

Junee-Florentine Karst, Tasmania

Part II: January-April 2009

Richard Harris, Liz Rogers, Dean Chamberlain and Grant Pearce

THIS ARTICLE outlines the exploratory diving conducted in Lawrence Rivulet, Junee-Florentine, Tasmania. The initial trips were conducted immediately after exploration dives in the Junee Resurgence (see *Caves Australia* 177).

Participants: James Arundale (CDG), Dean Chamberlain (CDAA), John Dalla-Zuanna (CDAA), Richard (Harry) Harris (CEGSA), Grant Pearce (CDAA), Liz Rogers (CDAA).

January 9th: Dive Day 5

Time for a good look at the Lawrence. Our research of previous dive reports from Hume and Eberhard *et al.* gave some conflicting information.

Everyone seemed to agree on a couple of things: the entrance is tight and difficult to negotiate, the flow can be strong and hence gas is consumed very rapidly, but finally if you can get into the system plenty of virgin passage awaits exploration. We needed no further encouragement.

Lawrence Rivulet lies only a very short walk through the rainforest from a forestry track about 30 km from Maydena. The leeches and mosquitoes were still there in abundance and made us feel very welcome. John Dalla-Zuanna had to leave today and Harry was feeling unwell, so everyone elected Liz to be the test diver and sent her in to check the water.

With the occasional shriek as a leech sampled her plasma, she crawled beneath the massive log which guards the entrance and disappeared for a 26-minute dive, maximum depth 23 m. She reported high flow, 4 m visibility but an excellent dive.

Two restrictions were evident, the first at the entrance between two smaller logs. Further down the cave at 18 m depth, a second restriction must be passed.

Wearing sidemounts, you must keyhole this restriction by lifting your right tank (turning your body to 45 degrees) to pass



Dean Chamberlain, wearing side mounted tanks, prepares to enter the Lawrence Rivulet

RICHARD HARRIS

through. Once practiced this doesn't present any great difficulty but one would find it near impossible with backmounts.

Liz reported the line in tatters beyond the point Dave Apperley had got to (just beyond the restriction) and started laying a new line. Dean followed Liz and added a bit more to the line, but they had yet to reach the previous limit of exploration.

That night while the group enjoyed Jim's special curry, Harry made a visit to Hobart hospital emergency department with a kidney infection... ouch!

January 10th: Dive Day 6

A day off for Harry, not surprisingly. Grant also not feeling well. Jim had to go to Hobart so that left only Dean and Liz to continue their diving in Lawrence Rivulet. They made one dive each with which they reached a steeply ascending slope up to 12 m depth, at which point they could not find a way on. This slope had been previously reported and was probably the previous limit of exploration.

January 11th: Dive Day 7

Connection of Lawrence Rivulet to new sinkholes: "The Soggy Sink" and "The Tigers Eye Cenote".

Harry was back on deck and Jim was diving too.

Harry dived and reached the end of Dean's line, seeing the pinch that had stopped him. Pulling the line back down the slope, he headed to the left and found a new way on up a silt mound. Unfortunately this closed down too and he retreated in zero visibility.

While Harry was diving Grant had a look at a small surface sink (called "Soggy Sink") across the track that Dave Apperley had mentioned to the group. The sink has a clay floor and contains several very small pools of clear water. As Harry was diving the Lawrence Rivulet, Grant noticed his bubbles erupting from the mud and water—it seemed the choke they have reached was under this sinkhole.

Jim dived next and Liz and Harry wandered around the sinkhole at the same time.

As with Harry's dive, Jim's bubbles appeared near the sinkhole and then disappeared, but this time they reappeared nearly 10 minutes later. He had found a way on. Jim had retrieved Harry's line and looked further to the left again. A tight passage led further on and steadily ascended again.

Still on the surface, Harry decided to walk further into the bush in the direction the cave was heading. Just over the next rise he discovered a beautiful pool of flowing water filled with wonderful aquatic plants and looking like a Mexican cenote in the sunlight. Water was rising from the far side of the pool and then disappeared in a whirlpool between the many logs on the near side. Great excitement. The feature was named Tiger's Eye.

Harry returned to the Lawrence Rivulet for a second dive and picked up where Jim left off. He continued another 10 m or so until suddenly he was met with an impenetrable wall of silt coming towards him at a depth of 7 m. He beat a hasty retreat and found out on surfacing that Grant had been wading in the new cenote and a large blob of clay had fallen in and been washed down to meet him, thus at least proving the connection between the new cenote and Lawrence Rivulet! Grant and Jim decided to have a look in the resurgence side of the new hole and laid 30 m of line down to a tight, hard rock restriction, which looked as if it will halt progress. Beyond lay a large and beckoning space.

January 12th: Rest Day

Home time for Jim and Harry. Dean, Grant and Liz remained to explore the new site.

January 13-16th: Dive Days 8-11 by Liz Rogers.

January 13th

Liz dived Lawrence Rivulet to the final restriction, couldn't find a way through, and surveyed her way home. Grant went in next and cleaned up all the old scraps of line. Dean then dived and moved a log and a rock to get through the restriction into the daylight zone. He then did a second dive to move the original yellow line before the 18 m restriction away from the sharp rock wall that Dave's patch of line was grazing. Grant then dived Tiger's Eye and did some more digging.

January 14th

Dean and Liz headed back to FYEO to take photos, and Grant did a day trip to Strahan looking for timber for a table!

January 15th

Grant dived first and continued digging the restriction in Tiger's Eye Cenote. Dean



In the "Soggy Sink" found by Dave Apperley, Richard Harris enjoys a mud bath while checking potential leads

LIZ ROGERS

dived second and ran the line around the restriction and through a sandy flattener and rock restriction, taking it to a depth of 28 m, and the start of the "pillar room". With no wing he had buoyancy issues, rapidly followed by silt issues. Liz then dived, taking the line to 36 m before skedaddling. A 21-minute dive and she was absolutely freezing.

Grant dived again next and tidied up the line down to the start of the pillar room. It was getting late at this point, so Dean and Liz jumped in together with the measuring tape and slate and surveyed their way out. That night it started to rain.

January 16th

With rain still pouring down, Dean geared up and did two quick dives in Tiger's

Eye—the first down through the logs to retrieve Jim's reel from Lawrence Rivulet, tie it off, survey and cut the reel off. The second was to the original restriction in the upstream section to retrieve the pry bar and other tools. He was in for about 30 minutes in total and during that time the water level rose about 10 cm.

Note: A third sink has been noted on the other side of Tiger's Eye. Likely connects into new passage.

By Dean Chamberlain

On the first dive through the restriction in Lawrence Rivulet, after two false starts and silt-outs, followed by retreats, I managed to get the line up to be able to see through into Tiger's Eye, obscured by logs.



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Grant Pearce assists Liz while she goes up to dive the Lawrence



Liz, a great fan of leeches, enters the Lawrence...

flat and shredded and I couldn't drive any further. There was no phone reception so I sent Lynne for a long walk to call the RACT (RAA). Two hours later the tow-truck arrived and took me to New Norfolk, where I managed to get one tyre repaired by 5.30 pm. A big storm hit Maydena and dumped heaps of rain and snow in the mountains nearby. I had a pretty good idea what this would mean in terms of the Tigers Eye—I assumed an increase in flow.

Day 3

I had to travel to Hobart to buy a spare tyre and ended up replacing the whole set. The entire day was lost.

Day 4

On early arrival at Tigers Eye, I was greeted by an increase in water level of at least 1 m, very noticeable turbulence coming from the efflux and low water clarity. Nonetheless I was determined to add line. I kitted up the sidemount KISS with a trimix 18/42 for bail out (12 L and 5 L).

I descended the line, which was still intact, and noted that at only 2 m the line was vibrating from the significant flow; visibility was mostly 0.5 to 1 m, if that. The flow was very strong for the first part of the passage and I had to pull myself along using the jagged edges on the walls, making a note to myself to be careful when exiting with the flow.

The first restriction was negotiated—it seemed tighter this time and I had to push every inch—in near-zero visibility; I could just see the orange line on the left-hand side. I dropped down the second restriction in 0.5 m visibility. The line was still in place, the flow strong and the going hard. I followed the line in the larger passage, breathing heavily on KISS in strong flow conditions and being careful of a CO₂ hit.

Visibility was still 0.5 m; I followed the line to tie off at about 38 m and noted Dave Apperley's line to 40 m (Dave visited here last month). I couldn't see what else was happening in these conditions, decided I wasn't having fun and that it was time to get my arse out.

Visibility on exit was near zero all the way. After squeezing through the last restriction I stopped to check and add O₂ and was turned around by the strong flow and spat out backwards, dodging projections as they suddenly appeared. This was the worst part of the dive—I couldn't hold on to anything to stop from being shot out. What a relief to surface. Dive time total 30 minutes, maximum depth 40 m—a very entertaining experience. Given the poor conditions, I decided to leave and return later in the year.

Day 5

Departed for Devonport.

On the 15th, after the dive into the second sump, I pulled the logs out of the way and went in through what turned out to be another tight flattener, retrieved Jim's reel and pulled it through. I'm not sure whether it's worth noting that the line isn't ideal at the moment. On the 13th I tied off in a spot that was good for a final (potential) tie off, not a good avenue, so currently the line comes down from the surface, turns abruptly left, follows the roof, then goes down the wall. In future it probably should be relaid, but I didn't have the opportunity given time constraints.

Return to the Lawrence Rivulet

by Grant Pearce, April 2009

Although the conditions looked great be-

fore we arrived, the weather and mechanical gods conspired against me.

Day 1

Travelled to Westaway from Devonport and stayed the night at the Platypus Cottage on the river, catching up from a lack of sleep during the night sail.

Day 2

Travelled to Maydena Alpaca Farm; the weather was deteriorating—light rain. Travelled to the Tigers Eye ready to dive. The water level was low and the log was exposed. I started to set up the gear, then noticed that we had a flat tyre; I changed the flat in mud and rain and noticed that the spare tyre was going down. I packed up in a hurry and drove quickly to Maydena, but 1 km outside of Maydena the tyre was completely



...and then exits in the silty waters.

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