

Blue Creek Cave Diving - Trip Report January 2015

Richard "Harry" Harris (CEGSA)

Background

Reports of a positive dye trace from Bulmer cave to Blue Creek Resurgence piqued the interest of the Wetmules, and a plan was made for a visit in early 2015 (and a year off from the Pearse Resurgence exploration).

The Blue Creek cave and the nearby resurgence have a long history of exploration. Most recently, I am aware of dives in the resurgence by David Apperley and Rick Stanton in 2007 using sidemount techniques. Rick felt that the possibility of major finds were low, and commented that the sand flies were of epic proportions at Courthouse Flat campground! Over the last few years Australian and New Zealand members of the Global Underwater Explorers (GUE) have performed numerous expeditions to the site, both for purposes of training and exploration. No major new finds have evolved from these trips but survey work has progressed well.

Tom Crisp is a local cave diver who has worked with the GUE teams, and provided major logistic and practical assistance to the Wetmules trip. Although not seen by himself, Tom understood that a side mount restriction off the main passage held promise of new passage and this was to be the main focus of our trip. As the GUE divers utilised backmount techniques, there was a definite possibility that side mount divers may be able to push into new cave that precluded these divers. In addition, the ability to do more prolonged dives using closed circuit rebreathers meant that the Wetmules would be able to spend more time searching for new leads.



Tom Crisp and Stefan Parsons: Local cave diver Tom Crisp (L) provided invaluable local knowledge and support.



The Wetmules L-R: Richard Harris, Sandy Varin, Craig Challen, Luke Nelson, Ken Smith, John Dalla-Zuanna and Dave Bardi.

The team included our regular suspects: Ken Smith (CEGSA), John Dalla-Zuanna (VSA), Sandy Varin (VSA), Dave Bardi (VSA), Craig Challen (CEGWA), Luke Nelson (CEGWA) and Richard Harris (CEGSA). As always, the Nelson Speleological Group and in particular our wonderful hosts Oz Patterson and Deb Cade gave us enormous assistance in NZ. We were joined at the cave by divers Tom Crisp and his buddy Stefan Parsons from Auckland, and also enjoyed a visit from Martyn Farr (Wales) who is doing some amazing exploration in the Takaka Valley.

The Expedition

Four pallets of diving and camping equipment were shipped from Australia in December and the Mules arrived in Nelson on January 10th 2015. A BBQ with our hosts Oz and Deb gave us the strength to prepare for 2 weeks camping at Courthouse Flat starting the next day. Sollies transport was employed to ferry all the gear to the camp, and a hired van to transport us. Under two hours drive got us to the camp via some beautiful local scenery, trout filled rivers and Mt Owen looming in the distance. Freshly mown grass and a long-drop toilet made for a very comfortable site, although we missed the adventure of a helicopter drop!



Courthouse Flat provided a perfect campsite, complete with Portaloo! But sadly the sandflies offset many of the benefits.

All things come at a price! The blessing of the camp amenities was slightly offset by the daily 1.7km stroll to the cave entrance. This is where the rebreathers again proved their worth as once all the gear was ferried to the cave; only the consumables needed to be taken back to the camp each day (small oxygen cylinders, CO2 scrubber and batteries). Still, it was good exercise and beautiful walking in the mostly excellent weather.



A beautiful walk to the cave entrance, made easier with the use of trolleys for all the heavy gear.

Diving at Blue Creek is pretty easy. The main resurgence is an overflow for the cave system that only flows in very wet conditions. All the water appears from a bit further downstream so the entrance pool where diving commences is still and therefore pretty silty. A bit of boulder hopping delivers you onto a small beach where two divers can comfortably gear up. Water temperature is slightly warmer than the Pearce at about 7-8 degrees, although at depth (in the slowly flowing water) it is closer to 6C.

The Diving

Over the course of the next 11 days the team performed approx. 70 dives total in the system with a max depth of 77m and max dive duration of around 3 hours. A collapsible habitat was installed at 6m depth although for dives of < 90 minutes it was not required. With the exception of two divers (KS and LN) dives were performed on closed circuit trimix, with the team utilizing either Flex or SF2 sidemount rebreathers.

Tape measures were run throughout the main passage from the entrance to the cave terminus with a total linear distance of 256m. This baseline was used for much of the subsequent survey and supplemented with some sketches in the side tunnels.



Craig Challen about to slide down between the boulders into the cave. Below him is the small beach where the divers gear up.

The electronic cave logger mounted on a scooter was used to complete circuits in the A,B and C tunnels. A “pinger” point and dye tracing were utilised to establish the connection between the cave passage and the main outflow under a surface rock (apparently known as “Mike’s Rear Entrance”). A physical connection from above and below could not be made, as it appears to be a boulder-choked chimney.



Sandy Varin observes the fluorescein dye emerging from “Mike’s Rear Entrance”. Ken Smith is releasing the dye from about 12m depth.

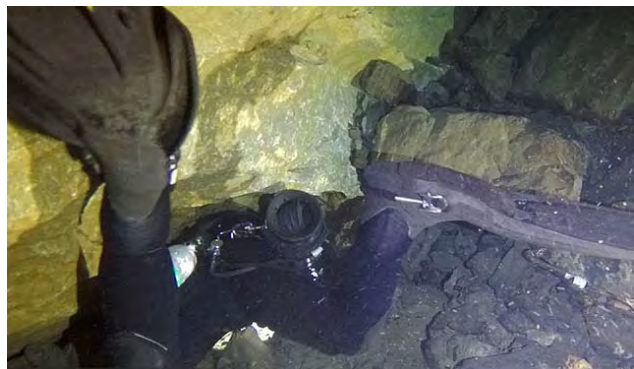


After releasing the dye and positioning a “pinger”, Ken performs a radiolocation to confirm its position.

At a point 188m into the cave (depth 65m) a restricted tunnel entrance was seen on the right side entering the cave. A “T” was formed off the main line and the tunnel explored for 20m to its terminus. The floor was scoured and rocky and appeared to have low flow in the recent very dry conditions. No line was present in the passage. At the end of the tunnel (70m depth) two large boulders blocked the way on, although tunnel was seen beyond. On the left on the floor, a very tight hole led into further passage with definite flow emanating from it. Moving a few rocks led us to believe that exploration might be possible. Over the next 5 dives, the entrance floor was excavated by Challen and Harris until the author could wriggle backwards into the hole with one cylinder removed. Reversing down the passage for several body lengths Harry could then turn around, replace the cylinder and swim forwards. The tunnel curved down and left to a depth or 77m until it pinched out with a small, solid and un-passable lead to the right. Another branching tunnel in this section was explored to the side leading up a rocky slope. Further potential exploration is possible here although a fair bit of rock will need to be moved to progress, however this seems to be the most promising lead in the cave remaining. A view of the boulders blocking the end of the sidemount tunnel was gained from behind, and Harry and Craig briefly entertained a “deadman’s handshake” through the small gap (readers of *The Darkness Beckons* by Martyn Farr will understand this reference!) but both quickly thought better of it! The system was named “Patience Tunnel” after a local creek and the determination of the team to make this small breakthrough.



The author pauses at the end of Patience Tunnel. To his left, the floor restriction which was the subject of the dig. Ahead of him, the boulder choke where he and Craig considered the “deadman’s handshake”!



Richard Harris head down and trying the restriction on for size.



After numerous dives working on the restriction, it is finally passable.



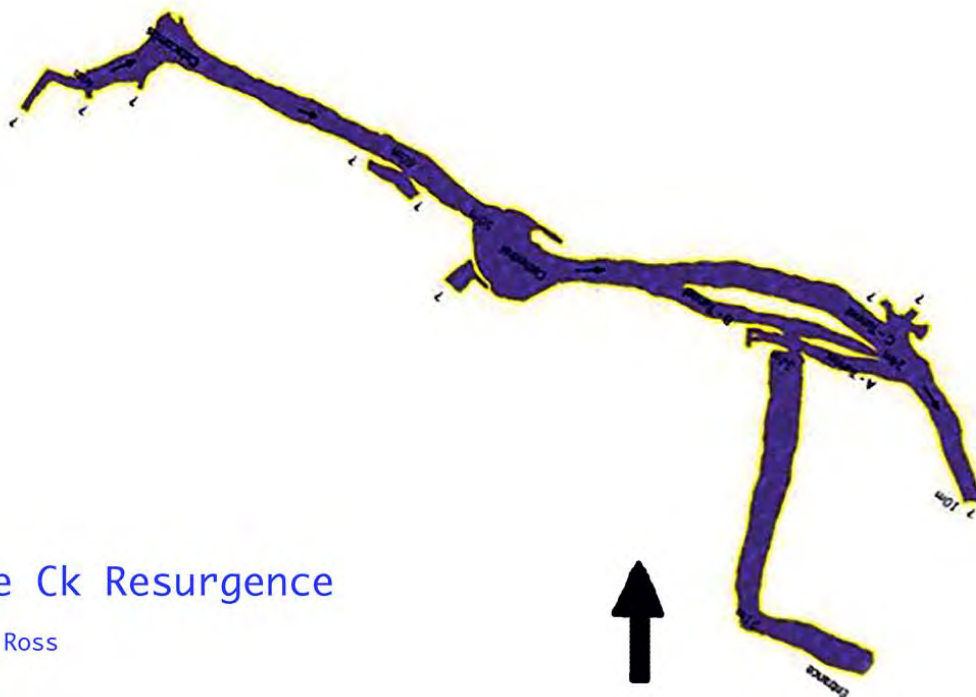
Garbage collection...bundles of old line removed from the cave.

During the cleanup dives a large amount of old line of many different types was removed from the cave. A new orange line was installed although there is no guarantee this will survive the winter floods.

The trip finished on a slightly low point when one of the divers developed neurological decompression illness on the second to last diving day. Unable to self-rescue from the entrance initially, local cave SAR and police were notified and activated. Fortunately by the time help arrived, we managed to get the diver out of the cave and over the next 1-2 hours all symptoms resolved with effective first aid. The team is extremely grateful to the local volunteers and SAR personnel who responded so quickly.

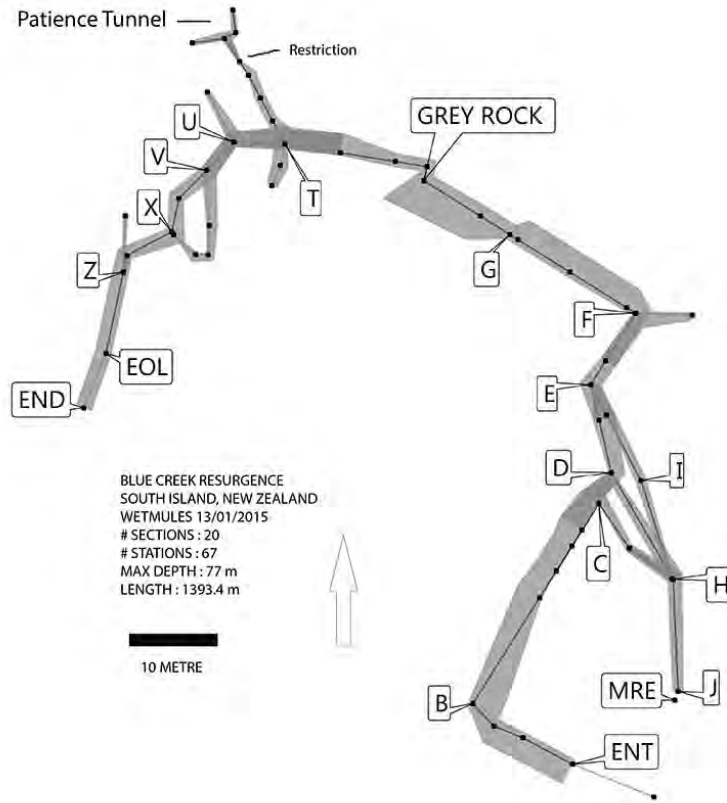
The Map

The new maps are shown below including an enlarged sketch of the Patience Tunnel. The combination of tape measure, compass and knots, electronic logger and dye tracing provided a lot of information however only the main passage survey could be considered of a high grade. It is interesting to see that like the Pearse Resurgence, the main tunnel lies under the river above.



Blue Ck Resurgence
2002
Chris Ross

Original Map.



The 2002 map produced by the GUE divers, can be compared with the newer map from our expedition. The main changes are in the overall shape of the cave rather than the length.

Conclusion

The gala dinner in Nelson was more than sufficient to make up for any indiscretions and all enjoyed the local ales. The trip was a success in that a more accurate map of the cave was produced, the efficacy of sidemount rebreathers in this environment was proven and small gains were made in the exploration of the site. The surface outflow connection was definitively linked to one of the cave passages, and the bond between Aussie and NZ cave divers was further strengthened. We look forward to working with the kiwi cavers again next year back in the Pearse!

Richard "Harry" Harris.

%%%%%%%%%

Eyre Peninsular, 3-5th April 2015

Participants: Graham Pilkington, Neville Skinner, Aimee Leong and about 15 FUSSI members.

This was an Easter trip led by FUSSI. Neville (as a FUSSI member) did most of the organization for the field trips while Clare Buswell organized logistics. Neville has already presented a report for this trip but I'm adding a few more photographs.

For a long while, CEGSA members have been interested in the sea caves along the Nullarbor and have recently discovered that the cliffs just south of Adelaide also contain many caves. Well it turns out that there are also many significant caves along the west coast of Eyre Peninsula.



Sea stack with caves offshore from E60.