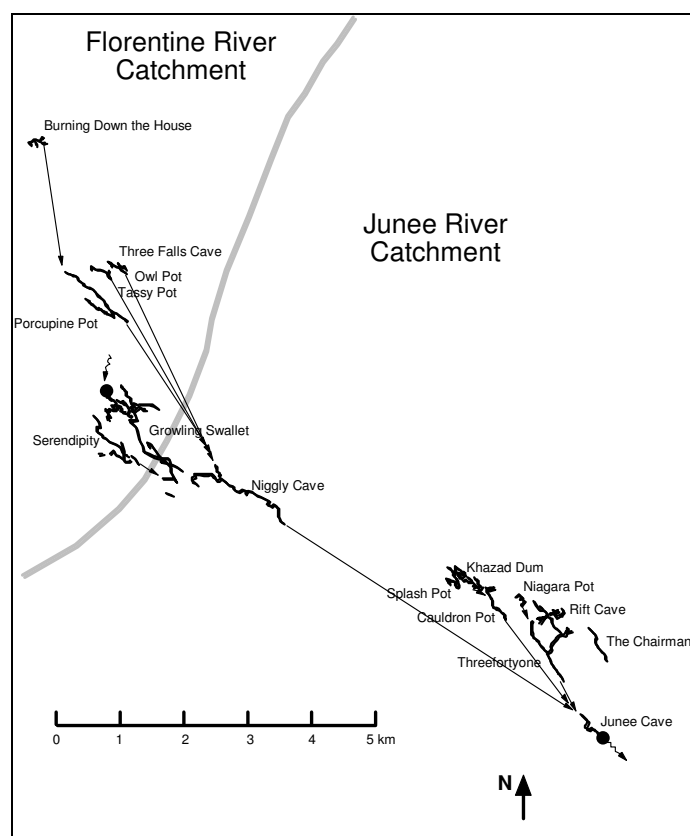
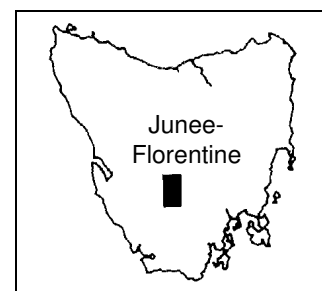


Current exploration in the Junee-Florentine Area, Tasmania.

Jeff Butt

Introduction.

The Junee-Florentine area is located in and adjacent to the Western side of Mt. Field National Park in the Southwest of Tasmania. This area hosts the majority of the deepest and most sporting caves in Australia, including caves like Niggly Cave (375 m), Ice Tube (360 m); and long caves like the Growling Swallet (12 km) and the Threefortyone System (9 km).



Major Caves (solid lines) and Hydrological connections (arrows) of the Junee-Florentine, from Eberhard (1994).

The surface divide between the Florentine and Junee River catchments is breached by the subterranean drainage system. The major swallet is Growling Swallet in the Florentine catchment and the major resurgence is Junee Resurgence in the Junee catchment. The linear distance between these two features is 9.5 km. Caves holding the underground river are known for less than half this distance, there is a 'gap' of 5.5 km between the downstream end of Niggly Cave and the upstream end of Junee Cave and clearly there is plenty of potential for new discoveries. Indeed there is potentially a System 150 km long and 500 m deep in the Junee-Florentine.

Initial Speleological investigations were started ~40 years ago as the area was logged. In the hey-days of the 1970's many caves were found in quick succession, so attention kept wandering. This resulted in many

caves not being explored as fully as perhaps they could have been. In addition, the original technology of using ladders made much of this original exploration of somewhat 'epic' proportions.

The work by Rolan Eberhard (1994) and (1996) summarises the state of exploration and knowledge of caves in the Junee-Florentine up to 1995 very well.

Recent Explorations

More recently a few keen members of the Southern Tasmanian Caverneers-STC (formed by an amalgamation of the Tasmanian Caverneering Club-TCC, the Southern Caving Society-SCS and the Tasmanian Cave and Karst Research Group-TCKRG in 1996) have been systematically working on small areas within the Junee Area. Systematic work is slow, but it does pay dividends. In every cave we've looked at we've found new passage, which we have surveyed as we have explored. Five years ago, our active group (then under the SCS banner) joined Rift Cave

and Threefortyone Cave (both ~1 km in length) to create the Threefortyone System which is approximately 9 km long and 249 m deep. Exploration in the northwest of this system has taken us to within 200 m of Niagara Pot. After something like 40 trips to this system it was 'time for a change' of scenery, although there are still some leads remaining.

The main underground drain between the Growling Swallet and June Resurgence lies to the Southwest of all the known caves, and so we have been directing our attention to this region. This area was initially investigated ~30 years ago. One cave (Hairygoat Hole) with a very promising draught at the bottom was known but we have not been able to relocate this cave, despite many determined efforts. During our attempts to find Hairygoat Hole we did find many new holes, most of little significance. One interesting hole, named Scratch Pot was in a very interesting region, right above where the main drain should lie, but it bottomed out at 80 m depth. We also relocated Splash Pot, a swallet a few hundred metres from Khazad Dum. Again Splash Pot was explored on ladders 30 years ago and surveyed to be ~100 m deep. At the bottom was some very tight stream-passage. In the 1980's there were some trips to this cave and in 1987 Trevor Wailes and Rolan Eberhard pushed through the tight stuff, appropriately named "Close to the Bone" (CTTB) to a couple of small pitches. Rolan explored down below these, but his exploration was only cursory and no surveying was carried out. For those who might like to know, Close to the Bone is a torturous 50 m of stream-passage, it is generally about 20 cm wide, but has various 25 cm wide holes through which one has to pass. For the CTTB experienced it typically takes an hour to negotiate this obstacle and with packs of gear this is a particularly demanding piece of cave and definitely not for the claustrophobic.

Anyway, in our true systematic fashion we decided to survey Splash Pot, which was particularly hard work. But as we all know, hard work does generally pay dividends and below Close to the Bone we found about 2 km of new cave, including a "6 second" pitch. This pitch "Harrow the Marrow", proved to be 113 m and is a beautiful 20 m diameter shaft. A waterfall down the middle occasionally gets blown by a strong breeze over any caver on the rope a few metres away. The nature of this breeze, which appears to originate from a window on the far side of the shaft, suggests that it connects to the "Master Cave", but to date we have not been able to realise a connection. To access the window would be a major aid-climbing undertaking....and since all gear would have to be brought down through CTTB, this has not happened.

Our surveying efforts showed that we were heading towards Khazad Dum (KD), but there were problems with the KD survey data (collected in the early 1970's). These problems were brought to light in 1998 during an overland survey between Khazad Dum and Dwarrowdelf, as outlined in Butt (1999). The revelation here was that KD was not 323 m deep (over the magic 1000' mark), but only 275 m deep. So, we 'bit the bullet' and commenced a re-survey of KD. During this re-survey, new cave was found and it is likely that a connection to Dribblespit Swallet will be realised. Our surveying efforts showed that KD and Splash Pot were very close to each other in several places, but despite thorough exploring and surveying we have not been able to 'close the gap'. Doing this is highly desirable as it means that CTTB would be able to be bypassed; this would make further exploration down the bottom of Splash Pot, including tackling the window in the side of Harrow the Marrow much more feasible.

Other small nearby caves, JF40 and JF69 were revisited and surveyed, again significant amounts of new cave were found (particularly in JF69). Currently Splash Pot is 306 m deep and 2.5 km long. Our survey data shows that we are ~10 m away from Khazad Dum and eventually one would imagine that we will link these caves to have a 6-7 km long system. Other caves such as Dribblespit Swallet, JF69 are also within 20 m of being added to the system.

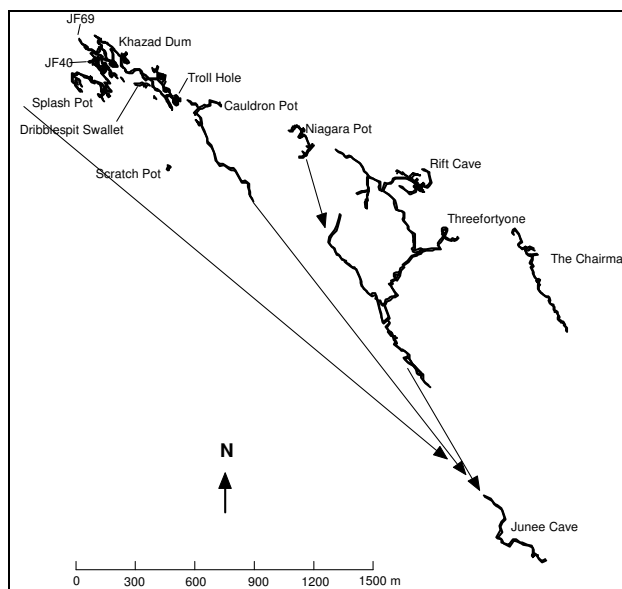
Downstream, we are also within 80 m of Cauldron Pot and if a connection is made here, then we would have a System about 8-9 km long and 385 m deep, which would be the deepest cave in the country.

The Future:

We have some tidying up to do with the surveying in both Splash Pot and Khazad Dum (in particular the 'Depths of Moria'). It is hoped that we may soon link KD and Splash Pot to allow easier access to the promising parts of Splash Pot.

Systematic work does pay dividends, and whilst much of the current caving is demanding and may appear to be boring surveying, we are achieving a good result. It is hoped that cavers in the future will be able to build upon our work without having to repeat it!

The biggest impediment to our work is finding enough keen cavers....so, if anyone out there is keen, please make contact, there are lots of interesting things to do!



Detail of the major caves (solid lines) and hydrological connections (arrows) at the Junee 'end', from Eberhard (1994).

The table below lists the current lengths and proximity of caves to each other.

Cave	Length (m)	Depth (m)	Notes
Khazad Dum	3500	285	~10 m from Splash Pot
Splash Pot	2500	306	~10 m from Khazad Dum
Dribblespit Swallet	340	150	~20 m from Khazad Dum
JF40	160	40	~40 m from Splash Pot
JF69	180	28	~10 m from Khazad Dum
Troll Hole	300	92	~ 60 m from Dwarrowdelf
Cauldron Pot	1600	305	~80 m from Khazad Dum
Hypothetical System	8600	385	Yet to be realised, but we're working on it!

References:

- Butt J. (1999) "Khazad Dum: Setting the Depth Records Straight, 27 years on", Australian Caver 149, p 11-12.
- Eberhard R. (1994) "Inventory and Management of the Junee River Karst System, Tasmania" A report to Forestry Tasmania.
- Eberhard R. (1996) "Inventory and Management of the Florentine Valley, Tasmania" A report to Forestry Tasmania