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SUSS

MERRY CHRISTMAS
AND A
HAPPY NEW YEAR.

USS

FOUNDED 1954

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FUTURE TRIPS.

JANUARY 1976:

- 3-4 Jenolan - surveying. Bruce Welch. 99-1013
- 16-18 Bendethra - Not a SUSS trip. Brian Cooper.
- 24 Liason Council Meeting. Guidos Camp-Mt Keira.
- 24-26 ASF Committee Meeting - Location as above.

FEBRUARY 1976:

- 14 JCHAPS Meeting. Jenolan. Possible clearing od DCH.
- 9 SUSS Committee Meeting.
- 23 Orientation Week starts.
- 29 Field Day - Wahroonga Rocks. BBQ following.

MARCH 1976:

- 4 SUSS Meeting.
- 6-7 Wyanbone - Freshers Trip #1. Tony Austin. 7507785.
- 13-14 Bungonia - Freshers Trip #2. Tony Austin. 7507785.

Note: There will be trips to Jenolan at regular intervals for at least the next few months so if you feel like doing some work up there then get in touch with Bruce Welch and let him know well in advance as your name should be on the permit.

Also, there will probably be more freshers trips run than appear above so if you want to go to any special area not listed then simply say so - either to me or to someone on the Committee and we will arrange something.

Tony Austin. Editor.

40,000 GROTTOS.

(Reprinted from SUSS Journal 4(2); 14. December 1957)

- ~~The after~~ effects of reading an entire gift set of Casteret in one afternoon.

Five kilometres from the village of Essuy-Porc, the torrent of X.... disappears in a hillside. It reappears 500 metres further up the hillside and flows into the Garonne. The reasons for this curious behaviour are based on hydro-speleological laws which it is not in the nature of this work to include. Although no one had actually succeeded in following the underground river, or indeed, even entering the cave, I established the course of the ~~river~~ by emptying 3 tonnes of flouresceine into the disappearance point. The magic green colour soon spread all over the south of France, across the English Channel and it is reported in at least two caves in Cuba. The suggestion, however, that Greenland derives its name from this is, of course, false.

I was determined to enter the cave somehow and to explore its mysteries. Its very inaccessability was a challenge to me, and like every natural athlete who sees a challenge, I constantly dreamt of conquering it. (I used to dream of some other interesting things too, most of which lie outside the scope of this book.) It happened that one day I was sheltering from a blizzard in a draughty shepherd's hut in a valley, eating some cheese sandwiches and candles (things which I always carry with me), when I noticed a small hole high up in the cliff face. My curiosity was aroused and I started to climb without further ado. The climb was arduous as the hole was 400 metres above the valley floor and the rock face was smooth and overhanging, but 30 minutes climbing saw me at the top.

I paused at the entrance to light my carbide lamp, and entered the cave. The passage narrowed down to a cat-hole, which, cat-like, I soon negotiated. The scene that awaited me on the other side was both awe-inspiring in its splendor and fascinating in its beauty. I was in a cavern of enormous size full of the most beautiful calcite deposits I have ever seen. It was a veritable fairy bower, which words cannot describe. I collected twelve oolites and demolished a forty foot straw for setting up in my private museum and pressed on, spellbound. A surprise awaited me. On the floor I found a large stack of pure gold potsherds, plates and stone axes, definite proof of the caves having been previously occupied. I passed these by for I had decided to explore all this remarkable cavern in the few hours I had to spare.

I soon found the underground river and followed it for 3.7 miles (this guess was proved correct by subsequent survey) to a siphon. After hesitating for about five seconds I decided to force the siphon. I stripped off and plunged in. The water, supercooled to 28°F., took my breath away. The current was fairly strong, but I negotiated the 50 metres underwater and emerged.

The cave here was dull and uninteresting and my progress was soon stopped by a huge waterfall. I stood at the top of this terrifying blackness and tried to guess how deep it might be but the river seemed to be falling into the bowels of the earth and the chasm had all the appearance of being bottomless. My exploration was halted here, so I made my way back to the surface, well pleased with my day's work.

Two months later I returned with my wife and she lowered me 1000 feet down a rope. Still I did not reach the bottom. It is a credit to her wonderful fortitude that she could carry the 1000 feet of rope up the cliff face outside and then belay me up and down the chasm. Since this time the bottom has been reached at 1010 feet, from the top of the waterfall,

The cave is now very popular and is constantly being explored, however nothing new has been added to my original exploration. It is tragic to see that three young spelcologists have been drowned in this siphon. Swimming this siphon without the proper gear is foolish and dangerous. I find it hard to have sympathy for anyone who indulges in this kind of folly. The crystal cavern is not as good as it used to be because vandals and souvenir hunters have removed most of the formation. Something should be done to stop this wanton desecration."

"PLEA FOR SINGULARITY."

B.J. O'B.

Man is a social animal.
at least "Scientists who ought to know,
Tell us that it must be so."

Unfortunately nowadays the tendency is to make all men into a dull, uniform type. Eliminate books and substitute comics - it is easier for a man to look at a picture than to read and understand the written word. Replace radio with television on a similar principle. Play canasta because everybody - just everybody - plays canasta. Read this social columnist because he keeps us up to date.

It is for cave explorers and students and young people to overcome this enervating experience. And some succeed. With tragic heroism as in the recent Hungarian and Polish uprisings - or with daring, as in the raid by Sydney University students on the huge U.S. aircraft carrier, Bonnington, when pirates pressed the button for action stations, and defended themselves with cardboard cutlasses against the U.S. Marines. Or when the students kidnapped the Lord Mayor of Sydney and held him to ransom.

Ask yourself the following questions and answer them honestly. When you have no work to do, and no outside source of relaxation for escapism, are you content to be alone? And to do nothing but think when you are alone? Does your own company satisfy you? In fact, can you bear your own company?

Be a rebel, damn you!"

SOME OBSERVATIONS ON THE JENOLAN FLOOD, 21 JUN 75.

Bruce R. Welch.

INTRODUCTION:

On Friday night and early Saturday morning (21JUN75) in excess of 140mm of rain fell at Jenolan, causing one of the largest floods on record.

The Jenolan River peaked at Jenolan at about 11am 21JUN75. The force and volume of the water was such that, due to debris collecting on the upstream side of the footbridge handrails at the southern end of the Devils Coach House, it bent the posts over. There are many large log jams up the valley which also indicate the size of the flood. Both Blue Lake, and the dam at the Hydro Station downstream, were filled with gravel. It was of course impossible to enter the Devils Coach House due to the force and volume of the flood waters.

Upstream, members of SUSS found it impossible to wade or swim the Jenolan River at any point, even as far up as North Wiburds Bluff, until Sunday. Previous to this all crossings had to be made across fallen trees.

Damage to the road crossings on the fire trail up to the Mammoth camp site was extensive. A Tourist Department Landrover became bogged in the first crossing after the flood, and some improvements were made to this crossing when retrieving it by tractor. The other three crossings were impassable by 2-wheel drive vehicles, and a total of 26 man hours were spent in repairing these crossings. It is evident that downstream from Serpentine Cave there has been a vast removal of gravel from the river bed, probably the entire source of the gravel which filled Blue Lake.

OBSERVATIONS:

Members of the Society walked upstream as far as North Wiburds Bluff, noting the following:-

At the Playing Fields the Jenolan River had almost broken its banks, and flood debris observed after the flood waters had subsided suggests that minimal flooding of the Playing Fields did occur. The doline on Playing Fields (J177) was quite dry during the flood, but was full some two weeks later, and emptied on the third week in two days. However one week later it was again full of water, suggesting rapid fluctuations of the water table.

The steep hills on the western side of the river had to be traversed to reach the Mammoth campsite. Dillons Creek was almost at bank breaking stage, and this creek could just be waded without being swept away. The small flood bypass (on the western side of the river between Mammoth Cave and the point where Dillons Creek enters the river) was just beginning to operate as the SUSS party arrived.

Further upstream, the force and volume of the flood waters were so great that the flood water had reached the top of the entrance to Bow Cave (J16), a distance above the river bed of 3m. Large logs were reported to have been swept into J16, and inspection of the cave on a subsequent weekend revealed that the entrance was jammed with logs and other debris for about 2m. On

JENOLAN FLOOD (cont).

a visit to Sand Passage, Mammoth Cave, some weeks later it was observed that this passage was clear of all loose matter, including sand and vegetable debris and could be negotiated as far as the gun barrel, it appeared that with a little effort it could be pushed further.

Immediately after this Bow Cave was again visited and the party made its way as far as the larger chamber, about 10m in, here the debris blocked the passage completely.

Mammoth Cave was entered on the Sunday after the flood (22JUN75) and the flood features were no different from any other flood, except for a few details. As well as the 40' and the rockpile being impassable because of water the Mammoth Squeeze was full of water.

All of Central Section was flooded, ie, the tube which leads to Central Lake coming off halfway down the 3m drop (the bottom of which leads to Ice Pick Lake) was full to the brim. Yet the level of Ice Pick Lake (at this time only 7m away) was some 4m lower, which suggests that the two are not hydrologically connected! Although this could be due to the effect of varying cross-section and hydrostatic pressure on water levels, it is unlikely that it could account for the difference of about 4m in this area of Mammoth Cave.

It was also reported that the flood had deposited some mud on the walls of the Southern Section. This was probably due to the large amount of suspended clay in the flood waters settling as velocity decreased.

Further upstream, Serpentine Flat was covered with flood water to an average depth of 0.5m, reaching a depth of 1.5m closer to the hill on the western side near the entrance to Diggins Diggins (J37), and flood waters were flowing freely next to the hillside below Serpentine. Observations some two weeks later revealed that flood waters were about 1m deep at the northern (and lower) entrance to Serpentine Cave (J72), and must have flowed with some force, this entrance has collapsed completely now. Water also flowed into Little Canyon Cave and Diggins Diggins.

A little further downstream it appears that water has flowed out of J35, so fast in fact that small gravel has been pushed out of the entrance. This could mean that the connection into Diggins Diggins is cleared out, and subsequent investigation of J35 has revealed the floor to be an extremely unstable rockpile, probably corresponding to the rock choke in the roof of Diggins Diggins.

Upstream, past Hennings Cave, where the river takes a sharp bend (just south of the valley between Hennings Bluff and J98 Bluff) the river has changed its course. At this point before the flood there was an abandoned channel which was scoured out sufficiently during the flood to make it the main river bed.

At the time of the flood the creek entering the valley was flowing at about 3ml/day and was sinking on contact with limestone. Subsequent investigations suggest that the water did reach the Jenolan River, water was still draining out of the gravel some three weeks later.

JENOLAN FLOOD (cont).

In fact very few of the creeks on this side of the valley actually reached the Jenolan River across the surface, they all sank on the contact. Whether they make their way into the limestone here, or simply drain through the alluvial fans into the valley fill is uncertain.

Where the Jenolan River follows the eastern side of the valley opposite the southern end of J98 Bluff (ie opposite J67 doline), the flood waters changed the course of the river completely. Trees and logs are piled up everywhere and gravel has been strewn all round. The grass has been covered with up to 50cm of gravel, and at the southern end of this newly formed gravel fan, the flood has gouged away many cubic metres of creek bank.

This area of gravel is now extremely porous and on 20JUL75, this gravel was absorbing the full flow of the river, about 6ml/day, (2.5 cusecs). The river reappeared again some 15m away at the lower end of this recent gravel fan.

During the flood, Hennings Cave was visited, and a small amount of running water observed. This water appeared to originate from the water trickling out of the roof. However the cave was not entered to any great depth, and subsequent investigations have shown the cave to contain lakes and streams for some weeks after the flood. After about 4 weeks all the water had gone, revealing that during the post flood flow in the cave, two holes opened up in the floor, down which the creek flowed. This would indicate that the passages underneath Hennings Cave opened up sufficiently to allow a flow of gravel through them.

During the flood the sink holes on the flat at Wiburds were empty, but were full of water 2 weeks later. The flood waters swept around both sides of the "Big Rock" below the Wiburds Lake Cave entrance, and came within a few feet of the entrance to J56. However there was no water in this cave, although the flood was 1m higher than the floor of this cave only a couple of metres away.

Wiburds Lake Cave (J92) was visited on the day of the flood and some interesting observations made. There was no lake in the cave only a large stream flowing, in the order of 5ml/day. Part of this stream was emerging from "The River Section" north of Lake Chamber; the greater part coming straight from the J58 connection.

This stream had completely filled the sink on the western wall of Lake Chamber and was flowing down "22 Passage", ie to the south east, not to the west. It is possible to negotiate "The Dyke" and continue on. The party proceeded as far as the beginning of the "Northwest Passage", the only water observed was a small trickle in the entrance to this passage.

Some weeks later the Lake was up to its usual height (about 3m), but fell quickly. Some 6 weeks later the Lake had gone. When inspected at the end of August only a swiftly flowing stream remained in Lake Chamber, and this was sinking into the dig on the western wall.

Jenolan Flood (cont.,).

The end of '22 Passage' contained a lake with one small stream flowing from the rockpile at the eastern end of the lake, and another pouring from the rockpile at the bottom of 'Yawning Gulleches No. 2'.

The Flow Rate.

It is hard to estimate the flow of the flood, but knowing the approximate size of the catchment area and the rainfall ($5\frac{1}{2}$ ") a total volume of water can be calculated.

I suspect that the figure of $5\frac{1}{2}$ " is not a true record of the rainfall, due mainly to the location of the rain gauge, and that more rain fell in the following 36 hours. The rainfall could have been in excess of 7" on early Saturday morning.

The crosssection of the creek which carried water is between 40 and 50 square feet, and if the flow was 4 - 5 feet per second, the flow could have been in excess of 200 cusecs (about 490ML/day). The flow rate was extremely difficult to measure, due mainly to the turbulence. A log some 20cm. thick and 4m long was tossed into the flood waters near Wiburds Lake Cave, and was swept away as if it were a matchstick. My impression was that the flow rate was well in excess of 5 feet per second, making the flow at least 300 cusecs.

Conclusions.

Overall the flood seems to have had a significant effect on the caves on the western side of the valley. Here all significant caves have some evidence of removal of fill inside the cave to a lower level or levels previously unknown.

Without going into the theories on an underground river, this recent evidence seems to point towards the existence of an underground river system although probably substantially filled with gravel if it does exist.

A FEW WORDS FROM THE COMMITTEE.

There are two resolutions of the Committee that are of general interest to members of this Society. The first pertains to safety of members on trips and the second to cave conservation.

It has been decided that a future requirement for trip leader status is that the applicant will be the holder of a St. Johns Ambulance First Aid certificate or its equivalent and that this certificate be current. It is also required that present trip leaders be in possession of such a certificate by January 1976.

The second resolution is that smoking underground be banned as it is not consistent with the general conservation of the cave. Needless to say, smoking is rather unpleasant to others in the often restricted and still air of most caves - especially if they are non-smokers themselves.

T.A.

SUMMARY OF SUSS TRIPS TO CLIEFDEN.

R. King.

1948 - 1975.

The table below shows the number of trips by the Sydney University Speleological Society to the caves on the sides of the Belubula River, SW of Orange, NSW, and popularly known as Cliefden Caves. This includes the first ever trip to this area by the speleological group in 1948. These figures were compiled from by no means complete records of this Society, including Trip Report files, Fisher Library Archives, SUSS Jnls, Newsletters, Circulars and Year Books, and lastly, the Minute Books of meetings of SUSS. The author would appreciate any further elucidation on trips, particularly 1964 - 1969. Full copies of this report, which contains references and abstracts are held both by UNSWSS and in the SUSS records.

TABLE OF TRIP STATISTICS.

<u>Year</u>	<u>No Trips</u>	<u>Year</u>	<u>No Trips</u>	<u>Year</u>	<u>No Trips</u>
1948	1	1957	2+	1966	0
1949	NA	1958	3	1967	NA
1950	0	1959	2	1968	6+
1951	1+	1960	1+	1969	1++
1952	0+	1961	1+	1970	4
1953	1++	1962	1+	1971	5
1954	2+	1963	0	1972	2
1955	0+	1964	0++	1973	5
1956	0	1965	0+	1974	7
				1975	4
		<u>TOTAL = 49 Trips</u>			

Key

- blank - good references and records available
 - +
 - ++
 - NA
- reasonable records available
- very scanty records. Number shown is a minimum figure from the references
- no records available.

CLIEFDEN - 4,5,6th October 1975

G. Smith.

UNSWSS trip; G. Patterson (TL), Helen ? (UNSMSS), G. Smith, J. & G. Hopkins, E. Crabb (SUSS), J., D., W., N., Crabb (V's).

The Hopkins, one Crabb and myself arrived at Cliefden about 7.30am on Saturday and raced into the house for Breakfast. Then set out for the Dunhills to get the key to CL1 which Gerry said he could remember. After speaking to Mrs. Dunhill we then set out to locate this cave - it took 2½ hours - finally after giving up we just happened to find a rubbish pit which gave a clue to the tree we were looking for.

Clifden (cont),

3½ hours were then spent in seeing Clifden Main pretty thoroughly, although I've been told we missed the best part (Helictite Hall) and did not find the lower entrance.

That night Evalt and family arrived and proceeded to interrupt our much needed sleep. However we were caving by 9.00am next day in Transmission and Warcomba Caves, returning from Warcomba to meet Graeme P. and Helen who had arrived earlier and spent a few hours digging above Transmission.

Graeme and Helen stayed to survey a small cave while the rest returned to the house for tea. Some then set off to attempt to find some new caves by temperature anomalies which were apparent at various places on the hill (only one easy digging prospect was found). That night saw speloo type pseudo discussion take place until all retired.

Monday - the Crabbs set off for a walk to the island while the Hopkins went digging on the hill to the west of the house. No success. Graeme and I went looking for a cave which had to be surveyed. Helen went looking for an extremely well hidden but blatantly obvious cave (CL75??). Survey completed we returned to the house to get some lunch and pack up. After lunch the Crabbs left for home, Graeme and Helen went surface trogging while Jenny, Gerry and myself returned to Transmission Flat to collect some insects - surface forms only.

The general opinion was that it was a good weekend and worth repeating. Thanks to UNSWSS for their hospitality.

SOME OBSERVATIONS ON THE LIMESTONE AREAS AROUND BATHURST. N.S.W.

Tony Austin.

Last August Cathy and I decided to take a week's holiday in the Bathurst area as neither of us were particularly familiar with the country to the west of Lithgow. Needless to say we took the direct route from Sydney, via Newcastle, Singleton, Morriwa, Cassilis and thus to Gulgong and Mudgee. This part of the trip was reasonably straight forward, save for the fact that we nearly removed the new exhaust system from my M.G.B. on the smooth country roads which bless this part of our state. The first limestone of the journey was sighted between Mudgee and Cudgong. We crossed a small creek - need I add called Limestone Creek - and noticed a few old buildings made from what appeared to be rough hewn limestone blocks. There were few karst features so we moved on. I might add that there is a small town nearby called 'Limestone' and the Kandos quarries are near by. We continued on to Bathurst via Ilford, Sofala and Kelso.

The next area of interest was Abercrombie Caves to the south. The arch is fantastic - by far superior to the Grand Arch at J.C. or the Glory Hole at Yagby. The caves off the Arch were well presented but not particularly spectacular in themselves. The Guide was very friendly and most informative about the caves and the speleological work going on in the area. He mentioned to us that there was limestone at Cow Flat and Georges Plains though he had not managed to closely inspect either deposit.

Cont. Page 179.

JENOLAN 8-9NOV75.

B. R. Welch.

Due to university exams, I was the only member of S.U.S.S. there. Saturday was spent seeing Mr. Tullet (Manager, Caves House.), Mr Culley (Senior Guide), attending the J.C.H.A.P.S. Committee Meeting, dining at Caves House and then attending the J.C.H.A.P.S. General Meeting.

On Sunday I bashed that part of the hillside which runs from above Wombats Retreat (J139) up to Twin Shafts (J200). No new caves were located, however I did sight Cubby Hole Cave. This Cave is really a small room developed inside the boulders next to Twin Shafts, the entrance being about 5m down the cliff face.

I also started on a systematic search of Mammoth Bluff for caves and completed the southern end. One new cave was located but not entered (I was by myself). This cave is located up the valley between Mammoth and South Mammoth Bluffs, some 15m above the valley floor. A small entrance seems to lead to a chamber about 5m x 3m, and sloping westwards.

After reporting to the guides, I motored off home.

JENOLAN 15-16NOV75.

B. R. Welch.

Present: B. Welch, G. Cox. (m's).

The purpose of this trip was to collect samples of algae from Hennings Cave; and to carry on the survey of the caves at Jenolan.

We looked into Little Canyon Cave (J59,60,61) on the way up the valley. This is a most interesting cave and when viewed with Diggins Diggins (J37) and Serpentine (J72/125), the whole system is probably the most important between Mammoth Cave and Wiburds Lake Cave.

The Nibicon Dig in Little Canyon Cave was full of gravel again, probably as a result of the flood (21JUN75). A smocked inscription on the wall in the first chamber seems to read 'CINKIN' - could this be the lost Kincaid Cave? I think this worth further study.

On reaching Wiburds bluff we decided to hop into Wiburds Lake Cave for a few minutes to look at the water levels. There was the usual stream flowing in Lake Chamber, most of which was sinking in those digs in the western wall, however a small amount was continuing down towards '22 Passage'. The big surprise was a large stream (could have been as large as 1 cusec) flowing out from under the dyke down '22 Passage' also. This flow looked to us to be larger than the amount of water sinking in Lake Chamber, since we had some fluorescent stored in the cave we thought it might be an idea to dump some into the pools where the water was sinking in Lake Chamber, to see if it came out under the dyke. We waited, but no colouration, the reason we were to find when we ducked under the Dyke. There was only about 20cm of airspace

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JENOLAN (cont).

under the dyke, but on the other side was a huge lake, stretching all the way to the entrance to NW passage (i.e. the bottom of the mudslope) where the passage sumped completely. At this point the water was very deep - I didn't think the gradient was so steep from the Dyke to the beginning of NW passage.

We tried to evaluate the significance of these observations and we came to the conclusion that maybe the Lake Chamber lake is not caused by the water coming in from the northern end of Lake Chamber, but rather from this larger stream which must come from the NW passage.

The next question is where does this water come from? Could it be the overflow from the Underground River? I am not proposing this as a theory, but it is an interesting possibility. Once the capacity of the Underground River is exceeded then it causes water to flow down the dry creek bed of the Jenolan River and when the water backs up in the Underground River, it then flows out into the gravel via Wiburds Lake Cave? Interesting possibility.

After swimming around in WLC we were chilled to the bone, and it was decided that we were too cold and tired to attempt any surveying, so we stored the surveying gear in J57 and walked back to the campsite.

Sunday morning saw us up on Wiburds Bluff again and we surveyed J100. This is a fissure type cave about 15m up the hillside, just near J57. A mossy entrance leads to a 3m drop into a narrow passage 6m long. I doubt if the cave holds any real prospects - it seems to have been formed when a large block moved away from the hillside, opening up this fissure. Boulders have fallen into the fissure and jammed, forming the present roof of the cave.

The next cave to be surveyed was J57, and Guy crawled in, but decided to abandon the survey when it was found that this cave was inhabited by a wombat. J56 was then surveyed, this cave is located only about 5m northwest of the Big Rock at flat lev 1, in the inevitable nettle patch. A narrow entrance leads to a small chamber which is developed in rockfall. By crawling into this rockpile a stream could be seen 2m below flowing in a westerly direction (i.e. into the hillside), but the rockpile is too tight to allow access to the stream. Subsequent observations suggest that this stream is next seen in J58 and ultimately ends up in WLC.

After surveying J56 we commenced the survey of J202 but we decided not to go ahead with it when we noticed that a hole in the floor seemed to open out into a fairly large chamber below. Some time was spent trying to enlarge the hole, but without success - one rock blocks the way.

We made our way back to the campsite, stopping at Hennings Cave (J39/76/77) to collect the algae samples. After reporting to the guides we sped home.

JENOLAN 22-23NOV75.

B.R.Welch.

-A surfeit of surveying-

Present: B. Welch(TL), R. King, P. Campbell, M. Handel, T&G Austin, P. Kirby,

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JENOLAN (cont).

D. Coles (m's), L Henness (P), Chuck (V).

Randall inspected the Southern Limestone on Friday (see separate report): while some of the others perfected SRT techniques with Gibbs ascenders on the Mammoth pitch.

On the Saturday morning three separate survey parties were briefed and dispatched. Randall acted as guide for Peter and Lisette who were to survey caves down in the gorge; and Bruce acted as guide for Malcolm and Prue around the Serpentine Bluff. It was found that the SSS surface map was fairly inaccurate in its location of the caves in the area.

Presently Randall strolled up and did a spot of surveying in the nettles then Bruce and Randall pushed on up to Wiburds Bluff. Whilst surveying J73 Bruce pushed 'a passage that doesn't go' and found some further passage which ended in a tight rift leading down for some eight or so metres.

However a rock part way down prevents any further progress. A strong draught was noticed coming out of the north end of the cave and disappearing into the southern end (i.e. down the rift pushed by Bruce). Randall and Bruce spent the rest of the afternoon surveying and investigating caves in the Wiburds area (see separate report).

When everyone gathered back at the campsite each survey party had something interesting to report. Malcolm had pulled a few rocks out of the end of a shallow cave and discovered a very well decorated chamber about 30m long. It appears that the existence of this chamber was not previously known, and it was decided to keep the location quiet until conservation could be considered.

Whilst surveying The Verandah (J172), Peter and Lisette noticed the signatures of Wiburds and Edwards, 1884; quite an interesting find. Some people had a hurried dinner then set off for the guides office, where (or not three guides - E. Holland, J. Callaghan, and Peter?), and walked up to Spider Cave for a tourist typw trip. The guides found the cave most interesting, noticing some growths on the wall which might be aragonite, three species of spider and some fossils in the limestone.

On Sunday morning the survey parties were again briefed. Malcolm and Prue set out to survey the cave they discovered the day before. Randall and Peter surveyed caves around the Carlotta Arch area; and Bruce, Tony, Duncan, and Chuck were to survey the caves in the area below Dreamtime Cave (J142).

Again it was found that the surface map was not helpful and after bashing through the nettles, climbing cliffs etc., it was found that most of the caves in the area were not worth surveying (0.5m overhangs). When this party had finished, there was a quick trip to Hennings Cave.

Caves surveyed 22-23NOV75.

J33, J36, J73, J114, J115, J116, J124, J136, J143, J152, J153, J155, J158, J159, J169, J171, J172, J173, J177, J175, J183, J232,

Caves Deemed not worth surveying: J38, J66, J135, J141, J144, J217, J228.

Total No. of Caves. - 29. Not Bad, congratulations to all members of trip.

-Report of work carried out.-

Present: B. Welch (TL), S. Bunton, G. Smith, P. Campbell, M. Handel, S. Larson, D. Creed, J. Hayes, D. Turvey, S. Brown, D. Smith.

A quick trip into Mammoth Caveon Friday night to look at water levels was undertaken with Steve Bunton leading, and this set the pace for the weekend.

On Saturday morning Bruce and Peter went off up to the Southern Limestone to look at a cave reported by guides Callaghan and Oliver. We were told by the guides that this cave was very tight and they considered that a smaller person might have a better chance of getting in.

The cave is located about 1km up the valley, near Bottomless Pit (J23), a short distance up the most eastern of the two creeks, and some 15m up the hillside. The entrance is in the form of a rift open to the surface, there being two main holes. Both drop down a few metres to an earth floor, however the lower of the two holes is too unstable to allow entry with safety. The upper entrance is more stable and the rift was descended to a depth of some 8m. Up to this point the rift is about 0.3 - 0.4m wide with some cave coral on the walls. At the 8m level some rocks are jammed in the rift, forming a floor in places. The rift side steps here preventing any further descent, but it is possible to see down a further 8 or so metres, narrowing towards the bottom with rocks jammed in the rift at many points. The depth is something greater than can be seen, and rocks dropped down the rift rattle for some time, suggesting that the total depth of the cave is in the order of 20 metres.

On our return to No.3 Car Park we noticed a hole at the base of the bluff which corresponds closely to where J45 is located on the SSS surface map, however we could not see a tag and did not have time to investigate the cave.

Whilst Bruce and Peter were up in the Southern Limestone, the survey of Henry's Hole (J134) was commenced under the leadership of Steve Bunton. This cave is predominately vertical and has good potential. In fact, whilst surveying the cave, the party found at least twice as much cave as was shown on the sketch map done by J. Turner on 20/11/71 (2J134.SUS1). For this reason the survey of the cave will have to be completed on a subsequent weekend. I feel that this cave has not received sufficient attention, especially when its location is viewed in the overall hydrological pattern at Jenolan. The cave is located not far north of the end of the Tourist Caves, and Henries Hole could provide the solution to where the water in Water Cavern (in Jubilee Cave) comes from. The survey party certainly did well to push the survey of this cave as far as they did, in fact we saw very little of them the whole weekend, with some surveying done on Saturday night.

Another survey party under the leadership of Graeme Smith pushed the survey of Hennings Cave much further to completion. Again, much time was spent not only during the day, but also Saturday and Sunday night. Graeme is studying the bird life of the Jenolan area, and this project is progressing slowly.

Jenolan (cont).

After returning from the Southern Limestone, Bruce and Peter commenced the survey of Castorot Cave (J51), which Bruce and Dave Crood completed on Sunday morning. The passage floor detail has yet to be done, and this will be combined with a photographic trip to collect photographs for the Northern Limestone Book.

Bushrangers Cave (J69-71) and J120-123 were visited and errors in 2J69.SUS1 noted. About an hour was spent looking for J44 (located somewhere on Dwyer Bluff) but without success, one tends to suspect that it may not exist. We had hoped to survey this cave, but this idea was abandoned when we failed to locate the cave. However we did locate a cave documented and surveyed by John Dunkley at the beginning of the year, location of which we were not sure, hence it is not tagged.

Graeme took a break from surveying to do a quick trip into Mammoth Cave, again looking at water levels, lower river was still quite high.

By Sunday night there were only four members left at Jenolan; Bruce, Graeme, and two others, so on Monday morning we split into two parties. Graeme went to his surveying in Hennings and Bruce went down to look for J108. On the way bones removed from Spider Cave for identification were taken back to the cave, however due to lack of time the containers were left only a short distance inside the cave, a trip in the future will move the bones back into the lowest chamber, and the Dingo skull will also be taken back into the cave.

After spending about an hour, 6 days before, looking for J108 we came to the conclusion that the SSS surface map was inaccurate, and we were therefore looking in the wrong place. So this time we started bashing the hillside south of Glass Cave, and managed to find J109, but no J108. We spent some 3 hours looking and in hot weather that is no joke, I feel that the SSS surface map needs to be revised and the caves placed a little more accurately on it. Quite a job I know, but what is the purpose of tagging a cave if there is no way of locating it,?

So alas, another cave which we were unable to survey. We then moved up to Mammoth Bluff to survey a cave located by Bruce on 9NOV75. To our surprise this cave turned out to be quite reasonable, and would require a forestry compass survey rather than the suunto and tape traverse that we had thought necessary. A short distance inside the entrance the initials 'LAT FW 91' were neatly scratched into the old flowstone and this suggests that the cave was discovered by early explorers in the last century. They had 'removed' quite a bit of formation to reach the lower chamber, but the decoration at the bottom was not bad. I suspect that this cave has not been visited during this century or at least not since the speleological society was formed, mainly due to the overgrown nature of the entrance and the fact that a cave has never been reported to exist in this area; its not the sort of cave which one would loose.

After returning to Sydney for a SUSS Committee Meeting, Malcolm and Bruce returned on Monday night and commenced the survey of this cave on Mammoth Bluff. On completion, we moved up to J69-71 and surveyed the serpentineous passages in this cave. The wall and floor detail on 2J69. SUS1 were corrected and supplemented.

Jenolan (cont).

There appear to be two different types of birds nesting in the cave, and we were surprised to find that there was a pocket of warm air along the roof, which explains the recent bat guano we noticed in the cave. I have not heard of anyone actually seeing bats in this cave - it might be something to look for.

MSS were at Jenolan and very kindly reported on the water levels in Wiburds Lake Cave. Apparently there was no stream trickling into each end of the Gulches. This seems to be the state of equilibrium which the cave often reaches on numerous occasions since the flood of 21 JUN75. The water levels in Maiden Cave were also up, and there was some evidence to suggest that they had been even higher.

Four caves were surveyed on this weekend, as well as continued surveying of two others. Cave descriptions were also written for a number of caves.

JENOLAN

30-31/8/75.

G. Smith.

Present: G. Smith (TL), B. Welch, S. Bunton (M), B. Cleaver (P), S. Wheatley, D. Symnott (UN SWSS), J. Hayes (StGACT).

Shortly before leaving on Friday night the starter motor on my car refused to function, so Steve, Bryan and Judi pushed me to Jenolan (well sort of). Steve W. and Derrick had already arrived but we "tried" not to wake them on our arrival at 3.00am. At some ungolly hour next morning Bruce arrived and after a short discussion about hydrological phenomena at Jenolan since the great flood, he and Bryan set off to survey a small cave before breakfast. At about 9.30am we all walked into Jenolan to see the guides with the permit. Bruce gave a brief verbal introduction to Derrick and Steve on the area.

Ron Newbolt suggested Bruce speak to (name unknown) about some caves in the Southern Limestone and so we split up. He (whoever) was not at home so Bruce returned to Mammoth just as we were leaving for Hennings. On the way we stopped to have a look at some small holes beside the track. Here Bryan, Steve B., Judi and myself continued to Hennings and completed some more of the survey through the Wet Siphon and on till the terminal chamber - all CRG 6 (the old system) - NOT a comfortable task.

Meanwhile Bruce almost succeeded in becoming a permanent fixture in the small cave he was digging when he removed a rock which was holding up the roof no prizes for guessing the ensuing comments. They (BW, SW, DS) then continued to Wiburds Bluff looking at Hennings entrance etc., on the way.

Everybody returned to camp after dark and had tea and went to bed early.

Once again Bruce and Bryan showed their enthusiasm by setting off to continue surveying the Devils Coach House dragging Steve W. and Derrick along. They returned about 1.00am.

Bruce next morning mentioned some interesting water movement in Wib urds Lake Cave. After breakfast Steve B., Bryan and Judi descended into southern Mammoth (lower river still being flooded). Steve thinks that some small rift passages have suddenly appeared but his memory of this section is hazy and he would like a more acquainted person to take a look.

Bruce, Steve W, Derrick and myself returned to Hennings to attempt to complete the terminal chamber survey but time ran out as we had stopped for a photography session in a side chamber, as well as looking at two holes which had suddenly appeared in the water course in Hennings two weeks after the flood. On the way home we stopped at the guides office to complete the book. Then pushed the car home via Hampton (if you think it smart to park your car on the top of a hill so you can 'clutch-start' it make sure no-one can park in front of you!!)

Some Observations on the Limestone in the Bathurst Area: Continued from Pp 172

We later attempted to find the limestone at these places for ourselves but had no luck at all. I understand that there are commercial lime quarries on both sites but they must have them well concealed as we found no trace of either of them. Cow Flat is quite hilly with dense bush making it difficult to get a good overview of the area whereas Georges Plains is rather flat and open so that the limestone must just break the surface much as it does at Lilydale in Victoria.

Wishing to see some decent cavernous limestone again we then made a quick trip to revisit Cliefden. Randall had the troops there doing some surface tregging and some surveying so we piked out and explored the old barite mine instead - its quite interesting though rather unstable now. On the return trip to Bathurst that afternoon we stopped to see Carcoar - which is being restored as an historic site.

The next limestone visited was at Limokilns on the way back to Sofala. The limestone is visible over a wide area - outcropping in bluffs above the creek and as isolated higher areas in the middle of fields. Needless to say it all lay on private property and signs to that effect abounded. By the way the trip to Hill End is definitely worth the effort. The area is under National Parks and Wildlife control and they are doing a first class job in restoring the area to its original state. The area overlies limestone, I believe, but it is not visible.

The final area visited was the Molong - Wellington region. The drive from Orange to Wellington is guaranteed to keep the average speleo wide awake and drooling as the outcropping limestone stretches as far as the eye can see. There are literally acres and acres of nothing but bare rock. The caves (there are two open to tourists) at Wellington are worth the visit - they are not particularly well decorated but are different from that usually seen at J.C. and Bungonia. The area is well looked after and the Guide was very pleasant and co-operative.

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