Speleo Spiel 333

November – December 2002

Newsletter of the Southern Tasmanian Caverneers Inc, PO Box 416, Sandy Bay, Tasmania 7006, AUSTRALIA

STC Officers

President & Public Officer:
Steve Bunton
Ph: (03) 6278 2398 (h)
sbunton@postoffice.friends.tas.edu.au

Vice President:
Janine McKinnon
Ph: (03) 6243 5415 (h)
jmckinnon@tassie.net.au

Secretary:
Ric Tunney
Ph: (03) 6243 5415 (h)
rtunney@tassie.net.au

Treasurer:
Steve Phipps
Ph: (03) 6223 3939 (h).
sjphipps@utas.edu.au

Equipment Officer and S&R Officer:
Jeff Butt
Ph: (03) 6223 8620 (h)
jeffbutt@netspace.net.au

Librarian:
Greg Middleton
Ph: (03) 6223 1400 (h)
gregmidd@ozemail.com.au

Editor:
Geoff Wise
Ph: (03) 6231 1174 (h)
wiseg@dodo.com.au

Webmaster:
Arthur Clarke
Ph. (03) 6228 2099 or 6298 1107 (h)
arthurc@southcom.com.au

Web Site:
http://www.tased.edu.au/tasonline/stcaving/

Front Cover: Photo by Jeff Butt
Looking out of the Anne-A-Kananda doline.

STC was formed from the *Tasmanian Caverneering Club*, the *Southern Caving Society* and the *Tasmanian Cave and Karst Research Group*. ***STC*** is the modern variant of the Oldest Caving Club in Australia.

The Speleo Spiel

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

Well here I am writing my first editorial for the Spiel. I'd like to thank the outgoing editor, Joe Farrell. Joe has produced some fine editions of the Spiel while in charge and having just finished one I realise how much work goes into it (Mostly trying to write an editorial!).

Anyway it's good to see plenty of caving being done, just remember to write a trip report and send it in.

Geoff Wise

Stuff 'n Stuff

Results of the Sixth STC Annual General Meeting held on Wednesday 5th March 2003

The following persons were elected to the Executive and Committee of STC. (*Reports given at the meeting from officer bearers will appear in the next edition of the Spiel - Ed*)

President	Steve Bunton
Vice President	Janine McKinnon
Secretary	Ric Tunney
Treasurer	Steve Phipps
Equipment Officer	Jeff Butt
Public Officer	Steve Bunton
Librarian	Greg Middleton
KID Officer	Ric Tunney
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Cave Care Coordinator	Steve Bunton
Webmaster	Arthur Clarke

Subscriptions

STC subscription rates for the 1 April 2003 to 31 March 2004 membership year were set at the AGM, as follows:

Category	Full rate	Discounted rate
Household	$165	$150
Full	$100	$85
Concession	$85	$70
Active life members	$68	N/A
ASF-exempt Full	$40	N/A

[The discounted rates are available to those who opt to receive Speleo Spiel electronically AND who renew their membership by 30 June 2003. The ASF-exempt rate is available to those who are already members of the ASF, either individually or through membership of another ASF-affiliated club.]

Subscriptions don't become due until 31 March, and don't become overdue until 30 June, but prompt payment is always appreciated!!

There are several ways that you can pay your subscriptions:

(1) in person - by cash/cheque to either Steve Phipps or Jeff Butt

(2) by post - send a cheque/money order (payable to "Southern Tasmanian Caverneers Inc") to The Treasurer, STC, PO Box 416, Sandy Bay, Tas 7006

(3) by Internet banking - please send Steve Phipps an email if you'd like to pay this way, and he'll send you our bank account details

Southern Tasmanian Caverneers Inc. Policy on Meetings and Decision-Making

1. Ordinary General Meetings shall be held on the first Wednesday of even-numbered months (i.e. February, April, June, August, October and December).
2. Meetings of the General Committee (hereafter the "Committee") shall be held on the first Wednesday of all other months, except January, and on the third Wednesday of all months.
3. The Committee shall be empowered to make decisions on the following matters:
(a) matters associated with the day-to-day operations of the club.
(b) any other matters associated with the objects of the club, as specified in its
Constitution, and on which a decision must be made before the following General Meeting in order for those objects to be fulfilled.
4. The quorum for Committee Meetings shall be four members of the Committee.
5. Minutes shall be taken at Committee Meetings and shall be presented at the following General Meeting.

Benders Quarry rehabilitation

Could anyone walking back down the quarry with an empty pack or even two empty hands pick up some of the plastic bags which protected the seedlings. It looks pretty ugly up there and now might be the most opportune time.

Forward Program

Social Meeting ..... April 16
TBA

Cavex 2003..... June 7/8
You have plenty of warning so no excuses!

Three lightweight Expeditions to Anne-A-Kananda (MA9) at Mount Anne. Good caving and some new surveyed finds

Text and Photos by Jeff Buff

Background

Damian Bidgood and myself were planning to do some caving up at Mount Anne over the March/April 2001, and in preparation did a large gear carry (400 m rope, 15 kg food and fuel) on 14/2/2001, as reported in Speleo Spiel 324. Unfortunately between this carry and our intended trips, I was diagnosed with Bowel Cancer and all of a sudden had things other than caving at Mt. Anne on my mind. I had major surgery in May 2001 and laid low over the winter of 2001 recovering and getting used to my new organ replacing baggie systems. Fortunately I managed to sort all of this out OK, and by the summer of 2001/2 was keen to make Mt. Anne happen. We were fortunate to have Phil Rowsell arrive on the caving scene, and he was eager to come and join us. Unfortunately Damian found he had a lot of other competing commitments and couldn't spend much time on the mountain. Several other people came for shorter sojourns. The comings and goings of people helped break the monotony and increase the socialness of the trips.

We had three stints on the mountain:
Trip 1: Jan 8-13 Phil, Jeff, Damian (8-11th).
Trip 2: Jan 23-28 Phil, Jeff, Joe Farrell (26-28th), Andras Galambos (26-28th).
Trip 3: March 20-27 Phil, Jeff, Rolan Eberhard (22-26th), Damian (25-27th).
and two Gear carries:
Carry 1 (to get food and extra rope in): February 20 Phil, Jeff.
Carry 2 (to clear everything left): May 2 Phil, Jeff, Geoff Wise.

Our Aims:

From reading what I could find about previous expeditions, it seemed that there were several things worth checking out in Anne-A-Kananda. The Developed Longitudinal section drawn by Stefan Eberhard and published widely in the caving literature, (e.g. in Vertical Caves of Tasmania) showed several 'question-marks', including the enticing words "cave continues" down the bottom of Dessicator. Dale Gilliat and the VSA team found an alternative route "The Rocky Mountain Way" down to a large chamber at the bottom of Dessicator (see Australian Caver 105, 1984); but they only drew an un-graded sketch survey. Was this the same place that was shown on Stefan's survey? There were some questions to answer here.

Elsewhere in the cave there were other 'good leads' to look at, such as the so-called "Glory Hole". Stefan Eberhard and Vera Wong looked at this in September 1991, but ran out of rope (see Speleo-Spiel 273**).**

From what we knew, very few people had actually been to the bottom of the cave, so we thought we'd like to thoroughly check this out too, by just having a good look around one never knows what will be found.

We also planned our expedition to have as low an impact as possible on the area, we were using electric lamps and also carrying out all our solid waste. See the notes on these later on.

The following sections summarise our activities, as based on the Expedition Log. Our main finds/discoveries and an updated survey/rigging guide are summarised at the end of this article.

Expedition 1-January 8-13: Finding our way Around Anne-A-Kananda.

Tuesday Jan 8th:

A soul destroying walk up the hill with humongous packs....a bit of a foolishly late departure at 4:30 p.m., resulting in us cresting the ridge at 9 p.m. and getting to 'doline camp' at 10 p.m. in the dark. It had rained ~ 50 mm over night, so things were pretty soggy for the trip up and with 30+ kg packs, our rate of climbing on the ever-steepening hill wasn't fast! Pleased to find the food/gear drop carried up last year was intact and in good condition. We set up camp in the doline, this is quite luxurious, with sleeping benches, a roof overhead and plenty of room for gear and a kitchen/social area. There was plenty of water, thanks to the small stream tumbling over the rim of the doline. We were pretty worn out; campsite temperature was 6°C and it was a late dinner and late to bed.

Wednesday Jan 9th:

Blue sky and shafts of sunlight entering the doline at 11 a.m. Had a futile attempt at drying out some of our walking clothes in the beam of sun entering the doline camp. Decanted the 400 m of rope (new 9 mm Edelrid) from the two drums; they had been very tightly wound in and we were kept busy with removing zillions of pig-tails and twists over the next hour. Set up a water collecting system (6 m^2 of plastic sheeting under drips, running to a 20 litre plastic drum) to take advantage of the water source, which had diminished noticeably since yesterday. We had a bit of deliberation about the best lengths to cut the first rope. Squashed ~150 m of rope into one pack, and cut lengths of 12, 15 and 20 m for the three entrance series ropes. The plan was to cut ropes as needed from the 150 m piece as we headed on down.

Headed underground after lunch to 'find our way'. None of us had been underground here before. Route finding was very easy, the cave is very two dimensional, basically one just goes back and forward along different levels in one big rift. Conditions were quite pleasant despite the 3-4°C temperature, and everything is dry...hence the Dessicator name.

Our water supply.

Rigged the first pitch (7 m), this is quite bothersome on the way out after...a ladder might have been a better choice here. Headed along the Organ Grinder (quite tame) and down the 8 m and 13 m pitches. Found spits, with flat (i.e. designed for symmetric oval krabs) gold anodised hangers left in place; we imagined these to be ~20 years old. Rigging information is summarised in the table near the end of the article. Found our way to the Roaring Forty pitch, rigging a small 11 m pitch (Rift Pitch) at the head of the main (~40 m) drop. At the base of the Roaring Forty, there is a huge chamber. We found the 14 m pitch exiting from this chamber, but decided to call it a day. Back at camp at 9:15 p.m., after 6.5 hours down the hole.

Thursday Jan 10:

Another blue sky day on the surface, but still 3°C in camp. Up at the water collecting site the temperature is about 12°C, there is a very strong temperature inversion near the bottom of the doline, camp is basically a fridge! This does have it's benefits, as what would be very smelly socks/thermals don't get as ripe at 3°C as fast as they do in warmer temperatures! In days gone by, when campfires were in vogue, this inversion ensured that everyone in camp was well and truly fumigated with the smoke! We dilly dallied in the morning sunshine. A late breakfast, and then decided to have lunch before heading in at 2:45 p.m. (This was to be the repeating pattern for all the expeditions.) Headed back in with more gear. Damian having a bad day, so he opted to head out at the top of the Rift Pitch. Phil and I continued on, rigging the 14 p (at the bottom of which we found a Water drop left by the Gilliat team; we removed this on the exit) and the airy 25 p (Bitch'uv'a pitch; which is somewhat harshly named; it's just exposed and airy). Made it to the bottom of the 9 p (Serpen' Nine) followed by the 5 p to a complex rift area, with sloping ledges.

'Downhill', the further along you went on the ledges (until stopped by the ledge ending!), the deeper the floor seemed to be. We assumed that the 76 m pitch shown on Stefan's map is just dropping this rift right under the 5 p, as there are places one could go. The area had obviously had plenty of foot traffic, but there was nothing obvious like rigging marks or a bolt-casing to indicate that this was correct. Also at some other point along the Rift, one drops into 'The Rocky Mountain Way', the route that Dale Gilliat et. al. went; but we weren't quite sure where that was either.

'Uphill' the floor of the narrow rift ended over a vast shaft (4.5 s drop), but no sign of any bolts; though I did find a half drilled and empty spit hole. It did not look like anyone had been down the shaft right here. Also, there was a menacing rock arch over the area, this was best left well alone!

We had 70 m of rope still packed, but decided to hoik it out, as we'd need a longer rope for the 4.5 second pitch; we had a 130 m back in camp. The 4.5 second pitch definitely looked like the best option; the rope would hang totally free from a Y-belay. This seemed a much, much better option that the Gilliat route, where they said you could measure the depth by the adding up the number of rope protectors used and multiplying this by their length!!! Back at camp 8 hours after heading in for a well earned chicken curry/tetrazine mix.

Friday Jan 11:

Damian headed off home at 10 a.m. We decided to have a break from caving; so wandered around Pandanni shelf first. Later headed down the NE ridge a bit, looking down into Kellar Cellar and Col-in Cavern. Located and GPS'd MA18. Phil hurt his arm somehow, and so had an easy afternoon in camp as the rain started. Busied ourselves building stone steps down the lowest part of the access track into the doline; this area was badly eroding, and the steps would arrest this process somewhat. A cold front passed, the water supply started running again, allowing us to replenish our water supplies.

Saturday Jan 12:

With just two of us on the mountain, we decided that our risk management strategy would be to work in the upper part of the cave, rather than down the bottom. Also, as an adjunct to this we were religiously recording our intentions in the Expedition Logbook and leaving it where it could be easily found. We headed off to have a look elsewhere in the cave to establish the other main routes.

We found the route through to the Heartbeat Series. The 5 c down 6 c up was interesting; the 5 c down is guarded by a precariously balanced large boulder that one has to carefully skulk underneath whilst down-climbing; the 6 c up the other side is slightly overhanging and somewhat off-putting the first time. We found the top of the 118 m Heartbeat pitch, and located the single spit at the top of it. We also headed along the Organ Grinder 2 to the 5 m pitch (with nil rigging options except for a chossy clay mound!) above leading to the Priority Paid Series.

Back to camp for a feed, then back in to have a look at the King Rat Series. Managed to bypass the first 13 m pitch by doing some delicate climbing. The whole area is totally full of shattered stacked up rock, kind of like a 'house of cards' and is quite scary. So, we opted to 'pull the pin' here. We had a look at the alternative route into King Rat, a very tight passage leading to a 10 m pitch; the tight passage forced a bladder blow-out for me, so I decided I'd had enough. After some repairs we stripped the top three pitches en-route out of the cave. Back at camp made an inventory of everything left in the doline before retiring.

Sunday Jan 13:
Headed off the mountain for home; carrying our shit (see the note below) rubbish and a few odds and ends that would be needed for caving elsewhere before the next trip. We packed up the campsite, stashing gear out of the way. We left the water collecting system intact. Our packs were still pretty heavy, mainly due to the weight of our poo. We left a short piece of rope near one climb down into the doline (our 'doorbell rope') to allow us to lower/raise packs over this obstacle.

Lighting:
For lighting, we were both using alkaline D-cells. I had a 2-cell sewer lamp, running with a 1 W bulb gave me up to 30 hours per set of batteries. This level of lighting was fine for the cave. Phil had made up a small 'lunch-box' battery pack that held 4 cells, he was running a higher power bulb and got ~24 hours out of a set. We both found our respective lights to be reliable and adequate. The D-cells ($2 each, or $14/kg) are actually weight and cost efficient compared to carbide (~$10/kg). Now days the existence of high intensity, low current white LED's makes the electric option even more attractive; 0.5 W on LED's is sufficient to cave on.

Human Waste:
Urine-we designated a low-lying area at the back of camp that appeared to be regularly inundated as a 'pissing area'. After a period there was a bit of smell with this, but no great drama. Whenever it rains enough to cause run-off in the doline, this area is well flushed and the smell goes.

Faeces- My Ostomy bags gave me a small advantage in bagging up my poo. Others would crap onto several sheets of glossy advertising material; once this little parcel is rolled up it is reasonably low in the smell department. The hand-warming parcels are then doubly or triply bagged. Unfortunately the temperature inversion near camp keeps those aromas close by!

Expedition 2-January 23-28: Surveying in Anne-A-Kananda.

Our intentions this trip were to drop the big pitch and sort out the leads in the Dessicator area. Thanks to Keir Vaughan Taylor (with Rolan's permission), we obtained a copy of the old survey data (mostly TCC, but some Sydney cavers also contributed). This data covered the Heartbeat, Priority Paid and King Rat series quite well. Unfortunately there was no data for the Dessicator series. We thought that even if we don't find anything new, then collecting survey data for Dessicator would be a worthwhile contribution for us to make.

Wednesday Jan 23rd:
Learning from last time, we left Hobart early in the morning, rather than in the middle of the afternoon. However, we were in Phil's new 'motor' (the one he had to buy after crashing it during a test-drive!). The closer we got to the Southwest the less the car wanted to go. As we sputtered through Maydena at 15 km/hr, things got really bad and we couldn't make it up the hill heading out of town. So, we retreated and rolled down the hill to Tyenna Valley Lodge for a coffee and some repairs. Tim Morris obliged and found some piping of the right diameter, and once we'd removed the water filled petrol filter, the yellow peril was on the move again. With all the car shenanigans, we managed to hit the track at 4 p.m., only half an hour early than our Expedition 1 foolishly late start. Lighter packs, dryer ground and fine cool weather let us get to camp in four and a half hours. It was pleasing to have 20 litres of water waiting for us, especially since the source had dried up.

Thursday Jan 24th:
We headed on in the cave, surveying our way down the Dessicator Series as we went. Initially things were a bit slow, but we soon got into the rhythm. We tied our survey into any old stations as we went. Some of the old stations were obvious cairns, or pieces of unlabelled red tape. Wherever possible we surveyed in bolts, as they are reasonable permanent markers and we left the occasional survey marker (flagging tape, dated and with survey station number on it). All up today, we surveyed 500 m today, from camp to the 14 p after the Roaring Forty.

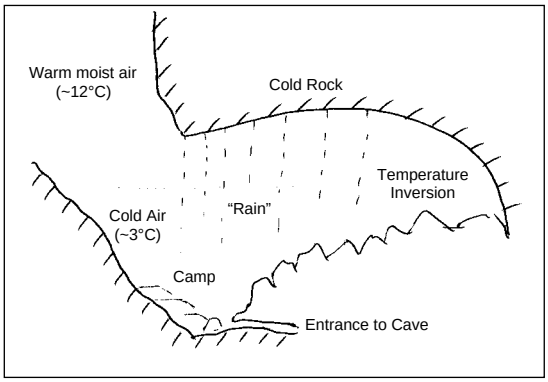
Water supplies were dwindling, and there was no sign of any replenishment (the barometer was very high).

Friday Jan 25th:
We headed back in for some further surveying; the aim being to be out in time to meet Andras and Joe at the top of the hill about 6-7 p.m. Today we surveyed ~ 60 stations, making it down to the top of the 9 m pitch (Serpen' 9). There is quite a labyrinth of passages in this area; some of which contains some lovely dendritic crystals...about the only formation seen in this otherwise barren cave. After about 7 hours in the hole, we grabbed stoves/dinner and headed up to the daylight to cook dinner near where the track crests out. There are a couple of shallow tarns here, that provide water, and we were getting low on water in camp.

At the agreed time, there was no sign of our companions, so we did some yelling and waited till 8 p.m., when two very heavily laden and rather weary souls turned up. We all headed to camp (carrying some water in) and fed the newly arrived. We now understand the weight of Joe's pack, as he unpacked it to reveal a heavy pot, bags and bags of fresh vegetables...enough to prevent a large expedition from getting scurvy.

Saturday Jan 26th:

The doline camp dripped extremely badly overnight. The temperature inversion that normally was up near the water collection point had lowered into the camp chamber. This let warm moist air infill the top of this chamber and upon being cooled by the cold rock the condensing moisture would 'rain' (drip heavily) down on us.



The mechanism for camp-site rain!

Whilst Joe and Andras prepared for caving, Phil and I surveyed up the doline to the tag and doline lip. We also took in many other interesting features amongst the ramps leading to the surface; several holes and pitches worth a visit were noted. After lunch the four of us headed down the hole (3 p.m.), the aim being to rig the big pitch and explore beyond.

Phil at the Psycho Killer pitch-head.

Once we reached the scene of the action, Phil, Andras and Joe headed off to survey some gnarly rift whilst I worked out how to best rig the pitch. (From looking at the survey data later, it appears that this gnarly rift goes close to Heartbeat and is heading toward Priority Paid. Using a natural backup, I completed the half-drilled spit hole and placed spit one. Then with this anchor, I could safely reach out over the drop and placed two other spits up high, one on each wall. Together this gave three loaded spits (about a 45-45-10% load distribution) and the rope hung cleanly down into the abyss. When the others returned it was time to have a look down the shaft. With about 120 m of rope down the shaft, and another twenty in my pack, I headed down. The walls recede quickly, leaving one very much like a spider hanging from the ceiling; into the so-called Fuligrin Chamber. The spaciousness of the pitch reminded me somewhat of the Black Supergiant Shaft in Niggly Cave. Anyway, once about 50 m down I could see a ledge about 20 m beneath me, but no bottom below. The rope was going to need a rebelay somewhere here, but nothing natural was apparent and I had 'bolters arm', so I opted to re-ascend; another bolt is needed. We headed out, reaching camp at 1:30 a.m.

Sunday Jan 27th:

We spent the morning lazing in the sun. I had an altimeter with me to assist in route finding in the cave and for keeping an eye on the weather (though in the doline camp one is pretty much unaffected by the outside weather; the local doline effects are the main concern!) and took it for a morning walk to the surface whilst Joe, Andras and Phil surveyed the camp chamber.

We all lunched and worked out a plan for the day. Phil and I headed in at 3 p.m. to complete the big pitch, Joe and Andras would head in a few hours later. I took the altimeter down with me and the data collected from it is shown in the table below; it compares quite well (underestimates by 3-4%) with the traditionally collected survey data.

This time at the new pitch, I said to Phil that it was his turn to go at the pointy end. Prior to going, he got an attack of the nerves and started dry-reaching. After a while he calmed down, and was set to go. This little display, as well as the balanced arch of rock above the pitch, prompted me to suggest the name "Psycho Killer". (Psycho Killer was measured at 93 m; but it is a very airy pitch.) Down he went, and after seeing him dance about on 70 m of rope for ages, he placed a bolt and descended to the floor, which was only 20 m below, but was so covered with a black crusty material that you could hardly see it till you stood on it! I descended and we continued the survey; through the massive rockfall chambers. A streamway enters the main pitch at one point, and down in the Fuligrin chamber drops a small drop and goes down a rabbit burrow; this is the deepest known point in Dessicator. Whilst surveying in this area, a small tributary was noted. We decided we'd do a thorough job, and surveyed upstream, going under a very dodgy rock slab. There was a good draft here, and we found a tight rift pitch ('The Liquidator', so named because of the dodgy rock slab on the outside of

this pitch); the lowered survey tape showed it to be 21 m deep. We did note some footprints in the area; it seemed that one person had been in the area before; but it did not look like anyone had been down the tight rift. We wondered/hoped that we'd found a bypass to somewhere new...and maybe we'd break the 400 m depth mark. Altimetry told us that the bottom of Psycho Killer was at -327 m; we estimated another 15 m down to the top of the undescended pitch, i.e. -342 m and so the bottom of the Liquidator was at -363 m, getting close to the known depth of the cave (373 m).

Phil in the drawing room, drawing of course!

Anyway, suspecting that the others would be waiting for us, we headed out to the Fuligrin chamber and up Psycho Killer. I went up first, and Phil had requested we do a bit of 'pebble-sonics' along the rift to check that all drops lead to the same place. The pebble-sonics indicated that everything funnels down to where Phil was; I think he regretted this request, but it was a useful exercise! We headed out, doing some survey tidying en-route. Some of the ropes had now had a bit of use, and were beginning their 10% shrinkage, making some of the rebelays tight. We also had to tie tapes onto the ends of some ropes to ensure that we could reach them. Next trip we'd have to do some re-rigging. We made camp at 3 a.m. Joe and Andras dropped Psycho Killer and had a look around before heading out. On the exit they stripped the hardware (we needed it for caving back at home) and pulled the top three ropes back to camp, arriving at about 6 a.m.

Position in Cave	Altimeter Depth (m)	Surveyed Depth (m)
Lip of Doline (~4 m higher than MA9 tag)	0	0
Rock cairn behind camp	70	71
Cairn above Rift pitch	114	116
bottom Roaring Forty	172	179
bottom Bitch'uv'a	230	233
top Psycho Killer	238	248
bottom Psycho Killer	327	341

The water situation in camp is now pretty desperate, down to our last few litres.

Monday Jan 28th:
Whilst the late arrivals snoozed, Phil and I did some more surveying around camp. All up we'd surveyed about 230 legs, totalling about 1.4 km....but there was quite a bit more to do.

Meteorologically things on the surface were pretty unsettled. One big cloud burst lead to torrents of water washing down the doline, and in a few minutes we'd filled up all our water containers; leaving 64 litres in the bank for the next trip. We did another inventory of all our remaining food etc. Gear and poo was packed and with huge packs we headed out. Joe's pack was ginormous; we think he learned a bit about what not to bring on an Expedition caving trip!

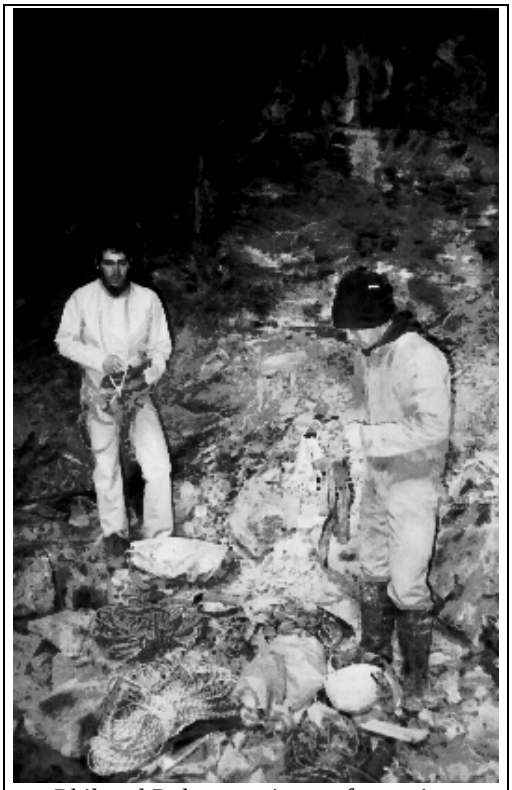
Expedition 3-March 20-27: Breaking New Ground.

Our intentions this trip were to drop the Liquidator and see what lay beyond. The drafting nature of the Liquidator suggested that there was significant cave beyond. The processed survey data from the last trip showed that at this point we were only 20-30 m horizontally from the known bottom of the cave and 10 m above it. We were hoping that we weren't just heading there! To make it easier for the 'last' trip, we decided to do a quick carry of gear and some extra rope on February 20. On the final expedition we also planned to have a look at the so-called Glory Hole and would continue with the surveying. Rolan Eberhard was also keen to come up and have a look at what we'd been up to. Despite Rolan being one of the main explorers of this cave 20 years ago, he had never been into the Dessicator Series.

Wednesday March 20th:
This time Phil and I did get a good run, an early start and no car troubles. As we crested the ridge it was sleeting on us; so it was nice to get back to the shelter of the doline camp. The camp this time was colder than last time, but at least it wasn't dripping like last trip. The water supply was good; we had a lot in the barrels and the source was 'on'.

Thursday March 21st:
About noon we headed on in, installing the first 3 ropes, then adding the hardware back to the other pitches. We had to do a bit of rerigging due to rope shrinkage's (our ropes were new and unwashed prior to these expeditions, and by the end of it, our 400 m was down to 367 m...the reduced length unfortunately doesn't make it lighter to carry out!). Once carefully through the access to the Liquidator, we set to work to rig the pitch. By removing some wedged chockstones we got access to the widest part of the rift. Some judicious hammering on the lip made it just wide enough to get one's chest through.

We found a crack to take a chock as a backup to a bolt I placed at the pitch-head. Phil squeezed through, and placed a second bolt about half way down. We were down...but after a small down-climb we were somewhat disappointed to find ourselves at the base of the known part of Anne-A-Kananda, i.e. the Junkyard; there was a survey note "S & R Eberhard, Tuesday 5/4/83", and also a piece of webbing with "C S" stamped on it; we suspect this belonged to the Czechs. We know Stefan and Rolan got to this point via Heartbeat, but we're not sure by what route the Czechs made it here. Anyway, we linked our survey in and had a look about this wet and foreboding place. The water continued downward through an impossible tight slot. Well, at least we had bottomed the cave. We made it back to camp at 1 a.m.



Phil and Rolan gearing up for caving.

Friday March 22nd:

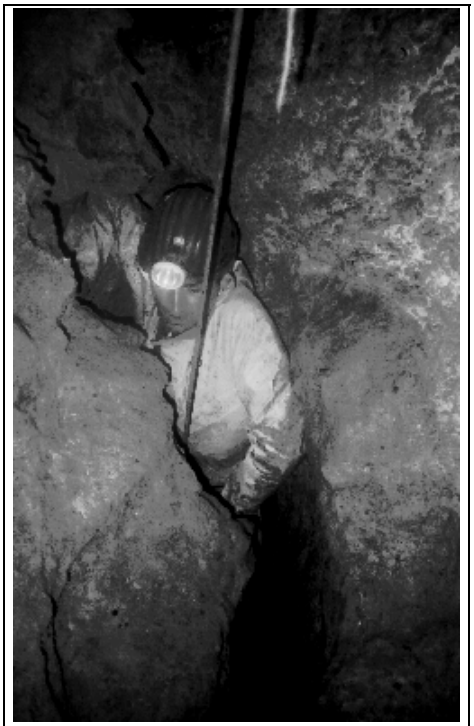
After a tardy start and a foray to the surface for some sun, we headed down the hole at 2:30 p.m. We concentrated on some surveying in the labyrinth below the 25 m Bitch'uv'a pitch. Dropped one short (9 m) pitch here after placing a bolt, and found that we'd made a loop back to the area below the 5 p, to the lowest point there is floor in these rifts. This area was heavily trafficked, and we now suspect that this is where the Rocky Mountain Way goes. There was no obviously good way down, there would need to be lots of rebelays...or protectors (which is how we imagined it was originally done). Our best guess is that the original 76 m pitch down is pretty much directly under the 5 p under the Serpen' Nine. From what we know about the cave thus far, Psycho Killer is by far the best way down the lower part of the Dessicator Series (and perhaps the safest way to the bottom of AAK). Made it back to camp 8:30 p.m. and Rolan had just arrived.

Saturday March 23rd:

We three headed back down Dessicator at 1 p.m. Phil and I did some more surveying in the Liquidator area whilst Rolan checked out our route to the Junkyard. Rolan confirmed that the bottom part of the Liquidator was in the same rift that they did their final 12 p when accessing the area via the Heartbeat route. Rolan also had a pair of logging altimeters with him, one on his person; the other at the number tag; it will be interesting to see how they perform. We also had more of a survey look around the large Rockfall chambers off to the side of the Fuligrin chamber. There are many rock cairns in this area; it seems that earlier explorers did not want to lose the way. Anyway, in one obscure place we found a rampy pitch of about 10 m. There was some debate about whether to look at it, in the end we opted to check it out whilst there. Anchors were sparse, so Rolan and I were human anchors for the rope and Phil checked it out, a no go. We then derigged outwards, back to the top of the Rift Pitch, as we'd now finished with the Dessicator Series.

Sunday March 24th:

A bit of a sleep in, and quiet morning. An 8/8th's blue sky day on the surface. At 3:45 p.m. we headed off to look at the Glory Hole. Whilst Rolan rigged down to it, Phil and I surveyed our way there from our closest point of approach. Rolan had baulked at the G.H., it was tight and committing, not to mention awkward. We had a bit of stuffing around here, and eventually Phil showed us how to negotiate the obstacle most easily. First time was the worst, more so for me, as I had a bloody baggie blow-out to deal with. Anyway, I dealt with that whilst Rolan went through and did some bolting. Phil was doing some sketching. As Rolan bolted/attempted to bolt in the shitty rock regions, Phil and I surveyed our way down. There was a bit of Rolan-Phil dynamics about 'hogging the pointy end', at one point that added an unpleasant flavour to the day. Three short pitches (and six bolts...these bolts look OK with the hangers in place; but we were to discover when we derigged that several are very badly cratered and are a bit dodgy!) later we were down amongst some huge precariously perched boulders in the side of a huge shaft (we presumed this to be Heartbeat). The best place to rig this wasn't obvious; so at this stage we decided to head out; another 9 hours down the hole.



Rolan at the top of the Liquidator.

Pack-horse Phil hauling a load up the Roaring Forty.

Monday March 25th:

A few logistics to sort out as Damian was due up today and we didn't want to exclude him from joining us by not being around. Anyway, we developed a plan: Rolan and Phil would head on in and work out how to rig the new pitch. I'd wait till either Damian showed or a certain time was reached, and then head on in to join them. Rolan and Phil headed off at 2:30 p.m. By 5 p.m. Damian hadn't showed, so I soloed down to join the others. By now the Glory Hole wasn't an issue. I was pleased that the tension of yesterday had gone; both Rolan and Phil had placed one bolt each from a balcony in the side of the shaft (Yes, it was Heartbeat). Phil had just finished bolting when I arrived, using the 3rd last of our spits. Apparently the boys had to do quite a bit of dodgy rock (some rather sizeable!) clearing to render the area safe...hence the name "Apocalypse". In the true spirit of teamwork, I was given the honour of dropping this new pitch. Fifty-four metres later I was on the floor of the spacious 118 m Heartbeat shaft. We decided that it was now time to head out; Phil and I surveyed our way back, leaving the cave rigged as we were both quietly thinking that we'd like to continue on this established route to the bottom. We were all back at camp at 11 p.m. and had a friendly social evening.

Tuesday March 26th:

Rolan headed out today, taking a load of campsite rubbish for us. Damian arrived late yesterday and had camped on the surface last night with some of his troops, but he was keen for a cave today. The three of us headed on down, to the base of Apocalypse and continued rigging and surveying our way downwards. The quality of the rock and available anchors diminished markedly in this part of the cave. The rock has the structural integrity of Solvol Soap, brittle at that and anywhere that water runs over it , it develops a black rotten nature. We made it down to the top of the 28 p, just before where Priority Paid joins in...but at this stage the knotted end of the rope swung in the air, and the absence of any suitably decent anchors made it apparent that the best thing to do was to call it quits. We had 2 spits left, but these are not suited to the rock quality, either long bolts, or P-hangers are required in this weak Solvol like dolomite. So, we headed out, doing a major derig, using the "Pull a long length all-together" technique made handling the long ropes a lot easier. We got out about midnight, with all ropes/gear back to camp.

Wednesday March 27th:

Damian headed off to rejoin his troops, whilst Phil and I sorted out the camp...lots of gear. An inventory of what was left said "not much" in the food and fuel department. Another trip (e.g. to complete surveying, drop Priority Paid etc.) would require another carry up. I think we both decided this campaign was over for now...we'd had a pretty solid time here. Anyway, we toted up two huge packs of gear and headed down the hill; Phil copped a button grass poke in the eye on the plains, and had disrupted vision for a while.

CARRY OUT-Thursday May 2nd:

Phil, Geoff Wise and myself: This was the first time any of us had ever walked up this hill with virtually nothing on our backs; made it quite pleasant. It was good of Geoff W. to come along and help tote some gear too. We made short work of the hill and back in camp collected three huge packs of rope and a few other bits and pieces and headed out and home. The only things remaining are the two empty water barrels, which have been stashed out of the way. In due course they'll be retrieved. The campsite has been left in a pristine condition; we hope that anyone else who decides to camp up there does likewise.

Summary:

All up we are happy that we pretty well achieved what we set out to do. We had some excellent expedition caving (13 caving days and lots of rope-work), made some finds and have added both the knowledge and collected survey data for Anne-A-Kananda.

It was interesting to discover that Dessicator joins the Junkyard; all the three deep series meeting at the one point, just 70 m horizontally from the number tag, some 370 m above. It was also good to confirm that the Glory Hole does in fact join Heartbeat. For those not phased by tight places and some large dodgy boulders, the G.H. route might be a better route down than Heartbeat. However, all things considered, I think the easiest and safest route to the bottom is via Dessicator/Psycho Killer.

Putting all the evidence, namely: our survey data, Stefan's original map, Dale Gilliat's sketch map and our pebble-sonics together I believe that The Rocky Mountain Way, the 76 p and Psycho Killer basically all drop into the Fuligrin chamber, but the starts are at different places along the same rift. The airy Psycho Killer (93 p) starts near the higher end; the original 76 p goes pretty much straight down below the 5 p and the Rocky Mountain Way starts at the lower end of the rift, descending against/through the 'wall' at that end.

I've modified the Developed Longitudinal Section of Anne-A-Kananda that Stefan Eberhard originally drew to make it reflect our increased knowledge of the area. To me the cave now seems to make better sense with all the deep series heading down to a common point.

Also, below you will find an updated rigging guide for the pitches that we negotiated.

Survey wise, we surveyed 2509 m of cave passage (363 stations). The former survey data contained 1359 m of passage (135 stations). We did re-survey some of the old stuff, so after taking out the repetitions, the surveyed length becomes very close to 3000 m. However, due to some parallel unsurveyed pitches and some drops elsewhere in the doline, I'd estimate the length of Anne-A-Kananda to be something like 3300 m.

Our survey depth agrees well with that collected by TCC et al. The old data gave a depth of 373 m from the doline lip to the bottom. Our depth came in at 367 m from the MA9 Number Tag to the lowest point in the cave; the number tag is 4 m below the lowest point in the doline rim; giving us a depth of 371 m.

Rigging Information	Pitch length	Pitch name	Details
Entrance	7 m	*Entrance*	11 m rope, Tape on block at top, rebelay from small chockstone at the top of the vertical bit. In some respects a short ladder would be better.
Dessicator Series	8 m		12 m rope, 3 m tape around boulder in floor, bolt rebelay beneath constriction.
	13 m		20 m rope, Bolt on left hand wall, rebelay from second bolt just below constriction.
	13 m		This pitch is easily by-passed.
	11 m	*Rift*	20 m rope, Bollard and chockstone up 5 m in rift above get-on point, bolt near get-on point. Rub point half way down, deviations from chossy rock opposite kept popping, use a protector.
	43 m	*Roaring Forty*	55 m rope, tie back to previous pitch, bollard rebelay at ledge, down to pitch-head for bolt. Rebelay from small bolt 3 m down, second rebelay 20 m down. Need tapes for both bolt rebelays, as rubs just below both bolts.
	14 m		20 m rope, small thread at start, rebelay from large jug and down 4 m to two bolts, Y-belay and down to floor.
	25 m	*Bitch'uv'a*	35 m rope, tie back, sling large boulder and out to pitch-head. One bolt LHS, and 6 m long sling through slot to make airy Y-belay, 26 m to deck.
	9 m	*Serpen' Nine*	15 m rope, thread block, chock and trace Y-belay up above, Y-belay to the base of a prominent horn over pitch.
	5 m		8 m rope, tie back, and bollard on right.
	93 m	*Psycho Killer*	110 m rope, tape on a natural 8 m back from the drop, then three bolts at the pitch-head. One on the left at waist height, the other two up high, one on each wall for a Y-hang. Bolt rebelay 70 m down.
	21 m	*The Liquidator*	25 m rope, small chock in crack on back-wall of bench 1 m above pitch, bolt at pitch-head. Second bolt 8 m down on the left hand side.
Glory Hole Series	23 m		50 m rope gets you to the Glory Hole. Start with a tape on a bollard on the right 4 m back from the pitch-head, then Y belay from a spit on the left and a dodgy dyna-bolt on the right. To go to Heartbeat, get off at -15 m on the large block on the left. Continue to the floor for the G.H. route.
	15 m (handline/8 m pitch)		Once on the floor, rebelay from a block and continue (handline) down to a pile of boulders (need long tape) and rebelay here for the 8 m drop past the 'scary blocks' to the Glory Hole.
	50 m (really several short drops: 12, 14 & 17 m one after the other)	*Glory Hole pitches*	60 m rope gets you right down to the room behind the Apocalypse Balcony. Sling a boulder and/or tie-back, bolt on the right wall 1 m up. Go through the Glory Hole and rebelay from bolt on the right hand wall, 12 m to floor. Step over the rift and Y-belay from two bolts, one on each wall. About 8 m down, rebelay from a natural, then Y-belay from 2 bolts about 5 m down at a constriction. Deviate about 10 m down and continue to the floor.
	54 m	*Apocalypse*	65 m rope. Climb up on the right through the large perched bounders to the take-off ledge. Sling a boulder to get you going. Just over the lip are two bolts, rebelay off these and it's a clean abseil to the floor of the Heartbeat Shaft.

Most bolts are either equipped with hangers, or are marked by plastic reflectors/nylon bolts.

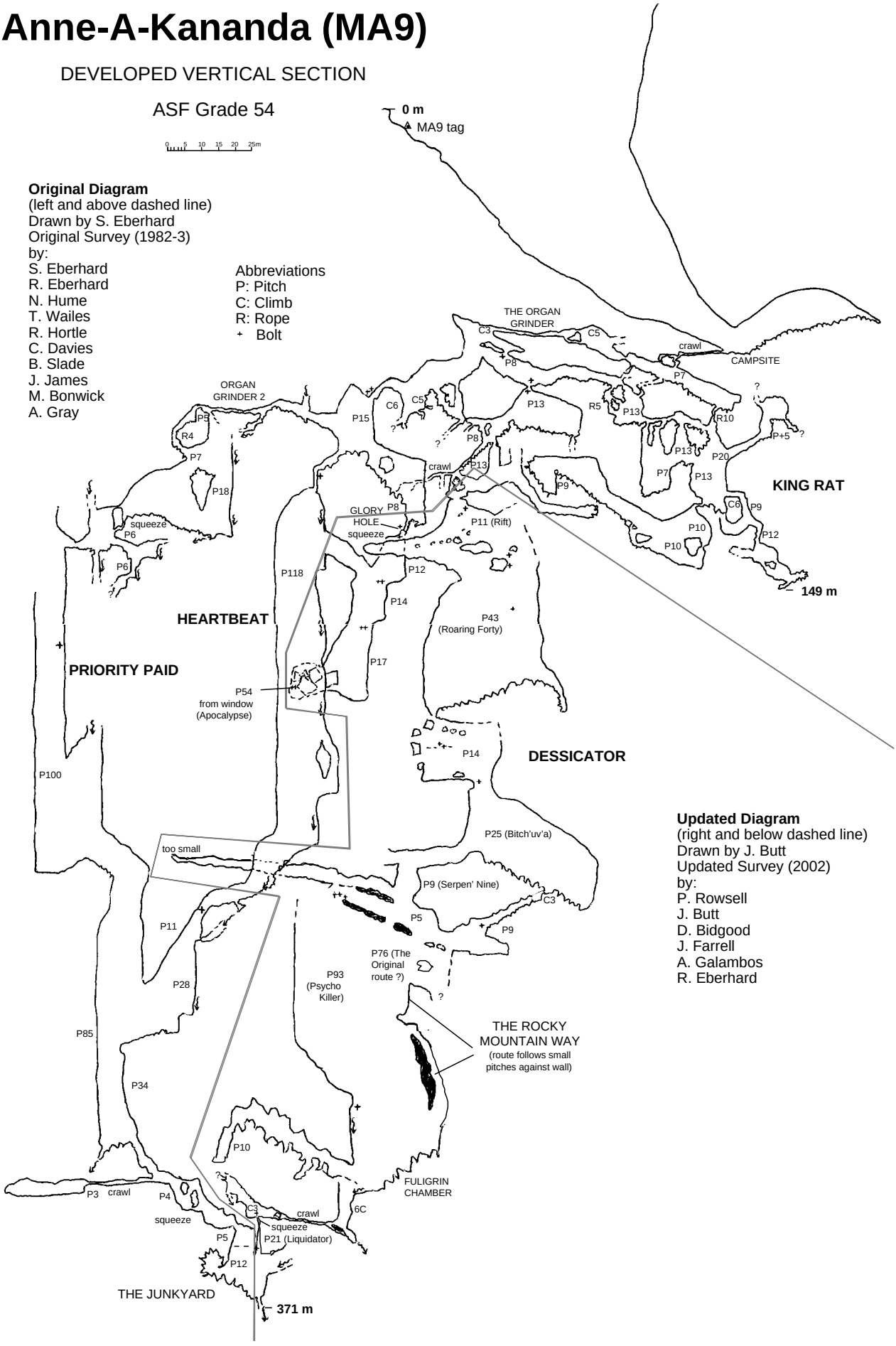
Anne-A-Kananda (MA9)

DEVELOPED VERTICAL SECTION

ASF Grade 54

Original Diagram
(left and above dashed line)
Drawn by S. Eberhard
Original Survey (1982-3)
by:
S. Eberhard
R. Eberhard
N. Hume
T. Wailes
R. Hortle
C. Davies
B. Slade
J. James
M. Bonwick
A. Gray

Abbreviations
P: Pitch
C: Climb
R: Rope
+ Bolt



Updated Diagram
(right and below dashed line)
Drawn by J. Butt
Updated Survey (2002)
by:
P. Rowsell
J. Butt
D. Bidgood
J. Farrell
A. Galambos
R. Eberhard

Shooting Star Cave, Mole Creek: 2002

By Rolan Eberhard

I discovered Shooting Star Cave in February 2002 during the course of a survey of the Mole Creek karst system for the Department of Primary Industries, Water and Environment, of which I am an employee. The survey has involved collating existing data on the karst system, and collecting new data where gaps exist, to give us a better understanding of how to manage the system in an environmentally sustainable way. At the time of the discovery I was looking for another cave that had been reported some years earlier, within the Mill-Kansas catchment (Croesus-Lynds area). The new entrance I had found was a vertical shaft in the wall of a sinkhole. On this trip I merely noted it as a feature worth looking at some other time.

In March Nathan Duhig of the Forest Practices Board and I were in the area and had a few hours to spare, so we decided to take a look at the new shaft. The first pitch turned out to be a fine abseil of 41 m, landing on a sloping muddy ledge at the head of a further pitch. At this point the cave was large and airy, and looked promising. Two further pitches (28 m and 19 m) brought us to a steep and rather treacherous slope of mud and loose gravels. Although more spacious at the top, the passage narrowed to about a metre wide at the edge of yet another pitch. There were no obvious natural features to rig this pitch and, as we didn't have a bolt kit and thought that our remaining rope was too short, we went no further. A good draught was present and I thought I could hear the sound of running water somewhere below (this later proved to be an erroneous impression). By now we were now pretty excited about the cave's potential.

Luke Vanzino and Jeff Butt, at that time also employed by DPIWE to assist with the karst survey, went down the cave the following day. They took some additional rope but had no bolt kit. In the event they decided that it would be too dangerous to descend the pitch without bolting gear, as the only available belay point was well back from the lip and there was a lot of loose rock about. They carried out a survey of what had been found thus far.

In April Nathan and I returned with more rope and bolting gear. The new pitch turned out to be 26 m and was followed almost immediately by a further drop of 9 m. Here, the gradient of the passages eased and we were able to walk and scramble through a fossil canyon that led to a spacious chamber. Both the canyon and the chamber were profusely decorated with calcite, gypsum and aragonite speleothems. We proceeded slowly and with great care, giving thought to each foot and hand placement before committing to it, being acutely aware of the potential to cause damage. We spent several hours exploring the chamber, which we later named 'Stargazer Chamber'.

Two weeks later Nathan and I went back to explore some side passages we'd noticed leading off from Stargazer Chamber. One of these was a short pitch down a hole on the side of the chamber. Below here was a series of smaller chambers interspersed with rockfall and short pitches (6-10 m). Four pitches below Stargazer Chamber saw us in a large horizontal rift. We soon realised that the rift was in fact an upper level of an active stream canyon. At various points in the floor of the rift were holes providing access the streamway below, but all appeared to be vertical and required rope, of which our supply had already been used up. Just as we were about to call it a day we found a small hole that allowed us to wriggle through at a narrower point in the ceiling of the streamway, where it was possible to climb down by bridging. It was now late in the day and we still need to survey what we had already found, thus we began retracing our steps after only a quick look in the upstream and downstream directions. Driving back to Hobart that night in the wee hours of the morning, Nathan saw a brilliant meteorite that inspired the cave's name.

The next trip was in April when Jeff, Nathan and I further explored the streamway. In the downstream direction we followed a generally spacious canyon for several hundred metres to where it degenerated to an area of rockfall and crawls. The furthest point reached was a flat-out belly crawl in the stream, the passage terminating where the ceiling closed down to water level. Later, we calculated that our deepest point was 247 m below the entrance.

Nathan, Jeff and I returned in May to push upstream in the lower streamway. We explored for several hundred metres to a point where at stream level the passage closed down almost completely. However, it was possible to continue by climbing higher in the canyon, where we reached an exposed ledge overlooking a waterfall in the active level below, upstream of the constriction where we had first climbed up. As the hour was late and a rope would need to be rigged we decided to go no further that day. The trips we were doing at this time were taking about 12+ hours underground.

A month later Luke and I returned to the streamway to continue the survey upstream. At our furthest previous point we rigged a rope as a handline, allowing us to climb down to the active level again. A ledge near the head of the waterfall provided access to the continuation of the streamway in the upstream direction. A few tens of metres beyond here we encountered another waterfall. This was too steep to climb directly but grovelling through rockfall on one side gained us enough height to look across at a point level with the top of the waterfall. Here we could see a further fall above the first, the water emerging from a more-or-less vertical rift above, with no obvious way of ascent. This trip was the final exploratory effort, as now all obvious passages had been explored and

surveyed. The total length of mapped passages was 2241 m.

Two further trips took place in June. On the first of these, Ian Houshold (DPIWE Geomorphologist), Steve Blanden and I did a photographic trip to create a record of what had been found, and to show Forestry Tasmania, the land manager. Steve is a north-based caver who had independently found the entrance as part of his own scrub-bashing program at Mole Creek. All power to Steve for doing the gentlemanly thing and getting in touch, as rumours about the discovery were already doing the rounds. I didn't attempt to keep the cave a secret, as I don't believe this is a particularly useful approach. However, I did ask those involved not to reveal the cave's location. The next trip was when Dick Dwyer, Senior Ranger at Mole Creek, and I looked at gating options. One possibility was to gate a narrow point in the passage below the initial series of pitches. In the event, we decided that a gate at the entrance was the best option.

I had already advised Forestry of the discovery of Shooting Star Cave. The State forest in which the cave is located is zoned Conditional forest by Forestry, which means they think that further investigation is required before a decision can be made as to whether the area, in part or whole, should be logged or not. A major cave such as Shooting Star has significant implications for any future forest operations, and it was important to ensure that Forestry was aware of the discovery. The existence of the Mill-Kansas Joint Protocol (an agreement between DPIWE and Forestry regarding collaborative management of caves in the Mill-Kansas catchment), provided the context of the discussions with FT. Of immediate concern was the potential for damage to the cave by cave visitors. I was therefore keen to get a gate in place and agreement from Forestry for a moratorium on trips until a study had been undertaken to determine appropriate future management of the site. Forestry agreed to these measures and the gate was completed in early August. The timeframe for the management study is yet to be determined by Forestry. Clearly, the study will need to canvas the views of the caving community and involve them in the decision-making process.

In 20+ years of caving in Australia and overseas I have seen few caves as sensitive to damage as Shooting Star, or as challenging in terms of developing a management regime that allows for sustainable visitation. Experienced cavers like Ian Houshold and Jeff Butt agree with this assessment. The sensitivity of the cave relates primarily to the gypsum and aragonite speleothems that cover the walls, floor and ceiling of passages, and to the cave's essentially pristine state. We made every attempt to minimise our impacts on the cave, including limiting the number of trips we did to those required to explore, map and photograph the principal passages. Some preliminary track marking was carried out in passages that we needed to traverse multiple times.

I've heard some cavers say that Shooting Star is supposed to be 'better than Kubla Khan'. This would be an entirely subjective judgment and misses the point really. Shooting Star is a completely different cave. Whereas many of the most impressive features in Kubla Khan are massive calcite speleothems, generally these can be protected from impacts through the permit system and by measures to delineate routes and limit the transfer of mud within the cave. Not so in Shooting Star, where the visitor must traverse passages which are choc-a-block with incredibly fragile gypsum and aragonite. This cave has more in common with Holy Hell passage in Herberts Pot or Edies Treasure in Exit Cave. 'Worse than Kubla Khan' would be a more accurate description of Shooting Star, in terms of the problems associated with visiting the cave without causing damage. A further issue is the technically demanding nature of the cave, which has potential for more committing and physically challenging trips than the majority of other caves at Mole Creek. On the plus side, whereas caves often get pretty hammered before any attempt is made to manage them, Shooting Star provided a unique opportunity to get a good result right from the start.

Steve Bunton has criticised what he sees as the failure of caver bureaucrats, and the government agencies they work for, to involve cavers in some significant new cave discoveries (see 'Culture of Secrecy' in *Speleo Spiel* 332). As a caver bureaucrat I plead guilty to exploring caves without reference to caving clubs. In the case of Shooting Star Cave I also acted to have the cave gated. This was not a sign of distrust or contempt for cavers – a charge that Steve levels at some caver bureaucrats. Rather, the decision stemmed from recognition that in the absence of appropriate management arrangements, this exceptional and essentially pristine cave was highly vulnerable to damage from cave visitors. By gating Shooting Star and putting a hold on trips until a proper planning process has been completed, we keep the options open with regard to the cave's future. I'd hate to see this one go the same way as Tailender Cave, Welcome Stranger, Snailspace or various other caves that have suffered from a lack of management.

Some more P-hangering: Khazad Dum (JF-4) 15 November 2002

By Jeff Butt

Party: Damian Bidgood, Scott Noblet, Jeff Butt.

For a while it has been at the back of my mind that we have 6 P-hangers and two part tubes of adhesive with "use by" dates of Jan 2003, and that we should use this up before it expires.

Circumstances resulted in Damian being available, and Scott (with North Queensland Caving experience) had

just appeared on the scene wanting to do some caving down here. So, I thought that we'd return to KD and bolt some of the entrance pitches. Scott would gain an introduction to a Tasmanian cave and conditions down here and we'd get to 'suss' him out.

So, off in the Orana for KD we headed. First obstacle was a large tree-fall just past the Junee Quarry Road gate. Fortunately, I'd packed the bow-saw, and 15 minutes of hard-yakka had the road cleared and we were back on way again.

We headed down the Serpentine route and back to the main route. At the first tiddler of a pitch (4 m, but is quite climbable) there is one natural bollard, one eyebolt, one good spit and two rusted out spits. It's all a bit of an ugly mess! Anyway, first I attempted to extract the one good spit, but again, had bolt extractor failure. Bolt extraction is proving to be a real problem, especially for spits where the thread is no-longer serviceable. We are going to have to resort to drilling these old ones out. We drilled a P-hanger hole nearby, and headed on down. We'll leave drilling out the spits and rehabilitating the holes for another day.

At the second 'pitch', we traversed over the top and then took the spiral staircase down. We decided not to do anything with this 'obstacle' for the moment; as the plan for the day was to replace old decaying bolts and there are no bolts on this obstacle. One might argue that a couple of hangers would be good to install a safety line; but that's debatable.

At the top of the dry 90' there are two eyebolts, and one spit with damaged threads. Here we drilled three P-hanger holes, two up high on the left directly above the drop, and one for a tie-back on the left about 3 m back. All these P-hanger holes are up at head-height, to make it easier for access to the pitch-head. Having the anchors up high also means that in the event of a rescue, getting a stretcher over the lip is much easier.

We then headed down and to the next small pitch (9 m). Here there is one eyebolt on the right, and two spits on the left. One of the spits is OK, the other has stuffed threads. We drilled two P-hanger holes here, one up high on the right, the other at thigh-height on the left. All up we'd now drilled 6 P-hanger holes, so it was time to start gluing and heading out. We installed two P-hangers at this pitch.

At the top of the dry 90', we installed the two P-hangers directly above the pitch-head. Our main tube of glue was now spent. Since we now only had just enough glue left for one more P-hanger, we decided to leave the tie-back hanger here and instead use our remaining glue for the single P-hanger on the first pitch.

We only just had enough glue for this 5th hanger for the day. Now, all our glue is spent and we have one hanger remaining (the tie-back one for the dry 90'). For interest, with our last two tubes of glue we have installed 23 hangers.

On the next trip we'll be rehabilitating the old spits, and removing most of the old Eyebolts and rehabilitating the holes. We'll leave the eyebolt on the Scaling Pole pitch, and also the one on the first 4 m down pitch (as a back up for the single P-hanger).

Further major P-hangering will now be awaiting the outcome of our WILDCARE Grant Application.

Kubla Khan (MC-1&29): 23 November 2002

By Ric Tunney

Party: Ric Tunney, Janine McKinnon, Phil Rowsell, Geoff Wise, Arthur Clarke.

Neither Phil nor Geoff had been into the cave before and Arthur hadn't been for about 15 years. Our sixth member had the wrong date in his diary, so he didn't turn up and we had a vacant slot. This was unfortunate as Kubla permits are rare; STC only gets one a year.

Three of us walked down from the main road on Friday (without lights or helmets so we couldn't get caught for pirate caving) and rigged the bottom entrance. A 17m line easily runs from the big tree to the ledge. From there we used a nice, stiff 21m rope to the bottom. This turned out to be about 4m too long.

Geoff arrived on time on Saturday morning from Ulverstone. Arthur was late as he had spent Friday fighting illegal loggers at Francistown, hadn't reached Mole Creek till 12.30 am and then had been beset by a silent alarm clock. So after pies and coffee in Mole Creek we eventually reached the car park, trogged up and entered the top entrance at 11.15 am.

We had decided to do a simple pull-through trip. It's a good feeling to lock the gate, secrete the key on one's person and know that one is indispensable. Pull down the rope at the first abseil and then you realise there's no way but on. We had a 51m rope that turned out to be a few metres too long and a 20m rope just in case.

It was a normal Kubla trip through to the River Alph. There were the usual oohing and aahing at the formations, the frequent stops to wash boots or change shoes and the interminable photo opportunities. We were almost saved from the Death of a Thousand Boredoms when Arthur dropped his camera and it started to beep angrily and refused to pull its lens in. But Arthur was too cunning for it; he stuffed some new batteries up its compartment and it started performing again.

The cave was much drier than a month earlier. The flowstone in the Silk Shop, which had been well watered, was dry. The pool next to the turn-off to the Silk Shop was half dry rather than overflowing. The Pleasure Dome only had water over its top few metres. But the dangly thing over the River Alph before the wet bits was pouring water as usual.

Arthur had a permit to collect some beasties. He found two copulating and dunked them into his alcohol bottle - a very severe form of coitus interruptus.
We had decided to avoid getting wet by using the Stalagmite Shuffle. Fading memory described this route as "climb to avoid getting wet". So we climbed (the wrong way) and came back down, climbed (the wrong way) and came back down, etc etc. Phil disapproved of all this and suggested we should swim. Janine, who didn't regard this as being a dry way at all as she was wet to the neck, agreed. So we swam. This really means the first person swims then hauls everyone across. 'Cause she was wet anyway, Janine got to lead. It's great being at the back. Everyone is so keen to go on they haul vigorously. I don't think I even got my shoulders wet.
Having a rebelay on the bottom pitch speeded our exit, so we all got out before we got too cold. We were all out at 8 pm and then we went around to Arthur's luxurious accommodation on Mersey Hill for a shower and dinner.

Slaughterhouse Pot-Growling through trip: 24 November 2002

By Jeff Butt

Party: Heather Nicholls, Bruce Terry, Scott Noblet, Scott Wayat (NZ), Nicolette (NZ), Jeff Butt.

This trip was organised at short notice trip to suit some international visitors, Scott and Nicolette from NZ. It was good that a new Prospective (Scott) and a couple of STC'ites who'd not been on this trip before (Heather and Bruce) were also free to come along, making us 6 in number.

First surprise for the day, was in the vicinity of the Eight Road....those flagging tapes that had been there for some time had now been translated into an active logging coupe. The Eight Road was unrecognisable, and not passable until we did some work. Logging activities had left a large tree and heaps of logging slash over the road. We had to prune the tree and spent about 30 minutes clearing sticks etc. off the road to allow us to pass. It was good that we were in two 4WD vehicles; but even then there was some risk of staking tyres. The logging activity continues to about 100 m beyond the Link Road to the Nine Road; this road is in a similar state.

At the entrance to the Growler water levels were fine, not quite a boring summer low, but heading that way. We sauntered up to the entrance of Slaughter House Pot and headed in. At the first pitch I replaced the rope that we didn't replace on the trip of 23/8/02. With this un-knotted rope installed, this pitch is much more novice friendly. I made an entry into the log-book; there were no other visitors since the installation entry of 23/8/02.

We cruised on down into Growling and out the streamway. Nobody had any troubles with the climbs; the glow-worms were enjoyed and everyone enjoyed the trip. This really must be one of the most interesting and diverse through-trips around.

Back at the car park, our reptile lover, Scott W. picked up a Tiger Snake about 1 m long by the tail and gave everyone a look. The snake wasn't too happy about this, and quickly slipped away once Scott released it.

[PS. On 2/12/02, another trip to the area revealed that the Eight Road is now clear of logging debris; it has also been regraded and widened for the first ~400 m.]

Kubla Khan (MC-1): 28 December 2002

By Debbie Cade (Wellington Caving Club)

Party: Debbie Cade (Permit Holder), Ric Tunney (Trip Leader), Janine McKinnon, Sonya Henderson, Alan Jackson, Sarah Joyce

Thanks to Mole Creek field centre for issuing me with a permit to visit Kubla Khan cave Mole Creek.

Everyone arrived at the caving hut and checked to ensure that key was there and ready to go. All things checked and lunch packed we headed off on the drive to Kubla Khan. After arriving at the car park, Ric and Janine went and rigged the exit pitch while the rest of us trogged up and had a mid morning snack.

We got to the entrance around 10am. Once the gate was unlocked we did the first boot wash and headed through the gate for the first pitch of the day. Ric rigged all the pitches as a pull through. Once at the bottom of the first pitch we did the boot wash again and on down the 2nd and 3rd pitches. At each wash station every boot was given a good scrub.

Lots of photos were taken along with lots of oo's and ah's. The formation was quiet something. At each stop we lingered over the grand display the unfolded before our eyes. Ric used his "cave blaster" and lit up many areas that the standard headlamp couldn't reach.

From the 3rd pitch we moved through Khyber Pass and down The Steps into the Opium Den. From there we proceed through The Rock Fall and up on the Ridgeway and into Forbidden City. Forbidden City makes me imagine that that's how the Chinese Soldiers buried in a tomb must look like.

Here we stopped again to admire the view and change our boots to our white-soled shoes before going down into Silk Shop. Silk Shop was a stunning sight. The shimmering crystals created the illusion of stars all

around you. By turning the lights down enough you could almost loose perceptive of just which way was up. Many photos were taken here.

After lingering at Silk Shop we reluctantly retraced our steps back to Forbidden City, to change back to our boots ready for the trip down to the Khan. Ric pointed out the top of the Khan and the Begum from a vantage point at the top of the slope down to the Khan. At the Khan we stopped to have some food. Janine and I went across to get a better look at the Begum. The formation of the column was unusual and not something I had seen before. We headed back to the rest of the group who were ready to move forward.

From the Khan we started to head down towards River Alph. You could feel a change in the temperature and we ventured down the Rift. (Here I made Ric rig a rope for me, as I felt a little too exposed to climb down.) Sally's Folly was interesting with the climb up the Forest being a little challenging to get up the first part of the formation. The squeeze was even more interesting as I had forgotten to remove my camera from under my trog suit and wondered why I didn't fit.

The Forest reminded me of the access up to the "Hinkel Horn Honking Holes" in Nettlebed cave system in Nelson, New Zealand. A very special place. After hanging around the Forest we emerged out on to the balcony for the next pitch down the flow stone. Ric rigged this and we very carefully abseiled down the Cairn Hall. Ric & Janine put on wet suits; it was about here that I started to think I had missed something. How cold was this river going to be?

From Cairn Hall we went up into Pleasure Dome. And what a Pleasure it was. Fantastic can't even begin to describe the chamber. We spent quiet a long time here just looking and exploring. The rim stone pools were empty but the place would be made all the more stunning with running water of the flowstone. Reluctantly we left the Pleasure Dome to begin the trip out via River Alph. The water was a little cold, however it's not too bad. I was still a little worried I'd missed something regarding the wet suits. And too my delight and horror I had. The pools got deep and the water very cold. However with a belay, a push and a pull we conquered the pools. The last one was neat fun with a good push, jump and pull we were through. Now the climb up.

As I was getting tired and was cold by this point the climb out became a little bit like "Ben Hur". However once I reached the gate and was through sitting on the side waiting for the others, the warm glow of another achievement conquered over took any cold or fear of dying.

It was now a climb up the walkway and up the last pitch into a fine sunny warm day. What an end to a great trip.

Thanks to everyone on the team and especially to Ric and Janine for making the trip memorable. I would like to see more of New Zealand cavers make the trip to Tasmania and Kubla Khan.

Devils Drainpipe (MC-127): 29 December 2002

By Ric Tunney

Party: Ric Tunney, Janine McKinnon, Sarah Joyce & Mathew (?)

After our Kubla trip the previous day, most of our party had fled to do Christmassy things with family or to join in trips with other clubs. Sarah and her friend Mathew (?) returned from Sheffield and we decided on a short day so the four of us could return home early. Janine & I had previously located Devils Drainpipe and although we had little information about it, we thought this could be a good cave to spend a few hours. We followed the track to Devils Pot, then the taped route almost as far as Devils Anastomosis. From there we traversed west till we picked up the old taped route down the ridge to Devils Drainpipe.

The Drainpipe starts as a sloping tube and then turns into a sloping bedding plane rift. The sump at the bottom was dry. After a bit of crawling we came to an ascending passage to a high chamber. Then another passage descended a bit to a long, high rift. There was lots of dirt. There were Hickmanias and their egg cases everywhere. After a while the passage petered out after a small climb down and we couldn't be bothered pushing any further. We exited after about 90 mins underground.

We followed the valley down to Marakoopa Cave to get back to the car park.

Midnight Hole (IB-11): 15 December 2002

By Geoff Wise

Party: *The Girls* - Sonya Johnson, Sarah Joyce, Monica Osuchowski, Heather Nichols.
The Guys - Steve Phipps, Geoff Wise

Jeff came and asked me what I was doing on Sunday and then suggested that if I wanted I could take some of the newer members through Midnight Hole. I agreed as this would be a good opportunity to see how I'd go in

charge of a trip. It also seemed a good thing to take the burden off those who usually run beginner trips.

It was going to be me and the four girls for the trip. This could be looked on as a positive or a negative for me. After caving frequently with Madphil I tended to lean to the positive side of things. Then Steve decided to come along to even things up a bit. He may have been feeling sorry for me having to listen to girl talk all day!!

We headed off, passing Jeff and Phil who were surveying up the Midnight track. After the exhausting climb to the entrance I rigged the pitch. I descended and acted as a bottom belay for the others. Steve stayed at the top and kept an eye on things and came down last. The descent through the cave was uneventful and everyone showed they were capable of the task.

We also encountered strange phenomenon that was belching cave crickets. These crickets made an impressive noise especially on the final pitch but when spotted they kept mysteriously quite.

Everyone zoomed through matchbox but Monz had a touch of the heeby jeebies going over the chasm of death (or what ever it is called). We headed out via the laundry chute with a brief stop to view the glow worms.

Hastings Hydrology Happenings

By Stephen Bunton and Sarah Joyce

The following is a list of things we achieved during November and December 2002, as part of the fieldwork for Sarah's Honours thesis.

1) A height datum reference point: was placed in the concrete slab on which the Newdegate Cave carpark toilets are built. This was surveyed in from a good GPS fix we got which correlated exactly with the position of the carpark. The 140m ASL contour goes through the carpark and so all height datum are taken relative to this point. The marker is a stainless steel bolt with an attached plaque detailing its height and GPS coordinates. This was placed with the permission of Ian Houshold, National Parks and Wildlife Service Geomorphologist and Keith Vanderstaay, Site Manager for Hastings Caves.

2) We located Fossil Creek Swallet (H-X5) and have a close GPS fix on it. We correlated this to height data using differential altimeter readings and then placed it on a surface map. We surveyed the cave (see below) and confirmed the depth at 18m, as quoted in the Karst Index (Matthews, 1985). This coincidentally is exactly the height of Newdegate Cave entrance.

3) We noted the position of Newdegate Cave (H-1, formerly H-X7) on the Hastings 1:25000 map was incorrect, so we did an overland survey to the entrance. The 1947 TCC Map Datum was the bolt hole in the floor that the cave gate locks into. This is 158m above the carpark. Jeff Butt has a very comprehensive survey of the tourist cave section and his height datum is the top right corner of the plaque at the entrance about 2m above the bolt hole in the floor.

4) Sarah had earlier located the possible resurgences of the cave on a trip with Ian Houshold and Arthur Clarke. To avoid confusion these were named in the order you encounter them from the road as Venous Resurgence (H-X18) because it oozes, Arterial Resurgence (H-X19) because it gushes and Gone South (H-X9) because it went down the plughole. Gone South is mentioned in the Karst Index and quoted as having a depth of 6m. At this depth there is dolomite bedrock exposed. The other resurgences only flow from glacial outwash gravels. This means that unfortunately there is nowhere to attach a tag. We saw Gone South at the -6m level and also when it was full to the level of the plain. It was good to see all three of these resurgences in low flow and high flow.

5) We obtained height data for all three resurgences to relate them to each other, to Newdegate Cave and to Hot Springs Creek.

6) In an earlier email Arthur Clarke announced the rediscovery of Jack Daltons Blue Lake (H-209). This was named after the Jack Dalton, the Dover Hotel publican of the 1930s and 1940s, who discovered it whilst waiting for a group of clients visiting Newdegate Cave. We consider this to be Tasmania's only cenote. We surveyed it (see below) and got height data for the lake surface. We noted that it didn't flood when Hot Springs Creek was in flood and the other resurgences were in high flow.

7) With Keith Vanderstaay as our guide, we set out from Newdegate Cave. There is also a small sinkhole (now H-X20) before you reach Beattie Cave but this appears to be in wrong position to be considered the Surface Opening (now H-X21) marked on the TCC 1947 map. We got a good GPS fix on Beattie Cave but not Erebus or Trafalgar Pot. As a result of another surface walk (see point 8 below) we consider Erebus and Trafalgar Pot are incorrectly positioned on the map showing cave silhouettes in relation to surface contours. This suspicion was confirmed when we noticed that the size of the Newdegate Cave silhouette is grossly exaggerated. The surface extent of the cave is only in the order of 300m, not 800m. We therefore consider Erebus and Trafalgar Pot to be in the first, rather indistinct looking, dry valley on the Hastings 1:25000 map, around from Newdegate Cave, not the second more prominent looking one, which shows a stream. We need to complete an overland survey to these caves to confirm their position and entrance heights. A complete survey of the cave would then give a figure for their depth and thus their relationship with Newdegate Cave and the resurgences.

8) We also visited Wolf Hole (H-X8), King George V Cave (H-214) and then continued contouring around the hill towards Trafalgar Pot which we didn't locate despite being in the right place according to the GPS. On the way we located and confirmed the positions of H-2, The Minarets (Fern Drapery) (H-X12), Lyrebird Lair (H-X22). Lyrebird Lair is in the dry valley which should have Trafalgar Pot!

9) Other caves in the area the locations of which we know roughly are; Lyons Den (H-205), H-215(D), Bell Chamber (H-216), Cub Hole (H-X3) although we couldn't find it. Jeff Butt had also searched for Cub Hole without success. We assume H-X13(F) is the actual Thermal Pool which has the natural spring right beneath it.

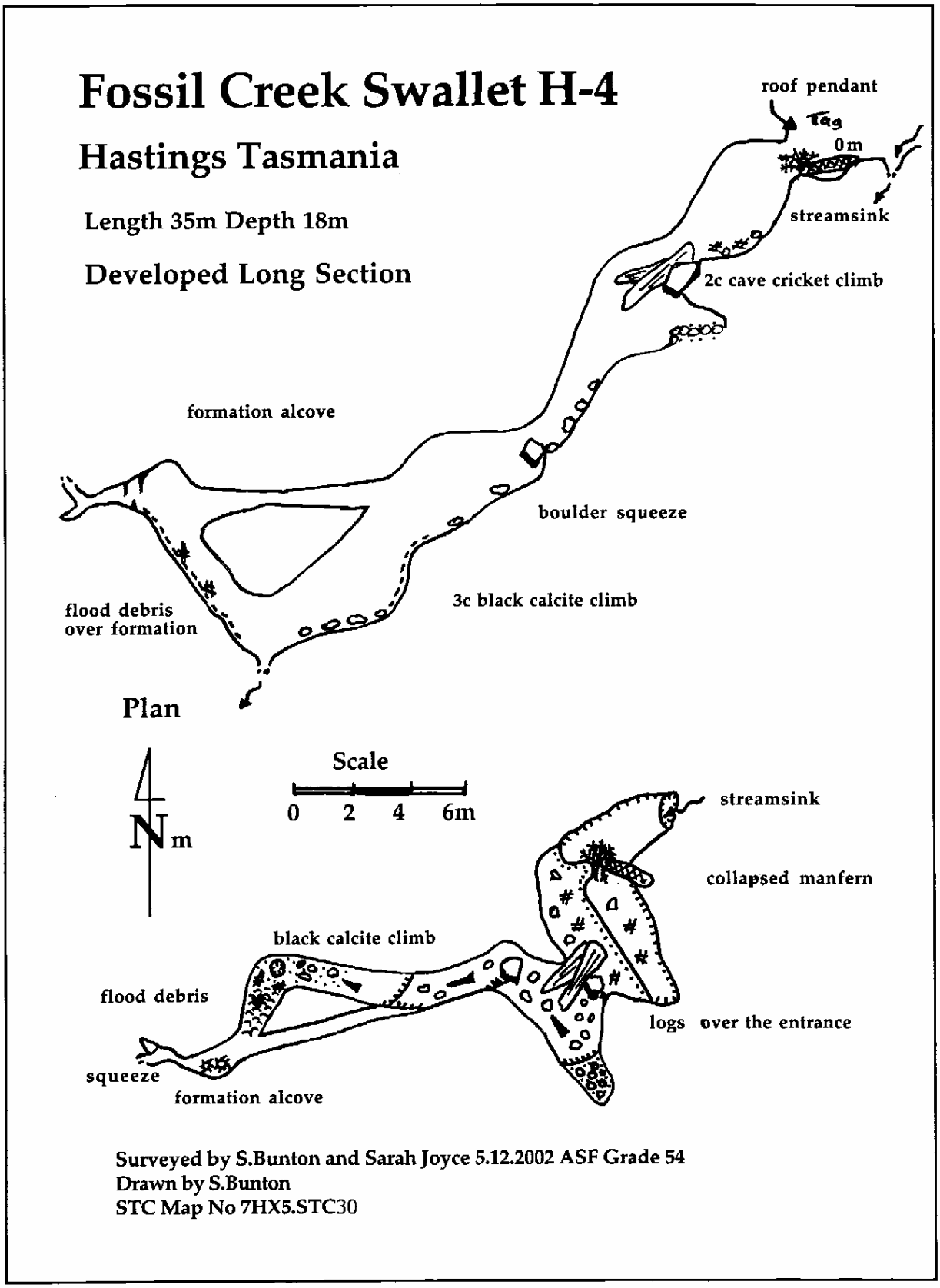
10) This means we still don't know the positions of; H-201, H-202, Flag Locker (H-203), Padre Pot (H-206), Aquamire (H-208), H-210, H-211, H-212, H-213, Alan Chestermans Cave (H-X1), H-X10 and H-X11. We have not been able to correlate the descriptions of these in the Karst Index with any of the other known features.

11) We also know of several other features of speleological interest and possibly of importance to this current study. These have been given the following numbers;
(H-X-15) A collapse doline 5m Northwest of Jack Daltons Blue Lake.
(H-X-16) Another collapse doline 10m Northwest of Jack Daltons Blue Lake.
(H-X-17) A sinkhole behind the Newdegate Cave Carpark Toilets.
(H-X-23) The Spring in the Road near the old gravel pit on the way to the caves.
(H-X-24) First Bridge Spring.
(H-X-25) Melaleuca Shrubland Spring.
(H-X-26) Behind the Picnic Shelter Spring.

12) Dye was placed in Fossil Creek Swallet and charcoal detector bags were located in all known resurgences and at strategic points in various streams. The results of this and further dye traces will be published later. The main important point was that most of the water was traced to a tributary stream of Hot Springs Creek which joins it from the true left, near the turnoff to Chestermans Rd. The resurgence is about 0.5km upstream, called Main Spring (H-X30).

List of Hastings Caves
By Stephen Bunton

Cave Number	Name
H-1 (formerly H-X)	Newdegate Cave
H-2	Vanderstaays Vault
H-3	Lyrebird Lair (Fern Drapery)
H-4 (formerly H-X)	Fossil Creek Swallet
H-201	Unnamed
H-202	Unnamed
H-203	Flag Locker
H-204	Beattie Cave
H-205	Lyons Den
H-206	Padre Pot
H-207	Trafalgar Pot
H-208 (formerly H-X2)	Aquamire
H-209 (formerly H-X14F)	Jack Daltons Blue Lake
H-210	status unknown
H-211	status unknown
H-212	status unknown
H-213	status unknown
H-214 (formerly H-X6)	King George V Cave
H-215D	unnamed doline
H-216	Bell Chamber
H-X1	Alan Chestermans Cave
H-X2 (now tagged as H-208)	
H-X3	Cub Hole
H-X4E	Erebus (Waterloo Swallet)
H-X5 (now tagged as H-4)	
H-X6 (now tagged as H-214)	
H-X7 (now tagged as H-1)	
H-X8	Wolf Hole (Wolfs Lair)
H-X9	Gone South
H-X10	unnamed
H-X11	unnamed
H-X12	The Minarets
H-X13F	Thermal Springs (Thermal Pool)
H-X14F (now tagged as H-209)	
H-X15	Sinkhole near Jack Daltons Blue Lake
H-X16	Second sinkhole near JDs Blue Lake
H-X17	Sinkhole behind the carpark toilets
H-X18	Venous Resurgence
H-X19	Arterial Resurgence
H-X20	sinkhole between Newdegate and Beattie
H-X21	surface opening on 1947 map
H-X22	White Cliffs of Dover Cave
H-X23	Spring in the Road
H-X24	First Bridge Spring
H-X25	Melaleuca Scrub Spring
H-X26	Spring Behind the Picnic Shelter
H-X27	Chestermans Turnoff Spring
H-X28	sinkhole uphill of Beattie Cave
H-X29	sinkhole uphill of track beyond KGV in gully above H-3

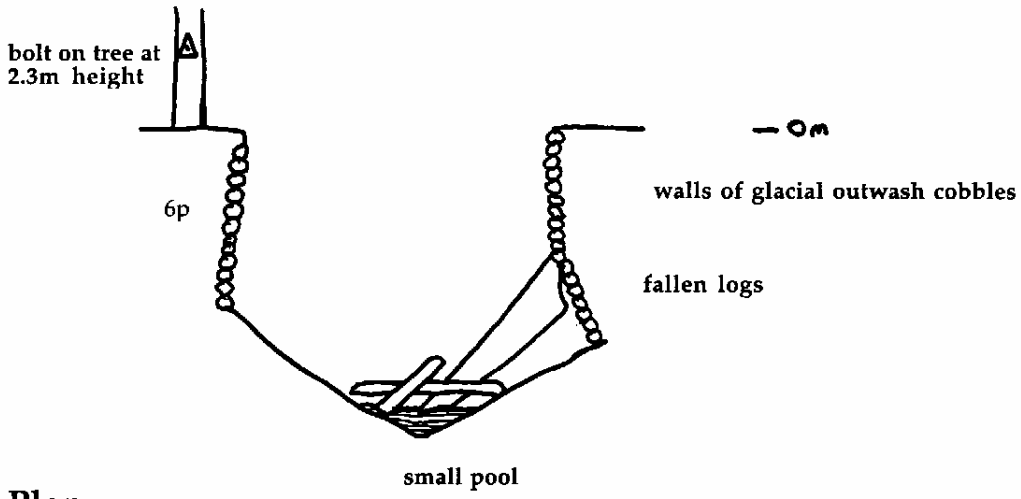

Fossil Creek Swallet H-4
Hastings Tasmania
Length 35m Depth 18m
Developed Long Section
roof pendant
Tag
0m
streamsink
2c cave cricket climb
formation alcove
boulder squeeze
3c black calcite climb
flood debris
over formation
Plan
Scale
0 2 4 6m
N m
streamsink
collapsed manfern
black calcite climb
flood debris
logs over the entrance
squeeze
formation alcove
Surveyed by S.Bunton and Sarah Joyce 5.12.2002 ASF Grade 54
Drawn by S.Bunton
STC Map No 7HX5.STC30

Jack Daltons Blue Lake H-209

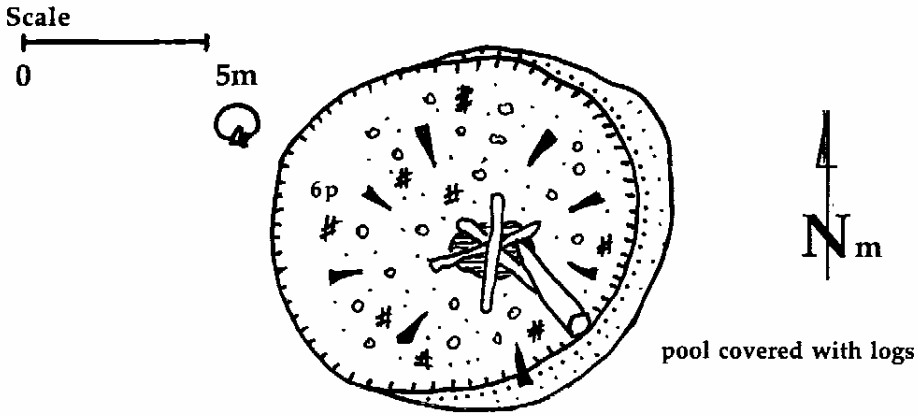
Hastings Tasmania

Length 11m Depth 8m

Cross Section Looking 63°



Plan



Surveyed by S.Bunton and S.Joyce 5.12.2002 ASF Grade 54
Drawn by S.Bunton
STC Map No 7H209.STC31

Gear Store happenings-Making number tags 16 December 2002 and Calibrating survey instruments 20 December 2002

By Jeff Butt

Parties: 16/12/02 Phil Rowsell, Alan Jackson, Geoff Wise, Jeff Butt;
20/12/02 Phil Rowsell, Jeff Butt.

16th/12: When Alan, Geoff and Phil popped around to clean the gear they'd derigged from Rocket Rod's Pot (IB-171), we got a small working bee going, and knocked out Ida Bay number tags from IB172 to IB200. This fills the gap between the old TCC and SCS series of tags.

20th/12: Phil popped around and we set up a survey instrument calibration course out the front of #22 Clutha Place. Using a water-filled hose connected to some transparent tubing we sorted out a couple of marks about 10 m apart that were 'dead level', i.e. within 1 mm. By accident the marks worked out to be virtually aligned along east-west magnetic.

We then spent a bit of time reading both compass and clinometers on these marks to check the calibrations between all sets. It was interesting to do; and now should become a regular task prior to any surveying trip. If anyone wants to check their own instruments on the course, then that's fine.

Our results are summarised in the tables below.

Suunto Clinometer	Phil reading	Jeff reading	Average	Error (based on true value being 0.0°)
#424155	+0.5°	+1.0°	+0.75°	+0.75°
#043373	0.0°	+0.5°	+0.25°	+0.25°
#423770	+1.0°	+1.5°	+1.25°	+1.25°

Suunto Compass	Phil reading	Jeff reading	Average	Error (based on true value being the average of all values=269.375°)
#333430/3	269.0°	269.0°	269.0°	-0.375°
#838272/25	269.5°	269.75°	269.625°	+0.25°
#438188/25	269.5°	269.5°	269.5°	+0.125°

It is interesting to note that there are some differences between different observers as well as differences between different sets of instruments. We found that of the three sets (two STC sets, one my own personal set) of instruments at our disposal the compasses fared better than the clinometers.

It is always worth noting which sets of instruments are used on any trip (most survey paper has a space for Instrument Numbers), and it is also worth checking their (and the instrument readers!) calibrations when picking up and/or returning instruments to the Gear Store. Most survey reduction software allows offset errors to be input; thereby making the corrected data more accurate. Doing loops in a survey also gives a good idea of the extent of the errors involved, i.e. if the closures are good, then it is likely that the instruments are accurate. Taking both forward and back-sights also greatly helps spot reading errors or other abnormalities.

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

STC WaReHoUsE SaLeS

Publications

- "Caving Safety 1 Manual", 92 pages, covers Planning, Safety, Maps, Gear, Rigging, Emergencies etc. $20.00
- Back Issues of Southern Caver, Speleo-Spiel. There are various issues available. Please contact the Librarian, Greg Middleton (gregmidd@ozemail.com.au) with your requirements. ~$1 each

Gear

- CAVE PACKS, cylindrical in shape, made from Heavy duty Ripstop PVC material, double thickness material at wear points, strong seams (triple sewn) and all critical stitching is on the inside (to protect it from wear), drain holes, large diameter eyelet's and a simple 'draw cord' closure as well as adjustable straps**.**
  Now featuring a handle on the side to facilitate carrying the pack in low passages.
  Strongly made. Available in either Yellow with different colour trims (navy, green, red, black etc.). So, they don't all look the same! Available in two sizes,
  the "STANDARD" (25 litres: 23 cm diameter, 61 cm long) and $55.00
  the "EXTRA" (31 litres: 25 cm diameter, 63 cm long). $65.00
  but LARGER OR SMALLER-SIZED PACKS can be made to order, JUST ASK. POA
- Aluminium Bars for Rappel Racks. $5.00
- BATA full-length Gumboots, Size 9, Green with Orange Sole, and steel toecaps. $20.00

Tape

- **NEW STOCK....**Edelrid 25 mm Supertube tubular tape. Ideal for rigging, chest harnesses etc. (White) $1.50 per m
- **NEW STOCK....**5 cm (2") flat tape. Ideal for harnesses, rigging, gear bags, belts etc. (Black or White) $1.20 per m

Safety

- **NEW STOCK....**Edelrid 10.5 mm dynamic rope (for cows tails, safety loop) $4.50 per m, e.g. Cowstail $12
- Space Blankets (don't be caught underground without one!) **Just one left.** $4.00 each

Lighting

- Yuasa Gel-cells, 6 Volt, 7 Amp-Hour $24.00 each
- Metal Lamp Brackets, complete with fixing rivets and cable keeper. $7.50 each
- Used Metal Lamp Brackets and cable keeper. Good condition. Just need to add some small bolts. $4.00 each
- Used Plastic Lamp Brackets. Good condition and comes with fixing screws and a cable keeper. $3.00 each
- Jets (21 litres/hr) for Petzl kaboom (just a couple left) $5.00 each

Tow Ropes/trailer tie downs/yacht mooring lines etc.

RETIRED CAVING ROPE, no longer safe enough to use for caving purposes, but more than adequate for many other purposes. We've got ~400 m of the stuff and it's time to get rid of it. It's available in various lengths (up to 20 m), diameters (9, 10 and 11 mm) and includes Edelrid and Bluewater ropes. You might be surprised to find that it's not all stiff and horrible! Prices have plummetted and the price structure is now:

< 4 m	free or make a donation of 10 cents/m if you wish,
4 to < 6 m	$1.00 a length,
6 to < 10 m	$3.00 a length,
10 to < 15 m	$6.00 a length,
15 m plus	80 cents/m.

If you need any of the above please contact Jeff Butt on (03) 62 238620 (H), or jeffbutt@netspace.net.au, or write to us: SOUTHERN TASMANIAN CAVERNEERS, P.O. BOX 416, SANDY BAY 7006.