
Vertical caving with dive gear is hard

Keir Vaughan-Taylor
Tuglow, 23rd – 26th January 2016

Rod Obrien, Keir Vaughan Taylor diving, Carol Castro, Edward Castro, Rowena Larkins support

Saturday

It had been a long busy week. I was up at 5:00am in order to meet up with our support group and set up a camp site at Dingo Dell. Very nice spot with many birds and not another single companion camp group all weekend. The road in was abounded with dozens and dozens of wallabies and occasional four wheel drive nomads. All weekend rain was on and off but never a deluge enough to retreat from boiling billies on the campfire .

For our dive plan, Rod was keen to survey while I was to have a go at penetrating the squeeze in the horizontal passage at 33m depth. We were optimistic at getting two dives over the weekend.

The numerous gear items required two trips from where our transport vehicles were parked to the cave entrance and it wasn't until 1:00pm we arrived with our stack of gear at the cave entrance. There were many small birds in the thickets surrounding the cave entrance, tree creepers, yellow throat ed honey eaters, surprisingly bold and unafraid. Glorious black cockatoos high in the gums screeched warning of our presence.

Below the first short ladder pitch at Tuglow's entrance there is an 80m almost-vertical rift dropping to the main Tuglow underground river. The plan was to package all our paraphernalia into cave packs and lower each pack on the end of a long piece of polypropylene rope to the river level.



*Rowena Larkins and Rod Obrien
with gear at Tuglow Entrance
Photo Keir Vaughan-Taylor*

I had purchased on Ebay 200 meters of 8mm polyprop for the purpose. There was more than enough to lower each item and provide a tail to pull on from the bottom should anything get stuck. In my mind this was going to be much faster than going through the rockpile.

Rod rigged the main pitch with two rebelays and two redirections to avoid rub points and Rowena descended half way to help guide our transport parcels around any obstructions . With the pitch rigged the first pack began its journey.

Stout Rowena spent most of her day suspended in a harness guiding packs around disjoint sections in the “vertical” pitch. At the pitch head I was soon to discover that new rolls of polypropylene behave with the temperament of a wild horse. To release a polyprop rope from a roll, they say, it has to come in coils from out of the roll's center otherwise it gets tangled. It gets tangled anyway.

Even though I had been warned about this, as a result of the uncoiling, the blue spaghetti developed a malicious life of its own. It twisted and gnarled, taking on a war with the arresting descender and locking and jamming into the bars as the load went down. Each knotted twist refused to pass through the descender's friction bars. The descender was so unusable, the pack was stopped mid-way down with a locking jumar and the descender substituted for a single carabina and an Italian Hitch – almost as bad.

Somehow trying a variety of carabina combinations, the rope was gradually brought under control. We safely lodged two sets of dive gear to the bottom, moving the packs to the dive site by 6:00pm. It was time to go and have a good feed at our campsite. I slept well.

At breakfast I declared that the SRT route was one of Keir's innovative ideas, that wasn't such a great idea. Getting gear up would need a pulley on each pack to get a two to one advantage. Pragmatism overwhelmed our engineering love of mechanical advantage. Instead, the next day we used the rock pile route to go down Ward's Chimney. We would bring gear out that way as well. It was much quicker.

There is a 5 meter drop from the gear drop-off point to our blue sump leading to who knows where. We clambered down using a tape and then lowered gear. I was to leave first and Rod helped me connecting my tanks to my BC.

I dived Tuglow's sump many years ago and I supported Ron Allum diving the sump some years later. The rift looked much the same as I remembered it, dropping almost straight down to 27 meters where there is a flattened space with possible leads. Down what looks like a vertical solution tube is the onward path, dropping into a rift going in two directions at 33 meters depth.



*Rod Obrien manages gear at the 70m pitch head
Photo Keir Vaughan-Taylor*

I tried to get pictures on the way down but I could not turn the flash off and I could see on the screen that the back-scatter from the flash was spoiling the picture. After failing in a perfunctory attempt to step through the camera menus to find the “turn off the flash” setting I gave up on photos because I was starting to silt up the shaft.

Sure enough, in the bottom room there was the solution tube, perhaps 1.5 meters in diameter. I descended through the tube finding myself in a rift that could be traversed until reaching the existing line's tie off. Ten meters further down the passage there is a gravel obstruction. I connected onto the end of the existing line and made my way to the constriction. Gravel carried by strong flood event currents is piled up, but at the squeeze is stalled by gravity upon reaching a steep upward slope in the floor. In the absence of nature's force, loose gravel in the squeeze can be scooped behind, helped to some extent by gravity. After a little work I could make my way upwards to an upper level. At 27 meters the visibility cleared, presenting a clear way on.

The route here is more spacious than the previous tunnel, maybe 2.5 meters wide and 2 meters high. The conduit continues in the same direction and disappears into the distance further than my light. I moved about ten meters along the passage where return time was upon me. A tie-off point was secured, wound as three slip knot loops. Happily there is plenty of room to turn around. Water temperature at the surface of the sump is a balmy 15 degrees centigrade but here at the tie off it is a chilly 11 degrees combined with a running current.

Squeezing back through the excavation was blind with the local environment having remained silted despite a noticeable current flow. A way through on the left side, facing upstream, is found feeling for the excavated wide space with an outstretched arm.

At the lower room I passed Rod still trying to survey in vision less conditions. Turbid water made Rod's surveying difficult. He could hardly see his note book let alone his compass. Nevertheless he had added another 15 meters to the last survey and made measurements and diagrams of passage widths, shapes and trend directions by physically feeling the size and shape of the environments. Rod finished his dive shortly after I did with both of us chilled and ready to warm up on the climb out.

It was a long hard day and we left the gear to be taken out the next day. We were all very tired, so this weekend, there would only be one dive and we extracted all the gear the next day.

I tried to have a look at Window Cave in the adjacent valley but so many trees had blown over in recent storms it was a jungle that put us off. In the upper woodland a sow with its two piglets judiciously retreated into the trees although one piglet completely unfazed by my noisy presence refused to give up digging whatever tasty item it had found.

The next day Rod demonstrated four wheel driving at its best descending one of the back fire trails that seemed to be only slightly off vertical. In the bottom of the valley is a picturesque river into which a small stream percolates from a heavily reeded marsh. We had located Yard Lane Springs. The small lake nestled under a limestone bluff fed by with some underground water source associated with some very small un-enterable caves.

Accounts from cave trips twenty years ago say the lake was not as silted as today. A farming property on the other side of the bluff show signs of previous dolines and cave entrances having been dozed, filled and blocked with trees. Shame about that.



*Lane Yard Springs. Small cave visible on left.
Photo Keir Vaughan-Taylor*

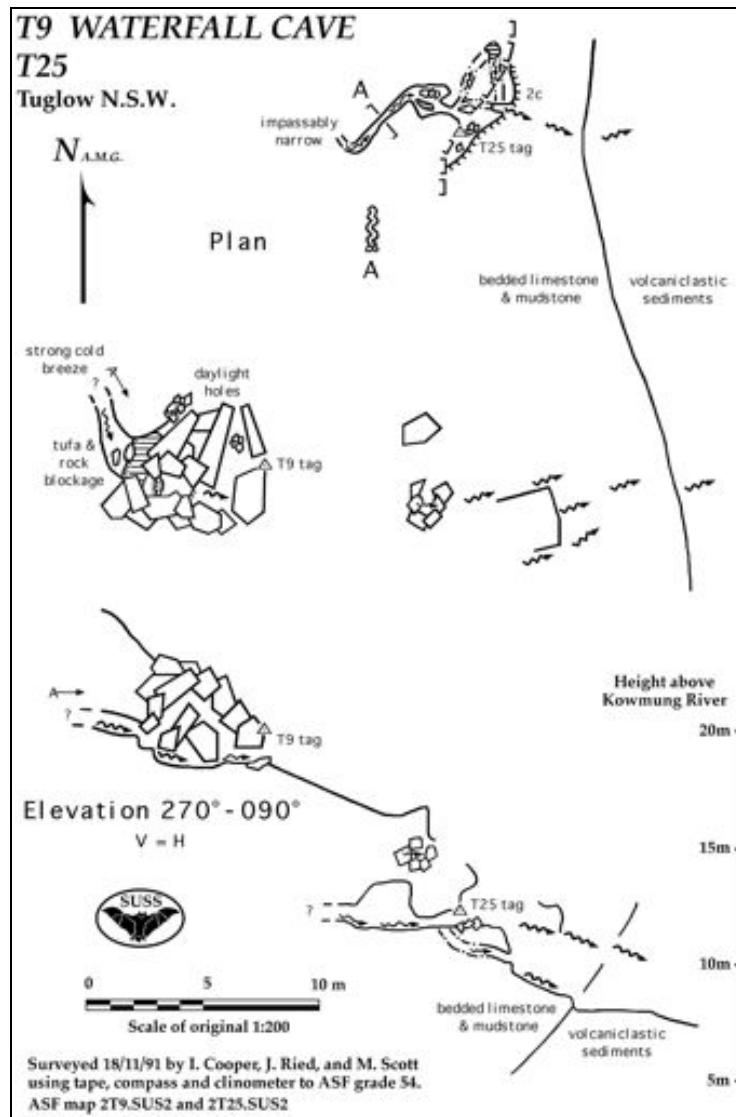
Conclusion:

The difficult part of the Tuglow underwater survey is done having reached into the bottom of the main shaft. A future trip can more easily make it into the horizontal passage down the solution tube. This passage is straight and silts less easily so survey legs along this conduit should be easier to record.

The sump surface is about 20 metres above river level with the resurgence at a similar level. At -33 meters our underwater avenue should be underneath the level of the Kowmung River. It is likely to be running parallel to Tuglow Bluff under the Window Cave valley and then emerges at a cliff-face resurgence about 20 metres above the Kowmung River.

The last tie off at -27m represents the distance the conduit will have to rise to balance the column of water back at the sump. There may be a surface where a diver can get out and hopefully there may be more cave like Tuglow Cave prior to its emergence in Waterfall Cave (T9).

The resurgence is somewhat optimistically named Waterfall Cave because somewhere inside a tight rock pile there is a 1 metre waterfall. I've been in this karst feature many years ago but could not get in very far although my fellow cavers were able to slip through the smooth river boulders a little further than I could manage. Window Cave has a voice connection into Tuglow somewhere above the downstream sump. That means the start of the bottom rift is already under the valley adjacent to Tuglow Bluff with the existing geological maps showing a resurgence 100 meters horizontal distance from the sump¹. I conservatively estimate the distance we have covered along the bottom passage is 40 metres so there is likely to be another 60 metres to go.



1 "The other caves at Tuglow" SUSS Bull 32 (4):5