SUSS Bull 60

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Bulletin of the Sydney University Speleological Society

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Front Cover: Megan Pryke gets to grips with Figtree Cave in flood, Wombeyan Caves

Photo Alan Pryke

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Contents

SUSS AGM results

At the 2022 AGM in May, the following positions were filled (equipment officer and dive coordinator were filled as casual vacancies in June):

President: Lily Guo

Vice President: Lara Munahe

Secretary: Rowena Larkins

Treasurer: Rafid Morshedi

Equipment Officer: Phil Maynard

Minutes Secretary: Patrick Larkin

ASF Senior Councillor: Emily Butcher

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Librarian: Rodney OBrien

Social Media Officer: Philippa Byrnes

Web master: Rafid Morshedi

Bull Editor: Phil Maynard

General Officer: Simon Murphy

Dive Coordinator: Greg Ryan

SUSS Bull online

This is the first SUSS Bull to be published on-line only; it's been quite a while coming. We've joined most of the other clubs in Australia and the Caves Australia team at ASF in replacing paper copy with fully web-based publishing.

There are some reasons why we stayed with paper versions of our Bull for so long: the fact that people requested it, the fact that people could browse through at leisure and see the photos at full resolution, the fact that cave maps don't work on a 5cm screen. However, there are sound reasons to go digital. The cost of publishing and posting the Bull was consistently placing SUSS in the red financially, and we were not on a sustainable footing. The number of hours involved in packaging and posting a publication is a stretch for any volunteer organisation and was also unsustainable for SUSS. It's also become easier over the years for an on-line publication to be uploaded to libraries such as Fisher or the Mitchell (and the ASF library), meaning that we still meet our obligations to archive the Bull and have it catalogued by the reference libraries.

For the time-being, the Bull will stay in a similar format to the paper version. There'll be articles laid out with photos and maps and text. It's easy to index and search this style of publication. Longer term, we can make changes to fully reflect the medium we publish in. Your editor is open to suggestions on how to improve the layout of the Bull. Your editor is also open to contributions from a wider range of authors than the ususal suspects. The frequency of the Bull is no longer dependent on our club's finances; if there are good contributions in the in-box they can be published more frequently than every quarter.

Wombeyan Renovations

Major renovations at the Wombeyan Caves reserve are set to proceed. There were objections from NSW cavers and the ASF over the past six months about the details of the renovations and the lack of consultation during the planning process. The priority issue raised by caving groups was the proposal to install an events platform in Victoria Arch which is :

a) Beyond ugly

b) Damaging to a significant environment containing rare formations (the craybacks)

c) Right in the firing line for floods (see the Wombeyan articles in this issue of the Bull for some background on just what can happen in Victoria Arch during rain events)

It now appears that the platform will be removed from the final design, but so much secrecy has been attached to the process that it's hard to tell.

Another issue raised about the development proposals was the plan to install an exclusive ('glamping') area for commercial operators downstream of the current Guides' building and next to the Arch. Privatising a National Park is always a fraught issue but in this case there's also the practical question of whether there is any chance of commercial success. Wombeyan's a long and difficult drive from Sydney. Will they install a helipad in the nature reserve for rich tourists?

The reserve is now closed for all cave tours, wild caving permits, and camping, until the renovations are complete. That's estimated to be around March 2023.

Meanwhile, the Wombeyan Caves road to Mittagong remains closed for long-term roadworks. The local council have had a number of setbacks while trying to

rebuild the road from Wollondilly River up to the top of the pass. Originally damaged by the bushfires and flooding in 2020, the road has been hit repeatedly by more flash floods in the two years since. The talus slopes that sit precariously above the road are well and truly mobile now and it's uncertain whether or when they will stop moving. The drive around the back way via Goulburn has been significantly upgraded over the past twelve months (more than ten kilometres of the road has been sealed), so it may be that all tourist access is expected to be via Goulburn in future.

David Branagan Obituary

Dave Branagan ('Branno' to his students) passed away on 9th of January 2022 aged 91. He was one of the founding members of SUSS and the first-ever SUSS meeting was held in his mother's kitchen in 1948.

He was born in Broken Hill, and was deeply embedded in the mining culture and history of the town. He studied geology at Sydney University, graduating in 1950. He spent the first four years of his career as a geologist with the Geological Survey of NSW. After a short stint in industry, he returned to Sydney University where he completed his PhD and remained there for 30 years. He advanced progressively through the teaching ranks, while publishing around 20 books and 230 papers and articles. While most of his publications focused on commercial geology, he published articles on karst areas of NSW including Jenolan.

Numerous budding geology students have been encouraged to join SUSS over the years after attending Branno's lectures and tutorials or being supervised by him for postgraduate fieldwork. SUSS members who came to caving via the geology course at Sydney University over the years include Armstrong Osborne, Tony Allen, Martin Scott and Ian Cooper. They have fond memories of him taking a group of graduate mining engineers around various western Tasmania mines in the 1980s and swimming in the ocean at the mouth of Macquarie Harbour in way-too-cold water.

Cathedral Cave, Rockhampton

Photo Rod OBrien

Abercrombie Caves in flood

Rod OBrien

Abercrombie Arch in flood. Photo Rod OBrien.

On the weekend of the 12 – 14 November 2021 I participated in yet another journey to Abercrombie Caves. The trip was organised by Cathi Humphrey-Hood (MSS) and supported by members of SUSS, NHVSS and NUCC. The aim of the weekend was to finalize the Geology chapter that Cathi has been writing for the upcoming MSS Abercrombie book. We had done many previous trips to map the limestone outcrops as the geological maps of the area either did not show them or the ones that were shown were in the wrong spot. On our previous trip we had mapped a large limestone outcrop to the Northeast of the Arch and on this trip, we were concentrating on the opposite side of Grove Creek to the Northwest of the Arch.

It had been raining all week leading up to the trip and it continued raining until Sunday. The water level in Grove Creek was up and flowing fast and the lower section of the Arch was flooded, at one point covering the tourist track up to the handrails. We could only camp on the west side of the creek as the causeway leading to the main campground was under water.

On Saturday, Brian Reeves (NHVSS) kept the cavers from NUCC entertained underground. Cathi, Peter Downes (NHVSS) and myself drove up to the main road and parked several kilometres to the north. Rugging up against the cold and rain we headed off into the bush. We had intended to make our way to Grove Creek then walk down towards the Arch looking for limestone outcrops. This plan went out the window when we reached the creek and noticed the creek banks were flooded. We ended up walking for kilometres up and down hills and through every gully paralleling the creek. This did give Cathi a chance to view more of the geology. Despite the weather conditions it was a very picturesque day as the normally dry creeks were flowing and waterfalls were everywhere. In mid-afternoon we found a small limestone outcrop which we mapped. This appears to be the extent of the limestone outcropping on the Caves Reserve and the geology map can be completed. After walking for a bit longer and finally sighting the Arch we decided to head west to make our way back to the main road and eventually the car.

We then drove down to look at Grove Falls. An enormous amount of water was thundering over them and it looked spectacular. Peter had expressed an interest to have a scout around the old abandoned Mt Gray gold mine. We slipped the vehicle into 4WD and took on the wet bush track challenge to the old mine site and poked

Tourist path to the Arch. Photo Rod OBrien.

Downstream entrance of the Arch. Photo Rod OBrien.

around for a while. We eventually got back to the campsite around 16:30.

We had a nice campfire going Saturday night underneath a gazebo. Cathi had supplied a huge leg of lamb for everyone that we cooked over the fire in a camp oven. Roast veges, some greens and several bottles of Red topped it off. Thanks Cathi.

Sunday morning saw the appearance of the sun for the first time, Yeah! The NUCCers disappeared to Goulburn to do some "Bell Ringing"!!

The remainder of us went caving. I spent some time in the Arch taking photos of the water raging through the cave. By lunchtime all of the camping gear had dried out enough to pack up and we headed for home.

Editor's note: The November flood at Abercrombie was dwarfed by the flood that came through in January. The extensive damage caused by the flood in January means that the caves and campground are closed for the foreseeable future. The January flood at Abercrombie was the same rain event that caused the flood at Wombeyan (see article in this issue of the Bull).

Inside the flooded Arch. Photo Rod OBrien.

Wombeyan Floods part 1

27th – 29th November 2021

Keir Vaughan-Taylor, Phil Maynard, Rod Obrien, Jill Rowling

Participants Phil Maynard, Rod Obrien, Cathi Humphrey-Hood, Mike Lake, Jill Rowling, Jo Pallister, Patrick Larkin, Keir Vaughan-Taylor, Tina Willmore, Megan Pryke, Alan Pryke, Alan Green, Kevin Moore, David Rueda-Roca.

Wombeyan campsite causeway. Photo Rod OBrien.

Saturday: Heavy rain overnight left Wombeyan Creek very high and fast-flowing in the campsite. We went to Figtree cave to observe the results. The water was thundering down the waterfall at the downstream end of Victoria Arch, and was judged non-survivable for a marble streamway trip. We made our way along the tourist track to Bushrangers Hall and filmed the water coming out of the Bathtub. Megan got into the Bathtub and held on to the wall while the water swirled around and plunged into a stopper wave downstream. The creek downstream from Bushrangers Hall was flowing deep and fast to the exit. We didn't go down into the lower levels of the cave – the underground river would have been interesting on this day.

Victoria Arch on Saturday. Photo Rod OBrien.

Main pitch in Bullio – photo Tina Willmore

David at the entrance to the marble streamway. Photo Alan Pryke.

Megan in Bushrangers Hall. Photo Alan Pryke.

Jill Rowling and Jo Pallister obtained some up/down measurements strangely missing from previous surveys but essential for getting a good-looking 3D model. Areas they looked at: Collonades through to the entrance gate on the showcave track, and Bat End through to the Ballroom.

Mike, Cathi, and Rod looked for more cave tags over the top of Figtree for GPS. It continued to rain all day, but not as heavily as on the previous night.

Sunday: Alan, Alan, David, and Megan went back to Figtree to film the raging flood. The water in the creek was lower than Saturday but still not traversable downstream from Victoria Arch. Rod and Cathi looked for cave tags in the area near the quarry road.

Everyone else went to Bullio and descended to the stream. The water was flowing over the main rimstone dam vigorously so we didn't try to go upstream. The gate in Bullio was not openable – the party entered and exited on-rope via the W65 entrance.

Bullio hasn't been entered for over two years and there's been consistent wet weather for that time. There has been rapid regeneration of flowstone on the floor in some areas. This cave may be worth track-marking before damage occurs on the newly-clean areas.

Monday: Alan, Alan, Megan, Keir, and Phil examined the stream in Figtree, which had subsided enough for Phil to traverse the marble streamway through from Victoria Arch to Bushrangers Hall (like being inside the spin cycle of a front-loader washing machine). The valley downstream from the Figtree exit was still too flooded to traverse so no attempt was made to approach Locksmiths Delight or Grants caves

Editor's note: This flood was dwarfed by the events of January 2022 (See article in this Bull). Major changes have taken place in the Wombeyan Creek valley downstream from Figtree cave. We found the creek around Grants cave particularly affected when we eventually got back there.

Wombeyan Floods part 2

29th -30th January 2022

Phil Maynard

Participants: Phil Maynard, Lily Guo, Kevin Moore, Rafid Morshedi, Tina Willmore, Alan Pryke, Megan Pryke, Alan Green, Patrick Larkin, Langley Millard, Comg Nguyen, David Provest, Mike Lake, Jill Rowling, Rod OBrien, Cathi Humphrey-Hood

It never rains….

This was meant to be a trip focused on survey and easy caving for beginners, along with surface exploration by Rod and Cathi. The once-in-a-lifetime flood on Saturday was a feature, not a bug.

On Saturday morning Wombeyan Creek was flowing through the campsite at moderate levels. Alan Pryke, Megan, Tina, and Kevin went off to Junction cave to survey, planning to stay mainly on the tourist track. It was a humid, warm morning as they walked off downstream. They chose to survey on the lower side of the tourist route, and also to descend to the underground river in the big muddy chamber at the low point of the track.

Most of the rest of the party did a trip through the dry levels of Figtree cave, then crossed from Bushrangers Hall down to the underground river. Downstream was sumped, but upstream we could follow the stream to the rockpile in knee-deep to waist-deep water. The water flow in the underground river was normal at this time.

After exiting Figtree cave at the downstream end, the non-survey party had a leisurely lunch on the banks of Wombeyan Creek in warm, humid sunshine. Some of the group left their packs against a tree before we carried on downstream to Locksmiths Delight cave.

Water was flowing in the bottom of Locksmiths (we surveyed those passages in 2019 during extreme drought). We also found waist-deep water filling the passage that

Victoria Arch with flood debris above the handrails. Photo Cathi Humphrey-Hood.

Flood peak in Wombeyan Creek downstream of Figtree cave. Photo Cathi Humphrey-Hood.

Victoria Arch track. Photo Cathi Humphrey-Hood.

goes to the base of the lower pitch. That's a bit higher than normal for this part of the cave.

Surveying in Junction cave was proceeding uneventfully on the lower tourist track, and then the team went off-track down to the creek level. The team were on the mudslope above the creek when the noise of the flowing creek suddenly got louder, and then went silent. For a few minutes the party looked around quizically, and then the water came pouring over the mid-level passage above them. The underground river upstream of here had to rise six metres in about five minutes to flow through this level. The new waterfall above the party began to fill the mudslope area immediately – there is a pinch point in the river downstream from here. A rapid retreat was made away from the waterfall and up to the lower tourist track. Tina filmed as the water submerged the mudslope, reached the bridge, and then began to flood over the bridge and climb the stairs on the track. At this point, the party was spooked enough to exit the cave. They found some extraordinary flood debris in Figtree cave on the way back to camp, but unfortunately no-one witnessed the peak of the flood pulse in the marble streamway.

Back at the campground, Alan Green and Mike witnessed a massive thunderstorm from about 3pm. At first it was just annoying and caused a few puddles in the grass. Suddenly, water began flowing sideways from the causeway into the campsite. Many tents and cars were immediately flooded – the caver campsite was on slightly higher ground than most of the area and was 'only' flooded axle-deep. Ranger Geoff Lang turned up and requested assistance from Alan and Mike to retrieve various camping gear that was knocked flat and washing down the field.

The Locksmiths Delight party made a slow exit up the climbs, with Phil, Pat, and Lily assisting the beginners. That meant we were underground during the storm itself. We didn't see any water enter the cave, either in the stream at the bottom of the cave or through the roof near the entrance. While still a hundred metres from the entrance and around several corners, loud thunder could be heard clearly in the cave.

We got everyone out of the squeeze at the entrance of Locksmiths and found the rain just slackening off. Dropping down to Wombeyan Creek, the first people out of the cave went upstream to the packs at the lunch spot, then began to attempt to cross the creek to Figtree cave. Fortunately, Pat called a halt and got everyone back downstream to safety. The first hint of problems ahead was a series of logs tumbling down the creek, followed by river rocks. The creek rose two metres in two minutes and the party beat a hasty retreat up the walls of the gorge. We walked back to camp over the top of the hill, witnessing the water levels on the decline outside Victoria Arch and the Guides office.

Some of the cavers had soaking wet tents and gear. They spent the night inside the dining shelter, with rain continuing throughout the night. The rest of us huddled under the various gazebos and tried to keep dry.

On Sunday morning a much reduced party made a quick dash into Junction cave to observe the results of the flood. There was mud over much of the lower tourist track, indicating that the peak water level had been well above the bridge on the track. We got back to the campsite and were evacuated, along with everyone else at the campsite, by SES and police.

Timeline:

- Campground (upstream of Figtree cave) flooded at 3.25pm.
- Figtree Cave flooded at 3.35pm. The peak water level was above the hand-rails on the bridges in Victoria Arch.
- Figtree Cave – the flood pulse crossed from the Wombeyan Creek passage at Bushrangers Hall into

Drowned lighting controls in Junction cave. Photo Cathi Humphrey-Hood.

the lower level stream passage at around 3.45pm (requires extraordinary water levels). The Locksmiths Delight party was in the lowest level of Figtree Cave until about 1.30pm, and missed the lethal flash flood by two hours.

- Locksmiths Delight Cave – did not flood internally while the party was in the cave. The party exited the cave at 3.50pm and witnessed the flood pulse come down Wombeyan Creek from Figtree cave at 4pm. We needed to make an emergency climb out of the gorge and witnessed water flowing across the grass at the old power station building upstream of Figtree cave.
- Junction cave – the survey party in Junction witnessed the flood pulse arrive in the underground river at 4.10pm. The area they were surveying was submerged by a six metre rise in the underground river within five minutes. They exited the cave and witnessed the water level in Figtree cave on the decline at 4.30pm as they walked back to the campground.

The water in the underground river in Junction Cave comes from the lower level passage in Figtree. The volume of water in the Junction flood pulse indicates an extreme flood in the lower levels of Figtree Cave (not witnessed).

Lessons learnt:

1) The forecast was for showers and a possible storm. The existing water levels were above average but well within normal range in all caves and in the campground. There was no hint of a major storm approaching when the Locksmiths Delight party had lunch on the surface at 1.30pm. Sometimes, you get an emergency unfold on you without warning and no risk assessment is going to prepare you.

2) There are many areas underground at Wombeyan where surviving this event would have been impossible,. That includes the lower levels of Figtree and Junction caves that were visited by the teams earlier on the day that the flood struck. In particular, the underground river in Figtree has no escape and no refuge if the water begins to transfer over from Bushrangers Hall to the descent climbs. Exploration of these 'easy' caves is generally undertaken with a casual approach to safety.

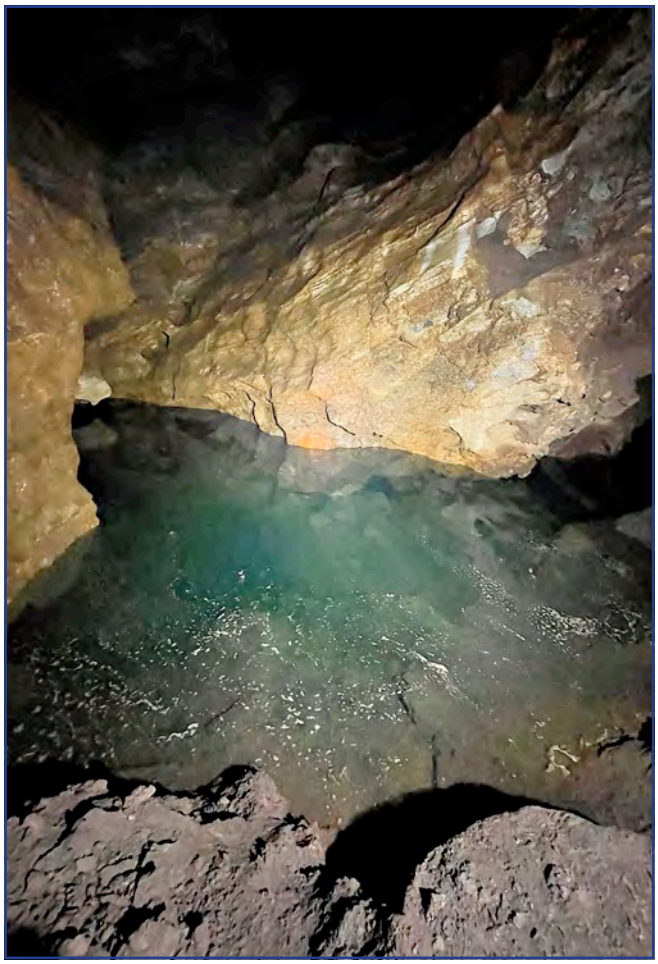
Soggy campground. Photo Cathi Humphrey-Hood.

Jenolan Floods

Wiburds Lake Cave, December 2021

Phil Maynard

Participants: Lily Guo, Phil Maynard, Omar Sharief, Lara Munahe, Alan Green, and a bunch of NUCC members



The lake in Lake Chamber. Photo Omar Sharief.

At the December 2021 Jenolan trip, we were snugly based at the Binoomea cabins at the top of Five Mile Hill. This is a long way from the northern showcaves or the gorge or Mammoth cave, but it's almost in directly above Wiburds Lake Cave (WLC). It's simply a 400m vertical bush-bash through regenerating eucalypts down the unstable ridgeline to the plain outside the cave. Of course we went to Wiburds, planning to explore the full extent of this fabulous 5km system. The only problem is that when we got to Lake Chamber, there was a lake!

If you're not familiar with Jenolan history, it might sound logical that a lake chamber has a lake, but logic and Jenolan history don't necessarily co-exist. The last time a lake was observed in the chamber was 1988. Trip reports in the Bull from the 1970s and 1980s contain lines such as "We went to Wiburds, but the lake was there as usual so we turned around at the Lake Chamber". Once the chamber dried out, no amount of rain seemed to re-create it. A vigorous stream has been observed flowing through Lake Chamber and down to Yawning Gulches any number of times over the years, but it would always drain away without filling up the cave.

The summer of 2021/2022 has been.... different. The rain started at the beginning of November, and repeatedly produced record events without ever really taking a break. We know that much of Jenolan has flooded at various times over the summer (see Simon Murphy's report on Mammoth Cave in this Bull). The Jenolan surface river (normally dry) has been flowing past WLC and all the way down to Mammoth for months.

When we reached the banks of the unexpected lake in Lake Chamber, it was immediately suggested that a swim around the chamber and downstream to 22 Pas-

Lily and Phil go for a hypothermic lap. Photo Omar Sharief.

sage would be a good idea. Lily and Phil took up the opportunity, soon realising that swimming in 12°C water in T-shirt and shorts is not a good idea. We got back out of the water before the hypothermia reached the actual death-is-a-possibility stage. That meant we didn't go around the corner to see the rare sight of 22 Passage as a swimming lane.

Water levels and cave passages in Wiburds

From the Wiburds survey, we know that the water level we saw in the lake chamber is 10m below the plain outside the cave. How does that compare with the various passages in the cave?

The lowest point in WLC is the end of North West Passage, for which the last survey point is 48m below the plain. That was 38m underwater in December 2021. The last piece of known passage here is about 5m below the last survey point. The entire northern half of WLC drains to this point, and it will not drain or dry out until the sediments in the plain dry out.

Dyke Passage is the only access to the west and northwest branches of the cave, and it's higher than any point in North West Passage. Dyke Passage is 15m below the plain and so was 5m underwater in December 2021. Most of Western passage would have been dry, but inaccessible and likely to stay that way. The aragonite in Eureka Track would be high and dry and staying that way (it's at 0m below the plain).

At the northern end of the cave, the stream level of River Section is 15m below the plain and so would have been 5m underwater. The upper levels of River Section would have been dry, and accessible through Time Out.

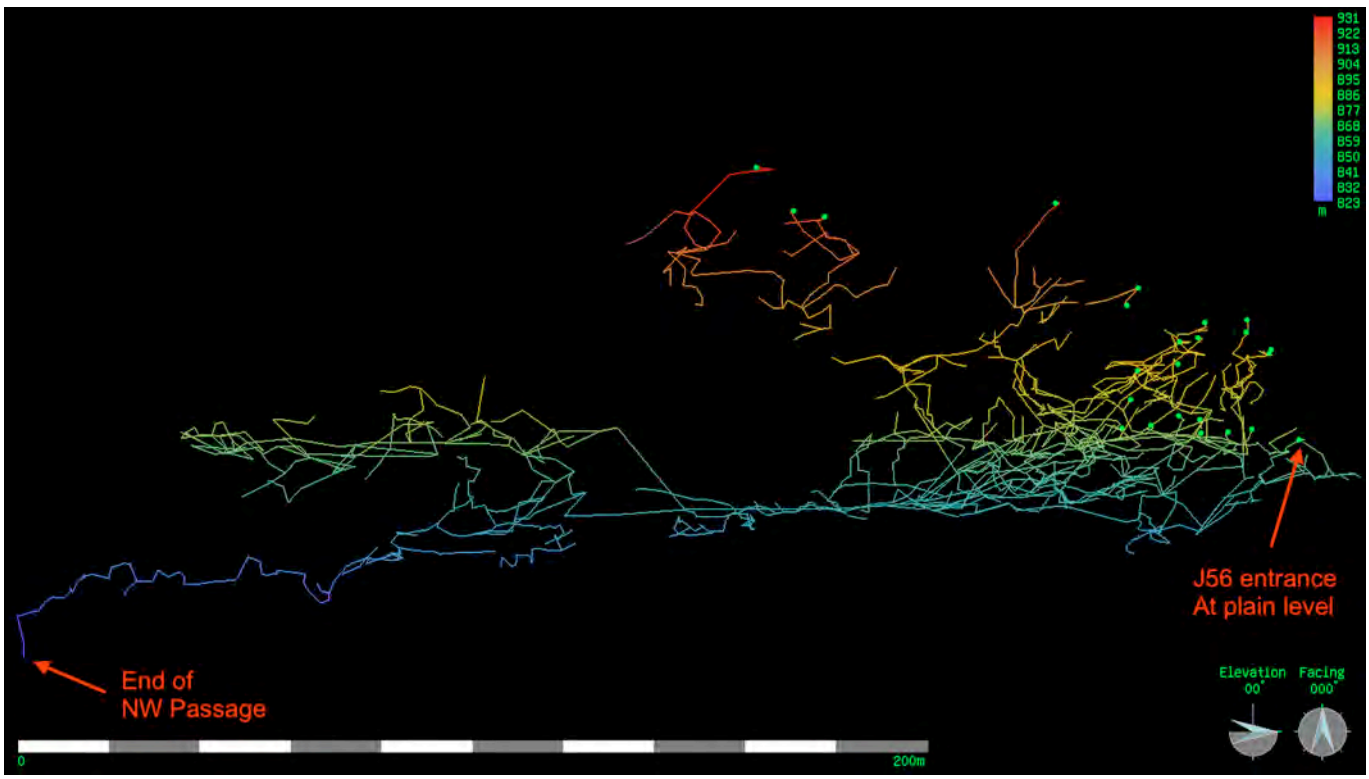
What about the centre of the cave? Five Ways, The Maze, and Silverfrost are all higher than Lake Chamber. These ancient and well-decorated passages show no sign of flooding for aeons.

The other low point in WLC is Henrys Dig at the southern end of the cave – it's the drain point for the entire southern half of the cave. This is 25m below the plain and so was 15m underwater. The access to Henrys Dig (and Yawning Gulches) is 22 Passage, all of which is lower than the water level we observed in Lake Chamber.

The total volume of passage that's currently underwater in WLC is enormous and if the cave was easier to access it'd be an uncommonly good cave dive in these conditions (but with a 3km walk to the entrance it's never a good cave dive....).

Postscript:

Rowena Larkins reported in April 2022 that the lake level in WLC was even higher - there were some extraordinary rain events in the Blue Mountains in the first quarter of the year. The water level was no more than 7m below the plain.



Elevation view of Wiburds Lake Cave, looking towards North.

Murf's Magical Mystery Tour

Jenolan, 8-9 Jan 2022

Simon Murphy

Participants: Simon Murphy, Stephanie Murphy, Max Miden, Rowena Larkins

With Wiburds Lake Cave flooded, Dry Siphon in Mammoth sumped, and essentially all current projects being out of action, it felt like a good idea to see some of the lesser-visited caves at Jenolan. Most of these had descriptions in the Blue Book that made them worthy of follow-up, and they are all above the level of the surface creek, so as not to have been much affected by the recent heavy rains. On Saturday 8 Jan we drove to Playing Fields and focussed on the more southerly caves of the Northern Limestone for a solid 8 hours. On Sunday 9 Jan we bush-bashed our way down from the Cottages atop the hill opposite Century Bluff, sometimes through dense grass and gum-tree saplings over 2m high. The weather was altogether too hot and/or humid for such activity, and we frequently spent 20 minutes of each cave visit simply cooling down. There was a mutiny at 12:45 on Sunday, reducing our party from four to three. Shortly thereafter I experienced a minor accident upon climbing a surface bluff when a large block of limestone detached from the wall (see photo), taking me with it, landing on my foot. I don't understand how, but my foot dislodged from the block before the block came to rest, and I was left cascading down the hillside with only a bruised foot and thorns in my shoulders to show for it. We then continued our explorations, walking back up the hillside a couple of hours later.

The following report describes the caves we visited, with an update on their prospects. One might consider these as replacements for the Blue Book descriptions. Caves entered on Saturday were J175, J105, J166, and J13.

The offending block, glove for scale. All photos Simon Murphy.

Degraded aragonite covered with moonmilk in J105 Contact Cave.

Additional, untagged holes in cliff faces were inspected. On Sunday we visited J99, J73, J118/119, and J258.

J175 is an unnamed and uninviting hole above Playing Fields Doline. The description in the Blue Book is confusing. It is described as 10m up the hill from Playing Fields Doline, but the distance is at least 30m. It is, however, about 10m above a smaller doline, and some 10m south of a small creek. The Blue Book suggests there may be digging prospects here, but these prospects evoke little excitement.

J105 Contact Cave is very high up the bluff opposite False Frenchman's. At its entrance lies one of the most impressive views at Jenolan: south to Devils Coachhouse, across to False Frenchmans, and north up the valley. The cave entrance is a vertical hole that is readily descended using a 5-m ladder, but a handline might suffice for good climbers. The cave floor near the entrance is littered with loose shale that has fallen in, and elsewhere is a mixture of clay and small boulders. The limestone here is weak and impure, being at the shale contact, though this shale is less readily apparent than the Blue Book suggests. The contact has led to some interesting cave chemistry, including some aragonite and popcorn, though most surfaces have some moonmilk that gives the features an underwhelming appearance. The cave has a near constant gradient and terminates in a rockpile with a low muddly crawl. Max Midlen and Stephanie Murphy led a push in this rockpile and extended the cave by at least 50% in length, through a series of squeezes, small rooms, and rifts. The overall direction appears consistent with the rest of the cave. We endeavour to return to survey it.

J166 Peter Lambert Cave is a small, well-decorated, maze-like cave in which the intrigue is whether a way can be found down to the show caves beneath. Its ample-sized passages indicate that the cave has taken much water in the past, and its seive-like structure suggests it could still funnel much water down to the show cave system whilst restricting the ingress of cavers. Prospective digs remain elusive, and the best one we could find lies between opposing near-vertical walls that are 1m apart with a dirt floor. This area is low-lying and appears to take water. A lack of location to deposit spoil, combined with the generally pretty nature of the cave and the fact that the dig lies at one's feet, all conspire to make

Popcorn in J105 Contact Cave

this dig uninviting. J166 would make for a good beginner cave, including an easy 3-m ladder pitch that can be free climbed by competent climbers, but the access from the tourist track is steep and densely vegetated. It would be particularly slippery in wet weather. Access from J22 Wallaby Cave or from the upper/southern end of Dreamtime Bluff might be better.

J13 Mammoth Cave needs no introduction to our readers. We entered to observe the current levels of Lower River. In low water levels, one can comfortably step across its width to the central island and then straddle the river using the walls to reach the south side, thereby traversing the entire thing without getting wet. Now, the central island is underwater, as are the footholds for the downstream straddle manouver. In short, it's now lake-like and needs swimming. Debris marks are to be found on the ceiling. Of particular note is a new sandbank that has built up beneath the 4c that lies 15m north of the river. From whence has this come? A clue can be found on the valley's surface. The side creek that flows eastwards into the valley, immediately north of Mammoth Flat, has been observed flowing continuously for the past few trips. There is a sink where it loses considerable flow before reaching the Jenolan River, but substantial flow still continues before sinking roughly 30m downstream (south) in the Jenolan River creek bed. This could well be the source of debris. It lies vertically above Ice Age, itself just south of Lower River, and probably supplies the sump there. The new sandbank and Ice Age are also about 30m apart. Two sinks, two inlets, two underground features. They lie at the right separation, assuming the water carries vertically downwards over its 50m descent. The increased flow in the side creek is due to increased run-off and decreased absorption, following the bush fires and the harvesting of the pine forest atop the hill. In addition, the area received twice its median annual rainfall during 2021, on top of an already very wet 2020.

J99/J197 Century Cave is a scrotty hole more than a cave proper, which mostly exists as a cavity between rocks on the cliff face. A climb down to a lower level is possible; a handline can be rigged to make this easier. The prospect in Century is a small hole leading farther down to a rift. A ladder should be rigged to allow egress after exploring this hole, for which a long tape or rope is required, and only microbods need apply. The dig at the end of the

hole would be a most uncomfortable one. Staraj appears to have been correct when he wrote Century Cave "is too high and has the wrong genesis to lead into a major system" (SUSS Bull 44-4). Incidentally, the history of the name is that Century Cave was the hundredth tagged cave at Jenolan. So why is it not J100? Well, it turns out that two caves were tagged with that number, the solution to which was to renumber both of them, leaving the second Century entrance as J197.

J73 Blowing Hole holds intrigue as a cave at the base of Century Bluff, while others on this bluff are very much higher up. The hole consists of some small chambers separated by slight constrictions, until it narrows down into a tunnel after a z-squeeze. Caution is warranted due to loose rocks in the ceiling, with rumour of a past injury when one fell on a caver's hand during a removal attempt. At the end of the tunnel, a rock rising from the floor forces cavers into contact with this ceiling, which is the point at which sensible cavers tend to reverse out. Judicious removal of either floor or ceiling boulders could allow farther penetration into this highly prospective cave.

J118/119 is a short horizontal cave high up on Serpentine Bluff. Copious quantities of hair on the soft dusty floor are evidence of wombat occupation. The Blue Book describes possible digs here, whose importance is debatable. On the one hand, low down on Serpentine Bluff is Serpentine Cave itself, and substantial limestone exists between that and J118/119. If the latter is a very old passage, then younger passage ought to exist in the limestone beneath it. A 68-m cave, Duodenum, lies between them. So the question is whether these were all part of a master cave that has fallen away as the outer bluff has been eroded, or whether there exists more passage in the remaining limestone that could be discovered by digging.

J258 is an unnamed cave that sits at the northern end of Dwyer's Bluff. About one body length into this cave is a mud bank that appears to take water under heavy rain. This flows down a wide hole. There is the possibility of collapse in future years and some stabilisation is suggested in order to mitigate this. This has been successfully achieved elsewhere at Jenolan (e.g. J79 Maiden Cave). Meanwhile, entry demands some care.

Yarrangobilly longer weekend

21 – 26/1/2022

Text Rafid Morshedi, Photos Tina Willmore

SUSS: Phil Maynard, Rowena Larkins (trip leader), Tina Willmore, Rafid Morshedi. Highland Caving Group were also there.

Rafid in Y7 North Deep Creek

Friday 2022-01-21

The 2022 Australia day long weekend wasn't quite a long weekend, since the public holiday was on Wednesday, however if you took the Monday on Tuesday off it would be easy to convert it into a 5-day caving extravaganza. I had never been to Yarrnagobilly before but had heard that it was one of the best caving areas in NSW (it definitely didn't disappoint).

With restrictions easing, but a pandemic still in full swing it had been a while since most of us had been caving. I hadn't been in a cave for about 8 months.

I arrived at the campsite/hut late on Friday night. Phil and Tina were already there chatting to Highland Speleos who were also there for the weekend. Highland Speleos have been pushing some of the Yagby caves very hard and have found some magnificent new sections of cave.

It had been a long week/pandemic so having met the crew we called it a night fairly early and went to bed.

Saturday 2022-01-22

We woke up fairly early on Saturday. The campsite was much busier than I originally thought but everyone still had enough space to be covid safe. There were still two people from the trip due to arrive and we waited for them. There was no reception at the campsite, so eventually, I drove a few kilometres up the hill to call them and found that they had been struck down by Covid and couldn't make it.

We had decided on Janus cave, a very well decorated cave on the western side of the highway. The fires have caused a lot of damage to the area and any remnants of a track had largely disappeared. We had an approximate

Cave Hazard (Tiliqua nigrolutea), Yarrangobilly

Cave pearls in Y7 North Deep Creek

Y58 Janus

Y2 Eagles Nest

location from the map and used those to put grid coordinates into the GPS which led us to the cave.

Having not caved in quite some time, we had brought with us several tapes and were rigging them on many climbs as they looked quite intimidating. However, after going down the climbs the tapes seemed largely unnecessary and we realised that the lack of caving had definitely reduced our climbing confidence. It took a few days to get that confidence back.

We started off from a random parking spot on the highway and found our way down the ridges into the right valley. The first cave we visited was North Deep Creek cave, Y7. This is related to Janus and is in an obvious location in the blind valley. It's fun stream cave, through well decorated passage down eventually to ladder pitch. Below the ladder pitch it's a beautiful stream that gets progressively tighter and wetter. We stopped at a squeeze that was just about underwater thanks to all the rain.

Y58 Janus is very well decorated and is track marked throughout the pretty sections. There are rubber tiles to keep muddy boots off the crystal floor on approach to the main chamber. We spent a lot of time in here with the cameras, trying to light up the huge volume of the chamber and the sparkling formation therein.

Sunday 2022-01-23

It was a very hot day as we slogged through the regrowth down to Eagles Nest cave. By the time we got down into the massive blind valley and reached the Y2 exit gate, we were all about ready to collapse. Fortunately, Eagles Nest is one of the coldest caves in Australia! We unlocked the gate on Y2 and then walked around the big doline to the Y3 entrance. There's a big set of climbdowns through rockpile and sloping chambers before reaching the main passage. At one point, Rowena set up a tape and we tape-seiled about six metres down.

Rowena and Phil knew the way through the cave, but they let me wander around and get lost a bit. What a brilliant, huge cave this is. I remember a gate in there somewhere in a squeeze, and then after that the cave eventually reached a seriously big set of chambers full of formation.

Everything was dripping wet and there were signs that the cave had seen a lot of water recently. The crystal pools were sparkling and many of them were underwater. The roof was covered with aragonite at one point too. Eventually, we could here a roaring stream and started climbing up an obscure route in rockpile. There was a huge waterfall beside us, which Rowena and Phil said was not normal. Suddenly, there was the Y2 gate and daylight in front of us. All that remained was a big slog up out of the valley and back to the highway in the heat. The eucalypt regrowth in this area is so thick it's impenetrable in places. It was a perfect afternoon for a swim down at the tourist caves. The alleged thermal pool really isn't very warm.

Tina in Y12 Coppermine

Monday 2022-01-24:

Rowena and I tagged along on a survey trip with the HCG crew. Jason and Phil from HCG had some work to do near the entrance of West Deep Creek cave, adding to their massive exploration project down this cave. We went around in circles through rockpile, connecting another entrance into the main passage.

Phil (SUSS Phil) and Tina went down to Coppermine and went for an easy tour in as far as the sump and then upstairs to the gate. Phil reports that the formation in the cave is rapidly restoring – it had shown signs of wear and tear. We guess it's a combination of fewer visitors during lockdown, a very wet couple of years, and new signs asking cavers to remove boots through the pretty section.

Tuesday 2022-01-25

Phil (SUSS Phil) left on Tuesday morning, while the rest of us went on to do Y50 Restoration and Y5 East Deep Creek caves on Tuesday. Restoration is mostly one big chamber full of aragonite. We spent quite a while in there with the cameras.

East Deep Creek is another of those blind valleys with a creek flowing in which seem to be the most common type of cave at Yagby. We went into the upper section of the cave through the gate, and Rowena showed us the way down to the boots-off part of the cave.

Wednesday 2022-01-26

Y10 Old Inn cave swallows the creek in a gully close to the highway. We dropped in for a quick trip on the morning that we were packed up and ready to go home. There's a series of climb downs in rockpile near the entrance. These are always close to the stream – which is made up of a series of waterfalls – and the high water levels made it very exciting. Once down the entrance bit, the cave levels out and loses the stream. There's a tight squeeze through to the rest of the cave, where there's some excellent floor decoration in a chamber. After our short trip through the cave, we returned to the car in scorching heat to begin the slog back to Sydney.

Y5 East Deep Creek

Rockhampton Caves Qld

April 2022

Rod OBrien

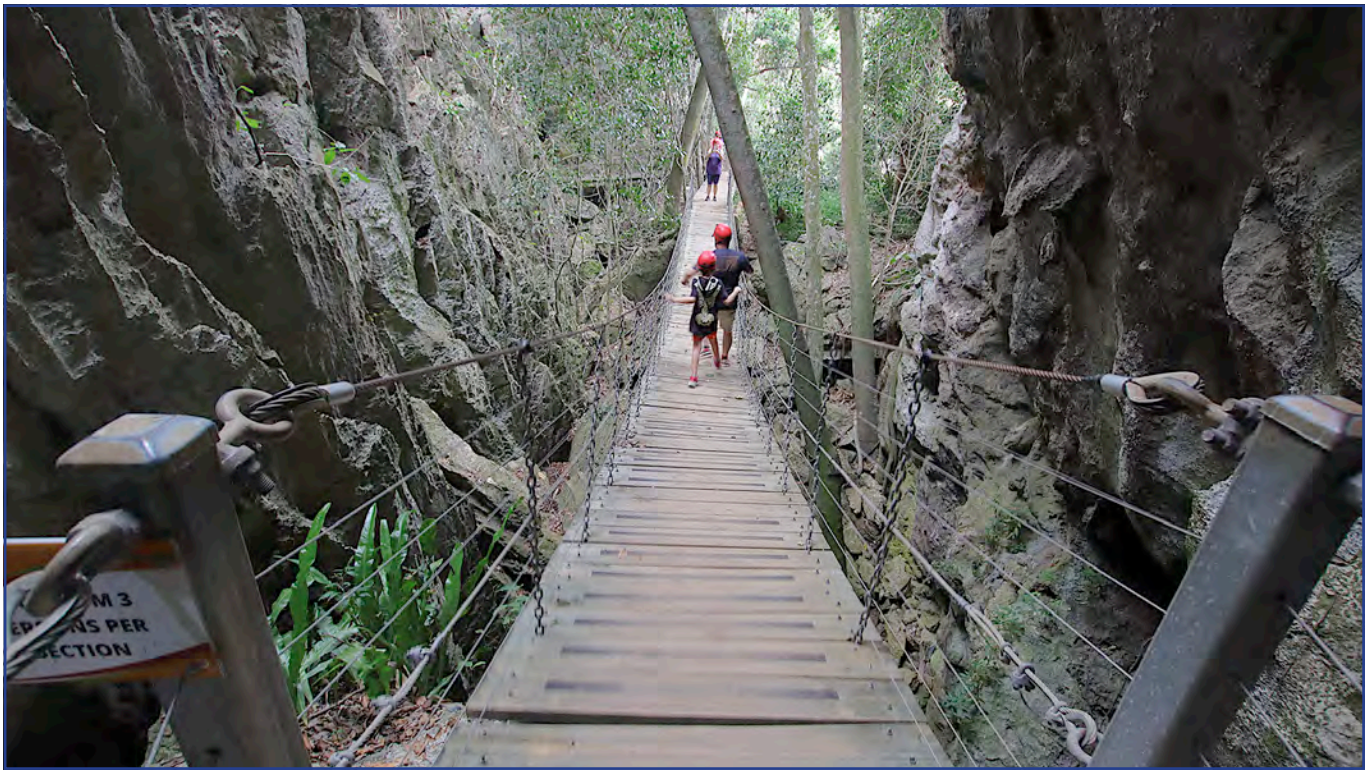
For the last 18 months Cathi and I had been trying to travel to Queensland to do some research for the ASF Library. This has been continually thwarted by Covid restrictions and border closures. We did manage one trip to the Fryer Library at Queensland University in Brisbane but this was cut short due to another border closure. My planned trip to South Australia was suddenly postponed so Cathi and I took the opportunity to finally complete our Queensland obligations if that is at all possible.

Our objective was to review 30 boxes of UQSS and CQSS material that are stored in the restricted section of the Central Queensland University Library at Rockhampton. We identified and then digitized everything we could in our allotted time. CQSS caver Noel Sands joined us and gave us background info on the photos, videos, and documents.

We also incorporated into our travels interviews with cavers living around Rockhampton and Brisbane. Andrew Graham (UQSS), Kerry Hamilton (CQSS), Noel and Jenette Sands (CQSS), Pauline Toop (CQSS), Richard Ladynski (CQSS) and Hank Coppus (prominent Mt Isa caver documenting the Barkley Karst). Other contacts obtained that we corresponded with via email and phone were Tony Sprent (UQSS, MISS), Eileen and Garth Forster (UQSS), Janeen Grimes (UQSS), Lex Brown (UQSS), Mike Bourke (UQSS), Lesley Brown (UQSS) and Clive Kavangh (CQSS).

We collected and identified some very interesting and historical material from them that we were able to add to the ASF Library. Due to the contact future material will become available.

Capricorn Caves. Photo Cathi Humphrey-Hood.



Cathedral Cave. Photo Rod OBrien.

During our whirlwind visit we had very little spare time, but with what time we had, Noel Sands kindly volunteered to show us around. This was my first visit to the Rockhampton area and it started at Camoo Cave, an old tourist cave on the southernmost section of Limestone Ridge. It was originally developed by the property owner but is now part of the Mt Etna National Park. This cave is fairly small and has been trogged to death by tourists. Another cave often frequented was Ballroom Cave which is on top of the hill above Camoo Cave. At the time, Kerry Hamilton (CQSS) was employed by the owner of the cave to find more caves for the tourists. Kerry also did some cave guide work for Camoo Caves. The caves, now owned by QLD National Parks, have been left in disarray and only the picnic area is maintained.

Capricorn Caves, formerly known as Olsen's Caves, were the first and now the main tourist caves in the Rockhampton area. The area can best be described as a karst tower. There is excellent accommodation onsite which includes a camping ground, caravan area and cabin accommodation all at reasonable rates. The camping ground is normally closed during QLD school terms due to the large amounts of students participating in school excursions.

Guided cave tours are available at various grades, from Tourist, Explorer to Adventurer. The guides are informative and know the history of the area. Cathedral Cave is the main tourist cave and they have a chamber set up with lights and music for weddings. The Explorer and Adventurer tours take you to the other caves on the hill.

Capricorn Caves have a fossil program running through the University for school children and several caves have active dig sites. I did several tours here and enjoyed them all.

Noel Sands acted as a guide for us during a couple of trips into Johannsens Cave, the northernmost cave on Limestone Ridge. Johannsens Cave is open for caving between 1st Feb to the 31st May. It has around 4.7km of passage making it the largest cave in the area. During the early years it was heavily mined for guano and some old mining relics are still visible. We visited several unique passageways as Noel was looking to add to the geology that Henry Shannon had proposed and he was interested in Cathi's opinion.

Noel also showed us the Rodeo Park efflux in the town of The Caves. This efflux is the drainage for Limestone Ridge. Over several years trips have been made to the efflux but the vegetation is so thick that no-one has yet made it to the outlet. Caving access into this is presently unknown. The Rodeo Park has a camping ground with sparse amenities run by the town which could be an alternative to staying at Capricorn Caves. It has very cheap rates if you can put up with the mozzies.

Noel works part time as a volunteer with Mt Etna National Park and has been active in a weed reduction and revegetation program on Mt Etna and Lime-

Rodeo Park resurgence. Photo CQSS archives.

stone Ridge and is heavily involved with the Ghost Bat program. Noel showed us around Mt Etna, Limestone Ridge and Spinifex Hill as Cathi and I also documented the current and proposed gravel mining sites that are currently causing some concern. Noel kept us entertained all day by relating humorous stories of the great conservation battle.

One such story was when an aborigine, Burnum Burnum, landed in the UK, planted the flag and declared that he now owned England. The Mt Etna conservation activists thought that was a great idea, so in 1988 they scaled Mt Etna with a film crew, raised the Australian flag and read a Proclamation announcing that they had now laid claim to Mt Etna. Noel was at the ceremony and still has the flag, also we found the original Proclamation document in the Central Queensland University archives.

QLD National Parks have installed a walking track on Mt Etna that goes to Bat Cleft. According to available literature Bat Cleft is one of only 5 known maternity sites of the Little Bent-Wing Bat. Only mature females and their young inhabit the cave and it consists of 80% of the known Australian population. National Parks run trips to view the bats exiting the cave and at certain times of the year conduct a tour of the cave which requires abseiling down the entrance pitch. When the bats are in the cave the air is unbreathable, so cave tours are only available during the months when the bats have left. I have been told stories of cavers abseiling into the cave and sinking armpit deep into the guano and other cavers passing out half way up due to the foul air.

We also spent some time in Winding Staircase Cave. Of note, I found a pile of feathers in one of the chambers. Noel is hoping that this could be an indication that the Ghost Bats may be back and have started using this cave, if only as a feeding site. The Rockhampton area is believed to be the southernmost extent of the Ghost Bat. The background story to this is that there were two caves in the area that contained Ghost Bat roosts. Speaking Tube Cave on Mt Etna was one and it was blown up by QLD Cement to mine the limestone. Johannsen's Cave on Limestone Ridge was the other and the guano miners killed them all by gassing them.

During the course of the visit, I organised a get-together dinner at The Caves pub for all of the local CQSS members so Cathi and I could meet them. It was here I first met Richard Ladynski (CQSS), the owner of the property Karst Glen. Richard had purchased the property around 1971. It was formerly known by several names; Sorences, Hamiltons and Frys caves. Richard informed me that the name change was brought about by CQSS cave rescue policy. Every area had to have a standard

Mt Etna. Photo Cathi Humphrey-Hood.

CQSS Proclamation, Mt Etna 1988. Noel Sands holding the flagpole. Photo CQSS archives.

Noel Sands at Mt Etna, 2022. Photo Rod OBrien.

name so that in an emergency the rescue services knew where they were going. So he changed the name to Karst Glen to avoid any confusion and it has been called that ever since. I had been hoping to go out there but Richard has had erosion problems on his driveway due to the rain so he has stopped all traffic driving onto the property. Hopefully next trip we can have a look at his caves and other caves on Limestone Ridge.

Editor's note: The fight to save Mt Etna from limestone mining was long and extraordinarily bitter. Some almost unimaginable events took place, including blowing up a cave while the company had reason to believe there were protestors inside. ASF cavers from all states participated, including many members of SUSS. Keir Vaughan-Taylor and Patrick Larkin were particularly heavily involved – see the following reports from the SUSS Bull:

- Bull 26(2), pp 28 – 33, 1986
- Bull 27(1), pp 20 – 25, 1987
- Bull 27(4), p ii, 1987
- Bull 27(4), p 4, 1987
- Bull 27(4), p 21, 1987
- Bull 28(1), pp 4 – 5, 1988
- Bull 29(1), 1989 – basically the entire issue; there is some extraordinary reporting in this issue.

Cathi at Bat Cleft cave, Mt Etna. Photo Rod OBrien.

The first SUSS trip to Mt Fairy Cave?

Date: uncertain but best guess would be mid-year uni vacation 1960

Henry Shannon

Party: Henry Shannon, John Lotz, Hugh Minter

Introductory note: If there was a trip report made, (and I'm not sure about it), it would have gone missing when the main trip report file got lost, and since the cave has featured in an article in a recent SUSS Bulletin (SUSS Bull 59-1) there is some point in digging up what I can remember of the earlier trip. It involved caving at Mt Fairy Cave and exploration of Birkenburn Sinkholes and Mulloon Creek outcrops.

Both Hugh Minter and I had family connections in the area (Werriwa and Raeburn) and a cousin of Hugh's, a Mr Gordon, owned Birkenburn which is near the property the Mt Fairy Cave is on. These connections helped us gain access. We set up camp at the shearers' quarters on Birkenburn. All I can remember about them is having wheatmeal porridge for breakfast.

There was station track level road access to the cave. On the way in there was a thunderstorm leaving the whole area saturated but the dry creekbed that heads into the cave seemed unaffected. We followed the creek channel into the cave and explored around connecting with the artificial adit and using it as a way out. I remember being nervous concerning the timbered construction where the adit intersects the cave. However the real hazard people should be aware of is what we found once we were out; namely that the dry creek had flooded while we were in the cave. Yes, the passage we had been in was full of water from a heavier fall further upstream.

Next glimpse of memory; lighting a fire by building up a wet stick pile so I could get it to dry then light with the flame of my carbide lamp.

Possibly the next day; it occured to me I should check out the other side of the outcrop for the outflow, hopefully for entry prospects. What I saw were multiple small springs with no obvious leads to work on. I think we examined other passages in the cave either dry or with comfortable airspace above running water.

Mr Gordon gave us a lead to a limestone outcrop with probable sinkholes on his land. These proved to be genuine. I am not sure how many; maybe four maybe six, classic bowl shapes, one with a small collapse in earth, no blind valley gully feeder, no entrance.

Mulloon Creek has a road up it which passes outcrops. The biggest is in a hillside, others recently exposed from erosion (downcutting of the creek channel); no prospects.

Mt Fairy limestone. Photo Rod Obrien.

Formation in W2 Bullio cave, Wombeyan. Photo Tina Willmore.

Cave hazard, Yarrangobilly. Photo Tina Willmore.

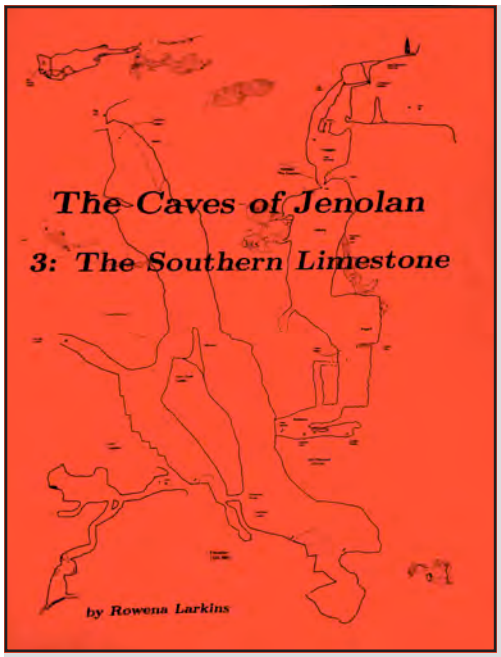
Rowena Larkins in Y10 Old Inn, Yarrangobilly. Photo Tina Willmore.

Phil Maynard in Wiburds Lake Cave, Jenolan. Photo Omar Sharief.

Figtree Cave at Wombeyan in flood. Photo Alan Pryke.

Things to buy

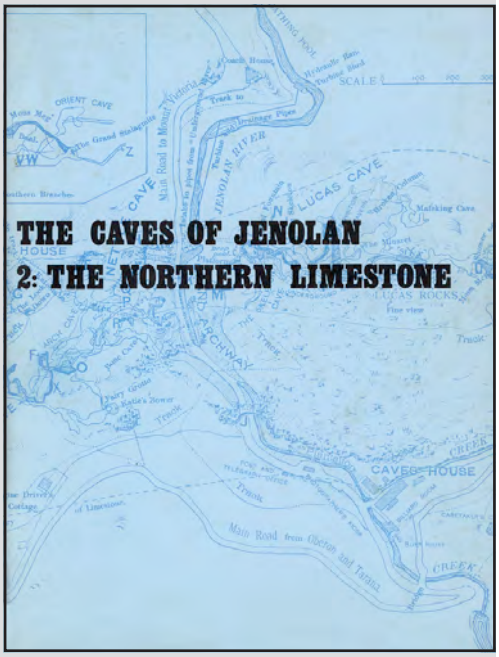
For postage and handling costs and the details of how to order go to http://suss.caves.org.au/publications. There you will also find a range of must-have maps and other publications.



The Caves Of Jenolan 3: The Southern Limestone

Just published!! By Rowena Larkins. 2020. 90 pages. Contains maps and descriptions of every known cave in the Southern Limestone of Jenolan plus notes on the geology and hydrology of the area.

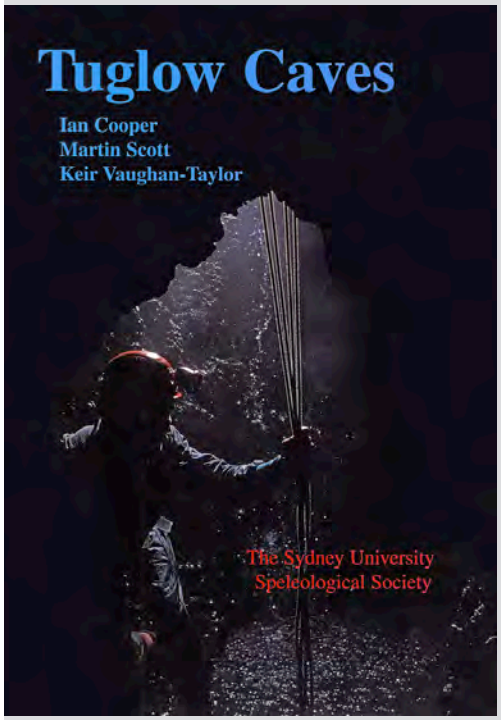
Price is $20.00 + PH.



The Caves Of Jenolan 2: The Northern Limestone

Edited by Bruce R. Welch. 1976, 140 pages. We still have some copies of these books left. Contains maps and descriptions of many caves in the Northern Limestone section of Jenolan plus notes on the history of Jenolan and its geology, geomorphology and hydrology.

Cost is $8 for members and $10 for non-members + PH.



Tuglow Caves

By Ian Cooper, Martin Scott and Keir Vaughan-Taylor. 1998, 70 pages. Examines caving procedures, site descriptions, history, biology, surveying and maps, geology and hydrology of Tuglow Cave and others.

Cost is $13 for members and $16 for non-members + PH.

Back Cover: Lara Munahe in Wiburds Lake Cave
Photo Omar Sharief

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