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Front Cover:
Dave Rasch hosing down flowstone in Threefortyone (photo by Jeff Butt)

Back Cover:
The humungous Eucalypt with "caves" in it found on the trip to North Lune Karst. Joe Farrell and Steve Phipps are climbing it. (photo by Arthur Clarke)

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

Newsletter of the
Southern Tasmanian Caverneers Incorporated
PO Box 416, Sandy Bay, Tas. 7006
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For Sale

Andy Roberts of Venture Out Tasmania is selling some stuff.

- A bag of various harnesses, helmets (UIAA style, no brackets), caving overalls, lights and in almost new condition a 50m x 11mm Edelrid S/Static rope, plus various other bits etc.
- One f/glass dinghy approx' 8.5ft with oars, rowlocks, line etc.
- The business is still for sale, as is, negotiable price, full details on request.

Andy is contactable at: 0438-285-011 or locally (a friend's place) on 0362-396546

Answers to the Caving Word Puzzle in Speleo-Spiel 327:

The following Cave Related words were included in the puzzle. There was one particularly tricky word to find and a caving word even appeared that wasn't intended!! As such if you found either word it counts. The two words were:

Aven	My computer sneakily stuck an "N" on the end of "Exitcave" making "Aven" near impossible to see! An aven is a vertical shaft in a cave. Though generally speaking if you look down it, it's a "Pitch" and if you look up it, its an "Aven"
Pig	The unintentional word in the puzzle. A Pig is a small bundle of spare carbide that cavers sometimes carry on long trips. Often it is stored inside a rubber inner tube secured at both ends.

I'm sure the other words were easier to find. Definitions are from Jenning's Glossary on the web, the Collins Dictionary of Geology, and myself.

Carbondioxide	A natural gas that can create a hazard in some caves. Excessive build up of guano and other organic debris can be a cause.
Pseudokarst	Terrain with landforms which resemble those of karst but which are not the product of karst processes.
Pustulence	A word describing muck in a cave. Mostly mud. See the Dave Rasch Scale of Pustulence in Spiel 324.
Trogloxene	A cave dwelling insect which spends only part of its life cycle in caves and returns periodically to the epigean domain for food.
Speleothem	A secondary mineral deposit formed in caves, most commonly calcite. i.e formation.
Hickmania	The genus of the Tasmanian Cave Spider "Hickmania Troglodytes". Sometimes they're referred to as "Hickies".
Screwgate	A carabiner with a device that locks the gate to make it safer and stronger.
Hydrology	The study of the distribution, conservation and use of water in the Earth and its atmosphere. Plays an important part in understanding caves.
Marakoopa	Show cave at Mole Creek. Very spectacular. See glow-worms here!
Trogsuit	Oversuit, Overalls, Ovaries. That daggy piece of clothing you go caving in.
Exitcave	Tassie's longest cave.
Dolomite	(1) A mineral consisting of the double carbonate of magnesium and calcium, $CaMg(CO3)2$. (2) A rock made chiefly of dolomite mineral.
Oolite	Loose scientific term for a cave pearl. A type of small carbonate coated grain with a cortex of concentric fine laminae around a nucleus, often a shell fragment or sand grain. A more precise geological term is Oolith or Ooid. Oolite is actually a rock made from these.
Pitch	A vertical or nearly vertical part of a cave for which ladders or ropes are normally used for descent or ascent.

Look for a new word puzzle in the next Spiel…

Edict-a-laborial

Thanks to everyone who contributed to this issue.

Arthur has a concocted an article on Glow-worms which is written so everybody can understand! This is the first of a series of articles focusing on cave fauna which he is generously puting together for us.

Despite Jeff's warnings that there's never much to put in January Spiels due to people going away and festing over the season we have a pretty full issue. There are still reports being written about trips that happened during the two months. They will make it into the next Spiel.

It was great to have the interaction with other clubs and visitors during summer. Those of us at Mole Creek are likely to remember the new years eve overdue cavers fiasco for quite a while.

The forward program is a bit wimpy, but again that's due to the year just beginning.

Enjoy the read.

Forward Program:

Wed 20 Feb. Slide Night at Shipwright Arms. Greg's is showing some Madagascar pictures.

Wed 6 March. Next business meeting.

Sat 9 – Mon 11 March Devils Pot/ Devils Anastomosis exchange trip with Mole Creek Caving Club.
Also Anna-A-Kananda exploration and surveying.

Stuff 'n Stuff

New members

Welcome to new prospective members Dave Green from Hobart, Heidi Macklin from Sydney, Jason Morgan (recently from Canada), and Dave Hounslow from England.

Much caving frivolity was had with these people over summer. Unfortunately three of them live out of the state but will hopefully return soon.

Subscription

A big thank you to everyone who has already paid their subs for 2001/2.

Subscriptions for 2001/2 are as follows:

Household $90 ($80 discounted)
Full $65 ($55 discounted)
Concession $45 ($35 discounted)
Junior $45 ($35 discounted)
Life with ASF membership $50 (no discount available)

The discounted rates are available to members who wish to receive the Speleo Spiel in electronic format only AND who paid by the deadline of 7 February. Please forward payment to The Treasurer, STC, PO Box 416, Sandy Bay, Tasmania 7006

If you have access to Internet banking, you can also make a direct deposit to the club's account. Please contact me if you wish to pay this way and I'll send you the account details.

Happy caving, Steve Phipps (STC Treasurer).

Gormenghast: Sunday 16 December 2001

By Joe

Party: Anna Greenham, Joe Farrell, Heidi Macklin and Jason Morgan.

The aim of this trip was have fun by going caving (?) and doing it in a predictably easy cave for the whole party. I'd also heard encouraging reports of there being pretties at the bottom.

We met Heidi and Jason for the first time at the Maydena lodge. They were keeping company with Jeff and others who were off to do some Threefortyone. A short amount of time later we were showing Heidi and Jason Growling's impressive entrance. Then we were scrambling around in the forest trying to find the mule track in the opposite direction from Growling. It was nearly a case of "all trogged up with nowhere to go" but someone had the bright idea of following the young ferns. Once found, the path was easy to follow by picking our way through the veg. Ric and Janine's excellent directions guided us directly to the cave. We had some lunch and got inside.

Straight away the cave trended steeply downward. In preference to an exposed wet climb on the right, we followed a small side lead to the left. It was a fun slide down a narrow cavity betwixt steeply dipping beds. Somewhere down it my side bag escaped and fell unnoticed into the main streamway. Soon we slid out back at the streamway and found we still had more down-climbing to go. A couple of the ensuing chimney climbs were challenging but fun. We rigged a handline on one (where I discovered my bag missing) and finally got to the flat second half of the trip in. We had our ups and downs in the streamway trying to find the biggest ways along it. This cave is only ever of sporty proportions.

Jason and I crawled up a side lead about where a bypass was shown on the map. It wasn't the bypass and we never did think we found it. Although now I think of it, it may have been showing an upper and lower level in the streamway.

After Shrimp Squeeze (not bad in low water) the formations started. There was much white calcite in the form of straws and flowstones originating 6 or 7m up in the vadose ceiling. Quite pretty as I'd been lead to believe.

Too soon we arrived at the sump which had a gnarly looking dive line emanating from it's depths. My lack of side bag led Heidi, Jason, and Anna to generously share their lollies and chocky. Somehow I kept dropping my Chicos in the sump and drowning them. It was obviously time to leave.

After thrutching up the chimney climbs we stuck to the streamway bypassing the slide between the bedding and eventually found my side bag. It got sporty and wet towards the top making for a thoroughly fun return trip. In fact it was a fun caving trip all over.

A *CHOOSE YOUR OWN ADVENTURE* Trip Report.

Slaughterhouse Pot – Growling Swallet: Thursday 20 December 2001

By Joe

Party: Mad Phil, Pommy Dave and Joe Farrell.

Your Yellow Corolla station wagon screeches to a halt outside the Narrara Youth Hostel. It is early on an overcast Thursday in December and you are here to collect your companions for the day. Mad Phil and Pommy Dave are waiting on the porch with a coffee and a huge bag of rope.

After good mornings Mad Phil states abruptly "Jeff Butt's not coming. He reckons there's been too much rain"
"Jeff would know" you say, glancing sceptically at the low cloud around Mt. Wellington.

"Bugger him" grunts Mad Phil, "He's over-reacting. We can always change plans when we get there anyway".

You agree. You have two days caving planned and this Slaughterhouse – Growling though trip is only one of them. In 10 minutes the three of you are on the road to the Junee.

It has been the wettest December for years. To no one's surprise it starts to drizzle as you trog up at the end of the 8 road. Pommy Dave's trog suit has a few holes. You all have fun comparing suits and making fart jokes then you're on your way through the dripping rain forest.

Suddenly you come to a fallen tree across the track. Its so big that climbing over it is simply not an option. Pommy Dave and Mad Phil get down into the mud to squelch and squeeze underneath it. The mud looks so pustulent (and your trog suit so clean!) that you um and ahh a bit. There is a slightly longer option of walking around the butt end of the tree. **If you decide to follow Mad Phil and Pommy Dave turn to page 8. If you decide to walk around the tree and stay clean turn to page 9.**

Choose your own adventure trip report… Continuing along the old mule track you think "we should be able to hear the Swallet growling by now". To your surprise, when you reach the swallet the scene is calm. In fact, the water level is the lowest you've ever seen it! Every other time you've come to do this trip the cave has been flooding so this is either really great or really suss.

It is unanimously decided to continue with the trip. After all, everyone can jug back up Slaughterhouse if they have to. Very soon you are sitting at the bottom of the first pitch with Mad Phil wondering what the hell Pommy Dave's doing up there? Apparently he has a new SRT descender which besides being big and heavy like its owner, is fussy about the rope.

On the second pitch a piece of the wall that you're leaning against comes off and bounces down the pitch towards Mad Phil. Justifiably he becomes even madder and you are duly chastised.

While waiting at the top of the third pitch you hear the eerie sound of things moving by themselves in the rockfall above. Guessing its just dislodged pebbles sorting themselves out you pay no more heed – still, quite unsettling.

Within an efficient amount of underground time, the three of you are at the bottom of Slaughterhouse Pot. Mad Phil says keenly that he'd like to visit the trapdoor streamway while the water is down. You are definitely hoping to see more of the cave but have the feeling that today isn't the day. Pommy Dave doesn't express an opinion so you must decide. **If you want to see trapdoor streamway and more of the Growling system go to page 19. If you decide that you'd rather persuade the others to continue on and out Growling Swallet now, go to page 17.**

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, 25 litre volume, made from Heavy duty yellow PVC material, double thickness material at wear points, strong seams, drain holes, large diameter eyelet's, adjustable straps. Good Value.	$55.00 each
• LARGER or SMALLER-SIZED PACKS ALSO AVAILABLE, JUST ASK.	POA
• Aluminium Bars for Rappel Racks.	$5.00 each
• 5 cm (2") plastic Tri-glide buckles, ideal for battery belts, cave packs etc.)	$0.80 each
• BATA full-length Gumboots, Size 9, Green with Orange Sole, and steel toecaps.	$25.00

Tape

• Edelrid 25 mm tubular tape. Ideal for rigging, chest harnesses etc.	$2.00 per m
• 5 cm (2") flat tape (ideal for harnesses, rigging, gear bags, belts etc.) (Black or White)	$1.80 per m

Safety

• Rivory 10 mm dynamic rope (for cows tails, safety loop)	$4.00 per m, e.g. Cowstail $11
• Space Blankets (don't be caught underground without one!)	$4.00 each
• Miracle Body Heat Packs (20 hours of portable heat, 50 gm sachets, carry a couple)	$1.00 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
• Plastic Lamp Brackets, used but in good condition. comes with fixing screws	$2.00 each
• Alkaline 4.5 Volt 'flat-pack' batteries (for Petzl Zoom's etc.)	$7.00 each
• Eveready 6 Volt, 0.5 Amp Flange Mount Bulbs #1417 (for HIGH Beam)	$2.00 each
• Tandy 6 Volt, 0.3 Amp Screw Base Bulbs #50 (for LOW Bean), blister packs of 2	$2.00 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. Available in various lengths.	$1.00 per m, less for the stiffer stuff

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.

Caving on Atiu, Cook Islands, November 2001

By Hugh

Party: Liz Canning, Hugh Fitzgerald

Elizabeth and I decided a South Pacific holiday was in order, so we visited the Cook Islands for eleven days last November. We spent a full week of that time on Atiu, the third largest and third most visited island in the Cook group. The main attractions were its isolation (fewer tourists), its savage history, and its caves.

In the event, this poorly advertised STC international caving expedition only had two STC members in attendance, but we were lucky enough to pick up the odd local or international caver for occasional trips. A diary style report of events follows.

First a brief background on Atiu:
http://www.ck/atiu2.htm

Next a short Cook Islands Maori vocabulary:
Ana = n, cave
Takitaki = v, to lead to, to be led to
Kopeka = n, a bird, an indigenous cave-dwelling swiftlet which echolocates in darkness
Makatea = n, raised fossil coral reef
Marae = n, a village centre or meeting area
Vai = n, water (aka Cook Islands Lager)

Tuesday, 20 November, 2001

We flew from Rarotonga, the main (caveless) island in the Cook group, to Atiu. Within hours we had organised our first trip, a guided tour of Ana Takitaki, or the Cave of the Kopeka. Two members of the Marshall family led a party of eight international cavers (mostly footloose backpackers) through the jungle across the makatea, encountering swarms of mosquitos and legions of snapping land crabs en route. The makatea resembles the worst karren one could imagine. It appears flat and featureless from the air, but beneath its tropical jungle mantle one encounters a razor-sharp coral landscape, cut by grikes, gaping pits, and impossible vine-cloaked clints. Caves are common, but getting to them is not easy. Movement is restricted to slots between ridges; progress is hindered by chasms; vines, crabs, spider webs, giant centipedes, and mosquitos hamper efforts, and heat exhaustion lurks waiting at every exertion.

Some hardy pioneer armed with a machete had established a circuitous track through this netherworld. After 40 minutes, we reached the entrance to Anatakitaki, and entered a collapsed roof hole via a 4m step ladder left on site. Electric torches were issued to all, and we proceeded through the first hole. After 5 metres we emerged into a ten metre wide polje where another roof collapse allowed in plenty of light. It was a curious sight to behold impressive formation in natural light, but that was to be the nature of the caves of Atiu, as we were to discover.

After another short passage, we came to an even larger roof collapse, full of tropical jungle. This hole was forty metres across, with vertical walls some 8-10 metres high. Banyan root vines dangled over the lip, a wild bees' nest was slotted between shawls on the ceiling, bottles containing messages perched on ledges, a large rock cairn covered many human bones. Vast columns held the roof aloft, and all was glowing with subdued light filtered through coconut palm leaves.

Apparently the fossil coral which forms the makatea of Atiu has only been uplifted above sea level in the last 80,000 years. Despite this, the caverns in it and the formation within the caverns are huge. This rapid development of karst features is not uncommon in humid tropical regions. Acid leachate from the humus in the overlying forest soon dissolves an egress point into the limestone, and swiftly enlarges solution channels and pockets, resulting in impressive karst landforms in a relatively short period of time.

Off to one corner of the polje a passage led into darkness. Gradually one became aware of small black birds flitting in and out of this darkness. These curious creatures made an audible clicking sound as they encountered dim light, and flew on unperturbed into the darkened passage. We followed them in for about 50 metres, beyond any natural light, and found hundreds of them nesting in tiny pockets on the ceiling. In the darkness we heard clicking birds skilfully avoiding we intruders, and the quiet cheeping of many nestlings calling for nourishment.

These birds are called kopeka, and are endemic to Atiu. (There are a few other species of bird known to echolocate. Check out http://www.earthlife.net/birds/hearing.html). The audible clicking sound is exactly like that of microchiropteran bats, if one is fortunate enough to hear the ultra sonic signals a bat emits put through an electronic frequency translator.

A grand distance of fifty metres was as far as we got underground on our first caving trip in Atiu. We turned back at this point, and had fun swinging on the banyan roots a la Tarzan. Then we were taken down to an underground pool, lit by candle light, where we were encouraged to bathe. It was pleasant enough, if one ignored the slick of sun tan cream and insect repellent on the surface. Apparently some Australian cave divers had visited this pool some years previously, and had connected it to further chambers accessible only by scuba.

On the return walk through the perilous jungle our party was rushed by a wild sow which came crashing through the undergrowth, almost skittling Liz in the process. If that wasn't harrowing enough, we punters were stung NZ$15 each (approximately 30 cents) for the tour fee.

Wednesday, 21 November, 2001

On this our third wedding anniversary, we toured the island by bicycle, exploring the littoral forest, beaches, and roads (but no caves). I tried biting an unknown

plant (which I thought was giant taro leaves), to find the sap caused stinging, swelling, and blistering of my tongue and gums. The subsequent numbness lasted several days, without further ill effect. A salutary lesson: don't eat green things with large purple tentacles and masses of eyes, especially if they look at you funny.

Thursday, 22 November, 2001

To mark the 38th anniversary of the assassination of John Fitzgerald Kennedy, Hugh Fitzgerald Kennedy and Elizabeth Canning Kennedy took to their bicycles to explore Atiu by road. We took the long road that descends from Tengatangi Village in the middle of the island down to the coast, passing through makatea on the way. This was our first occasion to attempt penetrating the makatea without a path, a machete, or local expertise. We didn't get far, but did manage to find a few belly crawl holes stuffed with fearsome land crabs. These holes were positioned at the base of polje walls; the polje formed a natural corral within which pigs had been kept recently by a local farmer. Leg tethers, split coconut shells, and squishy mud underfoot provided the evidence of pig keeping activity. Rather than crawl about in pig droppings, we retreated to the bicycles. Although only 50 metres off the roadside, this area took us about 15 minutes to reach, thanks to ridges, vines, invertebrates, etc. We abandoned further exploration for the day.

Back at the road we attempted to recreate the Dallas motorcade incident, complete with Texas Schoolbook Repository (a handy coconut palm) and green grassy knoll (a lump of exposed makatea). I tried climbing a papaya tree to film proceedings. I soon discovered that papaya trunks are flimsier than toothpicks, as crown and climber came crashing to the ground, bruising most of the fruit in the process. A sticky white sap emerged from the tree's wounds, and began dissolving any flesh with which it came in contact. (The locals use this sap to tenderise tough meat, and to treat tropical ulcers. If only medical staff had had some of this wonder substance on hand in Dallas that fateful fall day in 1963). Looking about, we noticed several other broken papaya trees, which idiotic tourists had tried to climb – no doubt attempting to take pot shots at passing presidents, or picking papaya fruit, or some other such seditious activity.

Friday, 23 November, 2001

In preparation for further exploration this afternoon, we took a morning tour of the Atiu Coffee Company (see http://www.adc.co.ck/coffee/default.htm). After visiting their mosquito-riddled plantations and sipping their delightful products at some length, we hit the road again.

Our goal for today was to find the Orango Marae, which hosted the landing party from Captain Cook's visit to the island in 1777. Legend has it that these early visitors were lucky to escape alive from their close encounter with the esurient Atiuans. We located the marae without too much trouble. It is an interesting spot, as almost all of its relict structures are fabricated from stalagmites and stalactites. Stals stand as boundary posts, and are laid out as foundations for former wooden buildings. These are very large objects, which would have taken much effort to shift from their provenances.

Nearby, Liz found an entrance with a short down climb. We entered this cave and made a gruesome discovery: human bones were scattered about ledges and floor. Although the cool interior was welcome relief from the oppressive heat and mosquitos of the outside world, the long dead inhabitants shooed us out of their peaceful resting place.

For those interested, the area around Orango Marae is well reported in Duff, 1974.

Saturday, 24 November, 2001

Another guided cave tour was organised for us. Local resident Paul Kura led us along a winding dirt track to his piggery, where we watched him call up his charges and split coconuts for the pigs to feast on. Paul led us across his family land, another endless expedition into the makatea, hacking away at jungle in the process. This path was much overgrown, and our guide lost his way on numerous occasions. In places, he would point out an odd red-leaved shrub, which he explained were planted by his grandfather to mark track junctions.

Eventually we came to a cave called Vaiakaruru, which was more of a spectacular roof collapse than true cave, exposing wondrous formation. Paul pointed out the coconut palm planted to mark the entrance, then led us down a short distance to the water table where we swam in a crystal clear, deep blue pool. Lights were unnecessary, as enough indirect sunlight lit the scene. Equipped with a waterproof Maglite, Liz poked about in a few less accessible pools. Overhead another wild bees' nest hanged, and the heavy scent of the honey permeated the air. While we took photographs, our guide exited the cave. We found him at the entrance idly carving his name into the coconut palm with his machete.

After exhibiting some reluctance, Paul led us to Nukau cave, which was a promised feature of the "two cave special" advertising for this guided trip. We expect the small number of clients this day (just Liz and myself) made him reluctant to include this extra cave in the tour. We soon found that he visited Nukau cave less frequently, and was more uncertain on how to reach it. With trial and error he managed to spot the entrance-locating coconut palm, and equipped with a Petzl Zoom we provided, he led us into darkness.

Our guide was far more familiar with his underground path. He led us directly to a pile of human bones, which had been placed in a stack and surrounded by what looked like bright red paint. Paul assured us the red pigment was human blood. Next he led us to another beautiful water hole, where he demonstrated a 5 metre leap of faith off a rock wall into the pool. After a few abortive attempts, I plucked up the courage to do likewise, thoroughly enjoying the experience. This pool

was also investigated by the Australian cave divers who had visited Atiu in the past. Apparently they connected it to further chambers, free diving with snorkels and lights only.

We spent about half an hour in each cave, then walked back across the makatea for 40 minutes. The stifling heat proved too much for me, as I expired behind a spiky outcrop and rapidly putrified. Liz suffered similarly when she found our guide wanted to charge us $30 each for the trip.

Sunday, 25 November, 2001

Back at the Atiu Motel, we pored over ancient texts (compiled in Campbell, 1982), and planned further excursions into the jungle based on what we read. We decided to investigate caves along the cobbled path leading from Orovaru Beach to Orango Marae. This is the same path that Captain Cook's landing party was led along to the festive dinner prepared in their honour, where they were to feature as the main course. The path is thought to be several thousand years old, and is in amazing condition. Read more about it in Duff, 1974.

Some impressive grikes pass under the path in places, and a few other holes were easily accessible to the sides of the path. Without ropes we couldn't enter some of the vertical drops, but others allowed access via a down climb. We found a few pretty chambers, lots of land crabs, and occasional relief from the heat and mosquitos, but again no extensive caverns presented themselves.

Monday, 26 November, 2001

By now, our last full day on Atiu, we had learnt to depend on local knowledge to find the best caves on the island. All land is owned jointly by all living members of each of the five villages of Atiu. The island is divided into packages administered by these five villages. To gain access to the land, local permission must be sought from the appropriate village, and a guide is provided for a fee. Much of the island's monetary economy seems derived from injections of foreign funding in this manner.

We opted for a guided tour of Te Ana o Rakanui (The Cave of Big Raka), led by Aue Raka. With us were three other cavers, two tourists from Sydney and a holidaying Safeways storeman from Blighty. Aue led us underground and read us the legend of the cave from his exercise book. It transpires that Rakanui was his grandfather, or at least an infamous forebear. After the story he encouraged us to look about, and showed us several repositories of human remains.

The cave was quite extensive, and had numerous daylight holes in the roof. Land crabs scuttled about everywhere, but we learned these are not good for eating. Aue gave us a lesson on how to lure the tasty coconut crabs into caves, in order to capture them for the dinner pot. At up to 2kg a piece, they would provide quite a repast.

Outside again, Aue demonstrated how to climb a coconut palm, then cut each of us a green coconut to try a taste of the delicious juice found within. The nuts were brimful of slightly effervescent, delightfully refreshing ambrosia.

That concluded our brief exploration of the caves of Atiu. Undoubtedly there are more holes to be found, and what with modern GPS techniques and large-scale defoliants at our disposal, these could be carefully mapped to locate the entrances exactly.

Another STC expedition should be mounted to this tropical paradise, perhaps better researched, better equipped, and better attended, and a thorough exploration of Atiu's vast hollow core should be made. A more pleasant spot for such activity couldn't be imagined, especially if one went in the dead of winter. Elizabeth and I shall be glad to act as advisors to such a momentous undertaking, and even participate if called upon by our esteemed colleagues to do so.

References:

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Choose your own adventure trip report… *"THIS IS REDICULOUS!" Mad Phil shouts over the water He is relieved when he makes it back and tells you how he really thought he was a gonner there for a moment.* You all begin to hunt for another way out. You are quite sceptical of finding one but you wriggle up into a squalid little glowworm habitat between some rocks as your contribution. When you're thoroughly wedged in you hear an "OY – Over here!" from Mad Phil. He's gone up some 7m climb that looks easy but he drops a belay line anyway. Ultimately you decide this is a good thing because when you're half way up both your lights fail. You climb the rest in the dark as you're so near to the entrance. Then its a short wade through a circulating pool and you're out! On the surface there is much rejoicing and flabberghasting. Rejoicing at how the three of you made all the right decisions, and flabberghasting at how much the water has risen. Its not even raining outside! Admittedly you've only been caving in the Junee since the beginning of Winter but you will become fond of saying at parties: "in the 3.5 hours we were underground, the water went from being the lowest I've ever seen it - to being the highest I've ever seen it!". The three of you wonder how long the connection back to the bottom of Slaughterhouse remained open after you passed through. No one wants to go back for a look.

You head for the cars, detrog then run off to play with a bow saw and a tree across the 9 road. You also clear the road further up hill.

The end – Congratulations.

Choose your own adventure trip report… ***You get into grovvel mode and slurp through the muddy space under the log. Laugher is had with Mad Phil and Pommy Dave on the other side because Dave has another hole is his suit and you all look like big poos.*** *Go back to page 4.*

Tassie Pot: Friday 21 December 2001

By Joe

Party: Dave Rasch, Mad Phil, Joe Farrell. and Pommy Dave who was surface lubber for the day due to a shedded trog suit.

This trip had one of those shaky starts. We had great fun moss-skating Raschies MG and my Corolla up the newly cleared nine road. Dave had tyres working to his advantage while I had clearance (but no handbrake!). With Dave R wanting to be back in Hobart for a summer Solstice party we were a little skint on time. Consequently we were most unimpressed when we found we'd spent a valuable hour rigging the first pitch of the wrong hole! – yep, one of those starts.

Slightly further up the valley (still only 50m from the road) we found the much bigger correct doline. The spits were a little hard to find on the first pitch. I found one as I descended first from a tree. The other was found by Phil three feet below the first. He and Dave R re-rigged the top section and installed the hangers.

With nowhere to hide at the bottom of this beautiful 40m pitch I was glad when the three of us were down. Dave traversed out to the spits of the second pitch (24m) still on rope. These spits which had orange markers were much easier to find.

The continuation was dead obvious despite its history of being unnoticed. A fun little downwards climb lead to the next short pitch (18m with spits obvious). Following that, a downward curve to the left and before we knew it we were crawling along a ledge at the top of the 71m pitch. More due to lack of rope than time we didn't go any further. We had a look over the edge and around the Goodbye chamber which still has a few leads that haven't been exhaustively pushed according to Dave then headed back up.

All went smoothly with the derigging. On the last pitch I clipped in at the pitch-head spits and waited while Dave came up below me. This was a good way of not sending forest debris down on him while jugging out of the doline. Once again it was excellent having Dave Rasch's local knowledge with us. His manner also imparts an air of simplicity to vertical caving which I will definitely miss now he's gone.

A very pleasant trip all up.

Tassy Pot Firsts… 29th December 2001

By Gavin Brett

Party: Dave Chiam (STC), Andrew Dunlop, Gavin Brett (STC)

…well, firsts for us. First unguided SRT cave, first trip report, first use of new harness and trog suit, and first use of a bike light. First however, some background…

I was staying at Maydena with the party and some other friends for our Christmas holidays and had a morning to spare so we decided to check out Tassy Pot. We had gone hunting for it a couple of days before which had required some track clearing. There is now a tree across the start of the track that you can duck under. I also retied the pink ribbon to this tree as the ribbon was found in the bush. We also found Three Falls which has a great entrance but failed to find Owl Pot; we had run out of time and were concerned that the others were waiting for us. We rushed back to Maydena to find nobody the slightest bit concerned; it's good to be loved.

The evening before we went we ran into Dave Rasch and a couple of English cavers at Tyenna Valley Lodge who happened to have the right hangers for the trip to lend us, thanks guys. I went in and set up the first pitch and dropped to the bottom where the others joined me. The set-up was a bit of a trick as we had only one 200m rope. We hunted around for the bolts for the next pitch but couldn't find them, so Dave went right down to the bottom. I started out and happened upon them on a lower ledge than we had been looking at so I set the next pitch properly but dropped one of the markers, those bolts are a bit high for me! I must remember to take spare markers with me.

We all gathered at the bottom of the next pitch but Andrew didn't like the look of the crawl so pulled the pin and went back out. We later found that he liked the idea of a bit of a run and had nearly made it back to Maydena before we picked him up. Dave and I pressed on with our huge bundle of rope through the crawl. We found a good boulder in the floor at the top of the next pitch and descended down. The recommendation of free climbing this section sounds a bit too exciting.

We were now at the final big pitch and the big bag of rope was now feeling a bit small. We dropped it down, after checking and double checking the knot in the end and Dave went down and set the diversion and then ended up hanging about 3m above the second diversion, exactly where Jeff said we would if we didn't cut the rope. Dave and Andrew have an aversion to cutting their rope, so this was as far as we would go. Anyhow, Dave came back up and I dipped down into the abyss. I was very excited and got a really good view of the chamber using my 15W VistaLight bike light. I could

see right up to the roof from the bottom of our rope, which might be about 60m.

I came back up and we started struggling out. The rope was now a lot heavier and gravity was against us. Fortunately for me, Dave did most of the cleaning and hauling but we were both exhausted when we got out. The bag weighs 15kg dry and was more like 25kg at the top. As a side point later in the trip we abseiled off a Tasman Peninsula cliff and the rope got stuck at the bottom and had to be cut! Oh well. We were under for 5.5hours and had a great time. More caving please.

A quick gear report, another first! Dave and I both bought Aspiring Trog suits, caving harnesses and chest harnesses, which we both found to be excellent. Our cloths where clean and dry, well sweaty, at the end of the trip and the harnesses were comfy and efficient for ascending. The guy at Aspiring was very helpful as well.

NB, Aspiring is a shop…

Choose your own adventure trip report… You stumble around the tree through the churned up forest and uplifted roots. Oh SHEEEEEEEEET! you cry as you stub your toe. It is so bad it lifts the nail partially off. This is going to make the trip particularly painful. To add insult to injury Mad Phil spouts "took the woosy way then? what kind of caver are you?!!". **Go back to page 4.**

Snailspace: Sunday afternoon 30 December 2001

By Joe

Party: Heidi Macklin, Jason Morgan and Joe Farrell

This is definitely one of Mole Creeks lesser known caves, and I would say better kept secrets.

Snailspace is super close to the Northern Caverneers hut, super fun to negotiate, super pooey, and is a super bitch to find the upper entrance of (from the inside). This is the second trip I've tried to find it and again we failed dismally.

The positive side of this trip was that we found the comparatively big main chamber which had more spectacular decoration than you would wave a stick within a hundred metres of. This included a big, ultra long straw cluster, and contrasting richly coloured enclaves of formation. Absolutely beautiful and perfect for some photography.

Given that from the start we were following a freshly laid trail of square poo, some excitement was the potential for meeting a charging wombat. The long, low, grovelly streamway which gives the cave its name, doesn't allow much room for avoiding wildlife. We cheerfully exchanged our knowledge of wombat fighting techniques. For example they are known to wriggle underneath the burrow intruder and crush then against the ceiling with their bony back. We kept finding skulls and other animal remains which didn't ease our minds.

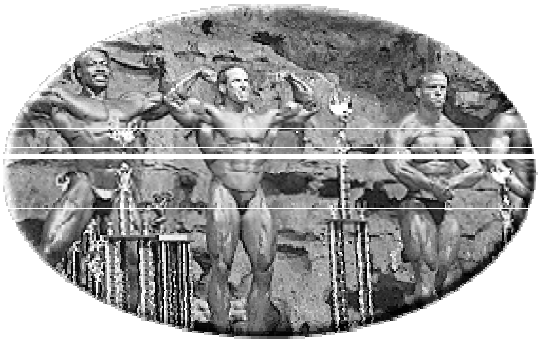
Where we went wrong finding the way out was in a high dry passage leading off the main chamber. We were misled by some pretty reflective markers which we took to be route flagging rather than survey markers. They weren't in line of sight for starters. Additionally there were intermittent drafts in the leads off this passage. We checked them exhaustively believing this *must* be the way on. In the process I managed to break two stals in a particularly decorated section which was drafting and looked trogged. I guess it must have been trogged by animals. There was also poo in these higher parts of the cave.

We became frustrated and I got angry at myself in particular at the damage I'd caused with the breakage and footprints. We retreated back down to the streamway and groveled out again. In hindsight we should have removed the misleading reflectors. Who-ever's on the next trip should do this, and/or install fishing line to show its not the way on.

This event took place last year on May 5th and is the worlds only body building contest in a cave.

Meramec Caverns is the location of the "Caveman" Classic. The Caverns are one of America's leading commercial caves. With more than 200,000 visitors annually, it offers cave tours, boat rides, motel, gift shops, restaurant, camping, canoes, etc.

Likewise, Meramec Caverns has a "Ball Room" (actually inside the cave) which is equipped with a stage, lighting, and 2,000+ seats. Despite the modern conveniences, the walls and ceilings are actually limestone and stalactites. The atmosphere will definitely provide an unforgettable experience for this 4th Annual NPC event.



http://www.thecaveman.com/cave.htm

An Introduction to Cave Fauna:

Glow-worms

Arthur Clarke

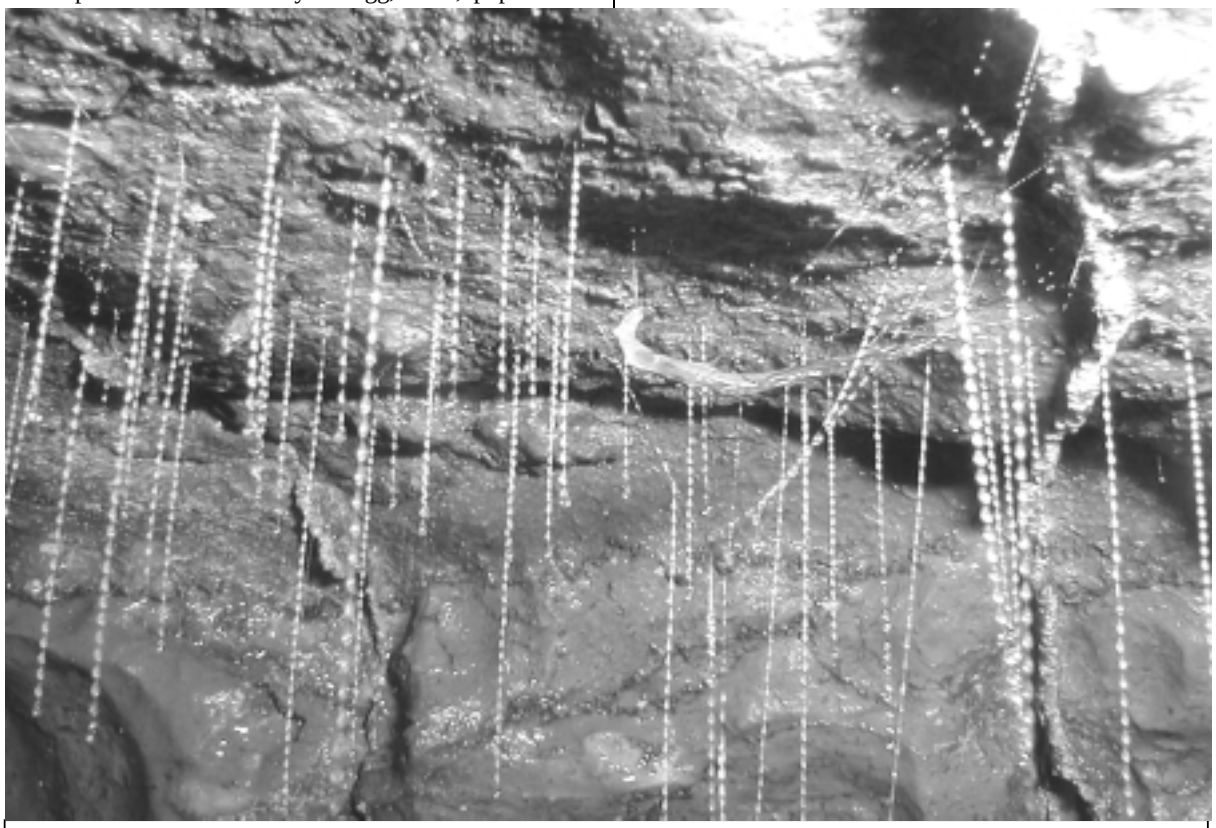
Introduction:

The glow-worms commonly seen in a number of Tasmanian caves are insect larvae, not worms; they are in fact the larval form of a fly from the family Keroplatidae (Matile, 1981). The Tasmanian glow-worm (*Arachnocampa tasmaniensis*) is typical of those insects including flies that have four stages of development in their life cycle: egg, larva, pupa and adult. Glow-worms seen in caves and other dark places (in wet or humid forest settings) are the larval stage of a gnat (a type of fly): a fungus gnat, which in adult form resembles the size and shape of a large mosquito. (Now belonging to the dipteran family Keroplatidae, these bioluminescent fungus gnats were formerly classified in the family Mycetophilidae.)

Life history stages, prey capture and bioluminescence:

The larval stage of the glow-worm is divided into a number of sub-stages of growth or instars (between moults) as the larva develops. Considered as the major growth or feeding stage (and the longest living stage), the complete larval stage (5 instars with 4 moults) of the glow-worm lasts up to 9 or 10 months or more and up to a year in warmer areas where there is a more marked seasonality effect. The translucent larvae live inside long thin tube "nests" composed of mucous and silk secreted from salivary glands in the larva's mouth. The tubes are suspended across a lattice of horizontal threads, from which the larva drops down a large number (30 to 50, sometimes up to 70) silken snare threads or fishing lines used to trap their prey. As shown in the accompanying close-up photograph, the larvae secrete small beads of mucous that envelop these vertically hanging snare threads to create a "sticking" point of attachment for prey.

Glow-worm larvae have a bioluminescent organ in their abdomen that creates a glow in darkness to attract its prey, which gets captured by their mucilaginous snare threads. The prey of Tasmanian glow-worms includes a range of flying insects: midges, mosquitoes, other small flies and the adults of aquatic insects: mayflies, stoneflies, caddis flies and lacewings (Richards & Ollier, 1976). Glow-worm larvae are also cannibalistic; apart from devouring their own adult flying forms, they also prey on other young glow-worm larvae. During observations in *Mystery Creek Cave*, I have seen juvenile cave crickets (mainly the tiny 1st or 2nd instar nymphs) ensnared on the mucous-coated threads, plus hapless small spiders and occasionally a small cave harvestman or cave beetle.



Larvae and its threads made from secreted mucus beads

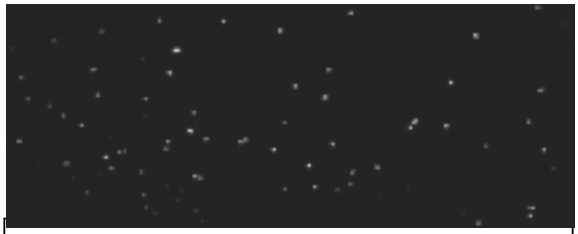
Once ensnared by the glow-worm larva, its jaws haul up the vibrating or "weighted" threads and the prey is consumed: either having its juices sucked out or actually being eaten by the larva (Richards, 1960; Baker, 2000).

At the end of its 5th instar larval stage, the glow-worm larva shrinks in size, becomes opaque and removes or absorbs some of its snare threads as it pupates. In this non-feeding pupal stage, the glow-worm larvae "transforms" or metamorphoses to the adult form. At this pupa stage, we see the first evidence of sexual differences in the species; the female is longer, larger and slightly wider than the males. Although less evident and more intermittent, bioluminescence continues during the pupal stage, but in the case of pupal males, the glowing stops altogether some 2-3 days before the male emerges. However, in the case of pupating females, the bioluminescence intensifies - up until around the time it emerges laden with eggs – to attract mating males. It is interesting to watch the number of adult males hovering around or actually sitting on the female pupa – waiting to mate - just before the female adult emerges. The actual action of a male adult landing on the female pupa may cause the female to increase its luminescence (Frederikson, 1983). If per chance there are no males in waiting, the adult female will continue to glow till a male is found. Her adult life is short; after a short period of mating – a few hours at the most – she deposits her clutch of 130 or so fertilised eggs then dies, only living for 1-3 days. The male adult glow-worm flies can mate several times and lives up to 4-5 days. After "hatching" from the eggs, a new cycle of glow-worm larvae appear.

Although there have been no known specific life history studies of the Tasmanian glow-worm species (*Arachnocampa tasmaniensis*) - at least not in Tasmanian climatic conditions – it is likely that the duration of life history stages for *A. tasmaniensis* are similar to those of the New Zealand species: *A. luminosa*. A re-examination of the morphology of the Tasmanian species by Harrison (1966) indicated that they were closely related to the New Zealand species and the similarly, the biological and ecological relationships of *A. tasmaniensis* to *A. luminosa* was subsequently demonstrated by Richards and Ollier (1976). Studies of the glow-worm species at Waitomo Caves in New Zealand indicate that the adult fly emerges from its pupal case after 12-13 days (Richards, 1960), so it is probable that in the slightly cooler caves of southern Tasmania, the glow-worm fly emerges from its pupal case after about 12-15 days. In the warmer climate of southern Queensland, the pupation period for their glow-worm (*A. flava*) is around 6-7 days (C. Baker, 2000). Laboratory studies with collected specimens of the Tasmanian species (*A. tasmaniensis*) reared in controlled temperature incubators at 20°C at the University of Queensland reveal a similar pupation time to the Queensland species (C. Baker, pers. comm.) In New Zealand, the eggs of *A. luminosa* take 3 weeks to hatch (Richards, 1960; Frederickson, 1983), but only 7-9 days for *A. flava* in the 20-degree laboratory temperatures at University of Queensland (Baker, 2000).

Glow-worm flies mating

The bioluminescence of glow-worms results from a chemical reaction involving several components. The process involves a little bit of complex physiology and organic chemistry – so you may want to skip this bit! In basic terms, the bioluminescence is the by-product of a metabolic process involving the breakdown of waste products. The light organ of the glow-worm is produced from the swollen tips of four thin-walled excretory tubules (malphigian tubules) that lie in a reflective layer of respiratory tissue (tracheal tubules) in the posterior end of the glow-worm's body (Frederikson, 1983). A self-produced biological enzyme (luciferase) acts as a catalyst on luciferin: a waste product from the insect's metabolism formed in the digestive system of the glow-worm. In conjunction with the enzyme action on luciferin, the biological energy molecule ATP (adenosine triphosphate) combines with oxygen from the extensive system of respiratory tubes to form an electronically excited product capable of emitting light. Written as a chemical formula, you have: luciferin + luciferase + ATP + oxygen = "excited product" + luciferase, emitting bioluminescence (Frederikson, 1983).



Bioluminescence in Mystery Creek Cave

Occurrences of glow-worms in Tasmania:

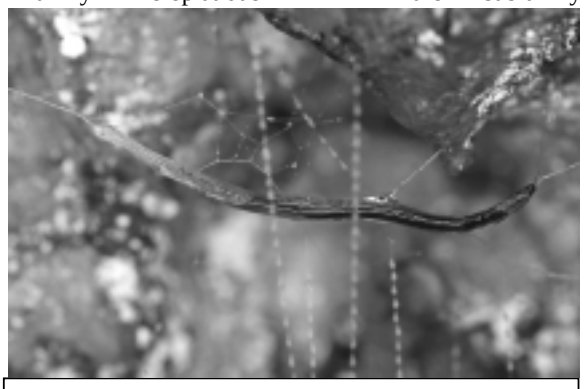
Glow-worms have been reported from Tasmanian caves since the 1840's when tourists first visited the Chudleigh Caves (*Wet Cave* and *Honeycomb*) at South Mole Creek and then more latterly in the early 1890's following the discovery of the *Queens Caves* at Ida Bay (subsequently known as the *Ida Bay Caves*, then *Entrance Cave* and now as *Mystery Creek Cave*). The *Ida Bay Caves* developed some repute after being described in an 1895 edition of *Scientific American* as "*The Glow-worm caves of Tasmania*". In graphic journalistic style, this report stated that "*…the ceiling and sides of the cave seemed studded with diamonds…an effect due to millions of glow-worms hanging to the sides of the walls and from the ceilings…*" (Anon., 1895). Although not formally identified till 1925, A.M. Lea is attributed as being the first collector of adult glow-worms from Tasmania (in December 1909) and his holotype male and allotype female specimens are purportedly in the South Australian Museum (Clarke, 2000). Lea's collection label states: "*Ida Bay Caves, Tasmania. Arthur M. Lea, December 1909. In total darkness fully ¼ mile from entrance.*" (Ferguson (1925). Hence, *Mystery Creek Cave* is the site locality for the Tasmanian glow-worm (*Arachnocampa tasmaniensis*).

Although the *Waitomo Caves* of New Zealand may be better known as a glow-worm site (by virtue of being a long established visitor attraction), the population densities in *Mystery Creek Cave* (and *Exit Cave*) are probably far greater. Apart from *Mystery Creek Cave*, which is occasionally visited by adventure cavers and school groups, *Marakoopa Cave* at Mole Creek is well known for its glow-worm displays and is probably the only cave in Tasmania where large numbers of glow-worms are seen on a regular basis by tourists. Glow-worms are recorded from caves in 24 karst areas of Tasmania and in the dolerite, granite and sandstone caves of three non-karst areas (Clarke, 1997). There are more recent sightings of glow-worms from several other cave areas in Tasmania, plus abandoned mine adit workings, old railway tunnels and under bridges or in drain conduits.

As mentioned previously, caves are not the only sites where glow-worms are found in Tasmania. They occur outside of caves in other sheltered areas of darkness where their glow has effect in attracting prey species. Although found in lesser numbers, glow-worms can be seen at night in many wind-sheltered rainforest areas: under large rotten logs or on moist rock walls – often near filmy fern or at sites near water spray, e.g., near waterfalls – and in wet forest adjoining rivers and streams. The larvae and adults of this surface dwelling glow-worms tend to be smaller than the cave forms and show more evidence of seasonality with fewer larvae present in the warm and drier summer months. Conversely, in Tasmanian caves where the ambient air temperature is relatively constant all year round, there appears to be more constant overlap of all life cycle stages present at all times, even though they may appear more abundant and brighter around October-November each year.

Taxonomy of glow-worms:

In terms of taxonomy – the classification of plant or animal species – glow-worms are classified as a type of fly, belonging to the Order Diptera: one of the largest orders of insects (Class Insecta). In taxonomy, an Order is sub-divided into family and sub-family groups; themselves divided into a number of genera and species. The Tasmanian glow-worm: *Arachnocampa tasmaniensis* (Ferguson, 1925) is one of four described species of *Arachnocampa* – with two others in Australia: *A. flava* and *A. richardsae* (Harrison, 1966) and one in New Zealand: *A. luminosa* (Skuse, 1890). For almost a century, these glow-worms have been referred to as mycetophilids - belonging to the Family group: Mycetophilidae (with *Arachnocampa* placed in the sub-family of Keroplatinae). Following a revision of this dipteran group of flies in 1981, by the French entomologist Loic Matile, the *Arachnocampa* genus was reassigned to the Family Keroplatidae - in the subfamily



Arachnocampa tasmaniensis

Choose your own adventure trip report… You and Mad Phil have a bad case of speleo-induced hypersexualhalucination. **Go to page 23 (in Penthouse Jan. 2002).**

family group (Keroplatidae) has three subfamilies: Arachnocampinae, Keroplatinae and Macrocerinae. The sub-family Keroplatinae includes a number of including cave-dwelling predatory species of the genus *Neoditomyia* found in tropical areas of Central America and northern South America (Jackson, 1974).

During the field trips associated with the recent IUS Congress in Brasilia, I photographed some 3-4cm long larvae - species of *Neoditomyia* - in several caves in Brazil; this may possibly be the same genus for a similar species of non-glowing larvae with long snare threads that occurs in caves in China (D. Merritt, pers. comm.). The so-called "threadworms" or webworms seen in caves in USA – where web-spinning larvae sit in spider-like horizontal webbing - are members of sub-family Macrocerinae: genus *Macrocera* (Coher, 1996)

Disturbance threats and habitat preferences:

Severe disturbances within a cave or outside in the cave catchment can interfere with the natural ecology that supports the viability of glow-worm populations. This is particularly applicable in the instances where stream ecology is affected, resulting in a reduced input of aquatic insects and associated small flying insects (Richards and Ollier, 1976; Frederickson, 1983). Apart from prey deprivation, glow-worms are particularly susceptible to desiccation due to decreasing humidity, warm breezes or increases in temperature (Merritt & Baker, 2001). Any developmental changes in the morphology or shape of a cave and interference with the cave entrance are likely to affect the cave climate, impacting on glow-worm populations (Frederickson, 1983).

Cave visitors can also impact on glow-worm numbers. Although most larvae "shutdown" their glows within a few minutes exposure to cavers headlights or torches, probably the worst effect is due to the heat emanated by light globes (and carbide lights of course). Although the glow-worm larvae expend some of their energy in hauling up their silken snare thread fishing lines to devour their prey or clean and re-coat their threads with mucous, human interference can lead to further expenditure of larval energy. Visitors to glow-worm sites may inadvertently brush against the mucous beaded "fishing lines" causing tangling of the snare threads. Similarly, the threads may simply become entangled in the air current created as we walk past them or as we exhale when as curious and inquisitive onlookers, we stand too close to glow-worms.

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Rift Cave (JF34) – Three Forty-One (JF341) Through Trip: 20 January, 2002

By Hugh

Party: Jeff Butt, Andras Galambos, Hugh Fitzgerald.

Already twice postponed, this planned New Year's Day trip finally came off on a hot Sunday later in January. Neither Andras nor myself had been into Rift Cave before this opportunity. With both Rift Cave and Three Forty-One already rigged, we decided to make the most of the day by following a through route, derigging both caves as we went. One really should take advantage of *in situ* rigging in a cave one hasn't seen before. Jeff seemed pleased to guide us through Rift Cave to Three Forty-One. Indeed, he took great delight in informing us how wet we'd get in the process. We gritted our teeth and followed our guide.

As we kitted up for the trip, I noticed how my apparel took on a pronounced black theme, what with a black top, black leggings, and black gumboots. With an inverted crucifix around my neck and an Ozzy Osbourne wig, I would have passed as a disgruntled Goth quite easily. The look was unintentional, but was to have its benefits when I began to discover the amazing powers of secret black technology. Was not this same mysterious power used to destroy the World Trade Center towers some months back? I felt enormous energy surge through my limbs as I tossed Andras and Jeff over my shoulders and sprinted off to the JF34 entrance.

Rift Cave turned out to be refreshingly wet, but not soaking (thanks to my secret Black Technology® under layer). Jeff was kind enough to descend Silver Lining pitch first and hold the rope tail out of the water while Andras and I followed, thus keeping us safe from drowning. We left this rope in place as we passed, deciding it was easy enough to retrieve from the Rift Cave surface side, once out of Three Forty-One. All successive ropes, whether rigged as pitches, handlines, or traverse-lines, were gathered up as we encountered them.

Passing various spots of interest on the way, we took time to have a look around. Thus Andras and I briefly sought the very bottom of Rift Cave, but gave up when the going got tight. All three of us took in a brief performance at the Theatre Royal (a truncated revival of Coward's "Blythe Spirit" - in under ten seconds). The five Torpedo Tubes were examined for evidence of recent firings, in connection with their purported use around the time of the sinking of the Russian submarine *Kirsk*. We took a short side trip in to see the Dinosaur's Jaw, a captivating lip of false floor studded with nasty, sharp stalactites all along its gumline. It is an impressive sight, but the stench of half-eaten, fossilised *Protoceratops* flesh caught in the teeth is eventually overwhelming. Perhaps a clean up with a large toothbrush and dental floss is in order?

Shortly thereafter we reached the Dinosaur's Foot chamber, and stopped at the large flowstone bank, which Jeff had been cleaning on a previous trip into Three Forty-One. Our intention had been to undertake further hosing of this area, particularly the flowstone below the new sandbag stepping stones that Jeff had installed. (Our Quartermaster has also added extensive tape tracks in this area, and installed a few signs, which advise visitors to remove dirty footwear before venturing onto the clean flowstone.) Unfortunately, the reservoir required for the purpose was too low; the water level was almost one metre (~8,000 litres) below the usual height (as indicated by the crystal lining covering exposed rock). Jeff coiled up the garden hose previously used to siphon the water from the pool, and we trussed it up and added it to our derigging booty.

Our main cleaning job thwarted, and without any surveying gear on board, we had little choice but to continue out of Three Forty-One. Up the pitches we went, admiring Dave Rasch's recent bolt placement on the 40 metre pitch. Up came the ropes, and into the rope pack left in the cave for this purpose they went. We continued up the cave, derigging the handline and upper pitches to accumulate nearly 200 metres of rope, plus 30 metres of garden hose. We jointly passed the four packs and hose through the numerous crawls near the entrance, and finally emerged into daylight, and a balmy evening, seven hours after entering Rift Cave.

The day wasn't finished yet. We returned to Rift Cave entrance to derig the Silver Lining rope (receiving another refreshing dousing in the process), and then ventured down into Old Rift Cave to marvel at its size and the numerous side passages there. Another subterranean hour slipped by in the process, but it was still light outside at 7:30pm as we removed the superfluous entrance handline in Rift Cave. I ascribe this curious daylight to further evidence of "The Amazing Powers of Secret Black Technology"™.

As we lugged our heavy load back to the car, our thoughts turned to Joe and Phil, who had plans to visit Tassie Pot this same day, laden with 250 metres of rope between them. Of course, they had virtually no distance to carry their burden from their vehicle – a convenient hole only 40 metres from the road edge swallows that much rope easily. What saps they are!

The cleared track back to the carpark is a delight to follow in daylight. I had occasion to follow the same route in darkness at the Winter Solstice weekend mid-2001, and found it similarly easy to navigate, thanks greatly to the recent track clearing efforts of STC members.

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.

CAVEX 2001

Note that this is something of a belated 'write-up', and so maybe be a little 'rough' about the edges. Apologies in advance for missing out any participants or items of significance.

Participants: Police: Damian Bidgood, Police Trainees: Andrea Smith, Marco, Ross? ;
STC: Ric Tunney, Janine McKinnon, Joe Farrell, Anna Greenham, Steve Phipps, Arthur Clarke, Mick Williams, Hans Benisch; Visitor: Paula?
SES: Lionel (also Ambulance), the RHU Base Team

This was the second effort at holding a CAVEX during the year; the first attempt (in May) was cancelled due to a real search occurring. Partly because of this, and partly because of the year drawing to a close the number of participants for this event was somewhat reduced. In addition, the total skill level was somewhat lower than it has been in recent exercises; this fact showed itself during the day.

In preparation for CAVEX, on 21/10/2001 a practise stretcher raise and lower was held at Fruehauf Quarry. This was well attended and everyone seemed to enjoy the practise and felt that it was a worthwhile preparatory event prior to CAVEX. The feeling amongst the crew was that we should do these sorts of practises more often; that's not a bad idea at all.

Anyway; here is the Scenario used on the day; along with a Narrative of events and some of the Learning's/Comments that have resulted.

The SCENARIO
Bruce OVER, Mandy ROGERS and Ned BULBHEAD are three visitors from NSW, who are visiting the Lune River area. They have been camping at the Dover Caravan Park and plan to make day-trips out to Ida Bay to go caving. They are reportedly experienced cavers from the King's Cross Caving Club, NSW.

According to the manager (Albert TRUSTWORTHY) at the caravan park; they arrived at the caravan park during the afternoon of Thursday November 8 and they had paid up until the night of November 12.

According to the adjacent camper (Mary KNOWALL) the cavers consumed a quantity of beer that evening; and were a little noisy till late. Mary observed that they had a 'late start' on Friday. She briefly chatted to them; they said that they were going caving at Ida Bay for the day, she doesn't recall them saying any cave names. Their camp was left fully set up.

At 7:00 a.m. on Saturday 10th November 2001, Mary KNOWALL let Albert TRUSTWORTHY know that the cavers did not return to their camp last night. Albert phoned the Dover Police to report this fact.

Constable Phil NICKEM from the Dover Station alerted HOBART SAR, and drove down to the road-head for a look. At 8:00 a.m. Constable NICKEM reports that their vehicle was still there, but there was no sign of them. He notes that there is an entry in the log-book for the overdue group which said "maybe Hobbit Hole or Yodellers Pot or Midnight Hole???" and indicated there were three of them out for one day. They had not signed off. In the meantime Sergeant Steane of SAR has alerted groups of a possible call-out.

It is not known what equipment or food they have with them. According to the caravan park owner they have no fixed address and no contact number is available. A call-out has been initiated; it is now 8:30 a.m.; a search is about to get under way.

Extra Details (for the 'victims'):
The cavers had wandered around the bush looking for Hobbit Hole and Yodellers Pot, without success. So, they decided to head to Midnight Hole; Ned had been through several years ago; Mandy and Bruce had never been there before.

En-route down Midnight Hole all is going well till the third pitch. Mandy abseils down OK. Ned follows her down, but about half-way up loses control of the rope and yells out. On hearing Ned yell, Mandy attempts to use a bottom belay, but it is ineffective. Ned hits the ground hard; his cave pack hits Mandy on the head. Mandy is slightly concussed and has a very sore neck. Ned is unconscious for a couple of minutes; he has a badly angulated lower left leg (mid-shaft tib./fib.) and has extensive bruising on one side of his face, with some blood oozing from his left ear. He is also quite confused and not well oriented. He keeps saying "go for help", "follow the water to get out".

Bruce abseils down; Mandy and Bruce decide that Bruce should go for help and that Mandy will look after Ned as best as she can (Mandy has done a Senior First Aid course in the past). Bruce and Mandy have no knowledge of Mystery Creek Cave (Ned had the knowledge). Bruce continues on down Midnight Hole; with the aim of raising the alarm, but he gets lost and ends up heading downstream into the right-hand branch of Mystery Creek Cave; before he can back-track he has a total light-failure, and so is stuck.

A rough narrative of events:
Whilst Jeff ensconced the victims (Ross, Andrea and Paula; alias Ned, Mandy and Bruce) in Midnight Hole and Mystery Creek, Damian commenced running the show. Arthur Clarke provided local information for how to reach the infrequently visited Hobbit Hole and Yodellers Pot. Search parties were then sent off to search Yodellers Pot, Hobbit Hole, Midnight Hole and Mystery Creek for any signs of the missing party.

After some time word crept back that the parties looking for Hobbit Hole and Yodellers Pot hadn't located these caves (the routes were in very poor condition); and there were some communication difficulties. However, the missing party had been located in Midnight Hole and thus the 'walking' parties were recalled and redeployed to assist in the recovery phase. Damian relocated himself to the entrance of Midnight Hole to co-ordinate the recovery from there. A manned radio relay team was set up at the junction of the Midnight Hole and Mystery Creek tracks; this relay was necessary for

communications to be established between Midnight Hole and Search Base.

Ned and Mandy were found at the base of the 3rd pitch in Midnight Hole. It was revealed that Bruce had gone for help....but apparently hadn't made it out of Mystery Creek Cave. Extra people were deployed to Mystery Creek Cave to search for Bruce.

At the accident scene, it was decided that the best way to rescue injured Ned was to haul him in a stretcher up Midnight Hole, whilst Mandy would be most easily rescued by taking her under her own steam, down Midnight Hole and out Mystery Creek.

It took a while to locate 'Bruce' in Mystery Creek Cave, as he was not stationary and rescuers had to search some areas twice before he was located and lead to safety.

For hauling Ned out, a counterbalance was deemed to be the most appropriate for the 3rd pitch (spacious and free-hanging). Because of minimal anchors (2 spits and a tie-back for the haul line; there were 3 separate anchors for the safety line), it was deemed inappropriate to haul a 'barrow-boy' with the patient; as this would require two rescuers for the counterbalance haul, i.e. making a total of four persons hanging on the haul anchors....pushing the safety margin somewhat. By dispensing with a 'barrow-boy' the total loading would be two persons. A trailing line was used on the stretcher to prevent any spin.

Radio contact between the surface and the top of the short passage leading to the 3rd pitch was possible; this helped keep communications flowing between what was happening in the cave back to search base.

Hans Benisch, an SES bod, and Janine McKinnon listen while Damian Bidgood sets someone straight at the briefing.

Because of time constraints (and the lack of a visored helmet for the patient) the haul was discontinued after the patient had been raised a short distance off the ground. Once the patient was lowered back to the base of the pitch the exercise was terminated and everyone left the cave. A debrief was held at Search Base before everyone headed back to Arthur Clarke's at Francistown, for a late BBQ. Many thanks to Arthur and Robyn for their hospitality and to the Police for supplying the food.

Learning's/Comments arising from the Debrief:

- For a reasons unknown the visor equipped helmet for the stretcher patient did not accompany the stretcher to the 'accident' site. The haul was attempted without the patient being suitably protected. This should NEVER happen; particularly in a practise situation. In future, unless the patient is suitably equipped, then they should not be placed in a position of increased risk (i.e. in a stretcher without adequate face/head protection).
- Ensure that all participants are suitably experienced for the roles they intend to play; there were a couple of 'near misses' with comparatively inexperienced people abseiling in Midnight Hole (one descender was threaded incorrectly, this was spotted by an observant caver; another inexperienced person who was very cold had 'lost confidence' and needed close supervision); CAVEX's are NOT Caving Training Trips, they are CAVE Search and Rescue Training and as such, all participants should be suitably skilled and experienced for their intended roles.
- Ensure that any inexperienced/cold person abseiling is accompanied by two experienced persons, so that one person can assist with a safe approach to the pitch-head and ensure that the descender is correctly threaded; with the other experienced person being at the bottom of the pitch to provide a bottom belay and to also instruct the inexperienced person to move to a safe location once off the rope. There was an occasion on the day when this did not happen; which is an increased risk factor.
- Some practise with radios and protocols for meeting radio schedules (specifically for cavers who don't use them often) would be beneficial. At times there was some confusion as to what parties should do when radio schedules couldn't be met. Some parties discontinued with their objective in an attempt to regain radio contact; whereas they perhaps should have continued with their objective realising that perhaps one or two missed 'skeds' were of minor consequence. Also, some of the communications were not up to scratch simply from a 'lack of knowledge' of correct radio procedures.
- Caves such as Yodellers Pot and Hobbit Hole are difficult to find, even for people who have been there before as the routes are rough and sparsely taped. In these sorts of circumstances GPS's would most probably be beneficial for allowing groups to reach the caves (provided their locations are accurately know to begin with).
- At the Fruehauf practise night prior to CAVEX, a simple haul system was used; however, in Midnight

Hole on pitch 3 there was little room for this system to be deployed and it made far more sense to employ a counterbalance haul system. It became evident that the rescuers were not familiar enough with this system and had difficulty in setting it up (till shown). There is thus need for another training/practise night to set up some different sorts of hauling systems and to increase the skills of cavers who might be involved in vertical rescues.

- At first attempt of the counterbalance haul, the counter-balancing rescuer was too light/had too little arm-strength to overcome the friction to be able to haul up the patient. A heavier/stronger rescuer was required. Again familiarity with this sort of hauling system would be of benefit.

In summary; they say you Don't Know what you Don't Know; I hope that all participants in CAVEX now have a bit more of an idea of what they Don't Know, or what they don't know very well, and take some steps to remedy this. In the near future I'll be arranging/organising a couple of practise sessions covering: Protocols for and the use of radios in Search and Rescues and Other Hauling systems (e.g. Counterbalance Hauls).

By the way CAVEX 2002 is planned for 25-26th May, so now is the time to start working on improving your skills!

Jeff Butt (Search and Rescue Liaison Officer)

Choose your own adventuretrip report… You tell Mad Phil: "There's a reason why Jeff didn't come with us. He knows this catchment and cave system intimately. I'm still extremely suspicious of the low water level at the swallet entrance and I'd like to head out now". Pommy Dave admitts he's on your side so the three of you trog off towards Windy Rift.

On a previous trip you have seen the section beyond Windy Rift full of water. You are interested to note that there is none there now so the cave can't be in flood mode yet. You relax somewhat and thoroughly enjoy the climbs up the shapely Growling streamway.

Suddenly Mad Phil points at the roof. There are squillions of beautiful glow-worms. After some sitting down and craning of the neck Pommy Dave exclaims "Hey, they're in the shape of a Christmas tree!" Mad Phil interjects. "Nah – they look like a naked woman!". **If you agree they look like a Christmas tree go to page 25. If you agree they look like the sexiest woman that ever walked the face of the Earth totally naked go to page 12.**

Bard-a-Meinhof Pot (IB113): Saturday 5 January 2002

By Jeff

Party: Phil Rowsell, Dave Rasch, Jeff Butt.

There was something of a feeling of deja-vu, as we headed up the Mini-Martin track today...as we'd done the same thing yesterday; but this time we had ropes as well, so our packs were somewhat more weighty.

Having been to the entrance of IB113 yesterday, there was no trouble locating it. The aim for the day was to let our English digging fiend have a look at the drafting squeeze at the bottom of the 'Right Way'.

We were soon cruising on down the cave....but the 'spare' ropes we had for exploring beyond the drafting squeeze seemed to get gobbled up during the rigging. In fact it looked decidedly grim that we'd even make the bottom of the cave. Oops, it looked like I'd underestimated the ropes required somewhat!

However, with a bit of re-rigging, one 'cut' and some use of pack-haul cords in the rigging of the last pitch, we just managed to have enough rope to make the bottom of the cave. Phil was duly introduced to the drafting squeeze; and he then introduced his 'jimmy bar' to the cobbles on the floor. As he dug along the floor; the puddle of water moved with him, ensuring that he had a thorough soaking. Fortunately he had a PVC suit on with a furry suit underneath; so the wet cold didn't seem to bother him too much. When Phil emerged for a bit of a rest, it really was a case of 'filthy' Phil, he had wet mud liberally coated over his face and in his ears.

Dave headed in for a bit of a dig; but without the waterproof armour that Phil had his shift was somewhat shorter. I opted out; as with my external plumbing, lying on my stomach for any length of time is simply not on. Phil went in for another dig, and some progress was made; however the constriction wasn't passed....but the scene is set for better progress at another time, hopefully during a somewhat drier period!

By this time we were all somewhat chilled, and so whilst the diggers beat a retreat with some packed rope, I derigged the remaining ropes. One rigging tip, is that at the top of the up/down handline that takes one from the 'Wrong Way' to the 'Right Way', on the right hand wall, at about head-height there is an excellent crack for a medium-large hex; this gives much better security than the marginal nubbin anchor on the other wall.

Back on the surface, it was another 'gruelling' walk with heavy packs back to the car. The Mini-Martin track needs some bow-sawing to make it a little more user-friendly!

Threefortyone-Rift through trip: Sunday 16 December 2001

By Jeff

Party: Tim Rudman, Dave Rasch, Phil Rowsell, Jeff Butt.

In his 'former caving life' Tim in the '70's was involved in the initial exploration of Threefortyone as a member of NUCC. With a resurgence of interest in caving, it seemed appropriate to show Tim how Threefortyone has 'grown'. We also planned to complete the flowstone cleaning started on an earlier trip.

After a smooth descent of Threefortyone, we carried on with all our gear. At the rehabilitation site, our cleaning efforts were to be thwarted by the recent dry period. A couple of weeks ago I was concerned about lowering the crystal pool by 2 cm....well nature had other ideas, and the level had naturally gone down by about 40 cm, leaving the end of our siphon hose 20 cm high and dry. Not wanting to damage crystal by putting the hose out further, we left it as is. The cleaning is 'to be continued' after a nice wet period replenishes the pool (which has a large drip-feed).

We did however don clean footwear to complete taping the track up to the lookout. The old lookout went up the flowstone, then onto muddy blocks. It is apparent that people used to do this in their boots, which meant that mud got tramped back and forward across the flowstone to from the muddy blocks. Now, it is best to remove boots/glove and overalls if dirty at the base of the flowstone (at the stepping stones), and head up on the flowstone (following the taped track). The track now avoids the mud totally, and sticks to the solid flowstone (some of the flowstone in the area is not solid; best described as 'breakable crust'). If you visit this area, please respect the effort we have gone to in track-marking and flowstone cleaning.

With the track marking completed, we headed on, the trip turning into more of a tourist trip. It was quite pleasant heading through this cave once again; reliving the excitement of our discoveries back in April 1994. We ventured to the distant Niagara end of the cave, before heading back to the Rift connector.

A bit of complicated rope-work later; a traverse, a descent, an ascent, a traverse and a final descent we were back in Rift cave heading for the surface. Another wet ascent saw us past the Silver Lining pitch and emerging into the daylight. Needless to say, both Tim and Phil were impressed with the cave.

Gordon-Albert Karst area: -Friday 23 November 2001

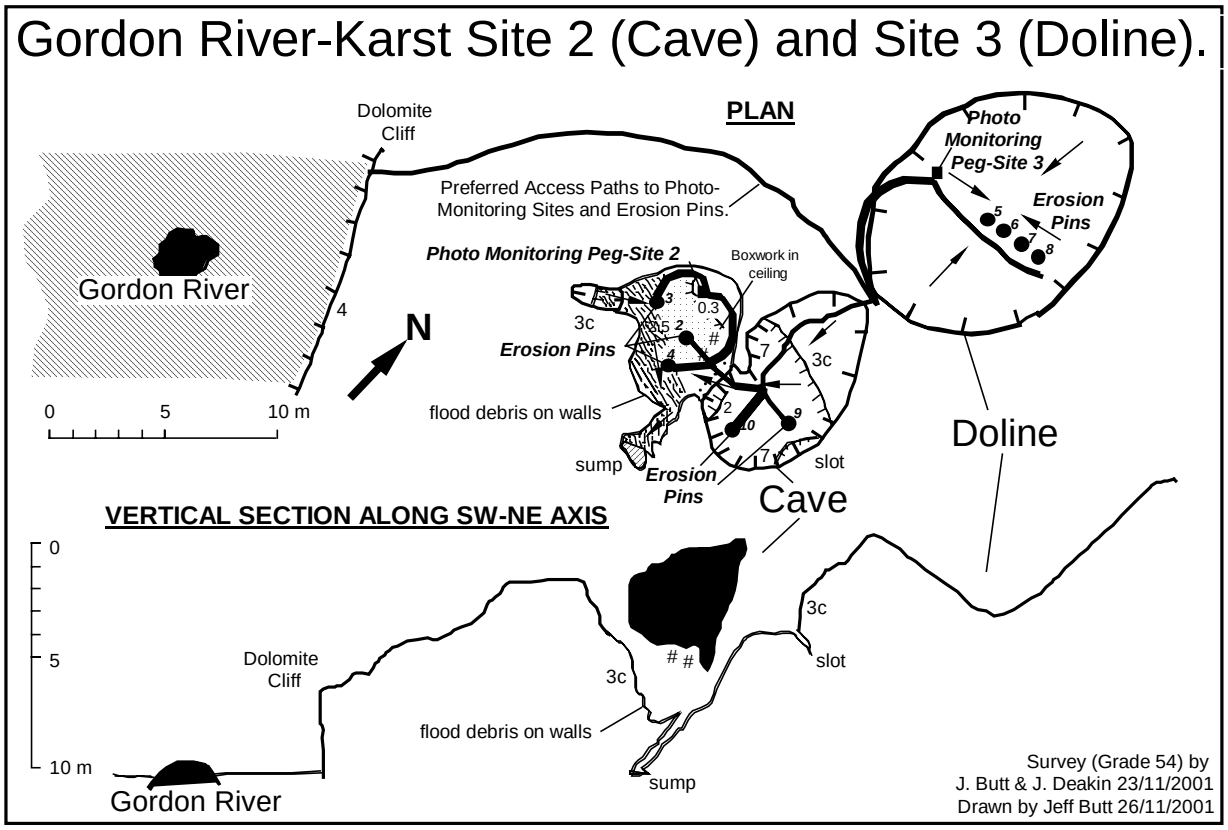
By Jeff

Party: Jenny Deakin, Jeff Butt.

As part of some work I am involved with, we were looking at the dolomite karst in on the Gordon River, near the confluence of the Albert River; this area being assigned the prefix 'GA'. In this area we have previously located several dolines, a couple of small resurgences but only one small grotty 'rubbit burrow' of a hole, which really doesn't warrant the title of 'cave'. However during the outing on November 23rd, we discovered a cave, albeit small, which has been assigned the number GA-X1.

This cave has two entrances; a dark zone; a sump and contains cave fauna (crickets and spiders webs were noted) and some nice boxwork. GA-X1 is located a short distance (~15 m) from the Gordon River, and it is likely that the sump within the cave is hydrologically connected to the river. GA-X1, and an adjacent doline were surveyed; a copy of the survey is attached below.

Both the cave and adjacent doline have been equiped with some stainless steel erosion pins and a Photo-monitoring site identified to assist with ongoing erosion studies. We have a couple of other monitoring sites (on the surface) in the area.



JF341-Cleaning Trip # 2 (Trip # 1 is on next page): Sun 2 December 2001 By Jeff

Party: Dave Rasch, Jeff Butt.

This was a return to Threefortyone with some technology to further our cleaning/restoration work (see trip report of 29/11/01). We headed straight down to the flowstone ramp we had started to clean, coming equipped with a 30 m garden hose, a garden trowel and ten small woven nylon sacks.

Jeff hosing the flowstone - by Dave

Once at the scene of the action, Dave assisted me in getting the siphon set up taking water from the large crystal pool and we soon had 'water on tap', which was excellent for cleaning the flowstone. [A quick mental calculation, i.e. the surface area of the pool ~ 10 m by 10 m=100 m^2, a flow-rate of about 3-5 litres a minute, meant that we'd be dropping the pool by about 0.3-0.5 cm/hr...so a few hours of hosing would have little effect on the level of the pool. i.e. lowering it by less than 2 cm. The pool has several drip feeders as well.] Direct hosing worked quite well, the further down the ramp the better as the pressure was higher. Higher up the ramp, the hose was used to fill the 3 litre bucket, which was then dumped with vigour to enhance the cleaning effect of the water. I spent about 3 hours hosing and brushing the flowstone; we cleaned the upper two-thirds very well....which does mean that all the dirt that was up there has now been moved to the lower part of the flowstone...so we do have some more work to do!

Dave removing excess mud - by Jeff

Whilst I was hosing, Dave was filling the bags with dry earth, and placing them across the flowstone, covering the foot holes that had broken through the flowstone and into the mud. There are now seven stepping 'stones' in this area. Obviously, the intention is for people to stand on them, rather than on the flowstone in between! The first stepping stone is quite large, it is where one can remove boots/glove/dirty overalls to continue up to the lookout, if one so desires. By standing on the stepping stones, no further degradation should occur to the flowstone in the area. It is possible that some mud might leach from the sand-bags; but we feel that this will be minimal. We had thought of installing rubber mats instead of 'sand-bags', like in Kubla Khan, but the 'holes' in the mats will just hold mud which is also prone to migrating, so there is no difference in the end.

Whilst in the cave we also upgraded the track-marking and installed several small signs in sensitive areas, e.g. at the first crystal pool in 'old 341', which says "The area beyond this pool has been fully explored and surveyed. Please do not enter."

All in all, it was quite a productive little trip. It might not be everyone's idea of 'caving', but 'restoration' trips are useful activities and it is 'good for the soul'. Indeed, when I was caving in the USA in 1997, the then policy with local caving groups was that all new members were required to do three restoration trips first before doing other trips. This way people got a feel for how difficult it is to 'correct' mistakes, and that way they are less inclined to make the initial mistake! I certainly feel happy that we've done some good in 341...but there are several other 'problem areas' that need attention (i.e. places where cavers in the past have not practised minimal impact caving techniques), ... so it's a case of "To Be Continued"

Choose your own adventure trip report… You and Dave follow Mad Phil down the 10m ladder into the trapdoor streamway. Both agree to limit the side trip to 20 minutes downstream, and 20 minutes back up. You have a dandy time and stop after the allotted 20 minutes to consume your remaining chocolate before turning around.

When you arrive back at the sump which WAS open 15 minutes ago you realise that eating all your chocolate was a very dumb idea. Nearly as dumb as going caving with someone called Mad Phil – but not remotely as dumb as telling him that. You could have chosen the nice uncomfortable wait for the sump to dissapear but instead you're feeling Mad Phil's fingers tighten round your throat. "Arreghthhgg…gg…" you choke but Pommy Dave is still trying to work out what's wrong with his descender. You think its odd that everyone's lights are failing at once, but then realise its only your consciousness slipping away. **The end.**

JF341-Cleaning trip # 1. Some Tidying of the Survey and Flowstone: Thurs 29 November 2001

By Jeff

Party: Dave Rasch, Jeff Butt.

We rigged the cave today with a couple of aims in mind; to tidy up some of the leads remaining from the surveying Andras Galambos and I carried out on 15/9/2001, and to do some cleaning of the flowstone and track marking/rationalisation in the so-called 'TCC extension'.

Progress down the cave was smooth, as was the descent down the new 10 mm rope on the major pitch. Having a nice 'y-belay' from the two bolts at the top of this pitch enhances the security here.

Anyway, once down we headed to the area where Andras and I had been surveying and tidied up the leads. Several of the leads were on flowstone; we had brought in a change of soft-soled shoes for pursuing these (as well as for the flowstone cleaning). We surveyed the leads, and then closed the areas off with flagging tape. If you get to this area, then note that the area has been thoroughly explored and surveyed and so there's no point 'trashing the place'.

We then headed through the 'blast hole' to the 'TCC extension'. We did some track marking along the end of the narrow passage where it opens up on the flowstone ramp to confine cavers to a narrow 'damage' path. Where possible we have routed the path over boulders, rather than on the flowstone. Major damage has occurred on the major route into the cave, where the track goes across the flowstone ramp. This flowstone, despite seeming to be solid is just a crust on mud, and foot traffic has broken through the flowstone, releasing mud. We decided that stepping stones (e.g. 'sand-bags', or mats) are needed here...a job for the next trip!

To the left of the damaged section of the flowstone is a taped route up to a look-out. Obviously people have been visiting this area without removing boots, as the area has been markedly degraded. We planned to have a go at cleaning this area; coming equipped with a small bucket, a brush and some water carrying bags. With Dave as 'scum boy' on the mud ferrying bags of water (carefully collected from the edge of the large crystal pool) to me 'clean boy' on the flowstone, I had a go at cleaning the flowstone. The process was somewhat slow, and I soon realised that the flowstone is just a thin crust over mud, as brushing not only cleaned off some mud, but also released more. So, we dispensed with the brushing and just used 'water pouring' to move the mud. This process was tedious and we soon decided that on the next trip we'd bring in a hose and use the water supply from the large crystal pool. I left a laminated sign on the path here "Remove you Gloves and Boots to Proceed"; so if you wish to visit this area, please comply with this request.

We then headed further into the 'TCC extension', taping routes across the flowstone. Please respect the flagging tape paths in this area.

Near the 'end' of this part of the cave, there was one lead, a 'laundry shute', that one could hear the lower streamway. Dave had been half way down this before, but didn't have enough rope with him and the anchors were very dodgy. This time we had a longer rope, and tossed it down. We then headed down to the lower streamway, and discovered the rope on the 'wrong side' of the wet squeeze (i.e. it landed in the side of the chamber to the right of the streamway, before the squeeze), so it wasn't a convenient bypass for this obstacle! We headed through the wet squeeze and had a look at the area; I did a Grade 2 survey of the place, as during earlier surveying in the area we had baulked at getting wet!

That done, we headed out, leaving the cave rigged for the next cleaning trip.

Choose your own adventure trip report… You clamber easily up the waterfall like the hardy caver you are. However, after this total-immersion you need to keep warm by climbing. At some of the other hard climbs you continue to belay each other and it all gets rather chummy.

Up ahead Mad Phil is muttering "Where did that entrance go?" He duly finds it and you hear "Bloody hell, look at the spoon rock". You emerge from the dry bypass and see what he means. Where before there was no water at all there is now a foot or more launching off the submerged indicator rock. There is white water everywhere.

Mad Phil has tied himself onto the rope and hands the other end to you. He pushes upstream to the submerged log until there is one crossing to make but he shouts back over the thundering water that the current is too strong. Pommy Dave feels you are providing a secure belay and suggests you both encourage him on. **If you encourage Mad Phil to tackle the last crossing go to page 21. If you think it might be better to look for another way out go to page 7.**

Rift Cave: Saturday 15 December 2001

Jeff Butt

Party: Phil Rowsell, Heidi Macklin, Jason Morgan, Jeff Butt.

Heidi and Jason 'appeared' on the local caving scene, with Heidi 'dead-set' on chasing some leads at Anne-A-Kanada. Anyway, they hooked up with us for an introductory trip to the Junee-Florentine. I thought that we'd rig Rift Cave, then with Threefortyone rigged, the option would be there for through trips for some of the caving visitors besieging us over the summer months.

Soon enough we were enjoying the spray from the 'silver lining' pitch and down into 'new Rift'. We had a quick look around, showing Phil several of the blocked passages which the survey suggests join to JF341. Phil spends lots of his UK caving time digging, but it was

hard to get it through to him that there's still plenty to do here without having to resort to these sort of cave-modifying practices.

Just prior to rigging the 'connector' ropes, I felt that warm feeling...a bloody urostomy blow-out. So, I sent the others off to the end of the cave whilst I did some 'repairs'. With that fixed, I rigged the connecting passage and we were soon at the "famous" 'JF341 & JF34 R 1" survey cairn.

On the way out, Phil shot up the Silver Lining pitch first in his waterproof suit. Then as the others came up, young Phil was sending pulses of water over the pitch by temporarily blocking the stream....only as you can do when you've got a PVC suit on! Fortunately, I was holding the others out of 'harms' way as they ascended. I was relieved that Phil had tired of his game by the time I prussiked up through the spreading waterfall!

Prior to leaving, we detoured down 'old Rift'; along the major passage which ends....it must have been something pretty amazing prior to being filled by all the glacial tills.

Anyway, a fun little trip was had; and the scene is set for some more work in the 'Niagara end' of Threefortyone or for some fun through-trips.

Slaughterhouse Pot-Growling through-trip: Thursday 13 November 2001

Jeff Butt

Party: Damian Bidgood, Phil Rowsell, Andrea Smith, Jeff Butt.

This was a 'welcome' Phil back trip to caving 'down-under'. Phil turned up with a new Petzl PVC suit and lots of spotless gear.....'filthy (as in 'rich') Phil' became his name for the day. The next trip he ripped his suit (apparently 'Petzl' is French for 'poor quality') and it had a very grubby character...so filthy Phil became quite literal.

I also wanted to remove the 9 mm rope on the first pitch; which we did. Now the three pitches are rigged with 11 mm diameter Bluewater. I had some trouble getting the correct rope lengths from the gear-store..it seems all ropes are just a few metres too short!. So, all pitches are rigged with two ropes; a short piece to connect to the twin anchors is tied to a longer piece which gets one down the pitch. On the first pitch the knot is about 2 m below the bottom bolt; but it is easy to down-climb (whilst clipped to the rope) to the knot, where one's descender can be threaded beneath the knot, then it's straight down (but with one deviation on both the first and second pitches).

Quite a straightforward trip; except for Andrea who found the going somewhat arduous, which made the trip somewhat more lengthy than expected!

Choose your own adventure trip report… You decide it will save a lot of time and perhaps rescue induced embarrassment if Mad Phil makes it across. You tactfully encourage him: "Come on then you skinny little runt, you should be able to float over!!"
Mad Phil responds to the encouragement and dives forward onto the log. He stays on it for a nanosecond and suddenly the foaming torrent has swallowed him. You and Pommy Dave haul on the Belay to no avail. The surge is pulling Phil down and wanting to take you with it. You are simply going to have to let go. Sickeningly you drop the rope then slowly notice you are standing in a whole coil of it.
The last thing you hear above the growling water as you and Mad Phil are swept relentlessly back down into the cave are Pommy Dave's dulcet tones singing "Rule Britannia, Marmalade and…" **The end.**

Rift Cave /-Threefortyone derig: Sunday 20 January 2002

Jeff Butt

Party: Hugh Fitzgerald, Andras Galambos, Jeff Butt.

Both Rift Cave and Threefortyone had been rigged for around a couple of months. I was keen to get the STC ropes back into the store as well as my own rigging gear back into 'circulation' again, so offered a Rift-Threefortyone through trip as 'bait' to entice Andras and Hugh to assist me. I also wanted to complete the flowstone hosing (started late last year) in Threefortyone.

We cruised down Rift Cave; both Andras and Hugh learning that I hadn't told them everything as we crawled down the passage underneath a waterfall leading to the Silver Lining pitch. I was first down, and took pity on my companions, and so held the rope taunt so that they could enjoy a dry abseil down.

We briefly detoured to have a look at the 'bottom' of Rift Cave before traversing the yo-yo rigged route through to Threefortyone. This route involves a climb/handline up, a horizontal traverse over a shaft (which joins the "Sand Passages" of Rift cave); a 16 m abseil, a 12 , prussik and another traverse over a blind 16 m shaft. To assist with the derigging I derigged the traverse lines as I passed and converted the 16 m abseil to a pull-through. Soon enough we were in Threefortyone with packs quite full. At this time I hoped that nobody had decided to derig Threefortyone over the last couple of weeks....as now we were committed!

We took a bit of a 'cooks tour' route through the cave, taking in the Dinosaur's Jaw, en-route to the Dinosaur's Foot. At the site of the recent track work we all dumped gear to check on the level of the large crystal pool; the source of our 'hosing down' water. Unfortunately the diminishing trend of this pool has continued, despite the wet weather Tasmania has experienced over the festive season. The pool was now down about 80 cm on 'full' levels, and was thus about 50 cm below the level of our siphon, and some 4-5 m distant from the end of the hose!

Thus hosing was out of the question, and since the hose was needed back at home, I decided we'd take it out.....continued cleaning will have to wait until next winter, when hopefully the large crystal pool will be back towards full supply level!

We then ascended out of Threefortyone, derigging as we went. A bit of 'pack passing' assisted us in getting our 5 packages of gear out of the cave.

Once outside the 'Black power' was harnessed by Hugh, as he toted all the gear back to the Rift cave turnoff. Both Andras and I were shocked at his super-human effort, and had to cower along behind, gearless. We were grateful that Hugh had decided to turn his powers to carting gear, instead of demolishing edifices like the World Trade Centre. Just where was Mr. Hugh Fitzgerald on Sept. 11, 2001???

Anyway, once again we found ourselves at Rift Cave, and headed in to the top of the Silver Lining pitch to derig it. As a detour we all visited the bottom of Old Rift Cave before heading back to the track and collecting all our gear. By this time the 'black power' was depleted, so we all shared in toting our 'boot-load' of gear back to the Orana.

We were shortly homeward bound; a good day was had by all and much was achieved. The rope rack in the gear store now looks somewhat healthy again!

Choose your own adventure trip report… You dig your foot into a likely crack to climb up the waterfall. Suddenly your numbed and damaged toe comes back to life. "ARRRRGH" you yell in pain as the rest of your nail feels like it is ripped off. You step down and try again. After several soaking minutes of making no progress you begin to tire from the cold. You call out for belay assistance but Mad Phil and Pommy Dave seem to have dropped the rope and wandered off somewhere. You give it one last huge effort. Nearly at the top you find you must put all your weight onto your toe. The pain becomes overwhelming and you peel off the climb. Lying broken under the waterfall in miserable despair you slowly succumb to the cold. **The end.**

Mini-Martin: Friday 4 January 2002

Jeff Butt

Party: Clare Buswell, Heiko, Ivan (all FUSSI); Dave Rasch, Phil Rowsell, Jeff Butt.

Clare, Heiko and Ivan wanted some local guidance to Mini-Martin for an Exit Cave through trip; we obliged, taking the opportunity to check out sites for the proposed new P-hangers and also to get some prussiking practise before heading up to Annakananda later in the summer.

After food logistics in Dover, we were off. The locals let the visitors have a head-start, lest we catch up to them and have to carry some of the rope! Whilst Ivan, Heiko and Clare rigged the cave, we relocated IB113 and surveyed from the IB8 tag to the IB113 tag. There are some pretty amazing holes along the contact along this stretch of Marble Hill! Returning to Mini-Martin; we caught up to the others on the last pitch.

Whilst I showed the visitors the route through the rock-pile, Dave took Phil for a bit of a wander upstream; then returned to Mini-Martin for the prussik out. I let the visitors lead me back through the rock-pile to ensure that they had the route down pat, before leaving them to also head out Mini-Martin. Whilst we derigged MM, Clare, Heiko and Ivan did a bit of a 'cooks tour' in Exit. We toted all their ropes back to their car before heading back to Dover for pizza's. The walk out was somewhat 'gruelling' on account of all the tree-falls on the MM track.

However, caving for us wasn't over for the day, as I wanted to head to Newdegate cave to 'ground-truth' the survey I'd drafted up. After a couple of hours in Newdegate Cave, I'd added many red edits to the draft survey. We returned to Francistown at pumpkin hour to crash out at Arthur C's. Thanks again Arthur and Robyn for the convenient 'crash-pad'. Also at about the pumpkin hour, Clare, Heiko and Ivan phoned through to say they were out of the cave and on their way back to Hobart.

Looking for Voltera Swallet: Tuesday 27 November 2001

Jeff Butt

Party: Dave Rasch, Jeff Butt.

At about Karanja, my sub-conscious mind let my conscious mind know that I didn't pack my helmet....so as penance, it was to be a day in the scrub trying to relocate Voltera Swallet! The day was drizzly to start; so it was shaping up to be a 'period of purgatory'; but it did fine up as the day moved on.

We parked along the road; there are about a dozen logs across it; they are bow-sawable, but the cost-benefit ratio is high, i.e. lots of sawing to save a 400 m walk....but more to the point, we didn't have the bow-saw with us anyway!

First we had another go at finding Bonepit, looking more north of where we'd looked before. At the Northern most Maypole Anchor, we found yet another taped track, which seemed to end at a log over a doline. The doline only contained a couple of veg. filled grotty holes; no enterable cave. To the left, there was a limestone knoll; Dave found a cave (called JFX4 in the GPS) here; it was about 8 m deep. After a 6 m down-climb, the cave did a distinct turn to the left, then went down about another 2 m before pinching out.

From here we ambled on and came across some more tapes; a line of blue tapes headed right, and mounted a large butress. Below the butress, was Bonepit (JF203), a very impressive Rift like entrance. We GPS'd it, so will not lose it again.

From here we contoured around the limestone scarp, finding several dolines, but no caves. Since we were

passing near to 'so-called' JFX1 (which Dave and Jol found on a previous trip), we detoured to it. We cleaned the end of a log out of the hole, and after scratching around found a couple of 'just OK' anchors. A couple of packs were needed for protection at the lip. Dave headed down the 23 m rope we had, but it didn't reach the bottom. He did however manage to get off the rope a bit higher up and climb down. There is another (larger) daylight entrance nearby. Dave can tell what he found inside the cave; but it's not a goer.

Continuing on, we came across JF208, which was both quite unexpected and impressive. This cave brought back memories of Ross Walker Cave. We had a bit of wander through it, with our one light between us. Very impressive indeed; but it could do with some track marking to protect the flowstone. It is good that this cave is infrequently visited!

Next proposed stop was JF206 for a better look; against natural intuition (which said go what was seemingly the 'wrong way'), we did follow the GPS (Daves', as we'd not bothered to bring the club one, as we were going underground!) and duly found JF206. We pulled some logs from the swallet and Dave managed to get in and was off. Unfortunately after about 8 m down it was too tight and a non-goer. We had a better ferret in JF206, the description in the Karst index over glorifies it! It would be possible to do a pitch from an upper entrance, but it is easier to just climb/walk in from the lower entrance. Nothing more found here.

Voltera Swallet was the next 'port of call'; however, again we failed to locate it. From JF206, we contoured around to the main stream, and headed way up stream (against common-sense, i.e. swallets should be downstream!, but we wanted to properly check this creek out, in case the swallet was to the side of the main creek). Well above the contact (~720 m in altitude), we pulled the pin, and headed downstream a bit before continuing to contour around the hillside. We went about another 400 m, but no further streams were encountered. (We were well to the west of where Voltera should be). We obviously have been 'missing' Voltera...it must be on a smaller creek somewhere closer to JF206???

Anyway, back at the main stream, we headed downhill, and found quite a large 'shelter cave', JFX5, which was walk in, and about 10 m deep, 30 m long. It didn't look like it had been visited before.

Further downstream we found a small (Serendipity like) swallet; no number tag could be found. We GPS'd this as JFX6. Down from here the country was very interesting. We found a fossil swallet, which proved to be the lower entrance of Sesame (JF210). From here we wandered back towards the Maypole; Dave found a small hole under a stump (JFX7). About 8 hours after we left, we were back at the car.

So, for us the location of Voltera Swallet is still a bit of a mystery.....might be a case of 3rd time lucky?? Is anyone out there able to give us some tips for locating this Swallet?

Choose your own adventure trip report… You continue climbing up the Growling streamway and find that the dry bypass has turned into anything but. A short, though torrential waterfall stands in your way. Mad Phil throws himself into it and clambers competently up the rock face. He belays Pommy Dave next then throws the rope down to you. You tie on and begin to climb up the freezing waterfall. **If you crawled under the log on page 4 then go to page 20. If you stumbled around the log on page 4 (like a big woose) then go to page 22.**

Karst Dynamics at North Lune: Sunday 3 January 2002 By Arthur Clarke

Party: STC Members: Robyn Claire, Arthur Clarke, Joe Farrell, Heather Nichols & Steve Phipps. Visitors: Mick Flint & Sandy Shannon (NZ); Neil Seabourne (local).

Some time ago, Mick Williams and Arthur Clarke found some new caves in the *North Lune* karst; these vertical entrances had been flagged with yellow tape in an area near lots of *rundkarren*, small dolines and a dry valley-uvala. Steve suggested a trip because he hadn't seen the area before, Joe and Heather were keen to see some new caves and Robyn simply enjoyed being in the forest again! Neil Seabourne wanted to re-visit the area because he and his son Damian had assisted STC members removing fallen trees and cutting out the track to *Mesa Creek* nearly two years before (*Speleo Spiel* #319: 18-19). About half an hour before we left Francistown, former TCC member Mick Flint (last heard of in New Zealand), appeared out of the blue with two sea canoes – along with partner Sandy Shannon - and they both decided to join us.

Considering the *Mesa Creek* track into the North Lune karst has had little use since being cleared in April

Steve, local Niel Seabourne and Joe deep in the karstic North Lune forest

2000, it was in remarkably good condition with no cutting grass to fight your way through, but the *Bauera* was encroaching again and the "jack-jumper" anthill was taller! Halfway along the track to *Mesa Creek*, where the limestone is first seen, Arthur lead us off through a patch of horizontal scrub past some known caves and up a ridge of limestone with *rundkarren* pinnacles covered in lithophytes: lichens, ferns and bryophytes (mosses etc.). Between sections of horizontal scrub, there was a mix of forest dominated by sassafras, myrtle and leatherwood, with *Asplenium* fern understorey and leatherwood flower petals carpeting the forest floor. The yellow-taped cave entrances were proving difficult to find, so Robyn, Sandy & Mick stopped for a lunch break and just as the rain started the rest of us split into three different search groups. Arthur and Neil took the mid-slope area and checked out the dry valley leading into the uvala, then further on discovered an entrenched stream channel in mudstone and quartzite. Heather dropped off her pack and went upslope along a ridge of *rundkarren* pinnacles and eventually located the upstream end of the same stream channel beyond the limestone outcrop. Steve and Joe went further downhill and discovered NL-5, then returned going higher up the ridge, attempting to follow the route taken by Heather. In the course of their explorations, Steve found an enormous eucalypt on top of a limestone ridge; the tree soon became the focal point of everyone's attention.

This giant eucalypt was something that had to be seen to be believed! (you can, on the back cover). Surrounded by lyrebird scratchings, there was no ground cover vegetation under the canopy - it was most certainly one of the biggest trees that any of us had ever seen, certainly the biggest on limestone. Stretching skyward, it was approximately 8metres in diameter, had massive tree root buttresses, 1.5-2metre wide branches, huge 3-4metre wide burls 25-30m up the trunk plus a 2-3m wide "cave aven" of unknown height extending up inside the centre of the tree. Unfortunately, a small maglite torch couldn't illuminate the darkened space inside the tree aven. Joe climbed up one of the buttresses to find a tiger snake basking on a low fallen branch and Robyn discovered a lyrebird's nest about 7m up between spurs on the back of the tree. Down slope from the eucalypt, the girls found our first real cave – a cave in limestone, rather than inside a tree.

While Mick was in awe with the big tree – there was nothing like this in New Zealand - Robyn and Sandy were thrashing through the undergrowth trying to avoid the thickest parts of horizontal scrub, when Robyn located a hole. The girls decided to stay put and lay claim to the entrance, in case the boys came along and claim-jumped them! By the time Heather joined the two cave finders, the girls were firmly camped at their spot beside this vertical entrance located under a high canopy of horizontal scrub branches. This cave site was apparently "new" – it didn't have any yellow tape beside it - and soon became known as the "*Girls Cave*" or "*Girls Spot*". The lads arrived a little later and decided it was a good spot for some lunch, while Joe changed into his caving gear. Arthur got a bit confused about the cave name and started calling it "Girls Hole", but in the banter that followed Heather quickly said it couldn't be called that because otherwise you'd have every Tom, Dick and Harry in it! There were a few other names suggested, not worthy of putting in print. Joe reckoned it probably wasn't much of a cave because there was no draught. However, he nominated himself to descend the cave and reported it as a narrow solution tube going down to a 0.5m wide rift that was about 8m deep before blocking off with talus. Despite the fact that he needed to use a rope to exit the cave, Joe suggested this site wasn't worthy of a number-tag, let alone a name and there was some ensuing discussion about what really constituted a "cave"? Nonetheless, Arthur produced a cordless percussion drill and an "NL-11" number tag was attached to the limestone rock on LHS wall of the entrance shaft.

Heather Checking out the Girl's Spot.

While NL-11 was de-rigged and number tagging progressed, Joe and Steve discovered one of the yellow-ribbon taped entrances further downhill; this next site was more promising and definitely required a hand line rope for the descent. It was immediately suggested this site could be named "*Boys Cave*". Joe volunteered to do the first (and only) descent, reporting back from the depths that this was indeed a cave: it had stalactites, spiders and other cave beasties, including a *Hickmanoxyomma* cave harvestman, similar to the ones seen in caves at Mole Creek! Arthur was called to the entrance so he could hear the description of animal life from Joe, including the detailed description of the pink (?) coloured harvestman with second pair of legs twice as long as first, third and fourth pairs. Joe also reported a large collection of land snails and collected a 2.5cm long narrow specimen of *Caryodes dufresnii*. The 0.6m wide entrance leads into a metre wide rift about 4-5m in length and based on rope lengths, it was estimated to be about 15-16metres deep. It was suggested that this site was definitely worthy of a number tag (NL-12) and would be better named as: "*Harvestman Hole*". Fixing the number tag proved to be difficult: there was no limestone outcrop at the immediate entrance to the cave and the only rock nearby was very hard, the drill bit was quite blunt and the drill battery didn't have enough charge! The "NL-12" tag was eventually "attached" to a wall of very firm clay on the topside of the cave entrance. (Neil suggested we return another time and re-attach the tag to a buttress of limestone approximately 2m away and east from the entrance.)

After a fruitless search for more entrances, a different descent route was taken away from the horizontal…

(Continued on next page)

Dear Dorothy

Dear Dorothy,

I am in a spot of bother.....I am halfway down a vertical cave and my mate Barry is a pitch above me. Whilst I was rigging the 3rd pitch I have accidentally dropped my caving pack and it has plummeted below. Fortunately it hasn't hit anyone, but inside my pack are my ascenders and the rope for the pitch. What should I do?

Yours stupidly, Sam.

Dorothy's response to Derrik's Dilemma, in Speleo-Spiel 327, page 25:

Dear Felix,

you have several options; but first let me point out that when on an expedition, or caving with a group over a number of days it is always advisable to set out your daily intentions (e.g. in the expedition log-book, or verbally) to your fellow cavers. This way, if for some reason you do not appear back at camp, or do not arrive at the entrance of the cave by the appointed time, your companions will have an idea of where you may be and can instigate some sort of 'emergency' procedure. Before the start of your trip you should all agree on what these procedures will be. Another useful thing to carry is some notepaper and a pencil (or flagging tape and a texta) so that notes can be left in the cave (e.g. attached to a rope so that they can't be missed), to advise of any changes in plans etc.

For your situation, one trick that may be of assistance (provided the rope isn't damaged to the point of being in danger of failing) is: if you are carrying a prussik loop/or cord that you can use to make one (it is always advisable to carry one for emergencies, ascender slippage/loss etc.), then make up a prussik loop and attach it to the rope; preferably above the damaged sheath. If you can't reach that high, then on the core of the damaged rope will have to do, but you might need extra turns to make it grip. You should then connect a cowstail in to the end of this loop for safety; and then transfer you hand ascender to the prussik loop. By prussiking up this 'side-rope' you should be able to bypass the damaged section and get back onto the main rope.

Once safely over the damaged section, you need to tie the damaged section out, e.g. using an alpine butterfly knot. If you do not have enough slack rope to do this, your companion may have to ascend to the rebelay and feed some rope through to enable you to do this. Once this is done, you should take measures to ensure that a repeat doesn't occur, e.g. add a deviation/rope protector if there was an abrasion point responsible.

If you cannot surmount the damaged section, or if the core is also damaged; then you should change over to abseil mode and very carefully descend back to a comfortable position where you can wait until your fellow cavers return to see what the problem is. You will need to be on the ball to let them know what the problem is, as you don't want them abseiling over the damaged portion of the rope either! They should be able to re-rig the rope or take measures to alleviate your problem.

Dorothy

(Continued from previous page)

…scrub, along the *rundkarren* ridgeline and down to the sassafras forested valley floor where *Spider Den* (NL-3) was found. Heather decided it was also time to go caving, followed soon by Steve and latterly by Robyn. Despite not having a tape measure with us, Steve and Joe volunteered to do a Suunto compass and clinometer survey of *Spider Den* and eventually emerged, appropriately covered in mud, around 7pm.

The day was finished off at Francistown where we feasted on Dover Wood-Fired pizzas, washed down with a two-litre flagon of Blackberry Wine and some (Toxy) cat-paw crumbled Pavlova, smothered in cream and raspberries. There was a little continued debate about the name for NL-11; Heather stated that it had been agreed (in conversation with the guys en route home in the car) to name the cave as "*G-Spot*" (derived from *Girls Spot*), but Robyn reckoned that the guys would never be able to find it!

Robyn in Spider Den Entrance

Choose your own adventure trip report… Who cares??! **Go to page 23**
or have a good read of Arthur's great article on glow-worms on page 10