JF-341: Threefortyone Conservation and Route Marking Project

4 August 2018

Gabriel Kinzler

Party: Stefan Eberhard, Anna Ekdahl, Gabriel Kinzler

Another conservation and route marking trip in a series of recent outings to JF-341, before the upcoming dive push. We continued installing reflective markers all the way to the sump, cordoned off a few more sensitive areas, added some rigging and re-rigged some of the tricky climbs, and filmed additional interviews at the dive base for the *Tartarus* film project. Stefan completed his set of diving equipment and laid it down in preparation for the dive trip the next weekend. The dive gear left in situ from the last dive trip in May was all okay, although recent flooding had submerged the gear and rope on the climb down to the stream way. Further tidying up of route marking and replacing flagging tape with string line remains to be completed in the very large well-decorated end chamber beyond the sump.

Gabriel Kinzler taking recycling that extra step

Photo: Stefan Eberhard

Stefan admiring some rigging (probably not). Send me a letter to the editor if you spot the fudge here.

Photo: Gabriel Kinzler

JF – 341: 3rd Dive Push Trip

11th August 2018

Summary by Stefan Eberhard

Party: Stefan Eberhard, Daniel Mitchell, Alan Jackson, Serena Benjamin

The main objective was for two divers to dive through the 9 m sump and continue exploration of the air-filled stream passage beyond the point reached by Sandy Varin on the last dive trip 26 May. A second objective was to further investigate the prospects for establishing a dry connection into the passage beyond the sump; considered likely from earlier investigations. A voice connection was established between the divers in the stream passage and cavers in the large rockfall passage above, approximately 50 m downstream of the sump. Some digging would be required to make the connection navigable. Downstream from this point a large obstructing boulder was levered out to enable continuation and the stream passage was explored through more large, muddy and unstable boulders to a wet crawl and a second sump beneath collapsed boulders. All leads noticed were explored, including some slippery muddy climbs into upward trending tubes, however no other continuations were found. The second sump appears to be the best prospect for continuation, however this section is flood prone and exploration is probably best undertaken when water levels are lower and the dry bypass of the first sump has been established. The overall linear extent of passage explored beyond the first sump was roughly estimated to be around 100 metres. The passage is trending SE-NW, more or less along the strike of the rocks, and directly underneath the eastern wall of the large rockfall passage. Much of the 3 hours exploration beyond the sump, including the dive, was recorded in 4k video using a helmet-mounted Go Pro. Time underground was 10 hours. Most of the dive equipment remains in the cave, including two tanks with 130 and 180 Bar pressure. Follow-up explorations are planned.

Stefan with some of the dive kit. Same challenge as the photo opposite, see if you can find the trick.

Photo: Gabriel Kinzler

Diver's Trip Report

Daniel Mitchell

The biggest breakthrough in recent 341 trips was on 26 May, when Sandy Varin successfully passed through sump one.

Due to work commitments involving a fair bit of travel in the recent months I had concerns about my level of fitness for this trip.

There were two objectives for this trip:

(1) The main objective was for two divers (Stefan and Daniel) to go through the sump and continue exploration beyond the point reached by Sandy on the last dive trip;

(2) To further investigate the prospects for establishing an alternative dry route between the large dry chamber above the streamway and the streamway itself. This may then provide a dry bypass route over and around the sump. The ultimate goal of the 341 project is to hopefully find a navigable connection into the Junee Master Cave, which likely lies within 400 m linear distance from the current explored end of 341.

The weekend weather was cold with snow down to 1000 m on Saturday and then predicted to be down to 600 m on Sunday. The day was fairly dry with only a small amount of drizzle for the walk in.

We geared up under the large, sheltered entrance slab and headed underground. The trip down was quick and easy with the rigging from previous trips already in place, and some improvements added by Stefan and Alan. There have been extra hand lines installed over particularly exposed and greasy areas. Also Stefan's conservation work has delineated routes through sensitive areas including the spectacular dry crystal pool with its unusual "volcano" structures. His recent installation of reflective track markers has made navigation easier and keeps us on one discreet path. The reflectors have allowed the removal of loads of unsightly flagging tape. A great improvement.

The group made reasonably swift progress through the cave. The few sizable open, moderately-decorated chambers are a nice reward for the few less-loved sections such as Klingon Way, a canyon/ravine covered with very slippery clay, and also a couple of snug vertical squeezes.

Our gear store above sump one used on previous trips had seen some enhancements with a very useful ground sheet to allow divers to gear up out of the mud. My last and only dive in 341 found me to be very cold within 20 to 25 minutes in the water. This time around I came better prepared with very warm gloves and extra insulation under my wetsuit.

Divers departed the high gear stash to descend the muddy slope toward the streamway and sump around 1:08 pm. The dry cavers, Alan and Serena, also set off into the high dry passage above the sump.

The thin 1.5 mm dive line installed through sump one by Sandy is still in excellent condition, considering the walls of the sump have sharp edges, abrasive walls and ceiling and reasonably high flow, and there had also been recent flooding of the sump chamber. Sump one is approximately 9 metres long and slopes downward at around 35 degrees with a short levelling of the ceiling before a more gradual rise out. The visibility of the water was reasonable this time around for a downstream dive. My extra layer of insulation on this dive was not offset by the extra weight carried. Both divers were just a little too floaty, with four weights and one fin each we were able to kick shuffle off the ceiling. Water temp approx. 6 degrees with added snow melt.

Once the dive tanks were stowed on the far side of the sump, divers were free to explore downstream from the sump beyond Sandy's footsteps, which seemed to progress around 30 m. This required a little bit of climbing to get above and over some rock collapses encountered.

Voice communication was established around 40 metres along the stream way in an area on a clay platform several metres above the noisy stream. We were then following streamway on our hands and knees to walk and crawl downstream below a ceiling approximately half a metre high in 35 centimetres of water. Along the way there were several narrowings, short swims and boulders to negotiate but essentially a fairly good downstream run for the first 35 m or so. Soon the streamway disappeared below a large collapsed slab ceiling. The hand removal of large wedged boulders did not provide access around the most open left side of the stream.

We backtracked a short distance. Then doubled back and headed upwards over a boulder stack into a sizeable chamber above the stream, 20 m long and 5-6 m wide. A rock collapse at the far end of this chamber had a small peephole that appeared promising. We managed to pull down one key boulder safely and relatively easily with the use of a tape and two strong divers. Good teamwork! Soon we were back down the steamway via another greasy slope. The stream then narrowed with deeper and faster flowing water for another 30 or so metres through a tunnel chiseled out of black/brown soft and crumbly limestone, more difficult to light up. We enjoyed the turbulent flow and the occasional surprise hole in the floor! I was extremely excited to be exploring virgin cave passage for the first time.

Soon the ceiling lowered and the walls narrowed. Within 3 metres of this narrowing a very large slab lay across the stream. The stream continued below the slab through a passage of very crumbly limestone. With my body jammed in this slightly wider end alcove, below the surface the water continues through a tube that measured 1.3 m wide and about 1 m high, (measured with reasonable accuracy with my spread legs under the water!). This appears to be the only way on, and for now we'll call it sump two.

With the dive gear some distance back, and time ticking on, it was time to head back.

The return trip saw us reach the dive gear within 12 minutes or so. We kitted up to dive back through sump one upstream, with much better visibility. Soon we were walking back up the 20 m of streamway to then climb the greasy heavy clay bank towards home – the gear stash.

Stefan and I returned to the gear stash at around 2:50 p.m.,

greeted by happy and energetic dry cave team with hot soup on offer! A very welcome warm meal. Some filming was done before we changed into our caving gear and headed for the entrance.

Getting ready to exit the cave, now that the adrenaline and excitement had abated, I realised I was extremely fatigued and alerted my team members. I was challenged by the return trip, with especially heavy legs, and feeling mentally exhausted. My team members were most supportive and patient as we made our exit. I now realise just how much energy we consumed in basic dry and wet exploration. Whilst exploring for new leads and swimming/crawling and climbing I was unaware of the drain this placed on my mind and body.

On returning from the cave in the night I did anticipate snow on the exit however we exited it into a fairly clear sky with only moisture falling from the trees as we followed the tapes along the return track.

It was great to see the reflections of the vehicles after our 40 minute walk. Hot showers were much enjoyed.

So overall, the trip was a great success. We achieved our objectives and now have plans to create a dry bypass around sump one, and to then go forward and push sump two as we move closer to the Junee Master Cave. So there shall be more trips to 341 to come!

Thanks to all involved for a very enjoyable weekend of caving.

Dry Caver's Report

Alan Jackson

While Stefan and Dan embraced the snowmelt, Serena and I filled in time by checking for a dry sump bypass from the passages above. On a previous trip Stefan, Serena and I had pushed a few tight bits between the area of the sump and the great big chamber looking for a way down. At one of these spots we had heard a running stream below and we figured it might be beyond the sump. This spot is located near survey station 224 (note that none of the survey stations referred to here are labelled or marked in the cave). On Jeff Butt's (JB) map this station appears to be located about 20 m downstream from where the sump is drawn, so seems like the right spot (the sump is reputedly ~9 metres long). To our surprise, upon arriving at the spot within five minutes of waving the divers off just before the sump, we could hear them talking to each other. We shouted a fair bit but the combined effects of the rushing streamway, the divers wearing hoods and not anticipating having to keep an ear out for shouting at that location meant we couldn't get a response from them. So we moved further along to look for more potential connections. Shortly after the station 224 area you descend a muddy slope, cross a flowstone-lined channel with oodles of water running through it then ascend another muddy slope (this is the feature clearly drawn between stations 226 and 227 on JB's map). The water sinking point is impenetrable. Between stations 227 and 228 we left the trogged route and headed down slope to the left wall to check for other holes. A tight two metre climb down between boulders led to a lower passage about 1 m wide jammed between the bedrock left wall and steep mud slope on the right. Back under the tight climb down (to the NW/upstream direction) a short muddy slope led to a low flat opening with a drop on the other side. It was draughting. It was just too tight to fit through. While we pondered its potential Dan called out clearly from down below; he had negotiated the sump. We had a shouting conversation and confirmed that he'd only just surfaced. So maybe the survey is wrong, or the sump is longer than 9 m? This point is almost 50 m past the upstream end of the sump according to the map.

Serena and I pushed lots of narrow muddy rifty crap SE of the voice connection point looking for an open way down but found nothing. On our way out I pushed the voice connection hole a bit harder and I wasn't far off fitting through but the presence of a slippery slope to a drop of maybe 4+ metres on the other side put me off. There was a loose block in the roof which I could have probably dislodged with my feet but I was mindful that there were two divers down below. It wouldn't take much work to open it up with the right tools.

Serena and I then continued to probe the left wall on the way to the big chamber but with nothing overly exciting found. The only bit of the big chamber I'd not had a reasonable look at was the right (southern) wall back at the start of the big chamber, so I negotiated a route through all the crazy mud and decorations. At station 108 I investigated the bifurcating side passage indicated on the map. The branch heading SE was a smallish ascending tube with flowing moonmilk floor (generating friction was a challenge). It was evident where the previous explorers had stopped and thrown in their question mark in a pathetic display of defeatism. I continued on and reached the top of the moonmilk water slide, at which point the passage then descended but turned into a tall rift rather than a rounded tube. The down route crapped out fairly quickly but a climb up the rift headed into continuing passage with a mud false floor. A short low spot stopped me (easy digging of mud on floor but it needed something more than hands). I couldn't quite decide if there was a draught or not. It is worth a return.

We then headed back to the kit up spot and enjoyed some fine dining for half an hour until the familiar clanking of dive bottles heralded our heroes' return. We set to making movies of naked shivering men then headed for home.

Caving at Eurospeleo 2018, Mostly not.

Janine McKinnon

A brief account of our caving in Europe this past Summer follows.

We registered to attend Eurospeleo planning lots of caving during the meet. Luckily other caving opportunities popped up during our holiday or it would have been a very disappointing affair. Not to mention (but I will) the frustration of hauling SRT kit across the planet and not getting to use it.