CALCITE 35

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JULY 1992

Newsletter

of the

Highland Caving Group.

(Founded 1957)

PO Box 154, Liverpool, N.S.W., 2170.

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Production - Robert Wray.

Editors Report.

Yes, it's true, after another extended break Calcite is back. With a new Editor and new format it promises to be bigger and better than ever.

During the period since the last Calcite the Club has gone through a minor period of decline with a drop in membership numbers, and a subsequent decline in the number of trips and general scientific work. We are, however, now on the rebound with steadily increasing membership numbers, dominantly younger members I am pleased to say, scientific work is again being conducted, and trips are becoming more popular. Witness to this is that 13 members spent 2 weeks on the Nullarbor caving and conducting scientific research last July, whilst others spent over a week at Waitomo in New Zealand over Easter this year. Reports of these trips will be in Calcite 36 in the near future.

New Club executives in 1991 and 1992 have dominantly been elected from the younger members resulting in the injection of new ideas and directions for the group.

One criticism that has to be made of the Group is the lack of written material submitted to the Editor. The writing of trip reports and other notes of interest not only allows the exchange of ideas and observations, but is also an important record of Club history and caving history in general. Those that have given me articles and trip reports, I thank you. Those that have promised me written trip reports for the last six months, I am still waiting!! Due to this general illiteracy you will notice that the vast majority of this Calcite was written by Robert Wray. There is one way to ensure this imbalance does not occur next edition, start writing. Articles don't have to be "scientific" or "world class", just put pen to paper and tell us about a trip or anything else that takes your fancy, you never know, you might just get your name in the records for eternity. Calcite 36 is in preparation, so if you have anything to say please write it down and see Robert now.

Current HCG Executive.

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We were at Yagby, where were you?

Robert Wray.

Members Present: Robert Wray, Cathy Brown, Jason Moule.

The early morning of the 29th of November 1991 dawned bright and clear, the crisp air reminding Jason, Cathy and myself of the alpine nature of Yarrangobilly, at near 1200m A.S.L one of the higher karst areas in Australia. The long drive from Wilton of the previous evening was accomplished without incident, except for the near miss of a group of wombats having a party on a blind corner near Talbingo. This section of the highway from Tumut to Cottrills Cottage should always be driven with extreme care at night due to the wildlife.

After breakfasting we drove down to the Rangers Office to introduce ourselves, and obtain the keys to East Deep Creek (Y.5) and Coppermine (Y.12). Back on the highway we firstly drove to the Old Inn (Y.10) carpark, and dressed for the cave. Old Inn is an extensive perennially active inflow cave located beside the Snowy Mountains Highway, the creek rising on the non-carbonate rocks across the road. The doline is of reasonable size, and the creek sinks below a limestone bluff. As is common at Yarrangobilly, the first section of the cave is large breakdown boulders amongst which the stream flows. Proceeding down, the cave eventually encounters bedrock with the nature of the passage changing accordingly.

Following the stream, the passage closes down to a tight wet crawl at the first sump, the start of the Once in a Blue Moon Series. Jason began to crawl in but the prospect of getting very wet dissuaded his explorations. I crawled down this tight passage in water the whole way until the second sump in January 1990 and can not really recommend it. Silting of the passage over recent years is evident, gravel from the highway forming the bulk of the infill.

If one goes back upstream a short way an abandoned high level passage leads via a high narrow passage with several crawls into the large chamber of Strawhaven. In this area excellent decoration of shawls, straws and flowstone abound. Quite a while was spent here photographing before proceeding further into the cave.

A narrow rift bypasses and runs parallel with much of Strawhaven leading toward the further reaches of the cave. The plan was to explore these deeper sections, areas which were missed on my earlier trip, but the small party size and a little deep mud began to damped enthusiasm. When my light began to play up that decided matters and we all left the cave after about 3 hours.

Having lunched we walked down the hill to East Deep Creek with the intentions of exploring the lower level stream passage. Stories of this section of the cave portrayed the area as very pretty but very wet and cold, suitable wet suits were therefore worn by Jason and myself. Descending the Lower Level Rockpile is relatively easy unless you are slightly short as Cathy found out. Route finding is not too difficult except at the bottom where you come up against a blank wall with slots too small to negotiate. A quick dig and squeeze soon found the way under this obstacle and led into stream passage about 1.5 metres high and quite well decorated in spots.

Following this descending and meandering passage, quite dry at the time with only a small trickle in the floor but with widespread evidence of recent flooding almost to the roof, one eventually encountered the infamous Crawl, 20+ metres of low wet grovel over bedrock and cobbles. Just as murder of the leader is seriously contemplated the passage plunges over a 1.5 - 2 metre waterfall and the passage enlarges to sitting height. During periods of high water flow this crawl would live up to its nasty reputation, but we fortunately did not have this problem.

Large rounded cobbles of volcanics and other non-carbonate rocks are widespread, both cemented into the flowstone and on the floor of this passage, whilst they are not of this size or roundness in the preceding passages.

The stream passage now increases both in size and height, and is an excellent example of multiple episodes of vadose incision; numerous meander nitches, ox-bows and perched rimstone dams all attest to the great age and perseverance of this stream course. Decoration in this area is extensive and very beautiful. Numerous white flowstone cascades, their overhanging bottom sections breaking into a shower of fine straws, mantle the walls, flowstone terraces are common, as are delicate calcite streams on the mud floor necessitating care in progress.

The end of the cave opens out at the SUSS Extension and a significant stream of unknown origin joins the main passage from the Mud Extension on the true right. The cave soon closes down again and terminates in a mud choked dig.

The lower stream passage downstream of the end of the Crawl is obviously considerably older than the current stream passage from the entrance through the Crawl. The dramatic change in passage size and morphology occurs in a region of flowstone walls and roof, that has been shown by survey (Warild, 1976) to be close to and below the Upper Levels, thus suggesting that the stream once flowed from the Upper Levels into the lower stream section around this area. The polycyclic nature of the lower stream passage is evident and indicates it has carried the stream for much of the caves life, whereas the small size and simple nature of the stream passage above this junction indicates this section of passage is considerably younger. Al Warild (1976) proposed that the development of this cave can be seen in the relationships between the various levels and gradients of passage, a thesis that appears correct. The highest level of the cave, Shattered Passage, has the correct gradient for an inflow passage and although is now highly modified by breakdown and collapse indications are that it formed the early stream course through the cave. It is at this period that the stream downstream of the SUSS Extension would have developed. Downcutting and capture of the stream then led to it finding a lower route than Shattered Passage, resulting in the formation of what are now called the Upper Levels. Breakdown has enlarged

these passages but the streamway nature of the cave can still be seen in main passage and the Donkey Tail section. The stream continued to flow through the Lower Levels during this period, initially via the Donkey Tail passage until it was again captured to flow into the Lower Levels at what is now the end of the Crawl. Rounded cobbles and boulders in the flowstone in this area reinforce this premise. The final capture is the current streamway that flows from the entrance, down the Lower Level Rockpile, through the Crawl and into the earlier stream passage. The current stream has not yet fully graded to the older passage as shown by the small drop in floor height at the end of the Crawl.

This size and lithology of the well rounded boulders and cobbles found in the lower streamway and cemented in flowstone in this region attest to higher stream power in the past. The size of bedload in the stream passage through the Crawl and back toward the entrance are small compared with those in the lower stream. Further work is in preparation to elaborate on these ideas.

Coppermine Cave was not visited on this trip.

On Sunday we drove out to Cooleman Plain and spent several hours walking to the entrance of Clarke Gorge and then upstream before driving to Canberra via the Brindabella Road. This is a very scenic route to Canberra but is very long and not recommended, being faster to drive via Cooma.

Warild, A., 1976, More Notes on East Deep Creek Cave, SPAR 58, October 1976.

Mullamuddy Muddles. Robert Wray, Brett and Jason Moule

Where ?? Ask any caver worth his/her salt where Bungonia, Colong or Yarrangobilly is and you should get a quick answer, but how many of you know where Mullamuddy is? Well read on.

The story begins with a phone call from Jason and Brett's aunt near Mudgee during which new caves were mentioned. Now HCG has been doing speleological work around Mudgee for over 20 years, but these caves did not fit any of the general HCG descriptions, nor those in the Karst Index. As a result we all squeezed yet again into Jason's Hilux one Friday night in November last year and drove to Mudgee.

Access had already been gained from the property owner, and so on concise directions we drove up and down steep hills and along narrow ridges to where the caves were reputed to be. Lo and behold perched on a hilltop over 100 metres above the Gudgegong River on the watershead with Mullamuddy Creek was limestone and attendant kurrajong trees. The next job was to find the caves.

Walking for less than an hour had identified four caves and a spring, all of which were surveyed to Grade 4. A full description of the area follows.

Further reconnaissance in the area located numerous other small outcrops from an estimated 0.5 ha to over 20 ha of limestone, but all at a much lower elevation, extending in a line along Mullamuddy Ck. several kilometres toward Mudgee. Locals report caves in these outcrops. Access to several of these areas was attempted, but landowners could not be contacted. Further reconnissance work is therefore needed, but the potential for large caves does not appear high.

This limestone all falls within the official area description of Queens Pinch, and was visited by HCG many years ago, but the caves were not surveyed.

Area Description.

The limestone in question is of Siluro-Devonian age, possibly a member of the Gulgamree Beds. It is located at an altitude of 660 metres a.s.l. and outcrops for over 500 metres east-west. It is only about 60 metres wide, and pinches to about 25 metres at the two ends. The thickness is unknown. Fossils were not abundant, but the limestone is quite micritic in places.

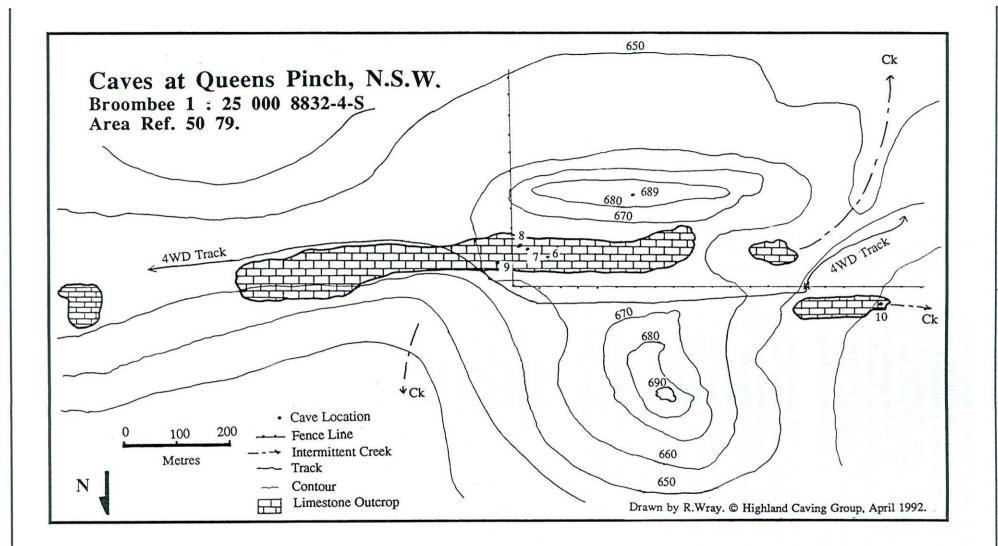
Three smaller outcrops are located near the ends of the main outcrop, two at the western end and one at the eastern. The outcrop at the eastern end is about 35 metres north-south by 30 metres east-west in size, whilst one the of the two western outcrops is slightly smaller. These two outcrops are in east-west alignment with the main outcrop. The larger of the western outcrops is about 100 metres east-west by 60 metres north south. Like the main outcrop it's long axis is aligned east-west, but it lies about 100 metres north of the main outcrop, and slightly west. There is no obvious evidence for this displacement having resulted from faulting, but the possibility of this cannot be discounted.

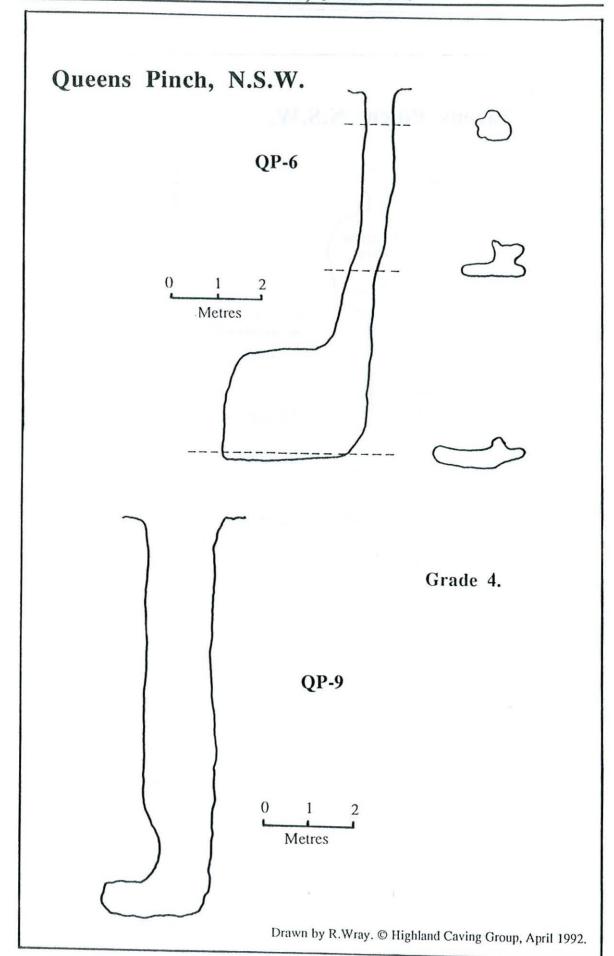
In places the limestone has been considerably metamorphosed, even to a medium grade marble, making determination of the strike and bedding difficult. The dip and strike of the limestone were measured at several locations, but these results were often inconsistent. At QP-8, the best readings, the limestone strikes at 300° Mag and dips at 50°.

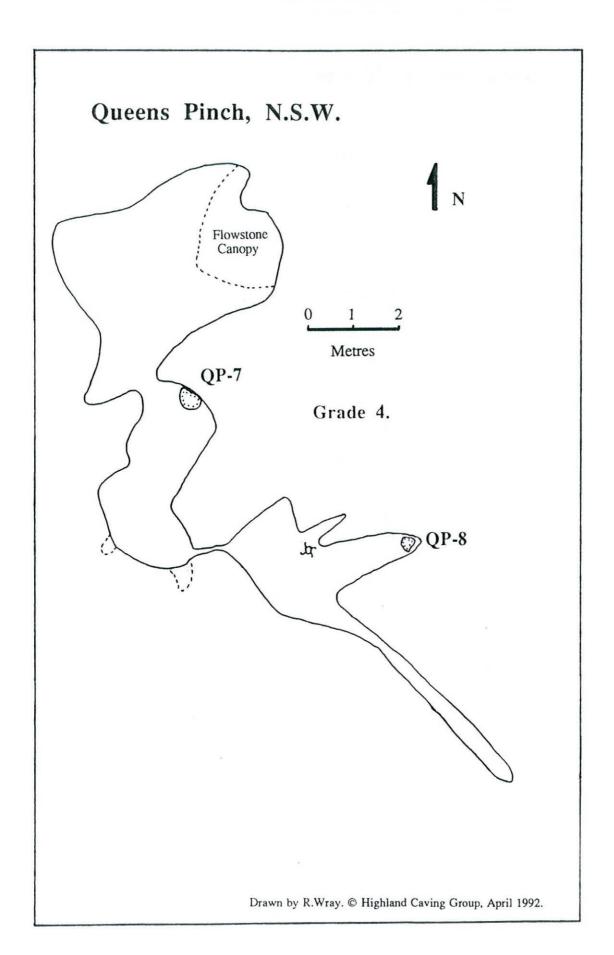
The surrounding area displays evidence of folding and high grade quartz intrusion. 50 metres south of the limestone a quartz dyke 20-30 cm in width has cut obliquely across the surrounding sediments, and smaller quartz dykes are prolific. The result of this igneous activity has been the metamorphism of much of the original limestone. The western 2/3 of the main outcrop is essentially unchanged, still displaying the general properties of limestone, ie. it is grey with visible bedding, scattered fossils and well developed karren features including caves. The eastern 1/3 of the outcrop varies, however, from white to a bright pink to purple in colour, and fossils, bedding structures and karren are rare to non-existent. No caves are found here. The eastern most outcrop is also marble.

Caves.

Five major karst features have been identified, these include four caves and one spring (See location diagram). The caves have been numbered using the Queens Pinch prefix (QP) but no tags have as yet been affixed.







QP-6. The entrance to this cave is located about 1.5 metres above ground level on a 2.5 to 3 metre high limestone block and is oval shaped, 113 cm long by 68 cm across. The cave has formed by solution down a vertical joint with some bedding control at the bottom. The cave is 7.9 metres deep, but a maximum of only 60 cm wide at its lowest point where is is rubble choked.

QP-7. This cave is the largest in the area, and the most complex. The cave is a total of 10.64 metres deep, and requires a ladder for access. Two adjoining chambers form the bulk of the cave. Both chambers have a flat to gently sloping dirt floor. The roof of the entrance chamber follows a bedding plane whilst the roof of the lower chamber is irregular. The lower chamber is quite well decorated with stalactites and flowstone, a large canopy mantling the eastern wall. Most of the decoration is dead, but some was wet during the visit. The entrance chamber is poorly decorated.

There is a very tight connection to QP-8 high in the wall of the entrance chamber.

QP-8. This cave is 5.64 metres deep with a 4.2 metre vertical pothole entrance that is easily climbed. The cave appears to have developed down the bedding and across the strike and is a long but narrow chamber with sloping roof. There are some speleothems in this cave.

This cave adjoins QP-7 to the NW via a tight squeeze.

QP-9. This cave is a simple solution tube 8.5 metres deep. The bottom is rubble choked.

QP-10. This feature is located in the westernmost outcrop of the limestone and is a simple spring through soil. Observed flow rate was low, but the area had received little rain for a long period. The base flow is expected to be low, and flow may cease entirely during long dry periods. It is not known if this spring is hydrologically related to the caves of the main outcrop.

Tuglow 8th and 9th February 1992.

Robert Wray.

Members Present: Robert Wray (TL), Phil Flemming, Marty Watt, Jason Moule, Brett Moule, Neil Crabb, Gabriel Webb, Murray Dawes, Catherine Griffith, Karl Schulz.

Visitors Present: Mardi Dungi, Ross Adams, Stuart Johnson, Dave Abbot.

The wet weather of the previous few days did little to dampen enthusiasm for this the first official club trip for 1992. The overcast in Sydney soon gave way to rain and thick fog near Springwood. The visability cleared after Victoria Pass but soon degraded into dense, I mean really dense fog along the Great Divide on the Jenolan Road. All party members finally made it to Boss Mountain after some misunderstanding between Jason and myself about meeting at Jenolan, the Kanagara Road being driven at about 20-40 km/h as the visability was often less than several metres. Finding the Kowmung River Fire Trial in that fog was quite difficult with several people finding themselves on the wrong fire trails.

Saturday was cool and showery as we drove down to the river in the Subaru, Sierra and Hilux, 4WD a absolute necessity just to drive straight. The river was only up slightly on normal levels, and after seeing that the Hilux didn't float away Murray also drove across. Neil elected to park the Subaru and walk up the hill to the cave.

Catherine decided to remain in the car and read whilst the rest of us went caving. The party broke up into three groups of about four headed by Neil, Phil and myself. Murray, Jason, Brett and I entered first to rig the cave via the Flowstone Wall, with the other groups following about a half hour later. This process worked admirably with no major holdups at pitch-heads, and should be employed in similar circumstances in future.

Proceeding via Knights Chamber to the large left-hand meander toward the upper

end of the stream passage, we climbed and bridged along the stream and all remained quite dry, in fact Murray barely got his boots wet. Once in the upper levels several of the holes in the roof were entered with some passage found that I did not know existed. These passages are muddy and in spots quite loose so care should be taken.

Back in the main stream we explored several other leads until by following a breeze Murray located an aven which obviously has a lot of water flow down it at times. A very nasty and loose climb led to a hole too small to negotiate, but Jason not the be perturbed as ever climbed up, pushed a few rocks, and poped out into further passage on the other side. A quick exploration by Jason and Murray revealed extensive abandoned river passage, estimated at up to several hundred metres long, not needing a second invitation I had a look at the climb, prayed and climbed up.

This area was brand new, nobody had been there before. There were no boot prints, no damage or muddying of speleothems, and no evidence whatsoever of previous visit. The passage appears to be the original river passage of the cave, the phreatic tube being visible about 8m up in the roof. The passage is very old and has experienced significant weathering with redissolving of formation, and leaching of the bedrock. The passage extends downstream above the current stream to at least the 4ft waterfall and upstream the passage is still continuing and not fully explored. Entry to this area is not recommended for both conservation and safety purposes. The climb up is difficult and dangerous, and the weathering of the bedrock means holds are friable and likely to break in the whole section. There is little decoration worth seeing.

Returning to the current stream passage we explored the Left Hand Branch and found it connected with a passage off the main stream and then returned to the entrance after de-rigging the cave after all the others had exited.

Neil's group visited the downstream sump area and then moved to the upstream limit of the cave before proceeding out. Likewise Phil and Marty visited the lower area of the cave and then the upper sections.

The breaking of the group into small parties of about 4 people can only be recommended in caves such as Tuglow. They are more friendly, quicker, especially at climbs, cause less impact on the cave as there are no large groups in one area at a time, pitches are rigged quickly and only once, and there are not large numbers of wet people risking hypothermia waiting to climb a ladder.

Light rain during the day had caused the Kowmung to rise a little, and so Jason and Murray declined driving across the river in the dark, but drove out via Dingo Dell. This detour resulted in our having to cross the river and walk up the hill to our cars.

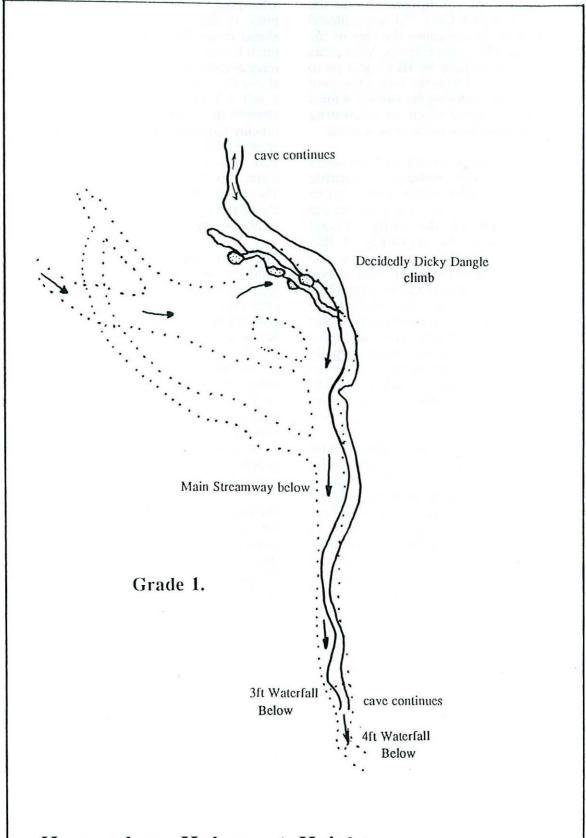
Most people did not wish to spend a further damp night out and returned to Sydney saturday night. Phil, Marty and Gabriel did remain at Boss Mountain that night and returned with tales of a fine dinner and big, warm fire.

Yet Another Tuglow Trip, 29/2 - 1/3/1992. Robert Wray.

Members Present: Robert Wray (TL), Jason Moule, Mathew Lyon. Chris Dunne, Ann McLaren, Peter Dykes & children on Sunday.

The general lack of interest after the previous Tuglow trip with its major discovery two weeks before was rather surprising, but we went anyway. Chris and Ann visited Peter Dykes at Jaunter on the Saturday but came over on the Sunday accompanied by Peter and his two children.

Saturday morning dawned fine and cool, slightly different to the rain and fog on the previous trip, and after a leisurely breakfast, we drove across the river in Jason's Hilux.



Horrendous Holocaust Heights, Main Cave, T.1, Tuglow N.S.W.

Discovered and explored by J. Moule, M. Dawes and R. Wray, H.C.G., 8/2/92.

Caching most of our equipment near the entrance to Tuglow Cave, T.1, we explored the limestone to determine the size of the outcrop and other karst features. Most visits to Tuglow, especially by HCG, just go to the Main Cave and little time has been spent in recent years exploring the surface at most areas visited, quite often an interesting exercise in itself with much to be learned.

Following the creek toward the headwaters of the gully one notices a sizeable abandoned meander niche, over 10m in length and 1m high, in an outcrop on the true left side of the gully. Visual correlations and the proximity of this feature to Window Cave on the other side of the gully suggest that this may at one time have formed part of the Window Cave system, and therefore the Main Cave system, before the initiation of the gully that currently bisects this area. It may also have been formed during the incision of the gully into the limestone. Further up the gully the surface geology changes from karstic to the overlying sediments, with only small lenses of limestone.

Over the crest of the ridge is Horse Gully Sinks, a large alluvial filled valley with localised surface outcrops of limestone. Most of this area is privately owned land and so access is restricted. The surface catchment of the Horse Gully area is different to that of the Main Cave area. Numerous dolines are evident in the alluvial valley bottom, in the areas of limestone exposure on the valleyside and bottom, and in the soil and weathering profiles of several of the valley sides. That most of the area is underlain by carbonaceous rocks is undoubted, active collapse is witnessed by several young looking dolines in the valleyside material. As typical for areas underlain by limestone, streams flowing onto this area from the surrounding nonlimestone areas sink rapidly. Although there is a well developed surface drainage network downstream of this area, and a deeply incised valley, surface flow down the valley appears to be sporadic. This area is the source of the waters in Tuglow Cave which has captured the drainage and diverted it under the intervening hill.

Returning to the Main Cave we proceeded down to the stream via a route not normally attempted by Highland. If after the first pitch in the cave one continues straight ahead down the slope, a further 50-60m pitch is encountered. There is a very good rebelay requiring one trace around a column above the head of this pitch. This leads into a rift 1.5 to 2m wide that is followed straight down toward the river. A further rebelay requiring two traces is encountered around a large bedrock column at about 25-30m, and thence it is about 30m to the river. No major rub points were found. This pitch allows one to swing onto a ledge above the river about 40m upstream of the Flowstone Wall.

The lower river area was then visited for 15 minutes before beginning to SRT out. Mathew, this being his first attempt at incave SRT encountered several difficulties in prussicking, mainly due to his rig not yet being perfectly adjusted, but nothing more practice won't fix. Jason and I experienced no problems, I actually found it quite enjoyable. If rigged by a quick party of two or three, this would be a much quicker and easier route into the cave for reasonably experienced cavers than the Flowstone Wall, but non-SRT and less experienced people would probably find the other route preferable.

On Sunday we were just leaving to return to the caves area when Ann, Chris and Peter arrived. Peter then guided us along the ridge to Tuglow Falls. The Falls are near Chardon Canyon and are developed in granite. They are quite spectacular. We later drove home via Peter's at Jaunter and thence via Goulburn.

Tuglow, 29th February 1992
Jason Moule.

After a squeezy trip (Jason, Rabbit and Mathew all in the Hilux) we arrived at Boss Mountain at about 12.30 am. Next morning, waking to a beautiful sunny day, we had breakfast and waited around the campfire to see if anyone else would turn up. (Why a huge trip one weekend and a tiny trip 2 weeks later, especially with the

surveying in the Main Cave to be done?). At about 10.30, after no-one else had arrived, we proceeded down to the Kowmung, which was about normal level, so we crossed over and drove up to the caves parking area.

We then walked out to the caves and spent some time in the gully trying to find Window and Pleistocene Caves. After unsuccessfully looking for a half hour, we walked up the gully to have a look up valley toward Horse Gully Sinks. I came across a depression with a wombat hole in the bottom, and whilst feeling to see if a breeze was coming out I heard a deep rumbling noise getting louder and coming out of the hole! I had visions of my face getting ripped off by the claws of an angry, ferocious, wombat so my heart started pounding and I turned and sprinted out of the depression, but the wombat didn't follow. (This was quite amusing to watch, Ed.) Further south are some more dolines about 10 metres across, but no entrances in them.

After a rest, drink and food, we went down Tuglow Main. After the first pitch, instead of going the usual way to the right, we continued straight ahead. Belaying off a rock about 2 metres up on the right, we abseiled down about 20 metres to a small room. Rebelaying off another rock directly above the next pitch we abseiled down about another 25-30 metres to the main stream passage.

Because of the low numbers in the group we had a quick look around the lower sump and then headed back out. The trip took about 4 hours.

The next day, Sunday, we had breakfast and waited around until about 11.00 am for Chris, Anne and Peter to arrive. They didn't turn up so we headed down the hill to have another look at the caves area. About half way down the hill we met up with the others so we all went for a 3 hour walk up to the spectacular 50 metre high Tuglow Falls and back. Chris and Anne went back to Peter's place and Jason, Rabbit and I headed back home via Taralga and Goulburn.

Wyanbene, 21st - 22nd March 1992.

Robert Wray.

Members Present: Robert Wray (Tl), Phil Fleming, Cathy Brown, Kevin Carder. Visitors: Wendy, Donna, Peter, Dave Scascighini, Drs Bob and Ann Young, Helen and Vivviene Young and Judith Carrick.

Wyanbene Cave campsite was the arranged meeting place on Friday night, but Kevin, Donna and Peter had arrived early and set up camp at Emu Flat. Wendy and I sat talking until around midnight then moved on to Wyanbene to wait for Phil and Dave.

Saturday morning saw us all assembled at the Wyanbene campsite preparing to enter the cave, even though the last section of the road is in anything but good condition. For many members of the party this was their first visit to Wyanbene, and expectations of an interesting trip were high. Those caving entered at 10am, whilst Donna remained outside and went walking with Bob, Anne, Judith and the girls.

Whilst the ladder pitch beyond the Blowhole was being rigged, a few entered Mud Chamber and Bat Chamber for a quick look, but returned quickly to avoid disturbing the bats. After belaying everybody down the ladder it was back into the water and upstream past the Jailhouse. A small tributary stream enters on the right before Helictite Chamber, the amount of calcite deposited by this tributary suggesting significant vadose seepage. This area could be worth a sustained exploration through the rockpile. An upward squeeze out of the stream then brought us into Helictite Chamber where we spent some time marveling at the magnificent formation.

The party then continued upstream along the Wet Stretch, into Aitchesons Bypass and on to Sump Two. As usual a fair trickle of water was coming down out of the Avens. At the Sump we rested whilst people tried to find the way on. Even though most knew the trick of sitting in a puddle then looking up, no one found the way until shown. Robert was adamant on finding the Gunbarrel on this trip, having failed to find the entrance on previous trips, and after a little exploration we found the aven without trouble. As usual there was a light shower of water falling from the roof of this awesome aven.

Returning to Rockpile Chamber we found the way into Caesars Hall where Cathy and Wendy decided to rest and wait whilst the others continued on to Frustration Lake. A handline was left into the Diarrhoea Pit, with a ladder down the wall at the Chamber Pot. Andersons Wall was easily climbed and a ladder rigged for the descent and the Lake reached without problems. There appears to be a feeling that the climb/chimney at Andersons Wall is difficult, on the contrary, apart from a little mud, this climb is if fact quite easy and should not be a problem for a climber of moderate ability. There is however the danger of a fall this far into the cave where a rescue would be difficult. There is an old dive line still in place at the Lake, but as nobody felt like swimming we began the long trip out.

We rejoined Cathy and Wendy in Caesars Hall and then returned to the Blowhole exiting the cave by 6.15pm.

On Sunday we all walked up to the Big Hole where Bob, Anne and I conducted some geomorphic study as part of my PhD. Cathy, Wendy, Phil, Dave and I then walked to Marble Arch but owing to a lack of time did not do much exploring.

Another Cave at Tuglow. 12/4/92.
Robert Wray

Whilst poking around at Tuglow with SUSS on the weekend of the 12th of April we explored a squeeze through a rockpile blockage that Jason and I had discovered in T.10. The passage was found to continue down through loose rockpile, but

eventually encountered bedrock. Several other small digs eventually led to the top of an 8 m pitch that when descended opened out into large partly infilled phreatic passage of totally different nature to the breakdown modified vadose entrance series.

Downstream of the pitch the passage curves sharply to the right in an 'S' shape. An undercut blade of rock in one wall suggests an earlier phreatic meander cut-off during later phreatic modification. There is a small dyke in the roof here, and two partially choked inlets on the true right.

A small draughting gravel choked inlet is found slightly downstream of this meander also on the true right.

This passage is of walk through size except for one small crawl, possibly due to a almost completely gravel filled siphon. The floor is covered with pebbles and cobbles of various lithology and shows many features attributable to intermittently flowing water.

After the crawl the passage regains its previous size before opening out into a large room, the Zyder Zee, with a 1 metre + wide dyke in the walls and roof.

After the dyke the passage bifurcates. The current stream heads to the right and down a series of small waterfalls into a very tight passage, Born Again, and then down to a small room, Middle Age Spread, and through a bedrock slot too small to negotiate safely, Untimely End.

The other passage is found by climbing a 3 m high eroded sediment bank to the left after the dyke. These sediments indicate that much of the cave was infilled after its phreatic excavation and later partially reamed out. Care must be taken to preserve this sediment sequence as it may tell much about the geomorphic evolution of the Tuglow area. A series of large passages and collapse chambers is found in this upper level which are not yet fully explored. Several avens are prominent, as are several digs in the floor, one of which may provide a bypass to the choke past Born Again.

Decoration in the cave is almost nonexistant.

T.10 Tuglow, N.S.W.

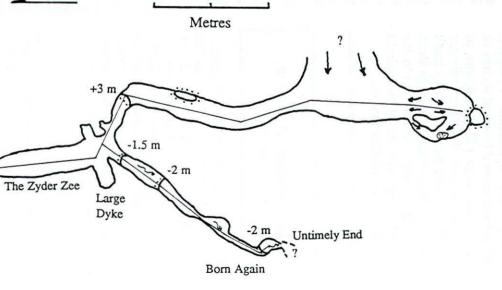
Discovered by R.Wray and J. Moule.

Explored and Surveyed by R.Wray, M. Dawes, M. Breean and Members of SUSS, 12/4/92.

Grade 3.

Small Dyke

T. 10



10

Murray Dawes, Michael Breean and I prepared a Grade 3 survey on the initial exploration, and Ian Cooper and Martin Scott of SUSS are currently preparing a more detailed survey of the cave.

This cave is very significant. Potential exists for at least several hundred metres of passage, and the large phreatic nature of much the main passage, the large sediment deposits, the dyke and the contrasting small passage of the current stream through Born Again raise interesting questions as to the development of the cave. Its relationship to the Main Cave is also still unknown.

Walking Mount Warning. David Scascighini

Starting your journey from Murwillumbah, northern New South Wales, ones has the opportunity to study the extinct volcano of Mt Warning, or just view it at your leisure. The main street of the town is distinctly yesteryear and dressed in a colonial colour which adds a special style to the town, home for over 9000 people. Murwillumbah is a must for people who value quality and service.

Your journey continues as you travel 10 km along the Kyogle Road to Dum Dum. Cross the Tweed River with Mount Warning Lodge on the right and travel about 3 km further down the road. This brings you out at the National Parks and Wildlife Centre which boasts some spectacular rainforest bush walks.

Another must for the nature lover is taking the Mount Warning walk, about 1200 m or 2 hours of invigorating climbing to the summit for an unforgettable view. This graded walk passes through magnificent rainforest to the summit of Mt Warning with it's 360 degree view of the Tweed Valley enclosed by the sheer wall of the Caldera Rim. Allow five hours for the round trip that will take you on this unforgettable experience.

A Modern Speleologist.

NSS News. via SPAR 42 Feb. 1975.

I am the very model of a modern speleologist,

I'm thought by all to be a very eminent geologist,

I know how helictites are formed, I'm hip on archaeology,

I reel of facts on carbon tests and speleobiology.

I'm very well acquainted too with matters of geography,

I'll tell you where a cave is from descriptions of topography,

I'm expert on formation, and though it may sound trite,

I never get mixed up and call a stalagmite a stalactite.

I know where all the caves are found from Wombeyan to Mandalay,

I've read the works of Charles E. Mohr, the Abbe Brevil and Casteret,

In short, as cave authority and eminent geologist,

I am the very model of a modern Speleologist.

Ode of the Troglodyte.

Lydia Neubuck NSS News, Jan 1991.

Don't start debunking the sport of spelunking

till you know what it's all about.

'Cause if you should savour the life of a caver.

you'd see the world inside out.

And if you should wonder 'bout things down under

and how the cave men did thrive,

Just join us in crawling and creeping and falling

and praying you'll come out alive.

Calcite 36 is on the way with some great articles on trips to the Nullarbor and to Waitomo. Please get any other articles to the Editor quickly.