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Cover Photo: Negotiating the Growling Swallet stream-way, photo by Dean Morgan.

The Speleo Spiel

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Southern Tasmanian Caverneers Incorporated
PO Box 416, Sandy Bay, Tas. 7006
http://www.tased.edu.au/tasonline/scaving/

Issue No. 312, Feb.-Mar. 1999

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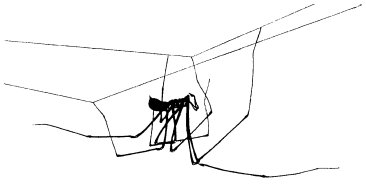


Cave Spider; drawing by Jo Eberhard.

Editorial

Summer is over, Daylight Savings time has ended and it's too warm for snow, but not too cold and wet to make caving too arduous. All up that means that this time of year normally sees a peak of caving activity. I certainly hope so, as lately there hasn't been that much happening, nor much enthusiasm for club activities. At recent club meetings we have been lucky to get a quorum, and what's even more surprising the normally popular Social meetings have only seen two or three people turning up . . . . pretty disappointing. On the positive side, 'familiar names' have been getting underground regularly, and the off-Wednesday training sessions have been avidly pursued by a few keen people. Let's hope that there is a bit more interest in things Speleological over the next few months.

Recently I had the pleasure of attending the VSA Down to Earth convention (which, by the way was excellent; some details in this issue), one young CCV member approached me with enthusiasm and said "Wow, you have amazing trips on your Forward Program . . . . even novices get to go to such fantastic caves as Growling Swallet . . . . I wish I lived in Tasmania". It is fairly common for people to take for granted what is in their own backyard; this phenomenon currently seems to be applying to many STC members!

A few words in an Editorial wont get people caving again; but I hope that readers of the Spiel will at least see what some of the keener ones are up to, and even maybe they will think with fondness about caving they have done in the past, and consider doing some more in the future. Who knows, we might actually see some more trips happening. Failing that, the next Spiel cover might show someone sitting in a comfortable chair in front of their TV, or computer...virtual caving perhaps! We have such wonderful caves, and it is not that difficult to go bush and find a totally 'new' cave (s), what amazing possibilities there are in this Island state. Enough said.

Jeff

Club Matters

YOU DID PAY YOUR SUBS!

If you get this Speleo-Spiel, then you have paid your subs. If you don't happen to get this Spiel (which probably means you aren't reading this anyway!) that's probably because you are not financial (Annual Subs were due at the AGM held on 4/11/98; the prompt payment discount applied till 4/2/99, i.e. 3 months grace).

If you are not financial, then you can of course easily rectify this by forwarding your subscriptions to the Treasurer. Please note, that until your subscriptions are paid, all membership rights and privledges are suspended. The constitution says that members who remain in arrears for more than 6 months can be expelled from STC.

Welcome to New Members

Both Alaric Bennett and Jamie Allison have survived several tough caving trips and they keep coming back for more. So, we've made them full members. Welcome to STC, it is hoped that some of your enthusiasm rubs off onto some of the old guard!

TRAINING EVENINGS change in nature.

In the near future Winter Indoor Training nights (including videos) will commence. The next Spiel will have full details. Thanks to those few keen souls who came along and participated in the summer series.

Bits and Pieces

Cave Critters and their collector (Arthur Clarke) recently made the Sunday Tasmanian (a full page spread!). The accompanying article about Restoration and Arthur's bio-speleological work in Newdegate Cave was quite informative.

Yes, the Pagoda is Gone!

Apparently in April last year the wonderful Pagoda (built for the King of Tonga, Princess of Thailand, Prince Phillip or whoever) in the Florentine Valley was burned to the ground. It is not going to be replaced. What a pity, it was a great venue to bring international/interstate visitors and a wonderful place to camp whilst having a caving binge in the Junee-Florentine.

LOST at the bottom of Slaughterhouse pot-a Maglite torch inscribed with "Maritime Workers Credit Union (MWCU)" and with a green string line attached. This torch has sentimental value, if found, then please contact Arthur Clarke, on 62282099 (h), or via email on "arthurc@southcom.com.au". A **reward is offered** for the return of this item.

FORWARD PROGRAM:

Meetings: (held at the Shipwright Arms Hotel, Battery Point)

Wed Apr. 7th	General Meeting at 7:30 p.m.
Wed Apr. 21st	Social gathering from 8 p.m. (Greg Middleton will show some slides of his caving in Madagascar, Mauritius and the Comores.)
Wed May. 5th	General Meeting at 7:30 p.m.
Wed May. 19th	Social gathering from 8 p.m.

Working Bees (Held at the Gear Store, contact Jeff for details)

Tue Apr. 27th.	Working Bee-to make a new ladder for Avon's Aven. Many hands make the job easier and more fun!
Sun May 9th.	Working Bee-the Annual STC drop testing of our older ropes. Come and lend a hand and learn about this process; if desired, BYO rope (2.5 m sample, soaked in water overnight) or old cowstail to test.

Trips: (Please contact the Organiser of any trip for more details.)

Sun Apr. 11	Midnight Hole (or Slaughterhouse Pot), room for 3, Jeff 62238620.
Sa/Su-May 1/2	Junee-Florentine with the SRCC; doing some easier vertical caves. Probably staying at Tyenna Valley Lodge. Jeff 62238620.
Sa/Su May 22/23	Khazad-Dum/Dwarrowdelf exchange trips. Needs 6-8 committed cavers! Get some practise and build your stamina before coming on this trip! Contact Jeff 62238620.
Dates to be fixed	•Growling Swallet-install Avon's Aven ladder, Jeff 62238620. •Mesa Creek-explore and track-work, Arthur 62282099. •Black River-some leads to check out, Trevor 62291382. •Midnight Hole-rebolting. It will happen! Jeff 62238620.

Glue-in Bolting Technology trial-part 2

Ian Houshold with a portable power drill.

Following on from a pre-Xmas 'lets stick some stainless steel hardware into a few pet-rocks' session (see Speleo Spiel 311 for details); Steve Bunton, Ian Houshold and myself held a follow up 'lets see how hard it is to reverse the process' session in early February. This little session certainly wasn't a very scientifically conducted one, but did give us a qualitative feel about the integrity of glue-in bolts and brought some of the potential problems to our attention.

Steve and Ian testing a bolt.

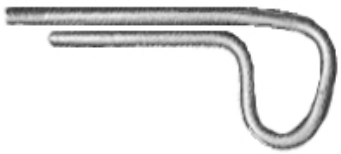
Firstly, we found that spilled Hilti HY150 glue around the installed bolts would chip off quite easily, and that it didn't appear to be well affixed to the rock surface. This at least means that any spillage can be easily cleaned up. The important thing is that the glue binds well to both stainless steel and the surrounding rock in the hole.

Test 1-a 'Fixe' glue in eyebolt.

By placing a 'jimmy' bar through the eye, and applying a reasonably large leverage, the glue-metal bond was broken and the bolt could be rotated. However the three pressed deformities along the shaft meant that the bolt could not be removed. The only way we could actually remove the bolt was by drilling the glue from a series of holes around the shaft (and destroying the original hole in the process).

A few lessons here, first, we did not seat the bolt deep enough (i.e. use a deep enough surface trench around the drilled hole to prevent rotation); secondly, perhaps we were not careful enough (after cleaning) to prevent finger grease getting onto the bolt shaft. It is worth noting that the amount of surface roughness on this commercially produced bolt is perhaps a little light on. Use of a grinder to add some nicks along the shaft would serve to increase the effectiveness of the glue-metal bond. Thirdly, if a bolt of this type is 'botched', then it is not possible to get the bolt out without damage to the hole.

Test 2-a ''home-made' "P" hanger.



This bolt performed very well; use of a large bar through the eye only resulted in bending of the eye and some slight chipping of the glue near the surface of the hole. With brute force we could not remove it.

The geometry of this bolt (2 pieces of 8 mm stainless steel) inserted into a single hole (18 mm diameter) meant that down either side of the steel is a glue only area. A 5 mm drill bit was used to drill out the glue in these areas, then a bar placed through the eye allowed the bolt to be rotated to break the glue-metal bonds and thus be removed. The 18 mm drill bit was then used to remove remaining glue and revealed the original hole in it's original form, ready for use again. This is very good, as it means that the hole can be re-used. So, if for some reason (e.g. excessive wear, failure of glue to bond properly, etc.) a bolt needs replacing, then it can be easily done and the original hole can be re-used.

Test 3-repairing grooves/holes in limestone.

We had experimented with two methods of filling old bolt holes/rope grooves and the like. For the first method the hole was filled with glue and then capped with rock dust. The other method involved mixing rock dust and glue and then plugging the hole with this mixture. We found that the latter method was superior in performance (i.e. more difficult to remove).

Summary

Attacking bolts with cro-bars and the like is hardly anything like the normal loading that would be applied to these bolts whilst they are in service. As the next test, we plan to install a few P-hangers in a local quarry and use the drop test rig to apply consecutive 80 kg drop test loads (fall factor one and up) to them (to simulate the worst likely load they will receive whilst underground) to observe how they handle this.

Some people out there will say, we are just wasting time, reinventing the wheel as glue-in bolts have been well and truly tested in many places. However, we think that it is good to get a bit of experience under controlled conditions. Testing on the surface prior to installing them in caves does provide peace of mind and will show up any deficiencies in installation technique.

By the way, if anyone has any interest in modern bolting techniques, then take note that a detailed review article on this subject recently appeared in Australian Caver No. 146.

PS. At a workshop in the "Down to Earth" convention held at Buchan over 6-8/3/99, a variety of stainless steel bolts were demonstrated.

Jeff Butt

BALDOCKS CAVE (?) as the site locality of Tasmanian Cave Spider.

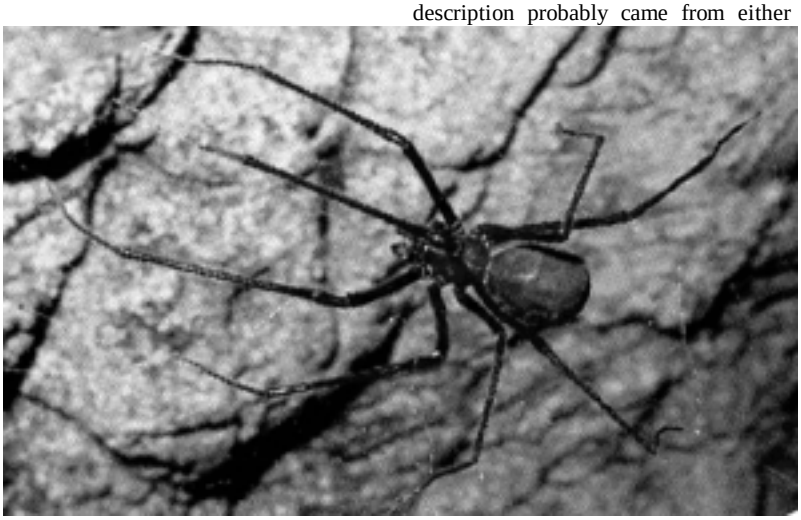
From my volume of notes that I've been accumulating re the early discovery/ records of limestone and caves in Tasmania, I have found the following references re the Tasmanian Cave Spider, described by Higgins & Petterd in 1883 and associated references re caves in the Chudleigh District of Mole Creek in northern Tasmania.

Under the heading of "Cave Fauna" in *Tasmanian Caverneering Club Bulletin* 1 (2) of 1958, there are some reprinted excerpts from the *Papers and Proceedings of the Royal Society of Tasmania* including a 1921 report by H.H. Scott and Clive Lord on mammalian remains in caves at Mole Creek and the original (1883) description of the Tasmanian Cave Spider by Edmund Higgins and William Petterd.

The 1921 studies by Scott and Lord were of mammalian remains collected from Baldocks Cave and King Solomons Cave. These studies followed on from the reference to similar mammalian remains in the earlier paper by Higgins & Petterd, located in the cave where they found and described the Tasmania Cave Spider - suggesting that BALDOCKS CAVE was the original site where this spider was first described from - so read on!

The Tasmanian Cave Spider (Hickmania troglodytes) was originally described as "Theridion troglodytes" by Edmund Higgins and William Petterd in 1883 in a paper read to the Royal Society of Tasmania on July 10th 1883. The paper states that the spider "....specimens were obtained from a recently discovered cave in the Chudleigh district on the property of Mr. Peckitt, who most liberally allowed Mr. Frederick Henry, of Launceston, to select, for our examination, specimens, not only of the Arachnidae but also of the Mammalian remains deposited in the fissures of the rock embedded in the earthy floor of the cave."

In R.M. Johnston's "*GEOLOGY of TASMANIA*" (1888), he refers to the recently described spider by Higgins & Petterd of Launceston discovered by Mr. Henry in one of the so-called "New Caves" in the neighbourhood of Chudleigh - caves with lofty chambers and as Johnston states "...formed by ancient watercourses" with numerous stals and glow-worms etc. in "clustered magnificence". He relates these in his description of the unfossiliferous "Primordial Calciferous Group" of limestone rocks of Silurian Age, where the Carbonate of Lime from Chudleigh is analysed to 91.5%. He also graphically describes these caves with their "...crystalline tabular ledges and Gothic-like pillars all ablaze as the lights of the visitors' candles flash and reflect from the myriad crystal facets". (I presume these "tabular ledges" are flowstone sheets or banks and the "pillars" are columns - both of which occur as small scale features in Baldocks Cave.)



Tasmanian Cave Spider (Hickmania troglodytes); photo by Arthur Clarke.

Considering that the other Chudleigh Caves - Honeycomb and Wet Cave had been known for some time, the "New Caves" mentioned by R.M. Johnston may well be those such as Baldocks Cave or Scotts Cave, and certainly less likely as King Solomons Cave (not reportedly discovered till 1906) and I would have hardly thought that King Solomons would be considered as part of the Chudleigh neighbourhood district.

From another reference - Elery Hamilton-Smith's talk on the historical aspects of caves (including Mole Creek) to the 11th ACKMA conference at Gowrie Park - (p.182-3 of last ACKMA proceedings: *Cave and Karst Management in Australasia 11*) - Elery refers to "Old Pickett" as the ex-convict publican at Chudleigh Hotel who eagerly took tourists into the nearby Chudleigh caves and the 1873 description of the candle-lit tour by a Tasmanian Governor (written by one of the Governor's aides), sounding like a description of a visit into Wet Cave.

In some other reference - one of the local history books about the Mole Creek area - it states that both Scotts Cave and Baldocks Cave were opened up for cave tours in the early 1890's - using acetylene as a lighting method and that King Solomons Cave was discovered in 1906 and Marakoopa Cave not till 1910.

Reading into the above, unless someone can find some other source of information about Pickett's or Peckitt's land holdings/ location etc. from a Lands & Titles Search, I tend to think that the Tasmanian Cave Spider description probably came from either Scotts Cave or Baldocks Cave, probably the latter as also implied by the 1921 paper by Scott and Lord.

By the way, I have recently acquired some more anecdotal accounts of visits to Newdegate Cave (at Hastings Caves) in the early 1930's from three elderly women - now in their 80's and 90's. These trips to the cave included accounts of trips by local Raminea-based and Hastings (township)-based tour guides before it was "officially" opened as a tourist cave by the Dept. of Tourism in January 1939.

Arthur Clarke

A Summary of Recent Caving Incidents

Unfortunately, Incidents seem to becoming a regular thing in recent times. Details of recent incidents are presented here; not to embarrass people, but to try and prevent repeats. [I have just learned that the ASF actually has an "Incidents Report Form" which could be used to report Incidents such as those that follow.]

Ed.

Growling Swallet-Black River region, 26/1/99.

Party: Trevor Wailes, John Palmer, Tim White (UK), Matt ?, Andras Galambos, Jeff Butt.
Problem: Fall results in a Head Injury.
Solution: Self Rescue.

Description:
John was checking for leads, free-climbing up the side of a narrow passage. Afterwards, he said he felt that "the holds were dodgy", but before he could back-off he fell (~3 m) and hit his forehead on a rock. He sustained a deep (bone showing) 'star' gash (18 stitches required) just above his right eye and below his helmet brim. He was unconscious for about a minute, and then dazed, but oriented. There was a degree of bleeding. First aid was administered and the situation assessed. John had impaired vision, poor balance and showed some signs of shock. He was warmed and allowed to stabilise for about 30 minutes before the decision to start a self-rescue was made. With 3-4 people around him, steadying and assisting him and one person finding the easiest route, the bottom of the Destiny pitch was reached without undue difficulty. John's vision and co-ordination had improved, and so after two people (with pulleys and spare rope) ascended the 26 metre pitch, he prussiked up unassisted. Using a belay rope on all the climbs/ladders, John was assisted out the streamway; his condition improved continuously throughout the evacuation, but oh what a headache! [This incident was almost CAVEX-99 for real one week early!]

Suggestions:
Free climb with care! Trust your instincts and back-off before trouble strikes. Having a larger group helps significantly if there is an incident. Be prepared, always carry first aid/survival/rescue gear, just in case.

Exit Cave, 21/2/99.

Party: Janice March (NC), Andrew March (NC), Kelly Miller, Jamie Allison, Hans Benisch, Jeff Butt.
Problem: 'Locked in'
Solution: Perseverance.

Description:
After completing the traverse from Valley Entrance to the Efflux, problems were encountered in getting the padlock on the gate to work; to complicate matters, the key became jammed in the lock. With the chain tight and secured to the outside of the gate via a shackle, it was difficult even to access the lock (especially with big hands). Janice, as a dentist is used to working in confined spaces and making extraction's (ouch!) and after some perseverance (about half an hours effort) managed to solve the problem.

The padlock/gate locking system needs to be altered to make escape possible without a key; or at least not a Hoodini trick with a key.

Suggestions:
Have a back-up plan, know how to find alternative entrances, if possible ascertain the condition of locks before-hand, maybe carry lubricant/pliers to assist with locks, perseverance pays dividends. Maybe this gate should have two locks, in series; and people be given two keys, that way there is less risk of being locked it.

Exit Cave, 20/3/99.

Party: Paul Brooker (VSA), Kent Warby (VSA), Andras Galambos.
Problem: Overdue party, Call out activated.
Solution: Self Rescue.

Description:
Difficulty in finding the correct track to IB120 (Valley Entrance) resulted in a late afternoon (~ 4 p.m.) entry to Exit Cave via this entrance. None of the party had ever been to Exit Cave before, and so many 'U-turns' were made in the process of completing the traverse to the efflux entrance. They exited the cave pre-dawn but started heading along the track across the flats towards the Catamaran Rd, instead of along the Skinner track. Upon realising their mistake they awaited dawn before retracing their steps and heading out the Skinner track. Two other VSA members raised the alarm of the overdue party around 6:30 a.m. A small team of searchers with local knowledge and gate-keys headed down to Ida Bay, arriving about 15 minutes after the missing party made it to the car park at 11 a.m.

Suggestions:
Local knowledge or a guide can be invaluable. Always leave an ETA and 'Panic time' with someone. If going to an unfamiliar area, try and cover access tracks in daylight. If going to an unfamiliar extensive cave, a reconnaissance trip first may be useful. If a cave entrance is not located until late in the day, consider delaying your trip and/or changing your plans.

Ed.

CAVEX-99 (Operation "Ground-Hog"), Feb. 6-7, 1999

Party: A cast of 60 from a wide variety of Organisations from all around the State, numbers from each organisation are indicated below (but names have been omitted for brevity, and because I don't know all of them!): Tasmania Police (17), Tasmania State Emergency Service (25), Parks and Wildlife Service (2), Forestry Tasmania (1), Southern Tasmanian Caverneers (6), Northern Caverneers (4), Savage River Caving Club (2) and Mole Creek Caving Club (3).

(It was unfortunate that no representatives from the Ambulance Service were able to attend.)

Like any good exercise, there was a series of aims, as set out below for the cast of 60 from the various agencies outlined above. It was great to have such a large turn-out, but of course this did make the planning more difficult. We wanted to avoid having lots of people standing around with not much to do.

Aims:
A variety of Organisation and Personal aims for the weekend included:

- to test the ability of the Police to conduct and manage a cave rescue situation,
- to allow participants to practise a wide variety of skills, including responding to emergency situations that might occur on a normal caving trip,

- to gain experience with a wide variety of personal from different agencies,
- to assess present equipment and make recommendations for future improvement.
- to assess medical response to a cave injury.
- to establish and maintain a Police Forward Command Post.
- to establish and maintain communications for cave rescue parties and Hobart Police Communications.
- learning new and practising old skills,
- and last but not least, to have a bit of fun.

To facilitate satisfying the aims, the first part of the weekend involved participants from the various groups forming caving teams and heading off on a 'routine' caving trip, with a specific objective (as listed below). Participants from the different agencies were assigned tasks according to skill levels.

Narrative of the events

Party No.	No. in party	Experience Level	Cave	Aim
1	4	VERTICAL-Prior SRT experience.	Owl Pot (JF221)	Aim to bottom the cave.
2	4	VERTICAL-Prior SRT experience	Tassy Pot (JF223)	Aim to bottom the cave and explore the horizontal section at the bottom.
3	4	VERTICAL-Prior SRT experience	Slaughterhouse Pot (JF337) and Growling Swallet (JF36)	Aim to check the integrity of the in-situ phone line, if OK, to leave it as is.
4	4	CLIMBING-Prior caving and climbing experience, including using ladders.	Growling Swallet (JF36)	Aim-to go to Windy Rift, to rig all climbs on the way in. Navigation practise with a cave map (and compass).
5	5	HORIZONTAL-Some caving experience desirable	Burning Down the House (JF402)	Aim- to install and use the Cave phone; and practise using it. Then to leave it for the JF228 party to remove. Exit via the JF402 entrance.
6	4	HORIZONTAL-Some caving experience desirable	JF228 (an entrance to Burning Down the House)	Aim-to locate the entrance and proceed into the cave and find the way to JF402. To use the phone system installed by the other party, and then to remove it, exiting via the JF402 entrance.
7	4	VERTICAL-Prior SRT experience.	Pendant Pot (JF37)	Aim-To bottom the cave and have a look at the sump leading to Growling Swallet.
8	4	VERTICAL-Prior SRT experience	Khazad-Dum (JF4) (party 1)	Aim-An exchange trip, down the Serpentine Route (rigging) and out the Main Route (derigging)
9	4	VERTICAL-Prior SRT experience	Khazad-Dum (JF4) (party 2)	Aim-An exchange trip, down the Main Route (rigging) and out the Serpentine Route (derigging)
10	3	SURFACE-close to vehicles	Surface party 1	Aim-To set up a radio-repeater station on the top of Tim Shea, and to establish communications with surface parties 2, 3 and 4. To act as a relay for Search Base.
11	-	SURFACE-rough tracks, moderate walk	Surface party 2	Aim-To locate the entrance of the Chairman (JF99) and to test radio-reception en-route and at the entrance. Visit Rift Cave (JF34) entrance en-route. To use a GPS unit.
12	-	SURFACE-rough tracks, hard walk	Surface party 3	Aim-To locate the entrance of Niggly Cave (JF237) and to test radio communications en-route. To use a GPS unit.
13	-	SURFACE-rough track, but only a short distance	Surface party 4	Aim-To locate the entrance of Franckcombe's cave (JF7) and to test radio-reception en-route and at the entrance.

Each group was packed off with a series of envelopes which were to be opened at certain points in the cave. Envelopes included a mixture of the following minor incidents.

- Multiple Light failures; to test that adequate backups were carried.
- First Aid incident (bad gash to shin); to test that basic first aid gear was carried.
- Assisting a tired person on a rope; to test assistance measures (assisted hoist, hauling).
- Not all envelopes were nasty, some included edible treats (with a note "Take a Break...your left leg, no just kidding, have a Kit-Kat!"), or plasma pack coupons (for the BBQ).

Party 3, 'hit the jackpot' and found themselves with a major incident on their hands. The STC member in this party (Tim Anderson), who was the only person in the Party with local knowledge was 'rendered inoperative' via a rockfall in the Growling Swallet streamway, just upstream from the junction to Windy Rift. The other members (with zero knowledge of the cave) had to deal with this situation. First aid was administered, then two party members left to seek assistance (all they knew about the route, was to head upstream).

A Search Base was established at the end of the Eight Road, and Cathy Buchanan won the prize of being Search Commander (her first time). Cathy had no idea of what the main event was going to be and so was placed in a somewhat unenviable position.

Things were a little slow to get off the ground, it took a considerable time to organise, brief, equip and mobilise the multiple teams.

As the day unfolded, the promised bad weather, "Rain developing with locally heavy falls" held off till about 5 p.m.; then the heavens unleashed. For those who don't know, Growling Swallet is a large Swallet, which floods with heavy rain/snow-melt. Given the weather forecast, I for one would not have done a big trip in Growling on that day, but given we were there to monitor the situation etc., we decided to let it run. At the start of the day, water levels were very low. As a complicating factor for the major incident, a 'flood' was planned to commence when the rescue was in full swing (what a pack of so-and-so's the inventors of CAVEX are!), causing all sorts of difficult decisions to be made....how many people do you put at risk to save one person, what other options are there etc. etc.

There were a variety of other problems that unfolded as the different parties set about achieving their tasks. In retrospect, I think that we hardly needed 'lucky envelopes' [for the first 'incident' the lucky envelopes were left at the other

end of the valley!-Oops], as with 60 people out and about things are going to go against plans anyway! Party 4 couldn't find the phone line in Slaughterhouse Pot for a while, then they disappeared with both hand-sets....eventually out came one hand-set and the phone line. One of the Khazad-Dum parties got lost on the way to the cave, the other group was diverted to locate them (they were found at Dwarrowdelf). One of the parties in K.D. couldn't find the way on; the other party baulked at one of the pitches in the Serpentine route due to 'insufficient anchors'. The shenanigans of these parties 8 and 9 kept Cathy busy at Search Base.

There is no need to say that the best laid plans often go astray. Because of the slow start to the day, it ended up that Party 4 didn't happen to stumble upon the accident. Route finding meant that Party 7 were somewhat delayed in emerging from Pendant Pot, by then the rain was in full swing and instead of them entering Slaughterhouse Pot (i.e. following the party with the accident) they were diverted home. Thus two chances of discovering the accident were nullified. Party 3 meanwhile had done what they could for victim Tim, and two of the party had set off for the entrance....they had never been to Growling before, let alone seen the main streamway, and not surprisingly they didn't make it out. Of course all the time the water was falling and the Growling stream was rising...a flood pulse was building. Damian Bidgood and myself (schemers for CAVEX), back at Search Base were a little concerned; we had suggested that a rainfall gauge and stream monitor be set up at the entrance of Growling, and yes the cup was filling up and the river was starting to flood. There was no sign of the rain easing either.

Mild concern came into gear; Kelly Miller and myself did a quick sortie into Growling to locate the injured team. We found Tim and his carer (Gerrard Dutton) at the right place, but didn't locate the other two of the party whom had left over an hour before to try and find the entrance; (this shows you what might happen if the only person who knows the way has an accident). Kelly (from Party 4, who had recently been in the cave) noted that the stream had risen from when she was last there. Given the rain outside had been going solid for a couple of hours, the stream was definitely going to rise more....not to mention we really did have two lost cavers. Plan "B" swung into action, Kelly and Gerrard were sent out to 'raise the Plan "A" alarm' about Tim's "injuries", but the accident site was moved from near Windy Rift to the Glow-worm chamber. As Tim and I headed to the new location we did a sweep search for the two really missing cavers.

No sign of them en-route to the Glow-worm chamber. But, the water was visibly rising, and now a flood was well and truly in progress. Growling is no place to have a pretend rescue with a real flood, so Plan "C" was invoked. The accident site was moved to the bottom of the dry-bypass. As we headed there, I left Tim in the main stream as catcher and searched all other side passages. I found fresh foot-prints up the Yorkshire Drain, just beneath the large waterfall. I doubted that the missing two had climbed this obstacle; certainly I had hoped they'd not as the top section of the Yorkshire Drain is no place to be in flood conditions. When I returned to Tim the water had risen another 20 cm. I must say levels of concern had risen by this stage, so after leaving Tim at the Plan "C" accident site, I scooted out to determine if the two missing people had made it out of the cave. If they hadn't, then we would have had an Authentic Incident to deal with. Fortunately Kelly and Gerrard had picked the missing two up 4/5 th's of the way out of the cave; they had done a marvellous job at finding their way that far out! I could now relax, and headed back to Tim to monitor his extrication (I had the role of safety officer for the exercise). By this time the river had risen to a moderate flood level; the main streamway down below would be 'just-passable'.

Of course, some 'black magic' (that I was unaware of) was still happening. Somehow a 'NO-DUFF' (i.e. this is a REAL situation) message had got out to Search Base that I had suffered a real accident (instead of the correct message that Tim had suffered the pretend accident) with head injuries; need a stretcher etc. etc. The proverbial really hit the fan back at Search Base, and semi-casual activity suddenly zoomed to frenetic 'real-life' drama pace. Damian jumped in and oversaw this panic and after some interrogation over the radio sussed out what the real situation actually was, and things then reverted back to a 'CAVEX' situation.

The initial rescuers had reached Tim, by this time it was around 8:30 p.m. They arrived with a stretcher and rigging gear, but there were several serious omissions:

- no sleeping bag or warm gear for the victim,
- no face-mask or eye-protection for the victim whilst trussed up in the stretcher,
- no food or hot-drinks for the victim or his carer.

It was disappointing that it took nearly 90 minutes for any of these items to be brought in (Search Base was 20 minutes walk away). Growling was well and truly in flood; the raging white water in the entrance added the right amount of realism to the situation and had people on edge. A phone line was laid into the accident site, and ropes were installed to assist people in traversing the stream to the start of the dry by-pass.

Because of the amount of person power, the stretcher encased (and cool) Tim was hauled up the two short climbs in the dry by-pass using a simple haul (yes, with an auto-lock and a separate belay line). Keeping things as simple as possible is a very good strategy. It did not take very long to get Tim to the entrance; he arrived there about 11 p.m. The exercise was then called off.

The rain was still falling, but was a little lighter now. Incidentally, the Growling stream went from very low summer flow (before 6 p.m.), it became turbid and began to show an initial rise at 6 p.m. (one hour after the heavy rain started), and at 9 p.m. was quite high water and would have been approaching impassable in the cave. (About 25 mm of rain had fallen in the hours up to 9 p.m.) For a period the stream then dropped slightly, but was on the rise again at 11 p.m. The track back to the Eight Road was extremely well trodden and muddied up; put something like an inch (25 mm) of rain and about 100 person passes together and see what you come up with.

Search Base was dismantled in the rain and everyone headed back to the campsite at the Maydena end of the valley. A BBQ, debrief and a few well deserved ales ensued. The rain continued to pour down all night (as did the port down one or two throats!), and early on Sunday most people headed off home.

All up, I think it was an interesting and educational day for all! Thanks again to everyone for coming along.

Jeff Butt

A report on "Down to Earth"-a Speleological Convention organised by the VSA and held at Buchan over 6-8/3/99.

I had the good fortune to be able to zip over to Victoria for the weekend to be able to attend this three-day action packed series of workshops. The weekend was well organised and was well attended by about 50 participants. The only difficulty was choosing which of the three parallel sessions to attend! The ever improving "Homeleigh", operated by the Rimstone Co-operative was a very suitable venue; many of the practical sessions were held in nearby caves, most under 10 minutes drive away.

Since I couldn't attend all the sessions, I'm only giving a run-down on some of those I attended and the things that interested me most; I did flit around a bit from session to session.

GPS-Glenn Baddeley (Saturday morning)

Much of the basic GPS stuff was covered; I was primarily interested in learning more about DGPS (differential GPS) and methods of doing it. Interestingly all the GPS units there were Garmin's; these seem to have the most user friendly user interface. Glenn had written some software to decode some of the non-displayed GPS data that is available when you interface your GPS with a personal computer. I was particularly interested to note that the actual satellites used to calculate a fix is recorded. This gives the opportunity to do your own post-processing to obtain DGPS data (the so-called "poor man's DGPS"). All you have to do is to have two GPS units (one base and one rover) and two computers logging them. Afterwards you can compare the fixes taken from the two and by matching fixes obtained using the same satellites you can get DGPS positions. (Dave Rasch and I tried a very basic variant of this method, see Spiel #305, p 10, but we weren't recording the different satellites used for given fixes and thus it didn't work very well at all.)

Cave Diving-Stefan Eberhard (Saturday morning)

Stefan gave a full run down to gear, techniques, safety, redundancy, CDAA levels, training. Lots of very informative slides, dive maps and personal anecdotes made this a very informative session. Stefan stressed that 'Cave Diving is a very Safe Activity', much less dangerous than being on the roads!

Cave Photography-Ken Boland (Saturday afternoon)

Ken gave a run down of the history of cave photography (many early photos were taken in the catacombs under Paris), and some techniques. He presented his methods and favourite bits and pieces of gear for taking photos; as well as a selection of interesting cave photographs. An underground session in the nearby Wilson's Cave. To assist in viewing the cave a large car battery was taken underground; this powered a 40W fluorescent tube (to give a softer light) through an inverter, as well as several 50 and 100 W incandescent spot lights. Quite a few photographs were taken by the various participants. Firefly slave flashes were quite popular as well, but several people seemed to be having compatibility problems between them and their flash units. Despite being well loved (read abused), Wilson's cave still was a good venue and I'm sure that some excellent photographs were taken; perhaps some will grace the covers of Nargun's in the future.

Video Session-Darryl Carr et. al. (Saturday evening)

"Scrubby Creek"-the video was premiered. It was obvious that a significant amount of work (in a difficult cave, Scrubby Creek has ducks and roof-sniffs) and resources (400 W of lighting, and one drowned video camera) had gone into producing this. It was perhaps a little unfortunate that there wasn't enough time for the final editing or getting the sound-track right prior to the premiere, but nevertheless it was quite an entertaining and informative video. When completed it will be an excellent video and a good record of this cave and caving within.

A couple of other 'home-videos' were also presented, one from various caves in the Nullabor and one from Growling Swallet/New Feeling. Both were quite interesting; viewing a well known cave under well-lit conditions presents it in a totally new light.

Modern Bolting Techniques-Jeff Butt (Sunday morning)

I displayed a large range of hardware, from the Loxins and Carrots (loaned to me by Stuart Nicholas) of the old-days to modern stainless-steel mechanical and glue-in bolts. Participants who had never placed a spit were given the chance to have a go. The dry stone wall underneath Homeleigh now sports a selection of bolts! A modern wedge bolt and three glue-ins (staple, P-hanger and eye-bolt) were also demonstrated. These bolts were all left in place and can serve as some examples for visitors to Homeleigh in the years to come. I stressed that bolts are sometimes necessary, given that, when they are placed they should be well done and long-lasting.

Electronic Techniques-Peter Robertson (Sunday afternoon)

Cave (magnetic induction) radios were demonstrated. Peter had several transmitter/receiver pairs of radios (both AM and FM) with a variety of transmitter coils and loops. After a little talk we headed up to Wilson's cave and the overlying hill. Using a pair of coils (operating at 40 kHz; determined as the optimum frequency for the Buchan limestone) we accurately located a surface point above the underground party (about 20 m beneath us). Using AM radio signals on top of the 40 kHz carrier we could easily communicate between parties. On the surface we tested the range of both AM and FM variants. With AM we had a range of about 110 m with the standard coil (about 40 cm in diameter) and this increased to around 175 m with a larger (about 3 m in diameter) loop. With FM ranges were about half that obtained with AM, but the communications seemed much clearer. Certainly this 'cave-radio' has many potential uses, ranging from surveying to SAR communications. At a similar demonstration I attended in the US, some geometry and measurements of angles allowed the depth between underground and surface coils to be calculated.

A seismic unit was also demonstrated. Two geophones, connected to a timer were laid out along a line. A ~6 pound sledgehammer was used to thump the ground, the timer recorded the minimum time of flight between geophones. By moving one geophone along a line and repetitive thumping (you need a strong person on the hammer!) a graph of time of flight versus distance can be obtained. This relationship is largely linear, except when an underground cavity is traversed; the curve obtained allows estimation of the passage widths. A traverse over Wilson's Cave (along the convenient roadside) was done and the passage was accurately delineated. This was quite a simple and impressive little demonstration.

Caving in the Kimberly's-Stefan Eberhard (Sunday evening)

Stefan was the guest speaker and presented a vast array of spectacular slides taken on a recent expedition with WASG to the Kimberly's. He had an amazing collection of stories to tell about the exploits of aborigines in the area in the early days of white settlement, as well as some very interesting accounts of free-diving some large sumps in the area. It was a very entertaining talk.

Late night visit to Moon's Cave (Sunday-Monday)

A small group of us (Paul Brooker, Kent, Karen, George, Stefan and myself) headed into Moon's Cave for Stefan to view the aquatic delights. The treated sewage from the Buchan caves reserve flows through this cave. Water quality is regularly monitored and apparently the water is quite safe to drink (it has a decidedly ferrous smell), but there is rather a large amount of orange gelatinous material in the streamway that is rather off-putting (even after copious amounts of red wine!). The water quality can't be too bad, as there was lots of recent platypus diggings/burrows in the stream banks.

Fairy Cave-Dale Calnin (Monday morning)

Dale (from Parks Victoria) took us through this tourist cave and explained the history of its development and the Evolution of Cave Management that has occurred within. When I last visited this cave (~1974) one spent most of the tour inside a chicken-wire cage. Most of this chicken wire (highly effective at preventing visitors damaging the cave!) has been removed and more modern techniques are now employed. Modern 12 Volt QH lighting is being installed in some sections of the cave, with more subdued lighting methods being employed. The more sensitive lighting and increased efficiency of these lights (i.e. more light with less heat) is reducing impact upon the cave. The caves are now being managed from the point of view of caring for the caves, rather than from the view of providing maximum visitation/visitor experience.

Overview

Besides learning in the sessions, one can learn a lot just from chatting to people with similar interests. I had very worthwhile discussions about all sorts of things with wide variety of people. It is great getting a large number of people with similar interests together; there is a lot of 'synergy' from this situation. In addition, one can actually meet the person behind many of the familiar caving names that appears over the Internet and in Australian Caver.

"Down to Earth" was a fantastic idea that was fantastic in reality. A great concept and a great success. I hope that it's going to become a regular event! Well done to everyone that was involved.

Jeff Butt

Safety Tip

Whenever you are heading out caving (or surface bashing, gps'ing or whatever), then always let some responsible person know your intentions. You can simply verbally tell a spouse, house-mate or whatever. However, sometimes this informal method can come un-stuck, for example the person forgets some important detail (like which cave you were actually going to), or panics prematurely etc. It is much better to formally lodge your intentions. One method of doing this is by a written message. Use of a pro-forma, an example (taken from the "Cave Safety 1" Manual-available from STC Warehouse Sales-see the back of this Spiel), is shown opposite makes this task a lot easier and more fail-safe. Working through the "equipment taken" might actually result in you not forgetting some critical piece of gear (e.g. oops, I thought my light was already in the car!) In the event that you don't return from your trip there will be someone at home who will know where went, with whom, how well you were equipped and your planned route. They will have the correct information at hand to be able to call the right people for help at the appropriate time. In the rare event that things are seriously wrong, then any rescuers will have a much better idea of the potential task at hand. Of course it **is extremely important** to properly follow through with any sort of system that you put in place, don't forget to 'de-register', or else it could be a case of 'red-faces'!

CAVING TRIP-INTENTIONS SHEET

Leader:_____(1) Age: ____ Phone: _____(W) _____(H)

Others in party:

_____(2) ____ _____(H)

_____(3) ____ _____(H)

_____(4) ____ _____(H)

_____(5) ____ _____(H)

_____(6) ____ _____(H)

ASTERISK (*) THE EXPERIENCED CAVERS

PLANNED TRIP:

Date:_____ Departure Time:_____ Expected Return Time:_____

CAVE BEING VISITED:

Cave Name:_____ Cave No. _____

RegionofCave/Route:_____

ALTERNATIVE CAVE (IF ANY):

Cave Name:_____ Cave No. _____

VEHICLE DETAILS:

Vehicles left at: _____

Registration No's:_____

Make/model: _____

EQUIPMENT TAKEN (please complete/tick as appropriate):

Light:__	Spare light:__	Total Light duration:____hrs	
First Aid Gear:__	Space blankets:__	Rain Coats:__	Spare clothing:__
Surface map:__	Cave map:__	Compass:__	Whistle:__
Ladders:__(m)	Ropes:__(m)	Spare rope:__(m)	Rescue gear:__
Food:__	Stove & fuel:__	Other specify):_____	

FOR CONTACT PERSON: IF I HAVE NOT CONTACTED YOU by:___a.m./p.m., on:_____DAY, _____DATE

PLEASE CONTACT IN THE FIRST INSTANCE:

CLUB SEARCH & RESCUE OFFICER (_____)

on (___)_____

OR IN THE EVENT OF NO ANSWER, PLEASE CONTACT POLICE SEARCH AND RESCUE ON: (___) _____

I WILL NOTIFY YOU AS SOON AS WE RETURN:

signed:

_____

Surface wandering in the Junee-Florentine, 10/1/99.

Party: David Rasch, Andras Galambos

We set off on a sunny morning towards the Florentine area with the intention of following the limestone contact line from near Sunshine Rd towards Satan's Lair, and hopefully come across some interesting limestone features. For better chances we armed ourselves with a GPS.

We left the car quite high up on the road and "ascended" a gully to what we thought was the contact, and started to 'contour' along it. What we encountered was a rather thick vegetation, a few small rocky outcrops and nothing promising. After a while we felt slightly intimidated by our very slow advance and the lack of interesting spots. It was decided then to try the direct approach to Satan's Lair with the aid of the GPS. But we were once again defeated by the Australian (and introduced) flora. We retreated to another gully ending just below Satan's Lair. After having some lunch the dry gully was followed downstream. During the process Hole "1" was discovered. I quickly put my cotton overall on and headed in through the 1-1.5 m diameter entrance; Dave wasn't far behind in his shorts and T-shirt.... The cave begins with a sloping passage of ~10 m in length leading to a short squeeze between a few rocks. Beyond that one arrives in a chamber (~5 m * 2 m * 3 m) and at farther end to a 3m down climb then a squeeze again. After which there is a slot and a hole to another chamber(~5 m * 1.5 m * 4 m). At this place a small stream (2l/min.) enters from the ceiling just to disappear in a sub-caver hole in the floor. The caves length was estimated around 50m, its depth 20m. The co-ordinates of its location were recorded [1966 Australian Geoid: UTM 55 G 0463583 5269238] and a tape placed at the entrance with the date on it.

After exploring "Hole 1" we headed for the car which was duly reached at around 4 p.m. It is worth mentioning, that we found an old track -Dave identified it as the Bridle Track and took some co-ordinates again. This track made the walk a bit less demanding to my Kingswood.

The rest of the afternoon we spent with unsuccessful attempts of locating JF1 from Junee Quarry Rd. At one point the GPS's location error was down to 20m and the distance from the cave was shown as 60m and we still could not find it. But we stumbled across "Hole 2" [1966 Australian Geoid: UTM 55 G 0465195 5269101]. This is a 1.5 m * 1 m * 1.5 m feature with walls covered by moonmilk-like material.

After returning to the car again, we agreed that we both felt about as tired as if we had actually done some caving. I'd rather go caving, though.

Andras Galambos.

A Tourist Trip to Exit Cave-14/2/99.

In attendance: Sarah Boyle, Jeff Butt, Liz Canning, Hugh Fitzgerald, Alan Pryke (SUSS), Megan Pryke (SUSS).

After receiving word from the Pryke's via the STC listserver that they were coming to Tasmania and wished to do some horizontalish caving, a trip was organised to take our NSW brethren into a Tasmanian cavern for a short visit and a view of some spectacular speleothems.

Exit Cave was deemed a suitable excursion and Liz applied for and received the necessary permit and gate key. Jeff and Sarah decided to join the trip. Jeff's experience in Exit made him a useful guide for the day.

We entered the cave through the main resurgence entrance, having walked an hour and a half from Bender's Quarry over several new tree falls across the track. Once inside, we began the walk through to the formation in the Eastern Grand Fissure.

On the way we checked the permanent cave thermometer which is placed on a rock in the main passage beside the stream. The air temperature was 9.6 degrees C, while the stream temperature was 10.5 degrees C.

Eventually we reached the Eastern Grand Fissure, after Jeff guided us all safely through the rockfall sections. We were all suitably impressed by the formations, but perhaps Megan and Alan were most impressed after the mediocre displays they're used to in the poxy little caves of NSW. (It must be said that the author is perhaps guilty of a parochial bias, and it should also be pointed out that he has no firsthand experience of any NSW caves).

Alan was certainly taking a lot of photos, but apparently this is normal behaviour from him.

While returning to the entrance we made a side trip to The Ballroom, a most spectacular area with the justly famous Ball on display. This sent Alan into paroxysms of shutter-clicking joy, and elicited many appreciative oohs and aahs from other members of the party.

We eventually exited the eponymous cave after 6 hours underground, then began the long wend back up to the quarry and carpark. The trip was uneventful in terms of incident or accident, and proved most appropriate a choice in achieving the objective of entertaining cavers without vertical skills.

Hugh Fitzgerald

[Here are a few extra observations noticed by a more frequent Exit goer: Arthur Clarke's rainfall gauge at Francistown showed that about 110 mm of rain fell in the first week of February. Official Met. Bureau Rainfall data for the 24 hours to 9 am on Sunday 7/2/99 revealed the following rainfall totals at nearby places: Cape Bruny 56 mm; Geevston 49 mm; Maatsuyker Island 62 mm and Hobart 42 mm. So a week before we visited a good 2 inches (50 mm) of rain fell in less than 24 hours on an already sodden area, so there was enough runoff to make a good flood.

The bridge log on the track to the Catamaran Road had been washed away, and the bridge log on the Skinner track had been under about a metre of water.

On the day of the trip, both 'Forty minute creek' and the creek in the gully closer to Exit were both flowing; normally they wouldn't be flowing at this time of year.

The gate passage also showed evidence of having recently been flowing strongly; the lock had probably been submerged for a period.

Within the cave, the mud banks were all diabolically slippery; they had obviously recently been inundated and the saturation of the fine silt material made it extremely greasy. At the time of the trip, water levels in the cave were quite low (below gumboot tops at the first crossing).

All throughout the cave, flood debri had been left very high. The string-line near the hat-walk (normally about 3 m above stream level) had a substantial amount of debri on it and there was also fresh debri on the ceiling (normally about 5 m above stream level). Likewise, there was debri on the ceiling in Grandpa's sewer and also high up through the rockfalls. There had obviously been a huge amount of water in the cave, much more than I've ever seen or seen signs of before.

Jeff]

"Bow-ki-do" (track work) on the Skinner Track, 20/2/99.

Party: Jeff Sandon (NC), Andrew March (NC), Janice Porter (NC), Jeff Butt, Hans Benisch.

This day provided an opportunity for 4 intrepid cavers, under the tutelage of "Sensei Butt", to re-discover the lost martial art of "Bow-ki-do"

Bow-ki-do is an ancient Japanese skill which requires a caver to clear his/her mind and channel all will and physical power through a cheap Swedish bow saw. The successful melding of both human and bow saw results in the clearing of great lengths of track (in much the same fashion as Peter Cundall's pruning in "Gardening Australia").

Sensei Butt had chosen to hold a practice session on the track from the old Ida Bay limestone quarry to the lower entrance of Exit Cave. Along for the experience were members of both the southern and northern chapters of Bow-ki-do.
Sensei Butt (a much experienced "black handle" Bow-ki-do master) led the group down the track, occasionally diverting to obtain GPS position fixes on cave entrances (an additional activity not related to standard bow-ki-do practice).

The group attacked fallen logs and branches ranging in size from minuscule to nearly 30 cm in diameter. Following a brief and meditative rest and pig-out for lunch (during which large quantities of food and beverages were offered to the patron god My-ter-ten) the group pushed on, clearing schelrophyll and rainforest through to the cave entrance.

It was late afternoon before the group made the entrance. (A brief inspection of the area revealed that the log bridge across the creek to the low track had been washed away). They soon turned and retraced their steps, continuing to clear areas which had previously escaped their attention.

By nightfall the group had made it back to the car park. Everyone was pleased with the amount of work that was achieved. To celebrate, an Australian beer tasting ceremony was held (thanks to Hans, who bought a few samples of his superb brew!),.

Jeff Sandon

Exit Cave through trip (Valley Entrance-Efflux), 21/2/99.

Party : Jeff Butt, Hans Benisch, Kelly Miller, Jamie Allison, Andrew and Janice March (NC).

[This trip was the 'carrot' for all hard work clearing the Skinner Track on 20/2/99.]

After meeting a group of Japanese backpackers who had just been on a 'Glow Worm' tour, we set off for Valley Entrance, on the other side of Marble Hill. The ~two-hour walk [the track is in a rough condition, there have been several tree-falls, and the blue 'degradable' paper tape needs to be replaced soon] to the Valley Entrance (IB120) produced ample sweat and raised appetites, so we dined before heading underground. We entered the tight serpentine rift passages of this end of the cave at about noon, following our able leader, the Buttman, down a series of fun climbs - mainly chimneys. One aim of the trip was to replace* a corroding electron ladder hung off a single bolt on the 10 m pitch. Having demonstrated to us northerners the finer points of bolt placing on a boulder near the quarry gate the evening before, Jeff impressed us again with his 7 minute hand drilling (and he didn't even know we were timing).

[* A new bolt (a 'spit') was installed about 1 m from the existing spit (which is ~10 years old) and fitted with a ring-hanger. The new 18 rung (40 mm diameter PVC pipe) rope (9 mm Edelrid) ladder hangs well from a 'Y' belay and extends to 30 cm off the bottom of the drop (two rungs of the original 20 rung ladder were trimmed off). The rope used to construct this ladder was of 1986 vintage. Samples of this rope were tested with 80 kg fall-factor 1 falls last year; this rope held 3 falls. When new this rope is rated at 5 falls. This ladder should be adequate for ~5 years. In the future, the two spits can be replaced with long-lasting stainless steel bolts; the suggestion is to remove the spits and re-drill the existing two holes to take the new bolts.]

The cave began to open up into wide passages with a streamway and eventually to railway tunnel and cathedral size passages. The route was not entirely straightforward, there were a number of rockpiles to climb and many side passages to view. Buttman, however had been through several times ~10 years ago and his memory didn't fail him. Numbered survey markers assisted in showing progress through this very extensive cave, ...1070, 1069, 1068, ... fortunately this series ends at 1000, not 1! We completed the series about seven hours later. Jeff's 50 Watt dichroic light helped us see the full extent of some of the large chambers, seemingly the size of football stadiums. Spectacular parts were the aven with a waterfall, the formations in the Eastern Grand Fissure and the Broken Column chamber. Other landmarks of note were the fossilised camp pie tin, the Hat Walk and the confluence of Mystery Creek where tannin stained water from Mystery Creek cave enters.

The through-trip is very enjoyable, made so by the variety of horizontal caving techniques employed and the long distance covered beneath the surface. The muddy banks of the stream were very slippery in places due to recent flooding.

[There has been a recent flood in the cave (on the wet weekend of Feb. 6/7); the mudbanks in the cave were extremely greasy. The string-lines in the vicinity of the hatwalk had organic

material drooped on them; the water had been over this level. At places in Grandpas Sewer, and throughout the rockpile there was debri at ceiling level. The log bridge over the creek on the track heading to the Catamaran Road has been washed away. Material collected on the bluewater rope on the log bridge on the Skinner track shows that the water has recently been well over this bridge as well. Rainfall data from nearby stations suggests that the area experienced something like 60 mm in the 24 hours to 9 am on Sunday 7/2/99. The resident thermometer showed an air temperature of 9.6°C, the stream temperature nearby was 10.4°C. At the last stream crossing point, the stream was just above gumboot top level.]

When we were all getting tired at the end, we almost had an epic at the locked Main entrance gate. Jeff could not get the key all the way into the padlock or out again. The padlock had a lot of grit in it and had probably been under water in the recent flood. After 10 minutes of struggling with the padlock which was held tight on the outside of the fine mesh door by a poorly positioned shackle, Jeff delegated to 'yours truly' to have a go at removing the problematic key from the jammed lock because of my small hands/wrists and professional expertise at extraction's. Using the trusty leatherman pliers the key was removed and reinserted with grease (from the bolting kit) several times, until after 20 minutes it went in all the way and turned, releasing us from the draughty gated passage.

Meanwhile Jeff and Andrew had gone to locate two other gated entrances, IB86 and IB87; these gates are apparently operable from the inside without a key. They found IB87 (the vertical climb), but couldn't locate IB86 (Jeff, said he was sure he was in the right place, but the entrance eluded him; he wondered if the recent flood had moved rocks, but couldn't say for sure). Anyway, they came back and exited to join us.

We detached the shackle from the gate and would like to remind cavers when padlocking gates, to check that the lock can be easily accessed by people with big hands from both sides of the gate. Perhaps the simpler large old style padlocks with strong keys would also be safer than smaller, cheaper, grit prone modern ones. Also, wherever possible shouldn't cave gates be removable from the inside without a key, for safety's sake?

The walk back to the cars in the dark took about 90 minutes, and was delightfully easy due to our track cleaning the day before.

P.S. On 20/3/99, some VSA people replaced this lock with a new 'keyed alike' one supplied by Parks. Ian Houshold hopes to replace the locks fairly regularly to keep them in good condition and thus prevent permitted cavers from being 'locked in'. We suggested to Ian that this gate needs to be operable from the inside without a key, i.e. what happens if the key is lost, or the key breaks in the lock? Ian said that there are some wider issues to be resolved in relation to making this gate too accessible.

[Another suggestion is to have two locks (keyed alike) in series on the gate, and no shackle. If each party is also given two keys, then the risk of being locked in would be very low.]

Janice March
[with some additions by the Ed.]

Slaughterhouse Pot-Growling Swallet through trip, 28/3/99.

In attendance: Jamie Allison, Alaric Bennett, Liz Canning, Hugh Fitzgerald.

With new cavers in the STC keen to develop their vertical skills and caving experience, a through trip of Slaughterhouse Pot to Growling Swallet was organised. The genesis of this trip was a chance meeting between Alaric and Liz and Hugh in the Salvation Army's Family Store in Newtown, where all three were scouring the merchandise for suitable bargains which could be adapted for use in caving conditions. Liz found a rusty old lava lamp which she intends polishing up and using as a secondary light source; Alaric procured a comfy leather lounge suite which he will install in the refuge area at the bottom of Slaughterhouse Pot; while Hugh cynically shook his head at such grand schemes and left the store empty-handed.

After advertising the trip on the STC list server, Jamie put forth his name as an interested party. We were now complete: a crack team of four intrepid adventurers, hell-bent on tackling any obstacles the cave might throw at us.

Alaric drove us all up to the Florentine in his trusty Landrover Defender. The walk from Eight Road carpark to Slaughterhouse Pot entrance took 35 minutes, after a brief check of the water level at Growling Swallet. An eye was kept peeled for any sign of Arthur K. Clarke's missing Maglite along the way, especially at the Slaughterhouse entrance.

We kitted up and Alaric led the way into the small hole, with Hugh close behind guiding him to the first pitch head. All four of us congregated in the small room at the pitch head and donned our SRT gear. Another check for Arthur's torch revealed nothing.

Slaughterhouse Pot is semi-permanently rigged, which makes this trip particularly appealing as an easy vertical exercise. Hugh led the way down the pitch, trying out his new Petzl Stop and checking the rope on the descent. Alaric followed, then came Jamie on his first pitch descent in a cave. Liz stayed at the top, offering advice on how to cross rebelays and redirections, and checking to see everyone threaded their descenders correctly.

We all made it down without incident. No-one was about to win any records for speed of descent, but slow and steady was the order of the day. The thick ropes guaranteed a leisurely descent for those of us with Stops.

We lost no time proceeding directly to the second pitch, which is all of 15 metres below the first. This has an interesting rebelay on a bolt in the roof about 10 metres down a sloping wall, and a handy rock to stand on while crossing the anchor. Hugh was first down again, and went scrambling up a loose climb with a small stream coming down it as the others descended. While poking about, his exertions dislodged a series of stones which combined to form a noisy and rather alarming rockslide down the climb below him. The others feared he had come a cropper, but he was quite unscathed and picked his way back down the climb somewhat chastened for his foolhardy wandering.

Alaric again demonstrated his nose for cave and led the way down through the rockfall. The permanent telephone cable makes for easy route finding through this section, and is a welcome guideline. The rest followed, using a rope down the largest drop. Alaric was first down the last pitch, followed by Liz, Jamie, then

Hugh. At the bottom, we again looked for Arthur's missing torch to no avail. We also took some measurements of the passage dimensions to determine the best position for the lounge suite, then Hugh scurried off down to Trapdoor Streamway to retrieve Alaric who had disappeared in that direction. These two took a look at the bolted climb where the scaling pole is (noting the lack of footprints in the mud and the lack of Arthur's torch), the wet pitch just downstream (again, no torch evident), then popped back up Trapdoor Stream to the wet pitch up that way. They then rejoined the others for the trip out.

Once down the new ladders, we dropped into the Windy Rift slot. Hugh went first, trailing a rope through as a handline, after dropping a carabiner down the bottomless slot... Jamie followed, then Alaric and Liz, all without trouble. Hugh popped back to retrieve the lost carabiner, after spotting it from above. He also had a quick look for a certain lost lighting device of some sentimental value to the STC Treasurer, but found nothing besides an unexpected floor to the so-called bottomless rift. His treasured illusion unceremoniously shattered, he dejectedly rejoined the others.

The streamway in Growling Swallet was loud and wet, with water levels up quite a bit on normal flow. Evidence of recent flooding was seen quite high above our heads. We persevered upstream, trudging against the current and climbing around waterfalls with occasional use of the rope. There was no stopping Alaric, who disappeared up side passages, dived into swollen pools, shinnied up blank walls, dug into mud banks, and leapt vast chasms! The rest of us felt quite tired watching him.

It was Alaric who found a dry side route around the main passage at Stal. Corner (the turn off to New Feeling) by investigating a side passage. This brought us out into the true left stream passage not far above where it joins the main streamway coming from the right, at the confluence a few metres upstream from Stal. Corner. At this confluence, we noted the main stream carrying 2-3 times as much water as the other passage. It was time to get our feet wet.

While the water level was high, the worst problem with it was the noise and making ourselves heard above it. Travel upstream was not too difficult, but it was nice to get out of the main stream to the dry side passage and the last climbs leading to the entrance. We finally emerged 7 hours after heading underground, to find the water level gauge rock with a reasonable flow over its edge, slightly deeper than a boot sole.

We had been unsuccessful in our attempt to retrieve Arthur's lost torch, but we were pleased with our efforts nonetheless. On the way home to Hobart, we rewarded ourselves with a fine dinner at Tyenna Valley Lodge. Tim Morris was his usual gracious self, willing to host this dishevelled foursome in his restaurant without batting an eyelid.

Hugh Fitzgerald

Classifieds

*If you've got something to flog (**Caving gear preferred!!**), then don't forget that the Spiel might be one way to sell it. (Try the List Server too!) It cost's members nothing to have a go, so why not!*

For Sail

21 ft yacht "Pisces".
4 berth, 2 burner stove, 27Mhz radio, fibre-glass dinghy with 7.5 hp outboard, depth sounder and all safety gear. Well found boat, ready to sail away. $6750 ono

Nissan 720, 4 by 4 Diesel Twin Cab ute.
Lockable canopy, bull bar, tow bar. Recon. engine and recently recon. gearbox.

For Parts-Mitsubishi Sigma 1986 s/wagon.
Only needs a new head. Going very cheap.

please contact Andy Roberts 62679877

For Sale

TROLL waterproof Trog-suit. Used, but in a well cared for condition. There's a lot of good caving left in it! Small (size 2). $50 ono.

Gell Cell Charger. Through the headpiece charging; small, robust and portable, runs off the mains or plugs into a car lighter socket-$80.

contact Jeff Butt, 62238620 or jeffbutt@netspace.net.au

STC has Caving lamps and helmets available for hire to Schools, Scouts and other groups with responsible Caving leaders. Contact the Equipment Officer for details.

Some observations of Caving around the World-Part 4; Switzerland.

This follows on from Part 3, published in Speleo-Spiel 311.

From **Switzerland**:

Caving here is highly organised, just like the rest of the country! Some of my observations included:

- Caving areas are systematically worked over, surveyed and documented.
- Survey stations are marked with a minute dollop of red nail-polish (carried around the neck on a string) and discreetly numbered with a pencil.
- Angles are measured in mils, 100 mils make up a right angle. This makes it easier to calculate back-bearings, i.e. easier to add/subtract 100 than 90.
- Because of the extensive use of 'Toporobot', a Macintosh based survey program written by Martin Hellyer of Zurich University which produces three dimensional 'tube' displays of cave passage, more extensive passage dimension data is normally recorded during the surveying process.
- Avalanche Transceivers (working at a frequency of 457 kHz) are used to help locate surface connections to shallow passage below. These work over about 20 m depth.
- Throughout the Sieben-Hengste karst field (mostly above the tree-line), a 100 m by 100 m grid of labelled (letters for say Eastings, numbers for Northings) metal survey markers makes it easy to survey to all entrances. A code of paint is used to indicate the status of each entrance. Each hole gets a code, e.g. A3.1 for the first hole in the 'A3' box, another hole is A3.2 etc. Next to each hole a circle is drawn. If the hole doesn't go, it gets an "X" drawn over the circle. If the hole will go after some work, it gets a "/" drawn over the circle. So, the status of every hole is immediately obvious.
- Scaling poles are used reasonably frequently, I had the experience of bolting from the pole top; a delicate sense of poise and balance is required for this process!
- Alpine karst fields are regarded as fair game for the military to practise with mortars. If you see something that looks like a mortar bomb, then it probably is (or was!). Parts of mortars sometimes make good rock-climbing protection! Sometimes cavers are caught underground with mortars exploding around on the surface....this is not a great situation.....and definitely a sign that it is not time to exit the cave!!!
- Carbide and waterproof PVC suits are the norm. When it gets wet, pontoniers are desirable. Finding ice-plugs in caves is common, and typical cave temperatures are from below zero to around 4°C. I found that Tasmania cave garb, with perhaps one extra thermal top did the job in almost all situations.
- Spring onions and blueberries grow wild around the karst areas; in addition there are many dairy cows grazing. As a result, cheese, spring onions and blueberries feature in the local diet. Swiss chocolate is a staple for cavers, and is one of the cheapest foods in the country!

Jeff Butt
