

## JF-237 Niggly Cave

19-21 January 2018

Stephen Fordyce

Camping, diving, exploration and filming

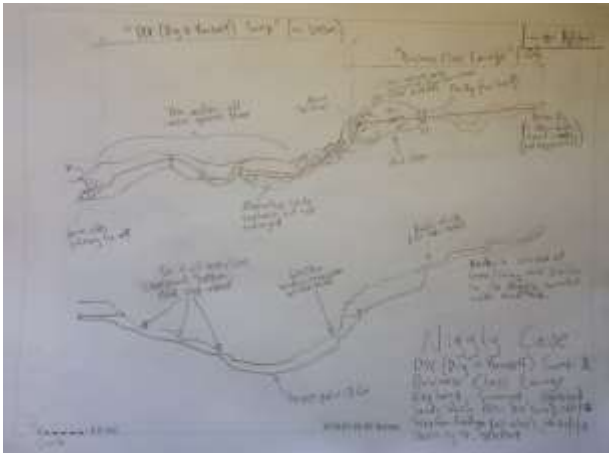
**Party:** Patrick Eberhard, Stephen Fordyce (diver), Andreas Klocker, Petr Smejkal, Andy Terhell (cameraman)

### Introduction

The camping trips into Niggly Cave seem to be becoming somewhat mundane, and perhaps we are getting good at them, but that just seems to lead to carrying heavier loads and more objectives, and we are all just as broken afterwards as usual.

I ended up doing two trips through the sump into the new dry chamber "The Business Class Lounge" to (unsuccessfully) try to make it go, while the others experimented with Petr's new dye-tracing apparatus and pushed the Mother of God streamway upstream to discover a new sump, with potential to connect to the Dreamtime/Growling Swallet dive.

We got up at 6 am on the final day and after a slow grind out and then down the hill, the final trip to the airport was more nerve-wracking than the dive, but I made it in time for the 9:35 pm flight back to Melbourne.



*In case you can't be bothered reading the rest, here's the sketch of the new stuff*

### Logistics and getting in

With the derig and project wrap-up in the offing, it was time to haul in all the gear for another dive in the upstream sump, which was the main purpose of this trip, and it was my turn to dive this time. After running out of line on my Growling Swallet dive some years ago (it eventually took 500 m and still goes) there was no way I was going in under-prepared, so the five of us hauled 70 kg of gear 1 hr up the steep hill to the cave entrance, dragged it for hours through the tight and meandering "Tigertooth Passage", lowered it 250 m down various pitches and finally dumped it at the sump, 360 m below the cave entrance.

While I may have a reputation for being a bit enthusiastic when it comes to bringing along discretionary items, I

should mention that among our collective load was an aluminium coffee pot, an off-camera screen/recorder, a tripod, and a lifetime supply of salami.

This dive was particularly exciting/nerve-wracking as it had been on the list for so long, had the potential to set a new depth record for Australian caves, and open the door to a whole new section of gigantic JF master cave streamway passage.

Having fallen into the usual trap of "we're camping in there, so it doesn't matter if we leave a bit later", we fuffed about spectacularly all morning on various important tasks - sleeping in, buying more gas for the stove, divvying up all the dive gear, placing a dye detector in Junee Cave and most importantly - stopping at Banjo's for a last frothy coffee. After enjoying Porcupine Pot two weeks back, Fraser had piked on the Niggly trip but guiltily carried a load up the hill to the cave (and filmed us kitting up) and then went and dropped some dye into Growling.

After all that, we made it to the cave at a rather disgraceful 2 pm or thereabouts and made our slow way down. We belatedly discussed whether the dive was today or tomorrow - with me keen to get it out of the way so I could sleep (and also in case it impacted our plans for the next day), and could we get a bloody move on. Andy had been unceremoniously told that no sherpa capacity could be spared for camera gear, and his caving bag was probably the most heroic single bag anyone has ever carried in Niggly. Sadly, he received little credit for this from everyone else who were enjoying two only slightly less heroic bags each.

Having far more than one bag each, we made good use of the "elastic chain" concept - where you grab a bag and carry it forward until you meet the person in front and hand it over to them (or if you have space, stash all the bags in a pile). This was quite effective, as you get very familiar with your piece of cave and all the little snaggy bits to avoid/obstacles to negotiate - in fact, 2-3 of us got seven big bags through the Tigertooth Passage and up/out to the surface in about two hours on the way out.

### Diving the Sump

The haul up and over the "Mount Niggly" rockpile at the bottom and the final pack-chaining exercise through the squeezezy bits at the end went smoothly and soon we'd run out of excuses and had to get into it.

Some filming and other fuffing was done on the way down, and we finally got to the sump pretty late. I was still keen on getting the dive done and still feeling pretty good (yeah that extra hour of sleep in the morning was so worth it), so I committed to it and after getting in the mood with some chill music and being mercilessly interviewed by Andy, I finally submerged just after 10 pm! As I explained to the other guys, there were a few options for the dive, which would dictate how long I would be gone:

1. The dive would go deep - I would use the gas in my tanks much quicker and also incur decompression obligations, so would probably be back in as little as 1 hour.

2. The dive would stay shallow (as it mostly did for nearby Growling Swallet) - I had enough gas for a 2 hour dive, maybe a bit more with surveying on the return.
3. The dive would surface into a dry chamber, which would require exploration. This would take the longest, as de-kitting and then re-kitting would be required, then the dry chamber exploration would be totally open-ended. This could take as much as 4-5 hours.

We agreed that if I wasn't back at camp (10 minutes of caving from the sump pool) by the ungodly hour of 3:30 am, the emergency plan would be set in motion. Someone also asked about a potential option 4, where the cave doesn't go. Well, that wasn't really an option - it would just require digging harder.

For the record, here is the dive gear I used:

- 2x 9L carbon fibre tanks, each with 280 bar of air (sidemounted)
- 3x ~1.4 kg weights on each tank
- 8x ~1.4 kg weights on my weightbelt (8 wasn't enough)
- Drysuit and undergarment, 3 mm wetsuit gloves, 7mm hood
- 2x reels with 350 m white 2 mm line, plus another reel in there, plus safety spool
- 10 silt pegs in drysuit pocket
- Helmet primary (flood) light with GoPro on TFM mount, plus hand-mounted (spot) backup light, and two other backup lights

Once in the water my face was burning from the cold (the water was 7°C) but I was in exploration mode so that didn't really matter. I followed the guideline (white, 2 mm, with distance-labelled tape every 3 m) laid by Sandy Varin on the first dive over a year ago, taking my time and giving it a careful inspection. The silt was pretty reasonable and flow non-existent (despite there being some overflow out of the initial sump pool). I was pleased to find the line extremely tidy and well-laid, with the only thing out of place being a silt peg that had been pulled out. There wasn't any abrasion either, and although the line was silty, there was minimal debris caught on it. Interesting what this says about the flow or lack thereof, even in winter conditions.

The visibility was excellent at 6-8 m, and silting was not as bad as I'd been expecting, so while getting to the end of the existing line (about 80 m) I could look around to record the cave on GoPro and to get a feel for it as well as checking for side leads/alternative passages. The floor of the cave was gravel, and the ceiling was horizontal and flat, with dark layers of rock sticking out and making steps in the ceiling as it went down. Where these ceiling steps met the gravel, there were some tight restrictions requiring wriggling and some sweeping aside - there were three of these, and these are why Sandy called it "The DIY (Dig It Yourself) Sump". There was some scope for the creation of "line traps" but the line was well laid and

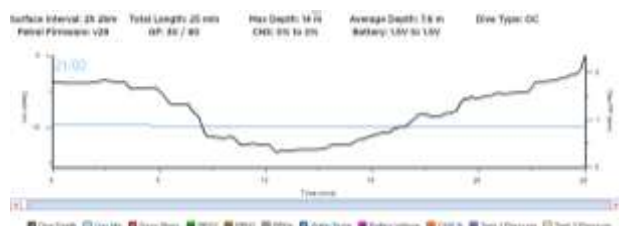
secured through the centre of these restrictions.

The sump bottomed out in a flat section with deepest point 13.5 m and a gravel floor with the odd rock - it was slowly trending up again as I reached the reel and picked it up to keep going. About this time I had a light failure, which was annoying, but since I still had three sources of light plus my Shearwater there was no issue with continuing on. I was able to stay in position and fiddle with lights for maybe 1 minute, noting (with surprise) that there was minimal silt raining down from my bubbles on the ceiling.

Continuing on, now reeling into virgin passage the sump kept on trending upwards, with more rockfall on the floor among the gravel. I looked ahead to see a dead end in rockfall, but as I reeled towards it a small window became apparent high on the right-hand side. It took a little wriggling as the rocks were irregularly shaped, hard and not smooth, but I got through into large passage again. By this point it was a pretty sure thing there was going to be a sump pool, and sure enough I saw the glimmer of a large surface above.

I surfaced carefully, saving precious visibility for checking leads before touching anything. It was a classic rockpile/crescent-shaped sump pool, the most impressive I had seen in the JF at least, with the pool approx. 8 m x 4 m, and the ceiling 5 m above. A steep mud slope lead upwards to a choke point with an obvious hole, about 20 m up the slope. I checked both points of the crescent lake, the northern one being choked with mud, but the southern having clean-washed rock, and a tiny bit of flow coming out of an uninspiring section of rockpile. I had a couple of looks at this and didn't think much, but there is a grovelly dive lead from the main sump pool that deserves another look if someone is ever there again. I'd admittedly pre-planned a name for the first dry chamber: "The Business Class Lounge" - ask me about it in person, this thing is getting too long as it is.

Before going any further, best to note some dive stats. I surfaced with 210 bar and 270 bar in the cylinders, and was only underwater for 8 minutes, with a maximum depth of 13.5 m, and added 30-40 m of guideline to Sandy's (originally about 80 m). A dive profile is below - note that this is for the RETURN DIVE where I surveyed/re-surveyed the line as that took 25 minutes and gives better resolution. A sketch of the dive and the dry chamber are included later.



Profile of first return dive while surveying (for better resolution). Blue line is temperature (7°C).

### Exploring the (dry) Business Class Lounge

Once all the in-water leads were checked and written off, I made a careful pile of gear and made a proper tie-off of

the guideline, and also attended to some 4k GoPro selfies for Fraser and Andy's *Tartarus* documentary. Turns out I'd picked a good spot - a metre to one side and all the mud and rocks that later rolled down the mud slope would have hit it!

I've always hated caving in a drysuit, but there wasn't much alternative so I kicked steps into the mud slope and headed on up. This was a (relatively) big, impressive chamber and as far as I was concerned, there was an even bigger one up through the gap at the top with the next Mount Niggly in it. The climb (even at only 2 m) was nasty to look at, even nastier to attempt, and more parts of it fell away with every failure to launch. Classic mud-covered, loose-rock, sloping mud base, nothing to push against JF misery. I was also very mindful that there would be no rescue from this remote and lonely place in the event of injury.

Eventually I was able to brace an elbow off a roof step and dig some holds in the wall, and bracing off elbows, knees, shoulders, butt, and even head I made it up. As soon as I looked up, I groaned - there was no big passage, just choking, muddy rockpile pinching upwards. Since I was there, I spent 2 hours wriggling and sliding around, moving rocks and trying to find a way onwards and upwards. There was some hope - the rocks were flaky and often moveable once the surrounding mud was scraped out, the ceiling was reasonably stable and I made some progress initially. A larger rock stopped me, but with a small void beyond I spent about 30 minutes working on it until I could squeeze past. The obvious lead up to the left sort of went, and there was another checkable lead around to the right that I poked at as well.

Digging with your hands while wearing a drysuit is hot and painful - and I eventually remembered it was well past bed-time, not to mention approaching "call in the cavalry" time. I bailed out while I still had enough motivation to survey back, resolving to sleep on it and decide on a return trip in the morning. I'd been dreading going down the nasty climb and it was about as anticipated - with holds disintegrating and a hail of mud/rocks that rolled all the way down to the sump pool. I was pretty glad when I made it back to the relative safety of the dive gear.

Surveying out through the sump was uneventful, although my hands were so cold that it was hard to write, and I was pretty over things in general. I now cursed Sandy's careful line-laying as I recorded 1 m and 1.5 m shots ... At least the visibility was pretty good for a return trip (1-3 m), although the survey dive took 25 minutes compared with the 8 minutes to get in. I surfaced and ditched most of the dive gear before crawling back to the staging point where my wet/muddy cave suit was waiting - getting out of my warm drysuit, into soggy wet caving gear for the 10 minute trip back to camp and a warm sleeping bag was terrible (and the next day I just did it in the drysuit). There is squeezing and climbing as well as walking, but it's doable in a drysuit.

Some of the crew were zonked out and snoring, but others were still awake and anxiously(?) awaiting my return. I always try to manage expectations so support crew don't

get worried, but it's always nice to be reunited. By this point it was 2 am and all were thoroughly shagged and not in the mood for long conversations, so with a brief "it went dry and crapped out" we all went back to sleep. Not before I demolished the cold and delicious remains of Andy's remaining spaghetti bolognese though.



*Stephen contemplating the puddle Photo: Andy Terhell*

### **Day 2 - List Ticking Day**

It was a sluggish start (although Andy started crossing items off the shot list left, right and centre and was interviewing all and sundry) after the late night, but after a reasonable sleep I could now (but only just) face the prospect of a return to the Business Class Lounge. Although it wasn't very promising, it was JF master cave after all, and as Andreas pointed out "we're not coming back for a maybe". It needed another crack while the dive gear was down there. So while not particularly enthused, I resolved to take a caving suit and the only digging tool we had (a microscopic and flimsy dual pick/shovel) through the sump to give it a red hot go. This illustrates the importance of doing the dive on the first day - had we waited, it would not have been possible, and the opportunity would have been lost.

Meanwhile the others would push the various streamways near Mother of God passage to see if they found anything. They did - a nice square, diveable sump about 50 m upstream from where you first hit the water (which is where Stefan Eberhard saw dye from Growling - Stefan Eberhard pers. comm.). This is prime position to connect with Growling Swallet, if only all those rockpiles and Mount Niggly weren't in the way. It's on the list for later (including surveying to it). The main Mother of God streamway was also pushed into rockpile but no further, and it was noted that it seemed to have more water than was coming from the upstream sump where I was diving.

Petr and Pat also trekked to the far end of the cave to experiment with Petr's dye tracing setup, and to show Pat the end. They found dye in the Never Never Sump (low down in the rockfall beyond the currently last marked survey station) indicating this is just part of the main streamway.

With all the gear set up and ready at the sump, it was easier to get ready and go. I first did a quick dive to check an underwater lead on the right-hand side - it joined back up with the main line and is shown dashed on my sketch. I returned to surface - I had my caving suit and undergarment in a drybag that I hoped would keep it reasonably dry and I dragged it along with me this time. Despite the 1.4 kg weight I put in, it was extremely floaty

and so was I, so diving was rather exciting - fortunately with much thrashing and bouncing along the ceiling things became a bit more manageable when the bag (and my drysuit) compressed at 8 m. Surfacing on the other side was similarly exciting - I cannot recommend this unless you are an experienced sump diver and know what you're doing.

Good news - the drybag survived well, with caving undergarments no soggier than they had been to start with. I delicately (and rather precariously - not a lot of flat real estate in the Business Class Lounge) got changed and selected hard core caving mode, charging up the mud slope and the nasty climb - much nicer with actual freedom of movement. I chipped away at the left-hand lead for a while, until it got even more improbable, and then switched focus to the right-hand lead.

I was able to progress a good deal further and decided this was the best lead by far. A roof step with rocks underneath held me up for a while, but after some determined archaeology I made it past and onto the next challenge, about 1 metre further along. The way all through the rockpile was characterised by low (5-20 cm) voids beneath a firm ceiling stepping upwards. So, I wasn't digging a tunnel so much as clearing a path under the ceiling.

The rockpile continued in this way, with progress 1 metre at a time, until a steeper section, a bit more choked than the rest. It held me up for maybe 45 minutes, and I started getting cold and sore arms (who knew - lying in the mud only using one arm to dig awkwardly at arms-length?!). I could just squeeze through with helmet off and see more uninspiring low voids, although still heading upwards. I was getting too cold to continue, pretty sick of being there and was also mindful of being back well before my curfew (9 pm?), so I gave the cave the finger and headed back down to the sump. I didn't survey the dry section but have estimated and sketched it. I spent maybe 4 hours up there digging. I was pretty negative about it at the time - and I still don't particularly think it's worth a dedicated dive trip, but if dive gear is down there, it's worth another day of digging. Knowing that the sump is short, I'd need much less gear next time (i.e. wetsuit, which I could then cave in, smaller tanks, no wing, no reels, etc.).

### **Nice guys finish last**

I was very glad to be on the way back to camp, perhaps a bit too glad, because it was only once I was starting to put tanks on that I remembered I'd left Andy's GoPro up in the rockpile. Well, nobody can hear you swear when you're beyond a sump, which is probably a good thing in this case. It had taken ages to get changed back into my drysuit and I was actually warming up a bit - so after some serious contemplation about leaving the dratted thing, I bit the bullet and headed back up in my drysuit as the cave gave me the finger back. Having nailed the nasty climb in my caving suit, it was back to floundering around and also sorts of creative low-flexibility moves in the drysuit. With the GoPro retrieved, my last reserves of motivation were fast disappearing, although I was a little worried about getting submerged in the sump pool with a floaty bag, and without much ceiling to push off (it's nearly

vertical until the rock window). Incidentally, my plan in the event of the floaty bag getting too hard to deal with, was to stab it with a siltpeg. I got down ok and the bag compressed, and I remember thinking how I was nailing this sump diving stuff, and then spent some more time admiring Sandy's line work as I moved through the sump and surfaced on the home side.

Because I'm a nice guy, and I like efficiency, I made three trips crawling from the sump pool to the staging point so all the gear could be there for packing in the morning. I was also going to pack it into caving bags since I was comfortable and warm in a drysuit. I was just organising things into piles when I froze and started frantically throwing gear everywhere - the bright blue dry bag with my caving suit in it was nowhere to be found ... Needless to say, the idea of exiting Niggly without a caving suit did not thrill me, so after another comprehensive round of swearing I transported all the gear back to the sump and re-kitted. Nice guys finish last?

Now usually the chances of seeing anything in a sump that has been traversed twice already that day are slim to nil, and I wondered if I'd have to desperately feel for the bag on the ceiling. Amazingly, the vis was still ok and my only issue was a sore neck as I craned to look upwards. You can only imagine my relief when I saw it stuck on the ceiling in about 10 m (the double-ender clip had come undone) and how tightly I held it as I turned and swam out for the final time. I didn't even care that the bag had partially flooded and everything in it was soaked - at least not until putting it on. I made three more trips to get the gear back to the staging point and called it a day, it was getting uncomfortably close to curfew. I couldn't face getting into the sodden caving suit, so managed to get back to camp in my drysuit without shredding it or overheating. I got back well and truly over it at about 8:30 pm, plenty of time (half an hour?) before the cavalry would be called in.

All the leftover cous cous and 2 kg of salami later I was a bit happier, and Andy was also happy, having collected my return and recounting of the day's events on camera. The other guys were just in the process of going to bed and we sort of swapped stories and tried to make plans for "birthing day" tomorrow. Andy had pointed out that we had been gestating in the cave for three days, so this was the appropriate terminology.



*Niggly streamway. Photo: Andy Terhell*

### **Birthing day**

The final morning faffing was impressive, but big thanks to Petr and Pat who were sufficiently efficient to go back

to the streamway, pack four bags of dive gear and bring it back while the rest of us were doing our respective things. Some of these things didn't fit in the poo tube so ended up in a Darren drum with my drysuit undergarment (since it was going to be washed anyway). We were up at 6 am and left camp at maybe 8:30 am for the grind out. Andy enjoyed the Pantin I lent him and got his hero bag up the 105 m pitch like a trooper. Well, a really slow, heavily loaded trooper. Petr and Pat had already started confiscating my bags so Andy's hero bag was also confiscated and the three of us tackled the tight upper reaches of the cave, while the other guys followed at a more reasonable pace.

We were back in daylight around 3 pm and at the car at 5 pm. A quick stop at Junee Cave to retrieve dye detectors (I'll let Petr report on that) and some more faffing, and suddenly my flight back to Melbourne was looming. Some mad packing and weighing, and I had two bags of 32 kg each and 15 kg of carry-on, excellent (this does include the cylinders). Note to self, security people at the airport are suspicious when you have several hundred metres of string in your carry on.

As a postscript - I hadn't realised the other guys had found another sump until we were walking back down the hill, so we ended up carrying all the dive gear out (including tank rigging and weight belts, only leaving weights). We could have realised some efficiency and left a few things down there had we established that, but in reality most of it had to come out.

### Final stuff

#### Leads/to-do list for Niggly:

- Survey to new sump, see where it sits in relation to other stuff (all)
- Checkout dive of new sump (SF)
- Another day of pushing the Business Class Lounge (need a new tool) (SF)
- More dye tracing experiments (PS)
- Downstream MoG surveyfest (SF) - maybe by surveying in minute detail something will reveal itself
- Waterfall aid climbing (and/or dye trace from the top) (AK)
- Beyond-the-Waterfall pushing and survey (PF)
- Push water drain from BSG pitch (SF)

#### Left in the cave:

- Dive weights but no rigging or anything else
- SF camping gear
- PS tarp & mat
- Misc food and stuff (need to eat it!!)
- NO STOVE - BRING ANOTHER ONE!
- Other per GoPro video

## JF-673 Rocky Hollow

Alan Jackson

10 February 2018

**Party:** Gavin Brett, Nelly Brett, Alan Jackson, Anna Jackson and Mal Chandler (SSS)

The children had been getting needy about returning to explore their cave so we finally lined it up. Mal Chandler (Sydney Speleological Society) happened to be in the area and tagged along with a desire to do anything limestone-related (above or underground).



*The next generation of cavers? Possibly.*

*Photo: Gavin Brett*

The creek at the bottom of the hill was bone dry again (this seems to be a recurring intermittent occurrence now). The girls did well up the hill carrying packs. While people kitted up I installed the JF-673 tag on the southern face of the eastern (larger) entrance about 400 mm down from the surface. This entrance has a small manfern growing next to it and a ~200 mm diameter ex-manfern with tree roots of something growing across the entrance. It was draughting very strongly (in).

Gavin did a quick recce to the top of the first pitch. The ~3 m entrance climb was deemed a bit tricky so a short ladder was thrown down for the girls. I then headed in, followed by Anna, and we negotiated the entrance climb and the second ~2 m climb that soon follows. At this point is a small chamber at a junction. The northern passage gets too small but a well-aimed rock suggests a small drop exists. The western passage continues down via a tightish slot to a steep ~5 m slope to a ledge and then a ~14 m pit. I whacked in a concrete screw Y-belay on the southern wall above the slot and then a super short single concrete screw re-direct (hanger and crab only) to direct the rope through the tight bit. Gavin and Nelly had arrived by this point and room was running out.

I abseiled down the awkward slot to the ledge overlooking the pitch. I placed another concrete screw Y-belay and shot down for a look. It was a very pleasant pitch (slight bend near the bottom but no rub when on rope) with various bits of squishy moonmilk. A few metres below the rebelay a horizontal passage headed back east under the others and a thrown rock suggested a pitch in there too. At the bottom of the shaft was a large collection of bones (including several large hoppers –