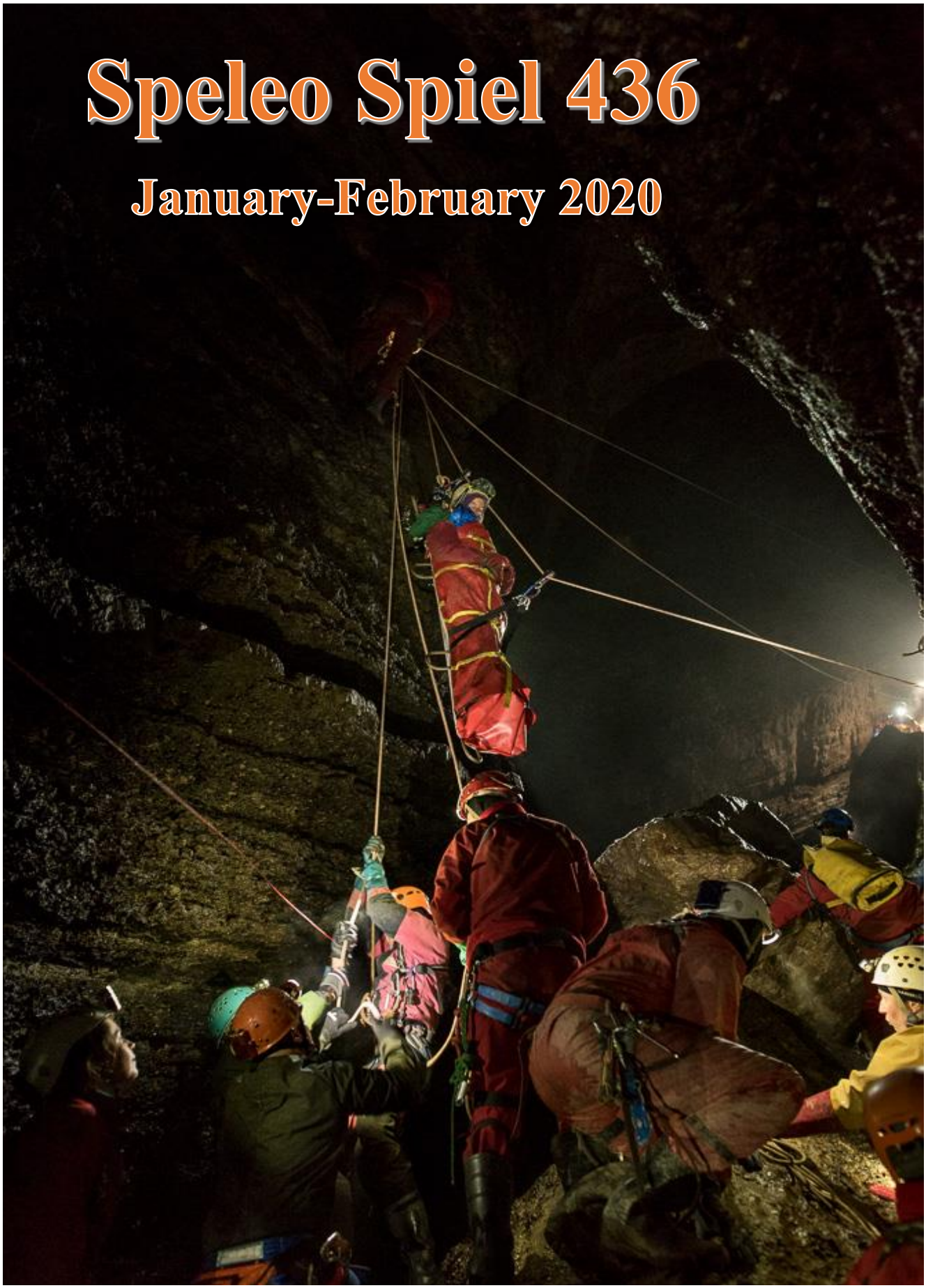
Speleo Spiel 436

January-February 2020



Newsletter of Southern Tasmanian Caverneers Inc. ISSN 2208-1348

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Front Cover: *Still life; The stretcher takes flight.*

Cave Rescue Exercise, Growling Swallet

Photo: Richard Bugg

Back Cover: *Some people will go to extraordinary lengths to keep dry feet.*

Cave Rescue Exercise, Growling Swallet

Photo: Richard Bugg

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.

Speleo Spiel

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Issue No. 436, January-February 2020

Contents

Editorial

Welcome to 2020, dear reader. Unfortunately, it hasn't started off well for the caving areas on the mainland with these horrendous bushfires causing havoc and devastation. The ASF Facebook page and group have been keeping us all updated and providing links for more detailed reading, and links to donate if you so desire.

Caving in southern Tasmania has been very active over the last few months, to which the plentiful supply of trip reports in this issue attest. Again, not all trips have been recorded here but hopefully trip reports for the missing will appear in the editor's inbox at some future date. I have addressed this before and so I won't bang on about it again now.

I am delighted to be able to include a report from our European correspondents on caving in Belgium. Any report by Tony Veness is an entertaining read.

This is my last *Spiel* as editor. I am sorry to hand over control but 2020 for me is very busy, with at least four out-of-state trips of multi-weeks, and I cannot guarantee that I will be able to produce some of this year's issues on time. So for the benefit of the magazine I feel I must give it to someone more time-reliable. I am very sad to pass this job on as I have thoroughly enjoyed the last 3 years as *Spiel* editor, and I have even gained some new skills. However, I know the next editor will do a brilliant job. I hope he enjoys the job as much as I did.

Finally, I do want to take this last opportunity to thank those who have written trip reports and articles diligently whilst I have been editor. They are appreciated by us all.

Stuff 'n' Stuff

- The massive bushfires raging across the mainland are the major news focus as I put this column together. It is as tragic from a caver's perspective as everyone else's. Many caving areas in NSW have been devastated by these fires. The caver's hut at Jenolan is gone. Not luckily but due to a massive effort by firefighters Caves House at Jenolan was saved. Also, with similar heroic efforts, the homestead, Homeleigh, at Buchan was saved, for the moment at least. Likewise Wombeyan, and also Yagby, but the rest of Kosciusko was burnt. Other areas did not fare so well. A more detailed report of the situation can be found on the ASF facebook group page: *https://tinyurl.com/yeou88eb*

Caves House, Jenolan, 4 January 2020

Photo: ABC News

Jenolan caver's hut remains

Photo: Graham Cummings

- On a more cheerful note, the 2020 Australian Cave Animal of the Year was launched at Alan Jackson's house on the Sunday clean-up day after the STC Annual Cave Rescue exercise. Cathie Plowman and her team have done a magnificent effort again. The animal this year is the cave cricket. Sil Iannello recited a wonderful poem that she had written about the cave cricket for the occasion. The Facebook page can be found here: *https://tinyurl.com/yfgxnj5v*

Left to right: Cathie Plowman (coordinator) Kelly Eijdenberg (graphic designer), Sam Lyne (illustrator) and Sil Iannello (cave ecologist) launch the 2020 Australian Cave Animal of the Year

Photo: Gabriel Kinzler

What a cake! Photo: Kelly Eijdenberg

Trip Reports

Our European correspondent's report: - Ed

Caving Days

Speleologische Dagen (NL), Fête des Spèlèos (FR)

Bernardfagne – Ferriès, Belgium.

20-22 September 2019

Jane Pulford and Tony Veness

Party: Tony Veness & Jane Pulford (and a cast of Dutch\Flemish speaking, Dutch and Belgium cavers)

Another year and another 250 km drive south from STC's EU bolt-hole in The Hague (NL) to Belgium.

The annual weekend get-together for Dutch and Belgium cavers was hosted in a middle (secondary) school located a few kilometres south of Xhoris in Eastern Belgium. Think Harry Potter's Hogwarts but with more concrete Madonnas, cold showers and crumbling stonework. A perfect base for a hundred cavers to bunk down in classrooms or camp on the oval.

Apart from over-eating and sampling Belgium beers at every opportunity, the weekend was full of caving activities. Saturday was reserved for exploring local caves whilst a series of parallel presentations were planned for Sunday AM, prior to a caver's Sunday lunch (and more beer). Local cave-related companies set up shop in the school canteen; flogging off new kit, 1001 books and providing an opportunity to grab flyers for future cave-related get-togethers worldwide. A small traveling museum run by a club member presented the evolution of SRT metalwork over the last 50+ years. Some kit very familiar, such as Petzl Simples. Some elderly kit looked more suitable for medical procedures than caving and perhaps best long forgotten. No whaletails (*Thank God. They bring back bad memories for me – Ed)*.

Some museum pieces Photo: Tony Veness

A dozen caves of varying wetness, mud quality and driving distance were open for exploration. A Saturday AM roll call (based on how early you registered for the weekend) gave the opportunity to select the cave(s) to visit, prior to meeting the guide after breakfast. We ended up on the list of a dozen cavers to visit *Grotte de la Fontaine de Rivière*.

After a short drive in a convoy of assorted Renaults, Audis and Citroens, we met our guide near the village of Sy, handed over the obligatory few bottles of beer as payment and away we went. We were scrambling through a breadbox-sized gated tube and into the cave after a 15 minute walk along a long-distance footpath, past sundry cows and weekend dog walkers

Entrance to Grotte de la Fontaine de Rivière. It may sport Belgium's biggest underground lake but the entrance is a tad inauspicious. Photo: Tony Veness

Grotte de la Fontaine de Rivière sports the largest known underground lake in Belgium and had been largely rigged for our visit.

Some ups, some downs and even some sideways action on ropes and anchors of a cornucopia of quality and age. Best not to shine the Scurion too closely or for too long on what you are hanging off.

All good fun and after resurfacing four hours later the local pub terrace served as a half way stop between casual carpark beers and more serious Saturday night beers back at the school.

They do love their tyrolean's in Europe. Anything to keep the feet dry. Photo: Tony Veness

The Sunday AM talks were excellent (assuming you understood the language of choice) and provided a good overview of sundry ongoing mapping efforts, photographic techniques and developments in new kit. The weather behaved and the caver's Sunday lunch was moved outdoors under blue skies. No hats or sunscreen needed in September in Europe though some ant-wasp spray would have been handy.

All in all a grand weekend out.

More fun rigging ropes to keep those tootsies dry

Photo: Tony Veness

This one's just for fun.

One of the member's caving cars, if I can believe Tony. Knowing his sense of humour, I have my doubts! Mind you, those Europeans can be quirky

Photo: Tony Veness

JF-29 Niagara Pot

29 September 2019

David Rueda-Roca

Party: David Bardi, David Rueda-Roca, Sandy Varin

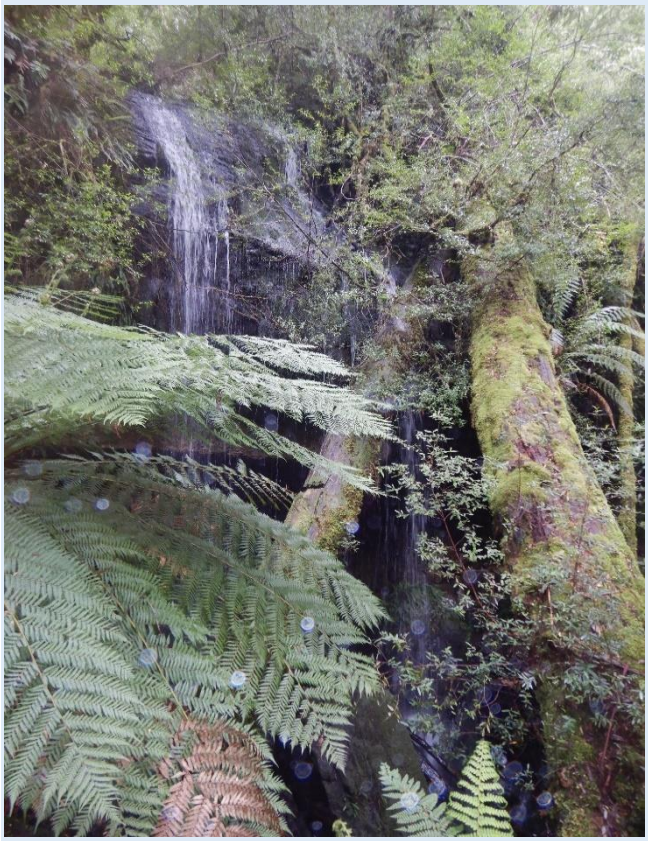
On the 29th of September, Sandy Varin, David Bardi and I were looking for the cave JF-2 called Cauldron Pot, as we got the recommendation from Stefan Eberhard to visit it. Previously to the trip, I did some research about the location and rigging of the cave with the help of Janine and Ric. Sandy, David and I prepared everything to rig the cave as per the instructions.

On Saturday, we reached the Khazad-Dum carpark and started to walk. Everything was going well till we reached the first turn to the right from the way to Khazad-Dum (KD). Well, here is where the old descriptions of the way to Cauldron Pot is not updated *(this is what can happen when you get your directions, and any other information for that matter, from a book printed in 1984 and not updated and reprinted since – Ed)*. In accordance with the publication, the way to Cauldron Pot is the first turn to the right. We went down to a gully following some faded and loose tapes and then we turned again to the right through a dense and not very open bush. It was hard to be able to follow the track, as there were some fallen trees in the way, and the vegetation was quite thick. Anyway, taking into account Sandy´s ability to see tapes in the trees in the same way that Predator (the movie) can see humans in the jungle, we continued along the track. We were surprised that a so well-visited cave, like Cauldron Pot, had a so poorly maintained track, but we could hear water falling (although sometimes wonder if that noise was just the wind moving the branches of the trees) and we knew that the most attractive part of Cauldron Pot is the big entrance waterfall. In the same way as the kids of the Hamelin flute player, I followed the noise of the waterfall, while Sandy and David had more common sense and tried to follow the track tapes. At the end, the three of us reached the same spot, this is the waterfall. However, this time the waterfall was not so big and the cave entrance description was completely different to what was in the trip reports.

Obviously, we had reached a different cave than the one that we were looking for. We found the cave tag and we read that that cave was JF-29. We knew that Cauldron Pot was JF-2, so we missed the cave that we wanted to visit. After looking around a little bit, we walked the way back and decided to go back to Maydena that day. Anyway, we had used most of the day clearing the way to JF-29.

The following day, we decided to walk the track to KD again, but not turning to the right at the first possible turn, this is where we turned the previous day. We continued a little bit more and we turned to the right at the second taped turn. This time the track was more opened and used than the one that we followed the previous day. After crossing a gully, the track continued and faded a little bit (there were some small recent fallen trees), but, not far way, it reached the magnificent waterfall of Cauldron Pot. Sandy rigged the first pitch and we abseiled it. The water spray, at the bottom of the pitch, was nice and refreshing. We spent some time trying to find the continuation of the cave. Soon, we discovered that the trick is not to follow the water stream and

to follow an obvious cairn that gets you into the infamous Bill´s Bypass. We went a little bit down through the bypass, when my PVC suit broke into parts due to the spikes that cover the walls of this vertical and narrow passage. After Sandy and David found the next anchor point at the top of the next pitch, we decided to come back to the car. It was Sunday and our flights back to the Mainland were still on time. Everyone knows how nervous I become just 12 hours before their departure time…



Niagara Pot entrance waterfall. Photo: David Rueda-Roca

After cleaning the ropes and gear at Alan Jackson´s place, we asked him about this JF-29 cave. We explained to him what had happened to us and what we had discovered and he laughed telling us that it was Niagara Pot. He explained to us that this cave had a big potential of being connected to JF-341. He also indicated that Jeff Butt already changed the track to the cave. The original track used to go through Cauldron Pot first. Jeff realised that it was silly to go to Cauldron Pot to go to Niagara Pot and therefore he decided to find a more direct way to the cave. This more direct way was the one that we followed by mistake the first day. Actually, one of the tapes on the track to Khazad-Dum at the turnoff to Niagara Pot (NP) has the words NP written on it (*yes, you only had to ask for directions – Ed)*.

So, the conclusion of this trip was that we had found an old forgotten cave *(not forgotten, just not bothered with for a couple of decades – Ed)* in this area that has not been visited by people since almost twenty years and that has the potential to reach JF-341. This cave was Niagara Pot!

As we had finished our explorations in JF-341 and we wanted to start something different, we considered that NP could be a good project to move on to. This time, however, I wanted to extend the project apart from exploration into a complete re-survey of the cave, as the existing map of this cave can be remarkably improved.

H-11 Big Mama – The Hastings Saga continues

17 October 2019

Gabriel Kinzler

Party: Rolan Eberhard, Gabriel Kinzler, Chris Sharples

Action in Hastings finally resumed after a hiatus of several months, with Rolan keen to check the bone potential of H-11 and the rest of us eager to finally push our leads.

First item on the agenda was to nail the rigging of the entrance once and for all. Our initial setup wasn't optimal, with a couple of rubs on both pitches. I was hoping Rolan could provide valuable input and indeed he delivered. He immediately saw the advantage of moving the first pitch to a different location inside the doline, directly above the existing rebelay at the bottom of the original first pitch, thus bypassing the standing platform at that level. I had thought about that solution months ago but got discouraged by the existing vegetation in the way. That didn't stop him, however, and after moving a bunch of dead sticks and ferns, we proceeded into the abyss behind him.

Rolan immediately got busy preserving skeletons, laying down string line around delicate sediments throughout the main chamber and observing various bones sticking out of rocks (*a man in his element – Ed)*, while Chris started digging his way through the low tunnel at the bottom of the chamber (open lead #1 of 4). Meanwhile, standing at the back wall of the chamber atop the big talus slope, I installed a rope going down the ~5 m pitch into the rock pile (open lead #2 of 4). Two rebelays lower and sideways, a further 3 m pitch leads to a squeezy sinkhole that appears to be terminal, but in fact widens again very quickly. Lucky break. A bit of navigation through a boulder maze filled with more perished animals takes you downwards to a succession of progressively bigger chambers containing increasingly pretty decorations. On the way there, an intersection also leads to a big (20+ m) draughty aven.

Rolan into the talus pitch (yes, we're playing "where's Rolan" – Ed), below the yet to climb shaft in background

Photo: Gabriel Kinzler

Having caught up with Chris (whose muddy crawl crapped out) and Rolan (who'd finished his palaeontology work), I invited them to come down and have a quick look.

The final room reached on that day notably features a very nice false floor surrounded by a piece of flowstone drapery unlike any I've seen before.

Pictures and name pending, but I suggested "Handkerchief" chamber, while Chris came up with "Snot-Rag"; differences in class… In the meantime, ferret Rolan disappeared up and around another rock pile and theorised there might be more passage following a rift. To be checked next time.

We left the cave rigged for a future trip to survey the new sections and check the other two open leads in the main chamber. It is to be noted that upon arrival at the cave that day, I found a possible third entrance higher up the doline. If my instinct is correct, the new lower steep gradient in conjunction with that higher entrance might very well help us establish a new depth record in the Hastings karst, hopefully breaking the 100 m barrier (previous record: 76 m). But the upcoming survey will be the final arbiter.

The lower part of Handkerchief Chamber

Photo: Gabriel Kinzler

JF-29 Niagara Pot

Bolting trip

26 and 27 October 2019

David Rueda-Roca

Party: David Bardi, David Rueda-Roca, Sandy Varin

On the 26th of October, we were committed to start the bolting, rigging and exploration of Niagara Pot (NP). I sent an email to Alan Jackson with the relationship of the ropes and gear that we needed for our adventure, in order to pick it up the same day we arrived in Hobart.

As usual, we drove to Maydena on Friday evening and we were committed to give a big push the next day. Our excitation started to disappear when we realised on Saturday morning that we had forgotten the Junee Quarry Rd key at Alan's place in Hobart. We drove back to Hobart and we discovered that Alan was not at home, so we had to go into the STC shed by ourselves and find the road key. Afterwards we drove back to Junee Quarry road and walked to NP.

When we arrived at NP, it was almost midday. Anyway, we decided to continue with our plans and to start bolting. When we divided the bolting and rigging gear among the three of us at the cave entrance, David realised that my concrete screws were quite long. Based on my experience with bolting in sandstone, I decided to change the specified 60 mm long concrete screws to 100 mm long ones, for safety reasons. Well, this safety decision was not a very good idea, as we would discover quite soon.

It had been raining a lot and we could see the NP waterfall in full power falling onto the boulders that create the NP entrance. That meant that in order to access the cave we had to go through a water curtain. As soon as we started drilling the holes for the bolts, we discovered that we would need ages to bolt the cave with these 100 mm long bolts. Actually, considering that JF-29 was so close to JF-341 and considering also that the bolts were so long, I could even imagine them appearing on the other side of the wall, this is into one of JF-341 chambers once we have bolted them in JF-29…

We bolted three of the bolts for the first pitch, rigged one rope, abseiled the pitch and progressed through the cave. We did not know the way on (despite the maps from the STC library). So, we explored any single hole we found and discovered by accident a new pitch that was not in the records or maps of this cave. We decided to come back to Maydena to rest a little bit and to come back the following day.

On Sunday, we came back to the cave and found the continuation to the rest of the cave, in accordance with the records. After squeezing a little bit here and there, we found the second pitch. We bolted three more bolts for this second pitch (it took us ages again due to the ridiculous length of my "safety" bolts) and from there I decided to descend this second pitch. At the start, I could see that the pitch was wet, as it had a waterfall, but I thought that I could avoid it on the way down. What a mistake! Two meters after starting the abseil, I received a complete and powerful shower of frozen water. I was lucky to be wearing my wetsuit hoodie that helped me with the cold and frozen water *(It's called **Niagara** Pot for a reason – Ed)*.

First two anchor points on the second pitch

Photo: David Rueda-Roca

From the bottom of the pitch I looked for the continuation of the cave and I could see how the water stream went through one way (right looking downstream) and the human

continuation through another one (restriction). Sandy shouted to me from the top. I could hardly hear her. She made the call to finish the trip and I decided to prusik up the pitch. As soon as I started prusiking up, a frozen and heavy wet hand (the waterfall water) pushed me down and started freezing my head. I even got a slight headache that disappeared when I reached the top. I had to prusik with closed eyes, like I did at Satans Lair two years ago.

We realised that the pitch needed a fourth bolt somewhere to avoid the waterfall. We decided to come back to the car and not to lose our flights back to the Mainland

H-11 Big Mama – Push & Survey Trip

14 November 2019

Gabriel Kinzler

Party: Serena Benjamin, Gabriel Kinzler

Serena and I went back to survey the new section and push a little. Hot Springs Creek was the highest we had ever seen it, so much so that we had to avoid it entirely. Nevertheless, that didn't stop us from reaching the cave in one hour (instead of the usual 1,5-hour peregrination), while getting back to the car was achieved in a rapid 45 minutes, which made the cave entrance feel much more accessible than in the past.

For the first time since we started visiting, the old first pitch had turned into a nice little waterfall, which comforted us in our decision to re-rig it sideways last time around. We also chose not to disturb the pile of debris (mostly medium-sized logs) on the way down as had been previously suggested, because of the risk of damage to the rope, but also because it can easily be skirted over without creating any drama, by way of vigilance.

I wonder what was so amusing? Or maybe Serena is just having that much fun. Photo: Gabriel Kinzler

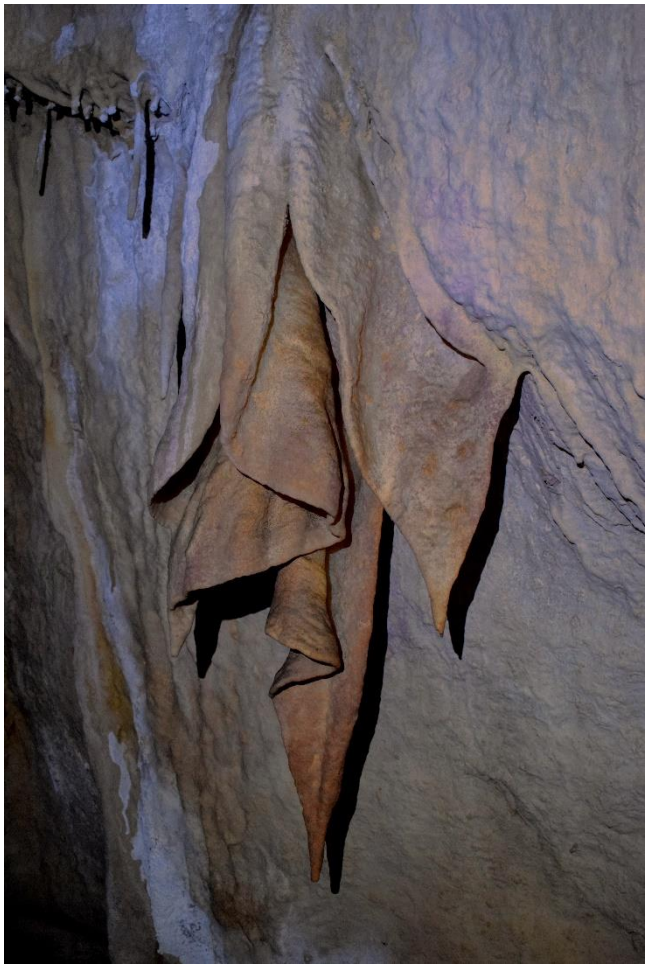
We quickly made our way to Handkerchief Chamber and after some omnidirectional pushing that wasn't particularly fruitful, we started surveying back to the Main Chamber.

Distraction being our specialty, Serena shot up a lead situated at a distinct four-way intersection, which is so draughty Serena spoke of a "blowing gale".

I had only briefly looked at it, noting the potential, but she found a lot more in both fossil and live passage, including a "centerpiece" room with crusty stals and very long straws, an extensive vadose corridor (named Slice'n'Dice) passing through some delightful flowstone decorations with its prominent drapery blade (The Guillotine) almost blocking the way and making for a giggle-inducing work-around, and three separate avens with forceful draughts. Additionally, several pitches were noted for future appraisal.

In the meantime, the survey confirmed what I had feared: the new section seems to be only marginally deeper than the previously deepest point in the cave, because it is reached partly by ascending slopes before it plunges again. Therefore, the 76 m depth record in Hastings hasn't officially been beaten yet. But my chin is up, as I have more than one trick up my sleeve (*depth junkie – Ed*).

Big Mama still has a lot to offer, but progress is slow: despite its unique character and great promise, time and pluripotent motivation is hard to come by these days. We'll get there.



Plenty of pretties in H-11. Photo: Gabriel Kinzler

JF-221 Owl Pot Sump Checkout

29 November 2019

Stephen Fordyce

Party: Stephanie Blake, Chris Edwards, Stephen Fordyce, David Mansueto, Liz McCutcheon, Andrew Stempel, Dan Treacy, Thomas Varga

I'd recently realised that Owl Pot had a sump at the bottom, one which had been thoroughly felt-up by Janine (see *Speleo Spiel* 403) but not actually seen to be believed (i.e. Undived).

If you're interested in Owl Pot, *SS* 329 has notes on rigging, and *SS* 355 and *SS* 356 are useful for the latest discoveries by Alan and co. It's P-hangered, and a nice cave, an easy daytrip by Tassie caving standards (a minor epic by mainland standards).

A bunch of fellow keen mainlanders were up for the challenge of Owl Pot and an introduction to Tassie caving the day before the rescue exercise, so a large but fun party of 8 made a day of it. LizMacca did an admirable job of rigging, although buggered if any of us could find the natural thread for a rebelay on the first proper pitch, and much time was wasted jamming knotted tape into improbable places and seeing it slip out.

We eventually trickled (haha) down to the base of the waterfall – boy was I impressed at the size of the stream here. It made me even more tingly in anticipation of the sump (having enough water to keep them clear seems to be a useful feature of passable sumps in the JF). The final route finding from the base of the waterfall to the sump was a surprising challenge, but the key was to stay high above the rockpile. The sump is accessed from a side passage which from a nice flat gearing up area slides about 4 m down a 45-degree slippery mud slope (against an equally sloping rock ceiling about 40 cm away) to a dubious still pool 2 m long by 30 cm

At the upstream end of the sump pool, the entering stream could be seen entering via an adjacent squeezey-slope – perhaps the pool is deeper or more open there. The mud is deep and marked vertically, rather than scoured horizontally, indicating the main flow does not rocket through this way, and hopefully there is a flat/open underwater passage running parallel at the base of the slope, if it can be accessed (Janine reported that the pool felt like pinching out at about 1 m depth). This is very similar to a section ("The Pencil Passage" dry chamber mid-way along Sump D9) of Elk River Cave in Victoria, which I was able to push through, so fingers crossed.

My instinct is to go close to where the stream flows into the pool and try going down from there.

The dive mask, snorkel and GoPro we brought proved pretty useless, as cascading mud from getting down the slope more or less obliterated the visibility (and I very nearly went for an accidental swim). However seeing the lay of the land, I'm keen to try a dive, although it will be very difficult, and require much cunning – it will probably be tight, there will be fractions of sections to see the way on, and the current will carry silt ahead very quickly. This dive is scheduled for early February, with 7L steel tanks and a wetsuit for most streamlined and fast configuration. I wasn't keen on replicating Janine's full body immersion feel-around, but instead spent some time civil engineering the area, to make dive entry possible while preserving the visibility next time – fingers crossed (*engineers think differently to the rest of us, not that Steve's excavation/construction approach doesn't sound a lot more pleasant than mine was – Ed).*

The mainlanders all did well, spending about 9 hours underground, and getting themselves out and de-rigging without too much complaining, and then managed a big day in Growling Swallet for the rescue exercise. They will be back...

STC Annual cave rescue exercise

30 November 2019

Janine McKinnon

Party: A cast of about 50, from all over Oz.

What an ambitious plan Alan Jackson had cooked up for this year's rescue practice. We would attempt to move a casualty in a stretcher from just upstream of The Keyhole in the Growling Swallet main streamway to the start of the Dry Bypass.

I must admit my scepticism, despite the large contingent of enthusiastic cavers from around the country assembled to perform this task. There were many lifts to be rigged, some quite challenging, and I thought we would not be able to complete the task in a day, despite seven teams spread along the route simultaneously rigging their patches of cave.

Alan was as organised as one has come to expect of him. Getting everyone to the 8-road carpark and ready to go had been planned, as well as the rest of the day (and you can take out the comma for the equally valid alternate meaning). This itself was no simple task with so many cavers, limited parking space, and many not being locals and thus needing transport, accommodation for the weekend etc.

At the pre-trip briefing laminated A4 sheets with each team's area of cave were handed out, and general organisation for the day explained. Then we all headed for the entrance, around 10 am, signing in with the surface support crew as we arrived at the cave. A massive traffic jam quickly ensued. My team (heading for Glowworm Chamber) was stuck about two thirds of the way back in the queue, and we spent more than an hour in the entrance series going nowhere. We eventually made it to our tasked area about 2 hours after entering the cave, one and a half of those hours spent waiting for others ahead of us to move.

Once on-site we quickly got to task assessing how we would rig the three lifts that were our responsibility. Well, one lift and two traverses really.

I was team leader and only had one team member that I knew as a caver (I knew one other as a cave diver), luckily for me that was Damian Bidgood, the Tasmanian Police Search and Rescue Sergeant. His advice on rigging was invaluable.

We took a couple (many?) hours to get all our bits sorted, with all team members involved in discussing rigging points, placing concrete screws, rigging the ropes and testing our rigging was fit for purpose.

Several visits were made by Alan cruising past and checking how things were going, providing some extra gear that we needed, giving rigging advice and generally providing oversight of the whole operation.

Once all teams were ready, then the patient movement began. Many hands were needed for the stretcher-carries along the flat streamway, and those of us several stations ahead moved forward to help with this. The process moved smoothly and efficiently. The lift from the bottom of Glowworm Chamber to the top was very impressive, some photos are included in this issue.

As the patient passed the first two rigging groups we started dismantling the rigging and bringing the gear out.

The whole removal of the patient took about four hours. Another hour or so saw the last of the gear de-rigged and removed from the cave.

All teams were back at the carpark by 12:30 am on 31 November.

This was the most successful and technical rescue practice we have achieved. The time taken to rig so many lifts and traverses was the quickest we have ever done. Annual practice rescues are definitely vastly improving our skills and confidence. They are well worth the effort involved.

JF-237 Niggly Cave – Onwards and Upwards

12-15 December 2019

Alan Jackson

Party: Ben Armstrong, David Butler, Stephen Fordyce, Alan Jackson, Gabriel Kinzler, Martyna Michalska

The team. Photo: Martyna Michalska

Always more to do in Niggly. We had a few new faces in Dave (Northern Caverneers) and Martyna (visiting Polish caver) and Ben had been AWOL from Niggly for quite a while. It was a fun bunch. Four headed in early on the 12th and did some surveying near camp (Pissoir Streamway, I think) while Martyna and I did the late shift, arriving at camp in time for bed.

The 13th saw Steve heading off for a dive mission towards Porcupine/Coelacanth. It proved a success in many ways but he can report on that separately. The rest of us headed over the tyrolean to start mopping up leads. Gabriel and Ben started aid climbing what would become Psychopomp (see Ben's trip report in this issue) while Dave, Martyna and I tidied up a job that had been left undone for 12 months – surveying of the short bit of lower level active stream passage paralleling Atlantis from the junction with the Pool Of Promise passage/water. Only 40 m or so but nice to finally tick it off.

After a quick look in stage 1 of Psychopomp all five of us headed into Gotcha and beyond. The undescended pitch in the upper levels of Wish You Were Here (near White Woman) needed doing. What ensued was quite entertaining. Gabriel started bolting the main drop/lead while the rest of us relaxed. Ben went and had a look at the alternative climb/pitch a few metres back from the main drop and reported the first bit was easy, the second bit needed a rope but that it looked terminal and not worth the effort. After my lunch I checked it out and decided the last bit was climbable. Initially it looked like it would crap out until I noticed a hole back under the climb, through which I could clearly hear Gabriel drilling away. I ducked under and came out on a balcony part way down the other pitch. Gabriel was fuming at my overtaking manoeuvre (*competitive caving is still alive and well in STC – Ed)*. I could down climb the next several metres to the broad ledge a few metres off the floor proper. From here I could duck back under myself again into a small chamber with a narrow slot in the floor which had the water from the aven/pitch flowing through it. It all got too tight.

Once Gabriel joined me on the ledge we used the rope to get down the last few metres to check there was nothing hidden down there but it was as expected (water flowing into a tiny slot which ran towards the dead end chamber I'd inspected moments before). We surveyed out (main pitch and dead-end chamber only, not the climb access) and called this area done. The survey data later confirmed that this water is almost certainly the water which I intercepted briefly on the trip with Rolan and Gabriel earlier in the year (Wish You Were Here day).

We derigged this pitch (Overtaking Manoeuvre) and the next one. We had bit of a push in the two rock fall leads at the opposite end of this upper level chamber and didn't make it all that far. Ben and Gabriel also had a quick dig in the Flapper but declared it dead after a short period. We flailed back to camp, moderately exhausted.

One happy-looking camper. Photo: Gabriel Kinzler

The 14th we had Steve join the 'dry' ranks. Gabriel and Ben tackled stage 2 of Psychopomp while the rest of us headed back into Gotcha. Steve poked his head into Gallantry Sump with a dive mask on and declared it even worse than the Go Pro had suggested previously – not a good prospect for a dive. We then decided The Gurgler was worth another poke if for no better reason than to get a little bit further than Gabriel did on his previous trip with Serena. It was pretty bloody awful (thrutching up high in a tight lubricated rift with almost-certain wedging the result of slipping to the lower level). I reached the limit of exploration and questioned my sanity. Turns out I'm mad, so pushed on. The left wall proved to have a ~30 cm layer of laminated plastic sediments which came off pretty easily so I machine my way forward a few metres to another localised 'wide' spot. By now we were a good 4 m above the base stream level. It was wide up higher so Steve overtook me and had a go, getting a few more metres (across and up). It could be pushed further but now needs a bolt and a rope as it widens again and looks unclimbable back down to the stream. It looks like it narrows

again straight away but you never know till you go. It's back on the 'maybe' lead list.

On our way out I joined the Psychopompers and surveyed their interesting finds. The others returned to camp and did some tidy up surveys of minor bits and pieces in that vicinity.

The 15th was going home day. I filled in the time waiting for slow prusikers by drilling holes for the impending p-hanger installations.

It wasn't the most productive trip in terms of metres surveyed (something like 800 m all up) but it was productive in the sense that several leads and jobs were ticked off the list. Hopefully the end is nigh?

JF-237 Niggly Cave: Psychopomp

12-15 December 2019

Ben Armstrong

Early on day two Alan showed Gabriel and me one of the remaining leads in Atlantis. He described the ease in which we'd be able to free climb to a comfortable ledge, before stepping leisurely across into the new passage which opened tantalisingly 8 m above the floor *(ah, the gullibility of the young – Ed)*. Gabriel cajoled me into leading the climb, so armed with his drill (which possibly had an undersized bit), bolting gear, sky-hooks and assorted cumbersome paraphernalia, I surmounted a big detached block and started drilling. I had a lot of difficulty getting the bolts in but assumed this was due to general ineptitude. The climbing was not quite as easy or free as I had been led to believe, but four shallowly placed bolts (and one dubious DBZ) later, I was standing in the new passage. I rigged a pitch and the others came up.

The passage went about 15 m then dropped over an awkward mud wall (which is now equipped with an etrier), took a right turn up a tricky climb, then ended in an aven.

Alan scrambled part of the way up this aven to a point where he thought another short aid climb could access a continuation above. We left it for later and proceeded on to other business.

After the aborted tourist trip to Mother of God on day three, Gabriel and I headed back to the potential climb. I tried to repeat the unprotected scramble to Alan's highpoint, but baulked at the last few meters of non-trivial and disturbingly exposed chimneying. Gabriel made an attempt and fared no better. Alan (who had dropped by to visit on his way to somewhere else) rightly abused us for being useless, climbed it and put a rope up. He had a similar struggle getting the bolt in but was slightly less reluctant to blame his tools. Alan left and we headed up. Gabriel put me on belay and I placed a bolt, stepped in an etrier and made a precarious mantle onto a huge chockstone that was wedged airily across the aven. I looked back and noticed that the quickdraw (my only protection) had somehow unclipped itself from the rope, meaning a fall would result in a horror factor 1 pendulum, which would have splatted me into the wall (assuming Gabriel's thighs of steel were strong enough to hold my fall, and if not, the single bolt that he was attached to didn't pull out). After traversing the chockstone, the continuation Alan had seen was easily gained and I rigged the aven as a 10-ish metre pitch.

Gabriel seconded across and we pushed excitedly up the passage, which ascended steadily upwards through rockpile with some squeezes and climbs (the trickiest of which now has an etrier). I popped out into a large black space, which (with very depleted headlamp batteries) seemed like it was definitely going to be Mother of God #2. Further exploration revealed this was slightly optimistic, but it still had a series of fairly impressive 50+ m high avens.

We continued steeply upwards across the base of these avens until it terminated in rockpile. On the way back, we found a rift passage that ran in a similar direction to the way we had come. We returned to the bottom of the pitch and waited for Alan to return with survey gear.

Alan returned and we surveyed the new discoveries. I decided to call it "Pyschopomp" (an entity who guides souls to the afterlife), for no particular reason. We pushed the rift passage to a short drop, which Alan enthusiastically jumped down. He reported that it continued in a promising fashion (heading vaguely down towards Red Rocket's Revenge/Ninja). Given that Alan had some considerable difficulties climbing back up, we figured it would be sensible to come back and rig it as a pitch.

All up we found 300+ m of new stuff, which ascended 100+ m of vertical from Atlantis.

JF-237 Niggly Aborted Bossland Dive

13 December 2019

Stephen Fordyce

All photos by Stephen Fordyce

Introduction

It seems like the rest of the December 2019 Niggly trip has been covered in other reports (with the possible exception of a Gabriel-led survey/sketch attempt of the Pissoir Streamway). Here is my account of the 15-odd hours I spent on the dive push, on the auspicious day of Friday the 13th.

This was a much-anticipated dive – having been on the cards since the discovery of a bypass to the Business Class Lounge on the Niggly/Growling Swallet connection trip in May 2019. Our previous attempt at the dive was aborted due to high water levels, and indeed this trip we were lucky to pick the correct day.

A full reel and beckoning tunnel

The dive gave the opportunity to extend the upstream reaches of Niggly, which was making a beeline for a point where Living Fossils in Growling Swallet, and the downstream end of Porcupine Pot might conceivably come together. The distance to this point was a potentially achievable 500 m.

Getting Back to Bossland

Thursday afternoon I had spent prepping and setting up all the dive gear at the DIY Sump, so minimal faffing was required and maximum time could be spent pushing the cave on Friday. After some contemplation, I did the push dive in a wetsuit towing a caving bag containing food, a water bladder (for the likely possibility I would be overheating up in a dry rockpile), dry survey kit in a drytube, a crowbar and a length of rope – all under the assumption the cave would go dry. Turns out I was right, and all the items were put to good use!

Gear on and gear off and much linework was required

I left camp about 9 am and started to make the now familiar dive through the DIY Sump (sump 1). My dive computer records the DIY Sump dive start time at 10:46 am – I'm a bit shocked that I faffed for that long, but maybe 9 am is incorrect... However the DIY Sump guideline was broken near the start, and being a little sceptical of the thin white line under JF conditions, I replaced all of it with 3 mm orange line from my primary push reel, hoping I wouldn't regret this later (I had about 500 m of guideline for the push, optimistic even by my standards).

The traverse up and over the short dry section to the Lateral Hire Sump (sump 2), then through the Bossland streamway passage were straightforward although time-consuming with taking kit off and transporting it in pieces for each dry section. Eventually, I began my Bossland Sump (sump 3) dive at about midday – doesn't time fly, etc.

The Push Dive

The visibility was 3-5 m – it was enough to find the way on

The Bossland Sump turned out to be short, with a surveyed length of 25 m, and shallow (my dive computer did not register the depth), low but open and fairly clean, with no serious restrictions. A short section of knee deep streamway passage was negotiated (with tanks off) and another dive encountered – I submerged here at 12:40 pm. This 4th sump was similar in character but a little more serious, with a surveyed length of 60 m, and a maximum depth of 3.7 m. A good-sized airbell with a large rock fallen out of the ceiling in the middle broke up the dive, and also provided a moderate restriction/line trap to negotiate on the far side. This was later named the "Bin Juice Sump" (sump 4).

A classic in-sump pile of organic matter and anaspides

A classic JF current against gravity slope. Loose gravel at angle of repose on the floor, roof steps on the ceiling. Fortunately at this point, there seems to be enough flow to keep the passage open.

The Bin Juice Sump airbell

Surfacing from the Bin Juice Sump, I was in large streamway passage with shallow water flowing over gentle rapids – it seemed that the sumps were over, at least for now. The passage was clean, square, without breakdown, and the roof sloped up to give impressive proportions of 5 m x 5 m. But all too soon (60 m from the dive line tie-off), the lovely passage ended in mud-encrusted rockpile with the stream squirting through the base of it. The rest of the days pushing efforts would be spent crawling through mud and squalor. In honour of the Ibis Song ("A Song About Birds - https://www.youtube.com/watch?v=mO-OpFjHRbE) which has been a recurring theme for Niggly trips, I named this remote and squalid place the "Bin Chicken Haven". Maybe it's a better alternative for the Ibis than migrating to the giant garbage patch in the Pacific as the song suggests.

The Bin Chicken Haven

I dumped dive gear and reconfigured for dry caving. It was to be a day of overheating in my wetsuit, with occasional interludes of frenzied activity, frustrated swearing, and eyeing of questionable leads.

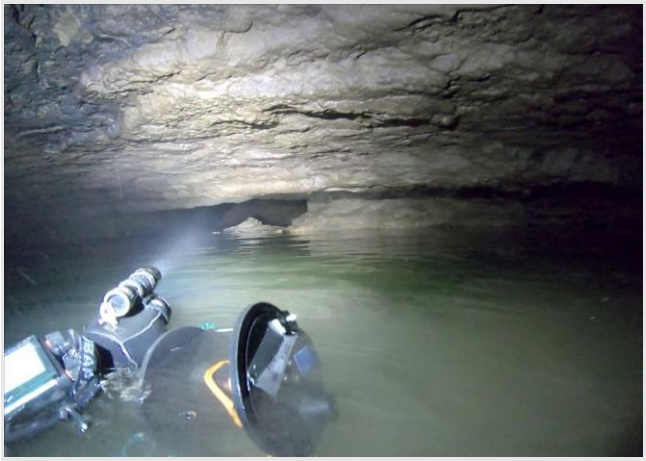
Nice stream passage before hitting the Bin Chicken Haven rockpile

The base of the rockpile had the stream coming out in multiple places, which immediately put me off. I had a couple of looks at the start and end of the day, but it didn't look promising. Above the rockpile was a large upward-sloping void, which could be accessed by carefully kicking steps in steep and exposed mudbanks, giving access to the only leads on the eastern side of the rockpile. These, and the upwards sloping leads, much like the Business Class Lounge, got smaller and smaller until choking out in mud.

Discarded push diving gear, and the bag of dry caving equipment

I retreated a little and found a flood bypass passage on the western side, perhaps 5-10 m above water level and following a solid west wall. With some clean washed rocks, and dimensions big enough to crawl and wriggle through, this seemed promising, and indeed went for what felt like a long way but was surveyed to be a mere 60 m. This main lead ended just as excitement was building – in a dead end, with the water path seeming to be from a slot above. In two places near the end, what might have been a void was seen up through small cracks, but these were at least 80 cm away, through some large rocks that didn't have any obvious chance of moving with anything I had on hand (I tried). Compounding the scariness was being in a small passage with the requirement to move large rocks overhead.

Giving up on this lead, I gingerly got out the dry survey kit and started surveying back, and checked a few other leads going up. Station "BLX5" was labelled with tape, and above this was a sketchy climb leading to a pinching nothing lead. Having expended a lot of energy (both physical and mental) to scale this slippery beast, I was enormously glad of the rope, which I used to get down (retrieve via a short sacrificial section of a knot wedged in a crack, with a loop the other end). Having the forethought to bring a knife to cut it was useful too. This lead is not worth revisiting! I don't remember much of the up lead at BLB16, but that probably just means it wasn't very exciting.



Reel 1 was satisfyingly emptied (re-lining the DIY Sump helped though)

Surveying back, and the return

I was prepared, with a DistoX and miniature phone in a drytube, to do a proper survey, and mentally prepared for it to take a while. Lumping bag, wearing wetsuit and juggling instruments through the squirmy bits took some time, but the job was done. I'd put markers on each end of the dive lines to tie the wet/dry surveys into and that went well. The decision to vacuum seal the phone since it was too small to fit any waterproof case was... questionable, as it made for a tendency for buttons to automatically press themselves – next time, less vacuum! Shear bloody-mindedness got me through that, and the survey gear was painstakingly removed and replaced in the drytube 3 times. I re-did the survey of Bossland and found it disturbingly similar to my previously estimated version.

It was a slow process getting out – each dry section required removal of dive kit, multiple portaging trips and a surveying trip. I put my tanks on and took them off eight times that day! The first return dive (through the Bin Juice Sump) began at 7:31 pm, and the final return dive (through the DIY sump) began at 10:08 pm. Enough motivation was left to break down the dive gear and pack it into caving bags at the sump, before heading back to camp in my wetsuit to arrive just before midnight.

Maybe the song about birds was more apt than we realised: the fully-grown David and Alan feed chicks Gabriel and Martyna. Steve wonders whether he should attempt to feed Ben (out of frame).

Survey Results

About 265 m of new cave was added, and about 80 m of Bossland was surveyed properly. The new cave was very straight, still bee-lining for the projected junction with Living Fossils, but alas still a fair way away. As things currently sit, it's 350 m to the projected junction and 580 m to the nearest point of Living Fossils.

The current state of play: the straight yellow line is the survey I completed on this push. Note the parallel maroon section which is the old estimated survey off Bossland. Niggly is in Maroon (and yellow), Growling Swallet is in light blue. Dissidence and Serendipity are in red and purple respectively.

If anyone ever goes back...

Another dive attempt hasn't been completely written off, but at least for the moment, it seems like the effort required is better spent elsewhere (i.e. Pushing from the Living Fossils side). A second set of eyes, or at least a second look may be all it takes to make a breakthrough – just like in the Business Class Lounge.

I have plenty of archived GoPro footage of the day, and some of the leads. Ask me for it.

Regarding the Bin Chicken Haven:

- In general, my feel is that the top levels are choked with mud, and if there is a way through, it's low enough to be kept clear by normal or flood water.
- Double check and do some hard squeezing at the base of the rockpile where the stream comes out. This worked in the Business Class Lounge.
- Maybe try harder to get back down to stream level in the rockpile.
- I felt like I did a reasonably exhaustive check for leads, but perhaps less so in the downwards direction, where the stream emerges from the rockpile, and in the initial section of crawlway in the rockpile.

The stream emerging from the base of the Bin Chicken Haven rockpile

Dive data

Recording dive data in-situ

This might be useful for anyone else looking to visit the Bin Chicken Haven

- Exposure protection: 7 mm Seatec Semi-Dry, 7 mm hood, 5 mm wetsuit gloves, 5 mm wetsuit boots over wetsuit socks and explorer socks. Coldest place (predictably) was the deepest - the bottom of the DIY sump. I barely felt the cold in the shallows, and had to frequently stop to cool off while pushing dry leads.
- Weights: weightbelt with 6x weights (~1.3 kg each), rigging kit on each cylinder with 4x weights (~1.3 kg each)
- Gas pressures:
  - (Using 2x 9L carbon fibre cylinders)
  - Start: 245bar/205bar

- @Business Class Lounge: 190bar/205bar
- @Bossland: 195bar(?!)/200bar
- @Air bell in Bin Juice Sump: 190bar/195bar
- @Bin Chicken Haven (before return): 190bar/180bar
- End gas: 185bar/95bar
- Note that the left cylinder was deliberately left full so it could be left in the cave and still be useful.

Gallantry Sump Dive Mask Checkout

Alan made a passing comment about this in his trip report. It was good to stick my head into the sump with a mask and actually see what it looked like without GoPro distortion. It was a bit less enticing – still low, wide enough but only just, and with hard ceiling and gravel floor. Would need much grovelling to get through, but a determined diver could probably do it with enough effort. I doubt I'll feel the need to try though.

In case you'd already forgotten, the Gallantry Sump entry is fricken' small!

JF-29 Niagara Pot

Bolting trip

14 December 2019

David Rueda-Roca

Party: David-Stephen Myles, David Rueda-Roca

As Sandy and David had organised some international trips for the beginning of 2020, I have decided to start going to Tasmania alone and do so in the following months. Therefore, I convinced my good friend David-Stephen Myles to come to NP in December 2019 and to help me with the bolting and rigging of the cave: David is an experienced caver and canyoner, amongst many other things. I wanted to organise everything in advance as much as I could. I developed a spreadsheet to request material, ropes, gear, road keys and so on to Alan Jackson in an organised way. I also developed another spreadsheet to review all the gear, clothes, etc. to go caving in Tasmania. David and I purchased extra gear (new bolts, drilling bits, hangers, maillons, etc.) and booked extra bags in our flying tickets to Tasmania for this coming trip.

David had spent the last two weeks canyoning and paragliding in NZ, when I met him at the Sydney airport on our way to Tasmania. However, the trip did not start very well. The weather forecast told us that it had been raining the whole week and that it would be raining the whole weekend too. Anyway, the trip was finally a success, as we will see now.

It had been raining so much that we could hardly leave our rental car at the JF-341 carpark. I had never seen it before, but a water stream was falling through the dirt road at the same time we were walking uphill. We had to walk to the KD carpark and from there to NP with our huge packs (all the gear divided by just two people: 8 ropes, drill, bolting gear, hammer, overalls, caving gear, etc.). We were bending ourselves as much as we could, to be able to carry all the weight of the gear.

As soon as we reached the NP turn, we started adding some tape to the track. As some of you know, I have macular degeneration and therefore I cannot see very well. So, I started to add more tape to the track considering that the way in with daylight can be much easier and visible than the way back at night through that thick bush. Anyway, we added so much tape to the track that I think that no one can get lost now on the way to NP *(excellent work guys; that should last a few years – Ed).* David said that it was brighter than VIVID Sydney!

Once we arrived at the waterfall entrance, we discovered that the waterfall was pumping a lot of water to the boulders of the cave entrance. We prepared all the gear, sorted it and divided between the two of us. We descended to the entrance boulders and turned slightly to the right. We saw the log between the boulders that marks the entrance to the cave. This is the spot where we descended into the darkness, sliding down between the boulders. As it was raining so heavily and it had been raining during the previous days, there was a water curtain there (here is where people usually start getting wet, so it is highly recommended to visit this cave when the weather is dry).

Once inside, we could see water falling from everywhere. We went to the end of the entrance chamber and turned left through a squeeze that is one meter above a ramp, where the water slides down (do not use this ramp in your trips!). We rigged the first pitch setting a previous handline (3 bolts LHS) above a hole to reach the second hole that goes down to the same chamber than the first one and the waterfall ramp *(? You had to be there, maybe, to understand this description! – Ed).*

The first rope (first pitch) that we used (12.5 m) finished one meter above the floor, so we had to land vertically at the spot and to stop abseiling the slope of the chamber. If we had continued abseiling, as the rope finished just one meter above the floor, we would fall to the bottom of the chamber once we had lost the rope through our abseiling gear.

Once there, we continued walking down the chamber and looking for a continuation at the bottom left of it. We decided to ignore the new chamber and pitch that Sandy, David B and I found on our previous trip.

Finally, we found a second chamber that was more like a cove. We followed the water downstream and headed to the left. The water was falling from everywhere, so we tried to go as far to the left in the chamber as we could. After climbing down a small 2 m pitch, we discovered that the continuation of the cave was a little bit of a squeeze but it was fine (other visible continuations before this 2 m pitch

are much narrower, so do not try them if you do not want to get stuck for few minutes). Packs needed to be passed by hand here.

Downstream, we reached the top of a narrow rift (it was high enough to be able to stay in it) with water falling down. This area finished at a waterfall pitch on the left side with water falling into another chamber. This is the second pitch of the official rigging instructions. This is the spot where we finished the rigging in our previous bolting trip in October.

Just before the waterfall the water slid under a rock, we raised our eyes above the rock and we could find two bolts RHS that David B bolted last time. There we rigged a rope that started with a bunny with ears knot and that then was tied into the rope on the left (LHS) to another bolt that was placed by me two months before, just above a waterfall. To avoid the water of the waterfall and to avoid having a frozen shower, as I had in October, David S-M, who is much taller than me and almost taller than Alan Jackson (neither of them play basketball), bolted a fourth bolt on the other side of the chamber wall. From there the abseil could easily avoid the water of the waterfall (even with high level water conditions, as we had during that weekend).

Fourth bolt on P2 being placed by David-Stephen Myles

Photo: David Rueda-Roca

At the bottom of the chamber, we left the rest of the used rope coiled at one semi-dry ledge on the left side. The water vanished to the right in this chamber and the "human" continuation went straight ahead through another squeeze. Again, packs needed to be passed by hand here. On the LHS we bolted two new bolts with the next rope and I abseiled just below a ledge, where I bolted the next rebelay (RHS). I had to do it twice, as I was not very conservative the first time and I perforated the rock with my drill from side to side. Finally, I bolted the rebelay to a safer place, where the rock was more consistent. From there, I abseiled down avoiding the same water from the previous chamber that fell from a waterfall from the right side of this new chamber.

Once at this chamber, we could see the beginning of the "rift". In accordance with some trip descriptions from the past, this "rift" is climbable. Well, it is a dangerous climb that we rigged in a very basic way. We bolted a new bolt to the roof, where we attached the end of the existing rope from the previous abseil and also the next rope to abseil the rift. The rift is very, very wet. If someone expects to avoid water in this cave and magically did not get wet at the entrance, here they will be upset. In December, water fell from everywhere through this rift to everywhere. At the bottom of this rift (it has a small initial vertical section too and therefore I doubt that it is climbable) the rift opened a bit to the right, as the water went a little bit to the left through another hole. This is the way where we decided to rig the rope. The cave opened a little bit to a new chamber. The water from the rift appeared from the left and fell into a pitch with a nice waterfall. We bolted a high bolt to the RHS, where we have created a rebelay with the rope of the rift. As it was said before, at this place we could immediately see a waterfall pitch (4-5 m deep) with all the water from the rift falling down in a waterfall. David Myles decided to abseil this pitch. There was nothing apart from water going down underneath a rock. Again, the "human" continuation was bypassing this pitch at its right side (trying not to slide down and using the existing rigging rope as a safety handline).

Then we found the first ´74 black bolt on the ground. We heard about the two ´74 bolts that were bolted in 1974. Their status is excellent despite the years. Anyway, we did not use it, as we had already our previous re-belaying bolt that was set much higher and therefore with a better angle. We found a new 5-6 m pitch (continuation pitch) and we bolted a rebelay on the RHS approximately one meter down the rim of this pitch. Between this and the previous rebelays, we set an orange rope protector (one of those popular ones from Romania or Bulgaria that I got some years ago in Melbourne from I do not remember where), as we could not find any suitable rock of sufficient quality to bolt for a higher anchor point to avoid the rope friction against the wall (the rock here was crap!). Despite the rope protector, between the rubbing point and the lower rebelay there was just one meter and there was enough space to put your feet in feet holes. So, this rubbing point is not critical. We connected the end of the "rift rope" to this rebelay and we started using the next one.

Bolting the first anchor after the rope protector

Photo: David Rueda-Roca

We could have landed at the bottom of this pitch, but we preferred to continue with the next 6-7 m pitch with a new rebelay a little bit lower (angle change) on the RHS. Again at the bottom of this pitch, we landed on a big ledge just above the 24 m pitch. The water that disappeared from the waterfall pitch underneath a rock, appeared now on the left side of this chamber. There was a new waterfall that fell down the 24 meters of the next pitch and converted the pitch into a place like the movie "gorillas in the mist" (Note: It is expected to be different with low water levels). On this ledge, we found the second ´74 black bolt on the wall. We did not use it either, as we thought that it is better to come back to the previous rope, do a pendulum to be exactly above

the 24 m pitch and bolt a new bolt RHS at the wall of the pitch. We connected the end of the previous rope to this bolt and the beginning of a 37 m rope to this last bolt. The 37 m rope was properly coiled and left on the ledge away from the water.

We decided to stop the bolting trip here, this is at the top of the last 24 m pitch (bottom pitch). We decided not to abseil it, as there was a lot of water falling down and it looked more like a little Armageddon. At that time, David Myles was shivering (he was wearing a cordura suit and several layers of thermals) and I was feeling quite tired (I was already crook, as I brought a cold with a slight fever from the Sydney public transportation system).

We do not think that a new rebelay is going to be needed for the 24 m pitch. However, this could be incorrect and the cave does not finish here, so it will be quite convenient to bring a drill in our packs in the future when we visit this cave again. Moreover, we are going to need a drill when we are going to explore the rest of the pitches and leads that were found in this cave more than 20 years ago.

The way back to the top was wet, cold but light, as we had left most of our ropes, bolts and hangers rigged and bolted in the cave.

We have used STC ropes. Among them there are four ropes that I have donated to the STC on the premise of their being rigged in one of the projects where I am involved, or being available for my trips. This means that they can be used for day STC trips where I'm not involved (if they are available, obviously), anytime I do not need them.

To end up this article, I would like to add that Niagara Pot is an STC project. So everyone (no exceptions) who belongs to the club (and anyone authorised by the STC committee) is allowed to visit the cave, use our rigging and work in the project with or without me in the cave. I live in Sydney and it would be silly to have to wait for "Prince Charming" (me) to arrive at his "Castle" (NP) to be able to go caving to NP and to continue with the project.

This project is an attempt to continue with Jeff Butt´s projects. Jeff was a very respected STC member who passed away some years ago and who I deeply respect since I read part of his works in regards to JF-341 and NP in *Southern Caver* N.67, December 2013.

The existing map of Niagara Pot (NP) has many missing leads. During our December trip, I could even see an unmapped chamber through a window in the way down of the 14 m pitch. In our previous October trip with Sandy Varin and David Bardi, we found a pitch that is not on the map either.

The best way to explore a cave is surveying it. So, surveyors are needed for this project. Yes, I know, it is boring, tedious and you freeze while the person of the book is drawing the details of a chamber asking you for radials and drawing details, but we also pay fees to go caving while we do not even have a rescue and private health insurance in case of an accident for those fees, as you would have in Europe… life is not perfect *(search and rescue is free for Tasmanians in Tasmania, health insurance is covered for all Australians through Medicare – Ed)*.

I think that what is important is to keep a central database of the trips and data extracted from each trip. I can do it or if the STC board considers that other people are more suitable to do it and have more experience, they can do it. It is something to be decided by the STC board.

As most of the readers know, I go to Tasmania once a month. Sometimes, I will not be able to follow this frequency. So, please, DO NOT WAIT FOR ME AND GO TO NP.

IB-120 Valley Entrance - Exit

28 December 2019

Gabriel Kinzler

Party: Serena Benjamin, Sarah Gilbert, Gabriel Kinzler, Andreas Klocker

An original team composition took upon another easy familiarisation trip through Exit Cave. Andreas had allegedly been on only one horizontal trip in his entire caving career, so we used this opportunity to help him ease into his impending retirement. Luring Sarah back to Tasmania will clearly take more excitement than that however. It was my first time sporting a PVC suit, and indeed I'm never going back to Cordura. Serena could now lead the way blindfolded, whereas it'll probably take me another trip to fully memorise the way.

The standard "all smiles at the entrance" shot

Photo: Gabriel Kinzler

MC-75 Mersey Hill Cave – an end in sight?

30 December 2019

Party: Sarah Gilbert, Alan Jackson, Steve Jacobs, Dave Wools-Cobb

This all started on a whim in 2003. I was ignorant to the length of the cave at that stage and that trend seems to be continuing. If we keep chipping away at it then we'll get there in the end.

The forecast was for an oppressively hot day (pretty much around the whole country, which was largely on fire) so what better place to be than in a climate controlled 8 degree slop box? We progressed to the limit of our previous survey trip and made the decision that surely the 'end' of the cave would come within 200 m and we'd have a gentle survey session to tie it back in, then we'd start ticking off the side passages we'd noticed previously. Almost six hundred metres later we found what looked decidedly like an end (a section of large rock fall followed by a grotty terminal muddy chamber with

an unlabelled pink tape on a cairn shortly before it). Whether it was the end or not was inconsequential – the distance we'd covered was a solid day's survey effort regardless so we started plotting our way out. We converted the old tape into a labelled survey station (MHC500) and also left labelled tapes at a few likely side passages/leads on the way (MHC517, 532, 551a and 572). We tied back into MHC398 and breathed a collective sigh of relief.

On the way back out we investigated the side lead at MHC345 (pink tape) from the 2018 trip. If it was short/not much then we'd survey it. An initially narrow vadose inlet was followed in small but comfortable/easy passage which was still going strongly after about 50+ m so we left it unsurveyed and not fully explored and continued out.

It's Mole Creek, so there had to be some pretties in there somewhere

Photos: Sarah Gilbert

I shot up the pitch first and used the time it took the other three to get up and derig it to do some solo surveying in the largish side passage heading off at station MHC171. It intersected a narrow ephemeral inlet which I followed 'upstream' till it got too vertical then surveyed my way back out to MHC171. I didn't survey it 'downstream' from the junction with the larger passage nor drop the ~7 m deep pit the passage traversed over the top of at one point. It is now quite clear to me that this is the same passage which Jeff Butt, Arthur Clarke, Darrell Carr and Lou Williams explored and surveyed in April 1985 (data from STC hard copy archives). Comparing their data and sketches with mine it looks like there's only 20 m or so of passage I didn't get to in the 'downstream' direction – pity I didn't finish it on the day but reassuring to know there isn't much else there. Plotting that data indicated that the nearby side lead Janice and I partly surveyed in 2018 (MHC172a-g series) isn't likely to connect to this Butt side passage, so we'll have to go back in and force ourselves through the narrow bit to see where that one goes on a future trip.

We emerged to hot and windy conditions but thankfully no raging bushfires. The slog back up the short but steep hill was particularly unwelcome in those conditions, but we survived.

About 680 m of data collected on the day, bringing the total to date to just shy of 3 km. Hopefully one more decent trip will see all the remaining side passages tidied up and the underground component of the project deemed complete. Famous last words.

Partly calcified skeleton of a (reputed to be) ring-tailed possum

Photo: Sarah Gilbert

IB-14 Exit Cave: Mystery Creek Passage

9 January 2020

Janine McKinnon

Party: Karina Anders**,** Serena Benjamin, Rolan Eberhard, Alan Jackson, Gabriel Kinzler, Janine McKinnon

Riddle: When is a sump not a sump?

This story starts sometime early in 2019 when Chris Sharples and Rolan Eberhard were on a DPIPWE (no, I am not spelling the whole thing out) work trip of Rolan's, assessing parts of Exit Cave for management purposes, and so Rolan could play with some more string in there. They were up the far end of Mystery Creek Passage when they came upon a quite large pool of water at the end of the passage. It looked very inviting. After returning home they did some research, and called every old caver they could think of who had ever been into Exit, and discovered that no one seemed to either:

a. know about this pool or

b. have thought of pointing it out as having exploration potential if they had been there.

They thought it looked like a possible dive prospect for the fabled connection between Mystery Creek Cave and Exit Cave. It was in the right place and it was a large puddle of water. What more could you ask for? Yes, there is a major fault running through Marble Hill that interrupts all the known passages in both caves, but no dare, no win. So they brought me along on their next trip to assess the pool as a dive potential (*SS* 432, p. 19*)*

Several planned trips to dive the sump had failed to launch due to heavy rainfall, Sherpa unavailability and my out-of-state jaunts, but finally all the ducks were lined up. We had a good, fit team (apart from that old duck doing the dive, whom they couldn't leave behind), a lovely sunny day, and low water levels. VERY low water levels (there is a hint there for the answer to the riddle). We started the walk at 9:15 am, got to the cave at 10:30 am, and to the dive spot around midday. Everyone was still smiling and happy, despite the sometimes-athletic terrain and, in particular, the wet feet we had finally been unable to avoid (despite heroic efforts) only 5 minutes from the dive site.

The best option for base. A dry, convivial soup-drinking spot

Photo: Gabriel Kinzler

After site assessment, and soup and lunch, with help from the team gear was sorted and I got organised to dive. Now before we get too far along in the tale of the dive I might just go backwards a step or two to give you all an idea of the dive kit I had chosen to bring. This choice of gear was predicated upon discussions I had had with Rolan and Chris after our assessment trip. Potentially it is 300-odd metres from the pool to Mystery Creek Cave. That would take quite a while to swim, running line, and then to survey back from if all went spectacularly well.

I had suggested a reconnaissance dive with small, light, 3 litre tanks and a wetsuit. You can tell when you are in the company of screaming optimists when they tell you to bring all that would be needed to get all the way through.

So that's what I did. A drysuit (and undersuit), 7 litre tanks and 350 m of line on two reels. Plus all the other paraphernalia, which, in my defense, I had tried to keep as minimal as possible.

Rolan and Serena try not to get wet, unsuccessfully. It was very drippy. Photo: Gabriel Kinzler

Back at the dive site, I was ready to go. Gabriel was madly shooting video and stills of me looking as old and wrinkly as possible and the others just wanted me to get on with it so they could go back to the dry spot above the beach (where it was very drippy) and finish their soup. So on with it I got.

Now here is hint two to the riddle (which I'm sure you very smart caver-types have already solved). I swam straight down and headed along the floor looking for the passage-line. Visibility was about 20 cm in the still and very tannic water. After bumping off the wall a few times, and looking for the sparse tie-off points, I did a sharp left-hand turn and continued on. I surfaced after only about five or six minutes in a chamber, facing a wall of rockpile.

What the crew did to fill in time whilst I dived. A knot-tying session for Karina. Photo: Gabriel Kinzler

I called out a couple of times, in case there was an air connection back to the others but heard no response. I de-kitted and started looking around the small chamber for a way on. The rockpile looked pretty solid with only small gaps. I climbed up a boulder or two and poked about but didn't see any gaps a person could fit through. I was in a (very expensive) drysuit and didn't push super-hard though. I did a quick and very crappy sketch (I can't draw for nuts) of the chamber and then got my gear back on and surveyed out.

You will all be pleased to hear that the queen of the 30 m long sumps still has the touch. It was almost exactly that length.

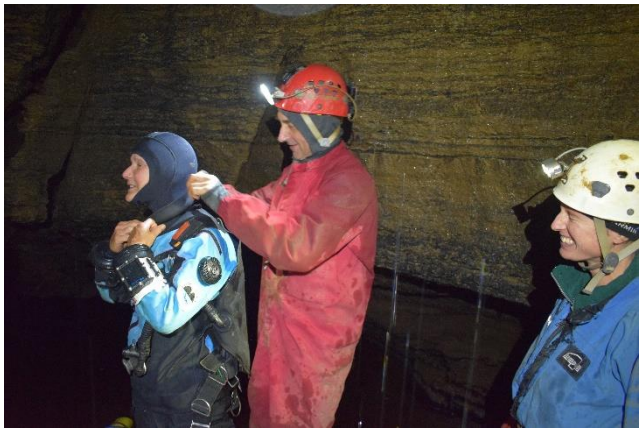
When I got back to the beach no one was around (they showed such touching faith that I was going to get somewhere and take a lot of time) and I had to call to get their attention. Brief dive report given, most of the dive gear off, and Alan suggested that I swim along the surface of the pond and see how far the air space went. That sounded like a good plan. So I did. I swam to the far wall of the pool, turned left, and you have your answer to the riddle. I looked down a lake 25 m to the rockpile I had just left. I did swim the distance to be sure, and there was my line coming up out of the water. It would have made a good script for a Monty Python sketch. I laughed all the way back. It was that or cry.

I must say the team took the information in good spirits. I stayed in the water whilst I delivered it to save myself a potential instant lynching from the realisation that they had carried all that gear so far for nothing. When I realised that they weren't going to kill me in the emotion of the moment I thought it safe to get out.

Karina wasn't letting go of the wonderful knot she had tied

Photo: Gabriel Kinzler

It was about then that Serena asked if I could check out how hard it would be to collect the glowworms on the roof. She had been tasked by Chris Sharples, who had been tasked with the job by Dave Merritt, to collect glowworms from the 'sump' pool chamber, and also the entrance to the cave, to see how different they were from each other. She had discovered that the only glowworms in the sump chamber were in the roof over the pool. Enthusiasm for collecting them had rapidly waned. I swam out and could JUST touch them on the roof whilst floating, but when she said they wanted 10-20 specimens, and I would have to get them into the specimen jars whilst swimming, I quickly declared incompetence for the task.



Too many choices to pick one. Photo: Gabriel Kinzler

Anyway, we probably don't need to belabor this sad tale too much longer. I got a cup of soup (thanks Alan) whilst the others started packing around me (they were bored already), finished undressing (as Serena grabbed my undersuit and ground sheet and a few other things) and tried to be time-efficient and laid-back at the same time. It didn't work very well.

We all waved goodbye to Serena, who wanted to get back to the entrance to collect her sample of glowworms from there before we got there, so as not to delay us on our trip home, and we started out around 4 pm (I think). We were about 10 minutes behind Serena. We were all trying to be laid-back, but only marginally successfully.

We took a slightly scenic route out, did a couple of detours, and were out of the cave by 6 pm. We were back at the cars at 7:45 pm.

It was a disappointing day for me, not sure about the others but they all said they enjoyed it and seemed happy, but at least we know what happens beyond that pool.

Answer: When it is a lake.

Moral of the tale: Never assess a potential sump dive in high water levels.

Postscript: There is some talk that a couple of us might go back with wetsuits soon, whilst the water levels are so low, and have a really hard look at the rockpile, and also do a "proper' dry cavers survey of that area and tie it into the last survey point in the passage. And Serena can get those glowworm samples.

Postscript to the postscript; We had one person from every age-decade from the 20's along. Two in their 30's. Not important, just saying.

JF-237 Niggly Cave

12 January 2020

Alan Jackson

Party: Alan Jackson, Anna Jackson

We needed to get out of the house and Niggly seemed as good a place as any. A late start and sedate pace made for a pleasant day. We went as far as the bottom of the 85 m pitch and did some p-hangering work on the way out, drilling lots of holes and filling a few of them with glue and stainless steel. Much more relaxing than any of the recent Niggly trips I've been on.

What the innovative do when they forget their pony-tail tie. This was very fortunate as the trip would have to be aborted with such vital gear forgotten. Photo: Alan Jackson

Other Exciting Stuff

Book Review

Craig Challen and Richard Harris

"against all odds"

Janine McKinnon

The book cover has their names in BIG lettering, and the title underneath in small type, almost as an afterthought. I assume from this that their names are what is expected to sell the books. That their names are household ones now. Their lives have been changed forever by their involvement in this rescue.

This is the third book that I have read on the Tham Luang cave rescue of the 12 boys and their coach trapped in this flooded cave in northern Thailand in July 2018. The first two I reviewed in *SS* 431.

This book is significantly different in character to those other two. It is the personal accounts of Craig and Harry (Richard). There is almost nothing included that they were not directly involved in or were told about personally, only a few passing references to what they heard was happening in the wider rescue scenario. Thus it is a much narrower scope than either of the two other books, however it is a first-hand account of the nuts and bolts of planning and actually rescuing the boys, which neither of the other books really contained.

The chapters are written in first person by either Harry or Craig. The language is conversational and engaging. You feel like you are sitting in a loungeroom with the author, listening to them recount the tale as a friend, maybe over a beer or two. It is not a reporter's impersonal account, like the last two I reviewed, and that is the point of the style I think. It IS personal, totally so. You see and feel who these two authors are in how they tell their story.

The book starts unexpectedly with a biographical chapter by each of them on their childhood and a synopsis of their lives up until now. Both are engaging, honest and revealing. You feel you are getting a true insight into who these people are, and what has shaped their lives. You connect with them (well I did), which means that when they start telling the saga of their involvement in the rescue you are with them, sharing their emotions and thoughts, at least in some measure. Particularly Harry's chapters.

Another (smaller) surprise was the frank honesty in the book. Their worries, fears, uncertainties and mistakes are all there for everyone to read. This is incredibly brave. They could have written a book glossing over the risks, dangers to all, and their personal uncertainties. That would have been much easier and safer for them.

Even though I have already read two books on the subject, and know the outcome, I was riveted to this book. The unfolding dramas for the divers, and the behind-the-scenes interactions, were fascinating and that was before I got to the rescue itself. When Harry starts recounting the decisions around sedating the children, and then his personal thoughts and actions as the plans unfold, I felt that I was alongside him, suffering the doubts and fears as he did.

This rescue was unprecedented, and its like will (hopefully) not be seen again. To experience an honest account by the principle cogs in the wheel of this rescue is a unique experience. I recommend you all avail yourselves of this opportunity. It is not about cave diving really, it is about human courage, integrity, and commitment to doing one's best in difficult and almost certainly tragic circumstances when they could have just walked away at any point; the easiest, safest and probably the most sensible option for them personally.

From the Archive

Here's a short reminder of that other depth-record cave in the JF. It is not high on anyone's list for a revisit (that I know of).

SS *359, March – April 2007*

JF-270 Tachycardia – rigging to the bottom

10 March 2007

Alan Jackson

Party: Matt Cracknell, Alan Jackson

With three overflowing packs of rope, Matt and I headed for the bottom of Tachy. The cave needed rigging from the 150 m mark down (i.e. Art Deco, the littlies and Bermuda Triangle pitches). About five hours later we made it after a sedate trip down during which Matt recorded various meteorological parameters. I think it was 100% humidity everywhere and the lowest temperature recorded was 7.1° C at the -370 m mark (i.e. more or less at the bottom).

It took about three hours to struggle out. On Bermuda I managed to dislodge a piece of rotten wall which hit Matt on the helmet from 45 m and tore one of his lights off. No cerebral damage done, thankfully.

The cave is now rigged and ready for tourist and exploratory trips alike.

Preliminary assessment of sediments and bones at Cave H-11

Rolan Eberhard

Bones and sediments preserved in caves are important sources of data on faunal history and past environments. The recently-discovered cave H-11 at Hastings is a pitfall-type cave with a large sediment cone and numerous bones (Kinzler & Sharples 2019). This article documents reconnaissance-level observations of these features during a trip to H-11 with Chris Sharples and Gabriel Kinzler on 17th October 2019.

Sediments

Three main classes of sediments were recorded:

- Silt – the lower portion of the main chamber is partially filled with dull grey-brown silt. The silt is at least 1 m thick, blanketing the base of the chamber. Near the deepest point a minor stream has eroded a channel through the sediment, exposing what appears to be a uniform unstructured body of silt. This deposit is interpreted as moderately recent (Holocene) material washed into the cave and then deposited in the base of an ephemeral pond.
- Dolomite-rich gravels – the slope below the entrance shaft and the nearby main sediment cone (i.e. feature marked 'steep talus slope' on the map by Kinzler & Sharples in *Speleo Spiel* 434) are mantled by dolomite-rich gravels. The gravels are angular and poorly sorted, ranging in size from pebbles to boulders up to about 0.5 m in diameter. In addition to dolomite, the gravels include pieces of Parmeener Supergroup mudstone and conglomerate. The gravels are 20-30 cm thick at the top of the main sediment cone, where small-scale slumping exposes an abrupt contact with underlying pebbly mudstone gravels (Plate 1). The gravels are coarser, less well-sorted and possibly thicker on the slope at the base of the entrance shaft, compared to the main sediment cone, which developed beneath a separate entrance which is possibly now blocked. The former is a loose bouldery slope; the latter is compacted and stable. The dolomite-rich gravels are interpreted as the result of mechanical failure of dolomite bedrock within the cave (i.e. 'rockfall') and on proximal outcrops at the surface.
- Pebbly mudstone gravels – this sediment is chiefly small platy fragments of mudstone. The likely source material is Parmeener Supergroup marine sediments which crop out upslope of the dolomite on Hastings ridge. The main sediment cone is formed in these mudstone gravels, which are exposed by slumping and gullying on the margins of the cone. Layering related to variations in grain size and steeply dipping bedding structures can be observed. The depth of sediment at the come, which is ~10 m high, is evidently substantial. This deposit is interpreted as evidence of mechanical weathering and downslope movement of slope materials under cold climatic conditions. Similar deposits are found at Late Pluto in Wolf Hole. There, charcoal within the sediment has been dated to 17.7 ± 0.2 and 30.8 ± 0.4 cal ka BP (McIntosh et al. 2012). Sediments of this type in Tasmania have generally been interpreted as a form of grèze litée (bedded periglacial hillslope deposit transported and deposited by meltwater runoff).

Bones

H-11 contains numerous bones of small to medium-sized marsupials and a monotreme. The majority are in disarticulated condition and scattered on and around the main sediment cone. Buried bones were noted within the upper layers of dolomite-rich gravels at the top of the sediment cone (Plates 1 & 2). Buried long bones protrude from sediment at two points on the mid and lower slopes of the cone. A proportion of the bones are in broken condition, including many of those which are partially buried in gravels. It is likely that these were broken due to impact from falling rocks.

Several articulated skeletons of ring-tailed and brush-tailed possums were recorded (Plate 3). Remains of the former are particularly abundant at H-11 with dozens of specimens present. This species is prone to entrapment in pitfall caves and can survive long falls. When this occurs, the possums may wander deeper underground and their remains are sometimes found considerable distances from cave entrances.

The general character and context of the bones at H-11 suggest that few if any are of real antiquity compared to dated Late Pleistocene bone deposits in other Tasmanian caves. Some are clearly very recent indeed (e.g. decomposing carcass of brush-tailed possum near base of entrance shaft). A species list for H-11 is provided below:

Bennett's wallaby (*Macropus rufogriseus*)
Pademelon (*Thylogale billardierii*)
Brush-tailed possum (*Trichosurus vulpecula*)
Ring-tailed possum (*Pseudocheirus peregrinus*)
Common wombat (*Vombatus ursinus*)
Pygmy possum (*Cercatetus* sp.)
Antechinus (*Antechinus* sp.)
Echidna (*Tachyglossus aculeatus*)

Concluding remarks

The nature of sediments at H-11 are suggestive of two main phases of deposition. Firstly, pebbly mudstone gravels partially filled the cave after being transported downslope from sources higher on Hastings ridge, potentially via a variety of processes including seasonal snowmelt effects. This process formed the bulk of the main sediment cone, bearing in mind that it may also contain buried layers not presently visible. Secondly, bouldery dolomite-rich gravels derived from more local sources, including rockfall within the cave, were deposited over the pebbly gravels, while silt accumulated due to ponding of water at low points in the main chamber.

The character and relationships of the sediments is consistent with a depositional history involving a transition from conditions of relatively vigorous mechanical

weathering and downslope movement of slope materials, to conditions favouring localized breakdown of dolomite and washing of silt into the cave. These process regimes broadly corroborate the accepted climatic model for the last ~20,000 years, whereby colder, glacial climatic conditions were succeeded by milder post-glacial conditions. If this model correctly accounts for the observed sediments at H-11, then this cave preserves valuable sedimentary evidence of changing environmental conditions over the most recent glacial-interglacial transition.

The bone content of H-11 is interpreted entirely as a pitfall deposit i.e. animals entrapped after falling into the cave, as opposed to animals which habitually use caves or were carried there by predators. All bones recorded during this reconnaissance-level investigation are extant species which are likely still present in the area. More ancient bones may well be present but if so are not readily accessible due to burial by sediment.

Many Tasmanian caves contain at least some bones. The majority of these are not especially old and of no immediate interest for research. However, caves containing unusually large bones (larger than a big wallaby), bones wholly or partly exhumed by erosion following burial in sediment, and unusually dense concentrations of bone, are potentially significant. Cavers who encounter bones are encouraged not to disturb them. If the bones are at risk of damage from trampling, then they should be taped off or marked in some way (e.g. a circle of stones placed around them). Moving bones should be avoided unless done as part of a research program or as a last resort to save bones from destruction. Images of bones are very useful and can be used to identify species and assess research potential.

Plate 1: Main sediment cone at H-11, showing buried bone fragments (upper arrow) and contact between dark pebbly mudstone gravels and light dolomite-rich gravels (lower arrow).

Plate 2: Wombat skull partially buried in dolomite-rich gravels at H-11.

Plate 3: Skeleton of ring-tailed possum at H-11.

References

McIntosh, P.D., Eberhard, R., Slee, A., Moss, P., Price, D.M., Donaldson, P., Doyle, R. and Martins, J. (2012) Late Quaternary extraglacial cold-climate deposits in low and mid-altitude Tasmania and their climatic implications, *Geomorphology* 179: 21-39.

Kinzler, G. & Sharples, C. (2019) Hastings: Introducing 'H-11 Big Mama' – A new depth record?, *Speleo Spiel* 434: 4-6, 16-18.

New Years Honours

A member of STC has been awarded an Ambulance Service Medal in this year's honour's list.

Han-Wei Lee was directly involved with the rescue from Midnight Hole in 2017 (*SS* 422)

Full details are available on the Governor-General's website.

Congratulations Han-Wei

Annual Cave Rescue Exercise

Growling Swallet main stream

A photo report

Photos below by Richard Bugg

Getting organised without rain. A bit of a novelty.

Cathie Plowman took her role of sign-in/sign-out very seriously. With so many people scattered throughout the cave it would be easy to lose someone.

The whole team started in together, more or less. This proved interesting, and I use that word in its polite form.

The Dry Bypass. Traffic jam is an apt term. I was thinking at one stage that it was like those Chinese traffic jams that take days to clear.

How much fun can you have with a drill? Lots, if this photo is representative.

Now THAT'S a stretch. I am seriously impressed with the arm and wrist strength displayed here.

So, what do we think we have done here? Anyone understand? We shall see soon enough…

Brian Evans in his element. Talking, in a useful way.

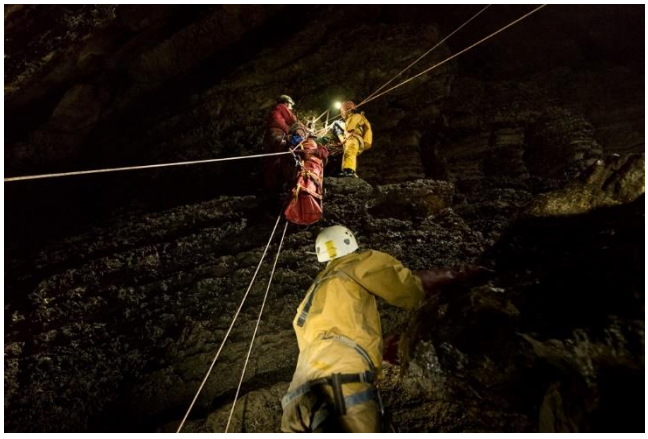
I suspect this should be in the "caption this" competition.

A "bird's eye" view of stretcher carrying.

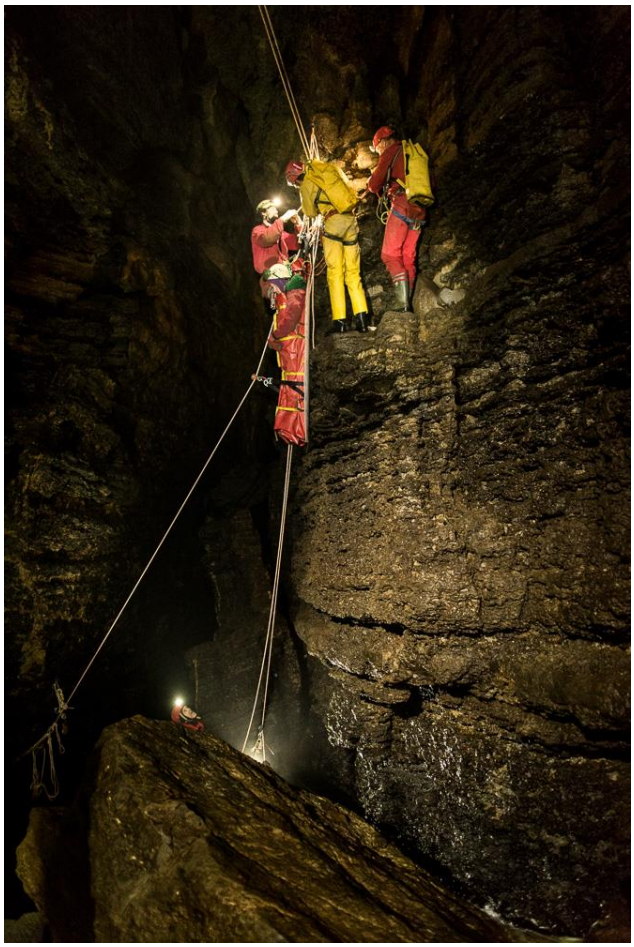
Good to go! Looking good guys, Chris is even smiling. I think that's a smile, not a grimace. Possibly.

So how many people does it take to move a stretcher? A multitude apparently. People do like to be included.

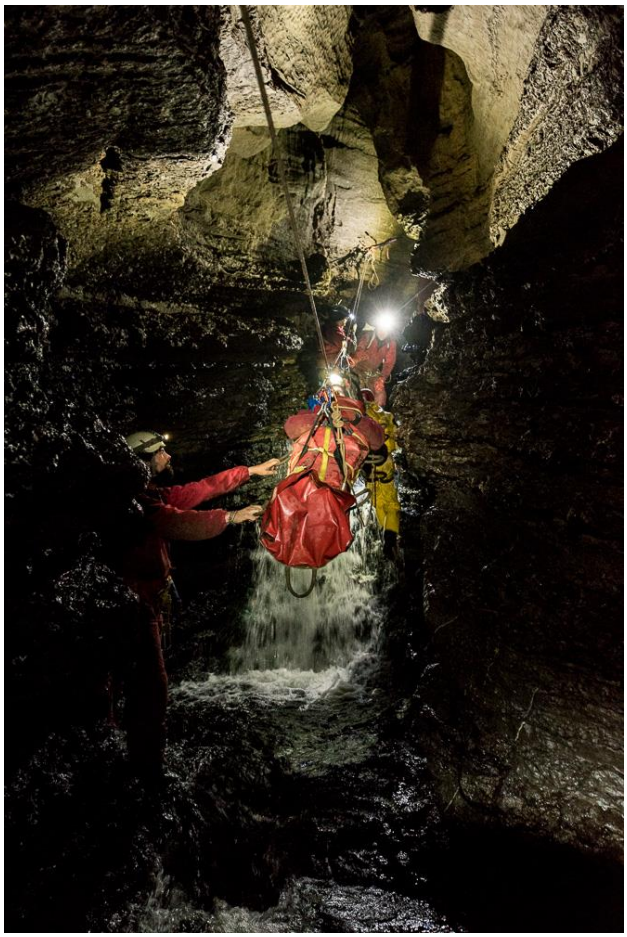
Annnd …ACTION! The big lift begins.



It's so far, far up there.



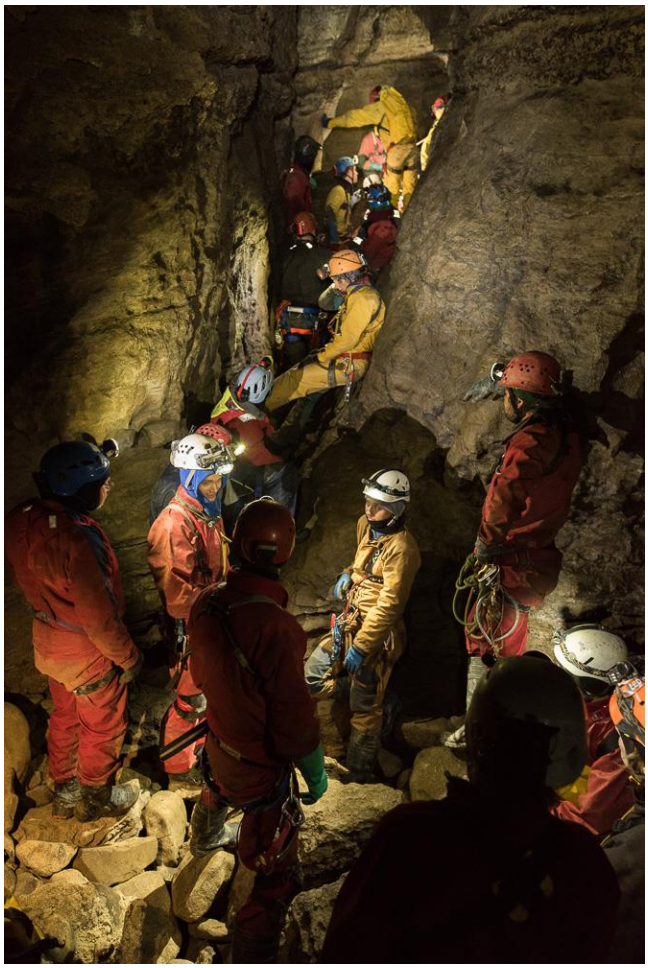
That is one impressive tyrolean. Truly, truly.



Will Chris get a swim, do we think?

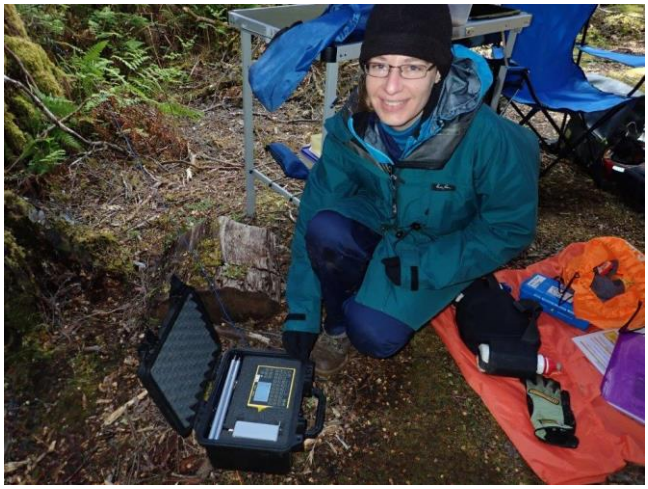
We just have to work out what to do with all these ropes now.

Time to chill. Our international representative, Martyna (Polish-left) and Northern Tassie (Cathy).



Waiting, waiting, it's such fun waiting.

And a few more photos….



Edwina Virgo with the CaveLink equipment. A wonderful device.

Photo: Cathie Plowman

How can you go past a photo of Jacko (Phillip Jackson) hard at work. He was doing serious surface co-ordination work…he tells me.

Photo: Cathie Plowman

Briefing is about to begin. The crowd sort-of organises itself.

Cavers, it really is like herding cats.

Photo: Damian Bidgood

I have to put a shot of the VERY long suffering (not sure about the "in silence" bit) victim, Chris Sharples. So brave (some might say foolish) to volunteer for this epic haul out.

Photo: Damian Bidgood

It was possible to get a quiet, atmospheric, moment amidst all the noise and bustle.

Photo: Damian Bidgood

New Static Rope Washing Experiments

Stephen Fordyce

Preamble:

I wrote this nearly a year ago, and put it on ice until we could get see the actual results in-cave. The ropes were installed in Niggly Cave on the April 2019 re-rig trip, and have been a joy to use ever since. No scary slippery sections, no excessive bounce, no stiffness to speak of. This compared to the previous (unwashed?) ropes, which retained slippery/scary sections even after many uses and years in the cave.

They have seen a lot of traffic (5 trips, with an average of 4 ups and downs per trip). Seems like about time to publish this article, with a brief follow up when the rope finally comes out of Niggly and can be load tested.

There is no appreciable difference in the three ropes washed, which seems like a good excuse to stick with the easiest washing method.

Introduction

Recently, *Australia Geographic* was kind enough to contribute some money towards gear for the "Junee-Florentine Master Cave Connection Project". As such, 3x 200 m rolls Blue Water II++ 9.5 mm static rope were purchased and had to be prepared for caving. The decision to choose this rope was informed by the results of the previous rope testing - despite being relatively expensive, it seemed to give consistently good performance and last well. It's also made in Australia.

200 m of rope, straight from the manufacturer

It remains a disappointment to me that new caving rope is not in fact ready to use, but such is life. When first wetted, it can shrink up to 10% (per the internet), and substances leftover from manufacture seep out and can make for a fast and scary ride. With three rolls to play with, I tried a few different washing methods in order to find the right combination of low-effort and effectiveness.

INCORRECT WASHING OF ROPE CAN (APPARENTLY) BE VERY DANGEROUS - DON'T TAKE THIS REPORT AS FACT.

Basics

1. New static rope must be washed before use - to "pre-shrink" it, and to remove slippery substances that will otherwise make your descent a quick and scary one.
2. Twisting the rope is bad – i.e. unroll the spool rather than letting the rope fall off one end.
3. Proper drying of the rope is important - to prevent mould, and also to maximise strength (wet ropes are weaker).

Setup and Record Keeping

If it's going to be done properly, may as well do it from the start. My process was:

1. Label each rope with bands of Texta (be aware some sources say Texta can weaken rope, so stick to the ends). Probably better to label properly with heatshrink and text!
2. Record the bands against the manufacturer sticker (especially serial number) for traceability.
3. Consider whether to mark a few metres in (and then cut later) if you care about measuring shrinkage. I didn't bother with this, but would be interested to know if anyone has.
4. Consider cutting off a section of unwashed/original rope as a control for drop testing later.

Manufacturer sticker, with serial number, and rope bands

Key Points

1. The main indicator for "clean" was how milky the rinse water was - initially, it would be like skim milk! The ropes in the washing machine also foamed quite spectacularly.
2. There is a lot of conflicting information about which detergents are good/bad/dangerous. I stuck to plain water, and was careful about rinsing anything which was to be used (tubs, washing machine, etc.).
3. Soaking, and brushing was a lot of work and used a lot of water. Most onerous.
4. Using a (front loading) washing machine was MUCH easier, and the effort required to chain and unchain the rope was a worthy investment (including for hanging to dry). No tangling or other adverse impacts were observed.

5. I ran an empty cycle of the washing machine to remove any detergent residue before running the ropes.
6. I gave each rope 2x custom cycles (1:43 each, with cold water wash, two rinses plus hold time, and 400 RPM spin dry) for a total of six changes of water. Final waste water was still the tiniest bit milky, and rope still had a slight "new rope" smell.
7. Diverting the washing machine drain hose into a bucket allows for regular inspection of water
8. Hang the rope in the shade (UV is bad) to dry, and allow it plenty of time (at least several days)
9. **IMPORTANT:** be very careful to set the washing machine correctly. It would be very easily to accidentally get temperature or spin speed wrong and wreck the rope.
10. **SAFETY:** If the rope goes straight into a caving bag, that it will be rigged from, ensure there is a stopper knot in the bottom end. It could be very easy to abseil off the end. I also added a tape label to the top end confirming this.

Finishing off

Once the rope is properly washed and fully dried, it can be packed for caving and/or put away. I left them uncut and stuffed (better than coiling) into caving bags, with a stopper knot in the bottom end.

1. **SAFETY:** If the rope goes straight into a caving bag, that it will be rigged from, ensure there is a stopper knot in the bottom end - it would be very easy to abseil off the end. I also added a tape label to the top end confirming this.
2. Measure and cut to size if needed.
3. Label each rope properly
4. Consider cutting off a section of washed rope for drop testing.

Thoughts on Tub and Brush Method

Less milky water and passing through the brush (which was typically submerged)

A ~80 L tub was needed to contain the rope. With each new soak, the water would eventually get milky again, and with each brushing of the rope. After about four days submerged, seven tubs of water and four runs through the brush, the water was still very slightly milky, but I figured if that wasn't good enough, it never would be. This method was a huge amount of work and used a dismaying amount of water.

Thoughts on Washing Machine Method

Chaining the rope

Perhaps the biggest effort here was chaining the rope - recommended to prevent tangling, bonus is that it makes hanging to dry much easier. There were no obviously bad impacts to the rope when it was dry. Chaining was in quite loose loops, done in such a way as to avoid introducing twist. Well worth doing. NOTE: DOUBLING OR QUADRUPLING THE ROPE BEFORE CHAINING WILL REDUCE THE EFFORT (I only realised this afterwards).

Different types of chaining (none seemed to make a difference)

Washing machine size

My frontloader barely fitted a chained 200 m rope, which was probably much more than the maximum load the machine was designed for - it went fine though. The tight fit was probably a good thing in helping to prevent tangles.

Frontloader vs toploader

Frontloader washing machines are considered to be better than toploader washing machines for rope washing. Toploaders have the physical agitator in the middle which could tangle or abrade ropes, whereas frontloaders agitate by tumbling. Frontloaders also use much less water because they continually pass the load through a shallow sump in the bottom, whereas toploaders have to submerge the whole load.

There is a question here about whether a rope can be properly and completely wetted in a frontloader, to ensure the rope has fully shrunk. After I put rope #2 through the washing machine, I cut a short section off the end, splayed the strands and felt with my cheek and lips (i.e. sensitive bits). I was quite confident in saying that all seemed thoroughly wet. Alan reported washing a rope in similar fashion where the middle stuff was not properly wetted. Something to watch out for – in this case it seems not to have been an issue.

To spin or not to spin

Internet opinion was divided on whether to spin dry or not. I spun on the lowest setting, did not see any ill effects, and felt it was worth doing to remove dirty water or help promote drying. Actually, I theorise this did a particularly good job at getting the nastiest water out from the core of the rope.

Protecting the chained rope from spilled laundry powder

Water temperature

Well I doubt warm water would hurt, but I played it safe and used cold water. Excellent results were achieved and I wouldn't bother using anything other than cold water next time.

Notes for Rope #1 (serial number 0219 32899, 1x Texta stripe)

- Rinse tub thoroughly
- Submerge in tub, and leave for 24 hrs - water milky (see pic 9/3/19, ~6 pm)
    - Agitate occasionally
- Tip out milky water, refill/agitate and tip out again
- Refill tub with fresh water again
- Leave ~12 hrs, a bit milky (see pic 10/3/19, ~11 am)
- Tip out milky water, refill/agitate and tip out again
- Refill tub with fresh water again
- Leave ~24 hrs, water still a bit milky
- Pull through brush in same water, into tub of new water
- Wait ~30 min
- Pull through brush in same water, into tub of new water
- Wait ~30 min, old water still slightly murky
- Pull through brush in same water, into tub of new water
- Wait ~30 min, old water still ever so slightly milky
- Gave up, pulled through brush into empty tub. Old water still very faintly milky
- Rope seemed to be a slightly different colour to rope #3 (hung at approx. same time). More...yellow? Maybe just wetter
- Hung on PVC pipe in shade to dry. Quite painful without being chained.

Notes for Rope #2 (serial 0219 32897, 2x Texta stripe)

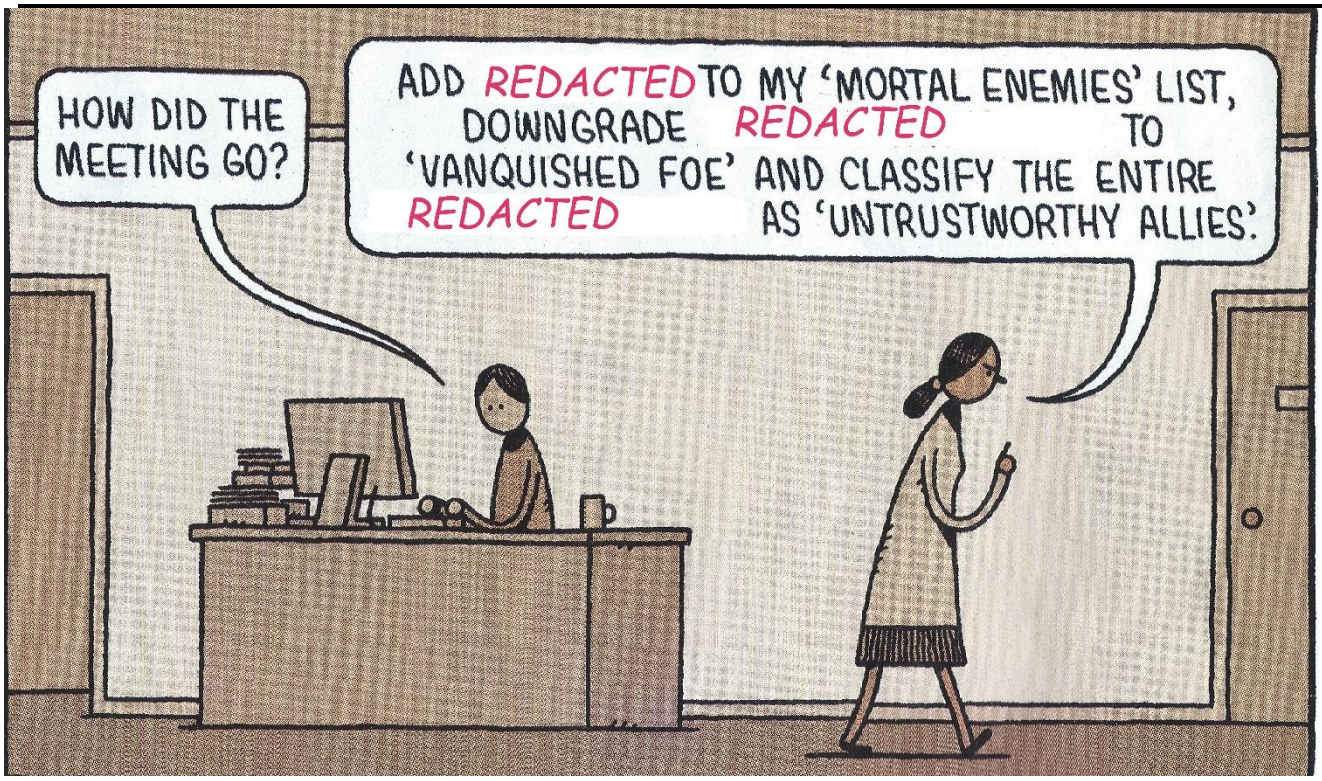
- Run quick wash/rinse cycle to clear machine of detergent residue
- Wash detergent/fabric softener trays
- Chain rope
- Stuff chained rope into washing machine (7 kg frontloader)
    - ❖ It was quite a tight fit!
- Run wool cycle (45 min total, with cold water, wash, rinse, 400 RPM spin)
    - ❖ Didn't put enough water in (checked manual, and it's meant to be a 2kg load)
- Run custom cycle (1:43 total, with cold water, wash, Super & Hold rinse, 400 RPM spin)
    - ❖ Similar amount of water - not even up to bottom of window
    - ❖ Foamed up a lot
    - ❖ Collected water from first rinse(?) and it was very milky - photo at 10/3/19, ~1:30 pm
    - ❖ 2nd last rinse was less milky - photo at 2:21 pm
    - ❖ Final rinse was still a bit milky - photo at 2:40 pm
    - ❖ Rope was almost dry to the touch - not sure whether it would fully penetrate (although lots of agitation and sitting, probably did)
- Run custom cycle again (as above, didn't bother with hold though)
    - ❖ I didn't watch closely at the start, but seemed like much less foam this time around (by the end, effectively zero foam)
    - ❖ By 2nd last rinse, water only very slightly milky (i.e. bottom of the 10 L blue bucket I collected it in could be seen)
    - ❖ By final rinse, hard to tell if water milky, maybe a tiny bit, maybe just imagination
- Called that done. Rope still smelled slightly, and was not wet, only damp. I cut a section off the end to check the core was wet, and it was.
- Hung (still chained - much easier) on PVC pipe in the shade to dry

This handy combination of boat and carport made for an excellent drying location

Notes for Rope #3 (serial number 0119 32851, 3x Texta stripe)

- Chained, cut ~5 m piece off for later testing
- Washing machine was already clean from previous rope
- Ran same custom cycle as for #2
- Observed early in, and foaming was no different to first rope. By now, about 8 fill/rinse cycles without any cleaning agent, so must be due to the rope only.
- Ran custom cycle again (opened door to have a quick look, but didn't take it out)
- Still smelled a little like new rope
- Hung (still chained) on PVC pipe in shade to dry.

Fun and Diversions



It's "personalise your cartoon" time.

Adapted from a Tom Gauld cartoon by Janine McKinnon

Caption Competition.

Now surely you all can't resist this opportunity for a clever and witty caption. It's my last Spiel *(sniff), after all. Come on. And it's such an awesome photo. SOOO many opportunities here. Damian Bidgood (TASPOL SAR) and Alan Jackson (in case you need to be told). Answers to the (new!) Editor.*

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