

BULLETIN *of the*

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U*niversity*

S*peleological*

S*ociety*

Lumen in Tenebris



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Welcome to the magazine!

This issue of the *SUSS Bull* contains several major articles. We begin the saga of January's New Zealand trip; and discover new sections of Wiburds Lake Cave, Mammoth Cave and Jubilee Cave at Jenolan. We also check on the progress of the Wellington cave diving project, sponsored by Australian Geographic, and the Wiburds survey.

Thanks to all those who have responded to calls for material for the bulletin. However, despite the pleas in the last issue, the editorial desk has been somewhat underwhelmed by letters to the editor (1 received - thanks Willow!), illustrations (0 received), and correspondence about the dreaded GPS article (on which opinion seems to be evenly divided - 0 for and 0 against). It's also worth remembering that the editorial page is open to all.

Deadline for the next issue is the December general meeting. Get writing now!

Consumer Safety Warning

Defective product - safety hazard!

The *SUSS Bull* regrets to announce that it has been a party to publication of material containing suggestions of unsafe practices. In the article "In Twiddly-Om-Pom No-One can Hear you Cough" (*SUSS Bull* 35(1) p4), the authors discuss their use of a 50' ladder to descend the Gordian Knot Pitch to enter Twiddly-Om-Pom. The following comment is made:

It appears possible to economise on gear by using a smaller ladder for the 4m drop and using tape tied to the end of the ladder for the mudslope and 3m drop.

In a recent trip, reported on in this issue ("Mammoth Strikes Again!", p42), this advice was put to the test. It was found that such economising is possible on the trip in, isn't such a good idea if one wants to be able to return up the ladder and leave the cave (as most people normally do). You have been warned.

Administrative Matters

Thanks to a change in employment circumstances, your editor no longer has an e-mail account. Articles must now be submitted in person or via Australia Post.

There have been some amendments to the telephone numbers given in the committee list from last issue:

- Willow Forsyth - home phone: 9953 2506
- Phil Maynard - work phone: 646 0432
- Chris Norton - work phone: 228 8353

Tentacles of Bureaucracy

Editorial Comment

1 September 1995 was not a good day for outdoor sportsfolk in NSW.

On that date, two laws came into operation that may have an enormous impact on the conduct of caving, abseiling, bushwalking and other such activities. One is the *National Parks (Land Management) Regulation 1995*, which regulates conduct in national parks and state recreation areas. Here is clause 19 of that regulation:

Sporting and recreational activities

19. (1) A person must not in a park:

- (a) conduct or take part in any sporting activity that forms part of an organised competition or tournament; or
- (b) organise, attend or participate in any concert, public meeting, function, demonstration or gathering; or
- (c) organise, attend or participate in any group activity of any kind, any manoeuvre whether of a military, naval, aerial nature or otherwise, any course of training or any similar activity; or
- (d) engage in any activity or recreational pursuit which involves risking the safety of the person or the safety of other persons.

(2) Without limiting the generality of subclause (1)(d), the activities and recreational pursuits to which that paragraph applies include abseiling, base jumping, bunje [sic] jumping, rock climbing, caving, parachuting, white water boating and hang gliding.

(3) A person does not commit an offence under this clause for anything done or omitted with the consent of a park authority and in accordance with any conditions to which the consent is subject.

One effect of this clause is that permits are now needed for all the activities listed in subclause (2), including for example any canyon that involves abseiling. Permits are also now required for caves where no permit was required previously, such as Bungonia, the entrance section of Wyanbene or the main cave at Bendethra. The maximum penalty for breach of this clause is \$1,000.

The really objectionable part of the clause is its categorisation of various sports as activities which involve risking the safety of either the person performing the activity, or that of other persons. Having a State regulation effectively brand caving and abseiling as activities where one risks one's safety is a matter that should be of concern to all practitioners of these activities, as it cannot but add to popular misconceptions that these sports are 'dangerous' and 'risky', when in fact one is probably more at risk from a game of football or frisbee than a carefully conducted abseiling or caving activity. As you may imagine, there has been great protest at the making of these regulations, particularly due to the lack of consultation with the groups whom it may affect, and there are indications that the regulations are going to be redrafted to remove these references.

However, other subclauses give equal concern. Subclause (b) regulates organising of functions or gatherings - does this mean family picnics now require permits? And subclause (c) is extremely broad, requiring permits for organising or attending any group activity of any kind. Even a couple of people meeting for a walk through a park are arguably liable for a large fine if they don't have a permit. It should be noted also that whilst the listing of sports in subclause 19(2) is new, much of clause 19 has been in place in a similar form for several years. This does not mean we shouldn't worry about it because it hasn't been properly enforced before - its mere presence must give cause for concern.

The other draconian regulation which came into effect on this date is the *Sydney Water Corporation Limited (Catchment Management) Regulation 1995*. Sydney Water have only been able to provide a copy of their draft regulation, which they note has been subject to some amendment; so the information below may not relate to the actual regulation. However, the draft regulation provides for on-the-spot fines for certain conduct in defined catchment areas. The old prohibited area, extending around Lake Burragorang, remains as always, with entry prohibited unless with approval, and those breaching the regulation are subject to a \$1,000 fine. However, of greater concern is the regulation of conduct in most of the prime recreational land in the Blue Mountains and Kanangra Boyd National Parks. Within this area, which includes virtually all of the Blue Mountains National Park west of Kings Tableland and most of Kanangra Boyd National Park, people may not do any of these things without Sydney Water's prior approval: camp, picnic, light a fire, drive a vehicle, bring any plant or animal matter, use a boat, or swim or wash in any water on that land. On-the-spot fines of \$100 may be imposed for any of these activities.

If this regulation was seriously enforced, it would mean the end of most bushwalking in these areas. The justification presented by Sydney Water in the media for such harsh regulation is "the need to protect the water catchment". Certainly, the catchment needs protecting; but one wonders just how much damage is done to Sydney's water supply by a bushwalker putting up a tent and lighting a fire, compared to the great amount of agricultural runoff from nearby farms and the output of Lithgow's sewage treatment plant.

The editorial in the last bulletin posed the question of whether permits should be required for certain outdoor activities. However, the justifications suggested for such permits were those of protecting the environment, combined with providing a rewarding outdoor experience for participants in those activities. Neither of these two regulations direct their permit requirements to these ends. The *Catchment Management Regulation* is aimed at protecting catchment, but one must question whether the means chosen to do this will actually achieve this end. Subclause 19(1)(d) of the *National Parks Regulation* appears to be directed at safety, but the inclusion of abseiling and caving in a list of activities where participation puts the safety of people at risk is unwarranted. Other clauses directed toward regulation of activity again seem to go beyond what is necessary to manage national parks.

It is often remarked that outdoor recreation is one way by which people can get away from a society characterised by a burgeoning amount of regulation. However, it seems that now regulation is pervading these activities as well.

CDN

New Zealand '95

The Honour Roll

We give humble thanks to:

Oz and Alice Patterson

For letting us into their home on several occasions
(some folk never learn...).

Katie and Rosemary Patterson

For not complaining too much when we ate their
ice cream and jelly.

Urs Etter

Who else would walk for two days to go caving
with us?

Peter Negro

For a quick soldering job, numerous tools,
hospitality and making a sound investment in a
piece of automotive history.

Department of Conservation

We do know what we're doing, honest!!

The New Zealand Police Force

For not bothering about such trifles as defect
notices.

Folks whose products kept us going

(Note that we are accepting sponsorship proposals now!)

Brunswick

Sardines in Louisiana hot sauce and mustard sauce

Bluewater

We wouldn't go down on anything else

Cadbury

Makers of Moro Bars. What more can we say?

Centre of New Zealand Hostel

Where you can visit five continents in five minutes

The Endres Family, Ngarua

Certainly a change from Jenolan

Caves

Fisma

They burn like Kuwaiti oilfields

Ford Motor Company ('FoMoCo')

They don't build 'em like they used to

Macpac

Provided 75% of tents and packs

Mountain View Helicopters

A fine vehicle and a fearless pilot

Nelson Speleo Group

Great hut guys!

Tempus 4

Personal outfitters to Mr Leong

Tip Top Ice Creams

Makers of chocolate eclair, goody gumdrop, jaffa,
maple and walnut, hokey pokey, caramel fudge, triple
chocolate crunch, choc chip cheesecake, jelly treat, gold
rush...you get the picture

Folks whose products disagreed with us

Air Nelson

The wildest thirty minutes of your life

Brunswick

Sardines with lemon and spring water

Petzi

B@)!*#\$^y F!#&@*^Sing Ariannes!

Qantas

Those baggage scales are too darn sensitive

Westpac

Who refuse to recognise their own customers

Fear and Loathing in the South Island

Around New Zealand

30 December 1994 - 5 January 1995

Hang on, Saint Christopher

By the time I got into the cigar tube, I wasn't in a good mood.

The supercilious smirk of the Qantas check-in clerk as she ran my plastic card through her machine at Sydney and held my boarding pass tantalizingly out of my reach until she had my signature got things off to a bad start ("Too much baggage? What do you mean, too much? It's only 200m of rope..."). Next problem was the queue for immigration at Wellington, which was twice as long for Australians and NZ-ers as it was for those fortunate enough to be of any other nationality. And when I'd cleared that hurdle, it was the request that I erect my tent on a steel table in the Customs Hall (and guess what was at the bottom of my largest pack...).

So I wasn't in a good mood when I got into the cigar tube (or, to be more precise, the turbo-prop Metro II) for the trip to Nelson.

The storm raged outside the window, fierce winds sweeping across the tarmac. Clouds hung heavily in the sky. And two poor sods in pilot's uniforms who'd lost the card game were thrust reluctantly into the cockpit with the hatch quickly bolted behind them. You could hear the Fear creeping into the pilot's voice as he turned to face the cabin and announced that "Due to the inclement conditions, the trip may be a little rough. I should advise you that when flying these aircraft, it is quite normal for lights to flash on the instrument panel and to hear loud audible tones during flight. Do not be alarmed." He avoided direct eye contact and spun back to manipulate the instruments with trembling hands. We passengers glanced at each other. Some made the sign of the cross, others began poring feverishly over the safety card. People would have started ordering complimentary triple scotches from the flight attendant, except no attendant was silly enough to be on this flight. I noted that I was sitting next to the emergency exit. If anything happened, I'd have to be quick or be trampled in the stampede.

Contact! The props spun, the cigar tube trundled along the tarmac and struggled steeply upwards into the air. Lights flashed. Loud audible tones were produced. Knuckles visibly whitened as we lurched from side to side. We would have gripped the arms of the seats, but there weren't any. I nearly grasped the convenient handle by my right elbow but realised just in time it was the release for the emergency exit. All the time we expected to hear another announcement from the flight deck that "It is normal to see the pilot and co-pilot bailing out wearing parachutes during flight. Do not be alarmed." I swear they would have been out of there, too, if we were above solid ground and not the bracing waters of Cook Strait.

Suddenly, it all stopped and we burst into a brilliant halo of sunshine around Nelson. The cigar tube suddenly became beautifully aerodynamic, executing a graceful curve over the bay before coming in to a perfect 3-point landing. "Tower cannot see you - please advise of your

movements" read a sign at the end of the runway. H'm. At least Nelson airport was built with a tower - the tower at Wellington is outside the airport halfway up a hill in a suburban street. They must make great neighbours - you can just imagine: "Ken! It's the airport on the phone. They've asked if they can borrow your radar because theirs is on the blink again. I'm not sure we should let them - they still haven't returned that hammer you lent them last week to fix the circuitry..."

Inside the terminal were my two smug companions, Ian and Kevin, who'd arrived the day before. Kevin had removed most of his hair to commemorate the occasion, which caused him to get many looks from locals who were doubtless convinced that we were some kind of neo-fascist reactionary force on a quest to foment revolt in Nelson and ruin the new year.

"Have we got a car for you!" announced Ian, with a huge grin on his face. I don't remember cutting him off, but I soon found out that he meant "Have we got a car for you to push!". And thus it was that I laid eyes - and hands - on Vic.

After visiting every used car yard in town, and being turned away as being too dodgy, the pair had resorted to the dreaded Nelson Evening Mail Motor Market. Picking the car that was at least half the cost of all the others, they contacted the owner, thrust \$500 in monopoly money into his hands and scarpered. "Victory is ours!" they cried whilst speeding away from the scene at a steady 20mph (kilometres hadn't been invented when they calibrated the speedo). And so the little 1968 Cortina 1300 Super was named.

Every victory, however, comes at a price. The first cost was \$75 for a new battery, as push-starting in the main street of Nelson is somewhat hazardous. We retired to our headquarters, a commandeered suite in a gleaming white mansion on the hill with a commanding view of the snow-capped Arthur Range, to draw up battle plans.

Wacky, zany hi jinks

I don't know what it was we did that night, but the next morning we were evicted from our accommodation. However, we decided the first priority was to make the car work. We had traced the fault to the generator. "Lucas generator? No problem! They have a shop right here in Nelson!". Unfortunately, they'd decided that no-one would need a generator on New Year's Eve and the shop was stubbornly locked. The only other auto electricians business was attended by a vague 16-year-old lounging in the back yard who said the others were out and wouldn't be back for some time. However, this was a blessing in disguise - a raid on the local wreckers produced a functional, if greasy, generator for a mere \$30:00 that looked like it would do.

All we needed were the tools to fit it. This meant a trip to Oz Patterson's place, where we fought past two fierce guard-daughters to appropriate his screwdrivers and spanners. In another ten minutes, our vehicle was fully functioning, and we could afford to accept Oz's offer of lunch. This was shared with Peter Negro, a Swiss caver now living in NZ but not doing any caving after being savagely attacked by a boulder in Exhaleair a year ago. Peter, who may have had a little too much to drink, eyed Vic enviously as we fine-tuned her insides. Sensing a potential windfall at the end of the trip, we draped ourselves over the car attempting to conceal the lack of sun visors, window winders and a window. "What a great car!" he enthused.

In the afternoon, we snuck down to the basement to replace Oz's tools and envy his map of the Ellis Basin System. Oz drew our attention to a significantly large section of cave off the

main route which is the uppermost known section of streamway in Tomo Thyme, and suggested we might try looking around there when we got to the Ellis in a week's time. Thanking him for his hospitality, we surreptitiously replaced his tools and paused only long enough to invite ourselves back to stay the night, hence solving our accommodation problem.

Another burglary job was next, as we raided the unattended home of Trevor and Cathy Worthy to procure that vital substance, calcium carbide. After concealing it in coffee tins to escape the eyes of the authorities, we bought and consumed a litre of Hokey Pokey ice cream from the supermarket before venturing out to the beach, where Ian and I were foiled in an attempt to get Kevin to either remove his new Scarpa boots or wade through the water in them. A visit to the bank produced frustration for Kevin when the Westpac automatic teller refused to take his Westpac card, no matter how much he reasoned at it rationally or ranted at it irrationally. Lacking the tools for a proper cash removal job, he had to run the rest of the trip off his VISA card.

New Year's Eve and where to go? Peter had told us that the really happening place in Nelson was the Rising Sun Tavern. Hah! With the tunes of 70s classics like *Crocodile Rock* as musical entertainment, it was no surprise that we halved the occupancy when we walked out at 10:30pm, muttering about the non-appearance of a certain Swiss gentleman.

"Let's go and do some real damage - throw glasses, cause havoc and all that!" urged Kevin. That haircut was really starting to take hold. So Vic weaved her way down Smith Street dodging tipsy Nelsonians and scored a prime spot in the supermarket car park. We marched up to the Metropolitan Hotel, where the doormen were strictly enforcing the dress code (no black t-shirts, gang patches or gumboots). We removed our SUSS badges, pointed impressively to our Volleys and assured the bouncers that our t-shirts were really white ones in need of a wash.

Next discovery was that Nelsonians, for some reason, are afraid of people breaking glasses and bottles on New Year's Eve. Anyone who wants to drink anything is issued with a polycarbonate mug (for the consideration of \$2:00) which is filled with whatever you desire - hence, the oft-seen sight of refined folk sipping spirits from large pitchers. We bought two mugs, but by the time we left they had mysteriously multiplied into seven. This meant we could give four to Oz as a token of our thanks for his hospitality.

We finally find some limestone

Somehow, we woke up on the floor at Oz's place several hours later to see the sun glistening on Mt Arthur. Before we went there, however, we had to pick up President Phil - and he wasn't arriving until Thursday. So we decided to head off to the West Coast. We had a somewhat pre-emptory talk to Oz about caves in Paparoa National Park, from which we later recalled this information:

- 1) The track to Babylon goes off the Fox River Cave track at a brownish creek;
- 2) There is a cave whose name starts with 'T' that is a through trip, with a 20-25m entrance pitch;
- 3) Don't go into Xanadu if there's even a bare suggestion of rain.

All set to go caving! With Vic laden and groaning, we headed west, able to reach a respectable 60mph on open stretches. Up the Hope Saddle, however, the going was not so good. Ian cajoled, coaxed and cursed Vic further and further uphill, until the temperature gauge pointed emphatically to the letter 'H'. Not wanting to ruin a great relationship, we let her recover as we gazed at Mount Hopeless and Mount Misery.

Vic enjoyed the next section - a clear run downhill alongside the mighty Buller River through Murchison. Even though this is a major highway, it still contains a large quantity of one-lane bridges, which make driving a far more interesting occupation than in Australia - one constantly has to calculate how fast one has to go to get off the bridge before the huge truck coming the other way gets on. One quickly becomes very good at these calculations; although during the learning stages many an unsuspecting tourist suffers serious heart palpitations upon seeing a demon-eyed Australian maniac bearing down upon them piloting a green car that he clearly considers totally expendable.

Thrashing along the flat to the Coast was not so good for Vic. When we finally arrived in Westport (home of that great band Yasser and the Arafats), she stopped dead in the middle of the main street with a plaintive scream emanating from the radiator. This was not a well vehicle. We went for fish and chips, then returned to tip a full 6 litres of water into the radiator, whereupon Vic decided to start once more. We then set off via the Cape Foulwind Seal Colony (named by Captain Cook after he stood downwind of the seals) to the sleepy hamlet of Punakaiki.

What a great place! Huge limestone cliffs reach almost right down to the sea. The road winds precariously along the edge of the cliff, shaded by large quasi-tropical stands of nikau palms. And the cliffs are full of caves. There's even one right beside the road, with an inviting sign pointing into it giving its name - "Cavern". Not wanting to overdo it on our first day, we spent an action-packed twenty minutes in this cave before exiting, exhausted, to search for accommodation.

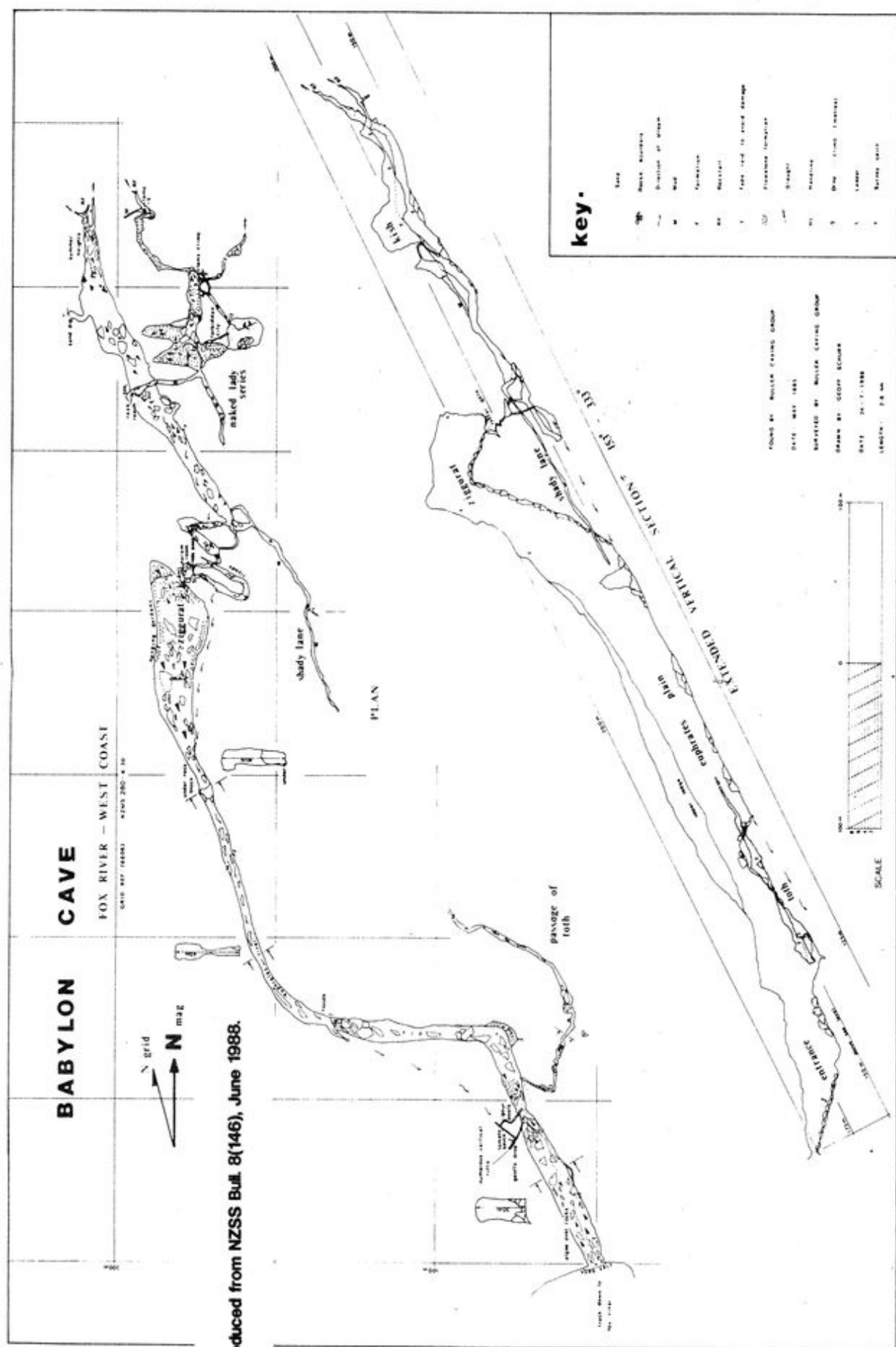
A shady Swiss character in a shed accepted some monopoly money from us in exchange for a quietish room just off the main street (mind you, everything in Punakaiki is just off the main street - the small flat beneath the cliffs that the town occupies is only about 75m wide). The house was certainly different. One of the bedrooms featured an in-ground swimming pool, which is a great cure for sleepwalking - particularly since the pool was empty. The finest architectural feature, however, was probably the carpet in the shower.

The only problem with Punakaiki was that I was allergic to it. Every morning and night my nostrils would stream and I would sneeze uncontrollably. Ian quickly diagnosed a limestone allergy and recommended avoiding this substance as much as possible. I thumbed my nose at his diagnosis, wiped my thumb, and set off to see the famous Pancake Rocks on Dolomite Point.

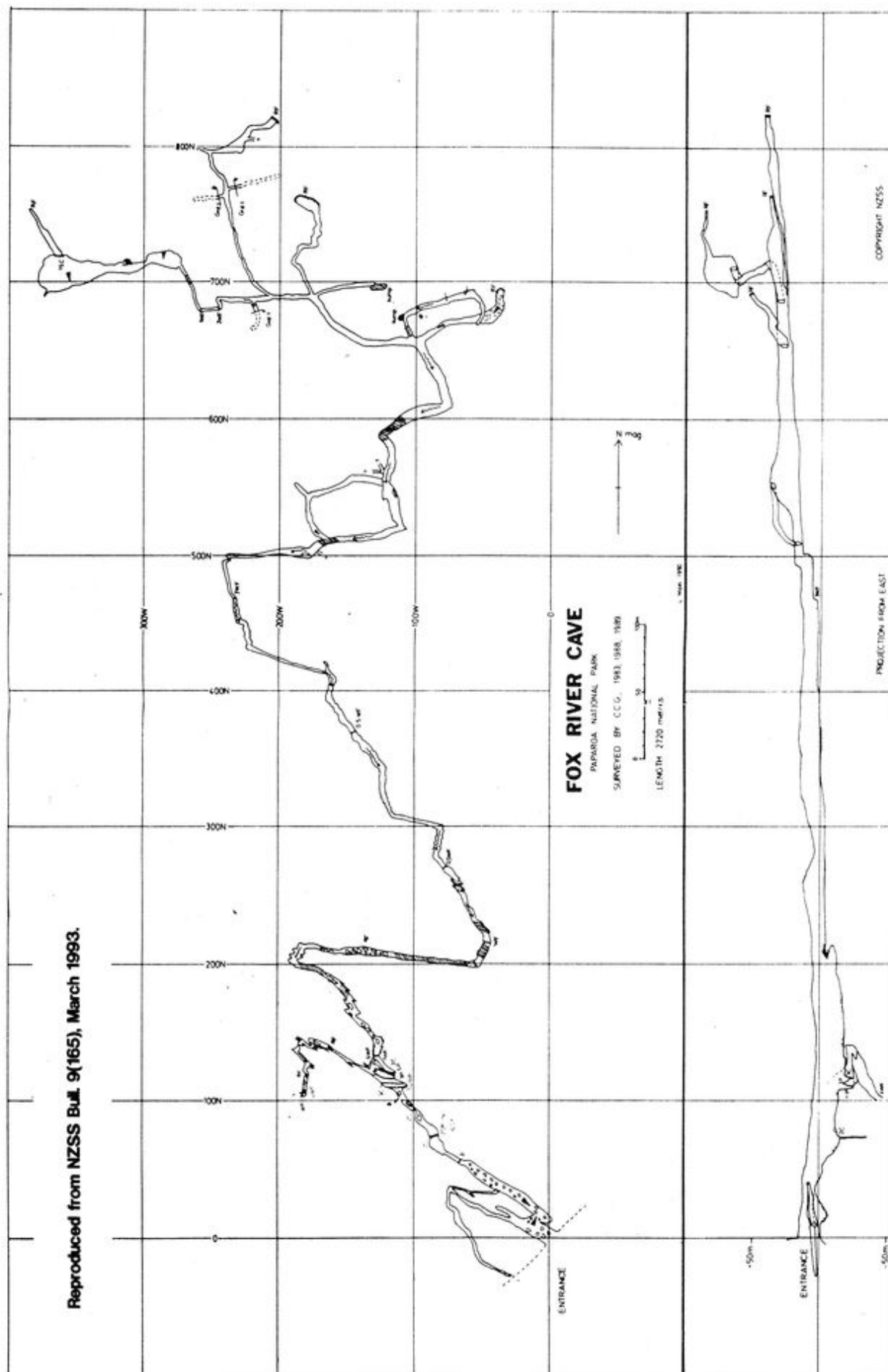
By the rivers of Babylon

Monday morning, and it was definitely time to start caving. We set off for Fox River Cave after carefully packing all the essential rigging gear for the 4 pitches into Ian's pack. After an hour's walk, we arrived at the cave. It was here, of course, that Ian opened his pack to find he had brought the one with all the gear we had rejected. A good deal of the rigging gear we needed was, of course, back at the car, including all Ian's caving gear. Screaming imprecations, Ian set off back towards the car to look for Babylon whilst Kevin and I ventured into the cave wondering how we would climb the two bolt climbs without bolt hangers.

Fox River Cave is great for activating the Fear. After negotiating a large rockfall, one proceeds down a 6m wide, 15m high passage to where a series of deep rifts interrupt the floor. The first of these can be gingerly climbed across - although the chimney up the other side with a pack on when there's 20m of freefall below you is quite interesting. The next rift



Reproduced from NZSS Bull. 9(165), March 1993.



requires a 10m abseil, and was originally climbed on the other side via a series of bolts. On descending, I was glad to see this pitch was already rigged with a rope, up which I prusiked. However, on reaching the top sweat broke out on my brow - and not from the prusiking.

The Fear is what you get from flying in a cigar tube in a storm. The Fear is what you get when someone tries to collapse a rockpile on you. The Fear is what you get when you tap the gauge on your dive tank and it suddenly unsticks to indicate there's only five minutes worth of air left and you're fifteen minutes from the surface. The Fear is also what you get when you get to the top of a rope and find it tied to ironware so rusty it looks like WWII surplus from a battleship at the bottom of some Pacific lagoon.

Fortunately, this latter variety of Fear is easily remedied. You get off the rope fast. This I did, rigging another rope behind me for Kevin to ascend. Off down the third pitch and on to the fourth - a bolt climb about 3m up and 3m across over a 6m drop.

This pitch is in a truly spectacular location. A lump of rock sits in the rift, from which you climb. To one side, the stream, coming from the passage above you, bursts through a hole and pours down a raging waterfall into the bottom of the rift with a thunderous roar. And a tiny trail of bolts leads upwards into a large gap in the rift wall.

Climbing a bolt climb is hard enough when you're obviously much shorter in arm and leg than those who placed the bolts. It's even harder when your bolt hangers are sitting snugly in the pack left back at the car, and you don't have any etriers. Progress was painfully slow as I teetered on tiny loops, tying even tinier loops with short lengths of spare shoelace cord and attaching them to the bolts. Getting over the lip after the final bolt was particularly trying, as there did not seem to be quite enough rope to let me get over. Several moments of panic ensued as I struggled to free myself whilst lying on a curving rock seemingly slipping closer and closer to the edge. Finally, however, I was free, and could secure the rope at the top for a rapidly cooling Kevin to follow.

Then, we met the stream. Boy, what a beauty! Powering over a series of cascades to sweep aside and over the waterfall, the stream was a truly amazing sight. Unfortunately, however, progress was stopped after only about 100m by a deep pool requiring swimming. Yes, we had brought wetsuits. No, we did not have them in the cave with us, as we decided the long swims needed to navigate the icy stream could be unsafe without floatation aids. So we piked. However, all who visit this area are urged to visit this great cave - just make sure you have the proper gear.

At the entrance, we emerged into the midst of a large number of tourists tramping back and forth to the somewhat less serious branch of the cave. They gazed at our muddy, soaked forms with trepidation as we assured them the cave was great fun and they really wouldn't get muddy and wet - promise. As we sorted our ropes and doused our carbide lights, several tourists were seen to doubtfully examine their dolphin torches and turn back.

On our exit we met a hot and bothered Ian pacing up and down the track trying to find a brownish creek, without success. We decided to write off Babylon and instead wash our gear and go eat triple ice creams, pausing only to help another group of tourists to search the jungle for a rogue pair of sunglasses.

"T" for three

That night, the rain poured down. It was still drizzling the next morning, so we decided to go and search for "the 'T' cave", as it had become known. This cave was situated on the Four Mile Road near Charlestown, about 15kms north of Punakaiki. As we slipped and staggered down the muddy doline through thick forest, the rain tinkled about our ears. We were thus eager to get underground, but not so eager that we forgot to tie a knot in the bottom of our 37m rope, even though we had been assured the pitch was only about 20m. This was just as well. As I approached the bottom of the shaft, the knot was seen dangling a couple of metres off the ground. Undoing it, I popped neatly off the end just as my feet touched the floor. This put the pitch at around 30m. It is truly spectacular - a rounded shaft with sunlight slanting down to catch the drops of water cascading down one side.

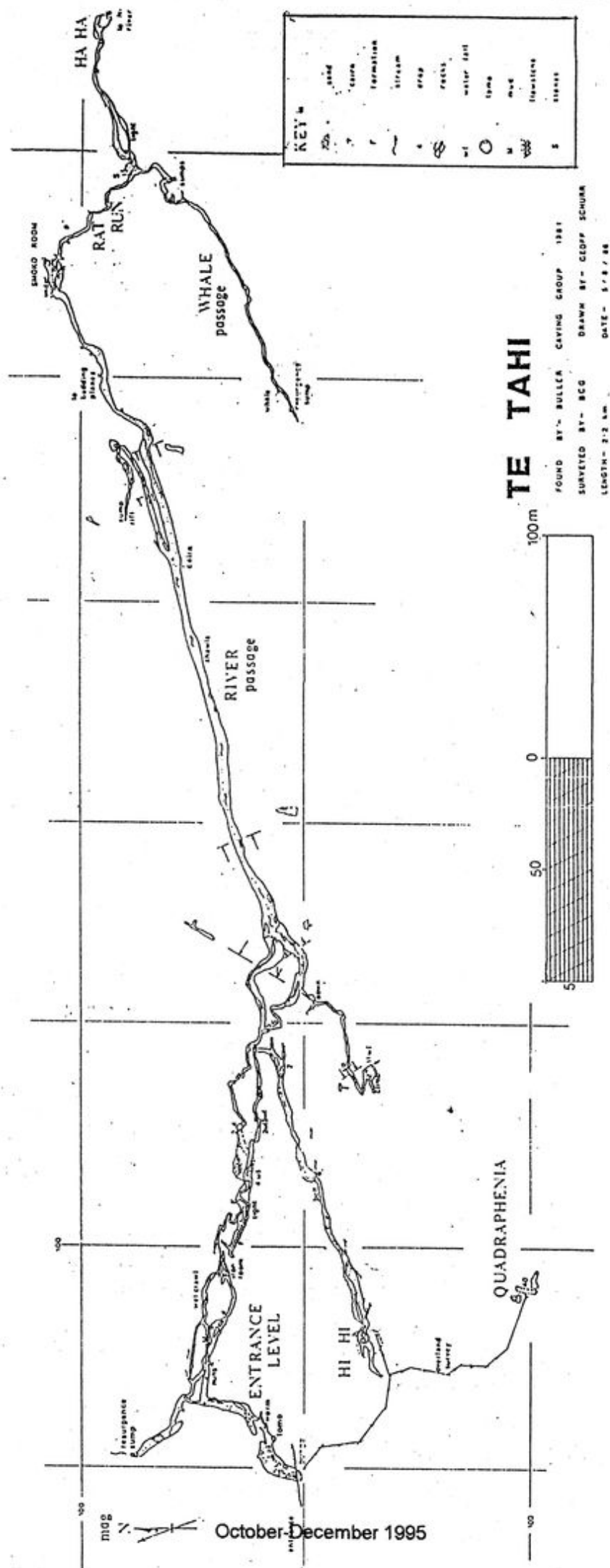
Having found the entrance and descended the pitch, all our knowledge of the cave was spent save that there was another entrance somewhere. We hoped this was more accurate than the description of the pitch length, and set off downstream.

Traversing the cave was pretty easy. A minor stream is followed for some time along a parallel passage, which at one stage contains a ladder. Not all of the rungs of this ladder (not a Bonwick model) are actually connected to the wire, making for a very interesting descent. Eventually, the major run-through streamway is reached, complete with some nice formations. The final section of the cave is less pleasant, with some crawly passage and a climb up a truly awkward rope ladder. After traversing about 1km of passage, a large tree trunk and some glowworms signal the proximity to a climb-out to the entrance just above the level of the Nile River.

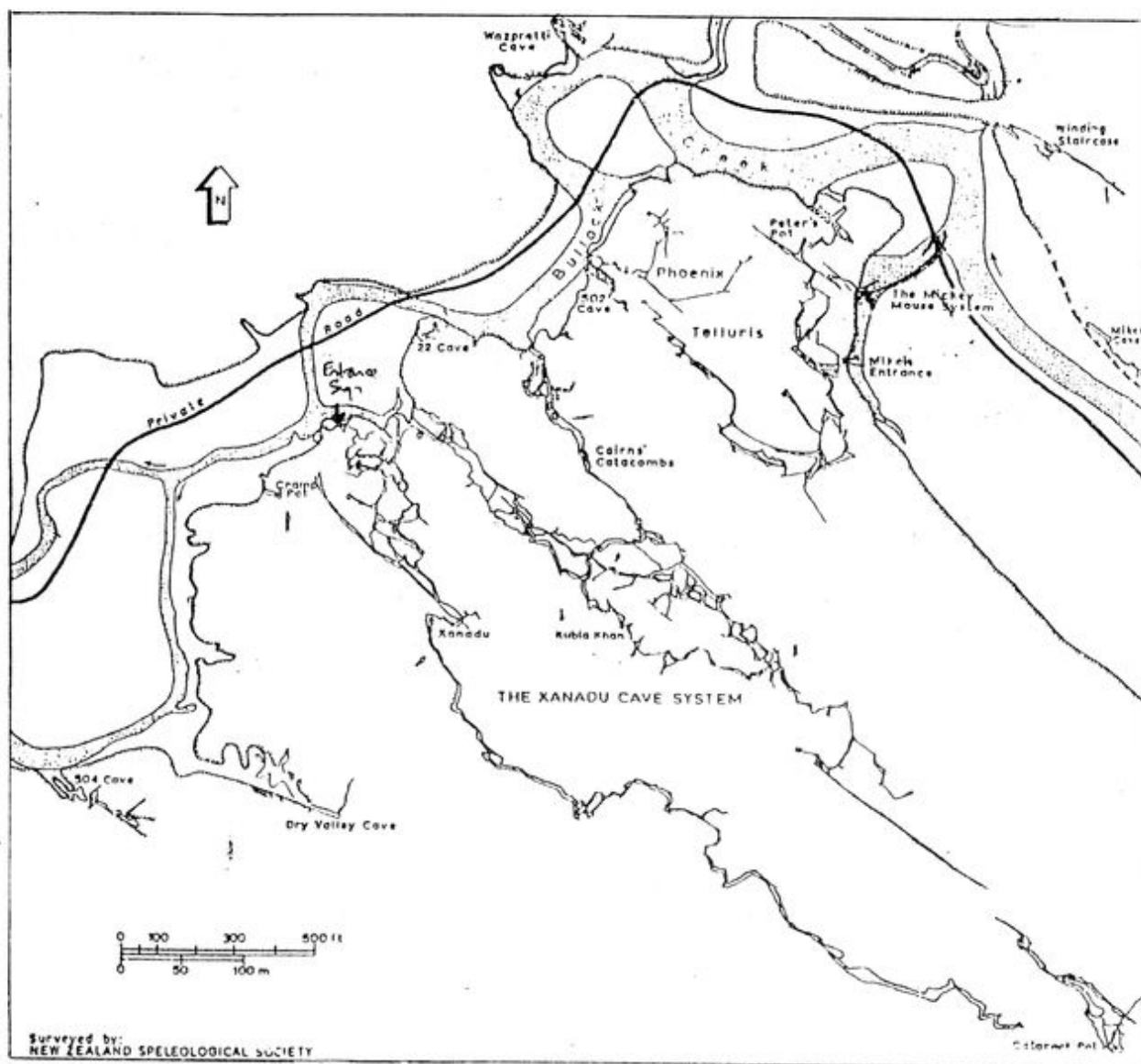
Did we take the easy way out by walking down the river to where the road joins it? No way! That would be too obvious. Instead, we headed directly up the hill, thrashing and bashing through some of the most irritating bush to be encountered short of the blackberries at the Tuglow resurgences. At last, the road was reached. A short navigational conference then ensued. The cave ran east. I decided we should therefore walk west. Ian thought we should walk east. I calmly pointed out that this would only take us further from the car. I can't remember what Ian said, but it must have been pretty convincing as we were soon all heading east. And, darn it, there was Vic waiting for us. How did he manage that?

Back in the car, I noticed that a photo on one of the cave adventure tour brochures we had picked up looked familiar. Sure enough, it was of the entrance to "the 'T' cave", which was actually called Te Tahī. More information was gathered when we visited adventure HQ at the Charlestown pub, where we were given a map of the cave. The entrance shaft is called Hi Hi (pronounced Hee-Hee), and the exit Ha Ha. And people are charged \$95 to do the trip. Yet another lucky break for us, we figured, and congratulated ourselves with a round of triple ice creams.

It was a rather noisy night in the house that night. A very enthusiastic English couple, occupying the room above ours, decided to test the resilience of the bed springs by jumping up and down upon them. Resilient they may have been; but they made a squeaking noise louder than a dozen mice being sat upon. Fortunately, some lightly veiled threats and a couple of buckets of cold water through the window curtailed their experimentation, and we could all finally get to sleep.



Map donated by Northwest Adventures Ltd, Charlestown
 (proprietors of Underworld Rafting)



Caves of the Bullock Creek Area

Map donated by Department of Conservation
Punakaiki National Park



Ian Cooper goes incognito in order to snare an automotive bargain.

How to impress Karst Managers

Xanadu is a large, very active cave in the Bullock Creek area. The entrance series is an extensive phreatic maze. And it can flood to the roof in a very short time after even light rain anywhere in its extensive catchment. We decided we wanted to have a look. We just had to find out where it was.

Choosing the direct approach, I marched into the Department of Conservation headquarters, SUSS T-shirt and badge prominent, and in my most authoritative voice said "We are cavers from Australia and have come to do your cave. Show us where it is." We were patiently told that the cave contained an extensive phreatic maze and could flood to the roof in a very short time if it rained. "We know that. We have no fear. We know what we are doing. We are from the ASF." I said confidently, hoping that no other ASF members had been round here recently and given them a bad impression. After some suspicion, we were given a small map showing the location of the cave on a bend in the creek, and urged to register an intention form at the tourist centre. We were off.

At the tourist centre, the ranger on duty asked if we knew the cave contained a large phreatic maze and filled to the roof in a very short time etc. etc. "We know that. We know no fear. Let us fill out a form." A form was duly produced.

I asked if we had to fill out the section marked 'Address'. "We just need somewhere to send the bodies to," said the ranger. After a moment's thought, I decided Oz could have this honour. After all, Vic was already registered at his address, so he was receiving all our speeding tickets - why not three bodies as well?

Off we set for the cave. We parked at a slope down onto the creek. The ranger had told us the cave was "just along the creek from the slope". Carbides blazing, we set off.

Twenty minutes later, we were thrashing through a rather muddy swamp with no cave in sight. We had just decided we had gone down the wrong slope when along the road came a DoC vehicle with a friendly ranger at the wheel - the one to whom I had said "We know what we are doing." He told us to get into the car (which we did, blowing out our lights and dangling our acetylene-spewing headpieces out the window), drove us 400m back to where we had parked and showed us the cave entrance not 50m away. The word 'Xanadu' was written above it in big black letters. He seemed somewhat reluctant to leave us on our own, but did so.

After a couple of hours of running hither and thither down beautiful meandering tubes and canyons, we decided that Xanadu was best described as being a large phreatic maze. The scattered organic matter suggested it flooded to the roof. We found our way through the maze to a lower level, but the passage leading on was of Infinite Crawl proportions and half full of water. This, we decided, was for our purposes the end of the cave. We tried to take some photos, but the flash went on strike so any viewer would be excused for thinking we'd taken them in our sleeping bags back at the house.

Back to the car, and we started to drive back to the highway. However, Vic decided to go out in sympathy with the flash and staged a sit-in strike - "sit in" because she stopped right in the middle of a large puddle. We sat looking at one another. "What are you waiting for? Get out and push!" commanded Ian. So Vic was removed from the puddle, and Ian could leave the confines of the drivers seat and peer under the bonnet. The cause of the trouble was traced to a loose wire, which was pushed back into place and secured with a quick prayer

to the patron saint of cheap car buyers (a very overworked saint). We returned to the highway unwilling to slow the car down too much, thus putting fear into the hearts of the motorists heading the other way along the narrow road as they swerved madly to avoid us.

All that hard work meant we needed a bit of replacement energy, so we reluctantly hit the shop for more triple-scoop icecreams. By now, flavour preferences were well established - Ian would invariably go for boysenberry or hokey pokey, Kevin for maple and walnut (with the occasional exotic variation when the m&w ran out), and I would eat more or less anything that I hadn't tried before in all sorts of exotic combinations.

Stop reading if you're only interested in the caves

The time had come to leave the West Coast (much to the relief of the ice cream shop proprietor, who was rapidly running out), and we set off via Greymouth back towards Nelson via Nelson Lakes. We stopped briefly in Murchison for petrol, where we were accosted by a hand on the shoulder from a shadowy, bearded figure who asked the dread question:

"Are you guys from SUSS?"

Hard to deny when you're wearing T-shirts screaming SUSS in bold black print. Uh oh. What had we done? Fortunately, we were not about to be blamed for any major crimes, or even issued with a vehicle defect notice. It was only a mob of Sydney Uni bushwalkers, about to walk to Arthur's Pass, who had noticed that distinctive calling card of Sydney Uni students, the Dunlop Volley, adorning our feet.

The trip from Murchison to Lake Rotoroa was quite entertaining. We turned down the Rotoroa road, posted with a large "C" at the start.

"H'm", mused Ian, "a C-grade road."

"What does that mean?"

"That it has grass growing in the middle."

Sure enough, the road was horticulturally blessed, with little gardens adorning it at regular intervals. Later on, it featured landscaped hills - some quite steep; and even some babbling brooks cascading across it. Vic, always a nature lover at heart, enjoyed gambolling through the meadows, and so we passed the track without major incident. We were most surprised to see at the other end of the road a sign announcing "Braeside Track. Unsuitable for caravans or small vehicles." The roadside at this point was also strewn with the bodies of other cars that had not been so fortunate as Vic. If only they'd told us at the other end.

Lake Rotoroa is very pretty. Unfortunately, the view has to be shared with several billion sandflies. Defensive measures were clearly called for, in the form of lightweight polypropylene body armour. Thus prepared, we ventured to the heart of the enemy's lair, strolling along the lake shore and through the forest to a waterfall, sweating profusely. On our return, we barricaded ourselves in our tents and embarked on merciless search-and-destroy missions to eliminate all sandflies from within the screened quarantine area.

The next morning we escaped to Lake Rotoiti. There are no sandflies at Lake Rotoiti. This is probably why it costs \$6:00 to camp there, and \$2:00 to camp at Lake Rotoroa.

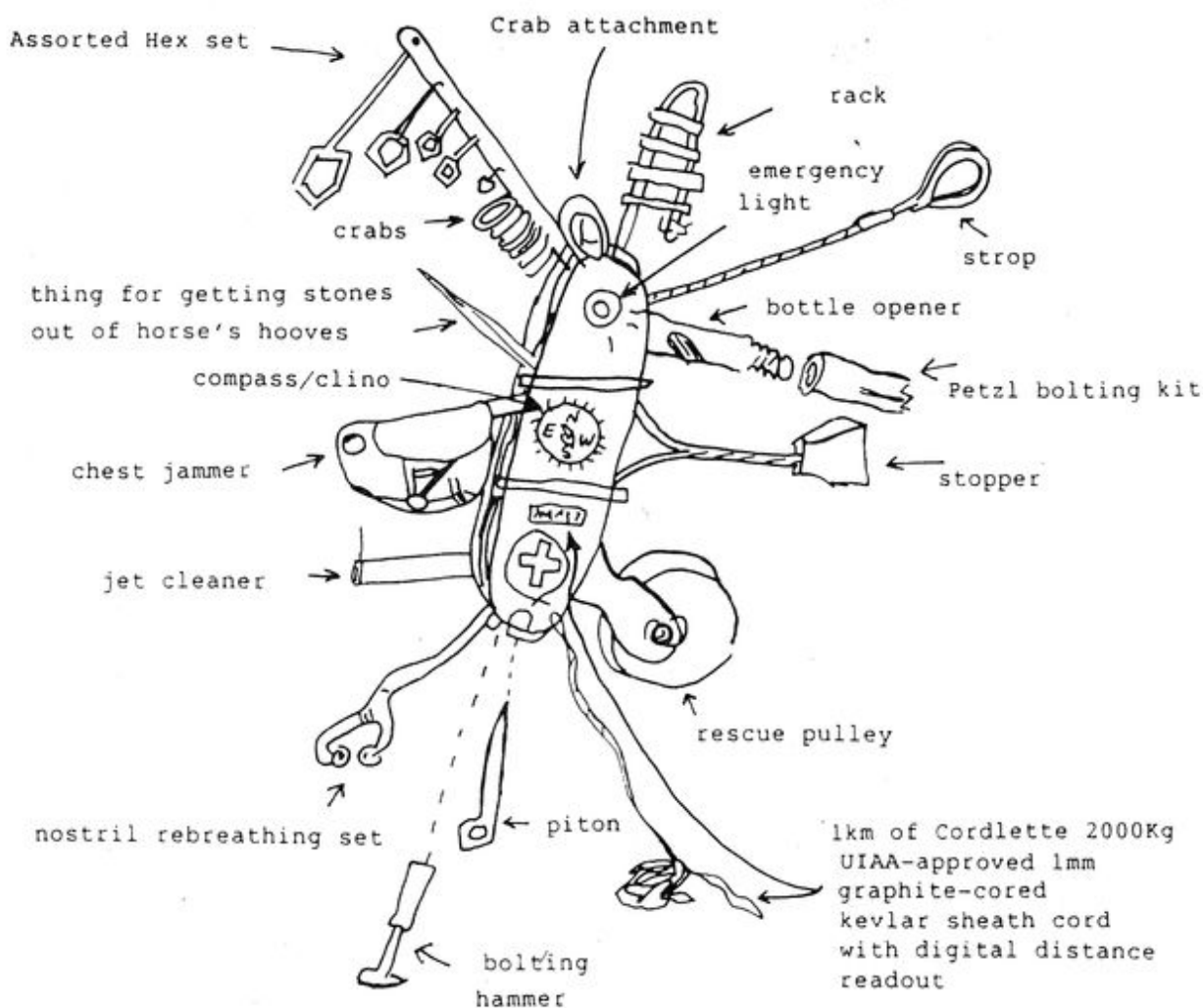
However, time raced on, and so did Vic as we laboured over the hills toward Nelson. With a little coaxing and the occasional drink, she spluttered happily into town as the Presidential cigar tube plummeted uncertainly toward the runway that the tower can't see, containing a white-knuckled Phil. A mad dash through the back streets saw us arrive out of breath at the terminal just as he emerged, blinking, into the daylight to kiss the tarmac.

Chris Norton

To be continued...

N.Z. Speleological Bulletin 8 (157/8) March, June, 1991

Dave's Interlude : Yes, its the all-new Swiss Army Caving Set! Look at all the features you get:



Fred Kahl successfully used our SACS during the 1980 Nettlebed expedition

Crime Wave Hits the South Island

These terrible crimes coincided with SUSS's visit to New Zealand.

Garden gnomes await their homes



A possible uprising among the garden gnomes of the Kapiti Coast has been foiled. More than a dozen gnomes have been discovered holed up at a Waikanae house, but they will soon be on their way back to their respective homes if police can establish where these are.

Key pushed into face

A 50-year-old Nelson man told police he wanted to control his wife and had pushed a key into her face to scare her, the Nelson District Court heard yesterday. The man, whose name was suppressed, was remanded until today for sentence. He pleaded guilty to one charge of assaulting a female. Sergeant Brian Wood said the man's wife had moved from their address after a domestic incident the previous evening. When she went back to the address the man moved her from leaving by locking her in. He pushed the man's wife's nose with his hand. The complaining wife's face about six times. The police called to call out to a neighbour to

cat

The judge said he could not describe the cat as a nuisance. The cat was on an animal's head. The judge said he could not describe the cat as a nuisance. The cat was on an animal's head. The judge said he could not describe the cat as a nuisance. The cat was on an animal's head.

Bored youth painted

A Temuka District Court judge yesterday cut off its whiskers because it was bored. The cat was painted by a 17-year-old musician. Phillip Brendon Page, 17, a trainee admitted and committed to the 40 hours' community service by Judge Ed-ward Ryan. When Page said he had not been paid for his work, Judge Ryan said he was not a paid worker. Judge Ryan said he was not a paid worker. Judge Ryan said he was not a paid worker.

Detective Neil Murphy wants locals who may have lost gnomes over the past year to contact Paraparaumu police. Paraparaumu Constable Colin Abbott is pictured smiling gnomishly with some new friends.

Photo: Evening Post

Car taken to 120km test drive

A 17-year-old Nelson man took a \$15,000 Ford Laser on a 120km test drive instead of a 20-minute trip to show his father, the Nelson District Court heard yesterday. Quinton Michael Clouston, unemployed, pleaded guilty to one charge of dangerous driving while disqualified and unlawfully taking a vehicle. He was convicted and remanded on bail until February 8 for a probation officer's report, and sentence. Sergeant Brian Wood said Clouston went to a Nelson car yard, spoke to a car salesman and then took the car for a test drive. Wood said Clouston told the salesman he was interested in buying the car and said he wanted to look at it. He said he would be back in about 20 minutes and gave the salesman his correct name and address. Clouston drove the car to Motueka where he picked up a passenger. At Marchwood Park, he drove dangerously near and in the vicinity of a motor cyclist. Mr Wood said Clouston and the associate returned the car and the car yard about 2pm after covering 120km. The car was not damaged.

The Watergate Break-in

Jenolan, 18 and 23 September 1994

Surveyors: Ian Cooper, Phil Maynard, Mark Staraj, Keir Vaughan-Taylor.

It had been an easy, warm, sunny Saturday at Jenolan. A couple of hours' surveying in Frenchman's Cave (map forthcoming) was about the extent of our caving. Everyone was pretty relaxed at dinner in the cottage, so a suggestion came up: "Why don't we check out Water Cavern, it must be just about dry." Little did we know.

Water Cavern is the most northerly point in the Jenolan show caves. At the end of Jubilee Cave, a large cavern opens out from the small passageways which make up the bulk of the tour. From the railing at the beginning of the cavern, the tourists can just see the back of the cavern, where the cave makes a small zig-zag and the roof comes down to a muddy sump about the size of a manhole. Such a sudden ending to the kilometres of passage in the northern show caves has always led people to imagine caverns measureless to man beyond the sump. In fact, SSS made an attempt to bail the sump in the 1950s, after deciding that a dive was out of the question. The water level refused to drop, suggesting a large volume of water and possibly a deep sump. From that time, the sump has been left as one of the intriguing questions at Jenolan.

Fast forward to Christmas 1993. Jenolan has been deep in drought for many months; the bushfire season began in December with a vengeance. The underground river at Jenolan has shrunk to unprecedented levels. During the week-long Christmas trip, a team led by Keir Vaughan-Taylor and Mark Staraj took the assault to the shrunken Water Cavern sump with a electric pump loaned by the guides (SUSS Bull, 34(3), 13-16). At the end of two days' pumping, Keir managed to roof sniff through a tight squeeze and up to a muddy air space with some water flowing back down into the sump from it. The sump soon decided to fill up again when an attempt was made to dig out the way on, so everyone beat a retreat. A month later, with the drought still very much in force, the exercise was repeated and this time, Keir led a party through the sump into vast innumerables. Much debate ensued about just what had been found and which direction it went, but there was no doubt that a significant discovery had been made. Many leads were said to be available and the cave just might connect to Spider cave, which was an unknown distance to the north.

Of course, the only way to settle debates about caves is to survey them. No one had surveyed the cave on the first trip, and everyone was looking for a way to avoid the task of mapping through the sump. On this warm September evening Jenolan was still deep in drought after more than a year without rain, so we decided to explore the vast innumerables and avoid the mapping again. A large group of people led by Ian Cooper and Terry Matts (Guide and SSS blow-in) lugged their caving clothes in packs to the railing at the end of the track. Here we trogged up, having to avoid any chance that mud might be deposited on the tourist track or the railings. At the head of the normal water level in the sump, it became apparent why the early attempt to bail the sump had failed. The passage sloped down gradually to a squeeze which was around 13m back from the start of the sump and nearly 2.5m lower. That represented a lot of water to move, without even considering the other side of the sump.

Approaching the bottom of the slope, in thick goeey mud, we found a large plank of wood. Apparently this was an attempt by the original sump drainers to provide a platform for digging. It might also help in preventing someone from drowning in the squeeze. The mud at the bottom was the most incredible consistency. It contained equal parts glue, gravel and water, setting like concrete on clothing and generally slowing down progress in the squeeze. It took real strength to drag a way through the squeeze and up the mud slope on the other side. Soaking wet and considerably heavier, we looked at a passage which was full of mud speleothems, with a cold gale blowing through and into the squeeze. This passage, which was about 20m long heading due north, had smooth, deep mud on the floor. The suggestion was that the entire passage normally contained water. That would make any attempt to manually drain the sump futile. It almost made any attempt to walk the passage futile as we sank knee-deep in the glue.

Finally at the end of this passage we left the mud behind. A short sharp 3m climb confronted us, normally easy but darn near impossible with kilos of mud on the soles of the feet. Here we began to spread out and explore. At the top of the climb, a rockpile spread to the right and ahead. The way on was found to be through a squeeze out to the right. While Ian and Terry dived on ahead into the way on, John Oxley and I tried to coax some beginners through the squeeze. No way, not after that desperate mud squeeze and the freezing wind and the climb... Everyone who was wearing cotton overalls was in serious trouble at this stage, so most of the party turned around.

John and I took a quick trip through the rockpile to a room which seemed at first to have no exit. Eventually, I climbed up a trickling waterfall on the southern wall, only to find a tight squeeze at the top. "No way," I told John, "we must have lost them earlier in the rockpile." There was no sign or sound of Ian or Terry. How frustrating, I thought, they could be in Spider by now and we can't even find the bloody way. We returned to the top of the climb, and finally heard them behind us. It turned out that they had indeed climbed the waterfall and climbed through the squeeze into some large rockpile chambers, with lots of leads. They had explored the more obvious leads before returning, but thought there must be many more still to push.

Back through the sump we squeezed. It was no easier this time, quite the opposite. With the air blasting our soaked caving suits, we dragged our way through A-grade cement and returned to the railing carrying a ridiculous load of sediment on everything. Everyone changed into civvies and tramped out to the Grand Arch about midnight. Everyone was tired from the exertions of the cave, but as we made our way back up the hill, one obvious point could no longer be avoided: Water Cavern and its extension had to be surveyed.

Funnily enough, next day it was very difficult to find anyone who wanted to go surveying in Water Cavern. In fact, when you came right down to it and asked for numbers, there were only two people who didn't step back fast enough. Ian and I trudged back down the road, and into Imperial, ducking to avoid the tourist parties as we headed for Jubilee. Two people is not enough for a survey of this nature; it means that the survey book has to be dragged down into the mud while the survey is in progress and everything slows down. Sure enough, as soon as we reached the bottom of the plank and into the squeeze, the survey became a farce.

I had the instruments and I was in the lead. I performed a sort of side-stroke though the mud whilst lying on my back and balancing the instruments on my chest, with the end of the tape in one hand or in my teeth, whichever was necessary. Similarly, Coops lay on his back and inched forward feet first, keeping the book out of harm's way while holding the other end of

the tape. In the tightest part of the squeeze, I placed the tape on a roof projection and then tried to sight through the compass. I began to sink deeper into the mire. Mud crept over my shoulders and down my chest towards the clino, which balanced on a diminishing island of mud-free body. The air space between the mud and the ceiling at this point was about 15cm and a gale blew ceaselessly out of the cave. I rapidly tried to side-stroke out of the pool and up the mud slope, before the instruments died a horrible death. Somehow, Coops managed to keep hold of the book until he could shove it down inside his suit and force his way through.

We finally reached the easy legs past the mud speleothems of the northward trending passage. We were both freezing cold and exhausted by our attempts to swim in wet cement. After surveying up the climb and onto the start of the rockpile, we called it a day without much argument. For the fourth time in 24 hours, we dragged ourselves through the sump. The mud and water continued to trickle into the bottom; despite all of the traffic, the airspace was no bigger than before. Back at the railing we cleaned up as best we could and carried our (very heavy) packs out into the hot sunshine. In the summery conditions, we hosed the cement off our suits with the high pressure hose outside the schoolhouse. The walk back up to the hut almost made me collapse with heatstroke. It certainly didn't feel like the third week of spring. The drought continued, but for how much longer?

We were painfully aware that we had only surveyed a small portion of the extensions beyond the sump (called Watagate by universal acclaim). We were certain of one thing. The first rainfall would fill the sump and cut our explorations off. It was absolutely urgent that the survey continue. After returning from Jenolan on Sunday, phone calls went in all directions. Mark Staraj volunteered to take a day off work and continue the survey before the next weekend trip. Keir was also keen, as long as it was on the very next Friday so he could continue to Wellington straight afterwards. Now, I thought long and hard about this. I had a real psychological problem with doing that sump six times in a week. In the end, the promise of new cave won out. Come Friday, the drought still maintained its grip on the state, so at 6 in the morning there I was at Mark's place in Wollongong, ready to drive three and a half hours to Jenolan just so I could get muddy and cold. Ever wondered why people go caving? I really did have to question my sanity this day.

Arriving at the cottage at 9.30, we found Keir awake and ready to go caving. That really left us with no choice but to lug our gear in packs through Imperial again (this time we tagged along with a tourist group until the time came to drop off the back and shoot up the stairs to Jubilee). At Water Cavern, everything looked the same as before. While we had the sump exposed, Mark wanted to record the SUSS and SSS signatures in the mud bank above the plank. Apparently placed during the drought in the 1950s when the original trips happened, they represent a bit of history that is normally under water. Drought or no drought, that sump refused to dry up. We dragged ourselves through the sump and up the climb to our flagged rock. Starting from here, the survey was easy compared to the previous weekend. It merely involved a tight squeeze in rockpile with a whole series of short legs.

The cave became quite tortuous, and I got a roasting from Mark at this point. He was sketching, and I told him the rockpile ran basically north. He started his sketch on the southern edge of his grid, only to see the cave dart off to the east. When he started the next page, the cave went further east. Oh well, that's what happens in rockpile. My disorientation continued when we reached the room with a trickling waterfall (after 3 hours of surveying). I thought the cave turned from north to east at this point. It didn't of course; it was already heading east. In fact the cave swung to the south, and even showed signs of going back on top of itself. This was most disappointing from the point of view of a connection to Spider.

We surveyed to the top of the waterfall and flagged a station. That was quite enough for one day, we wanted to explore while we still had some energy.

Keir was adamant that on his first trip, he and Chris Norton had found their way into the room with the waterfall and climbed it into the big chambers later discovered by Ian and Terry. That makes the original exploration an epic trip, as the top of the waterfall is less than inviting and is already a long way from the sump. To push on into the minuscule serpentine squeeze above the waterfall would take real drive on the first trip. This squeeze was right at the limit of what Keir and Mark could manage, and we took some time to get through. Beyond that, to the south east as it turns out, lies a rift which ends in rockpile. We climbed above the rockpile to finally emerge in the fabled large chambers which I'd been told about but had not previously reached.

The large chambers are, well, large. They have been formed by collapse in a very extensive rockpile, so there is a lot of rubble on the floor. From the entrance rift, which runs into the floor of the north-west corner of the series, the chambers run both east and south for perhaps 50m. They are up to 25m wide, with a 10-20m high roof. There are many cracks and side passages in the walls, and the south wall is rockpile. This is the first dry section of cave discovered on the far side of the Watergate sump. The trickle of water that was ever-present in the mud and in the surveyed rockpile was last seen in the rift above the waterfall coming from the roof.

For the next three hours we systematically explored the walls of the chambers. There were many tantalising leads that choked off just when progress appeared to be possible. We concentrated in particular on the northern walls of the chambers, still looking for that connection to Spider. The northern side of the chambers remained obstinately impassable, despite our best efforts. However, on the southern side, we climbed into the rockpile beside the highest chamber. This rockpile turned out to be far larger than we had realised, as we climbed higher and higher, with a breeze descending on us from above. Finally, we lost the breeze when we were 20m above the chamber floor and therefore close to 40m above the floor of Water Cavern. There were still many leads to check out in the rockpile, but we were less interested in the southern leads than in a connection to Spider, and besides, we were all pretty tired. We called it a day there, vowing to return soon and survey from the top of the waterfall into the chambers.

By the time we had made it back through the sump (six times in less than a week for me) and changed into our street clothes, time was really starting to get away from us. We had been caving for eight hours, and been soaking wet for 7.9 hours in a strong breeze. No one felt particularly strong at this point, and the weight in the packs was a real burden. The mud-and-gravel-encrusted clothing sat like a brick in the packs. Mark weighed his pack as 8kg heavier after the trip than before. We soon gave up on the idea of washing the gear that night, all we wanted to do was have a long hot shower and go. Keir tried to entice us to go to Wellington for the weekend but Mark and I drove back his place instead, three and a half hours to Wollongong. By the time we arrived there a bit after midnight, it was one of the longest caving trips that I have done. Just to cap off a relaxing weekend, I went to work on Saturday to make up for lost time.

Of course, there was no third surveying trip to Water Cavern. With Christmas came the rains, and Watergate sump is full to the brim again. Given the lack of enthusiasm for returning evident in anyone who had been in the sump, it's hardly surprising that no more trips took place. Where does that leave the cave? Subsequently, the location of Spider Cave relative to the show caves was determined. The closest point of approach by Spider Cave is

Khan Passage, which ends 100m away from the point in Watergate where the cave swings away to the east. The change in direction when the cave enters the rockpile is striking, and the cave completely changes form at this point. This suggests that the cave development and the source of the water in Watergate are unrelated to Spider Cave. Rather, the cave seems to be climbing in a massive rockpile towards Aladdin/Glass/Rho Hole/Ian Carpenter Caves. Perhaps the apocryphal tale about a stream in the bottom of Glass actually holds some water! (sorry, pun mode cancel.) Whatever, there is a real need to return and survey the caverns above the end of the current survey. Who's going to volunteer for that job? We also need to check the co-ordinates of the tags for Glass, Aladdin and Rho Hole. There may yet be a northern entrance to the Show Caves.

Phil Maynard

Water Cavern and Watergate

Jubilee Cave, Jenolan, NSW

Surveyed 18/9/94 and 23/9/94 to ASF grade 5,4 by Ian Cooper, Philip Maynard, Mark Staraj, Keir Vaughan-Taylor

From	To	Tape	Compass	Clino	First Station				Second Station			
					←	→	↑	↓	←	→	↑	↓
J1604	WC1	4.73	5	-19	0	3	1	1.7	1.5	1	0	0.5
WC1	WC2	9.57	342	-13	1.5	1	0	0.5	0.3	0.8	0	0.3
WC2	WC3	2.13	348	-4.5	0.3	0.8	0	0.3	0.8	0	0.3	0.1
WC3	WC4	1.17	328	25	0.8	0	0.3	0.1	0.2	0.8	0.3	0.4
WC4	WC5	2.20	353.5	-7	0.2	0.8	0.3	0.4	0.5	0.3	0	0.3
WC5	WC6	4.57	344	20	0.5	0.3	0	0.3	1	1.1	0.3	0.6
WC6	WC7	11.82	48	2	1	1.1	0.3	0.6	1	1.5	2	1
WC7	WC8	3.26	330	12	1	1.5	2	1	0.1	2.5	1.3	0.6
WC8	WC9	4.05	59	2.5	0.1	3	1.3	0.6	1.5	1	4	0.8
WC9	WC10	5.13	344	60	1	0	4	0.8	1	4	2	0
WC10	WC11	3.05	356	-7	0	1	1	2	1	3.5	5	1
WC11	WC12	5.37	89	35	1.5	1.5	2	0.5	0.3	0.8	4	0.8
WC12	WC13	4.14	102	-5.5	0.3	0	1	0.4	1	1	3	2
WC13	WC14	2.75	98	-60.5	0	2	1.5	1	0.3	0	0.3	0.1
WC14	WC15	2.16	22	11.5	0.6	0	0.4	0.1	0	0.5	2	0.5
WC15	WC16	0.80	137	3	0	0.4	3	0.7	1	0	1	0.5
WC16	WC17	3.84	15	1	0.3	0.4	3	0.7	0.2	0.4	0.3	0
WC17	WC18	2.60	12.5	14	0.2	0.4	0.3	0	1	1	0.8	0.5
WC18	WC19	3.02	65	-8	0.2	0.4	0.4	0.4	0.4	0.1	0.4	0.3
WC19	WC20	2.06	85	32	0.4	0.1	0.4	0.3	0.9	1.5	4	0
WC20	WC21	3.90	200	65	1	1.5	4	0.4	0.5	0.8	0	1
WC21	WC22	2.02	170	49	1	1	0	1	1	0	1.5	2

Station	Description	Co-ordinates		
		X	Y	Z
J1604	Marked rock jammed in crevice on L wall	2782.20	7475.70	811.70
WC1	Roof projection at start of sump	2783.54	7479.97	810.16
WC2	5cm roof projection	2782.65	7489.25	808.01
WC3	Right wall	2782.67	7491.37	807.84
WC4	Roof projection on L side	2782.32	7492.37	808.33
WC5	10cm roof projection in squeeze	2782.54	7494.54	808.07
WC6	L Wall	2782.28	7498.83	809.63
WC7	Point of 30cm rock on floor	2782.38	7510.64	810.04
WC8	7cm s/tite low on L wall	2781.43	7513.68	810.72
WC9	Base of 3m climb	2785.26	7514.97	810.90
WC10	L wall above 3m climb	2785.11	7517.53	815.34
WC11	Point of flagged 1m boulder at start of rockpile	2785.55	7520.52	814.97
WC12		2789.81	7519.65	818.12
WC13		2793.56	7517.94	817.73
WC14		2794.83	7517.47	815.33
WC15	L side at end of rift	2796.03	7519.21	815.76
WC16	Passage junction	2796.43	7518.53	815.81
WC17		2798.21	7521.93	815.87
WC18		2799.27	7524.22	816.50
WC19		2802.19	7524.87	816.08
WC20	Point of rock in centre of chamber	2803.92	7524.64	817.17
WC21		2803.04	7523.25	820.71
WC22	Flagged at top of w/fall	2802.98	7521.92	822.23

Puzzle

Brush up on your first aid knowledge with this little teaser from the *St John Senior First Aid Workbook*.

1 Fourteen symptoms and signs of head, neck and spinal injuries can be found in the puzzle

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

WATERCAVERN

JUBILEE CAVE, JENOLAN, NSW

Time Out in Wiburds Lake Cave

Recent explorations at Jenolan

Prelude (or Time Out beforehand) - 16 March, 1991

As Trip Leader for this one I had decided to explore Wiburds Lake Cave; but this time via a look at the Main Sink a bit further north at North Wiburds Bluff. Everyone thought this was an excellent idea as the weather was brilliant and a walk up the valley would make a lovely stroll.

When we reached the bluff we found the Jenolan River was actually sinking a little further north - 100m upstream and therefore on the eastern side of the valley. Normally it sinks at the base of North Wiburds Bluff on the western side of the valley. I suggested that the others wait while I had a quick look inside Watersend Cave. This is the only registered cave in the bluff and its entrances are merely 5m or so from the normal sinking point. Apparently, there is often water at the bottom of this cave but not so on this day. I climbed right down to the bottom from the J244 entrance where there was a small slot. This was obstructed by rocks but a cool breeze was blowing through and I could see a chamber on the other side. After 5 minutes I had cleared it and squeezed through. Once through, I found a small hole going up and daylight. It was merely a connection to other entrance. I called for someone to peer into J245 to confirm this but raised no answer. So I backtracked out of J244 and emerged to find no one there.

Ha, ha! I thought. This must be a Mike Lake prank. I bet everyone is hiding behind the bluff behind me waiting for me to blunder around calling their names. So I'm not going to do that.

"Okay - everyone come out now. It was really funny, trust me."

No answer. No one came out. No glimpse of cavers. No bloody sound of them. Absolutely nothing at all.

"Shit!, they've gone and left me!"

Although I had a view all the way to Wiburds Bluff I could see no one.

I decided that if they wanted to abandon their trip leader then I would discover some caves, take all the credit myself, and so they'd be really sorry. I set off to discover more caves than J Wilson. No, make that JC Wiburd.

I started with North Wiburds Bluff. Straight away, pay dirt - a cave soon to become J312. It looked like a wombat hole. Some months later after some digging I squeezed through into a sit-up chamber and confirmed that yes, it was a wombat hole. I let the wombat think I couldn't see its bum and proceeded to squeeze out ASAP. I refer you to Michel De Leeuwe for the follies of cohabiting with a wombat (viz. J315 Wombat Terror). This cave would have been the centrepiece of my infamous article "Maps of Nowhere" (*SUSS Bull* 31(4)) but was too far up the valley to survey in the same day (especially with a wombat in it).

So, feeling mildly pleased I moved onto Wiburds Bluff where I felt sure things were going to get bigger and better.

One of the caves rediscovered was J56. I crawled into the extension found in 1979 by Mike Lake and Ross Franklin which ends at a slot to streamway with a strong breeze. Very intriguing. Also very tight. And also fraught with some danger due a large teetering rock directly above the slot. Oh well, another day, another year.

Also I found a very strongly draughting hole under a boulder which, although I could not find a tag, I presumed this must be the J58 entrance to Wiburds Lake Cave. This entrance to WLC is supposed to be a bit tight and at creek level.

But J58 it was not.

Time Out series - 27-28 January, 1995

David Jackson, Don and Andrew Matthews, Helen Casby and I wandered up the valley past Wiburds. Originally we were intending to do a 12 hour trip into Spider Cave but that is another story (albeit a short one) so now I was headed north to check a confusing reference to an untagged cave with water in it near North Wiburds Bluff but on the east side of the valley. Either the author or we were confused as there is none with the exception of Watersend Cave.

On the way up there we spent some time at the ruined hut on Rowe Flat where Don said the chimney looked a goer and Andrew proved it wasn't. Further north there is a tiny isolated outcrop of limestone on the east side covered with solution features.

On the way back at Wiburds Bluff Don called me over to an entrance.

"Have you seen this Mark? It's J58 and leads into Lake Chamber in Wiburds"

"No. That's interesting. There's an entrance I found near here that I assumed was J58 but obviously isn't. Lets look for it."

As a return favour I showed the Matthews J56 which had almost disappeared under drift. Clearing it away we all entered and Andrew gave the squeeze at the end a thorough try out but did not quite make it. On the next trip (18-19 February, 1995) they went back with Chris Norton who managed to crack it but unfortunately was confronted by impenetrable rockpile.

We resumed looking for "my" entrance. A short while later it was found and poked at. Sure enough a strong breeze blew out. Sure enough it was tight. We all searched for a tag while Don, then Andrew then I made an attempt to go in. No tag could be found. From the entrance you can see across into a small chamber. However, going directly proved too tight. To the right was a small passage that might also connect. After a little digging I gave this a go. With some effort I felt I could squeeze through (after breathing out) but outside it was now night and I was down to using the remaining light in my Petzl. I decided to wait for Ian who had been familiarising himself with Wiburds. He'd probably know if it was new or not.

Next day with Ian, Robert Fairlie-Cuninghame, David Connard, Kali McLaughlan & Christian Lees we went back. Ian had a look and didn't recognise it. He proceeded to make a couple of abortive attempts to get in. All of a sudden there was a yell from the far side and a light could be seen shining in from ahead. Obviously there was another way in so we rejoined the others.

Where the slope behind this entrance met the edge of the bluff there was a small hole visible. This drops 3-4m and connects with the other entrance. This entrance also appeared tagless. After you drop onto a little ledge one can see a short crawl heading into the hill. From this

comes the strong breeze that flows on past the hole entered in order to come out of the lower entrance behind us. The crawl led past a boulder to a descending rift about 5m long. At the far end, the floor disappears into a narrow vertical slot that appears to drop 6m to dirt floored passage. We asked Robert to fetch my hammer as we began to open up the hole. Ian squeezed on a bit past cave coral-encrusted flowstone and found a wider hole. I did a little bit of hammering and ceased when Ian decided to descend. After a couple of metres Ian began to get squeezed into a narrow crack that would leave his feet dangling 3m off the floor. This wasn't very sensible so he retreated with some difficulty. At his direction I opened up the squeezey rift a bit more. As he started to come back he noticed that he could go up. After 2m it opened out and on the other side was an open 6m pitch. Robert and I debated donating a Mars Bar to help find the bottom of the pitch from the inside but as Ian said if I passed it to him to drop he would eat it first we decided against it (an empty wrapper is no incentive).

It was time to take the others on a J58/92 round trip as promised so we left intending to have a go later. On the way out I noticed a tiny pocket in the coral encrusted wall about 1.5m up a collection of very small bones in old cave fill. This was almost directly over the floor hole and might prove interesting.

We all squeezed into J58 and I brought up the rear. A short distance inside you clamber down to a spacious chamber about 6m high. This area is noticeably much colder than anywhere else in WLC and people were shivering a bit while waiting for others to move on. Probably a combination of lower air temperature, breeze and high humidity. On the way in a largish passage branches off to the north. Before long there is a tight bedrock squeeze. Beyond people were queued up for the low flattener that joins Lake Chamber. At this point is an obvious cobbled stream passage leading into the flattener. While waiting I explored this upstream 5m to where it ended at a small chamber.

Soon enough we were all out into Lake Chamber, and after the others went a short excursion down 22 Passage we left. Back outside Ian and I prepared to try and link WLC to the new entrances via the 6m pitch. Ian would go back to the top of the pitch and blow on his whistle. I would try to reach him. Being a sensible person myself I realised if I never heard his whistle I would not know whether that was because it was a physical impossibility or because he had given up and gone back to the hut. A time limit had to be set.

"Ian. The time's now.....? Shit! I've lost my watch!" Oh no.

I had no idea where my watch was. I entered J58 with Kali and quickly searched as far as the first squeeze. No watch. I went back to the north branching passage and could faintly hear the whistle. About half way along this a side rift heads back to the surface. I could hear Robert FC very clearly and after some calling could see his light shining into the rift. At the time I did not know where he was and still could only faintly hear Ian. Robert was actually directly over the floor hole where the breeze was blowing through, just before the squeeze that Ian had passed to get to the 6m pitch just 3m away. So I continued on to where the passage became a crawl. Just before it ended in rockpile was a way to the left amongst rocks. Up twice from here and I was in the upper part of a rift. I could now even speak with Ian. Further along was a floor hole carrying a breeze into a large rift some 1.5m wide by 4m high. Half way along and there was Ian at the top of a climb. We'd made the connection! An intriguing 1.5m deep pit split this passage into two.

I asked Ian to remain as a voice beacon for the way back. I returned the previous rift and continued along upwards and then it dropped steeply down. Back and to the left it dropped

further still to a thin cross rift that plunged a further 3m down. This proved to be a bit dodgy solo so I left it for another day. Back in the main rift near its far end was a hole to the left opening onto a chamber. In a corner of this another constricted hole sloped down into a passage that dropped a metre and a half into a sprawling chamber that varied from 1-2m high. I looked quickly around this, the largest chamber so far. Out of earshot and not certain just how many twists and turns I had made, I felt it was time to retreat.

The 1.5m drop proved to have no means of climbing back up. A bit of a setback really. As a last desperate measure I ran at it from 3m away and managed to jam myself into the constriction at the top - thus I escaped. A moment of uncertainty in the rockpile had me calling out to Kali who would acknowledge with only unreassuring bird noises. A few English directions and we were back out telling Ian of what had been found.

The others helped by combing the hillside with me back up to J92 but no watch was found. Back in I went and searched until finally I pushed back through the flattener on the way back to J58. Meanwhile Ian and Kali had come in to help. I passed the flattener and reached the other side of the squeeze I had looked at before from the J58 side - nothing. Where was it? I remembered crawling up a streamway, which was nearby. So I dropped back into this and began crawling. Ahead in the gloom at the final chamber something metallic gleamed. Hooray!

Reunited with my watch I left.

More Time Out - March 18 1995

This time David Jackson and I returned to Time Out to complete exploration. As we went through the short rockpile at the start Dave pushed along at a lower level while I climbed into the back end of the main rift. Dave managed to join the main rift via a tight squeeze near the turnoff to the new entrances. This variation is not worth remembering.

We entered the rift leading to the new entrances and noted on the way out a low squeeze hole near where we had dropped in. Dave dug it a little and squeezed through. Shortly after he exclaimed there were footprints. After a brief description I had a hunch. I went back along the main rift and continued to the chamber where I had halted last time. Sure enough as I reached it there was Dave. This passage begins almost opposite the 1.5m drop and tapers at its far end where Dave had squeezed through. A horizontal, too low fissure sloped down some 5m to nothing conclusive. This would require quite a bit of digging if anyone cared. We went to the other end of the chamber to where a low, short squeeze led to some passage. This terminated at an aven, which itself ended 4m up.

Further back was a hole which Dave explored. Initially he reported it didn't go, but - wait, hang on - yes! I should come and join him. So I popped through the hole into a 2+m high chamber. Dave's face and light are peering down through a decidedly small looking hole in the ceiling. Dave motioned I should climb up. As the chamber was bell-shaped, chimneying was not possible and the climbing was overhung. After a few frustrated attempts I had a quick look around to see if there wasn't another way. All the while Dave was suggesting in puzzled tones that it really had been quite straightforward. This didn't include any actually useful hints but an idea came to mind. By this stage I had decided Dave must be a really hot climber after all. Recovering from this surprising idea I gave the climb another go and this time including a jump manoeuvre. Unfortunately as I threw my hands up from one position in order to wedge beneath the hole one of my fingers snagged and almost broke. Hanging there and feeling sorry for my wrenched finger Dave informed me of a significant oversight.

"I remember it being up a slope'.

"Well, how can that be? This is as vertical as it gets!"

"Ah - oh that's right. I came up via a hole over here. Not that one."

Not impressed. But relieved. And pissed off.

Above there was - surprise, surprise - yet another rift at the top of which was a large slice of rock that had detached itself from the ceiling and plunged like a cleaver into the floor. Other pieces of unstable and freshly broken rock lay around about and an inspection of the ceiling did not inspire any confidence.

"Gees. A Piercer!"

"Yes definitely a Piercer", agreed Dave. "I think Warbo Cave must be somewhere above."

Below the Piercer, holes dropped and dropped again. Down below, Dave was peering with frustration down a 4m drop. He retreated and looked down another hole hoping to find the magic staircase. I looked down the rift and saw the much deeper gloom beyond. I wanted it. I climbed down the rift.

"How did you get down there?"

"I climbed down the rift."

"Oh".

"How?"

Before long Dave had joined me.

"How do we get back up?"

"Ah, no problem. That's a question for the way back."

We were now standing on a saddle point. In front, a good sized chamber where the floor disappeared into holes behind rocks jammed at the bottom. Behind us, an offshoot of the chamber plunged into a pit. Dave started poking around in the floor holes while I crossed the cavern to the far side. Here a crawl led off. When Dave joined me I pointed out the footprint at its entrance. We were back into known territory.

We decided down would be the more interesting way to go so we left the crawl and went to the pit behind the saddle. This dropped away to where a 2m climb down dropped into passage. I started to climb down.

"How are we going to get back up?"

"Ah, no problem." I said from the bottom.

Once all down Dave went right and I followed. Dave's quickly reached a rockfall chamber after passing another Piercer. With passages this big we had to be in River Section. I remembered that part of it joined Lake Chamber via a squeeze...somehow. Dave now followed me in the opposite direction. Through a low bit that contained a streamway junction and then on until a rockfall. My Petzl was getting dimmer. A quick poke around revealed no way on to Lake Chamber (this was later shown to be of no great surprise as I was heading away from Lake Chamber, and in fact the way Dave had gone at first was the way to go).

It was time to head out. The first climb proved to be straightforward. Dave struggled up the second and made loud bleating noises about the squeeze one had to get into somehow.

"What squeeze, David? There isn't one!"

"This one!" he exclaimed while giving a good impression of going through an awkward squeeze.

Fair dinkum. I'd remember a squeeze if I had to go through it. Especially if it was part of negotiating a 4m drop. With some difficulty, I climbed up to join Dave, who was quite impressed at how I failed to notice there was a squeeze at all.

Later I insisted Dave have a go at the climb through the hole where I almost broke a finger. Happily, he too couldn't climb it.

Time Out from surveying - April 26 and 28, 1995

Ian Cooper, Dave Jackson and myself had been committed to a week's hard labour surveying WLC. Come Wednesday Dave and I staged a rebellion. We wanted to explore River Section and find where we had got to from Time Out. I'll include only a brief report of this as it is a part of another trip report.

Ian muttered all sorts of unhappy noises but realised that one-man survey teams are quite impractical. Therefore with a mud map of the River Section passages we quickly reached the main western-trending passage which is shown ending in rockpile. Just near the end I thought we had reached the first climb back up towards Time Out. But it wasn't.

Confused, we headed back towards Lake Chamber. I pointed out a large Piercer type rock to Ian which: "Looks a lot like this rock we had found but this is definitely not it. Ours was taller and more sharp-looking."

Dave and I decided we would have to go back via Time Out. Ian was going to spend some time on the surface looking for the elusive entrances J227 and J237. On the way in Dave checked the skinny cross rift which dropped back into the sprawling chamber. We bottomed the 4m climb and decided to thoroughly explore the chamber before descending the pit into what should be River Section (somewhere). The first side passage dropped me back to River Section somewhere. Dave dropped rocks down the holes at the base of the chamber and these also fell out of the roof into the River Section somewhere. We moved onto the crawl with a footprint and found ourselves exploring a large upper series for the better part of two hours. At one point we were sitting over a part of the River Section we knew.

Finally we climbed back down into the River Section. After just a few metres in one direction there was the Piercer-type rock we had seen on our first visit, and, well, if it didn't make a liar out of me it was also the one I pointed out to Ian as not being the one on our first visit. Having sorted out where we were we went to explore things further. At last we knew all there was to know about Time Out...or did we?

Two days later we were searching in and near J58 for the missing entrances. I remembered the side rift that I got voice and light contact with Robert (but ignored to track down Ian and his whistle). So I asked Ian, who was already inside J58, to go and climb into this rift while I went back to the new entrance to re-establish contact. Meantime Dave was still checking for entrances.

We did this and lo and behold! Ian has found an estimated 7m pitch. Ian starts to try and find a way down. His voice gets faint. It seems to me this may be another route into the rift

with the 1.5m pit in it. I have a plan. I'll get Dave to go into Time Out and go to this passage and then we'll know not to bother bringing a ladder next time.

I call out loudly to Ian. Dave answers from below! Dave followed Ian in. Dave is now talking to Ian. I try to tell them my plan. They are still talking and don't hear me. I try again. The next and last thing I hear is that they want me to meet them in Lake Chamber. The plan is aborted.

Time Out in history - 1973 and 1990

"To the Bottom of J52" by C. Norton in *SUSS Bull* 31(4). Trip report for September 22-23 1990.

Chris describes exploring an entrance located by Keir Vaughan-Taylor and emerging from another higher up. This is quite like the 2 new entrances although Chris notes the upper one was tagged and he did not notice passages leading into Time Out. (Tagged! - perhaps one of these entrances is the missing J237 or J227, however much time has been put into spotting tags on the new entrances without success.)

Trip reports by A. Fairweather as follows:

March 25-26 1973 in *Oolite* 5(1),

March 25-26 1973 in *Oolite* 5(2) [same trip as above!],

March 27-28 1976 in *Oolite* 9(1).

These all seem to describe the initial section of Time Out which seems to have been found via a 20ft ladder pitch into the rift with the 1.5m deep pit. Further passage in two different directions was connected back to the 20ft drop. I guess this means via the rockpile through which I first entered it and via the large sprawling chamber. There is no indication that the connection through to River Section had been found. The 20ft drop seems likely to be Ian's 7m pitch.

Finally it is possible that Henry Shannon (UQSS, SUSS) has also visited a part or all of this section sometime during the 1960s. This will be better understood when SUSS receives additional maps from Henry in the near future.

Mark Staraj

Congratulations!

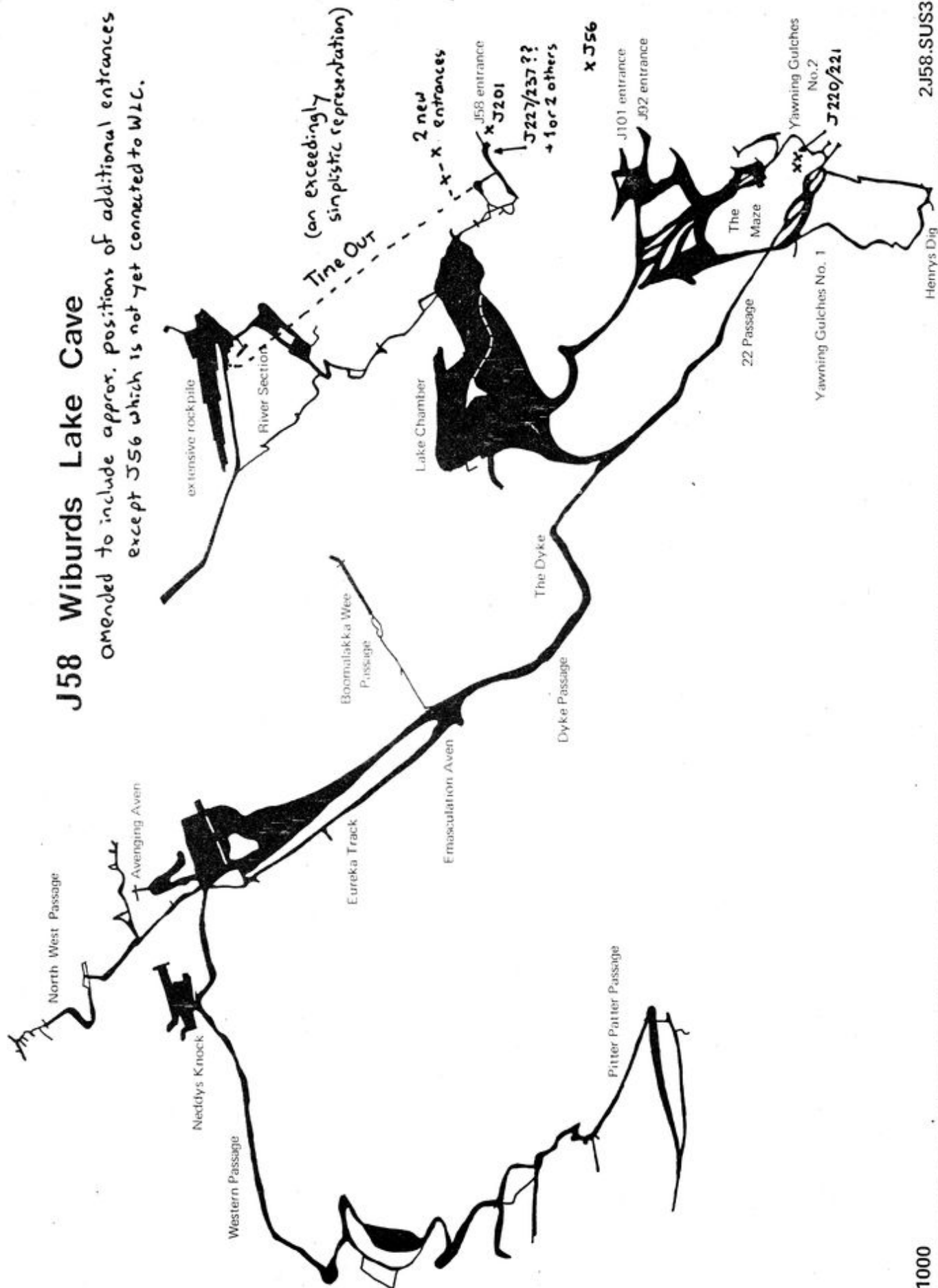
We note these recent arrivals on the Society scene, in order of appearance:

- Kelly Elizabeth Vaughan-Taylor
- Matthew Staraj

Congratulations to Keir, Sue, Mark and Wendy. Our thoughts will be with you throughout the sleepless nights ahead.

J58 Wiburds Lake Cave

amended to include approx. positions of additional entrances except J56 which is not yet connected to WLC.



1:1000

2J58.SUS3

Skeletons, a Hookah and Rubber Body Suits

The Wellington Cave Diving Project

Now that I've either got you interested, or you're thinking "What is he on about?", I'll reel you in.

Wellington Caves, NSW is the location of our project. The objectives are to survey, photograph and further explore the underwater extent of this unique jewel of the underworld. In 1994, eight trips were made to Wellington Caves. Most were held over two days, some three, and a list at the end of this report details the trips and the people who have been involved in the project directly.

The project was approved by the Wellington Caves Advisory Committee, and following a photographic submission to Australian Geographic and a meeting with magazine staff, sponsorship was gained which boosted the morale of all concerned.

Through the course of the year there have been many other smaller but important projects going on. Water sampling, temperature and pH measurements have been made in McCavity, Cathedral, Gaden, Big Sink and Water Caves for Julia James. Above ground, surveying has been carried out to help determine whether some of the caves could be linked together. We have been slowly cleaning out rubbish from some caves that have in the past been used as rubbish tips. And we have also rescued a possum, which we believed to have been disoriented and sick in the cave, only to find out next trip that the cave was its home (I could have sworn that the look on its face the next time it saw us was "Oh no! Not this lot again!" before it quickly disappeared).

The project has definitely been dominated by photography and diving - just ask anyone who has had to lug the camera and diving gear! The team accumulated about 100 hours underwater over the eight trips. Mark Spencer and Neil Vincent were the main photographers, working above and below the water, with additional dry photography by Rob Featonby. With each of them, and visiting photographers such as Becca Saunders, all shooting multiple rolls on each trip, the number of photos taken must be well over a thousand. Only a small percentage have met with their high standards, though, with that *perfect* underwater shot eluding Mark and Neil, and Rob still working on the definitive shot of a diver below the McCavity entrance.

During the many hours of caving and cave diving there has formed a very close camaraderie between the core team, as well as others who have spent time at the caves. Over the eight months many discoveries were made, some very exciting.

The discovery of an adult and two infant animals believed at first to be carnivorous marsupials holidaying from Tasmania was made on the mud floor in the wet part of McCavity. Several underwater shots taken of the remains were shown to Michael Archer, a palaeontologist at UNSW, with a report coming back that the remains could be that of three Tasmanian Tigers (*Thylacinus cynocephalus*). After several more dives to photograph and take measurements it was found necessary to remove a small segment of jaw to have it directly identified. They are in fact the remains of three Eastern Quolls (*Dasyurus viverrinus*). A little bit of a letdown, but still it urged everyone on. The Eastern Quoll is rare, and possibly now extinct on the mainland.

Another experiment undertaken was the placing of a "mop trap" (thanks to Peter Horne for the idea) in the underwater section of McCavity known as the Hanging Swamp. After several months the trap was removed, and examined for fauna. The critters found were sent to Wolfgang Zeidler, Senior Curator of Marine Invertebrates at the South Australian Museum. His report was quite exciting to all:

[The trap] contained lots of ostracods - small "bivalved" crustaceans, a few cyclopoid copepods (tiny planktonic crustaceans) and a couple of specimens of an isopod crustacean belonging to the Asellota [family]. All of these kinds of animals are typical of cave fauna, although they are not well studied in Australia. I wouldn't be surprised if they were all undescribed species.

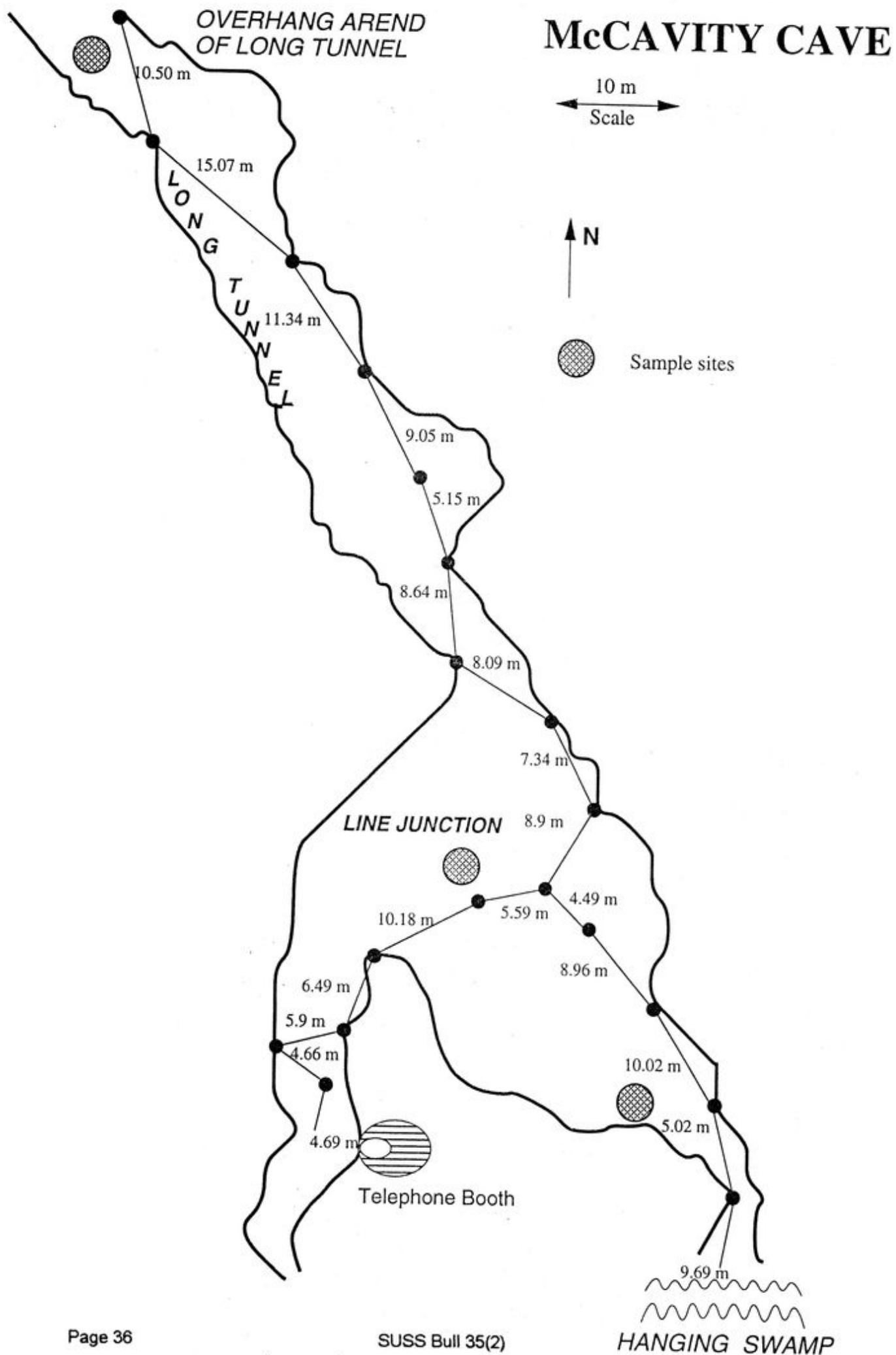
With these results and Neil Vincent's sighting of a creature (possibly a syncarid) on the mud floor near the skeletal remains, further investigation of the fauna will continue in 1995.

Wellington Council provided us with accommodation during the trips at the Wellington Caves Holiday Complex, managed by Dale and Janelle Harris who have been wonderful hosts throughout the year. The assistance we have received from the guides has also been tremendous.

There were a few minor mishaps - blows from falling rocks (one which broke Mark Spencer's brand new caving helmet - serves him right for wearing it), a blow from a falling diver (luckily there was another diver behind to break the fall, otherwise he would have landed on me!), an O-ring failure on the hookah while three divers were in the cave, and Barry Pawsey's high pressure hose rupture while diving the far end of Long Tunnel (an incident he readily managed with his twin redundant rig). The most dangerous situation probably arose when someone accidentally ate one of Rob Featonby's rissoles - their battered body being reportedly found in the emu pen later that night. And 34 tourists are still undergoing trauma counselling from being terrified when three of us came out of Buggery Hole in Cathedral Cave after taking water samples.

All jokes aside, the eight trips so far have been very productive and have been a learning experience for all. I don't think we've set up the ladder into McCavity the same way twice - especially after they cut the introduced trees down. The trees were protecting the moss at the cave entrance that we had been careful not to damage, but the moss is now dying from sunstroke! A great amount of effort, planning and work has been put into the project by many people, and it has been a great experience working with everyone (if you call doing what you love work!), but now we'll see what 1995 brings. I look forward to seeing everyone again and some new faces from those poor unfortunates who haven't yet experienced a Wellington trip. Old or young, come along. The youngest on the project is aged only 10. Sean and his sister Danielle have been on four trips and will be back for more this year.

Gordon Vincent



Wellington Cave Diving Project 1994 Overview

Participants:

- Core Team:** Rob Featonby, Merv Maher, Greg Ryan, Mark Spencer, Keir Vaughan-Taylor, Gordon Vincent, Lynette Vincent, Neil Vincent, Sean Vincent, Greg Wilkins
- Others:** Steve Arnell, Ron Allum, Kim Cohen, David Eddleston, Alf Goddaer, Michael Lake, Tony Little, Alan McLennan, Honor McLennan, Neil McLennan, Maria Maher, Paul Mannion, Phil Maynard, Barry Pawsey, Jill Rowling, Becca Saunders, Norbert Schmiedberg, Anna Sedlak, Marie Smith, Lachlan Vaughan-Taylor, Sue Willis, Armoan, Glenda.

If I have missed anyone out, I apologise for doing so. Many thanks to everyone who has been involved in the project so far.

Dive Register

Unless otherwise indicated, all dives referred to are in McCavity, and the time underground refers to the time spent by the main party in Limekiln/McCavity.

Trip 1

30/4/94: 8 hours underground

Dive 1: 1.5 hours. Photographic dive concentrating on wide angle shots.

1/5/94: 8 hours underground

Dive 2: 1.5 hours. Photographic dive, getting close-ups of decoration and bone remains

Dive 3: 1 hour. Surveying.

Trip 3

18/6/94: 7.5 hours underground.

Dive 6: 1.5 hours. Surveying.

19/6/94: 7 hours underground.

Dive 7: 1 hour. Surveying.

Dive 8: 1 hour. Survey sketching and line laying.

Dive 9: Anticline Cave. 0.5 hours. Photography in Anticline Cave and examination of the sump entrance.

Trip 2

28/5/94: 6 hours underground

Dive 4: 1.5 hours. Photographic dive, using more strobes and trying some strobe painting.

29/5/94: 6 hours underground

Dive 5: 2 hours. Photographic dive, using a tripod and a long exposure. Some measurements of bone fragments were taken.

Trip 4

23/7/94: 9 hours underground

Dive 10: 1.5 hours. Photographic dive getting promotional shots of the Australian Geographic flag underwater. Water samples, temperature and pH measurements taken.

Dive 11: 1.5 hours. Passage dimension measurements at survey stations.

24/7/94: 9 hours underground.

Dive 12: 1.5 hours. Photography.

Dive 13: 1 hour. Surveying.

Trip 5

27/8/94: 6 hours underground.
 Dive 14: 1.5 hours. Photography, stills, video.
 Dive 15: 1 hour. Video.
 29/8/94: 6 hours underground.
 Dive 16: 1 hour. Video.

Trip 7

29/10/94: 9.5 hours underground.
 Dive 21: 1.5 hours. Photography, water sampling.
 30/10/94: 10 hours underground.
 Dive 22: 1.5 hours. Photography.
 Dive 23: 1 hour. Introductory dive.
 Dive 24: 1 hour. Surveying.

Trip 6

24/9/94: 10 hours underground.
 Dive 17: 1.5 hours. Photography, water sampling.
 Dive 18: 1 hour. Dive for CDAA divers.
 25/9/94: 9 hours underground.
 Dive 19: 1 hour. Surveying.
 Dive 20: 1.5 hours. Photography.

Trip 8

26/11/94: 5.5 hours underground.
 Dive 25: 1.5 hours. Photography.
 Dive 26: 1.5 hours. Surveying.
 27/11/94: 6 hours underground.
 Dive 27: 1.5 hours. Photography.
 Dive 28: 1.5 hours. Surveying.

Bendethera

10-12 June, 1995

Participants: Ian Cooper, David Jackson, Stephen Keenlyside, Carol Layton, Phil Maynard, Keir Vaughan-Taylor

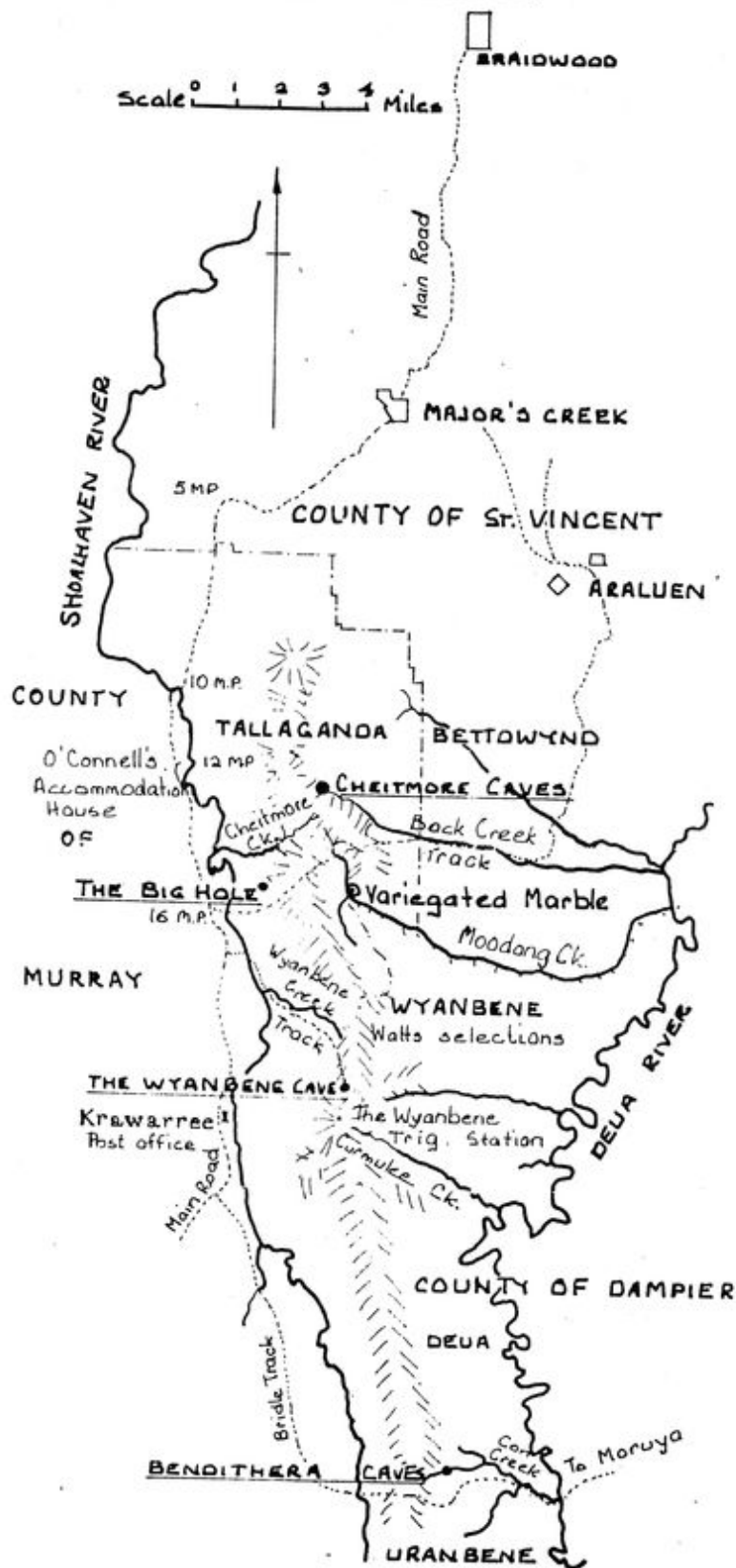
Nestled amongst hills in Deua National Park is a lovely caving area that SUSS unfortunately doesn't get to much. If you can imagine a flat grassy camping spot beside a lyrical river with lots of firewood, then you may wonder why. One reason is that you need a four wheel drive vehicle and maybe another is that it's a decent drive - it took us over five hours.

Serious Bit

Bendethera is one of a related group of caving areas known collectively as the Upper Shoalhaven Karst Region (see map). These are, from north to south, Cheitmore (or Cleatmore), Marble Arch, Big Hole, Wyanbene and Bendethera. There are two routes into Bendethera, both of which require four wheel drive. Our chosen route was via Moruya, which is on the coast south of Sydney. Once you pass through Moruya, it's fire trails all the way to the old stockyards where we camped next to the intersection of Con Creek and the Deua River.

The caves at Bendethera are located on Con Creek at the base of a spur. This is part of a single, well-defined ridge called the Minuma Range with the caves at an elevation of 440 to 600 metres. As with the other areas except the Big Hole, the limestone is of late Silurian age. The cliff forming orange sandstones (late Devonian) sits unconformably on the limestone. On the geological maps the true extent of the limestone bodies is not shown and therefore there are likely to be caves that have not been discovered yet.

Sketch showing position of
WYANBENE CAVES



WYANBENE

DRAWN
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19.2.67

PENDETHRA MAIN CAVE Plan

BD 1

C.R. 437207, Snowball 1:25,000

16/5/83

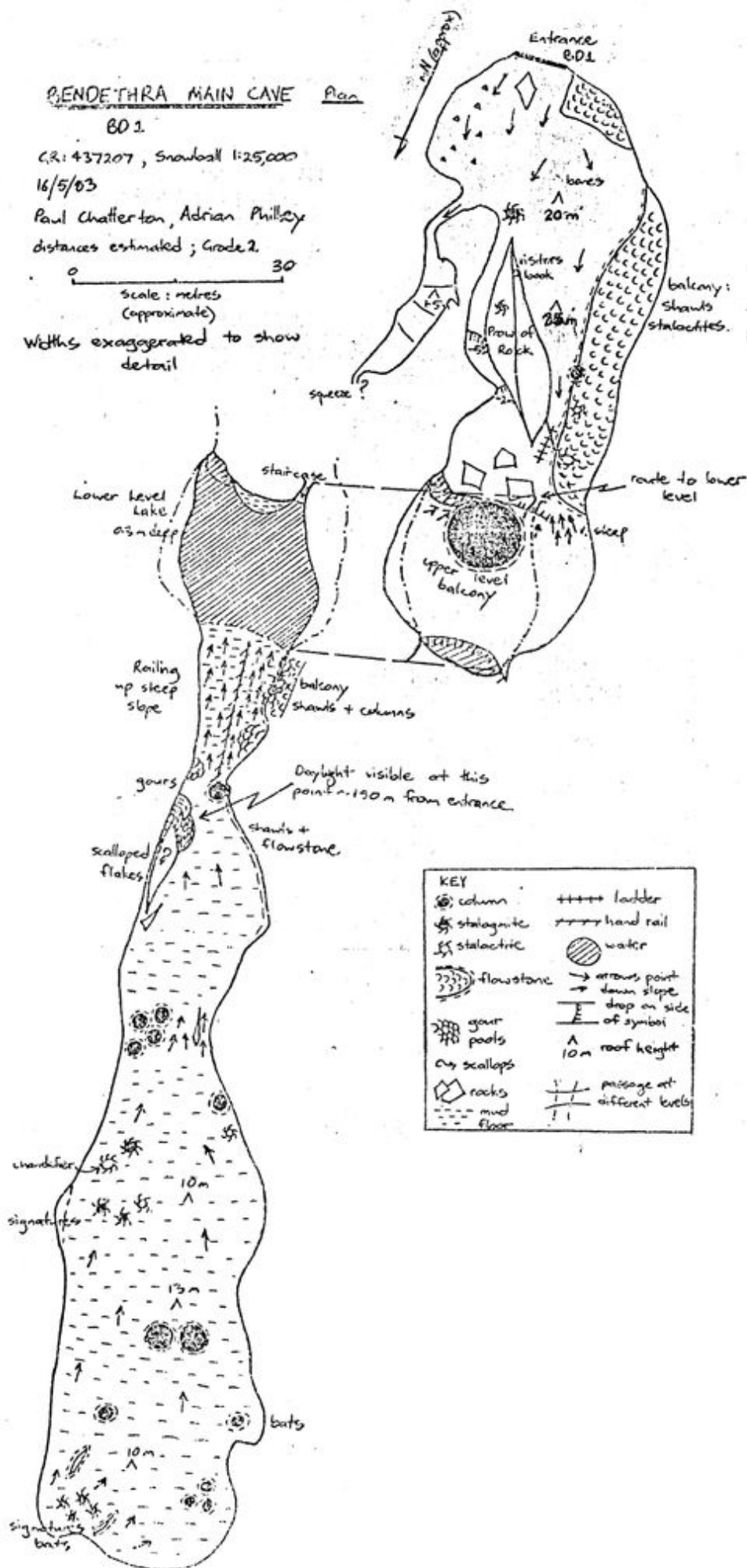
Paul Chatterton, Adrian Phillips

distances estimated; Grade 2

0 30

scale: metres
(approximate)

widths exaggerated to show
detail



The main cave of the area, imaginatively called Main Cave (BD-1) is located some 300-400m up the range from the main walking access track to the area. A smaller track climbs steeply to the entrance. It would have been a stunning cave a long time ago because it is full of formations, but these are now dry and unfortunately vandalised. The cave is still amazing because in an area where most of the caves are tiny, this one is relatively large. It is horizontal with a large cross-section running directly back into the hill for some 200m.

Not-So-Serious Bit

As I said earlier, it was a bit of a drive to Bendethera on Friday night but we got to our destination around midnight. This was earlier than I expected because I anticipated at least one breakdown (we were travelling in Keir's trusty Subaru) and it was all smooth running. The dirt roads were very steep in places but had recently been bulldozed. This may have been a disappointment for Keir but was a relief for Phil who was driving the other vehicle, a borrowed late model Subaru.

Once we got to the stockyards, we all piled out of vehicles to begin the age-old ritual of selecting sites and setting up the tents. I found this difficult as I had neglected to pack the pegs and poles for my tent. Life had been extremely busy prior to the trip. Despite this setback, sleeping in the open for the weekend ended up being very enjoyable, causing only a frostbite-affected nose. Thank goodness I remembered my sleeping bag! I had some concern about the weather and so I began negotiations about whose tent I should rush to should it rain; but fortunately the weather for the entire weekend was glorious. (Ian was relieved but was too polite to say so.)

Saturday was spent exploring the side of the Minuma Range where the caves were reported to be. Since there is a well-worn track to the Main Cave it did not take long to find it. After Main Cave, we didn't get to do any more caving that day. Getting about on the will was slow because where the limestone outcrops there is a dense cover of sapling-size wattle. It scratches, too. Or at least, that's our excuse. Maybe other factors contributing to the late start were coffee drinking (Keir) and frisbee throwing (the others). Late starts are compulsory in SUSS to ensure a successful and enjoyable trip (it's in the Constitution). It is such a beautiful scenic area the I didn't mind at all not being underground.

At the very end of the day we lost Phil in the thick bush and were starting to think that he was gone forever after lots of fruitless blowing of whistles. When he finally turned up, he reported finding an actual untagged cave entrance pitch. Plans were made for the systematic exploration of the cave that Phil had discovered. So on Sunday, a fun morning of more trudging about the hill being scratched into a million pieces as we returned to push this cave. It stopped less than 10 metres down after turning a corner. Keir was so excited that he didn't push the cave with the 'A Team' but went looking elsewhere for more caves. None were found. Apparently, we searched the one part of this limestone area where there is an absence of caves.

I enjoyed the view and the bush (once off the limestone) and am certainly keen to return to Bendethera. Keir wants to return too, but he also wants to tempt fate by approaching Bendethera by the other route that is reputedly far scarier. On the way home near Kiama when Keir wasn't expecting any vehicle problems, his Subaru started to make loud, serious, rhythmic noises from the vicinity of the back axle. Keir wisely chose to ignore them, and thankfully made it home.

Carol Layton

Mammoth Strikes Again!

Discovery of New South Extension extension

Also known as
"Lies, damn it! Lies!",
"Wiburds - the fun continues",
"The Curse of Twiddly-Om-Pom"

Jenolan, 8-14 July 1995

Participants: Sue Bonar, Rob Collins, David Connard, Ian Cooper, Simon Cruden, Brett Davis, Robert Fairlie-Cunninghame, Charlie Feletar, Willow Forsyth, Trica Grimes, Brian Hood, David Jackson, Racheline Jackson, Sara Lee the second, Merv Maher, Andrew Matthews, Phil Maynard, Sebina Muller, Hilary O'Byrne, Angela Parkes, Martin Scott, Mark Staraj, Lynne Teo, Keir Vaughan-Taylor, Lachlan Vaughan-Taylor, Dani Vincent, Gordon Vincent, Shaun Vincent, Manfred Walter, Sue Willis

What an epic trip!! Situated right in the middle of the mid-year holidays, this was probably the most well attended SUSS trip in a long time, with over 30 people dropping in over the entire week (with even more people than either of the accidental double bookings/permit date stuff-ups at Jenolan with UNSWSS earlier in the year). Much of the activity was on the first two days, with just 6 people remaining by Monday and 5 people for the remaining 4 days. A brief trip list of the week is as follows:- Saturday: Spider Cave survey trip, Glass Cave tourist trip, Imperial dive; Sunday: Wiburds survey trip (with scaling poles), Monday: Wiburds survey trip (without scaling poles); Tuesday: Twiddly-Om-Pom Mammoth trip (important new bit of cave discovered, read on); Wednesday: surface trog on Mammoth Bluff; Thursday: Wiburds survey trip (without scaling poles and without surveying). As can be seen, quite a lot of surveying was done during the week which will, I'm sure, make our illustrious president, Ian Cooper, very happy. As for the Mammoth discoveries I will leave you in suspense until we get to that part - let's just say that it was a 15 hour trip, and will most probably spawn quite a number of subsequent trips in the near future.

Saturday 8th July: Spider survey trip, Glass Cave tourist trip, Imperial dive trip

Saturday started with Keir inciting Lachlan to wake everyone up at the ungodly hour of 7:30am. After Lachlan yelling at the top of his lungs for everyone to wake up, everybody unsuccessfully tried to go back to sleep. Everybody eventually arose to a fine and predictably cold Jenolan winter morning. I required a little more encouragement than others to get up, kindly supplied by Ian in the form of beatings by the sand-filled door snake. The main plan for the day was to survey parts of the Upstairs Rockpile in Spider Cave.

The Spider survey party consisted of 9 people (3 survey teams). Our first obstacle for the trip was to avoid being hit by airborne 5mm thick plates of ice (pulled from the concrete trough near the playing fields). Entrance into the cave was no problem, with all the digs and squeezes being quite dry. After arriving in Cloisters Chamber we split into our teams. Phil, Brett & Simon plodded off to survey from the Dig At The End of The World (DATEOTW) to Beach Chamber. Ian, David C. and first-timer Brian surveyed from Cloisters to one of the upper entrances of DATEOTW. Lastly, Mark, Willow and myself surveyed a loop leading

surveyed a loop leading from Cloisters up through the rockpile to later rejoin the main route to Beach Chamber/DATEOTW. Simon unfortunately fell and strained his shoulder, so Phil's group decided to call it a day early. Ian's group managed to find another route through the rockpile to the entrance of DATEOTW (that bypassed UR007) and also surveyed the Purgatory area.

We exited the cave around 9pm and were surprised to find that the ice in the cattle trough had already reformed from our previous exploits that morning! When we commented that it had been a good 9 or so hour trip as we walked back up to the hut; Mark mentioned the great 12 hour trip that he had once done - little did anyone know that Tuesday would see a 15¼ hour trip to Mammoth. Around 210 metres was surveyed (around 50 metres of which was resurvey), making it quite a productive day.

Meanwhile, Keir had taken some overseas cavers into Glass Cave - Angela, an exchange student from Wisconsin, and two holidaying cavers from Germany, Sebina and Manfred. Surprisingly it was not just a scenic trip. Keir took some rope to explore a lead just inside the entrance. It led upwards to the right into another room. Keir rigged the rope to get through a hole in the ceiling. It led to another room, with the only obvious exit being a shaft dropping vertically downwards. Keir could not see any visible exits at the bottom (only lots and lots of smashed stalgs); unfortunately, he did not have enough rope to confirm this.

Afterwards, Keir (and entourage) joined the cave divers in Imperial Cave who were diving in the downstream section. The divers redug the squeeze at the end of Imperial (just before the resurgence). They successfully widened the squeeze but used most of their air in the process. The divers plan to push onwards in the next trip (hopefully before the squeeze resists). Keir suggested that perhaps the blockage is the cause of the high water levels in the cave. They didn't end up diving again on Sunday. As usual, a evening at Caves House helped prepare us for the upcoming day.

Sunday 9th July: Wiburds survey trip (Western passage with scaling poles)

Sunday started similarly to Saturday with Lachlan screaming "I WANT MY CHOCOLATE!" continuously for 5 or so minutes! And once again, Ian kindly helped me get up with the door snake! However, this time I anticipated the second blow and the snake swung past me to clobber David Connard in the head - much to everyone's amusement. Today's task was to explore (and hopefully survey) climbing leads in Wiburds with the scaling poles (groan!). Simon still with his sore shoulder decided to stay back at the hut for the day.

David, Racheline and Lynne arrived at 9:30am and set out before us with a scaling pole each. They planned to visit Lower River via Mammoth Squeeze, then to meet up with us in Wiburds later. David tells me he "managed to completely turn around and go the whole way feet first through Mammoth Squeeze so photos could be taken" - such dedication!

Meanwhile at Wiburds, we started to erect the scaling poles as soon as we arrived at the first climbing lead in Western Passage. These new scaling poles Ian had made were great - they were made of aluminium and were wonderfully light. This was their first use and everyone was apprehensive. Ian had been telling us all weekend that when all eight poles are used the safety tolerance margin was getting pretty slim and we should choose someone light. We started fitting the angle irons and joining the lengths together - only to find that the holes for the bolts were a couple of millimetres out of place! Grrrrrr... But we were determined to make use of the poles - we had not carried these chunks of metal all this way for nothing! So

we just put the bolts through one pole and used the rigidity of the angle irons to keep the poles straight. We decided it would be best to put no more than four poles together. Soon after, David, Racheline and Lynne joined up with us - with the other three scaling poles. Unsurprisingly, they were quite unimpressed when we explained that we wouldn't be needing the extra poles.

Whilst the exploration of climbing leads took place, David, Racheline and myself decided to look at West Sand Traps 1 and 2 (at the end of Western Passage). David amusingly managed to completely knock out both his lights and had to get back out of WST2 in complete darkness (luckily he had spare back at his pack). Soon the survey team had caught up with us. With most of the climbing leads exhausted, surveyed, or needing more than four lengths of scaling pole to reach, there was but one more thing to do - complete the survey of Pitter Patter Passage. A tape was rigged up the initial slippery slope so that all could enjoy the mud along the passage. When the survey was finished we all made a controlled slide back down the slope (all, that is, except for Lynne's which was a little less controlled than most - ending up bum first in the mud at the bottom).

It was at this point that most people decided to head back to the surface (in order to get back to Sydney at a respectable time). Only myself, Ian, David and Martin Scott were left. Ian decided to survey Neddy's Knock as well. We were careful to avoid the beautiful aragonite crystal growths among the broken dyke intrusion as we entered (magnetic anomalies - fun, fun, fun). Ian also found a virgin pitch at the back of Neddy's Knock (a couple of metres in length) which he descended with the ladder from the scaling poles. The small pitch led to a small space which also had many aragonite growths in it. The area was surveyed and no further connections or leads were found.

That night only six of us were left. David Jackson, Racheline, David Connard, Simon and myself were here for the long haul (being the University holidays), and Ian had decided to stay another day (probably to ensure that we did some more work in Wiburds). Although we were but six, we feasted like sixty on the immense amounts of food that everybody had left behind - including the 15+ inch pavlova that David Jackson brought (complete with strawberries, kiwifruit, passionfruit, & fresh whipped cream ... yum).

Monday 10th July: Wiburds survey again - Western Passage and Avenging Aven

After a late rise we set out for Wiburds (again). Upon reaching the end of Dyke Passage we split into two 3-person survey groups. One team (Ian, David Connard and Simon) started surveying through Push-Me-Pull-You squeeze to the survey station at the start of Western Passage. A boring but fairly straightforward exercise.

The other group (David Jackson, Racheline and myself) started the survey of Avenging Aven. It was many an hour before we actually got to Avenging Aven proper. Most of our time was taken in exploring and surveying the switch back passage on the right before the aven. The passage is on the edge of the dyke (be careful, some of the roof appears to be fairly unstable). Racheline (and later Simon) pushed into a small passage we found at the bottom and made a light connection back to the chamber just after Push-Me-Pull-You Squeeze on the Western Passage side (amongst the rockpile at the back of the chamber).

There were a number of leads in the aven itself but we could not climb the first part. We tried lassoing an outcrop for a full hour, each person trying their theory or special technique for throwing the tape. We tried everything - weighting with rocks and mud, overarm, underarm, shotput, shotgun. We gave up in sheer frustration. At the back of the aven under

a large rock we found an opening which led down to a small passage going at right angles - David reported that it choked off. Vowing to return with scaling poles we surveyed what we could and started out. On the way back we had a quick look down North West Passage to see what we had to look forward to surveying in the future.

Ian left Wiburds soon after finishing the Dyke Passage to Western Passage connection and had gone by the time we got back. Ian said he had been pleased with the amount of surveying done in Wiburds. Western Passage is pretty much finished and North West Passage is next on the agenda. Over the weekend around 200 metres of surveying was done to bring Wiburds up to around 1800 metres.

That night we decided to test just how accurate our Suunto reading skills were. After all, David Connard, Racheline, Simon and myself didn't have too much experience actually reading the Suuntos for ourselves - until now (we were usually the lackeys that held the tape or illuminated the survey point). So for our test we decided to survey across the hut and compare values and loop closures. We started with a simple 2 point course, namely from the edge of the table to the window sill and back - simple enough. I mean, surely if we couldn't survey this accurately then what chance would we have of doing it right in a cave. We measured the distance: 2.63 metres. One by one, we then measured the compass and clino readings. David went first, followed by Racheline who had some troubles with the compass being about 10° off, then Simon, David and myself all had a turn and we also had troubles with the compass being ±5° off. David rechecked his measurement and found it agreed. Everybody else remeasured their values to find they mostly got the same wrong values.

We were getting very demoralised at this point, thinking that probably a large proportion of the survey data we had collected over the last three days would be rubbish. So in desperation we got Racheline to remeasure the compass - same value. This time we held the compass in place so someone else could check it - funny she seems to be reading it right! Now we were totally confused and despondent. Then someone noticed the needle move slightly as they moved the compass - it didn't take us long to realise that there was actually a magnetic anomaly in the table - a bloody nail holding the corner of the table together! Relieved, we laughed at our stupidity for quite some time.

Tuesday 11th July: Twiddly-Om-Pom Trip - New South Extension extension discovery!

[To avoid confusion between David Jackson and David Connard, the latter will be referred to as our brave & fearless leader (BFL) - not 'bl**dy f***ing loony' as David Jackson thought.]

By Tuesday, there were just 5 people remaining:- the two Davids, Racheline, Simon and myself. With Ian gone, I could now sleep in without fear of the door snake. This was of little comfort since we had decided to get up at 7:30am to leave by 8:30am - we didn't actually get away until 9:05am. Anticipating a 12 hour return trip to TOP, this put our expected return time around 9:30pm - after all, it was only a tourist trip to Twiddly-Om-Pom, right? Alas, I remember David meekly saying, "Oh, there's just a couple of things I want to look at when we get there. You'd better put in the survey gear, just in case." The trip eventually blew out to 15¼ hours, with the survey gear never being used despite finding new cave. It was strange. All the Big Name Cavers (BNC's) such as Ian, Mark, Phil, Chris and Keir weren't coming - including, of course, Don "I missed yet another discovery" Matthews. It was also David Connard's first trip as a trip supervisor (I'm sure not many people can claim a 15 hour Twiddly-Om-Pom trip as the first trip they led).

David and Racheline were the only ones who had been to TOP or GNC before; their last trip being last February (Jackson, 1995). David, trying to keep weight down decided that instead of taking a ladder long enough to reach the bottom (18m) we would take a 9m ladder for the pitch and a 10m tape to climb up the mud slope near the bottom. He unfortunately neglected to take in account the last couple of metres of vertical slippery rock. It is our strong recommendation that any future trips take no less than 18m (58ft) of ladder. We also took a 20m belay rope. Whilst it was a good idea, it also added considerably to the weight and the last/first person doesn't get the benefit of the rope anyway. If all participants are confident in laddering they should have no problems through the vertical squeeze between GNC and TOP. Each of us took two FX2 batteries on our belt. Problems were encountered when the holes of some of the spare batteries became filled with mud, making it impossible to insert the plug (we recommend you take off your spare battery before digging - we also suggest that SUSS purchase 4 or so FX2 caps to prevent this). Keeping with tradition, David also brought another Sara Lee chocolate cake for the Northern Tunnel long-haul.

At 9 o'clock the five of us set out (six including Sara). Much to our disappointment, when we reached Playing Fields, there was no barrage of flying panes of ice - indeed there was no ice at all. Upon reaching the Mammoth entrance, we paid our respects to Mammoth's patron guardian - the goat skull sitting on a boulder in the creek bed (David was not so respectful when we exited 14 hours later, almost sitting on it in the dark). It was the last we saw of daylight for 25 hours. We took the Unsurveyed Connection/Debouchement Detour route to Ohmenez Squeeze. It was our BFL's and Simon's first time in the Railway Tunnel and northern sections of Mammoth. Through the rifty passages of the Unsurveyed Connection/Debouchement Detour we hauled the packs but they did not prepare us for the bastardry that is Northern Tunnel. Dry Siphon wasn't, Central River was. Ohmenez Squeeze (the entrance to Northern Tunnel) was found to be remarkably easy when done on one's stomach. For those that don't know, Northern Tunnel is a 200m passage which is rarely more than 3 foot high and in many parts no more than 1 foot high. Two hundred metres is an awfully long distance to crawl on knees or stomach while pushing a very heavy pack with steel ladders and rope - probably the reason that this area of Mammoth is so little explored!! We sweated through the Stalagmite Swivel, Triangle Passage, 100% Friction Squeeze, The Zig-Zag, Half Moon Passage, the Backbreaker, Keyhole Passage, Thud in the Mud, The Sinkhole, Formation Squeeze and finally, two hours later, we emerged in GNC completely buggered! (All of the squeezes except for Formation Squeeze would normally have been quite easy - were it not for the fact that I was one of the poor bastards that had to push the ladder/rope pack through them!!)

After a short rest, our unerring guide, David, took us straight to the rock which leads to the ladder pitch down to Twiddly-Om-Pom. One by one, we laddered down through the vertical squeeze called the Gordian Knot Pitch (because it was originally descended on the knotted waist belts of the discovering party). The packs were lowered to waiting hands at the first ledge below the squeeze. Then our intrepid cavers hand-over-handed down the tape to the bottom of the muddy slope, landing in what is called Pooh's Parlour. It was from that moment that the Curse of Twiddly-Om-Pom took its grip on us. The first to fall victim was Racheline, who was experiencing cramps. We quickly attempted to combat the effects of this supernatural force - Racheline started feeling much better as soon as Simon pulled a couple of Aspirin out of the first-aid kit (in fact, she was feeling better even before removing the tablets from their wrappers). Our BFL was next to fall victim to the curse, also experiencing stomach cramps; while some said that these were just sympathy pains for Racheline, our BFL (who had brought up this theory) strongly denied it.

Once regrouped, David took us on a quick tour of Twiddly-Om-Pom. After a brief visit to Mud-In-Your-Eye Squeeze (which extends to Central River to the north), he showed us the area in which he was most interested in - the east passage out of Pooh's Parlour. There are two digs:- the passage named by David as "to Rabbit's House" (Jackson, 1995) which is now a 7m dig heading to the NW; and Last Ditch Dig which leads to the elusive New South Extension. Suddenly, David produced 2 digging trowels from nowhere and pointed to the two holes. The last time David was here (in February) Last Ditch Dig was just a puddle of water. This time the dig was completely dry, but badly silted. It dawned on us that this could mean that the sump on the other side (at the far end of the New South Extension) might be dry - the prospects for discovering new cave were perhaps quite good. David explained that the original discoverers of New South Extension came to stop at a 30cm deep narrow sump with 7cm airspace leading to what seemed like a narrowing passage [Pavey, 1973].

Digging started in earnest. About an hour later we stopped for lunch. By then, the Rabbit's House dig was looking promising according to David (having progressed 2-3m), with just a couple of metres to where the dig seem to widen. At the same time, Last Ditch Dig was looking rather depressing - we had only just finished digging out the first sumpy bit. In the silted passage to the SE no widening could be seen. Clearly quite a bit of sand had built up since it was last travelled (God knows how many years ago). Lunch included a hot cup of chicken noodle soup since David had brought along his Trangia stove. We later decided that the stove was an unnecessary luxury (albeit a rather pleasant one) if we were really serious about cutting down weight through North Tunnel (although David says his Trangia didn't think being dragged through North Tunnel a luxury).

Once we were refreshed, digging started anew. Rabbit's House Dig started taking a turn for the worse, with the crawl starting to narrow and form a vertical slit (although David swears it appears to open out again). Whilst still diggable, David ran out of puff and no one else could be bothered taking over. Last Ditch Dig on the other hand, despite some initial pessimism started to make progress. When I took my turn in the dig I discovered there was a breeze moving down through the passage. This was discovered not only because I could see my breath disappearing down the tunnel but also because odours from the entrance to the passage seemed to inevitably find their way down to me - much to everyone's amusement. An S-bend section of passage was reached and I could see a squeeze between the two sides of the passage a few metres away. Since we didn't bring a bucket removing the mud packed streamway stones became progressively more difficult. Fortunately there was a small side niche which I piled quite a bit of dirt into. After 1¼ hours of digging (3 hours in total) I finally reached the final squeeze and could see it had standing room on the other side. Backing out, I told everyone of my progress and suggested the smaller Racheline go through and dig the squeeze from the other side.

Five minutes later Racheline, David and myself were on the other side of the squeeze. The Mammoth Book (2nd Ed.) describes Last Ditch Dig as a "near impossible breathe out S-bend mud squeeze". By the time we were finished it was merely a tight S-bend crawl with just enough room to roll over in a couple of places (one of the benefits of not getting someone super small to do the digging!). Our BFL and Simon decided to stay at Pooh's Parlour - I feared the Curse was getting its grip on them. So the three surviving members ventured forward to explore the mystery that was the New South Extension.

We proceeded forward along the stream bed wishing we had taken the map with us (I'm sure David had it firmly imprinted in his mind). Along the completely dry streambed we crawled. There were a couple of places where we had to squeeze under a number of large rocks. Luckily, these didn't require any more digging than the removal of a couple of the larger,

more uncomfortable rocks. The streambed was made up of pebble to fist sized round black rocks, rather than the smaller assorted pebbles found in Last Ditch Dig. We passed passages leading off to the left and right (ie the Sewer de Paris, and other mud slopes) but instead of stopping to investigate we pushed forward for the end. We eventually reached a small, sandy, dry depression with the roof dipping down sharply into it. It was an easy squeeze through the depression and into the next chamber.

It took perhaps 30 seconds for us to realise that we had just passed under what must have been the unpushed sump at the end of the old New South Extension - that the chamber we were in was new, unexplored cave. Eagerly we pushed forward looking for signs of previous trog marks - finding none. David went under a rock to follow the streamway. I went up and over the rock, straight on into another small room where I made a light connection with David in the floor to the right. Looking up and to the left (NE) I saw the most amazing rockpile (or as we called it - a *vertical streamway*) with a large, dry streamway coming down through the rockpile (from the NE) at around 45° gradient extending for a large distance. I made many exclamations, such as, "Look at the size of this &^*#'ing thing, holy *&%\$, wow, I don't believe it, it goes on forever, you got to come look at this!" It was an easy climb up the streamway through the rockpile, but after scrambling up only a few metres, I decided to return to David and Racheline.

Dropping under the above mentioned large rock (on the near side of the dry sump) I quickly caught up with David & Racheline. We pushed through a small section of really gloppy mud, before arriving at a large sump. The sump was around 5-6m long, and around 2m wide. The rock walls on either side of the sump angled sharply into the water which appeared to be very deep at its furthest point. The ceiling also angled down at around 50° at the end. We were standing on a small sandy shore (perhaps a metre wide) through which ran a small stream. David believes the stream (which emerges from the west wall through a horizontal crack) is Central River. David has a strong conviction that Central River must curve around from where it is seen in Mud-In-Your-Eye Squeeze to the north, through this sump, and down to where it is seen to the south. It did not appear that a large volume of water could flow out of the west wall. After a well-deserved drink and glove cleaning, we started to think that the other two would soon be wondering where we were. Reluctantly we agreed that we had better start thinking about heading back, but not before I had shown the others the rockpile!

On our way back to the rock in the streamway, suddenly, a horrid image crept into my mind - as a result of telling Keir about the sump, a dive trip to this god-forsaken sump would probably be mounted - narh, nobody could be that sadistic, could they? I was not convinced. Images flooded my mind...

Commander Keir grumbles into his microphone, "Wave 2: enter formation and commence attack run on my mark, Wave 1: prepare to disengage target and retreat, Wave 3: suit up, you're next!" Back at HQ (Fort Caver's Cottage), an enlarged map of Mammoth on the kitchen table shows the sorry story of this terrible battle. Commander Keir pores over the map, slowly moving the replica dive tank and gear along Northern Tunnel. Meanwhile many metres beneath the surface, wave upon wave of cavers futilely throw themselves at the tanks, regulators and ladders - only to retreat in exhaustion for the next wave to continue where they left off.

We needed a name for the new sump. It took a couple of days to decide, including whether it should be called a sump or a lake (like many similar sized bodies of water, such as Central

Lake, Slug Lake and Grinning Monster Lake). We eventually decided to be realistic about this; deciding that most cavers were being rather deluded about their discoveries - a lake is something you sail a boat in, paddle a canoe in, swim in, float a battleship in, etc. So the name *Silly Buggers' Sump* was decided upon, to reflect the mental state of those that want to visit it (in particular, those who may want to dive it).

Our next port of call was the rockpile that I had looked at earlier. We estimated that the edge of Silly Buggers' Sump was around 20m from the dry sump and the base of the rockpile was around 6m from the dry sump. The rockpile is an impressive piece of work - theories as to how it formed and where it might lead to occupied our minds for the next few days. The rockpile offers the most promising prospects for immediate exploration.

As stated above, the most obvious entry point into the rockpile is what we often referred to as a vertical streamway. To be more precise, it is a shaft-like space through the rockpile ascending at about a 45° gradient, the bottom of which is covered with small, loose streamway pebbles. The pebbles were similar to those seen in Last Ditch Dig except not as cemented with mud and they were also quite dissimilar to what we saw in the main streamway of New South Extension). The rockpile seems to be heading at right angles to the New South Extension streamway in a north east direction. The walls are made of large pieces of limestone (although the right side of the vertical streamway seems to be made of solid limestone suggesting it is perhaps the edge of some larger tube into which many large pieces of limestone have fallen). The main structure of the rockpile (ie, the larger boulders) seem quite stable, but care is needed not to send down loose scree or dislodge the occasional loose, small rock. The limestone blocks at this level are predominantly striated every 5cm with a layer of black/purple shale (similar to the rock described in north GNC by the Mammoth Book).

As we climbed further (20m or so) the signs of the shale layers disappeared with most of the limestone blocks now being pure limestone. At this point we left the obvious streamway (evidenced by the trail of stream gravel down the rocks) to get around a large rock. In this area of the rockpile all evidence of any surrounding bedrock limestone walls vanished (quite possibly hidden behind all the fallen blocks making up the rockpile). This rockpile is unlike the Middle Bit Rockpile or Southern Rockpile in Spider - the rockpile is made up almost entirely of large blocks. Very low amounts of smaller rock fragments exist between the larger blocks (unlike many other rockpiles) - this makes the passage between the large rocks fairly easy. At two points we used a small cairn to make sure we could find our way back. With no sign of stopping, we realised we *really* should be starting back to the other two (days afterward I could still be heard to say "Gee, I just wish we had another hour in there!" - especially as the rain two days later sumped Last Ditch Dig). David shone his light through a hole to see it disappearing off into the darkness. He then beat his overalls sending off a cloud of dust which we noticed slowly rose up through the rocks (possibly indicating the presence of an upward draft?). We estimated that we had only entered 20-30m into the rockpile, leaving a huge number of leads for the next exploratory party. During the descent, we came up with the name *Streamway to Heaven*, because it just seemed to keep going up and up).

We started back, having all but forgotten about the Curse of Twiddly-Om-Pom. On the way back, David's digging trowel (in my overall's pocket) was the next to fall into its lure - lost somewhere in New South Extension. Racheline's shoe also fell prey, having developed a blow-out on one side through which her foot poked out. An hour overdue we returned to Simon & our BFL (we didn't have a watch, really). The rear guard had started to get worried - they had even ventured through Last Ditch Dig to see if we were up near the far

end of New South Extension. We told them of our discoveries but they were still not impressed. To our horror we found we were losing Simon to the dreaded curse - his stomach was turning over every couple of minutes (and he later dry-retched in Northern Tunnel - such dedication in cave conservation). Both Simon and our BFL vowed they would never ever be returning to GNC or TOP ever again, never ever (BFL later denied having ever said this, despite the testimony to the contrary of four witnesses - perhaps another mind trick of the Curse, but I doubt it!).

We finished packing up and were ready to leave but the Curse's cruelest trick was yet to come! As we started up the slope a yell came from the bottom of the tape, "Ahh David how exactly did you plan to get up this tape?". David calmly replied, "I tied footloops in the bottom of the tape". "Yes, but the tape is too slippery to grip and you can't get your feet into and out of the loops" came the reply from above us. "Oh." After several failed attempts by everyone, several cunning plans were voiced and rejected. It was eventually decided to somehow get one person up (our BFL) to the top so he could lower the ladder (using the belay rope). We could then, of course, all climb up to the first ledge where the ladder could be raised and the vertical squeeze ascended. After climbing onto my shoulders (so he was above the vertical edge), our BFL hand-over-handed himself up the muddy slope and climbed the ladder.

But the Curse was not going to let us get away that easily - not by a long shot! The ladder became irrevocably jammed above us when lowered. The Curse had clouded our minds causing us to not think of sending up a second person to guide down the ladder. David plodded further up the muddy slope and found a window through which he could see where the ladder was catching. After punching the window to make it big enough for Racheline to climb through (on his shoulders) we eventually got the ladder down. Simon started to climb - the curse struck again - the ladder had been lowered too far and now didn't make the ledge, doah! After raising the ladder again (with Simon clinging to the muddy slope), we could all, finally, make our way to the first ledge (I also had to bring the ladder up while climbing it - an interesting exercise). Finally we had all reached the first ledge! Our BFL raised the ladder, we sent up the packs on the rope, then one-by-one we went up. At the top, our BFL and I coiled the ladder and rope. We had escaped the Curse of Twiddly-Om-Pom at last - or so we thought! We soon emerged from under the rock and slid down the mud slope into GNC. For defying the Curse our BFL was promptly and justly punished - he managed to take a large chunk of skin off his finger as he slid down the slope. The first-aid kit was brought out for the second time when it started bleeding badly.

Glad to be on our way, we set off for Formation Squeeze - Northern Tunnel awaited! The Curse had yet to affect either me or David - yet. We thought we were lucky, we were wrong - the Curse was just biding its time. It was not until halfway through Northern Tunnel when David received his fair share of punishment - painfully bashing his knee on a rock. We finally managed to make it to the end of Northern Tunnel intact, albeit very sore and very tired. This might not have been the case were it not for the motivational leader of our party, Sara. We promptly consumed her in gratitude just before Ohmenez Squeeze (even she had not escaped the Curse - her shapely body having been badly bruised through North Tunnel). Now I was the only unaffected party member. Paranoia soon set in - I knew it was only a matter of time!

Shortly we arrived back at Central River, once again receiving a soaking at Dry Siphon (you thought *our* names were silly!). It was our BFL that was to become the next target of the Curse. As he gaily hopped between boulders in the Middle Bit rockpile, the shoulder strap

on the ladder bag snapped, sending the cave pack clattering down into the guts of the rockpile. Luckily we were able to climb down and retrieve it. The heavy pack was now twice as hard to carry because of the missing strap. I still had not been affected; perhaps I would escape alive or perhaps it was just saving up the best for me. We were approaching the perilous Skull & Crossbones climb - a 50ft deep rift section through which a narrow path exists.

After another brief sugar stop, in which the Curse almost claimed David's ribbed cup (nearly dropping into the guts of Mammoth cave), we started the climb. It was now that the Curse started to try its best on me. In the next 30 minutes I went through 3 or 4 FX2 batteries (my extra battery was clogged with mud and I had to use everybody else's near dead batteries). I saw what the Curse was trying to accomplish - by depriving me of light it hoped I would fall to my death in the deep rifts. But I was determined not to succumb to its evil influence.

After an eternity we reached the Railway Tunnel, then made the remaining journey to the cave entrance without further incident. We had escaped the cave and managed to bring out one of her closely guarded secrets to the outside world! Oh what a trip! I had escaped the Curse of Twiddly-Om-Pom with only a torn pocket on my new overalls to show for it! A quick check showed it was 11:50pm - 14 hours 20 minutes after we entered the cave. As I kept telling our BFL, the comedy of errors throughout the trip only made it more memorable - it really had been a great trip - after all, its not everyday you get to discover a new piece of cave in Mammoth. With everybody accounted for we set off for the hut, discussing whether we should ring up Mark "the Mammoth man" Staraj now (12:30am) or in the morning. [Incidentally, Mark said that this would be his last caving trip for the year due to the imminent birth of his first child. I bet you feel peeved Mark!]

We got back to the hut to find the lights on and doors open ... strange. We definitely didn't leave them like that !! On the whiteboard, we found that Andrew Matthews had called in. He had written that he would call in tomorrow (after a crossed out tonight); there was also a big arrow with a "Sure!" pointing to our 9:30pm return time. After a quick shower and bite to eat we all collapsed into bed (putting a "Do not disturb before midday!" sign on the door).

The following is a list of manifestations/casualties of the Curse of Twiddly-Om-Pom: 1 shoe, 2 pairs of overalls, 1 helmet buckle, 1 caving pack shoulder strap, 1 Trangia strap, 1 Trangia frypan, 1 digging trowel, 1 pair of Suuntos (muddied and badly fogged), 1 survey book cover destroyed, 1 waterbottle burst, water damage to 1 camera, 1 pair of elbow pads, 1 swollen strained finger, 1 bashed knee, 1 bruised shoulder, 1 dry retch, 2 sets of stomach cramps, 1 badly bleeding finger, multiple sets of battery belt bruises, one case of consumption. Quite impressive.

Wednesday 12th July: Cunning plans laid & surface trog around Mammoth Bluff.

After a rather late wake-up we again started our discussion of the previous day's discoveries. We poured over the Mammoth Book, pointing at maps and reading descriptions. The first thing we did was cross reference the vertical streamway with the wall topo of Jenolan. It was located somewhere opposite the southern most extension of Serpentine, at the very north edge of the surface limestone outcrop (according to the map).

We also started planning for return trips (this time we would be armed with rabbit's foot and lucky pennies). Assuming the Streamway to Heaven went somewhere, which looked (or we hoped was) very probable, then we *did not* want to lug an 18 metre ladder along Northern Tunnel every time. We started to investigate the prospect of leaving a ladder in GNC and

reducing the number of other things taken: eg, deciding experienced cavers may be able to do without a belay rope, deciding the stove was a luxury, carrying less water because of the discovery of Central River, etc. We then started to surmise where rockpile might lead to - a Railway Tunnel extension, a large cavern, a second entrance?? How was it formed?? We read and reread all the Mammoth notes on hydrology, and came up with vast and innumerable theories, to match the vast and innumerable caverns that must surely be waiting to be found.

When Andrew arrived, we excitedly told him of our discoveries but all he could do was reply with a whisper. Today was his day off from guiding, although unfortunately he had lost his voice the day before (he still had to do two tours though). We decided to reconvene down at the kiosk at Cave's House. We wanted to ring Mark Staraj, Jon Bonwick, and Chris Norton. Andrew also had to do some washing to do (he had managed to turn his bright white tour guide outfit to a bright pink when he washed it with his red socks - luckily the Caves House laundry people were able to bleach it back to white).

The number of people present at Jenolan on a Wednesday (even in the school holidays) was amazing. The tours were solidly booked out for a number of hours in advance. The guides kindly let us use their phone to ring Mark. Mark's first response was "Well, did you survey it?" Hmmpf !! At least Chris gave us an "Oh reallllly!" when we told him about the sump!! We also called Jon Bonwick and asked him how a ladder would survive if left in a cave. He said if new, kept in a waterproof bag, and sprayed with WD-40 after use then it would last for years. A new 18 metre ladder was around \$160 - not that much for the amount of pain it saves through Northern Tunnel over a number of trips (if that many are required to survey the rockpile). After meeting with Andrew again, we lazily lunched at the kiosk while it rained.

After the rain stopped, Andrew, David Jackson, Racheline and myself went for a walk on Mammoth Bluff. The point we guesstimated to be above New South Extension was approximately 200 metres above the entrance level, practically ruling out the chances for a second entrance (based upon what little we knew of the newly discovered area of cave - but you never can be sure). We picked our way south through the limestone, sticking our heads in all suspicious looking nooks & crannies. Racheline and Andrew headed down early. As darkness descended, David showed me the madness that was Wombat Dig, where years ago SSS had tried using petrol-driven Kanga hammers to explore a promising looking hole - shifting several cubic metres of earth and rock in the process. The hole spews forth unbearably hot, moist air - presumably a connection to Mammoth - unfortunately the hole is still no larger than a baseball.

David Jackson, Andrew and myself were plotting a return to New South Extension for the next day (we were still sore from the first trip but exploration is exploration and must go on). Unfortunately the trip had to be cancelled as Andrew was given Thursday off to recover his voice. It would look bad if he instead embarked on an epic caving trip.

Thursday 13th July: Wiburds survey - one more time for the dummies (Boomalakka Wee)

For our last day of caving the two Davids and Racheline decided they would attempt to survey Boomalakka Wee in Wiburds. Simon was still feeling crook, and I decided I would go up and down a rope to fine tune my newly purchased SRT gear. David Connard was strongly opposed to doing Boomalakka Wee but Simon convinced David that it wasn't all that bad. The weather had taken a turn for the worse with it raining every five minutes then

stopping again a couple of minutes later. Our intrepid cavers donned their garbage bags (an amusing sight) and set off into the rain.

When they returned, we learnt that our BFL had piked out of Boomalakka. So David J and Racheline crawled to the end of the tight winding passage to hand sketch it. I think they were rather pleased that David Connard didn't like the look of Boomalakka - it gave them an excuse not to survey the horrible passage. Although, even from the hand sketches David is sure that the passage shown on the old Wiburds map is completely wrong - possibly even 90° out. Later that afternoon, everybody selected the piece of dirty caving equipment they would most like to shower with - and did so! Unfortunately no incriminating photos were taken.

The evening was concluded with more speculation about the New South Extension. This was followed by Papa Jackson telling us many bedtime fairy stories from his pile of past *SUSS Bulls* (does he always bring half the SUSS library with him??). We listened to stories of cavers both brave and bold, who ventured into the great unexplored depths. We asked Papa Jackson "Will we ever grow up to be like them, Papa Jackson?". To which he replied in his infinite wisdom, "Some day maybe, children, some day...". Then tucked us all into bed and turned out the light.

Friday 14th July: "As one shepherd said to the other: 'Let's get the flock out of here!'"

After spending a number of hours finishing cleaning the gear and the hut, it was time to leave. Now for the final comedy of errors we had five people with their packs, the SUSS gear and the garbage to somehow fit into David Jackson's little Holden Astra hatchback. After very little thought we came to the unsurprising conclusion that it wasn't going to fit.

So David Jackson took David Connard and myself (along with our gear and one of the SUSS packs) to Lithgow station (planning to return for the other two). With three garbage bags hanging out the windows we started down to Caves House (much to the amusement of the tourists we passed) to deposit the garbage in a bin. Eventually we arrived at Lithgow station for the long train trip home. Typically, another mishap was yet to occur on the trip home (probably the Curse of Twiddly-Om-Pom having one last go at us) - the signal section from Lidcombe to Redfern completely shut down on all lines in and out of Central (both suburban and interstate). The guard informed us we were the very last train to be affected (poetic isn't it!). After an hour's wait we were finally on our way again ...

The Future: Gluttons for Punishment

David Jackson has already organised a return trip to New South Extension on July 22-23 (11 days after the first trip). And there are rumours of a joint trip with SSS for the following week (when SSS has the hut booked). Then there is also the August SUSS Jenolan trip. Mark Bonwick made the comment that when that area of Mammoth floods it can take a long time to dry up again. This I fear has spurred David to even greater levels to ensure that as many trips as possible are sent there to investigate. Perhaps he is trying to break Bruce Welch's record of three Twiddly-Om-Pom trips in two weeks. So stay tuned for the secrets of the New South Extension to be revealed...

Robert Fairlie-Cunninghame

Reference

Jackson, D & R. (1995) *SUSS Bull* 35(1):4

Knot the Way to Do It

Mt Banks, 2 July, 1995

Participants: David Connard, Willow Forsyth, David Harland, Andrew Norton, Chris Norton

After lots of instructions and faxed maps courtesy of David C, I found the Mt. Banks turnoff shortly after 8.00am, though the agreed meeting time was 8.30am. However, parked 100m from the turnoff was a light blue Subaru (aerial intact) with four likely looking lads consuming Tim-Tams. Definitely SUSS.

Not wanting to waste a moment, we started the car shuffle, leaving my car at Pierce's Pass, a couple of kilometres further down the Bell's Line of Road. David C was concerned that another two cars were doing a car shuffle and after the last, apparently, torturous trip stuck behind a really slow group, he was keen not to be stuck behind them on Mt Banks. So, it was a rapid change of gear and on our way.

Back at the Mt Banks car park, we discovered there were no other cars! and in my haste I'd left my cave helmet in my car. But then what is a SUSS trip without left gear? David had an extra helmet so it was not a problem. At 8.30am the trek up to the start of the abseil began. Motor legs Norton (snr) led the way up the foot track that is fairly steep at times. The sign at the track start says 1.5hr return trip, we made it up in under 30 minutes, beginning to sweat despite the very cold strong breeze that was blowing. David C, a veteran of the last Mt Banks trip, was wearing 8 layers of clothing and described himself as reasonably comfortable - image the Michelin Man atop David's skinny legs (well, David, you did say I could write the trip report so you have to expect you'd be fair game).

David C was trip co-ordinator with Chris as trip supervisor. So while we huddled at the top of the first pitch, pulling on gloves and beanies and adjusting harnesses and racks, David set out to rig the first pitch, and untangle the cowstails, prusik loops and cave pack attached to his maillon. Then he was off, exclaiming "GEE IT'S WINDY", and after a chilly time, a voice echoed up, "OFF ROPE!" I got to go second and as I walked over the first lip, the full force of the breeze that David had been referring to earlier, hit me. Windy! It was strong enough to blow the rope a long way to the right of the vertical path that gravity would have had it follow.

The first three pitches were settling-in time - except for Chris who sailed down on a piton. It had been a while since I'd abseiled and my gear was 48 hours new. Andrew and I had detailed technical discussions on the relative merits of four or five bars on the rack - five was a drag, but were we confident enough to go to four on overhangs? David was setting up the next pitch when Chris' voice floated down from the base of the last pitch, some four metres along and up the ledge. "DAVID, WHAT SORT OF KNOT WAS TIED IN THE END OF THE ROPE?" Yes, the rope had been pulled down with the safety knot still in the end. We all groaned! I kicked myself in particular because I'd seen the knot and decided not to state the obvious to people who were more experienced than myself. Another lesson: it may seem like a BGO (blinding glimpse of the obvious) but say it anyway. Chris attached ascending gear and went up the rope having put considerable pressure to test the knot. The cliff was not an overhang and in places provided foot support. The end result was a new rule: undo the knots!

A couple of the changeover ledges stick in my mind, because they were thin and difficult to swing into given the gusts of wind. David had snagged one with the tip of his toe. Several others had the rock bolts set fairly high into the rock face, necessitating minimal rock climbing skills to reach or a degree of flexibility. Not for the faint-hearted. Several times David had to contend with a knotted rope, or the effects of wind gusts carrying the rope into tree branches. So while he worked to get things right, the rest of us sat and enjoyed photo shoots on the ledges watching the wide green bottom of the Grose River valley, the soaring cliffs 2kms across the valley and the blue blue sky of a clear winter's day. When David had done the hard work we abseiled down in comfort.

We reached the last pitch and Chris, David Harland and I started to pull the rope down after us and pack it away. However, the last few metres became caught on a rock ledge just above us. After a few futile attempts to climb a crack in the rock, I decided I wasn't that tough and using Chris' knife cut as high up the caught rope as I could reach from my precarious position clinging to the crack in the rock. Chris was right; even from there it was hard to climb down. The prospect of a fall and the still-to-be-negotiated steep slope to the river had dampened my enthusiasm for pushing my minimal rock climbing skills any further. Discretion being the better part of valour, we packed the rope and abseiled down the last pitch. Lunch was consumed rapidly at 12.40pm - David was pleased with the time we had made.

Lunch was brief because it was cold sitting around in the shadows, so we turned left along the base of the cliff and followed (sometimes) a rough track until we came to the spur that would drop us down into the river bottom. It was steep, rocky and sandy and we ended up half-running for the twenty odd minutes it took to descend. At the bottom David was sweating profusely and the 8 layers were rapidly shed. It was t-shirt and shorts time for the hike out. Naturally enough, when you've abseiled down some 510m there is a hearty climb out. The first half hour was basically walking along the western side of the river - some up and down but not much. We met a lone backpacker, the first person we'd seen since we'd left the car.

After recrossing to the eastern side, the path starts up steeply. Heart hammering, knees and quads feeling each step, this continues for about 20 minutes then flattens out slightly and continues around the base of the cliff line into the dip that is Pierce's Pass. It is quite beautiful with the afternoon sun lighting up the cliffs across the valley and lush tree ferns and vegetation along parts of the track. Almost before you know it the car park appears, and the 50 minute uphill slog is over. After reversing the car shuffle, it was back to Sydney, feeling tired but happy. Thanks guys for a great trip.

Willow Forsyth

WHY BURDS?

Jenolan, April 22 to 30, 1995

Participants: Cedric Cachat, Ian Cooper, Simon Cruden, Brett Davis, Ming Hah, Julianne Haley, Steve Hirst, David Ireland, David Jackson, Mike Lake, Estelle Lifran, Iain McCulloch, Brendon McCulloch, Linden McCulloch, Kali McLaughlin, Don Matthews, Tim Matthews, Phil Maynard, Rodney Nairne, Chris Norton, Delphine Ricolleau, Jill Rowling, Marie Smith, Mark Staraj, Steve Tidman, Keir Vaughan-Taylor, Danielle Vincent, Gordon Vincent, Sean Vincent (SUSS)
Terry Bolger, Don Glasco (CSS); James Bambridge, Lee Roest, Roland Zopf (CWCG); Sarah Farnham, Gary Whitby, Jenny Whitby (NHVSS); Beverley Cook, John Dixon (Nowra Club); Mark Bown, Chris Bradley, John Hellstrom, Sherry Mayo, Tony Veness (NUCC); Chris Coates, Robert Whyte (UNSWSS)

Wiburds Lake Cave, at the northern end of the Jenolan Limestone, is one of 3 large wild caves at Jenolan. No complete map of the cave exists, although a great deal of work in the 1970's did produce partial maps of the cave. The Northern Limestone book estimates the cave to be 2000m long and 40m deep with 7 entrances. Recent work by Staraj, Jackson and Cooper suggests the cave is over 3000m long with 11 entrances. This week long trip combined with a NSW Speleo Council meeting was intended to start a complete resurvey of the cave.

Saturday 22 April

Ian, Tim, Rodney, and Steve T. walked up to Wiburds to reconnoitre the southern sections of the cave. The walk from the hut to Wiburds is 2.5 km straight north up the Jenolan River valley. Wiburds Bluff is to the immediate west of a large cleared river flat known as Rowe Flat, where the stone chimney ruins of Joseph Rowe's hut bear silent testimony to pioneering days. The main submergence for the Jenolan River is a further 500m north of this ruin. In the cave we examined the southern sections including Yawning Gulches, 22 Passage and Lake Chamber, setting up "permanent" stations as we went. In 22 Passage Tim climbed up the rift to find a perched sump about 5m above the passage floor. This sump probably corresponds with the sump seen off the passage to Henrys Dig. We exited through the J58 entrance.

Meanwhile, Rob Whyte took Chris C., Gordon, Danielle, Sean and Marie into Elder Cave to continue the signature project that UNSWSS has set up. This is resulting in an extensive interactive database of cave maps with historic graffiti. In particular, early signatures are pushing back the discovery dates of some caves.

On Saturday night we had an unexpectedly long trip in the southern tourist caves with my missing the route up to Orient Cave out of the "mud tunnels". This necessitated a trip out through Temple Of Baal then back into the top of Orient for a quick look at my "best chamber" at Jenolan.

Sunday 23 April

The group split into four directions for the day. Chris C. took Gordon, Danielle, Sean and Marie into Mammoth where they saw most of the regular sights such as Horseshoe Cavern and took a trip through to Slug Lake. Tim lead Kali, Iain, Julianne, Ming, Steve, Brendon and Linden to Serpentine and Hennings. In Serpentine they went from the Northern Entrance (J72) through to the Upper Entrance (J125) via 180° Squeeze and 45° Squeeze. The inexperienced members of the party had some difficulty with the climb up to J125. They then moved up the valley to Hennings Cave where the beginners were "lost" in the maze and hunting for signatures was undertaken. All signatures appear to be in the front part of the cave with no signatures found in the rear section.

Ian, Mark, Phil, David J., Steve and David I. headed up to Wiburds. Once at the cave I sent Mark and David J. into the J220 entrance to attempt to find the reported pitch connection to the rest of Wiburds. J220 and J221 quickly join together and go into a strongly draughting rockpile with extensive moonmilk. Like a previous search by myself they could not find any obvious pitch but eventually found a small hole which opens out to a pitch over the eastern end of Yawning Gulches. This pitch is not the one referred to previously since the earlier pitch is said to have dropped into 22 Passage. The Staraj - Jackson pitch appears to be undescended (refer to David Jackson's article "The Horrinooblest of Them All" in *SUSS Bull* 35(1), p36). The pair then went to the River Section for familiarisation.

Ian, Phil, Steve, and David I. rigged ladders at Yawning Gulches and another pitch off the Henrys Dig passage that drops down to 22 Passage. We then went out to Pitter Patter Passage and started the survey. The plan was to start at the extreme end of the cave and survey out so that on subsequent trips one would not have to travel so far into the cave. As we progressed out we checked all climbable leads. One possible lead exists above the first 180° bend in Pitter Patter Passage. We completed the Pitter Patter survey and also surveyed the West Sand Traps 2 dig. About 135m surveyed.

Monday 24 April

We managed to get two survey parties going into the cave. Mike and Jill were put in charge of surveying the pretty part of the cave known as Silverfrost with David J. as help. This section requires detrogging to keep the area clean. Jill described the day as follows:

Began surveying at the extreme end of this part of the cave. At this end there was a breeze blowing out of a coral-choked rockpile. Surveyed about 50m of passage, torturous and delicate. We saw two cave crickets, and small spider web near the blowing area. A bat skeleton was also seen at the base of a glittering cascade.

Ian, Mark, Phil and Rodney went back to the end of Western Passage to continue the survey. The first trick was to use Ian and Mark as human scaling poles to get Phil up a climbing lead above West Sand Traps 2 which was then surveyed. This lead has been climbed in the past by Rolf Adams and Martin Scott and it still doesn't go. We then surveyed to West Sand Traps 1 and around a couple of loops in this area. Again about 135m surveyed.

Most Wiburds parties were exiting the cave after sunset and having problems keeping to the track on the return walk, in particular around the Century Bluff and north Hennings Bluff areas. For most people this was little more than an inconvenience since all you had to do was walk down the valley to eventually regain the path. But Michael Lake is not most people. He exited the cave and started south across the flat but eventually managed to be walking north up the eastern side of Rowe Flat and past the pig trap. The garbled and embarrassed

accounts from those present suggest that they walked south to the river then left down the river then left again to be heading north. If Mike is the goat in this drama then Jill and David must surely rank as sheep. A final word of warning is that Mike has been doing track work at Bungonia, so expect scenic trips by unexpected routes next time you're at Bungonia!

Tuesday 25 April

Mike, Jill and Phil returned to Silverfrost to continue the survey out. Again using Jill's words the day was described thus:

Continuing the survey from yesterday we added three pits off the "potatoes" area together with much of the main passageway, gourds etc. ["Potatoes" are a speleothem deposit made from moonmilk that has subsequently recrystallised. They look like brown potatoes. Another good example is in Chifley Cave.] We did another 50m and got to the columns near the end of the gour streamway, about 5m from the plastic sheeting.

Ian, Mark, David J. and Rodney returned to Western Passage and continued the survey, pushing leads and surveying in circles. We surveyed three tight, muddy loops and ended up 2 stations further back into the cave! About 80m more survey for the day.

Wednesday 26 April

Most people went back to Sydney for work after the public holiday. This left Ian, Mark, and David J. to carry on until the weekend. We went to the River Section to try to locate where Time Out connects. Time Out is the section of passage found by Staraj and Cooper earlier in the year that runs off the J58 entrance area [refer to Mark Staraj's article "Time Out in Wiburds Lake Cave" in this Bulletin]. The River Section is rockpile maze that breaks out into large passage on at least 3 levels with complex interconnections. Initially the Time Out connection was not found and we retreated to Lake Chamber for lunch. In Lake Chamber we found a high level in the north part of the room. Mark pushed along a lead off here and Ian was able to walk down and around to prove a light and voice connection from directly above where the J58 entrance series pops out into Lake Chamber.

After lunch Dave and I went out through the J58 entrance while Mark went out through J92. We met outside and started to look at Time Out from where it was initially found. After more rockpile confusion with people unexpectedly meeting each other, my knee packed up. So Mark and David went on to find the River Section again and the extensive upper levels. I briefly staggered round the bluff and up to the lower entrance to Warbo Cave. The Warbo sirens were calling in the form of a very strong moist draught but I resisted. (Warbo is a very unstable and dangerous cave. My last visit was when Martin Scott broke his foot while surfing a table sized boulder.)

I continued to look for the mythical J227 and J237 entrances that are mentioned in the Northern Limestone Book but cannot be found on the surface. I did manage to find J201, J229, J230, and J235. By now my knee was really sore and it took 90 minutes to walk back to the hut. Mark and David continued to go round in circles in the northern rockpiles and upon consulting what old maps we had, decided that most had been seen before. David managed to find the connection between Time Out and the northern River Section.

When I got back to the hut I immediately went for the shower, only to find that we had no water. A valve left open and a worn out pump meant that all the water tanks were empty. So we had to arrange a shower in Caves House.

Thursday 27 April

For me today was a rest day with a shopping trip into Oberon. We all spent the morning cleaning out the garage and trying to get the water back on.

While I went off to Oberon, David and Mark walked up the valley to look for the mysterious J227 and J237 entrances. Mark described the trip thus:

J227 and J237 are two supposed entrances to Wiburds Lake Cave but there are no maps locating such nor are they phototagged. After extensive searches near J235 and J230, no luck. But very late found a probable entrance just above J58 but could find no tag in the dusk. Conclusion - believe both entrances in J58 area which is supported by comments in the Northern Limestone book if J58 is in the extensive rockpile in the northeastern portion of the cave.

Friday 28 April

Friday was a fairly straightforward day of surveying in Western Passage for Ian, Mark and David. We brought the survey back out to the rockpile-floored room at the end of Dyke Passage - about 120m of survey. There are still eight leads to be pursued in Western Passage but all involve climbing or the use of scaling poles. We arrived back at the hut to find numerous people arriving for the weekend's Speleo gabfest and cave politics.

Saturday 29 April

After much morning confusion in a very crowded hut, people set off to the Speleo Council meeting. After brief talk to the group about Wiburds I asked who wanted to go surveying. The envious looks I got definitely said that surveying beats cave politics. We had a shortage of experienced surveyors so there were only two large survey groups.

Ian, Brett, Simon, Jenny, Gary and James surveyed the side passages off Yawning Gulches then started to survey up the 50' ladder to the 5 Ways junction. About 3m from the top of this climb is a large ledge with passage leading northeast to an extensive rockpile. Within this rockpile are numerous leads which we were able to extensively explore due to our numbers. Three main routes exist. The first is an area with two sizeable rockpile rooms. The rocks of the rockpile in this area are car- and truck-sized. Second, from the base of these rooms is a climbable route back down into Yawning Gulches. The third way is a small and squeezey route up and to the northwest that rejoins the main path near 5 Ways. This rockpile probably goes to the surface with tree roots being seen in the easternmost parts. 85m surveyed for the day.

Meanwhile David J., Don G., Terry, Sarah and Sarah's parents also started to survey from Yawning Gulches, but back along 22 Passage to the start of Dyke Passage. They also managed to do two dominantly vertical loops. Firstly they surveyed up to the perched sump found the previous weekend and then they did the low muddy loop just south of the start of Dyke Passage. About 130m was surveyed. In particular it was great to see two very good surveyors in Don and Terry in action. Both of these people have expedition survey experience in Lechuguilla and taught the rest a few things.

After everyone had dinner it was a mass gathering of 40 cavers and cave politicians for the 9:30 southern tourist cave inspection tour. Initially we went into Orient and then down into the Mud Tunnels. It was with some smugness that I managed to know where I was at all

times and watch others be confused (they made the same mistakes I had done on the previous weekend). The tour continued through Temple of Baal, Pool of Cerberus and Lucas with everyone popping out in the Grand Arch. Thanks to Pat Larkin for the tour.

Sunday 30 April

The last day of the trip was a good one with four survey parties and about 20 people in the cave. Ian, Brett, Simon and Jenny went back to the rockpile at the eastern end of Yawning Gulches to continue the previous days work. We surveyed out to the 5 Ways junction with loops through the rockpile to the bottom of Yawning Gulches and near 5 Ways. There are still a few side passages to be done without getting in to the very complicated Maze area. We then had a bit of spare time but I did not want to start another big loop so we surveyed the side passage leading out to the J101 entrance. 107m of survey for the day.

Mark S., Chris N., Beverley and John D. went to survey Neddy's Knock. Most of the chamber was surveyed but great care is required in this area due to very fragile walls and gypsum and aragonite formations. The walls are showing the effects of gypsum wedging with several slabs having already fallen. The survey is connected to the Western Passage survey and has one lead left to do. 39m surveyed.

David J., Don M., Cedric, Estelle, Delphine, James, Roland, John H., Tony, Chris B., Sherry and Mark B. acted as combined digging and survey party in the Henry's Dig area. While David, Sherry and Mark surveyed the rest went down to the dig site and started to make the connection back to 22 Passage passable.

David told Don and company to start digging. He knew that they did not know where Henry's Dig was and would start digging in the most obvious place, which in fact is the connection to 22 Passage. James and Estelle were the first people through this tight muddy squeeze in more than 15 years. Their audible excitement at having broken through into vast innumerable was quickly squashed when James found a yellow survey tag, (W0203).

The survey was pushed through to connect with the 22 Passage survey. 120m surveyed for the party. They also had a look at what was thought to be Henry's Dig which was a large boulder constricting the passage with a chamber visible beyond. This boulder has been subsequently passed and a digging bucket was found! Sherry and Mark had expedition practice, so all were able to see another style of surveying using the leapfrog method.

Mike, Jill, and Lee went into Silverfrost where a bit more progress was made with the survey now back into the Maze area so the detrog section does not have to be entered again for the survey. 35m surveyed.

Overall about 30 people were involved in the survey during this week to produce 1070m of survey. The cave was about one third surveyed with several of the difficult bits done. Many hard bits of surveying remain including J220, the River Section, Boomalakka Wee, Eureka Track and Northwest Passage. It is planned that all the large passages will be done with theodolite since we suspect the dykes in the cave are magnetic enough to cause compass errors. It is expected that systematic surveying and exploration will turn up new or forgotten passage. In particular J220, the River Section, Henry's Dig, and the avens above Western Passage have potential. A large number of scaling pole leads exist in the cave. Many thanks to all those who have got this project off the ground, but much remains to be done.

Ian Cooper

Earthquake at Jenolan

20-21 May, 1995

For a change, SUSS was not at Jenolan this weekend. The cottage was occupied by the University of Technology Speleological Society (UTS³) and I was invited to join them by ex-SUSS member Terry O'Leary.

Caving with UTS³ is different to caving with SUSS. For example, we stopped at the river in Spider for a break and I soon found why the trip in had been a little slow. The UTS³ contingent broke open a range and quantity of food that I had never seen underground and which would rival that provided by many restaurants. Besides the traditional chocolate and lollies, there was yoghurt, flavoured milk, pastries, fruit juice, bread, cheese, salami and much more.

The quantity of food that they had carried in revealed the real reason why they were a little slow through the squeezes. If we had been trapped by that evening's earthquake we could have survived a week on the food. After six hours underground we regained the surface, and soon after the cottage, early in the evening.

Just two hours later as we finished dinner and recounted the day's trip, a loud 'explosion' rocked the cottage. It sounded as if a gas or water pipe had exploded right under the kitchen, or a larger blast had happened down the hill near the other houses. As there was no storm with thunder and lightning, Terry went outside and looked under the cottage but found nothing unusual. We pondered what the blast had been.

Late the next day we were informed it was an earthquake, with its epicentre 15kms under Jenolan. So much for the 'stable geology' of the region!

The next day a smaller party visited Wiburds Lake Cave, where we found the bottom of Yawning Gulches full of water. So we toured Pitter Patter Passage.

On the way through the cave we noticed a slab of white rock about 1m x 0.5m at the main junction near the dyke. As this part of the cave had been full of water just a few years before, I wondered why this rock had remained white and why no-one had stepped on it.

When we heard of the earthquake, we realised that this slab must have fallen from the roof, probably during the quake. This was the only sign of the quake we had noticed in a large part of Wiburds. As was mentioned in the news, caves are generally safe in an earthquake as the shock waves dissipate in the air of the voids.

So what caused the quake? Was it due to the deep geological faults and pressures located way under the limestone? Or was it indigestion caused by all the food that had been carried into Spider by UTS³ that day?

Another of the world's 'unsolved mysteries'!

Guy McKanna

The Benefits of 5 Metre Legs

Comboyne Plateau, 5-6 August, 1995

Participants: David Jackson, Willow Forsyth, Phil Maynard, Andrew Matthews, Chris Norton

The plan was to meet at Chris' house at 7:15pm and drive in convoy up to Taree. I was running a little late not having organised any gear the night before, and was worried I'd be holding up the others. That was a vain hope. Mr last-day-at-work-in-Wollongong Maynard finally appeared at 8:45pm. Being so late, the drive out of Sydney was fast and we met at Karuah for dinner after a bit of tag teaming under Jackson's ambivalent directions.

At Taree, we took the Wingham road and once through that town followed Andrew rallying Phil's car along a dirt road. At 1.00am in a trail of billowing clouds of dust on a gravel road that winds tightly up crests and hills of at least 18 kilometres of never-ending road we passed several silent villages. The gravel was deep in some patches and having now seen it in daylight I recommend more caution than we employed in our desire to get to the camp site. Setting up camp was minimal work. Some pitched tents, I just unrolled my borrowed tent and passed out on top of the nylon.

We were woken by our hosts' son, Calum, who took a complete shine to Andrew and proceeded to show him his basketball skills. Phil called us to order, however, and marched us off to the cars for the drive to Comboyne caves. The weather was perfect and the view across rolling hills (plateau? what plateau?) of thick rainforest was spectacular. Fifty minutes and we were at the base of a big hill with directions that the cave was half way up and over a ridge. It was a steep climb, and the sweat was breaking out freely in the warm sunny day as we climbed the grassy slopes. We crested onto a farm track and dropped down into the next valley. Phil turned left up the creek, covered in rainforest, and climbing the limestone boulders and outcrop we travelled only some 70-100 m before Phil unerringly turned left and put us at the entrance to the cave.

I was surprised that Phil didn't want to go inside. He sat down, broke out the water and pointed idly into the large cave entrance. I soon understood his lack of interest. The rest of the cave does not match its entrance. Within 2 minutes we'd explored the cave and done a through trip to emerge higher up the creek among trees with a perfect canopy. It was cool and pleasant; however, my reverie was disturbed by someone asking me a geological question. Yikes! With liberal disclaimers as to any degree of accuracy, I gave my considered opinion and advised checking with Coops who is a real geo.

Then the real challenge. Finding the elusive CB-4 cave. Instructions from Armstrong Osborne narrowed the focus, and David pointed out the lantana covered hills and creeks they had trudged across in vain on the last bloody (literally) trip. Within 5 minutes the cave was located, up the hill signposted by a dead gum tree and, naturally, a scrubby patch of lantana. Phil was more excited this time and donning gear we descended. It was dry, warm and smelt strongly of bat guano. It was an easy cave with mostly big chambers, and we rapidly fanned out to test the length of passages. Andrew tried to chimney up a slot in the first big room but was defeated by a pile of soft guano on one side of the chimney. Phil and Chris tried to push a squeeze passage.

We soon reassembled and began surveying. There are two ways down from the top entrance, a long chimney drop and a scramble slope. The survey started down the chimney and I was in charge of the tape. Half way down the chimney, I decided I didn't have long enough legs to make it and the 2.5m drop wasn't jumpable. So I wasted 5 minutes of everyone's time while I worked up some confidence and, using a helping shoulder from David as a foot-hold, completed an inelegant descent.

The remainder of the mapping was basically trouble free. However, Norton and I were firing on all engines with the survey details while Phil struggled to keep up with recording and drawing at the same time. It's amazing how quickly you can move through a cave with an average of 5m legs.* Phil noticed the change of rock in the wall at the back end of the cave, and I agreed with him that it is probably a dyke which reappears in several of the chambers. In addition to the 120m of survey, we found two geckos, one grey and one brown, near the entrance. There were lots of bugs, insects and small critters in the warm cave - more than I'd ever seen before in one cave.

Back on the surface we discovered the world's best toilet with a view - across the valley, forests, hills and in the valley farm land. The walk back down the hill was a lot more fun than the climb up. We ran with laughter directed at avoiding the cow pats, some were very wet looking. It was quite steep and bumpy beneath the grass covering. At one stage I slipped and slid on my side before converting to an upright stance and running once more. It was fun grass skiing without the skis!

The temperature dropped rapidly as the sun set in spectacular pinks and oranges. Back at camp, we had the spare cottage with pot belly stove as our cooking and lounging place. It was luxurious - especially Phil's jaffle iron. Our hosts, Briony, Andy and the kids, joined us for coffee and cake after dinner. Calum spent all night leaning against Andrew's knee, completely refused to give me a hug and generally spoke only to his favourite person, whom he favoured with a page-by-page review of a bird identification guide. We were joined by the neighbours and enjoyed a roaring conversation on the state of forest preservation on the Comboyne Plateau and the hot issue of who actually had spiked the trees in the Boral forest compartments. By 9:30pm we were flagging and soon crawled off to bed. It had been a long day after a too short night.

Sunday dawned just as pleasant and we set out to abseil Ellenbrough Falls. The car park was fairly much deserted when we arrived, and we ran around the valley on the path to get a view of the 150m falls and potential abseil paths from the other side of the valley. It's a very big drop viewed from that position. Back at the cars, we trogged up and Norton went off to set up the rope. After some adjusting and checking of gear, we watched Norton walk off the edge, laying out the rope as he went. It was a beautiful day, just the sound of birds and the roar of water as it flowed off the flat lip of the falls and thundered into the valley below. Jackson went next. Halfway down, he called back up recommending the use of all 5 bars on the rack. Andrew and I, lying flat on our bellies on the edge, watched him get more and more ant-like.

It was a great abseil. The weight of the rope made the first 40m hard, but then it became easier, walking down with the rush of water a few metres to the right and the feel of spray blowing on your face. For the last 40 metres there is a sporty slot in the rock to navigate and there was a lot more bounce in the rope. After avoiding a pool at the bottom, it was an easy

* Ed's note - Willow doesn't actually have 5m legs. Either this is wishful thinking on her part, or she is referring to the length of the survey legs.

scramble to the rock on which the others were perched watching the descent. The climb out was steep and slippery and hot, but it was worth it. After a quick face, hair and hand wash in the pool at the top of the Falls, it was time to retrieve the rope and re-pack it. Heavy and wet, it seemed to go on forever, but that's because I had chosen the task of pulling it back up. A caravan kiosk had opened back in the car park and we swooped on the fresh sausage rolls and hot chocolate. Delicious.

Before we left the farm, Briony conducted an interview for her radio program. David Jackson was the star, giving a greeting in Dalek tongue that was truly astounding. The drive back in late afternoon/early evening was a doddle compared to Friday's epic. The caves are best described as less than spectacular, so any trip participant should insist on including the Ellenbrough Falls abseil in the trip agenda.

Willow Forsyth

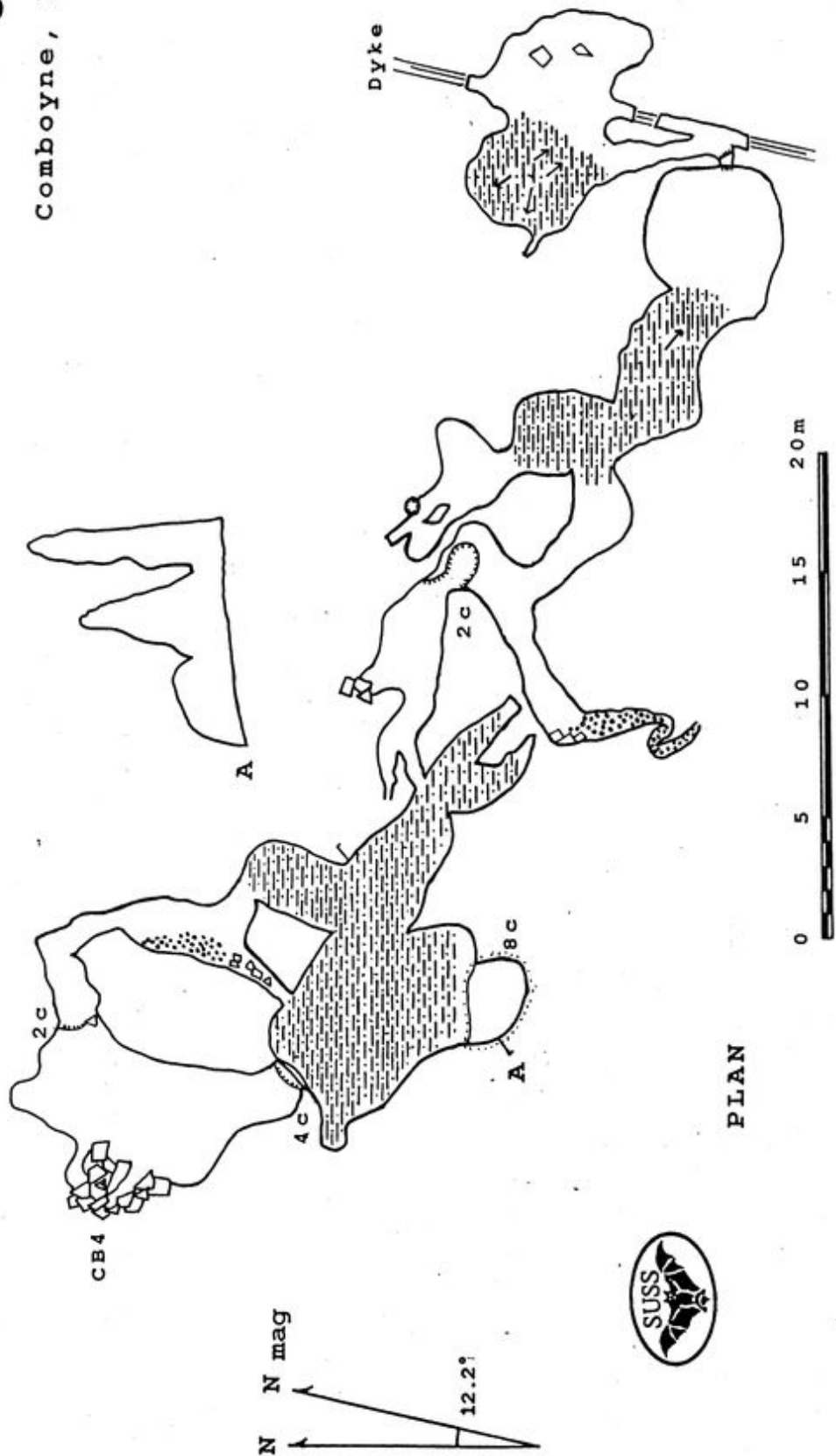
CB4, Tom's Creek, Comboyne, NSW

Surveyed 5/8/95 to ASF Grade 5,4 by Willow Forsyth, David Jackson, Andrew Matthews, Philip Maynard, Chris Norton

From	To	Tape	Compass	Clino	First Station				Second Station			
					←	→	↑	↓	←	→	↑	↓
CB4	1	5.87	86	-47	0.6	0.5	1	1	3	5	1.3	0
1	2	6.85	171	-13	1.5	3	1.6	0	1	1	0	1
2	3	1.74	115	-41	1	1	0	1	0.5	0.5	0.5	0.5
3	4	4.9	115	-90	0.5	0.5	0	0.5	1.5	2.5	7.2	0.5
4	5	7.24	118	6	1.5	2.5	2.5	0	3.5	0.5	2.5	1.6
5	6	5.00	75	-26	6	2.5	2.5	1	0	2	0.3	0.1
6	7	1.48	110	22	0	2.5	1.2	0.1	0	3.5	0.4	3
7	8	4.09	69	26	0.1	3	0.4	3	0	1.5	4.5	0.8
8	9	10.21	98	44	0.2	2	2.5	1	5	3.5	0.2	2
9	10	9.32	231	-1	1.8	2.5	0	1.6	1	0.5	0.7	0.3
10	11	0.44	231	90	1	0.5	0.7	0.3	1	1.4	0.4	2
11	12	3.29	150	-2	6	0.4	0.3	0.7	0.1	0.3	0.2	0.4
9	13	4.14	200	-8.5	2	5	0	1.6	2	0.7	0.5	0.1
13	14	3.80	117	20	2	0.2	0.5	0.1	1.5	1	0	0.8
14	15	5.20	84	10	1.5	1	0	0.7	6	4	0.3	0.7
15	16	5.40	116	-14	0.3	3.5	4	0.7	8	1.9	1	0
16	17	5.95	96	22	1	3	1	0	1.5	2	1.6	2.5
17	18	0.84	76	-5	0.2	0.5	0.5	1	3	0	0.6	0.7
18	19	6.12	344	-3	1	1	0.8	0.7	1.3	2	0.8	0.1
19	20	4.99	64	25.5	6	3.5	0	0.8	3	4	0	8
15	21	7.27	314	16	3	0.3	4	0.7	1.2	1.5	1	0.3
21	22	4.39	306	24	1.6	0.3	0.2	0.2	0.6	1	2	0.7
5	23	6.53	357	-13	6	2.5	5	1.6	0	2.5	0.4	4
23	24	6	337	17	0.3	1.2	1	0.6	1	1	0.6	0.3
24	25	3.87	329.5	30	0.2	1	0.5	0.4	2.5	0.5	0.8	0.4
25	26	4.58	230	39.5	2.5	0	0.4	0.5	8	7	1.5	0.3
26	1	3.34	227	25	1	4	1.5	0.4	3	4	2.5	1

CB4

Comboyne, NSW



PLAN



Surveyed 5/8/95 by SUSS
to ASF Grade 54

Station	Description	Co-ordinates		
		X	Y	Z
CB4	Flagged at entrance	0.00	0.00	0.00
1	Rock on floor of chamber	3.96	-0.58	-4.29
2	Roof projection	3.69	-7.21	-5.79
3	Over drop	4.78	-8.00	-6.91
4		4.80	-7.99	-11.78
5	Prominent spur in chamber	10.40	-12.61	-10.98
6		14.89	-12.40	-13.17
7	Entrance to squeeze	16.05	-13.13	-12.62
8		19.68	-12.57	-10.82
9	Roof over climb	26.57	-15.12	-3.73
10		18.24	-19.31	-3.89
11		18.24	-19.31	-3.45
12	Start of serpentine passage	19.24	-22.44	-3.34
13		24.38	-18.58	-4.34
14		27.14	-20.85	-3.04
15	Rock spur in chamber	32.23	-21.41	-2.14
16	Rock in floor	36.34	-24.65	-3.45
17	Lip of rock	41.58	-26.39	-1.22
18		42.42	-26.36	-1.29
19		42.02	-20.26	-1.61
20	Back of chamber	46.40	-19.20	0.54
21		28.36	-15.59	-0.14
22		25.69	-12.60	1.65
23		11.53	-6.30	-12.41
24		10.55	-0.63	-10.62
25		9.55	2.57	-8.66
26	Edge of drop	6.50	0.95	-5.72

A Quick Trip to Wiburds

Jenolan, 13 August 1995

Participants: Felicite Caspir, David Rowling, Jill Rowling, Martin and Tina

David, my brother, had recently accepted a position as an electrician with the Caves Reserve Trust, so it was an ideal opportunity to take him caving for the first time in Wiburds and for me to obtain some photos of the "furze bushes" in the Maze area. These are very fine, tangled masses of helictites.

We first walked up to the site of Rowe's cottage. Rowe Flat has been dug up by pigs and looks as though it has been ploughed. Martin and Tina continued walking on the surface while the rest of us went underground. Firstly, I took the photos I wanted, then we went to Lake Chamber, Dyke Chamber and the first part of Western Passage. Here, we found lots of carbonised gumnuts, twigs and so on high up, embedded in the muddy walls. We looked also at the delicate mud formations before returning.

Jill Rowling

Equipment Officer's Report 1994-95

The last year has seen an increased demand on equipment with an increase in club activity. In particular the club light resources are being stretched when two trips are held at the same time (this has occurred several times this year). So I strongly urge all regular trip participants to acquire a personal caving light. Options include:

- Speleotechnics FX-2
- Lead-acid miners lamp
- Home-made gel cell systems
- Petzl Zooms

Listed below are the write-offs for the last year as well as the current inventory. Most of the write-offs this year are short lengths of rope which are all that remains of 100m lengths after about 3 years use. All of the rope cuts listed were enforced due to rub point damage. One helmet was found to be cracked and was destroyed. The ease with which helmets can be ripped apart using only your hands once a fracture is present is frightening, so regularly check your helmet. Some minor items were sold in the continuing rationalisation of unnecessary equipment.

Some of the survey gear is nearly worn out and it is planned to obtain new gear this year. Also to be obtained this year are helmets, 10mm rope, and a FX-2 battery. The club is currently well set up with ladders, scaling poles and rigging tapes.

The usual list of gripes still applies, namely:

- i) Make sure that all gear is washed at the end of the trip!
- ii) If you borrow gear, fill out the register and report any damage or missing gear.
- iii) RETURN GEAR PROMPTLY!

Ian Cooper

SUSS Equipment Write-offs 1994-95

Item	Reason
Medium Spelean cave pack	Worn out, cut up to patch another pack
45m, 10mm Bluewater rope	Cut to 7m and 37m lengths, 11/94
90m, 10mm Bluewater rope	Cut to 18m and 71m lengths, 1/95
96m, 10mm Bluewater rope	Cut to 36m, 35m and 18m lengths, 1/95
37m, 9mm Bluewater rope	Sold in NZ, 1/95
25m, 9mm Bluewater rope	Sold in NZ, 1/95
7m, 10mm Bluewater rope	Sold 2/95
15m, 9mm Bluewater rope	Sold 2/95
14m, 9mm Bluewater rope	Sold 3/95
10m of 50mm red flat tape	Missing
Aluminium billy	Sold 2/95
Stainless steel pack haul karabiner	Sold 2/95
"Protector" Tuff Master construction helmet	Sold 3/95
50mm flat tape belt	Lost 12/94
Speleotechnics FX-2 battery "SUSS 8"	Worn out, condemned 5/95
Petzl "Vertical" caving helmet	Damaged, condemned and destroyed 4/95



Vertical Caving for Beginners

Time once again for an extract from Norbert Castaret's book *Ten Years Under the Earth*, as translated by Burrows Massey. This edited episode, from the chapter *My First Chasm*, shows how the young Norbert learnt vertical caving skills, including tyrolean traverses, with not the slightest help from any safety codes or accreditation courses. Don't try this at home, kids.

My first chasm - how I dreamed of it! So far I had attacked only those caverns which could be explored with the very simplest outfit - an acetylene lamp, candles, and a forty-foot rope for short descents.

Vertical chasms were beyond me for lack of proper equipment, and I was reduced to poring over Martel's *Les Abîmes*, the only book I then had. The very names of the chasms made me dizzy, and stimulated a wild desire to imitate the hero of these perilous exploits. E A Martel was 'the man of the chasms', the discoverer of Padirac, of the Aven Armand, of Rabanel, the Mas Raynal, the Baumes Chaudes, and of heaven knows how many other enormous cavities. *Les Abîmes* was too fascinating. I could not resist it, and gradually the determination took root: I would go down a chasm.

For want of the indispensable rope ladders, winch, and assistants I had to eliminate a great many pits as too deep. I pitched on a nice 211-foot cavity the plan of which showed that one could get down with 113 feet of rope. The rest was a forty-five-degree slope, with heaps of rubble. Besides the chasm was in the forest of Arbas, almost at my door. It was in the lower Pyrenees of the Haute-Garonne at an altitude of 2,600 feet.

Somewhat less than twelve and a half miles on my bicycle brought me one fine day to the village of Arbas. I asked an old man about the Gouffre de Planque. My luck was in; the old fellow was inexhaustible. But what suspicion and disdain when I revealed my intention of descending the Gouffre de Planque! By all means let people be interested in the caverns; let them come from afar to inquire about them; that was flattering; but to go down in...?

Ill-will and ignorance appeared forthwith: the chasm was the most dangerous in the country, Martel had just missed being killed by an avalanche of stones, and had let down a rope 'sixty *cannes* long' (350 feet) without touching bottom. I should have been shaken if I had not had in my note-book the sketch of the chasm drawn by Martel's companions, Rudaux and Jammes, and been accustomed to the exaggerations of peasants describing caverns they have never been in.

I had to pretend humility, and say that I wanted merely to see the opening. This calmed the old fellow enough for him to give me confused directions, interrupted by 'You can't go wrongs' of evil omen. He told me that a two-hour climb through the woods would bring me to the edge of the chasm, 'near a big beech'.

I crossed and recrossed the woods in every direction, looking for the big beech. Finally, by pure luck, I caught sight not of the tree but of a black hole partly masked in leaves. It was the chasm I wanted.

In the book the picture of the chasm was plain and simple. A sloping well sixty-five feet deep, a perpendicular drop of thirty, and then a great slope of rubble slanting down into a vast chamber, all the way to the bottom. I set to work uncoiling the ropes, and tying them end to end. I had got together all the cordage I could lay hands on, a motley lot. Altogether there were 113 feet of rope, not very suitable because too thin, though it was strong enough for the weight of an adolescent.

The handling of the rope and the tremendous knot with which I tied it to the nearest tree gave me confidence. I kept telling myself to be calm and determined. Having got rid of all useless encumbrances, taken a lighted candle in my teeth, and hooked the acetylene lamp to my belt, I was not too much frightened. I backed down hand over hand into the abyss.

At sixty-five feet the forty-five-degree tunnel suddenly ended in a vertical drop, which in fact overhung a little, so that everything was plunged in darkness. It was the delicate point in the descent, but, trusting to my strong arms and Martel's description, I did not hesitate. I knelt backward on the edge of the void, and then dropped on my stomach on the overhang, below which the rope dangled free. As my head passed the ledge, the candle bumped and went out. My vertical descent now was blind and out of reach of the walls. A hundred feet does not look like much in figures, but in reality it is the height of a seven-storey building; on a dangling rope in the dark it seems like more.

It was a happy moment when I touched ground, and relit my candle and then the lamp. I was flushed with pride. I had vanquished my fears, and conquered my first chasm!

In the acetylene light I realised the vastness of the chamber. The roof was so high it was out of sight. The steep, sloping floor was covered with rubbish. I hurried down at once, for I was in a great hurry to reach 211 feet below ground. I found a miniature lake, fed by a ridged and petrified stalagmite cascade. The overflow ran down a narrow crack towards heaven knows what distant valley spring.

So this was the bottom of a chasm. In the silence and solitude it was a moving experience thus to surprise the water at work as it dripped from the ceiling and formed the pool. Little springs and great subterranean rivers alike feed on such hidden reservoirs as this.

I had gone down over the centre of the rubble; along one of the sides, close to the wall, I started back up towards the rope. On the way I noticed a rising tunnel in the wall. I went in, wondering; this vestibule was mentioned neither in the book nor in the plan I had. The rugged tunnel opened into a horizontal grotto with a dusty earth floor. Beyond this hall I found a narrow and broken gallery, sharply interrupted by a drop whose bottom was too deep for my feeble light. The Gouffre de Planque, it seemed, had been but partly explored; some of its extensions were unknown.

I found go no further for lack of rope. But I soon made a second expedition, armed with a spare rope for the second shaft. With mingled curiosity and fear I slid down into the hole. A candle in my teeth was all the light I had. By swinging the rope I got a foothold on a ledge twenty-five or thirty feet down. This admitted me to a new level of the cavern, where I went cautiously forward, abandoning the shaft as too deep and dangerous for a lone man as ill-equipped as I. Finally I was stopped in my tracks by another shaft occupying the whole corridor. The gallery continued on the further edge of the chasm; its dark vault beckoned on. I pondered a moment before turning back. I saw a way to surmount the new obstacle, and I was in haste to try it out.

A few days later I left my bicycle at the village for the third time. Bent under a knapsack heavier than ever, I started climbing through the forest. On this particular day I was most anxious not to be noticed.

I lunched as usual at the mouth of the chasm. As I ate I studied some near-by young chestnuts with slender black trunks. Unwrapping a newly sharpened hatchet, I headed for a superb young tree. The fear of a policeman, or rather of a forester, gave me pause as I was about to swing, but not for long. I felt like an amateur cracksman as I attacked the chestnut, which soon toppled quietly. I trimmed the trunk clean in a few seconds, threw the tell-tale branches into the chasm, picked up the chips, covered the cut surface of the stump with moss, and shoved the pole down the sloping shaft.

A few minutes later - having gone down the rope - I put my tree on my shoulder, and tramped heavily towards the rising tunnel. My long, heavy load was hard to transport up the steep grade.

Suddenly, I was astounded to see a rat a few yards away. It occurred to me that the creature would be an interesting catch; but, how to get it? I had the lamp in one hand, and the other hand kept the tree on my shoulder. Gently I let go of the trunk, which teetered on my bent back. I grabbed my cap and hurled it at the rat. My aim was good: the rat rolled from its boulder to my feet. But at the same moment the pole fell, half crushing me as it slid backward and crashed down the corridor. It did not stop until it reached the great chamber full of debris. The rat had disappeared. I have never seen another cave rat, so I regret this abortive capture the more. Disappointed of the rat, I went after the tree, which had gone so rapidly down the slope where I had painfully dragged it up.

Since that adventure long ago I have done many unexpected things in caverns; I have even gone skating on a frozen underground lake; but I shall never forget taking that heavy, awkward tree-trunk through the winding corridors. Bumping and tugging, I finally reached the edge of the last shaft, where the pole was to be balanced

Obituary

Earlier this year, we learnt with great sadness of the death of Dave Weaver, an English caver living in New Zealand with whom SUSS has caved in the Ellis Basin and at Waitomo. Dave lived at Waitomo where he conducted adventure cave tours.

Dave died of suspected oxygen toxicity on a deep penetration dive into the Pearse Resurgence, the major outflow for the Mount Arthur karst. Other participants in the dive were Pete Hobson and Kieran MacKay. Due to the extreme depth of the area where Dave's body is located, a recovery is unlikely.

SUSS extends its sympathies to all Dave's friends and relatives.

In the next exciting issue...

We hope to bring you the following articles in the next issue:

- The next instalment of the New Zealand trip report
- A major article on Wellington
- The 1994 Christmas trip to Jenolan

Plus Wyanbene, Wombeyan, Wiburds and much, much more!

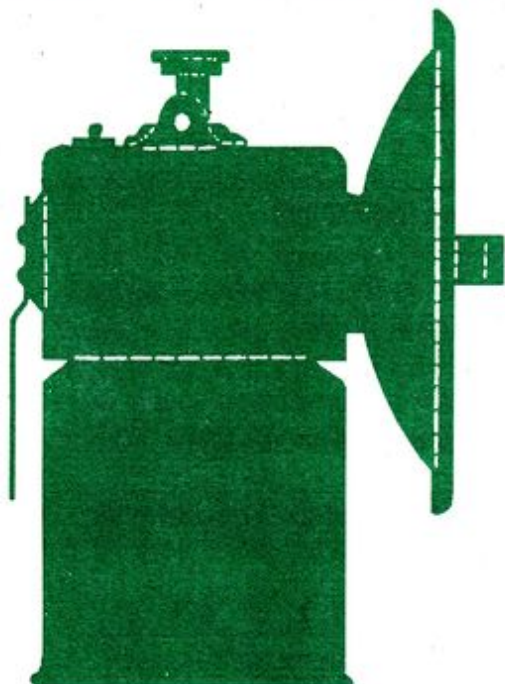
Disclaimer

The views and opinions expressed in this Bulletin do not necessarily reflect the views of the Sydney University Speleological Society, and should not be taken to be the views of the Society unless expressly stated. The Society accepts no responsibility for the accuracy of information contained in this issue of the Bulletin.



SUSS Trips and Meetings

- Oct.**
- 5 **General Meeting** - Common Room, Holme Building 7:00pm.
 - 7-8 **Tuglow** - The big photography trip. Feature in the upcoming Tuglow Book. Talk to Ian Cooper on 682 6790 (H), 223 9011 (W).
 - 13-14 **Jenolan Guides Adventure Course** - Assist with our instruction course in caving leadership for guides at Jenolan. Call Mike Lake on 481 0949 (H).
 - 14-15 **Jenolan** - Surveying in Wiburds, Twiddly-Om-Pom and the Streamway to Heaven. Call Phil Maynard 517 1050 (H), 646 0432 (W).
 - 14-15 **NSW Speleo Council Meeting, Abercrombie** - Come to talk politics and see a spectacular archway. Patrick Larkin 9960 4726 (H), 9930 7966 (W).
 - 21-22 **Colong** - Fabulous extensive cave system in the Kanangra Boyd area. Call Chris Norton on 9959 3613 (H), 228 8353 (W).
 - 24 **Committee Meeting** - Politics, as usual. 6:30pm, British Lion Hotel.
 - 27-28 **Jenolan Guides Adventure Course** - Part 2 of the above.
 - 28-29 **Wellington** - Help haul tanks for the Australian Geographic dive project. Call Keir Vaughan-Taylor on 816-5210 (H).
 - 28-29 **Bungonia** - Deep, dusty and full of scouts. Practise your SRT with Chris Norton 9959 3613 (H), 228 8353 (W).
- Nov.**
- 2 **General Meeting** - Common Room, Holme Building 7:00 pm.
 - 4-5 **Tuglow** - Camp by the Kowmung and incur the wrath of Sydney Water. Yet more photography with Ian Cooper 682 6790 (H), 223 9011(W).
 - 11-12 **Kalang Falls Canyon** - Nice and dry with plenty of big drops. Start the summer well with Phil Maynard 517 1050 (H), 6466 0432 (W).
 - 18-19 **Jenolan** - Leader to be announced.
 - 25-26 **Danae Brook** - The all-time fave. Numbers strictly limited. Live fast and die young with Chris Norton 9959 3613 (H), 228 8353 (W).
 - 28 **Committee Meeting** - British Lion Hotel, 6:30 pm.
- Dec.**
- 2-3 **Tuglow** - More photography.
 - 7 **General Meeting** - last for the year, Holme Common Room, 7:00 pm.
 - 9-17 **Jenolan Mega-Trip** including the infamous SUSS Christmas Party.



SUSS

BULLETIN *of the* **Sydney University Speleological Society**

**Box 35, Holme Building
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