

Roe Plains, WA

Olwolgin Cave Revisited (Part 2)

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IN PART 1 (Hosie 2013), I relayed the excitement of the initial discovery and exploration of 2,700 m of virgin cave diving passages in Olwolgin Cave between October 2011 and Easter 2012.

In this article I will bring the story up to date (November 2013) and reveal the details of discovery for what is now one of Australia's longest underwater cave systems.

ANZAC PARADE

Spurred on by the tantalizing discovery of Grand Central by Chris Edwards and Grant Pearce during the Easter 2012 trip, Alan Polini and I organised another Raid trip for four days later that month. Only an act of God would keep us away from the Nullarbor at this stage and even then, He'd have to make a pretty good effort.

Driving through the night of 24th April, we arrived on site on Wednesday morning, the 25th (Anzac Day). We immediately wheelbarrowed everything out to the cave: scooters, cylinders, compressors, generator, food and fuel.

After a set-up dive to stage cylinders and scooters in the cave on the Wednesday afternoon, the cave was set for some serious diving commencing early the next morning.

The aim of the first push dive was to explore Grand Central, specifically to the south-west, in line with the main passage development trends seen so far in the cave.

Alan recalls this memorable dive: 'Upon arriving at Grand Central and after looking around its impressive size, we continued with our plan of checking extensions to the south-west. This is where we left Grand

Central and entered a massive section of cave tunnel.

'It was a good thing that we each carried a compass; we needed them, as the sheer size of the Anzac Parade tunnel made the high-powered lighting systems we had virtually useless. Don't get me wrong; it was great to be laying line in what is and could quite possibly be the largest unexplored passage I will ever experience, but a shame that we could barely see the walls. Just like floating through space, we unloaded the line off the reel screaming and hooting at each other.'

More than 600 m of impressive diving passages were explored and surveyed over the next three dives in this area.

On our second last dive of the Anzac Day Raid, Alan and I redirected our attention to the end of the A Tunnel to close out



Paul Hosie (left) and Richard Harris in upstream Olwolgin



Ken Smith, followed by Chris Edwards, swimming around the hanging roots early in the main tunnel of downstream Olwolgin

some leads there. Although the leads we looked at were largely fruitless, on our way back we both made separate, significant discoveries on the sidewalls of Ags Dreamtime. Alan explored and surveyed 250 m of stunning virgin passage on the eastern side — Gentlemans Lead — while I discovered a roof hole on the western side with a large, wide, 200 m long tunnel that proved to be a short cut to Grand Central.

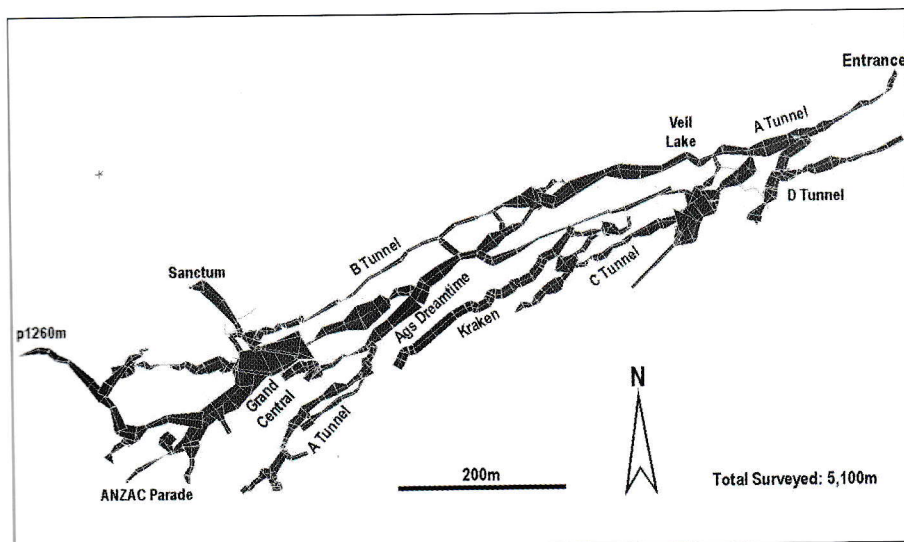
More importantly, the short cut was big enough to facilitate a direct transit from the staging area through to Anzac Parade with scooters and backmounted rebreathers. In three days of highly focused exploration diving, Alan and I spent 16 hours each underwater. This enabled us to add 1,800 m to the surveyed length of the cave and extend the maximum penetration distance to over 1,250 m—exhilarating, but exhausting indeed.

Further efforts by two different team visits later in 2012 (including Alan & me) failed to find a continuation of the cave to the south-west but added a further 700 m of passages, most notably The Kraken, a 300 m long side passage from the Gentlemans Lead which connects through to the end of the A Tunnel and features some of the most extraordinary bacterial 'webs' seen in the cave. The Kraken was discovered and named by Alan Polini and Rod O'Brien (SUSS) who both have large tattoos of a kraken on their bodies. At this point, the name of the cave where all the new cave diving discoveries had been made was revealed as Olwolgin Downstream during a presentation at the CDAA AGM in Mount Gambier, at which point the surveyed length stood at 5,100 m. The total cave diving passage length of Olwolgin Cave was then at 7,800 m. (See map 1)

We were starting to think that we had exhausted the main exploration of the cave and hopes were low that we would find a continuation to the south-west. All the big tunnels at that end of the cave terminated in small, low, flat, silty areas — generally uninviting areas for cave divers. Our next major trip was planned for Easter 2013.

BREAKTHROUGH

Once more, Alan and I were back, but with a continuation of the cave now highly doubtful, we turned our attention to surveying the remaining line in the cave, pushing small leads and bushwalking the surrounding area for new caves to dive. The surveying helped to fix some errors in the survey and a few small leads added 500 m to the map. The bushwalking revealed a couple of new karst features but no new caves to dive. As Alan went back to work after four days of diving, brothers



Map 1 — Olwolgin Cave as at August 2012

Ryan and Michael Kaczowski joined me in his place and began familiarising themselves with the cave system: Upstream and then Downstream Olwolgin.

During the course of surveying some small and silty tunnels near the end of the cave, I noted some fascinating patterns of speleogenesis that were repeated in areas of the cave separated by many hundreds of metres. These patterns helped me to reappraise my understanding of the cave's structure and development, giving me new hope of finding a continuation to the south-west. With the possibility of the continuation firmly in mind, I set off on a dive to the end of the cave. Before I left, Ryan asked, 'So, are you going to look at some new holes or areas to try to find an extension?'

'No, I'm going to look at old areas, but with a new attitude.'

The first two hours of this dive were spent exploring and surveying 200 m of small new passages near the end of Anzac Parade which matched the expected profile but were not the hoped for extension. The breakthrough came when a low, flat, silty room (it was, in fact, the very first place Alan and I looked at when we were exploring 12 months before) was revisited and traversed straight through for 50 m before it opened up into a large conduit heading directly to the south-west — the continuation had been found. A further 100 m on, my thirds gas limit was reached and the line was tied off on a boulder pile in the middle of a large intersecting passage with no end in sight either to the left or right. This was an absolutely perfect way to wrap up the dive and survey out.

Ryan and I spent the next two dives exploring and surveying over 500 m of passages in this new area named the Easter Extension after a similarly named section of Mullamullang Cave. Ryan spotted a skull and full skeleton of a dingo amongst

the rocks at the intersection tie-off (Dingo Junction), no doubt washed in from the surface feature we were now in the vicinity of.

A large room full of thick, brown silt and incredibly dense drapes of bacterial matting was briefly surveyed and checked for a surface connecting hole before being left from further disturbance. Signs have since been placed in this area asking that only divers on closed circuit rebreathers enter it as, in the author's experience, this room is unequalled in the bacterial deposits it contains and is an amazing but fragile spectacle worthy of preservation.

Ryan provided the following impressions of the cave after a week of diving. "I found the cave impressively large, considering the crappy little entrance hole. Especially remarkable are the large rooms toward the back of the cave (Grand Central and Anzac Parade) where the dark cave walls and distortive water seem to swallow up light from even the brightest torches. It's amazing to dive through a number of large tunnels which are all connected through excellent sidemount passages. The new section, once again, was impressive to arrive at after traversing through a much smaller cave tunnel and then popping up to a large junction with yet another tunnel seeming to boom off left and right with small, low rooms branching off its sides. While diving Olwolgin Cave you get to experience very different characteristics compared to other Nullarbor sites and the varying size and length of the passages can't help but make you wonder what's happening under your feet right throughout the Roe Plains."

The Easter 2013 trip added another 1,700 m of surveyed passages to the cave making a total of 6,300 m for Downstream Olwolgin and 9,200 m for the total system. The maximum diving penetrations were now at about 1,300 m (see map 2).

ROE PLAINS, WA: OLWOLGIN CAVE REVISITED (PART 2)

THE ADVENTURE CONTINUES

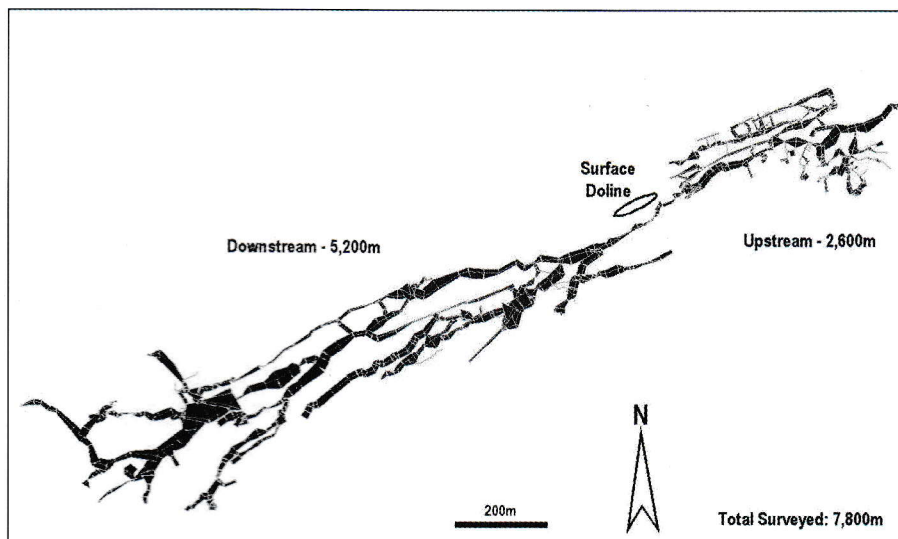
Discussions were had with an experienced group of cave divers from the CDAA in late 2012 regarding access to and protection of the cave for suitably experienced and qualified CDAA members.

It was agreed that the line in a number of areas would need to be cleared up or removed, more signs placed, and that clear junction marking (with tags) similar to the system used in Tank Cave would be needed. We also needed to ensure there were line arrows every 50 m or so throughout the cave. In July 2013, a lot of this work was done by Ken Smith and Neville Skinner in both Upstream and Downstream Olwolgin. Grant Pearce and I used sidemount rebreathers to continue exploring the Easter Extension area and added another 300 m of small, maze-like passages there, but we found no major continuation. When we left, there were only two leads identified by Grant and I that had any promise of finding a way through and they were strictly sidemount access as well as deep in the cave). Run times of 3-4 hours on these dives were normal.

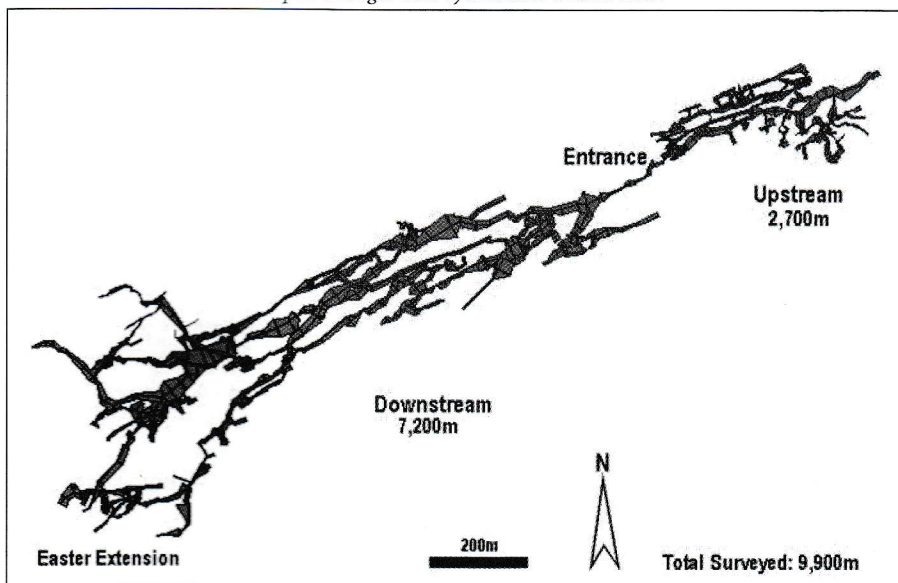
With the rest of us committed to work and family, Ryan and Michael Kaczowski, together with Sam Vermey, took up the challenge in the first week of November 2013. Grant and I received very excited phone calls from Ryan as he was passing back through Eucla on his way home from the trip: 'Great Success!' Ryan describes their experiences. "Sam loved the cave and we spent the first few days getting him familiarized with the passages. I was very eager to get out the back though, of course. Once we got out the back we quickly got onto Grant's reel. We passed through two close-tight restrictions then it pops out into nice big passage which runs NE and SW. Great! Ran about 110 m in a straight line and surveyed it out."

Ryan continues. "Next dive we looked for leads. Sam reeled out into a couple of offshoot passages (which we surveyed). I saw a hole dropping off to the south-west on my way out which I had missed and the next dive had a look and, yes, it just took off. It is a really beautiful section of the cave, like a maze or forest of limestone. Plenty of leads so just headed SW and it kept going. After I reeled through a lower silty section I started following larger passage ... I am sure it keeps going but I had no time to push it. Must return with scooters. Long swim. Ha!"

Congratulations were in order; together, Ryan and Sam explored and surveyed 300 m of passages in the new 'Stone Forest' section, extending the maximum penetration distance to approximately 1,500 m and best



Map 2: Olwolgin Cave System as at October 2012



Map 3: Olwolgin Cave System as at November 2013

of all, still going. We are hopeful that this new section will enable continuation into the main conduit to the south-west beyond the collapse doline and cave that is clearly obstructing the main passage near Dingo Junction. Pinger data obtained in July 2013 showed this area to be only 50 m short of the surface doline and cave from where the dingo skeleton was most likely washed in.

IN SUMMARY

During two short but intensive years of exploration, Downstream Olwolgin has revealed over 7,000 m of new cave diving passages and provided all those involved with some amazing and unforgettable experiences.

Exploration of the whole cave system over the past ten years has involved a lot of work as well, with over 900 survey stations and 33 pinger points recorded. We have also placed numerous underwater conservation signs, reflectors, dozens of junction markers and countless line arrows. Olwolgin Cave currently has 9,900

m of surveyed passages, placing it among Australia's longest underwater cave systems such as Panniken Plains, Tank and Cockle-biddy Caves — deserving company for such a spectacular cave (see map 3).

The author would like to thank all those who have helped and contributed to the exploration of this magnificent cave system to date.

The beautiful underwater photos taken by Richard Harris, Liz Rogers and Chris Holman have helped convey the stunning beauty and fragility of the Roe Plains Caves — thanks, guys.

And, of course, for the use of the ping-ers which enabled us to correct our survey data, we are entirely indebted to the inimitable Ken Smith whose fart joke and accompanying peals of laughter will echo across the Roe Plains forever!

REFERENCE

Hosie, Paul 2013 Roe Plains, WA. Olwolgin Cave Revisited (Part 1) *Caves Australia*, 194: 15-17.