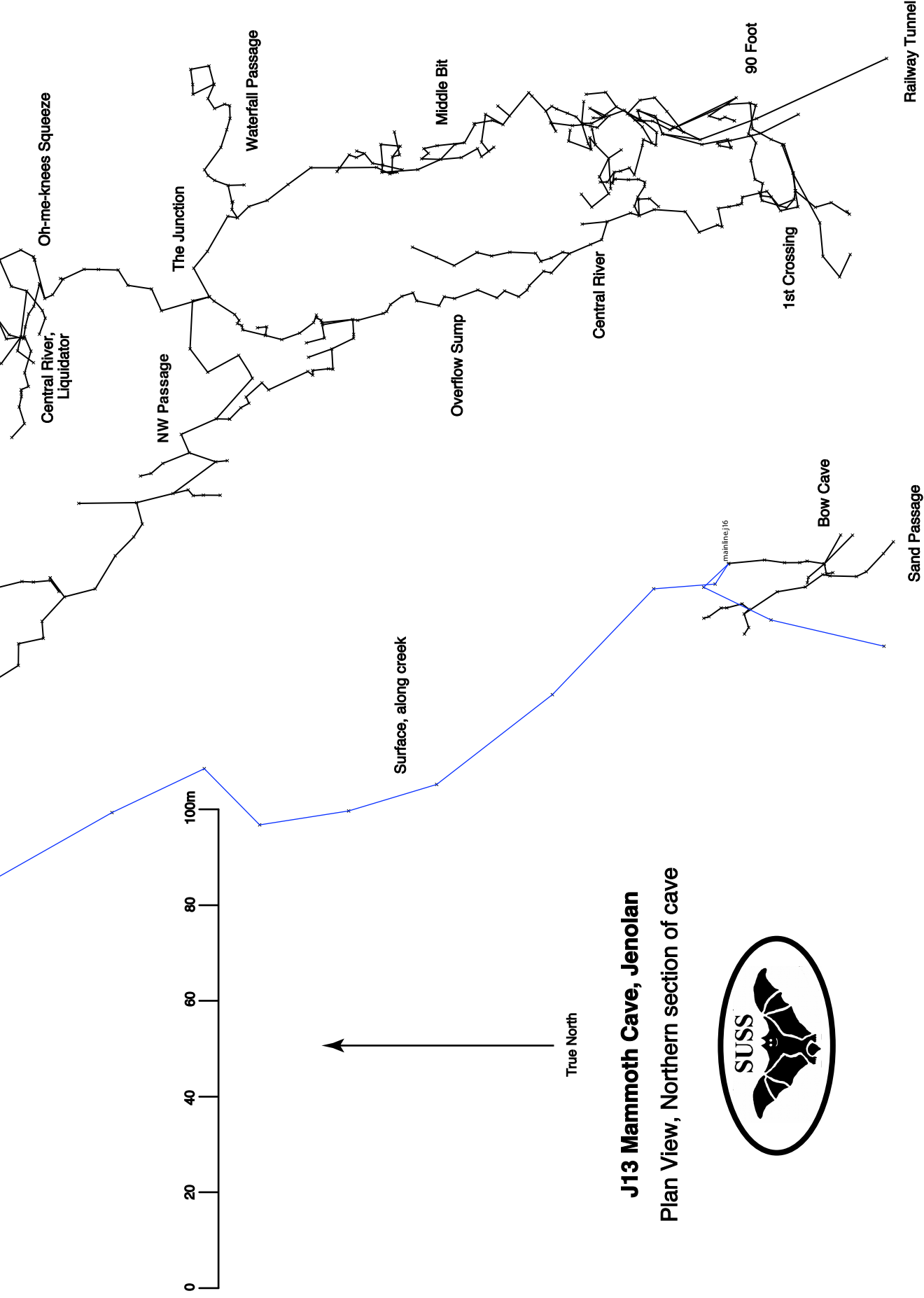
The new room proved later to be the underside of yet another active sink. Surveying of the Guzaround led to another sink being plotted on the other side of the rockpile. Survex plots of the cave and the river bed above show a long stretch where the bed abuts the Mammoth Bluff no doubt giving rise to numerous sinks here. Could this be the explanation for the origin of NWP?

[Ed. Mark died in December 2009. He contributed greatly to SUSS over many years right up until his illness prevented him from caving. This article was written by Mark in October, he was still thinking of the mysteries of Jenolan. An obituary will appear in a subsequent issue.]

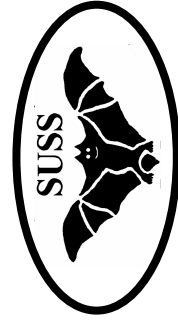
Right Nostril, Serpentine cave

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J13 Mammoth Cave, Jenolan **Plan View, Northern section of cave**



THINGS THAT GO PLOP IN THE NIGHT, JENOLAN

BY TINA WILMORE

Participants: Tina Wilmore

Another Friday night up at Jenolan. The temperature was great so I went for an evening walk. I advised my host of my intended walk, taking a torch with me as it was getting dark. My route was walking down the dirt road to the playing fields, continue to the Devil's Coach House and following the steps back up to Burma Road past the Elder Cave.

I was enjoying nature – kangaroos, wallabies and possums scrambling about and nettles at my sandaled feet. As I walked along the valley I spotted a pair of retinas high up on the cliff. A Peregrine falcon?

Heading up the steps with the Devil's Coach House to my left, I heard a distinctly different sound – not in line with the sounds that had accompanied me the past hour. My hand was on the handrail and eyes cast into the distance when I heard “plop”.

I quickly pulled my torch to the step in front of me and there lay a brown snake. It was in motion heading for my feet which were clad in Tevas! The snake had come from the dirt embankment to my right, maybe attracted by my torch.

Without much thought I jumped over the snake to the next step ahead. My few fast twitch muscles did not fail me. Normally backing up has been my reaction to snakes but with steps behind me, I thought I may stumble and then have a snake in my lap. I hightailed it for some distance. I was highly tuned in for anymore snake encounters that evening.

Why am I sharing this story? As a reminder to be prepared. I had left details of my planned walk. Good move but I was not prepared for a snake to drop at my feet with only “Tevas” for foot protection. A relaxing evening walk could have ended up very bad.

In future I will wear enclosed shoes while walking in the bush and carry a basic first aid kit. You never know what may take place so always be prepared.



Tina didn't take a pic of her brown snake so the Editor snuck one in of a black snake. Taken in December 2006, along the Devils Coach House path at Jenolan Caves. Photo by Mike Lake

BY ROWENA LARKINS

Participants: Ian Cooper, Rowena Larkins, Max “Icanfitanywhere” Midlen, Alan Pryke, David Lee

Playing Fields Part 1 occurred in the dim history of Jenolan. Several parties entered it and some reached to the farthest depths before their exploits got lost in the mists of myth. The first survey, published in The Blue Book was dated 1973. In 1993 a survey was completed which appeared in the Spider Bull. It noted that “strangely enough, the more thorough 1993 survey ended 10 meters shorter than the previous one . . . Nevertheless it would be worthwhile confirming that there is not a missing section from the 1993 survey” SUSS Bull 38(4) p. 75.

For many of the years between, no one entered J133 for various reasons. In July 2009, Ian Cooper requested a permit and received one. He took Rowena in during the week long trip hoping that she was “micro-bod” enough to get through a squeeze that no one he knew of had been able to get through. People had been able to get their head part way in and spy a room on the other side. What mysteries awaited in that room was anyone’s guess, with the most likely answer being a small grotty boring hole – how wrong they would be!



Angels wing in Playing Fields Cave.

Photo by Rowena Larkins

Rowena and Ian got to the squeeze within about 10 minutes of entry, about 38 meters from the entrance. The body of the cave after the entrance is walk through, about 2 meters high and wide. It heads in a generally south easterly direction. It is obviously the home of many wombats and rats as their droppings can be seen all around the entrance. In fact the east wall near the entrance has been well polished by animals scurrying up and down. There is no reason a human would climb where the polishing can be seen. After the walk through, there is a rock pile, which is a scramble through into a low room, about a meter high, with second rock pile at the end. It was to the east of this rock pile that an awkward vertical squeeze needed to be negotiated. Rowena tried and failed. Next option, strip off the thermals and attempt the squeeze with just cave suit and minimal other clothing. Cave strip! Ian discretely explored another section of the cave. Attempt 2. Rowena pushed and squeezed several times, and could feel various bones bending in inappropriate ways. After half an hour she gave up. Ian pointed out the last of the survey marks so that she could work to survey on in his absence when a way was found through.

Later in 2009, on another Playing Fields permit, an intrepid team set off for Playing Fields armed with surveying gear, camera and enthusiasm. For reference the old Blue Book map (1973) looked significantly different to the 1993 survey. We got to the squeeze and Max “Icangetintoanything” Midlen, the clubs micro-bod, faced the impenetrable squeeze. Fuelled with testosterone and determined to push into the room, Max pushed himself. He twisted and turned. Strange noises emanated from the area

and then came the call, “I’m through”. Alan Pryke, determined not to be outdone faced the hole. “How did you get through that?” We could hear Ian knowingly chuckling behind us. Rowena and David surveyed from Ian’s last point, and did three legs through the rockpile to a point inside the room.

From the room we could hear Max saying “It’s big. It’s really big.” Alan was pushing and squirming and not making any headway. Cries of “Pest!” were heard. Max called down the hole for his spare light as he was keen to explore and wanted to do it safely. We convinced Alan to stand aside and let Rowena have a go. Once more into the breach. Rowena pushed and squeezed and, knowing that someone else had got through, pushed a bit harder and . . . she was through. Thank goodness she had stopped pigging out since the last attempt.

She got her surveying gear passed in and looked around. The room she was in was small, but behind her, to the south, she could see it open up. She left Alan cursing and headed up to where Max was. This was a well decorated active room. If the cave was called “Playing Fields” this could be considered a Grandstand. It sloped on an angle headed up and to the west. It went down to the east. On the east wall it was covered with helictites, fat dripping stalactites, and an enormous Angels Wing shawl. On the west side the wall was covered with canopies and flowstone. Max called out “There are steps here” and indeed someone had carved steps into the wall. Back behind Alan was

still cursing and fuming as we were describing the vista to him. Finally we heard Alan's voice getting louder and he was through. He called back to Ian, "you won't get through, don't bother trying it." He also told David he would be unlikely to get through. Alan came into the room and exclaimed "far out". Rowena was sitting in awe. Alan asked where Max was and Rowena pointed in the direction of a hole in the ceiling to the west.

Rowena had turned on the disto in the room to take a measurement. The first measurement of 9.3 meters from the floor to a point in the ceiling. Rowena aimed at a higher point and when she turned to read the disto there was no display. Back to the pack to change the batteries. The "new batteries" were in and the display read "low battery" and refused to do any measurements. Sigh!! We contented ourselves with admiring the decoration. One helictite looked like a bird perched on the side of the rock. Another, Alan said, looked like the symbol for breast cancer awareness. The room was about 10 meters high, 3 meters wide, and 12 meters long. It sloped on a 60 degree angle up to the west. There was evidence of wombats getting this far in, we could see their claws where they had shed them while scratching in the mud. On the wall near where we had come in were two giant arrows pointing the way out. Max came back down the climb and asked "anyone heard of someone called 'Ron Newbold'?" Seems Ron (discoverer of Baralong) had signed his name at the back of this chamber back in 1966. The map in the blue book, which included some survey rated at ASF2.3 (sketch with no instruments) may have included information from his trip. It may have been from Bruce Welch who had a reputation as a microbod.



***Bird helictite in Playing Fields Cave.
Photo by Rowena Larkins***



Awareness logo. Photo by Rowena Larkins

We took some pictures and said lots of Ahhs and OOhs. With people waiting on the other side of the squeeze we decided to head out. Max and Rowena had noticed on the way in that there was a hole below the squeeze, heading down. David had noticed it too, and had checked it out, having nothing else to entertain himself, and commented that there was air coming from it. Spider? Were the sounds that Mark Staraj heard when exploring Spider in 1994 [Bull 38(4) p. 75] "Waiting in the bus stop, Mark insisted he heard noises like the sounds of cavers" in fact wombats digging around in J133? Playing Fields cave is about 60 meters above Spider cave so this seems unlikely, but there is a hole to check on the next trip. Also on the next trip Rowena will make sure she has spare batteries for her Disto so she can complete the survey of this fantastic chamber. It will be kept stunning by virtue of its inaccessibility.



***End room vista in Playing Fields Cave.
Photo by Rowena Larkins***



Looking up the hole at the end of Playing Fields Cave. Photo by Rowena Larkins

BY ROWENA LARKINS

Participants: Adam Bolton, Andrew Knox, Rowena Larkins

The lure of the snow was too much for many SUSS members and the numbers for the planned Wee Jasper trip dwindled. After discussion with Jill (Acting President) the trip was changed to be a joint trip with NHVSS to Timor in the upper Hunter Valley. Rowena did a run around the north suburbs of Sydney to pick up Adam and Andrew and then we headed up the Hunter with a quick stop at Maitland for some food. Along the New England Highway the flood lights of the coalmines illuminated the night sky.

To get to Timor caves you turn off the Highway just before Murrurundi, about 5 minutes drive past the Burning Mountain rest area and continue along Timor Road for about 30 minutes.

NHVSS were staying at an old shearers quarters on a property which has caves on it. We did a slow drive along the road at 11 pm, checking driveways to make sure we found the correct property – images had come to mind of being woken on the Saturday morning by an angry farmer finding we had mistakenly put our tents up on his farm. Along the way we found the driveway for the proposed mine area which had a public announcement about the mine proposal on the front gate.

The next morning Adam proved himself to be a typical SUSS (Sydney University Sleeping Society?) member as people were questioning when he was going to get up. During a meet and greet over breakfast we found that there were 6 members of the RSS at Timor as well. They were helping NHVSS find new caves.

We trogged up, me in my cave suit (soon to be known as a sauna suit) and Adam and Andrew in their cotton overalls, and drove the 5 km to the main Timor Caves reserve area. I parked in the first camping area and noticed there were a few cars and a big tent here. Seems there would be company in the caves. The creek was dry at the first campsite, but flowing well at campsite 2.

As we walked to the river we spied tent city in the second car park. We wandered up to investigate and found we had arrived on the same weekend as the scouts having a training day – 75 scouts and associated leaders and parents. Good to see the large numbers of enthusiastic potential SUSS members who would be ready to join in about 2019. We took note of their cave schedule, displayed on a whiteboard, with the aim of avoiding them in the caves.

First it was off to TR4, Helictite Cave. This was once well decorated, but being in a public area and readily accessible, only the decoration out of reach remain. Adam and Andrew were introduced to squeezing and crawling, and learned that the obvious route is not always the way through the cave.

We knew from the schedule that Hill Cave would be free for 2 hours from 11 am, so we cut short the TR4 trip and headed to the upper TR7 entrance, checking out the TR25 entrance on the way up the hill. TR25 has a 7 metre abseil entry pitch so we will keep this in mind for a future trip.

Armed with a copy of the Hill Cave map (TR7/TR8) from the new Timor book we were able to find bits of the cave I had not entered before. Adam attempted to get down a rift into an area marked “small hole to room below” but found the “small hole” to be too small.

The caves at Timor are quite warm; This was where Rowena renamed her suit a sauna suit. All the other cavers (scouts/RSS/NHVSS) were wearing comfy cotton overalls.

Crawling along a rift on the top half of Hill cave Rowena saw her watch slide gracefully down a slope and into a small crack. Looking down the crack we could see it, but it was resting about 10 cm further down than our arms could reach. Rowena said her last good byes to her watch and we continued through the cave.



Belfry side room. Photo by Rowena Larkins

Next we negotiated the famous flattener. This is rift on a 45 degree angle, about 5 metres long and about 30 cm wide. Easy to go down, but evil to try and come up.

We then had some experience with a tricky climb down into a pit at the far western side of the lower Hill cave followed by a scramble around the lower cave area checking out the dry formations. TR7/8 is a lot dryer than the caves on the north side of the creek.

We exited the cave and had lunch by the creek. It was starting to sprinkle but the rain was welcome as we were quite warm.

After lunch we spied a group of scouts heading to Belfry Cave (TR2) so we rushed up the hill to get into the cave before them. TR2 has a large entry chamber with little crawly passages off to each side. The main body of the cave is through a squeeze called "The Rat Hole". This opens up into a damp area called "The Maze" which includes a spectacular column looking like it was made by an ancient Greek builder. We pressed on through the maze and into the Belfrey Chamber which had a nice balcony above.

Immediately above the Belfrey Chamber on the surface is the entrance to Helictite Cave, and an inviting rock pile choke to one side potentially could be explored to connect the two caves.



The Ghost. Photo by Rowena Larkins

From the Belfrey Chamber a crawly passage leads to the Ghost; the Ghost being a nice white formation which still has some white showing through the mud. This arm of the cave terminates in a 4 metre pitch to a lower section. We left the pitch for another time as we had no ladders. As we left this room and headed back we encountered some of the scouts covered with mud from head to toe. Had they been grovelling down tight muddy squeezes? No! it was the result of a mud fight. Hmmmm. I was wondering how a lecture on minimal impact caving would go to a group of 10 year olds and decided against it.¹

Back at the maze we headed down the other arm of the cave where we were introduced to a slidey rift. More new skills learned – how to control your slide using knees wedged against the walls. There was a pool of water in this chamber which showed the value of gum boots over volleys.

Back at the entrance chamber we crawled down another side passage which was off the main tourist path and found some rather nice, undamaged decoration on the ceiling. We waited in here while the scouts headed out and then exited Belfrey Cave, stopping to look at the basalt plug which had flowed into a rift in the cave 73 million years ago. Looking up a 7 metre high aven we saw a balcony visible. At dinner I asked Jodie about this balcony and she said she does not know of anyone getting scaling poles into this aven. Options for next time?

We had a brief break and decided to head up to Main Cave, TR1 which was up the top of the hill. Someone has donated an aluminium ladder to the entrance to this cave, tied on with some dodgy polyester ropes. Inside this cave, which is one really large chamber about 50 metres across and in places 10 metres high, was swarming with scouts and bats.

Adam noticed that one of the instructors was a good mate of his, and the instructor encouraged Adam and Andrew to crawl headfirst down "The Mouse Trap". As it was 5 pm and Rowena knew it would be evil to get out she piked. The two guys probably got an idea of what they were in for only, when the scout instructor stripped off his overalls and took off his helmet so that he could get out. Once he was out he talked the guys through the exit of this squeeze, which included being pulled from above.

We headed out of the cave with the two guys feeling totally exhausted. Adam's mate invited us for a coke at the scouts camp and we watched the scouts at campsite 2 being taught how to put on an abseiling harness, how to tie tape knots, and double fisherman's knots. Mental note – SUSS needs to run a training day soon.

¹Ed. It is a tricky decision to make and depends on the circumstances, but one should consider having a polite word to their trip leader and point them to the ASF sites for Caving Ethics http://www.caves.org.au/s_code_of.ethics.htm and the Minimal Impact Caving Code http://www.caves.org.au/s_minimal.htm

Back at the car we chatted to the guys at the campsite 1. They had gone through Hill Cave after us and one of them mentioned he had found a watch in the cave. Yes! there is a God! Joy as Rowena was united with her watch.

Back at the shearers quarters we learned that the surface trogging had met with success and NHVSS/RSS had found a new cave. Apparently the entrance pitch needed to be enlarged but initial measurements with a weighted tape shows a depth of 5 metres.

The rain that night encouraged Adam to set his swag up in the lounge room. This helped get him up in time for a trip through Glen Dhu cave on Sunday morning though people were still stepping over him to get to the kitchen.

A 9 am entry (this is definitely not a SUSS trip) was made to Glenn Dhu with Jodie leading us and the RSS group. The entrance is 10 metres from the shearers quarters. Once inside, two young RSS women dived down a squeeze, closely followed by the two SUSS guys.

On their return we entered the Helictite Chamber, a gated, de-trog area, where we took pictures and discussed the meaning of life.

Next we were off to a sporty section with a nice mudslide. There were sporty crawls through mud pits, and tricky climbs up slippery slopes using a tape handline. Following this we went up to view some good formation in a “three person only” room. Most people headed out but a couple of us went up the corkscrew to view the bones embedded in the ceiling. How old are these bones? Are they from megafauna? Research is ongoing. In any case they are definitely in the “don’t touch” category. Back at the shearers’ quarters most of us showered before packing up and cleaning up the hut and then it was time for a group hug (awwwhh). We left just before 3 pm and within 20 minutes both Adam and Andrew were asleep.



Adam exiting the Mouse Trap in TR1.
Photo by Rowena Larkins



Adam getting help out of the Mouse Trap in TR1.
Photo by Rowena Larkins



Andrew getting help out of the Mouse Trap in T1.
Photo by Rowena Larkins

IN MEMORY: BRETT DAVIS

BY CHRIS NORTON



Brett Davis. Photo by Chris Norton

SUSS was saddened to learn recently that member Brett Davis passed away in March.

Brett was an enthusiastic member of the club for over a decade, making contributions in many ways. He was not only enthusiastic in exploration, surveying, digging and caving in general, but also in helping out with the administration of the club, taking on the difficult role of treasurer for several years.

Brett was frequently seen on caving trips, although not so frequently seen in caves. He had a penchant for older model Mercedes Benz cars, which would often bring him to within five kilometres of the caving area before deciding to expire. The rest of the trip, for Brett, often meant searching for a mechanic and persuading NRMA Premium to transport him, his car and passengers several hundred kilometres back to Sydney, usually via a convenient motel.

Still, Brett always maintained a wry sense of humour – Guy McKanna remembers him as having a grin that would light up a passageway without any help from lights. Brett was often one to see the light side of an otherwise tense situation, and several of us were recently treated to a few chuckles as we read his account of convalescing from brain surgery amongst a number of other patients whose sanity wasn't quite so acute as his. Carol Layton remembers Brett's welcoming nature, application to the club's administrative tasks and enthusiasm that saw him choose to go caving rather than follow doctor's orders and undergo surgery.

We thank Brett for his contribution to the club and his company and good humour; and extend our sympathies to his friends and family.



Simon Cruden & Brett Davis. Photo by Chris Norton

PHOTO GALLERY



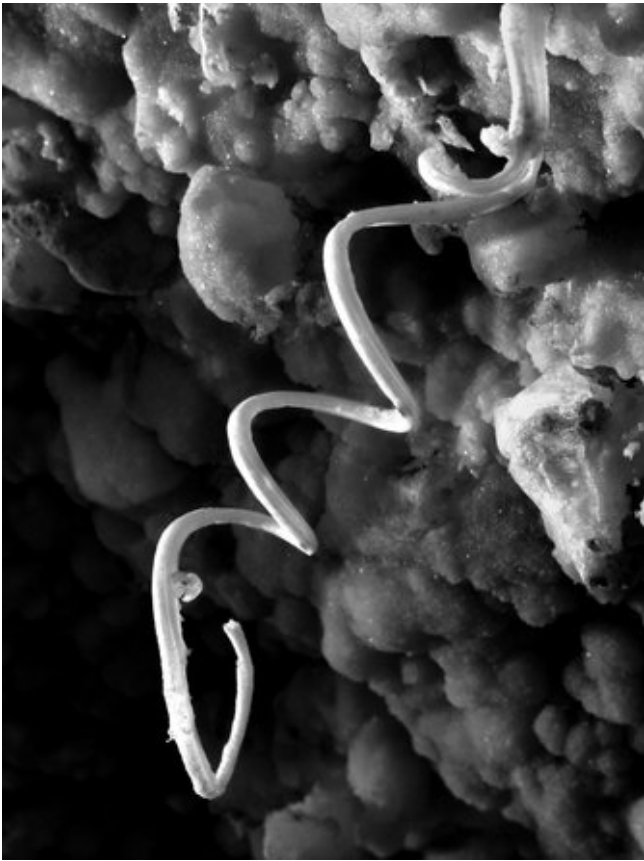
Brett Davis in Wiburds Lake Cave, Jenolan NSW. Photo by Alan Pryke



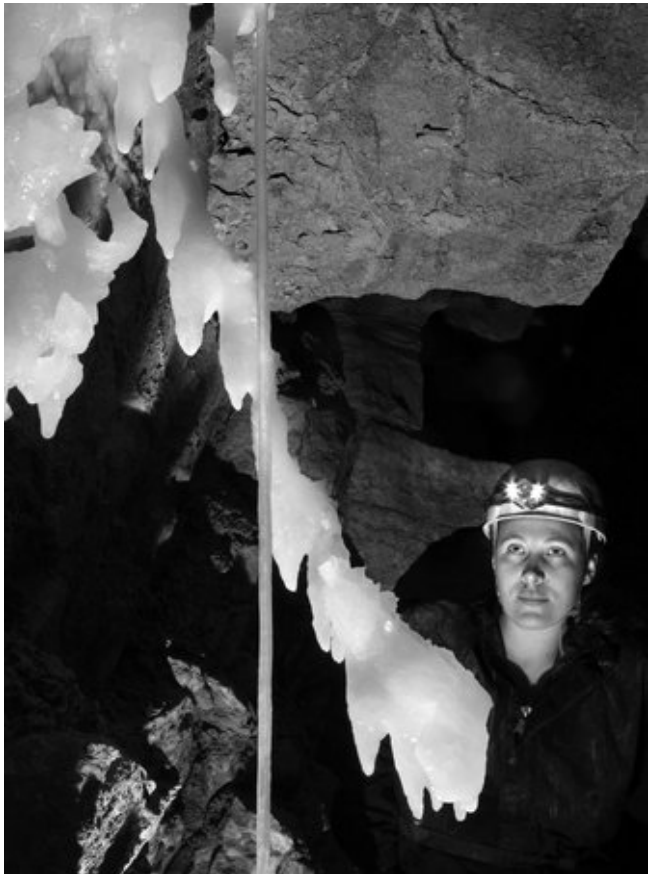
Brett Davis in Dip Cave, Wee Jasper NSW. Photo by Alan Pryke



Melanie Stammell on waterfall pitch, Thunderfall Cave, Puketiti NZ, Easter 2009. Photo by Alan Pryke



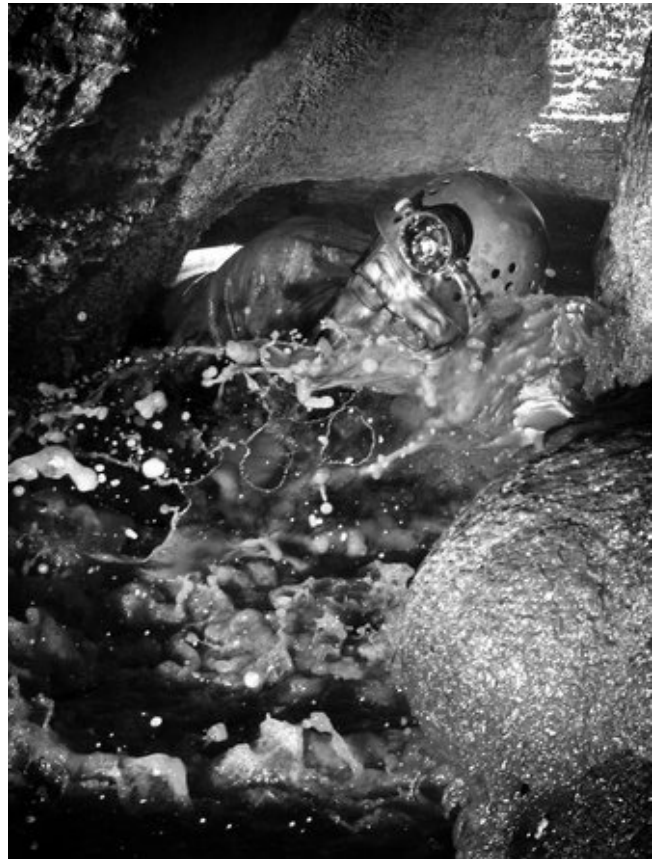
Springy Thing, named by Phill Round (ASG, participating in SUSS trip) in the newly discovered Agamemnon extension, NZ, Easter 2009. Photo by Alan Pryke



The amazing Heavenictite and Deborah in passage newly discovered by SUSS in Agamemnon Cave, Puketiti NZ. Easter 2009. Photo by Alan Pryke



Deborah in newly discovered 500 m long Trapdoor Cave, Puketiti NZ. Photo by Alan Pryke



German Caver Robert Winkler in newly discovered Trapdoor Cave, Puketiti NZ, Easter 2009. Photo by Alan Pryke



Agnes Milowka diving in River Lethe at Jenolan, November 2009. Photo by Ken Smith



Agnes Milowka diving in River Lethe at Jenolan, November 2009. Photo by Ken Smith



Agnes Milowka diving in River Lethe at Jenolan, November 2009. Photo by Ken Smith

Here you will find a selection of abstracts from various cave science journals that have some relevance to Australian cave science or to caving.

The abstracts have come from two journals. *Acta Carsologica* publishes research papers and reviews in all fields related to karst such as karst geology, hydrology and geomorphology, speleology, hydrogeology, biospeleology and the history of karst science (see <http://carsologica.zrc-sazu.si/>). The *Journal of Cave and Karst Studies* is published by the National Speleological Society and the abstracts here are from Volume 71(1), April 2009 (see <http://www.caves.org/pub/journal/>).

Cave Turbidites

R. Armstrong L. Osborne, *Acta Carsologica* **37**/1, 2008

Abstract: Turbidites are uncommon in caves, but are more common as palaeokarst deposits. Marine carbonate turbidites, called caymanites, are the most common cave and palaeokarst turbidites, but marine non-carbonate turbidites, freshwater carbonate turbidites and freshwater non-carbonate turbidites are also deposited in caves and preserved in palaeokarst sequences. One of the most complex sequences of cave turbidites occurs in the Wellington Caves Phosphate Mine in Australia. Cave turbidites form in ponded water in caves and may be triggered by floods and high intensity rain events. While caymanites are most likely to form during marine transgressions, they can be emplaced by tsunamis. Freshwater cave turbidites are most likely to form in flooded hypogene caves located in the seasonally wet tropics and in areas with irregular high intensity rainfall events.

Caves as Sea Level and Uplift Indicators, Kangaroo Island, South Australia.

J.E. Mylroie and J.R. Mylroie, *Journal of Cave and Karst Studies*, v. **71**, no. 1, pp. 32–47.

Abstract: Flank margin caves have been observed in Quaternary Bridgewater Formation eolianites on Kangaroo Island, South Australia. Horizons of flank margin cave development at 25 m, 30 m, and 35 m elevation demonstrate tectonic uplift of tens of meters during the Quaternary, as the cave elevations are higher than any reported Quaternary glacioeustatic sea-level highstand. Distinct cave horizons indicate that episodic uplift was possible. Wave-cut notches at Hanson Bay, at 30 to 35 m elevation, also support the interpretation from caves that relative sea level was once at the 30 m elevation range. Admirals Arch, previously presented as forming solely by wave erosion, is a flank margin cave breached and modified by wave erosion. Point Ellen contains a Late Pliocene subtidal carbonate unit that formed within the reach of wave base, was uplifted and cliffed by wave processes, and then was karstified before being buried by Quaternary Bridgewater Formation eolianites. A possible flank margin cave developed at Point Ellen at 3 m above modern sea level is consistent with earlier interpretations of notching of the nearby coast at a similar elevation during the last interglacial sea-level highstand (MIS 5e); and therefore, no tectonic uplift in the last 120 ka. In contrast, the tafoni of Remarkable Rocks present a cautionary note on evidence of cave wall morphological characteristics as proof of dissolutional origin.

The Legend of Carbon Dioxide Heaviness

G. Badino, *Journal of Cave and Karst Studies*, v. **71**, no. 1, pp. 100–107.

Abstract: The false legend of carbon dioxide traps resulting from the weight of carbon dioxide gas is disproved. In spite of water-vapor lightness in comparison with air, no water-vapor trap exists on cave ceilings. In fact, underground atmospheres with specific compositions are not related to gravity, but to the absence of any air movement around the gas sources. The process of double diffusion of oxygen and carbon dioxide during organic compound decomposition in still air is shown to be significant. This phenomenon can form atmospheres that are deadly due to oxygen deficiencies and poisonous because of excess carbon dioxide. Carbon dioxide storage behaves like a liquid and can flow or can be poured, as cold air can, but these are typical transient processes with no relation to a cave's foul air formation.

Introduction: A very common opinion among cavers (and not only cavers, see (Al-Azmi, 2008)) is that dense gases tend to accumulate in depressions, and especially, at the bottom of caves. It is widely accepted that CO₂ accumulates at the bottom of shafts; this concept has been infrequently discussed, but often repeated from paper to paper. In this paper we show that this concept is in fact false and may be regarded as an underground legend (James, 2003; Cigna, 2008). The aim of this paper is to provide a quantitative assessment and details of gas entrapment processes.

THINGS TO BUY

For postage and handling costs and the details of how to order go to the SUSS website <http://ee.usyd.edu.au/suss/> and click on "Publications". There you will also find a range of must-have maps and other publications.

Maps and Bulls on DVD

The entire SUSS cave map library of over 300 maps is on DVD and available for purchase. Our map library was scanned to provide wider access to the maps for SUSS and other ASF Caving Clubs and to ensure that many copies exist in the event of the loss or damage of the originals.

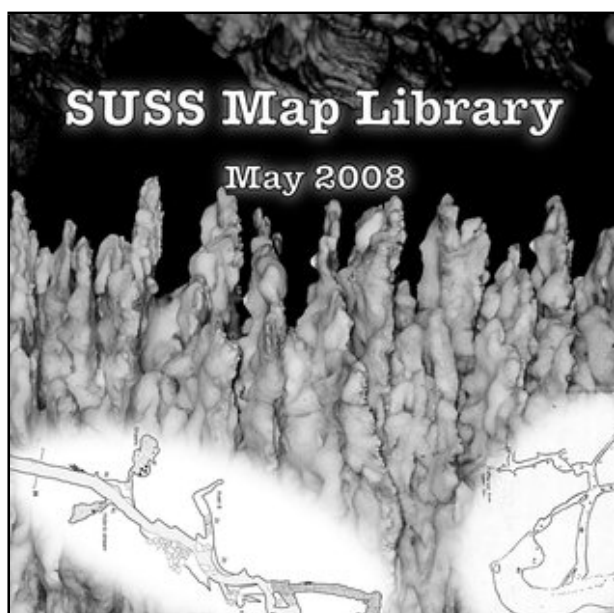
There are field sketches, ink maps produced on drafting film, ink maps produced on linen, as well as some of the latest digitally-produced cave projects. The DVD also contains all SUSS Bulls in HTML format from 35(1), July 1995 to 47(4), March 2008 and SUSS Bulls as PDF format from 42(1), April 2002 to 47(4).

Price is \$25.00 + PH. Pick one up at the next SUSS meeting or if you can't make that then contact the treasurer and they can supply you with the SUSS publications fund bank BSB and account number for a direct deposit.

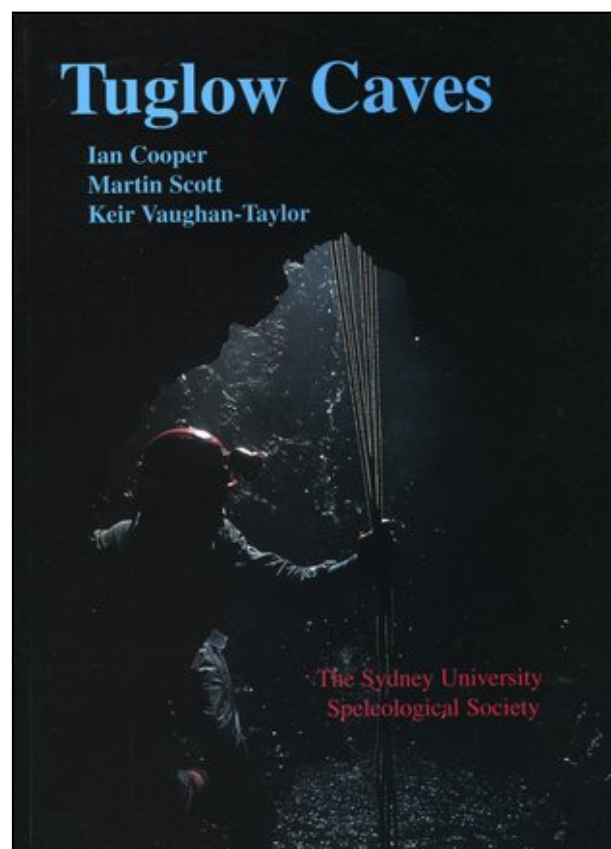
Tuglow Caves

By Ian Cooper, Martin Scott and Keir Vaughan-Taylor. 1998, 70 pages.

Examines caving procedures, site descriptions, history, biology, surveying and maps, geology and hydrology of Tuglow Cave and others. Cost is \$13 for members and \$16 for non-members + PH.



A must-have reference DVD for all cavers



The Caves of Jenolan, 2: The Northern Limestone

Edited by Bruce R. Welch. 1976, 140 pages.

We still have some copies of these books left. Contains maps and descriptions of many caves in the Northern Limestone section of Jenolan plus notes on the history of Jenolan and its geology, geomorphology and hydrology. Cost is \$8 for members and \$10 for non-members + PH.

TRIP LIST: DECEMBER 2009 – MARCH 2010

SUSS General Meetings are held on the first Thursday of the month at 7:00pm (for a 7.30pm start) in the Common Room in the Holme Building at the University of Sydney.

For updates to this list, check out the SUSS Website: <http://ee.usyd.edu.au/suss>. Detailed information on each caving area (plus other useful information such as what you will need to bring) can be found in the *Beginner's Handbook* section of the Website.

Please Note: it is YOUR responsibility to inform the trip supervisor of any relevant medical conditions which may in any way affect your fitness, such as asthma, diabetes and the like.

December

No general meeting in December.

5th SUSS Xmas BBQ Up at Jenolan, catered BBQ to celebrate the end of the year. BYO drink.

5–13 Jenolan Week long trip. An entire week to sample the delights of Jenolan. Some bonus canyoning to increase the fun. Contact Deborah: birinxi@gmail.com

19–20 Canyoning Time to get wet. Contact Phil: philip.maynard@uts.edu.au

January 2010

2nd ASF Conference ASF conference at Bankstown.

9–10 Jenolan Caves Caves, a hut, a fireplace, more caves. Stay at the luxurious caver's cottage. Contact Rowena: rowena1234@hotmail.com

16–17 Canyoning Contact Deborah: birinxi@gmail.com

23–26 Cooleman Plains Dry caves, wet caves, lots of remote and scenic countryside.
Contact Keir: keirvt@optusnet.com.au

30–31 Tuglow Beautiful summer camping and a big sporty cave to play in. Contact Phil: philip.maynard@uts.edu.au

February

4th General Meeting

6–7 Canyoning

13–14 Jenolan Caves, a hut, a fireplace, more caves. Stay at the luxurious caver's cottage.

27–28 Wombeyan Good caves and a good campsite in the southern highlands. Contact Jill: Rowling@ali.com.au

16–17 Canyoning Wollangambe A beginners' trip down the Wollangambe to coincide with O-Week. Contact Deborah: birinxi@gmail.com

March

4th General Meeting

13–14 Jenolan

27–28 Wombeyan

April

1st General Meeting

10–11 Jenolan

May

6th General Meeting

8–9 Jenolan

22–23 Wombeyan

June

3rd General Meeting

12–14 Jenolan Monday public holiday, permit yet to be applied for.

26–27 Wombeyan
