Speleo Spiel 395

March - April 2013

Newsletter of the Southern Tasmanian Caverneers Inc, PO Box 416, Sandy Bay, Tasmania 7006, AUSTRALIA ISSN 1832-6307

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Front Cover: Janine descends Firehose Pitch in Cauldron Pot. *Photo by Rolan Eberhard*

STC was formed in December 1996 by the amalgamation of three former southern Tasmanian clubs: 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.

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Editorial

Summer has been and gone and the days are shortening; attention turns from the sunscreen cupboard to the wood pile. I'm pretty happy with my woodpile and I reckon I'll make it through to the warmer days.

It has been a fairly productive summer. Numerous visits by our northern branch (Canberra), the irrepressible Janine and her diving efforts, Exitravaganza 2013 and other minor efforts by myself and others have filled the pages of the *Spiel* with accounts of good cave exploration and documentation. It gives me a warm fuzzy feeling to know progress is being made.

The off season looks like it could be spent working on cave conservation. A proposed dolomite quarry in the Eddy Creek karst behind Huonville is currently before Huon Valley Council (HVC) and Mineral Resources Tasmania (MRT). STC has made a representation to HVC voicing concerns about the impact on this small but interesting karst pocket in marbleised dolomite (unique in Tasmania) and we hope to work constructively with the Applicant, HVC and MRT to ensure that the quarry, should it go ahead, does not impact negatively on the karst. Kudos must go to Matt for identifying this karst area back in ~2007, recognising the risk the mining exploration lease over the area presented, and coordinating his detailed study which was published in *Southern Caver* 65. It could prove instrumental in ensuring its protection into the future.

This could be my last official *Spiel*. Thanks for the support, compliments and offended expressions you've all provided me with over the years. It's been fun.

Alan Jackson

Stuff 'n Stuff

DUNKLEY FOR PM!

As the September 14 election draws inevitably closer and we become increasingly more bored and disillusioned with two mediocre leaders playing misère, hoping to lose as many political tricks as they can, there is a ray of hope. In the recent Australia Day honours John Dunkley was awarded an AM. This trumps Norm Poulter's OAM and no doubt will get up Greg Middleton's nose because Dunkley is a SUSS and now HCG caver and all are sworn enemies of Greg's SSS mates. SSS also has nothing to do with ASF and this is where Dunkley has done most of his good work over the duration of 50 years. I really thought that if Dunkley was PM, this could go with his AM and he'd be the full 24 hours. Congratulations John; you get my vote!

Stephen Bunton

THAT SINKING FEELING

Some people dream of going caving!

A Florida man died on 1st March 2013, a whole month too early for an April fools joke, when a 6 m deep by 6 m wide sinkhole opened up under his bedroom. The man was presumed to be asleep at the time, no doubt having one of those dreams where you wake up feeling as though you are falling, except that in this case he *was* falling. The man had no trouble going back to sleep, permanently. There's probably only one thing worse than waking up dead and that's waking up alive and then dying. Yes, believe it or not, some people are dying to go caving.

Stephen Bunton

HAIRY HORSE HOLE

Geoff reckons the Hairy Goat method of cave entrance discovery has been superseded by the Hairy Horse method. I'm not sure Godfrey the horse is so keen on the new trend. You'll be happy to know that *The Mercury* reported Godfrey survived his ordeal only slightly scathed.

STC LOONIES

The Mercury recently reported that archaeologists have found tunnels beneath New Norfolk. Alan suggested that this meant now we didn't need to drive all the way to the Junee-Florentine to get our fix. Perhaps the archaeologists might even call on our expertise. It seems that the tunnels were used to transport mental patients from the wharf on the River Derwent up to the mental asylum that eventually became Willow Court. How appropriate! If we got a gig exploring them it would just be like the old days; a bunch of nutters beneath the streets of New Norfolk. Apparently the sight of loonies being transported through the New Norfolk streets was likely to be unsettling for the locals. These days it is the opposite; as a caver I am quite unsettled by the locals at New Norfolk wandering the streets.

Stephen Bunton

Trip Reports

JF-2 Cauldron Pot

Janine McKinnon

9 February 2012

Party: Rolan Eberhard, Janine McKinnon, Ric Tunney

Now there's a party mix you won't have seen for many a while. Deep time needs to be employed to find a trip with this trio, and possibly never before with only the three. Black swans were eventually discovered, and times change … [*Desperate times, desperate measures – Ed.*]

Both the downstream and upstream ends of Cauldron Pot's streamway have been on my hit list for several years. It is really a summer job as it is very wet when it rains (wimp alert), and the best chance of seeing if the streamway can be pushed requires low water levels. Unfortunately willing and available cavers, at the times I was free, never seemed to coincide.

At the February STC meeting Rolan suggested going there the following weekend, as it has been on his hit list too apparently. A free weekend and a keen caver finally matched up. Ric jumped on board as he had unfinished business with a damaged bolt, and Serena said she'd come too.

We met up at Jackman & McRoss in the morning; however Serena sent a text saying she wasn't coming, so it was down to three. It meant we had more gear to get to the cave (including the angle grinder Ric had borrowed from Gavin), and only two of us for the exploration along the streamway, but we were all happy with that.

Rain, up to 8 mm, was forecast for the day however it was still blue sky as we started rigging the entrance pitch around 10.30 am. As it was his idea, Rolan got to rig.

As far as we know, no-one has been there since our last trip to re-bolt back in 2005. Back then, when we put the rebelay bolts on the entrance, we chose a patch of bare rock. Rolan now found this covered in moss, which is interesting.

At the redirection he voiced concern about the security of the somewhat tricky natural that is currently used (tape over minor projection), and backed this up with a #1 BD camalot. We will consider how to improve the current arrangement before de-rigging the cave.

Bills Bypass wasn't too bad going down with gravity assist. I even clearly recall hearing Ric say that he thought it had been over-rated in the past. (Spoiler alert.) He had a remarkable change of opinion after the trip back up, and we weren't even de-rigging.

Rolan rigged down the cave and all went smoothly.

At the top of the bottom chamber we parted company with Ric. We went down and Rolan set up his choofer near Au Cheval pitch so we could have a soup before heading into the lower levels. Ric only went to his dodgy bolt at the end of the traverse at the top of pitch 7. It looked really pretty seeing the grinding sparks from across the chamber. I was a trifle nervous about what else he might grind through though, and didn't really relax until he was finished.

Ric removed the loose stainless steel bolt and hanger that he had installed there in 2005, and an old (very rusty) carrot and hanger. He left in an old (very rusty) carrot and hanger because it was out of reach.

Ric headed out of the cave from there, checking rigging notes as he went. At the top of pitch 4 he removed another (very rusty) carrot and hanger.

Rolan and I continued in.

We have both been some distance downstream before (on separate trips), but had stopped when we couldn't find the way on. Rolan had been as far as the final pitch in the extension streamway shortly after it was discovered in the mid '80s, and had refreshed his memory by reviewing the relevant trip reports. The original exploratory effort by TCC had been the only trip beyond our previous limits. No-one had been back.

We arrived at this point fairly quickly and started searching. It was now 1:30 pm and we had told Ric we would be aiming to be back at the car by 6 pm. We thought three hours should be enough time to at least see if the downstream went beyond Stefan's explorations.

We found a gap under a boulder at stream level that was large enough to fit into. The sound of running water was clear below a short scramble. It was looking promising. Rolan vaguely recalled that this was the original route but found a sizeable rock blocking the way through. Even though the rock could be juggled out of the way, it was disturbing to know that the rockfall had rearranged itself since previous visits. Then he looked up at the boulder he was sitting under. It was 1 m wide and 2 m long and appeared to have no visible means of being suspended. It seemed to have invented anti-gravity. Rolan came out quick smart. We looked and discussed. It was holding up a small rockpile (a few tonnes?). We were not happy. We tried for an alternate route through a small hole in the rockpile up near the roof. That looked unstable too. We retreated to go upstream. We turned around to look again. We managed to get the small hole up high cleared enough for me to fit into it. I could hear the stream clearly through a gap but a boulder was blocking the way through. No go here. But there was definitely a big stream very close. We looked at the boulder again. We tried elsewhere. We retreated. We returned, and finally Rolan suggested we just go for it (via the hole under the suspended boulder). Safety in numbers, I thought (two is a crowd to me), so we did (but I let Rolan go first). It was now 2:30 pm. We had taken an hour making this decision. It was a bit unnerving but all was fine, and soon we were off, charging down large, easy walking streamway. We went several hundred metres like this. It is some of the best streamway in the Florentine. We were both amazed and surprised.

Eventually we reached the waterfall at which Rolan had previously stopped. It was about 8 m, and there was little to rig off that involved staying dry. Hence the wetsuits we were wearing (haven't I mentioned them yet?), that we had changed into at the bottom of Au Cheval pitch.

Rolan rigged from a boulder about 2 m back from the lip, and put in a very clever attempt at a redirection to keep us a little out of the full force of the water. He used a small stone to chock a tape into a small crack. We used a pack as a rope protector over the lip.

It was a wet descent. We suggest this pitch should be called Firehose Pitch, as it gives you a good hosing (see photos).

We continued downstream for another hundred metres or so, and waded through waist deep (for me) water on occasion, as

the stream continued through rockpile and narrowed. Finally we found ourselves at a terminal rockpile, with the water disappearing down through small gaps in the rocks. Rolan looked up high and I looked low, but we could not find a way on. This matches the description of where the TCC group were stopped on their trip too. A cairn and a small piece of tape on a projection in this area are probably their survey markers. We both felt that there is little potential here, as the blocks of rock are fairly tightly packed and the previously obvious draught not easy to trace.

Janine at Firehose Pitch.

We had both noticed that there appeared to be higher levels above the waterfall, so we decided to look at them on the way out.

After de-rigging the waterfall pitch we looked for easy ways to these possible upper levels. We climbed about 10 m up, and could see what appears to be a passage heading in the downstream direction, however it is a very dodgy-looking climb and the fall potential high. We decided a return trip with gear for a protected climb is the next step.

It was now 4:30 pm. We thought we would easily be out of the cave in an hour. Famous last words.

The trip back up the streamway was fun and uneventful. Of course it seemed shorter than on the way in. It always does. I was at the climb under the 'floating' boulder far sooner than I expected and it took me a little by surprise. We survived our emergence from under the boulder of doom unscathed, so now it feels perfectly fine. It doesn't take much for the scary to become familiar.

Back in the bottom chamber Rolan started a brew and I decided to get going. This meant we didn't have waiting around time at the pitches.

Janine and some perilous rocks of death.

I hadn't kept a really long haul line accessible, so I had to wait at the top of the wide climb in Bills Bypass (BB) for Rolan to arrive and pass my pack up to me. I couldn't bridge the gap and so I scrambled (inelegantly) around the edge, jamming myself into precarious places. Doing that with a 6 kg pack just doesn't work.

The struggle up BB, with packs heavier than I thought they should be, was a real grunt. We moved independently. On the de-rig I think there might be other tactics employed.

At the bottom of the entrance pitch we traded places, and Rolan started out first. There was a problem with the rope being snagged near the re-direction, which emphasises the point that the current arrangement is not ideal.

We had slightly miscalculated the time it would take to get out, and it was after 7:30 pm when I joined Rolan at the top of the doline. We arrived back at the cars at 8:15 pm.

Good thing Ric isn't the nervous type.

We have left the cave rigged for a return trip – or two.

This was a great trip and I am looking forward to the next one.

Updated rigging notes will be included in the report for the next trip.

Note: TCC surveyed the lower levels to the end of exploration but the club has no drawn map of this extension, although the numerical data is in the Archive. [*I had a hand drawn version that Trev gave me and told me was 'finished' several years ago. Receipt of this trip report has taken it from leaning against my bedroom wall to resting in the archives at Ric's house. May it rest in peace – Ed.*]

JF-8 Junee Cave

Janine McKinnon

16-17 February 2013

SATURDAY

Party: Andrew Greenhill, Ric Tunney (sherpas), Andreas Klocker, Michael Packer (Pax), Adam Hooper, Janine McKinnon, Pat Fitzgerald (divers). All divers CDAA.

Originally, the entire week ending in this weekend was earmarked for an exploration and re-survey of the first sump. Due to lengthy dramas that I won't go into, this plan failed catastrophically, with me being the only diver left standing when the silt settled, so to speak.

Andreas suggested coming down, and inviting a couple of others, to do a simpler version of the project. Thus a plan to visit For Your Eyes Only (FYEO), and do some exploration off the main line through Sump 1, over two days, was made.

None of the other divers had been in the sump before, so we planned to dive straight through to FYEO, take an hour or so to look around and take photos, and then start some exploring on the way out. Each diver would swim the sump alone, with a time gap between divers.

The usual two hours was spent getting tanks and gear to the beach, and divers getting kitted up. The ferrying was made much easier for Pax and me as we had personal sherpas! Ric carried both of my tanks to the beach yet again. It's 100 m into the cave and immediately before the start of Sump 1. His loyalty and support is wonderful (many may use other adjectives like long suffering, or amazing – with raised eyebrows).

I went through first. The flow was very low and the current not at all difficult to swim against. Visibility wasn't too bad at about 2-3 m.

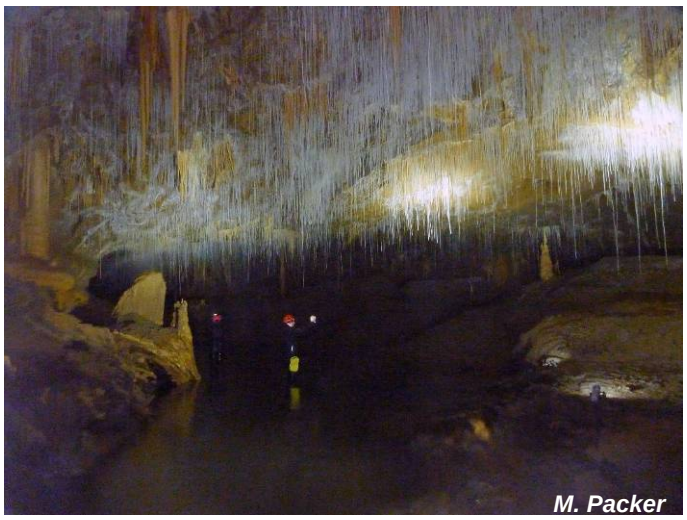
As part of our exploration plans for the return trip, I was going to put two markers on the main line on the way in. One at about a quarter of the way from the start, and the other about half way in. The only way I could determine these places was by looking at depth profiles for the sump. It was a bit of a guess, but would be good enough for our purposes.

I had a little difficulty getting the lines off my belt, where I had looped them through a ring, with my super thick dive gloves, and Andreas arrived before I was finished. Once I had sorted that, I went on, put the second marker in place, and surfaced in FYEO after about 20 minutes. Andreas arrived a couple of minutes later.

The others arrived at a few minute intervals.

We spent time walking upstream, taking photos, and looking at the stunning formations. All from the streamway, to protect the (still) pristine sediment banks.

An hour later Pat started into the sump for the return dive. Our plan was for him to swim back to the first marker, closest to the cave entrance, and to start a systematic search, at 5 m intervals, to the left and right of the main line. Due to air supply considerations, and the 7°C water, I did not think any of the other divers would manage more than about 20 minutes of exploration. None of them had dived water this cold before and none of them had gloves or undergarments designed for these temperatures. With a 15 minute swim out anyway, I thought 40 minutes would be their maximum cold tolerance.



The usual range of pretty photos in FYEO.

Adam went next, planning on doing the same at the second marker, about half way through the sump.

Pax went third, about 30 minutes after Pat, with the intention of continuing on where Pat was working, but after Pat had moved out of the cave. Andreas was second last, at another half hour interval and intending to relieve Pax. I was last out, not far behind Andreas, and planning to start side jumps from a short distance into the sump, on the FYEO side.

As I started down the steep bank into the sump a bright colour caught my eye. I looked up at the roof, only 5m into the sump, and saw a bright orange Z knife. I lost this last year and assumed it gone forever, somewhere in the sump. It was caught in a small back eddy against the roof. It has sat there through floods for a year. Amazing.

My next surprise was only 20 m further on. There was a 2 m section of line that was the new green line we were using for distance measurements. It was tied to each end of the main line. The main line had broken and been repaired by one of the other party members.

At about the same time I noticed that the visibility was, technically speaking, crap. Less than 0.5 m, down to zero sometimes. There wasn't much point in exploring anything in these conditions, so I headed straight out.

Andreas was still at the beach, waiting for me, and Ric was just arriving, to help ferry my gear back to the car (see earlier comment).

Andreas reported limited visibility on the way out too, and hadn't bothered with any exploration.

Back at the cars, we found that the line had broken between Adam leaving and Pax leaving. Pax had arrived at the point to find no line! That's where those cave diving training skills come in. What do you do when you are following your life line out of a cave with 0.5 m visibility, or less, and 200 m from the end you find the line is broken? He was able to keep his cool, search for the ends safely, and attach a repair. This is not as easy to do as one may think, in the conditions.

This will need to be permanently repaired in the future.

That had taken all the time Pax had available for exploration. So, three duds so far.

Back at the cars, we found that Pat had had reasonably good visibility on his exit, and he had managed a couple of side jumps at his planned site, at the 17 m depth marker. He followed open lead for about 20 m to the right but this proved to close down soon after. He was in a small side passage off the main passage for a few metres. The rock was very friable and the ceiling was raining stuff on him from his bubbles. He had just discovered the joys of virgin cave diving exploration in Tasmania. He was fairly sure that this ended, and he could detect no flow, but a re-check may be worthwhile.

Adam did a couple of jumps but found nothing.

We all had a nice debrief with beer and headed home around 5 pm.

SUNDAY

Party: Ric Tunney (sherpa), Andreas Klocker, Adam Hooper, Janine McKinnon, Pat Fitzgerald

We returned at around 10:00 am to try for a more productive dive day. We only had one set of tanks each, so would only be able to do one dive each. We were not planning to go through to FYEO, but only explore our allocated sections of the sump, continuing on from yesterday.

Again, due to the low water temperatures, I thought the others would have had enough of the cold before an hour. Thus we planned our dives with that in mind.

We formed two groups of two. Adam and Pat were to be the first group in as Pat had to catch the ferry back to Melbourne that night.

Pat & Adam would go into the cave together, and dive separately, with the second starting his dive after the other had finished. They would start with the areas closest to the start of the sump, and move progressively further in on their jumps. They would jump off the main line, to the sides, when they couldn't see the walls and thought an explore worthwhile. This would not be at any pre-determined distances. They would leave a marker on the main line at their furthest point of exploration. Then, when Andreas and I followed them later, we would continue that process. This was to ensure each diver had the best visibility possible for their dive.

We assessed that Adam and Pat would be about two hours before they were finished. Andreas & I didn't want to sit on the beach, in drysuits, waiting all that time, so we planned to wait outside in the sun (and flies) for 1.5 hours before going in.

This worked very well. We arrived at the beach a few minutes after Adam had started his dive. Pat then left and went back to get changed and have lunch.

He reported his dive had been 30 minutes, he had managed several jumps but found nothing noteworthy. He did get to experience more crumbly rock though.

I started kitting up, assuming Adam would take a similar time. He duly arrived after 35 minutes and reported having an interesting time but finding nothing.

I swam to the marker and continued along the mainline for 20-30 m before seeing a void to the left that was worth a look. I jumped about 10 m before I reached the wall. The floor was boulder collapse with the usual large amounts of silt over everything and debris rained down from the ceiling after being dislodged by my exhaust bubbles. There was no flow.

I did another jump to the left a few metres further on with similar results.

I repeated this process again a bit further on. No luck. I had told Andreas that I would be no more than an hour. I still had plenty of air (running quarter rule) and was not cold but I had been in for more than 40 minutes. If I did another jump further in, I guessed that I would be over the hour on return. Andreas would be getting nervous about that, so I called the dive and started out, leaving the marker at my last jump point.

I surfaced after a 53 minute dive.

Andreas continued the process. He also looked up high near the entrance as the passage appears to be quite a high rift there.

He did a few jumps, but found nothing also.

His dive was 50 minutes and was turned by cold, not reaching air turn pressure.

I waited at the beach for Andreas to complete his dive. Ric arrived back at the beach after Andreas had completed his dive and we were packing our gear. Ric took the packs with my tanks in them back to the car whilst I just swanned out and got myself undressed. Poor Andreas (and Pat and Adam) had to get their own tanks and gear back to the cars.

Unfortunately we had forgotten the beer today, so had to do with tea and coffee as after-dive beverages. It wasn't quite the same, although Adam had some nice Tim Tams to go with it, and they wouldn't have gone with beer, would they?

We have not explored the full length of the sump. The marker has been left on the main line at the furthest point of exploration. There are other voids worth checking out on a future trip.

IB-14 Exit Cave – D'Entrecasteaux River Sump: Dive 1

Janine McKinnon

22 February 2013

Party: Mark Euston, Laure Gauthiez-Putallaz, (Diver) Janine McKinnon, Pierre-Dominique Putallaz, Ric Tunney

Mark, Laure and Pierre were down from Canberra for a four day weekend and offered to help sherpa my cave diving gear to Exit Cave, in exchange for the opportunity to visit the cave. It seemed like a bargain to me, so we jumped at the offer.

I won't bore you with all the pre-trip dramas and organising (I'll be boring you enough with the dive report), enough to say that we left the car park at 9:30 am on a lovely day. The track was in good condition, and very dry, and we reached the cave after a little over an hour walking.

We transferred dive gear to cave packs from walking packs before entering the cave zone. I have never seen the water levels so low in the cave. We barely got the soles of our boots wet crossing the stream to climb up to the gate. I thought this was a good sign. I didn't quite realise just how low the water was.

We made quick work of getting to the junction of the D'Entrecasteaux River and there bid farewell to the other three. They were going up cave to look at a lead Mark found on last year's Exitravaganza. We agreed a meeting time of 3:30 pm back at the gearing up point outside the cave. It was then 11:40 am.

Ric and I started sorting out my dive gear in a leisurely manner. We had nearly four hours, after all.

Ric ferried my tanks upstream to the sump lake whilst I got dressed. This takes some time as there is a lot to dress up in.

I haven't been up the D'Entrecasteaux streamway for maybe 20 years, and didn't have a clear memory of what the sump looked like. When I got to the lake I could see that I had about 30 m of sump length before the end wall. There were three passages continuing on. The left hand passage did not seem to have any current. The middle and right hand passages were partly joined, and the middle was the longer before the roof appeared to lower to the water.

There seemed to be a very slight current coming out of the middle or right hand passage, but this was very slight. Usually, with high flow in the stream, the direction of the passage would be visible from the current flow, however the current was so slight as to be undetectable.

There was reputed to have been one prior attempt to dive this sump back in January 1994. The report was one paragraph in a larger Exit cave trip report, and the information was relayed second hand (*JSSS* 39(2):28 1995). Apparently the diver made 6 m before the cave became too tight for back-mounted tank, however I had two advantages:

1. I had 7 litre side-mount tanks (lower profile) and
2. I am quite small, and fit places others can't.

Unfortunately the (very vague and short) report failed to mention anything about where the main passage started from in the lake. I'm guessing the stronger flow made it obvious.

Visibility was less than 0.5 m, before I moved and stirred it up [*down? – Ed.*] to 0 m. The very low water, and flow levels, meant the water was very tannic. Picking such a low flow season was starting to look like a poor decision.

I started with a swim along the lake, checking to see if anything obvious appeared as I moved up the lake. Nothing did.

There was a narrow passage, water-filled but with air space, heading straight upstream (referred to above as the middle passage), so I decided to start with that.

I went back to the end of the lake, got geared up, and headed off with (optimistic) exploration reel in hand. I got to the start of this passage, swam (surface) along it for about 7 m, around a small corner, and then it started becoming shallower, and narrower. I ended up in 0.5 m water, air space above me for about 5m, in a tube/rift about 1 m wide. I tried to swim up it for a bit (hoping for sump at the end) but dragging tanks along in insufficient water to float was not proving very successful. It looked to pinch down about 5 m ahead of me.

I backed out (not very elegantly – luckily there were no spectators) and went back to report. I had seen no current in the passage, or felt air flow. It wasn't looking promising.

I then tried the right hand passage referred to above. I could see a small gap between a blade of bedrock and a boulder in the floor. With visibility of less than 0.5 m the only way to know if anything goes is to go there. I headed down into the gap. I could just fit by careful orientation of myself and tanks. I dropped down 3 m and hit ground. I was in a gap in a rockpile. I couldn't fit through a small gap that I could see dark void through. If I took both tanks, and my helmet off, I might possibly squeeze through. I wasn't very keen on that idea at all, and certainly not without a really good reason to think this was the way on. I had nothing to indicate it was anything but a gap in boulders.

I tied off my exploration line, cut it, left it *in situ* and exited.

After another confab with Ric, I started looking along floor level, back towards the end of the lake where Ric was sitting, looking for something. My very poor visibility was only getting worse as the silt was flowing away only very slowly, and everything (and I mean everything) I touched crumbled to dust or spilled large amounts of silt into the water.

The rock below water level was extremely fragile and friable. It was also covered in many centimetres of silt. Tying off my line as I moved forward was very difficult as most of the rock projections I tried to use crumbled when I touched them.

I had now been in the water for two hours, although only about half that time (or maybe less) had been spent actually underwater. My visibility was even worse and I was feeling a bit "done for the day" so to speak.

It was time to adjourn and reassess.

We went back to the junction with Exit main passage and started packing up. Ric again brought the tanks back whilst I undressed. We decided to leave the tanks, and much of the gear, in the cave. I had only used a small amount of air so the tanks could manage without a re-fill. Let's face it, I have to actually find some underwater passage to dive in before I need lots of air!

We left most of the kit up at the barrels at Camp 1, and brought out the clothing (to dry) and the regulators (to clean the muck out).

We left the cave and arrived back at our rendezvous point at 3:15 pm.

The others didn't arrive back until after 4 pm, so to keep moving, so as to present less of a target for the multitude of mosquitoes, we went looking for another possible bridge point across the river.

Ric found a very likely-looking tree upstream of the current crossing tree by about 50 m. We arrived back at the cars a bit before 6 pm.

We will return next weekend to have another go.

Gotta love Tassie; it's either too much rain or not enough.

KIT:

2 x 7 litre Faber steel tanks. 2 x APEKS XTX 50 second stage regulators. 2 x APEKS cold water first stage regulators. Razor harness. 2 x 3 kg weights. Rude Nora light, 2 x Intova back-up lights. 4th Element Thermocline Explorer and long sleeved top, Bare Polarwear 200, DUI TLS 350 drysuit. 7 mm gloves, 2 x hoods, mask, Diverite fins, Diverite Nitek Q computer. Exploration reel, safety reel.

JF-463, JF-599, JF-464 and a few others

Alan Jackson

23 February 2013

Party: Stephen Bunton, Mark Euston, Laure Gauthiez-Putallaz, Alan Jackson, Andreas Klocker, Pierre-Dominique Putallaz

Mark was back getting his caving fix for the month. He wanted help with a dig up near the JF-385 & 386 Wherretts Swallets (see *SS*392:9-13). They'd excavated all the mud in October 2012 but couldn't move a couple of large rocks. We bumbled round the McCallums Track to just before the dry gully that heads up to JF-385 & 386. I gave my usual spread out advice. Within 40 seconds we were so spread out that when Laure shouted out she'd found a cave only 30 m from McCallums Track only Andreas and I were close enough to bother heading over to her. The hole was a good one – a small entrance located in a small depression half-filled with roots and dirt but issuing a magnificent draught and a view down two small consecutive pitches. By the time Mark found us we'd tagged it – JF-463 – on the only bit of limestone bedrock hiding under the overhang of roots and dirt ('uphill' side of entrance) and decided that since we came to dig and we had all the tools that we'd leave this promising cave till later and focus on our first target.

We spread out again, finding Bunty on the way – he'd gone via Warhol in his travels. Nothing else of interest was found on the way to the dig. It'd been several months since their first effort in this hole so a bit of tidying up was required to remove the mud and crap that had washed back into the entrance. This revealed the large dolerite boulders that were causing the problem and we made light work of them, once we figured out how much potential energy we had to supply – dolerite is stronger than limestone!

Andreas did the last shift and cleared the entrance of offending bits of rock and the pitch was open. Laure headed down first while Mark acted as a human plug to prevent the back wall of the entrance (which is a freshly excavated face of mud and rock prone to shedding bits of itself every now and again) throwing projectiles at Laure. Mark, Andreas and I headed down shortly after (just using the rope as a handline since Laure had proven that the walls were acceptably stable). The cave consisted of a ~5 m pitch (or climb) with a couple of massive dolerite boulders perched halfway down, followed by a steep ~7 m slope to a small chamber/aven. Here the cave intersected a near perpendicular joint. To the left the joint was very narrow and headed up; to the right it was a bit wider – widest at the bottom – and descending steeply but the base was full of rocks and fill. Mark got enthusiastic about digging out the cobbles but the only sensible suggestion he made was bringing Anna up, as her six year old frame would probably have fitted with enough gumboot pressure from behind. The joint/narrow rift could be seen to continue for 5-6 metres but there was no obvious opening-up beyond and I suspect the cause is lost in this particular cave. We tagged it JF-599 – on the left of the entrance, when looking up hill, on an arête of limestone. There was a bit of dirt and moss on the tag spot so it is likely that this tag will get grown over in a decade or so – armed with a GPS and the photo of the entrance we took it shouldn't be hard to find again though. It is likely that over next winter, when water flows into this entrance, that it'll change a fair bit – i.e. the back wall of mud and rocks will collapse/settle. Hopefully the hole is big enough now that it'll stay open but there are some large dolerite boulders in the mix that might be big enough to plug the entrance again.

'Digging by committee' in JF-599.

Andreas and Pierre at JF-599 post dig.

It was getting close to home time for Bunty and me – we had 5 pm curfews. Andreas quickly took us up past JF-590 (where I corrected the old GPS waypoint) then on to the small cave near the contact that Mark describes in *SS*392:9-13 – the one with the glowworms in it. Andreas had a quick look and confirmed it was a no go while I tagged it JF-464. (Yes, the numbers are non sequential – before this trip we had some gaps to fill – 463-469 and 599 – and we skipped around a bit.) JF-464 is likely to be one of Rolan's Z-caves but I'll deal with all that once I have a better knowledge of the wider area. We then updated the waypoint for JF-385, filled up water bottles in the surface stream that sinks at JF-599 under higher water levels and headed back to JF-599. The others had packed up all the gear so we headed back to JF-463.

Bunty and I kept on moving while the others pushed JF-463. The summary I gleaned from them the following day was that after the entrance pitches there's a couple of short climbs and about 50 m of narrow meander that opens out onto a ~10 m pitch. There was no natural rigging so they left it at that. They plan to return in late March to see where this interesting little prospect might be heading.

There's a cave in there somewhere – Mark prepares a rope for JF-463.

IB-231 D'Entrecasteaux River Second Resurgence and IB-232 D'Entrecasteaux River Third Sink, or

How to go cave diving without all the diving gear: wait until lots of the water goes away.

Janine McKinnon

26 February 2013

Party: Janine McKinnon (and Ric Tunney, kind of)

IB-232 D'Entrecasteaux River Third Sink

After discovering last week that the water levels in Exit Cave were so low, I decided that this was a good time to investigate the series of sinks and resurgences along the D'Entrecasteaux River valley. I have passed these many times over the years and I have thought each time that it would be interesting to follow the water course underground sometime, either by diving or swimming when there was an air space.

Diving would take a lot of effort, so maybe this was the time to swim through. It also occurred to me that if the water levels were as low as they appeared to be, then the sink into Exit Cave might have an air space now. Any other time I have visited the sink it has been a sump.

So Ric and I left the car park at 9:30 am with separate objectives. I was walking straight to the sinks and Ric was taking a long and scenic walk to Camp Gumboot. We planned to join up again around 2 pm at the camp for a late lunch, and walk out together.

I arrived at Exit Cave a few minutes over an hour later and made my way to the final sink, which runs into Exit Cave. I put on a helmet to check out the entrance. It looked a lot different to the usual roiling mess of water disappearing into the wall. The river was almost not flowing. Only a small trickle was visible and a pool a metre deep was visible. There was plenty of space between the water and the roof of the cave at the entrance, and I could see far enough to inspire me to get wet.

I changed into a wetsuit and neoprene gloves (I'm not always silly) and climbed in. The passage went a few metres and then turned a corner and opened up into quite large passage. To the left were a rockpile and some reasonable formations hanging down from the roof.

I waded for maybe 50 m and then the water became too deep and I swam for another 50 m or so. The passage was 5 m wide and varied in height from 5 m to 10 m plus. Some sections were high enough always to be above water level and some of them had a few formations in them. Debris was visible on the roof in the lower sections, so the cave is alternately sump and ponds in normal water levels. I have named this main passage Sign of the Times, as it has only become accessible to "dry" caving due to the extraordinarily low rainfall this summer, very probably attributable to the start of changes from Global Warming. Certainly no cavers have reported this sink being open previously.

There were numerous narrow side passages to either side of the main passage, particularly in the first part of the cave, which was modestly labyrinthine. All these passages were of small dimensions, around 1 m wide and 1-2 m high, with water levels varying from 30 cm to 1 m deep. I have named this area of the cave Lilliputian Labyrinth, due to the small size of the passages.

Initially, I swam up the main passage until it bifurcated. I took the right hand branch first and it quickly narrowed down and terminated in a rockfall. I checked the rockfall carefully upwards, but it was totally rock-filled. At water level I could find no passage big enough for a person to fit through. Water was flowing (or not actually flowing now) along a couple of very narrow passages.

I then tried the other branch. This went further but also terminated in rockpile. Same deal, no way up through the rockpile and no reasonable-sized passage at/below water level.

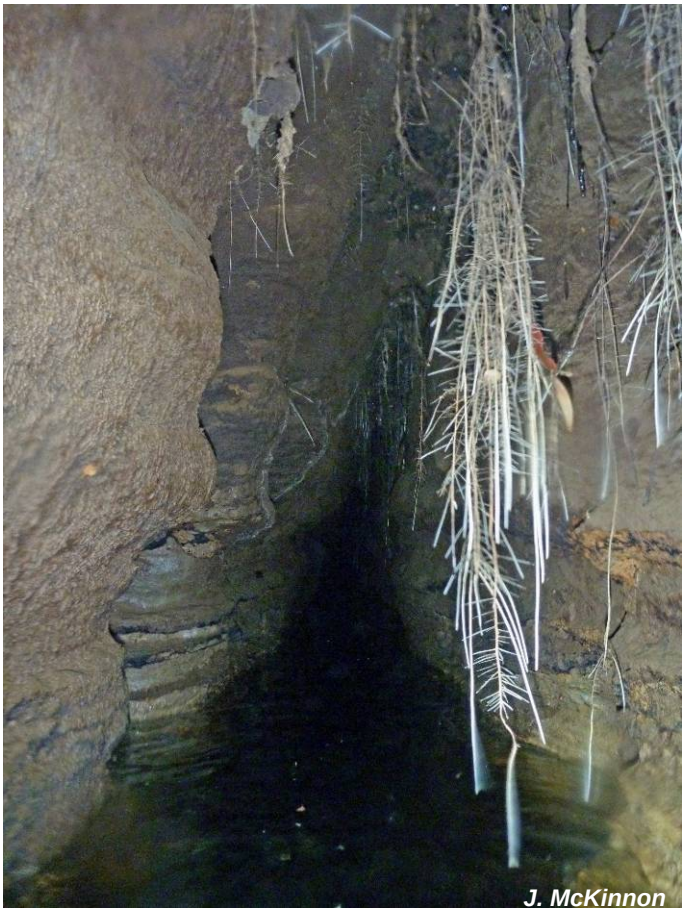
Satisfied that I had covered all possibilities at the most likely site from which the river goes through to the main Exit Cave, I then returned along the main passage, checking walls and side passages as I went. Visibility through the water was about 0.5 m (where have we heard that before?) so I can't be certain that there are no underwater passages below water level, however I saw little prospect in any of the passages on the left hand side (as I exited).

The small passages on the right hand side were more extensive and so I looped my way through many of them. I think I covered them all but I may have missed a couple as there are quite a few and they interconnect in a maze-like fashion. I wasn't being really systematic about how I looked. I should have had Alan with me for that!

Only one that was heading in the direction of the main passage didn't close down. It narrowed to the point that I couldn't fit without roof sniffing, and I had my Scurion light with me, which isn't submersible. I should have used Ric's Rude Nora.

I could see it continued for at least another 5 m but can't say more than that. It didn't look particularly promising but I can't categorically say it ended either.

I climbed out the entrance after something more than an hour underground.



Typical Lilliputian Labyrinth side passages in IB-232.

IB-231 D'Entrecasteaux River Second Resurgence

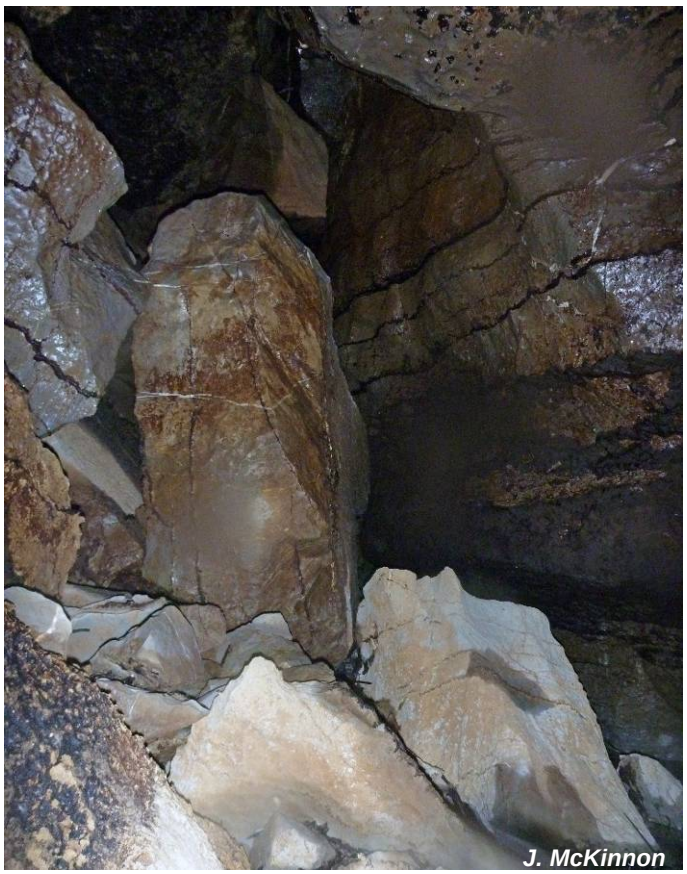
I couldn't be bothered getting out of my wetsuit, and then back into it again, so I decided to walk up the valley to the sinks. This proved a poor decision. I had forgotten quite how far it was up to the first one.

I walked for several hundred metres in my wetsuit and booties (followed by a female lyrebird much of the way). It was becoming less than pleasant in the heat. Finally I decided I didn't want to do this anymore, so I started back. I had missed a turn off to the last resurgence on my way out, but found it on my return. It was only about 50 m from the sink I had just been in.

I scrambled down the bank and into the entrance. I was able to wade upstream for 50 m and then arrived at a karst window. I don't think this is tagged. The underground section continued around a corner and became a swim. This section was much longer, at least 100 m I think. I was able to wade most of it, with a short swim section. It terminated in a rockpile.

The dimensions of this underground river were quite large, at about 5 m wide and 4 m high. It was well worth the visit.

Tree roots in IB-231.



The terminal rock pile in IB-231.

Another hour had been spent on this exercise and I decided I didn't want to get back into clothes to walk to the sinks further up the valley, and change again to do them. My fingers were numb from the cold, and Ric arrived as I was changing out of my wetsuit, so that seemed a good enough reason to call it quits for the day.

Ric had taken 3 hours to arrive at camp. He had done a lot of careful observation of the track on his way in.

We had soup, tried to not be eaten alive by mosquitoes, and then headed back to the car, using the new bridge across the river as we left Camp Gumboot.

[*A summary of cave numbers and names for this section of the D'Entrecasteaux River was published in* SS*347:14 – Ed.*]

IB-14 Exit Cave – D'Entrecasteaux River Sump: Dive 2

Janine McKinnon

3 March 2013

Party: Chris Coxson, Janine McKinnon (diver), Ric Tunney

The water was an impenetrable black as I swam down … 2 m, 3 m, 4 m deep and still black all around. This was a good sign. At 4.7 m deep I found the ground, but all was still black ahead of me. Even better. A body length ahead, and rock loomed out of the dark at me half a metre away, but there was space underneath to fit through quite easily.

I swam under the gap, laying line as I went, and found myself in booming passage … well, by booming I mean that it was all black around me, so I had more than enough room to swim along, laying line, and tying it off, periodically.

I was in the main D'Entrecasteaux River passage. FINALLY.

Thus my second trip into Exit Cave to try to make the connection from the inside sump of the D'Entrecasteaux River to the outside sink was finally making progress.

The way on was in the middle of the sump pond, in the floor. Not surprising it had taken a while to find with no current to see, and water you couldn't see through, and walls all black. Sneaky damn cave.

The first attempt had been a little over a week earlier, and had failed dismally. After two hours scouring the walls and side passages I had failed to find any significant passage. We (Ric and I) had surmised that there must be a reasonably large (human-sized) passage taking the water, as the flow was often very high. We were fairly confident that percolation and flow between cracks and rocks wouldn't allow the required volumes of water to get through in floods. I was starting to question this theory. Another attempt was still worthwhile though, so back we had come, with Chris helping carry the gear this time.

The water level was a couple of centimetres higher at the cave entrance and a marginally higher flow was visible at the sump. It was still very, very slight but at least faint movement of "things" on the water could be seen. This surely must help.

I was in the water a bit faster today, at 11:40 am. We had a sketch map that Ric had found in the archive from the 1994 SSS trip, where Bruce Stewart had reputedly dived here. This is the only previous attempt. Bruce is reported as going 5 m along a passage and being stopped by a restriction and a tree. The passage he started into is marked as being at the end of the middle finger passage. I had scoured that area last trip, I thought, but as visibility is so bad and the rock so black, I thought maybe I had missed something. So I started again today in that area. There was absolutely, definitely, nothing there. The pond was quite shallow (<2 m) here, so it was quite easy to see all the walls. There was absolutely no water movement either. I was a bit perplexed. Oh well, I would just go looking elsewhere. Again. Strike 1.

Last trip I had only had a cursory look at the left hand passage (all directions facing upstream – the way I was trying to swim), and Ric thought he could see slight movement on the surface there, so I tied my line into the sitting rock and started down to the floor of this finger passage. It was 4 m deep and I went 7.5 m before running into a terminal wall. There was a narrow ledge at shallower depth and I did a jump from my main line along that. I only managed to crawl two body lengths, in very tight, wide passage (with my head turned sideways to fit my helmet) when this became too small to fit further. There was no discernable current anywhere in this passage (ledge, really). I backed out and returned to the start, checking both walls for any prospects as I went. Strike 2.

Ric & I discussed. I had now been searching for almost an hour. This was not looking good but we still had some walls to investigate. Ric still thought he could see movement in front of the rock he was sitting on (my primary anchor point in the middle of the pond and at the start of the deeper bits).

I headed straight down to the bottom in front of the rock and found a gap between rocks. It was just big enough to fit through, and was a vertical slot. I dropped in, and managed to squirm almost a body length into a very small passage heading off horizontally. Silt, friable rock and muck rained down, yet again. I was seriously hoping this was not the way. I really didn't want to go further here. Luckily it wasn't, so back up I went. Strike 3.

Ric pointed a few metres in front of me. Such an optimistic boy, I thought. Oh well, try and try again.

I started down … and you have reached the start of this story.

I continued forward. The passage stayed a good size, with only once narrowing to brush my shoulders. This was looking good. I guessed I had swum at least 50 m when the passage started to rise quite rapidly. I was just starting to think I would reach a rockfall when I surfaced, into air-filled passage. Big passage. Woohoo. I have called the submerged passage Sanguine Expectation, as it certainly fits Ric's optimistic attitude to today's endeavours (I'm not too sure about mine).

I tied my line off to a large boulder in the passage floor and cut it. I was looking down a chamber at least 20 m long (probably more), the same width as the passage I had left Ric and Chris in, and about as high. I could see formations in the roof at the end of the passage.

I was excited and keen to explore. However it had been some time since I left the others (maybe 15 minutes) and I would have to take my tanks off to walk around, and then put them back on again to dive back. This would certainly add another half hour. With no idea what was happening, the others would undoubtedly get very anxious, so I decided to return straight away, and explore on the next trip. This chamber I've called Never Say Die, for two reasons … perseverance and tradition.

The return swim was very easy, just following my line back, and took only 6 or 7 minutes. I counted the knots I had placed in the line at 2.5 m intervals. This is for distance measurement

when surveying (distos don't work too well underwater and playing with a tape measure alone does not bear thinking about). I counted 30 knots; so 75 m of underwater passage. I will do it again, more carefully, on the next trip.

An interesting observation on the return dive was what I think is an eel that I saw about half way back along the passage. It certainly looked like an eel to a non zoology bod like me. It was browny/green and about half a metre long. I have never seen one in Tasmania before, although they are found in some caves in Mt Gambier, but usually near or in daylight zones. Does it live there or has it come in temporarily? It is a long way from daylight where it is.

I had not taken the tanks out after last week's trip, and so I now only had half tanks of air. Whilst this was plenty for many trips through such an easy sump, I still decided to wait until I could get them filled to return to the chamber. Prudence never harmed a cave diver. I would have to come back with survey gear anyway.

We returned to the junction with Exit main passage and started sorting and packing gear; some to stay in the cave until next week, the rest to go home for drying, cleaning and (tank) refilling.

Ric took Chris off for a short sight-seeing trip to the Ballroom whilst I changed and packed.

Kerryn and Darren arrived presently to see how we were going and offer to help carry gear back to the car. This was very thoughtful of them and we appreciated it.

They went looking for Ric and Chris, and they all returned shortly thereafter. Chris and Darren kindly carried the tanks out, and subsequently back to the cars.

We arrived back at the cars at 4:30 pm. What a civilised hour to finish.

We vowed to return next week to survey and explore.

And the passage I found had neither a particularly tight restriction nor a (necessarily) very thick tree to block the way as reported by Bruce Stewart.

To be continued …

Mole Creek

Stephen Bunton

9-10 March 2013

Party: Stephen and Kathy Bunton, Gordon and Jenny Fiander

This trip was a favour for friends of friends. The fact that Jenny and Gordon were poms and that they were friends of Geoff Batten seemed to ring alarm bells amongst some members but my attitude is that anyone who comes to Tasmania to go caving should be made welcome. Despite being in their late fifties, there was no doubt that they were competent even though they didn't want to do anything gung-ho, so Mole Creek seemed like a good option.

I arranged a permit for Marakoopa and Croesus Caves and said we'd meet them at Wet Cave campsite on Saturday afternoon about 5 pm. This arrangement worked. The weather was glorious. I can't remember ever sitting around at Mole Creek until after dark in just a t-shirt and shorts!

After dinner we grabbed our head torches and wellies (no fancy helmets, trogsuits or other paraphernalia), and wandered into Wet Cave. Despite the fact that Wet Cave is private property beyond 70 m into the cave, the sign to tell you to keep out and "entry by invitation only", is only 34 m from the entrance. We went a little beyond the fence to see if this was the norm. Judging by the plethora of footprints it seems everyone ignores the "keep out" sign.

Mole Creek itself was the lowest I have ever seen it, in fact all of Tasmania is the driest I have ever known. We headed over to Honeycomb Cave and could not even hear the stream gurgling in its lower levels. Again without trog-gear and just one torch each we managed a low impact traverse to the back entrances of the cave. Of interest was the fact that I found some of the number tags. In the past I have not bothered about these at Mole Creek but after our recent focus, almost obsession in the JF, I couldn't help but noticing them everywhere. I guess entering a cave in the dark when the reflectivity is certainly more obvious, is not something I do very often.

Next morning we headed over to Marakoopa, to the Rangers' complex and picked up the keys and permits. We headed into Marakoopa before the first tourist party at 10 am. We quickly headed up and got into the stream on the left just before the stairs start climbing. Like most caves I have done in the past or at least a decade in the past, there was some aspect or two that I had forgotten. The first was the incredible number of glowworms that light the left wall (true right wall of the stream) as you ascend. The other was just how steep the streamway is and how much elevation you gain. This is a great trip and after a little interlude in the miniature lost world of a doline between Marakoopa 1 (MC-121 entrance) and Marakoopa 2 (MC-15), the cave continues albeit in a smaller version. Regularly spaced orange tapes seem to indicate that Marakoopa 2 has been surveyed recently.

On the way back, out and down Gordon took some photos, mostly of the pretties and we arrived just as the 1 pm tour was entering the cave; a few minutes too late really. The permit conditions say that we are supposed to make ourselves invisible to tourist parties but the tour guide didn't seem to mind. Standing just inside the gate we must have looked like fixtures; in fact one tourist asked how much they paid us to stand there!

From Marakoopa we relocated to the Mersey River and had lunch. On the way we noticed huge thunderheads over the length of the Great Western Tiers and sure enough a bit of rain prompted an early end to lunch. We headed into Croesus sort of overland – the track was well and truly overgrown and indistinct.

Inside the cave it was the usual race against time to see all the pretties before everyone gets cold feet and is too distracted to appreciate them. Nevertheless this is a fantastic cave! In fact both caves are fantastic and really I had forgotten that too.

When we returned to the entrance we found that it had rained heavily and the cold air had caused a dense cloud of fog to condense in the entrance. I had not seen this phenomenon here before and it was truly lovely. We then headed back to the Mole Creek Pub for a cultural experience in the Tassy Tiger public bar. Back at Wet Cave campsite it was raining again and we cooked in the half-completed information hut.

This was a very pleasant weekend and it reminded me of how good real caving is as opposed to just flogging around the scrub. We had over six hours underground in real caves, which was a bit of a novelty for me recently.

IB-14 Exit Cave – D'Entrecasteaux River Sump: Dive 3

Janine McKinnon (& Alan Jackson)

10 March 2013

Party: Johnathan Esling, Chris Holden, Alan Jackson, Fraser Johnston, Janine McKinnon, Ian Stewart, Ric Tunney

Prologue:

The sink (IB-232) had been found, two weeks ago, to be open (had airspace) for tens of metres downstream, and needed surveying. The sump at the end of the D'Entrecasteaux River passage in Exit had been dived upstream and underwater passage followed to surface in a chamber. This all needed surveying and the chamber exploring. A way on needed to be found from the chamber to the sink passage upstream.

Might I suggest that the easily bored, time poor, and just plain disinterested jump now to the summary at the end.

Logistics:

We had the sherpas (more than we needed actually), for the tanks and dive gear that is coming out and back each trip for cleaning. We had the survey team for the sink, we had the diver and support, we even had the photography team. We were set to roll.

The plan was that I would dive through the first sump, explore Never Say Die (NSD), try to find the way on underwater from there, and survey my way back out when I had reached the furthest penetration point of my trip.

The hope was that I would find the second sump leaving NSD and surface in the river passage that Alan and Chris were surveying from the sink, while they were in there.

You can't blame a girl for being optimistic.

I had Alan's DistoX for surveying NSD. It was wrapped in two zip lock bags, inside a small Pelican Case, inside a large Pelican Case. It was very unlikely that it would get drowned on the swim through Sanguine Expectations (SE) but I was still very grateful to Alan for having the trust to lend it to me. If I killed it, there is no replacing it as they are no longer available (I'm still kicking myself for not buying one when I could have), so it isn't just a matter of me buying him a new one.

Ric had calculated that this set up had 6 kg of buoyancy, so we had to carry an extra four lead weights (at 1.5 kg each) to the cave, and strap them around the box, to allow me to get down for the dive. Luckily we had those extra sherpas.

For the underwater surveying Ric had manufactured a plastic board to hold the survey paper. Onto this Ric had glued a Silva compass and a bubble level for taking bearings. Clino could not be done but depth would be recorded at each survey station. Survey stations could not be marked (in a way that would survive the next flood) but they would be at changes in direction of the line. Knots had been placed in the line for distance measurements. There would be some inaccuracy with this as the knots had to be tied into the line before it went onto the reel. As the reel was tied off at several points through the sump, some line was now out of play, and thus changing the length for measuring distance. This could not be helped and I had endeavoured to do as few tie-offs, using as little line as safely possible, to reduce this inaccuracy as much as I could. As visibility was limited to a metre, or less, and my light was only Ric's Rude Nora, I would be very limited in how much of the passage I could actually see, thus a sketch was pointless. This was going to be a line survey and nothing else.

Alan and Chris, the tank sherpas, deposited them at the gearing up point at the start of D'Entrecasteaux Passage (the junction), and then left to pursue their agenda.

It took 40 minutes to organise the dive gear, get it to the sump, and get me dressed and ready to go. I started in at midday. The time agreement for me was possibly three hours, probably four, maximum five, and start worrying at six hours. Ric would stay on site at the beginning for half an hour, just in case I had to abort for some reason. I thought that if I got through the first half hour without any dive cancelling disasters then I'd probably be alright for the full exercise (or whatever I could manage in the timeframe allowed).

He would then go away until the three hour mark, or thereabouts, to help with the photography party.

I had a new Gopro3 on my helmet, with the hope that I could record a few hours of the trip, and extract some reasonable video from all that. This was its first use. I only had one working light (2 back-ups, not to be used except in case of Primary light failure) as we were trying to reduce the weight we carried to the cave. Thus I was unsure how well the video would work out. Nothing ventured, nothing gained though.

Ric started the video recording as I started the dive. I would just let it run for as long as its battery lasted.

Janine commencing the dive.

The dive, survey and exploration:

The dive through the first sump was straightforward and fairly quick as I had done it twice the previous week (in and out) and I had my line to follow. It was a bit slack just past the entry restriction and I had to redo a tie-off. I surfaced in NSD after 7 minutes.

I took off my tanks and mask but kept the rest of my kit on, and went for a walk upstream. Most of the passage floor is under shallow water. After five or six metres I found another long pool. I swam down this to be certain that it sumped (or at least ended), which it did after about fifteen metres. There was deep water all along the right hand wall of NSD (looking upstream), so the way on could be anywhere under there as well, but I had to start somewhere, so I decided to try along the long axis of the passage.

I moved my tanks down to the start of the wade and kitted up again. I had to tie my primary line anchor point several metres

back from the start of the pool as there was nothing to tie to on the walls of the pool. It was all smooth rock.

I started surface swimming, and then decided I would be better on the bottom. I'm still not sure if this was the right call.

With only half a metre visibility it wasn't that straightforward finding my way ahead (a pun there, did you catch it?). I groped along, doing the odd tie-off, and found myself in a small, tight, silty, restricted passage. I shall call it sump II. I was moving forward though, so I kept going. It occurred to me that it wouldn't be that nice if I had to turn around. After a few minutes I surfaced in a passage. I was excited. Yes, I thought! I have broken through to the river passage from the sink! Except it didn't look quite right. Maybe if I turn my head sideways it will look familiar. Nope. Still, optimism prevailed and I called out, hoping Alan could hear me. Nope. The passage was a few metres high at this point and about 2 m wide.

I moved to the bank a metre away, opposite the hole in the wall I had just emerged through, and found deep mud. Yuk. I threw the reel out of the water, and then took my tanks off, managing to get them onto the bank in shallow water.

I had passage in both directions, but it was all streamway, so I started swimming to my right (back into the cave, by my reckoning). The passage went about fifteen metres and was about 3 m wide and 7 or 8 m high. It terminated in a rock collapse. I couldn't tell flow direction.

Then I started swimming down the other direction. This went around a corner and the roof lowered to a half metre above water level. This would normally be water-filled.

I kept going and the passage stayed low and narrowed. After another ten metres, or so, I was in partly water-filled passage about one and a half metres wide and high. The water was half a metre deep and the mud was thick, soft and deep. I realised this passage was usually water-filled and the water moved very slowly, so I definitely wasn't in the main passage of the D'Entrecasteaux River. I started crawling/pushing myself along the water course. This quickly became very tiring and hot. I was dressed for 6°C water in drysuit and two undersuits. The air was about 15°C and the water very tepid. I was also still wearing my buoyancy compensator with two lead weights (3 kg) attached (and my computer on my wrist). A clever idea? No. Hindsight is a wonderful thing. It would have been difficult to remove where I left the tanks so I hadn't bothered. I was now paying the price. The mud was deep on the small bank beside the water and crawling there unpleasant, so I alternated between the water and bank.

I continued for what seemed like kilometres but was probably fifty metres. Roots were hanging from the ceiling. I noted that I had some light flow and the stream was now flowing away from me, where I had started my diving upstream. After about 20 minutes of this I had had enough and decided to turn around. I wasn't where I was aiming for, my gear wasn't designed for this and I was worried about damaging my (very expensive) drysuit, and I was hot and tired. The passage continued in the same dimensions as far as I could see, which was about ten metres.

I retraced my steps. I checked at the bend before my tanks and the water was still flowing away, i.e. downstream, not the upstream I had started with before sump II. At the tanks the direction of flow was not possible to determine.

I found a tie-off point for the line (with a lot of difficulty as the walls were all smooth), tied it securely and cut it.

Note: The exploration line I had on my reel for the first series of dives was 1 mm thick. As I had used most of the 150 m on the reel by the time I had tied off in NSD I had had to put new line onto the reel for this dive. I had used thicker line this time. It was 3 mm thick. The knots are at 5 m intervals.

All the above-described swims and passages are unsurveyed, but are somewhere to the east and south of NSD. (Later consideration is that these are passages paralleling the as-yet-undiscovered main route to IB-232 D'Entrecasteaux Third Sink.)

It was time to start surveying out. I did not have the DistoX with me (and I wouldn't have been game to use it here anyway) and so I could not survey this passage. I decided to start with the survey back through sump II. This I did. Visibility was about twenty centimetres into the sump, and zero through most of it, so basically I counted knots and took one bearing in the sump. It is only about fifteen metres long, so that shouldn't be too bad. Anyone wanting a more exacting survey is welcome to go there and try.

Back in NSD I took off tanks again, and discovered that I had somehow broken the plastic board I was using to hold my survey sheets. My compass was on one piece and the bubble the other. Destructo-girl had struck again.

Using half of the board for my sheets (what else could I do in a chamber called Never Say Die?) I surveyed the chamber with Alan's DistoX. What a godsend this was by now! I then did a sketch. I wish I was better at drawing. Can I blame the half-board for my poor draftsmanship? [*Should that be draftwomanship? – Ed.*]

I carefully packed up the Disto and checked my timing – a bit short of three hours. Now I had a decision to make. To head out, surveying SE as I went, or dive and try to find the 'proper" way on. I was torn, but decided that to keep exploring, and then survey SE, could take more than an hour, and the others (Ric) would start getting nervous by then. I was also starting to think I'd had enough for today and I would have to come back anyway, so out it was.

The survey through SE basically consisted of depth and compass readings at changes in line direction, and counting knots for distance. NOTE: The knots are at two and a half metre intervals on this line.

It was a nuisance keeping my sheets of paper on the half-board. They kept trying to swim away. I was out in twenty minutes, to my surprise. However I'm not totally happy with my survey here, so I might do it again next trip.

No-one was there when I surfaced. Nice to see how laid back about the whole thing they all were. I called, and presently Ric answered, and arrived. Apparently I interrupted "smoko".

I had been gone three and a quarter hours. Ric and I discussed whether I should come back for another dive or not. If not, then we wanted to place a thicker line from the primary anchor point (boulder out of the water) down and through the restriction, so that if my thin (1mm) exploration line was shredded in future floods any future divers would be able to find the start of the underwater passage easily.

I also had the two lines that I had left on my earlier dives (see trip reports for dives 1 & 2) to remove as they went nowhere of use and would confuse future divers. They looked a mess too! These two jobs are to be done as a last act so I have maximum air supply where I need it most.

I had only used about a fifth of my total air supply, so we decided to leave the tanks in the cave and return in a few days for one last try at finding the main passage out of NSD to the outside world (or where the passage has air space at the moment, anyway). Thus it was time to get out of the water.

I was sent to get some soup. As usual, Ric started organising getting my gear (tanks, fins, reels and Pelican Case) back to the junction. I really appreciated this.

Alan and Chris were both in the cave (back at the junction, souping), having completed their job and returned to us. The photographers were just about done too.

I drank my soup and heard what everyone else had been doing, whilst Ric moved gear to the junction, sorted it into staying and going piles, moved the staying gear to a secure spot on the bank and organised the packing of the going out gear.

Back outside the cave entrance, Alan left a note for Tony Veness, and the Distos, at Camp Gumboot.

The trip out and home was unremarkable.

Oh. The Gopro? Despite a few close encounters with low roofs, it was still intact. When I got home and checked the video I had about two hours. The battery went flat after that, I think (it stopped recording anyway). I thought it was good for 4 hours? Oh well, some is better than none. The lack of good light didn't help, but some of it is OK. It is certainly the best record of this area that exists (i.e. the only pictorial record).

And the DistoX? It survived its return through the sump. It was bone dry when Alan opened the box(es). Thank god. I doubt I could have lived down destroying his (irreplaceable) DistoX.

Exploration and survey summary

1. Alan and Chris completed a survey of the main downstream passage, Sign of the Times (SOTT) from the IB-232 sink to the rockpile terminus. They did not survey Lilliputian Labyrinth, the maze of small passages near the sink.
2. Janine explored the Chamber, Never Say Die, and found a sump out of it upstream (sump II). This was dived to surface in more "dry" passage. This was explored (possibly) upstream approximately 20 m and downstream possibly 50 m. It was not surveyed.
3. The direction of water flow in the passage past sump II changed definitely about10 metres past where sump II joined. Direction could not be confirmed above that position.
4. The sump II was surveyed back to NSD.
5. NSD was surveyed.
6. SE sump was surveyed. Janine is considering doing another one, with more stations, next trip.
7. The way through from NSD upstream to join SOTT was not found.
8. Another dive is planned to try and find the underwater passage out of NSD to SOTT.

Alan and Chris's bit:

After dropping off the tanks we bumbled out of Exit and followed the taped route up to IB-232. It took us a while to find the tag as apparently the entrance has collapsed since Ric placed it and it is now positioned several metres from the cave head wall. It is located on the left bank of the stream (when facing downstream), on a small cliff face up above the incised river channel and collapse debris.

We got our wetsuits on and then started surveying from the tag into the cave – Geoff had trustingly left his DistoX in camp for us to use so we didn't have to spend any more time than necessary freezing in the water. After two legs we decided the way on didn't look very pleasant – it was two metre high passage (half water, half air) but only 0.6 m wide. This didn't fit Janine's description so we opted for route-finding instead of surveying. A few metres in there was a junction with passage to the right. We took this passage which lead to another junction with perpendicular passage several metres on; we went left. The passage was still narrow and high but getting deeper. This section was quite long (~10 m) and had a few perpendicular passages heading off. Chris took one to the left and it opened out into the main passage after a particularly low wet bit (plenty of leg room below the water but helmet off if you wanted to breath); lovely. We cursed Janine for sending us here and decided to push to the end of the big passage.

The roof was quite high with numerous tree roots in this section but it then lowered down, did a left then right wiggle and terminated in a little loop around some rockfall. There were a couple of swims but it was mostly deep wading. On the largest of the rocks in the rockfall, ~0.3 m above water level, I installed an aluminium entrance tag – I had the mini club drill in two dry bags. This was so Janine would know where she was if she came up here. It was stamped with "131003_A_88", had a bit of pink survey tape slipped in behind it and two 20 mm square pieces of red reflective material placed between the tag and the fasteners (I didn't want Janine to miss it!). The number on it was the survey station number according to Tony V's rigorous Exit system (YYMMDD_survey-team-letter_station-number). We were team A for the day, Janine was team B and the others team C onwards. I figured this kind of station might actually last a few years of floods, at least until Janine had finished poking around down there.

We surveyed out, following the nice big passage past our junction with the horrible low wet thing we'd come in, and found the easy way out to the entrance. It turned out we'd come in via the Lilliputian Labyrinth, which I added to my sketch but had no intention of doing again to survey properly. While the water was not as cold as I thought it would be it was cold enough to have me shivering, making book work quite challenging.

We considered heading up to the next sink and resurgence to survey it but decided it wasn't overly important to do so in terms of Janine's project so we opted to surface survey from the IB-232 tag to the IB-14 tag. I've since discovered that Madphil already did this but at least we proved that the two data sets are almost identical, and therefore unlikely to have erroneous legs. We then touristed in Exit (going further into the cave than I've ever been before!).

The end of IB-232 proved to be almost 70 m due east (magnetic, not true or grid) of the entrance tag.

IB-14 Exit Cave – D'Entrecasteaux River Sump: Dive 4

Janine McKinnon

14 March 2013

Party: Janine McKinnon (diver), Ric Tunney (support).

You are almost certainly bored to death with long dive narratives. Today's tale will be presented in as brief a format as possible.

Pseudo-Powerpoint presents:

- Dived through sump I (Sanguine Expectations) to Never Say Die (NSD) and checked along full length of right hand wall (true left) for continuing passage, unsuccessfully.
- Swam to northern end of NSD and looked up aven, it has a closed roof about 10 m up.
- Dived at start of pool at southern end of NSD as per last trip, continued past turn into sump II, and followed the floor upstream (south). This is sump III.
- Checked two side passages off sump III to the right (true left). Both terminated.
- Surfaced at rockpile at end of sump III.
- Checked for way to pass through rockpile at water level, unsuccessfully.
- Did not climb up rockpile to check for leads as drysuit too fragile and no passage visible from water level. This is a possible lead.
- Checked for way around rockpile, unsuccessfully. Water passes through but could not find anything humanly navigable.
- Surveyed through sump III (downstream) underwater back to start of dive. Much of this passage has airspace at present but would normally be sumped.
- Exploration line left *in-situ*.
- Swam on surface through air gap (only possible with these very low water levels) at southern end of pool on left hand side (true right).
- Intersected passage (with airspace) that terminated in rockpile at left hand (downstream) end. Right hand end was rockpile previously encountered. Distance between two approximately 50 m. Airspace the full distance. Roof generally estimated at two to three metres above water level at present. Several blind avens approximately 8 metres high. This passage was not surveyed.
- Checked left hand wall from passage junction (true right) for underwater continuation. Unsuccessful.
- Considered all reasonable options for onward diving southward in the direction of IB-232 sink now exhausted.
- Returned to NSD and prepared to survey through SE again.
- Gopro battery ran out at this time.
- Surveyed SE again. New, thicker survey board remained intact.
- Saw two eels, one almost a metre long. The big one was almost aggressive.
- From the downstream end (start) of SE, put in thicker line from above sump, through the restriction, and into SE a short distance. Almost no attachment points, so line secured to imperfect rock projection in passage floor. There are hopes this will survive floods but no confidence in this.
- Removed two "false lead" exploration lines left over from trip two.
- Support team surveyed from final station in D'Entrecasteaux Passage inside Exit Cave to first station of SE sump dive. 1 station. Sump survey now tied in to Exit survey.
- Support team drank soup and read whilst he waited for diver (approximately two hours).
- Lighter failed to work when diver wanted soup on return. Diver remained soupless.
- Diving finished for this year. Some gear removed and rest to be removed within a week.
- A dive with higher flow rate to look for active streamway might be advantageous in the future.
- A canister diving light was added on this dive. When subsequently viewed, the video produced was much more successful than the previous trip.

Preliminary survey results:

At the beginning of this exercise, the end of D'Entrecasteaux Passage was 250 m from the sink (IB-232). After the diving, and survey from the sink by Alan and Chris, the gap is now 50 m, north-east from sink end.

I won't bore you with a trip report for the trip to extract the rest of the dive gear.

That Was Lucky!

Stephen Bunton

16 March 2013

Party: Stephen Bunton, Gordon and Jenny Fiander

This was meant to be a pleasant trip through Midnight Hole but it turned out to be one of my most frustrating days ever. Unfortunately I had an audience on the day and now I feel compelled to write about it for those who were not there. Suffice to say that I walked up and down Marble Hill three times from the Mystery Creek track to the contact, carrying 60 m of rope, in the rain, fully trogged, without finding IB-11. I found plenty of other caves including IB-12, now that must have been close! I found some great karst features, lovely canyons and pretty green mossy walls but not the familiar welcoming hole I had chosen for today's sport's plan. How embarrassing!

Earlier in the week Alan asked if I had the GPS co-ordinates. I dismissed this with the thought that I'd never needed them in the past and I was sure that I had them at home on my machine. Unfortunately I didn't but I wasn't fussed because I'd never needed them before. In my defense there were a few fresh trees down over the track and it is less distinctly marked. With dwindling numbers of cavers reducing available man-power and the advent of GPS there is less emphasis on track clearing and this inevitably means caves will be lost to fuddy-duddies like me who go hunting in the old-fashioned way.

In the end we cut our losses and entered Mystery Creek Cave and went through to Matchbox Squeeze where further embarrassment awaited us. None of us could fit through the squeeze. I thought I had never been up the squeeze only down and out but Kathy reminded me that on a CaveMania trip, in 2005, I had shown people through it. So yes, my memory really is failing.

I am sure that had we descended Midnight Hole we would have tried a lot harder, it is downhill, you'd only have to do it once and the incentive is much greater. However, if we failed we'd be in for a long cold wait and an epic rescue.

I am sure that the vast throng of Exiteers that just got out earlier that day (we saw their cars) would not have liked another trip down south that evening.

You don't think of caving as being a deadly sport, or if you do you imagine a stuff-up where you go splat and that's the end! The thought of dying slowly by hypothermia in well-known territory doesn't really cross your mind. I must admit that I was really spooked by this experience.

In the end it was lucky we didn't find it. Better than that, I never have to find it again!

P.S. At the start of the railway track, the start of the Southern Ranges Track there is now a boot-washing station to prevent the spread of phytophthora into the WHA.

JF-36 Growling Swallet

Stephen Bunton

17 March 2013

Party: Stephen Bunton, Gordon and Jenny Fiander

After the embarrassment of the day before I was loathe to take anyone anywhere that relied on my failing memory. My only concern for this trip was that I'd get the van bogged on the Eight Rd or that the lights I'd borrowed would fail or some other unforeseen disaster ... a landslide blocked the JF-36 entrance, whilst we were underground or I walked to Serendipity by mistake!

Yes I was still spooked by my near-death experience the day before.

As it was everything went well and the visitors from Sheffield thoroughly enjoyed their trip. They were great company and we happily chatted about all sorts of shared experiences and attitudes.

Thanks to Alan and Gavin for lending us their lights and helmets.

JF-463

Alan Jackson

23 March 2013

Party: Seamus Breathnach, Nat Brennan, Mark Euston, Laure Gauthiez-Putallaz, Alan Jackson, Andreas Klocker

Back to push their new find, the mainland mob descended upon Hobart late on Friday, grocery shopped and headed up to the end of the Eight Road to camp. I joined them Saturday morning, driving Bunty's van – my new car was still AWOL. It was bucketing down when I arrived and the large boot of the van was instantly prime real estate for keeping out of the weather.

Seamus and I did some track improvements while the others commenced rigging JF-463. We then came in behind the others, surveying as we went. The entrance pitch (~20 m) was rigged off the large sassafras on the downhill side of the entrance. The pitch is sloping for the first 10 m and the tree gives a good clear hang but then it goes vertical and there's a bad rub point. With no natural anchor available Mark had decided 11 mm rope was good enough and IRTed it. I placed a single 8 mm through-bolt on the true left wall and a ~1.5 m tape on the way out later in the day which acts as a redirect and would allow 9 mm rope to be used safely.

A couple of short climbs later and the passage narrows down to vadose meander (~60-70 cm wide on average). There's about 50 m of this (with one tight bit past some flowstone) before you arrive at the second pitch. The others had bailed at bolting this as they couldn't make their minds up. I whacked a y-hang in with two bolts and things were moving again.

By the time Mark and I surveyed down the 14 m pitch Andreas was leaping about with enthusiastic stories of caverns measureless to man, uncharacteristic JF pretties and the clear need for a glider to launch into a newly discovered chamber. We gave him his meds and set about having a look.

First point of interest was the collection of dead monotremes at the bottom of the second pitch. Four platypuses and an echidna had failed to push on any further. At the bottom of the pitch the narrow meander continued but, over the top, larger passage liberally coated with flowstone headed up. This passage then split into two. The left was lined with active flowstone (water coming in everywhere with the morning's rain). Down below were drops to large pools of water in flowstone dams and further along were two high flowstone walls/columns with water cascading down them. Beyond them a straw-filled balcony looked out over a large chamber with a primary floor ~10 m below, again liberally endowed with flowstone, including a large dome of it. It was quite like JF-341.

A platypus skull at the bottom of the second pitch.

We reconvened at the second pitch. Laure and Nat pushed the continuing meander, Mark and Seamus headed off to rig a rope down to the dams beneath the pretty passage and Andreas and I picked up the survey, opting to head into the other passage from the junction with the pretty stuff. We'd only done a couple of legs when the girls returned saying they had a six second pitch. Judging by the lack of terror and excitement on their faces I questioned their ability to count accurate seconds. They decided that maybe it was a 2-3 second pitch. The plan changed and all the non-surveyors headed off to rig this pitch.

Andreas and I continued as planned, surveying the right hand passage. It was a fossil passage encrusted with crystal and flowstone floor, masses of bracket fungi-like growths on the wall and plenty of flowstone, stals and straws; really pretty and really delicate. It opened out into a chamber with relict sediments and dolerite boulders on the left wall and a nice little flowstone waterfall coming in from higher passage on the right. On the far side of the chamber it dropped away and we could hear the others beavering away below us. We made light contact with Mark and left a labelled station hanging over a pitch in the hope we'd be able to spot it from down below and survey a loop without having to descend the drop. We gingerly made our way back out and laid out some pink tape with 'NO ENTRY – FRAGILE' on it. Not a place that needs to see unnecessary traffic.

We surveyed down the crappy narrow meander to the others. Once again they were sitting around trying to decide where to place bolts for the pitch. Indecisive buggers. In their defence the rock looked ordinary at the pitch head, but was actually quite sound. Two bolts on the left wall (one either side of an arête) and one on the right wall formed a nice little three-way tie. The Disto suggested the pitch was 27 m.

Only Nat and Mark went down, returning with news that after a short bit of meander there was another pitch – maybe 40 m. We started out, having not enough rope to get down such a pitch in one length.

The connection back up to the fragile passage above was looked at but will involve a slightly dodgy climb (with a 27 pitch below) which could be pursued later if necessary.

It was hard to leave them there and drive home knowing they had virgin cave to push the next day but the lure of a hot shower, a roof over my head and the threat of divorce won me over.

I entered the survey data when I got home and the cave was doing the usual NW-SE strike-following typical of the JF. We had collected 224.5 m of data and the top of the 27 m pitch was at -72 m, so we had a 100 m deep cave so far. With the entrance so far down the hill we can only expect to get 200 m maximum before we hit the bottom.

A big thank you to Bunty for lending me The Weapon; it performed admirably. Anyway, the van is probably worth less than the combined value of my Scurion 1500 and helmet that he borrowed the weekend before!

Other Exciting Stuff

TV Review – *Catalyst* – Thursday 22nd February 2013

Stephen Bunton

This episode was part of an ongoing series entitled *On the road* where three *Catalyst* reporters drive from west to east looking at scientifically interesting places. The caves of the Nullarbor was the main focus of this particular episode, that featured Peter Buzzacott who is known to club members, our own Stefan Eberhard who has deserted us for a life of lowlife in WA and Ian Lewis of Naracoorte and Mt Gambier cave diving fame.

The main part of the show was taken up with Ian Lewis discussing cave geomorphology, mainly the question of why the passage size is so huge. This introduced Peter Buzzacott who was shown placing and retrieving temperature data loggers from various cave diving locations. Whilst the differences in the temperatures were only a few degrees (21-24°C), the temperature gradient could be traced back to a source where hotter water was entering the sump.

Ian Lewis explained the similarity to the genesis of his local Mt Gambier caves where acidic, sulfurous ground waters were responsible for solution of the limestone in the famous Piccaninnie Ponds area. Whilst there was no mention of sulfur, the dry Nullarbor caves do have lots of gypsum formations which indicates that volcanism is active not far beneath the caves and has had, and probably is still having an effect.

The footage of the cave dives was spectacular and certainly did justice to the beauty of the caves and their flooded passages. Most of the footage was in Weebubbie Cave.

Stefan's appearance was to discuss cave biota, which he did with great authority and enthusiasm. The invertebrate star of the show was a troglobitic isopod (cave slater) that enabled Stefan to talk about adaptations to cave life. The footage then switched to the subaquatic chemosynthetic microbial growth that forms on some of the passage walls. Stefan postulated that this should support its own food chain just like the "black smoker" communities around submarine volcanic vents.

Stefan was shown sampling with a plankton net and then a photograph of a microscopic crustacean was shown. This photo was taken after the expedition when Stefan's samples were analysed. This organism was new to science, so another scientific first for Stefan. Well done!

All in wonderful sound and vision that shed a favourable light on cave science and the caves of the Nullarbor.

Foreign Correspondent Review

Veins of the Earth, 12th March 2013

Stephen Bunton

I watched this episode for the wonderful footage of cave diving in Mexico's Yucatan Peninsula but it was just as valuable as a case study for my environmental science students. The main character was Luis Leal a former lawyer now cave diver who is an advocate for the preservation of the caves. The Yucatan cave system is the longest submerged cave or underground river system on Earth. The caves were flooded after the last glaciation and the water that fills them is as clear as air. The caves are not fully explored. Exploration penetrations have durations of many, many hours. There are plenty of stalactites and stalagmites as well as the odd human or other skeleton to

decorate the passage. Because the caves drain out to the Caribbean from the hinterland the water remains remarkably clear. Exploration is from collapse features known as cenotes. These had special significance to the Mayans, who no doubt would have used them as water sources. Unfortunately as rampant development along the coast at Cancun, Mexico's newest Riviera (after Acapulco and Baja California) is ruining the caves. Mangroves that filter the sea-water are being cleared, fresh water used by the resorts is reducing the flow and waste water disposal is polluting the caves such that eutrophication is occurring. The main causes of these problems are the same global issues of money, greed, corruption, development at all cost, economics versus environment, rich versus poor and the availability of cheap land and cheap labour in the developing world. I was going to say "See it before it is too late!" but you can't see it anyway unless you are a cave diver. So don't despair, watch this episode on iView, be impressed at the photography, get angry, do nothing, then just go to bed and forget about it.

More TV Reviews

Stephen Bunton

No I don't watch TV all the time. Generally I am doing something else with the TV as background noise and then I just get distracted, drop everything and then write stuff down because these days I can't remember anything.

Africa

Saturday 16th March 2013 8.30 WIN

Africa is yet another David Attenborough series with spectacular footage of wildlife that some poor person takes months to film and we consume in a few minutes. I still can't get used to the fact that Attenborough is on commercial television and I am not sure why the Bunton household had the TV on a commercial station; we must have read the program or something!

This particular episode featured a cave in Namibia that previously had slipped under my radar. Dragon's Breath (I didn't know they had dragons in Namibia) Cave contains the world's largest underground lake. This show featured fantastic footage. (It wouldn't have made it to air if it didn't!) The show was absolutely stolen by incredible footage of blind, colourless cave catfish. It is worth trying to find this footage somewhere on the net.

The daggy thing about all these shows, though, is just the opposite; how non-daggy the cavers are. With all nice clean new ropes and shiny Petzl gear, it just makes the participants look like novices.

Galapagos

Sunday 17th March 2013 ABC 7.30

This is the latest David Attenborough Series and this programme "Adaptation" featured some impressive footage of some caves, somewhere in the Galapagos. Because the Galapagos are volcanic islands there are lots of lava tube caves there. Kathy and I visited some of them in January 1993. Most of the known ones or the ones visited by the well-regulated tourist industry, are short and close to the coast but the one featured in this show seemed to be inland and of considerable dimensions.

The cave featured in the couple of minutes of this episode, was being studied by two young research biologists. They showed us a few invertebrates, and that was about all. Unfortunately this was the lame bit of a show that was itself rather lame. These days the Attenborough shows feature great footage and the script is woven together later with David Attenborough doing the commentary. I had hoped that I could have used this episode for school but it wasn't very good.

Office Bearers' Annual Reports - 2012

Various Artists

President – *Geoff Wise*

All good things must come to an end.

This is my third President's report in a row and therefore my last. There are so many great memories from the meetings I've chaired such as Chris Chad's treasurer's reports, the infamous Guy 'Exit Cave meeting minutes' and finishing a meeting before Arthur turned up once. Oh and the science account ... I was pleasantly surprised at the number of people who attended my final business meeting in charge in February. The minutes make it 20 in total, I'm sure they all turned up to witness history being made.

Thanks to everyone who has done something for the club this year (and the last three years), especially those who organised caving trips. After all that's why we are here. The club wouldn't run smoothly without the other office bearers, I haven't really done much other than chair meetings, attend a few TSLC meetings and write the odd bit of correspondence. I managed to go caving a few times as well.

I won't be standing again thanks to something in the constitution (although that hasn't stopped us from doing the opposite in the past). It's not a hard job, just don't try to reinstate the science account if you want to keep meetings short. Maybe the next president will have the glory of a completed survey of Exit Cave produced in their reign (that's a good reason to stick your hand up people). [*Gynaecologists and proctologists have worked out the other good reasons. The simple use of a comma would have avoided that joke – Ed.*]

Vice President – *Stephen Bunton*

This year I have deputised in a number of roles.

Secretary – *Janine McKinnon*

It has been another reasonably uneventful year on the administrative side of my secretarial duties. A few permit requests have been sent. Journals collected. ASF agendas and minutes received. Letter sent to TSLC, and to Forestry regarding LiDAR report.

I was absent for a couple of months again, and in that time the minutes of meetings were undertaken by Steve Bunton and Tony Veness. I wish to thank them for doing an excellent job. Apologies if I forgot anyone else who stepped in to do the minutes in my absence.

Those astute readers amongst you may recognise this report as being almost identical to last year. Well done.

My three year tenure is now complete so I cannot continue in this role.

Training Officer – *Janine McKinnon*

It has been a very quiet year on the training front. The only real excitement happened when I was away and Alan stepped in to

the role to train three new members. I have a sense of déjà vu here. This happened two years ago, but it was Matt who stepped in. Surreal.

I did get to train one new member myself, and to check the skills of two new members who are long time cavers and past members of mainland clubs.

I am happy to continue in this role in the coming year. I want to see if the cosmic weirdness continues.

Webmaster's Report – *Alan Jackson*

The club's webpage continues to dangle off my employer's webpage. Its primary role has been to host recent issues of *Speleo Spiel*, *Southern Caver* and *Troglodyte* but occasionally Tony Veness hijacks it for Exit Cave propaganda purposes. I'm not a web designer and haven't changed the format at all since I inherited this job years ago. If anyone with web design prowess would like to sexy the site up a bit then be my guest. I, and LMRS, are happy to continue in this role if required.

STC Electronic Archive – *Ric Tunney*

The Archive continues as normal.

It is now over 16 GB. During the year, as the master copy was threatening to expand beyond the disk partition it was living on, I moved it to its own 500 Gb disk. There's now room for lots more data! The Archive is mirrored to a partition on another disk in the same PC, also to part of a pair of mirrored disks in a safe elsewhere in our house, and to some cloud storage.

The Archive is too big to distribute by DVD. If Archive holders want updates, they need only provide me with some media (SD card, USB drive etc) and I'll make a copy.

Thanks to those feeding data - mainly Alan Jackson, Steve Bunton and the triumvirate of Exciteers (Tony Veness, Geoff Wise and Matt Cracknell). If things continue as they have, I think the "lost data" problem is solved.

STC Map Library – *Ric Tunney*

All maps are arriving in digital form and are appearing in *Speleo Spie*l, so there's not much activity here. Similarly, survey sheets and field sketches are arriving digitally and are going in the Archive. I am still receiving and storing paper back-ups of survey sheets and these are going into a filing cabinet with lots of spare room.

ASF Karst Index – *Ric Tunney*

Arthur Clark stepped down from the position a few years ago. I haven't received the paperwork from him as he had some finalising to do. So I have done nothing. STC issues cave numbers for southern Tasmania, but I don't know what's happening in the north, and haven't tried to find out.

I nominate to continue in these positions.

Search and Rescue Officer – *Jane Pulford*

Several rescue-related events took place in the past year, but STC managed to sidestep any real cave rescues.

March

Cave Rescue Orientation Program (CROP) vertical workshop was held at Mole Creek. Small-party and larger scale rope rescue techniques were covered, including a scenario involving hoisting a loaded stretcher out of a vertical entrance in Honeycomb Cave. Four STC members attended, alongside Northern Caverneers, Mole Creek Caving Club and visiting instructors from Western Australia.

May

STC were invited to help SAR Police drink some beer they had been gifted after a (non-cave) rescue. I don't think any STC people made it along.

June

SAR Police were informed that STC has keys for the newly locked gate on the 8 Road in the Florentine.

August

SAREX was held at Lake St Clair, with all Tas emergency services and several community groups involved. Activities included bushwalking, abseiling, jet boating, snow camping, helicopter lifts and attempting to set up reliable communications. Four STC members attended, all of whom appeared in the TV news footage that was aired the following week.

Cave rescue took place in Loons Cave on the SAREX weekend. STC and SAR Police were not involved - the rescue being carried out by local authorities.

Following the cave rescue on the SAREX weekend, STC provided SAR Police with map coordinates of selected caves in the Ida Bay and Junee-Florentine areas which are popular with general members of the public (e.g. scouts, uni, school groups etc.).

September

SAR Police liaison meeting with community groups. Discussion on SAREX and upcoming rope rescue training.

October

Evening rope rescue training session at SAR Police HQ. Ten STC members attended (yay!), alongside SAR Police and local rock climbers. Free BBQ.

November

Discussion with SAR Police on instituting a log book system to track cavers' SAR-relevant experience, in response to a change in the Tas Worksafe legislation. STC's response was that we'd be unlikely to keep our log books up-to-date.

December

Rope rescue training day, mid-week, at Fruehauf Quarry in South Hobart. Practised police standard rope rescue methods (anchors, haul systems, sked stretchers) and briefly discussed climbing and caving-specific equipment and situations. Three STC members attended, alongside SAR Police and local rock climbers - about 30 people in all. Free sandwiches were v good.

January 2013

Northern Caverneers showed off their homemade stretcher during the Australia Day caving weekend at Mole Creek.

I am happy to continue in this role in 2013, unless someone else is keen.

Editor – *Alan Jackson*

Nothing unusual in the *Spiel* world this past year - another six high quality issues produced (if you include the one I'm currently working on). This is the ninth time I've trotted out an annual report for this position. I just had a read of the previous eight reports to assess how my attitude has sadly softened over the years. I was interested to note that in the early years I was printing in excess of 60 hard copies and these days it's only about 15. It would appear STC is single-handedly responsible for the demise of the forest industry.

I continue to maintain a modicum of enthusiasm for the job, mainly out of concern that if someone else did it then it wouldn't come out regularly or on time. Someone prove me wrong, please.

Thanks be to Greg – for his holistic sub-editing services.

Science Officer – *Matt Cracknell*

I suspect that I will be forever remembered as the science officer who let the science account fold. Apart from that, I occasionally reported on something sciency at the meetings. I am happy to stand again for re-election.

Public Officers – *Matt Cracknell*

It has been a quiet year for the Public Officer, which is probably a good thing. I seldom grace official-looking documents with my signature, although when I do I get a warm fuzzy feeling inside. I am available for re-election.

Gearstore Officer – *Geoff Wise*

After many years at Clutha Place, the gear store was relocated to Springfield Ave, West Moonah in August. Thanks to everyone who came around and helped with the move. A stock take was done at the same time. Access arrangements for the gear store seem to be successful. Alan has the current code to get in if you cannot get hold of me for some reason.

During the year new survey equipment was purchased with grant money from the ASF and the Tasmanian Government's Sport and Recreation minor grants scheme. Thanks Tony for asking them nicely. One set of Suuntos was broken and has been retired. This leaves us with two full sets of good condition survey gear (compass, clino and Disto). Please look after them, they don't like being knocked around and are expensive to replace. While another set would be handy for events like Exitravaganza, two sets should be sufficient for the amount of surveying that gets done.

The ropes are due for testing, this will be organised for late March / early April.

I'm happy to continue in the role this year.

STC Librarian / Archivist – *Greg Middleton*

The Library received only 41 new hard-copy serials in 2011-12, continuing the declining trend of recent years: 2011-12: 126, 2010-11: 69, 2009-10: 89, 2008-09: 95, 2007-08: 113, 2006-07: 101, 2005-06: 168 and bringing our holding to 4,759 (not including many duplicates). The decline is largely due to the uptake of digital publishing.

The library received 15 new books, bringing our holding to 326. These were mainly from the closing of the Forestry Tasmania library. Only one CD was added to our CD/DVD collection, bringing it to 42.

752 papers/articles have been indexed but many remain to be accessioned.

The 2 TB hard drive purchased last year now contains about 30 GB of data (up from 11.6 last year) – principally in the form of pdfs of serials but also conference proceedings and other papers plus a copy of the STC Archive.

Since 2005 I have been producing *Southern Caver* in digital format, publishing otherwise unpublished or rare material. No. 66 was published (in two parts) in August 2012, comprising Andrew Skinner's 1973 study on the possible development of Exit Cave. The next issue will contain the late Jeff Butt's voluminous notes and unpublished reports on the exploration of JF-341 as transcribed by Alan Jackson.

I'm prepared to continue in the position.

Social Secretary – *Guy Bannink*

He did not perform up to scratch this year. There have been issues in the classroom associated with immature behaviour and I'm not convinced that he is applying himself as well as he could. This does not bode well for the future.

On the positive side there were a couple of gatherings for which he was responsible which were satisfactory, even enjoyable. Fortunately TV and JP, and the two SB's supported the secretary in this role and organised meetings at the bowling club, SB's place and at various other locations. These were all a success, thanx team.

There were no opportunities for the secretary to demonstrate his extraordinary secretarial skills this past year which was a disappointment, as I specially enjoy taking minutes at the tougher more controversial meetings. Has RT bought a Scurion for himself yet?

Happy to continue in the role with the support of members when I am absent.

Treasurer – *Ric Tunney*

[*This report goes last because it's always full of bloody tables that don't fit the two column formatting of the rest of the* Spiel *without endless fiddling– Ed.*]

Summary

For those that only read the first sentence, STC has made a surplus of $595.01 for 2012, compared to a surplus of $398.14 in 2011. For those who go a bit further and read the second sentence, I'm proposing abolishing the $2.00 rope-use fee and increasing our basic membership fee from $17.00 to $30.00.

The Science Account was merged into the General account. This will simplify our accounting system and make the Treasurer's job a little easier. [*Well, this turned out to be unconstitutional but that's a whole other story – Ed.*]

I nominate for the position of Treasurer for 2013.

Membership

Membership Category	**At 23/2/13**	**At 31/12/2011**	**YE 31/12/2010**
Single, family and concession	41	33	45
Introductory	5	2	9
Life	6	8	8
Total membership	**52**	**43**	**62**
Friends	9	9	9
Total association	**61**	**52**	**71**

Note: In this table, I have counted Family Membership as two members.

Income

The following table shows the actual income for the last three years.

Category	**2012**	**2011**	**2010**
Memberships (incl. ASF component)	$3,574	$2,801	$3,228
Speleo Spiel subscriptions	$130	$45	$100
Gear hire	$42	$194	$192
Trip fees	$238	$343	$284
Donations	$353	$0	$35
Interest	$433	$302	$270
Sundries, incl grants	$2,444	$1864	$1605
Total income	**$7,215**	**$5,549**	**$5,715**

Membership Fees

I propose that the current Membership Fees be increased for 2012

Category	**STC fee**	**Factor**
Life - inactive Life - active	Nil Nil	0 0
Single	$30.00	1
Concession (student/pensioner/junior)	$22.50	0.75
Household (annual)	$52.50	1.75
Household including Active Life Member	$22.50	0.75
Introductory (3 month, non-voting)	$15.00	0.5
Friend of STC (non-member of STC & ASF)	Nil (includes printed *Spiel*)	0

Trip Fees

I propose that the Rope-Use Fee be abolished.

Gear Hire Rates

Gear Hire receipts were significantly down for the year. **I propose that the Gear Hire Rates be slightly modified.**

Item	**Rate**
Rope-use fee - non-STC	$5
Harness & cowstail	$2
Helmet	$3
Full SRT kit	$6
Cave Pack	$1
SRT kit, light, helmet, pack	$10
Trog suit	$1
Descender only (depends on number of abseils)	$3-$5
Descender only (midnight Hole)	$5
Miscellaneous (eg. jammer, cowstail etc)	$1-$2

Expenditure

The flowing table details the expenditure for the last three years.

Category	**2012**	**2011**	**2010**
Speleo Spiel production & supply	$314	$382	$498
All other ASF membership fees	$2,676	$2,383	$2,840
Gear purchases	$1,178	$643	$1,387
Equipment Officer's Honorarium	$218	$57	$166
Audit fee	$82	$93	$78
Annual return fee	$56	$54	$53
PO Box rental	$149	$145	$137
Club admin & stationery	$0	$133	$65
Memberships	$0	$92	$110
Sundries	$1,944	$1,165	$97
Total expenditure	**$6,620**	**$5,151**	**$5,426**

Speleo Spiel

I propose that the subscription rates for printed *Speleo Spiel* be unchanged at $25 per year for non-members and $20 per year for members.

SUMMARY

- I propose that the current Membership Fees be increased as shown
- I propose that the Rope-Use Fee be abolished
- I propose the Gear Hire rates be slightly altered as shown.
- I propose that the subscription rates for printed *Speleo Spiel* be unchanged.

STC Membership Fees 2013

Category	**STC fee**	**STC factor**	**ASF fee**	**Total fee to be paid**
Single	$30.00	1	$68.00	$98.00
Life - inactive Life - active	Nil Nil	0 0	$19.00 $68.00	$19.00 $68.00
Concession (student/pensioner/junior)	$22.50	0.75	$49.00	$71.50
Household (annual)	$52.50	1.75	$117.00	$169.50
Household including Active Life Member	$22.50	0.75	$117.00	$139.50
Prospective (Introductory) (3 month, non-voting)	$15.00	0.5	$20.00	$35.00
Friend of STC (non-member of STC & ASF)	Nil (includes printed *Spiel*)	0	Nil	Nil
Speleo Spiel subscription (printed *Spiels* delivered)	$25.00 (for non-members) $20.00 (for STC members)			

- Late fee of $10.00 applies to all membership fees not paid by 1 April each year.
- New members who join during the year will pay a pro-rata fee.
- Membership to STC automatically includes membership to the Australian Speleological Federation.
- Payment by EFT to STC's account BSB 067 000 Ac 10162123 and send advice to STC Treasurer (~~rtunney@caverneer.net.au~~). [*Try arthurc@internode.on.net instead, for this week at least – Ed.*]

Gear Hire Rates 2013

Gear is only hired to STC members.

Item	**Rate**
Rope use fee - non-STC	*$5*
Harness & cowstail	$2
Helmet	$3
Full SRT kit	$6
Cave Pack	$1
SRT kit, light, helmet, pack	$10
Trogsuit	$1
Descender only (depends on number of abseils)	$3-$5
Descender only (Midnight Hole)	$5
Miscellaneous (e.g. jammer, cowstail etc)	$1-$2

Southern Tasmanian Caverneers Incorporated		
Financial Statement for Year Ending 31 December 2012		
	This year	**Last year**
	2012	**2011**
Income		
Membership fees	$3,574.76	$2,801.00
Speleo Spiel subscriptions	$130.00	$45.00
Gear hire	$42.00	$194.00
Trip fees	$238.00	$343.00
Donations	$353.30	$0.00
Interest	$433.31	$302.25
Sundries incl Exit Project	$2,444.00	$1,864.41
Total income	**$7,215.37**	**$5,549.66**
Expenditure		
Spiel Production	$314.85	$382.65
ASF Fees	$2,676.61	$2,383.66
Gear purchases	$119.10	$394.12
Science equipment	$1,059.70	$249.00
Equipment officer Honorarium	$218.10	$57.60
Audit fee	$82.50	$93.50
Annual return fee	$56.00	$54.40
PO Box Rental	$149.50	$145.00
Club Admin/Stationery	$0.00	$133.34
Memberships	$0.00	$92.50
Sundries incl Exit Project	$1,944.00	$1,165.75
Total expenditure	**$6,620.36**	**$5,151.52**
Net surplus (loss)	$595.01	$398.14
Balance Sheet		
Petty cash	$26.80	$26.80
General Account	$3,762.43	$2,997.53
Science Account	$365.44	$535.33
Fixed Term Deposit	$8,000.00	$8,000.00
Less unpresented cheques	$0.00	$0.00
Plus receipts to be deposited	$0.00	$0.00
Total cash position	**$12,154.67**	**$11,559.66**
Account Reconciliation		
Opening cash position	**$11,559.66**	**$11,161.52**
Add total receipts for the year	$7,215.37	$5,549.66
Less total payments for the year	-$6,620.36	-$5,151.52
Closing cash position	**$12,154.67**	**$11,559.66**
Reconciliation Error	$0.00	$0.00

[*Ric stated on the list server or at the meeting (or both) that a copy of the auditor's statement would be printed in the* Spiel*. I think it's a pretty dull document and it'll push me over to 29 pages and stuff up my formatting if I include it, so I won't. If you just can't survive without viewing it then let me know and I'll forward you an electronic copy – Ed.]*

Treatise on Geomorphology, Volume 6: Karst Geomorphology

Greg Middleton

There's a new karst text out - a steal at just $3,134.61 (save $245.39) – and less in Oz$ – through Amazon – with FREE shipping!

It's Shroder, John F. (ed.) *Treatise on Geomorphology, Volume 6: Karst Geomorphology*, 485 pp. San Diego: Academic Press.

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With at least four chapters by Australians it's almost a home-grown product.

Oh, and it'll be available digitally from Elsvier Inc. for about $31.50 a chapter - a mere $1,134 for the book!

And there are 13 other volumes in the Treatise if you really want to ensure your knowledge of geomorphology is right up to date.

Disto™s get better, tougher – and cheaper

Greg Middleton

By now most cave surveyors will be aware of Leica's brilliant Disto™ laser distance measuring device. Anyone who's used one will wonder how we ever got on before them. In sunlight they can be difficult and frustrating but inside caves they are ideal.

In August 2006 I bought a Disto A3 – it cost A$548. Later I 'upgraded' it to a "DistoX" by the installation of a digital compass and clinometer (thanks Tony). I found the callibration of the digital compass too much of a hassle, however, and the Bluetooth transfer of the data to a Palm PDA, too unreliable. Others, I believe, have different experiences. I sold the DistoX in August 2012 to our esteemed Editor.

I still needed a Disto, of course, so I paid a visit to Walch Optics in Hobart to see what was available. I found there were a lot more models than there had been six years earlier; I settled on a Disto D3a, a slightly larger instrument than the A3, but with the addition of a digital inclinometer (limited, sadly, to 45° above and below horizontal[1]). The RRP was $550 but the nice people at Walch's let me have it for $425. Sadly, I only got to use it a few times before it suddenly stopped working. When you pressed the 'On/Dist' button to measure a distance, the whole device turned off. This happened in the middle of surveying a sandstone rock shelter near Sydney, the weather was fine and I hadn't dropped or mistreated the instrument in any way. The inclinometer still worked, incidentally.

I returned the instrument to Walch Optics and they sent it to Melbourne for assessment. A couple of weeks later I got the news that they had decided to replace the instrument under warranty. As luck would have it, the D3a had been replaced in the meantime by the Disto X310, and it was one of these that I was given as the replacement. On enquiry I was interested to learn that this model has an RRP of only $385 (though I was advised that Walch won't be discounting this price as Leica has cut both the prices and the margins on newer models).

Is the X310 an inferior model to the D3a? Definitely not. Most significantly, it is able to measure inclinations greater than 45°. In fact, though it may not have major applications in caves, the device is capable of measuring a full 360° in the vertical plane! (Though, mind you, you have to do a backflip to actually read it over about 170°.) Previously the ability to measure even up to 90° has been limited to models selling for nearer to $800! Details in relation to distance measuring (e.g. max. distance: 100 m – with special target plate – and 80 m 'in typical operation', though on a tripod, I suspect, and smallest unit displayed: 0.1 mm) remain unchanged.

Another worthwhile improvement has been to build in a keypad lock. Previously it was easy for the 'On/Dist' button to be pressed while the instrument was being transported in a pack. Depending on when this happened, this could seriously deplete the batteries. Having been caught by this once, I had been in the habit of carrying my Disto with the batteries removed. Now, to lock the keypad, you just hold down the 'Off' and '-' keys simultaneously for 2 seconds. To turn the device back on you hold down the 'On' and '-' keys simultaneously for 2 seconds – something not very likely to happen in a backpack.

The new Leica Disto X310

Another significant advance has been to increase the robustness of the device. The 'impact-resistant housing' is now claimed to survive 'drop tests from 2 m height'. Also, while it's not elaborated, it is claimed to be 'dust tight and jet water protected' (the D3a was only claimed to be 'dust-proof and splash-proof').

In physical terms the instrument is slightly shorter (122 mm as opposed to 127 for the D3a), wider (55 vs 49 mm) and slightly thicker (31 vs 27.3 mm). The weight (with batteries) has increased from 149 to 155 grams. There are only 9 buttons on the keypad now, replacing 12, but without doing a full run-down, including a number of functions unlikely to be used in cave surveying, it's difficult to say whether this makes use easier or more difficult

Overall impressions: Some significant improvements and a welcome price reduction plus a bouquet to Leica and Walch's for replacing the faulty instrument without fuss.

[1] Needless to say, this limitation was pretty annoying – although I don't survey many vertical shafts – but it meant I had to keep carrying an inclinometer in case I had to take a reading over 45°.

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