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SPELEOLOGICAL SOCIETY



JENOLAN REPORT 1974-5

RANDALŁ KING

BRUCE WELCH

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. Guides	Camp-Mt Keira.
24-26	ASE Committee Meeting - Locati	om 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:

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.

ACKNOWL SDGEMENTS

We gratefully acknowledge the assistance of each and every SUSS member who has contributed in some way to the work at Jenolan in 1974-75, and yet have remained anonaments in their efforts. Special mention should also be made of Messrs Peter Campbell, Peter Winglee, gik Tunney, Malcolm Handel and Jim Sen wook, without whose enthusiasm little work could have been carried out.

Thanks should also be given to Mr J: hn Dunkley, whose advice and suggestions have been invaluable. The G iding Staff at Jenolan and the MSW Department of Tourism have also remisred us great assistance by enabling us to cave in the Jenolan Cave: Reserve.

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Preface

suss first began activity at Jenolan in 1948, and has focused its resources on the area ever since. The exploration and scientific study of both the caves and the karst landscape owe much to the individual efforts of 2 generations of members of this society.

Yet these investigations have hardly touched upon the potential that exists for academic research. Fast flowing underground rivers that appear from nowhere, then disappear again for many miles intrigue the visitor, frustrate the hydrologist and hinder the explorer. Vast caverns linked by an intricate complex of tiny ennervating passages challenge the geomorphologist and weary the inquiring speleologist.

This report has been prepared as a result of the need for a comprehensive summary of the massive amount of research that has been carried out over the previous two years, and to foot further work on a strong basis. If it serves this purpose, then we shall have been more than satisfied.

Randall King Bruce Welch October, 1975

Resumé of SUSS Research at Jenolan

1974-75

INTRODUCTION

During the past two years, Jenolan has seen more activity from SUSS than for any other comparable period in the 27 years that our Society has been involved with Jenolan. Of late, trips have been running nearly every weekend, and this has greatly furthered the research that we are undertaking in a great number of fields. This section aims to report on the projects that members of SUSS are associated with.

EXPLORATION AND DISCOVERIES

As one would expect, by carrying out a systematic exploration, many new discoveries or relocation of previously forgotten caves have been made. The more important of these are listed here.

Brittle Bazaar, Mammoth Cave

A reconnaissance trip in 1974 (Funney 2) revived enthusiasm to again tackle the aven in Can't Get Lost. On the 23rd November, 1974, this problem was surmounted & led to the discovery of a new section in Mammoth containing some formation (King 6, Tunney 8). This was subsequently named the "Brittle Bazaar" by Joe Friend, the climber. Of course, this discovery entailed much backbreaking follow up work, and these trips developed a notorious reputation, most averaging 12 hours or longer: A Grade 3 survey was quickly completed (King 5). This was then followed by the production of a Grade 6 traverse (King 8), with detailing added to recently. The final

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map is now in preperation.

Much speculation as to the the significance and possible extensions resulted from the discovery (Winglee, Tunney 9, King 8). Even surface entrances were searched for (King 5). However, pushing the rockpile to the south proved of no avail (King 8). Neither did a valiant effort by Peter Campbell et. al. using scaling poles to explore a promising aven, although this proved the feasibility of transporting these aids large distances in Mammoth. Recent climbing by another aven by Malcolm Handel also revealed no new leads.

However, one breakthrough was made when the elusive rockpile connection between Can't Get Lost and the Brittle Bazaar was pushed by Bryan Cleaver, and named the "Maverpass"; after the author's inability to pass a squeeze. Previous to this, investigation had shown that a connection existed (King 5.6) but had remained unentered. Since then, McGreevy has repeated this feat with extreme difficulty, from the bottom to the top for the first time.

Geomorphologically, this area is extremely interesting. Evidence of vadose features have been noted in this section, and pose some unanswered questions. (Winglee, King 12).

Mammoth has more of it's secrets to yield yet, and future effort will be sure to reveal further passage.

Spider Cave

If the Brittle Bazaar was THE discovery of 1974, then Spider Cave has certainly been that of 1975! Bruce Welch quite literally stumbled on the entrance with John Dunkley, when checking a well trodden area in the Gorge on the 11th May, 1975. Speleologists and guides had walked right past the cave for the last 100 years without noticing it! Inside, they found a large accumulation of bones in a big cavern with some old formation, as yet unseen by human eyes.

Following this discovery (Welch 3), the Australian Museum visited the cave, but found the bones too recent to be paleonologically interesting. Digging has commenced in a sedimented flattener passage (Welch 6), and the squeeze has been noticed to carry water during flood, as well as taking an inwards draft. The level of this is below the Jenolan River creekbed, and is the best prospect at Jenolan for attaining the mythical Hairy Diprotodon - that section of Lower River between Mammoth and the Tourist Caves.

A Grade 64 survey has been finished and drafted (Welch 7), and attempts to climb a promising aven is planned. Details of these activities may be appended to this report in the proof.

Wiburds Lake Cave

In Wiburds Lake Cave, scaling poles have been used successfully to investigate some leads in the Lake Chamber. A large rockfall section was found behind an obvious ledge (Welch 1). A small extension to the mud sump before Pitter Patter Passage was noted, but has not been entered (Welch 1). On the same trip, Winglee and Cleaver found a connection involving a 23m pitch between "BMSC Cave" and 22 Passage in Wiburds (King 8, Welch 1).

General

Wards Mistake Cave was relocated on Wiburds Bluff after much searching.

In 1962, Shannon had located this on a rough sketch of the area, but the whereabouts of it had since been forgotten. It was included in a published summary of discoveries (King 17)

Also on Wiburds Bluff, a large squab, well camouflaged cave was found behind a corner of the rockface above J100. Duly this was named "One O'Clock Cave". Basically, it is 17m long and horizontal with some relict formation, and is an obvius haunt for animals (King 17). This was successfully surveyed to ASF Grade 44.

In Mammoth, exploration of the Unsurveyed Connection of Railway.

Tunnel revealed another little known section (King 1), which was then mapped to Grade 3 (King 2). A small chamber near Ice Pick Lake was also noted (King 1)

Additionally to these discoveries, another 100 caves were placed on our documentation lists, most of which were previously unknown, and resulted from systematic searching of the limestone bluffs. Good prospects are known to exist in a number of places, including J97 Bluff, which is strongly joint controlled (King 13), and there will undoubtedly be more discoveries made in the future. A summary of the smaller caves found will appear elsewhere in this report.

SURVEYING

Activity at Jenolan has centred around this aspect of speleology.

All of the major caves have now been surveyed, with one exception. Even since a listing was compiled for Speleo Handbook II, there have been great advances in surveying.

Glass Cave was suggested to Brendon Hyde as a project following the survey of Alladin Cave, and this was carried out in late 1974 (Hyde). An excellent map was produced, and connected to the UNSWSS Chevalier Cave map.

Rho Hole required much strenous effort (Welch 2), but this was completed following Bruce Welch's purchase of an additional forestry compass. Parts of this were shown to lie underneath the end of Glass Cave.

Some surveying was done in the Tourist Caves. Exhibition Chamber in Lucas Cave was successfully traversed (Seabrook 2), and John Dunkley continued with work in Jubilee, which is nearly finished.

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During Easter, 1975, a prodigous amount of time and effert completed the detailing to the line survey of Wiburds Lake Cave, which had previously been carried out in NIBICON field trips (Welch 1). Other major surveys have included Wallaby Cave (J22), J97, J99 (King 10), J73, and Twin Shafts (J200) (Welch 6). Recently, Grahame Smith has concluded a traverse of Hennings Hole (J76), which has long been needed (Welch 6), and Malcolm Handel has drawn a map of J156/157.

All of these surveys mentioned have used Forestry Compasses and fibreglass tapes to at least ASF Grade 64 standard. Surveying in the Devils Coachhouse, which has constituted a major project(Welch 7), and in common with the Tourist Cave surveys, have used Grade 7 base traverses, fixed previously by RDF. Numerous smaller caves have also used a lot of resources, and these will be detailed elsewhere.

HYDROLOGY

Generally, this has been a time of high rainfall characterised by periodic flooding, both on the surface and in the caves. This has culminated in the largest floods for 20 years which occurred recently (Welch 4, 5, 6). Water flow in the Jenolan River was estimated at 200 cusecs, and Bow Cave was completely submerged:

Early in 1974, some flow measurements were recorded at various locations (Toomer). Many observations of Mammoth in flood have also been made (Tunney 1, 3, 4, 5, Milligan). During a wet week long trip in July-August 1974, the unrivalled opportunity was had to collect timed flow data of Jenolan from a dry to a flooded state (King 1, 3). Some comments have also been made regarding hydrological connections of Sand passage and Smirnoff's in Mammoth (King 11, 15)

GEOMORPHOLOGY

Jenolan presents a unique area for geomorphological interpretation.

It is characterised by the scenario of older, abandoned levels of caves underlain by active sections of the underground river. Structural influences have dictated much of the development of the caves we know today.

There has been much discussion as to the origin of the caves, but only a small proportion of these thoughts have been published (King 7, 10). Subsequent to a recent geomorphological inspection, during which many problems were noted, a paper on the Tectonic Morphology of the Railway Tunnel and Central Mammoth was privately released (King 18). This may be published at a future date.

HISTORICAL

Many from SUSS are members of the Jenolan Caves Historical & Preservation Society, and have taken an active interest in the history of the Jenolan area.

Historical work and searches of literature have resulted in the production of the "Bibliography of Speleological Research at Jenolan" (Dunkley 1), which will prove invaluable to future workers. It is the only specialised publication of its type in Australia, and contains abstracted references to all published speleological activity. Stephen Bunton drew an excellent sketch for the cover, in addition to those previously published (Bunton).

CONSERVATION AND PLANNED DEVELOPMENT

During 1974 and 1975, SUSS played a leading role in the ASF submission to the MSW Department of Lands entitled "Master Plan for the Development of the Jenolan Caves Reserve". (Dunkley 2). This contains guidelines for any limited future expansion of the reserve, and expresses the view that

already tourist inspections have reached the maximum saturation point on peak weekends, and any expansion of this will have a far reaching long term detrimental effect on the caves. This society strongly echoes the recommendations contained in the ASF Submission, and urges the adoption of these proposals.

SUSS has also instituted a system of voluntary restraints on visits to the prettier sections of caves via the ASF NSW Liason Council, in the interests of the long term preservation of these areas.

Other conservation projects include washing of formation and the installation of track markers and warning notices in Upper Oolite, Nammoth and in Spider Cave, mainly through the efforts of Peter Campbell.

An active role in the preservation of the Jenolan Caves is also being played by supporting the projects of the Jenolan Caves Historical & Preservation Society (JCHAPS)

A Summary of Documentation & Surveying at Jenolan

With the completion of the Mammoth Book in 1971, S.U.S.S. was able to spend more time on the other less well known caves at Jenolan. One long term project, the complete documentation of all caves at Jenolan, could now be commenced. This project has been a continuing one since the foundation of S.U.S.S., but has been interupted many times by more pressing speleological work.

However enthusiasm for documenting the smaller caves waned in 1972, and it wasn't until NIBICON (early 1973) that any great advances were made.

The culmination of work done in that year was a joint SUSS/ SSS tagging trip in September 1973, when 24 caves were tagged and some numbering problems resolved. Unfortunately an up-to-date copy of the SSS surface map was not supplied which severely hampered S.U.S.S.'s work.

Following this tagging weekend, John Dunkley assigned "1000" series numbers (at the suggestion of the Convenor, ASF NSW Cave Numbering & Nomenclature Committee) to the 36 caves still untagged by SSS. This served as a preliminary checklist of caves known to S.U.S.S. which were aparently unnumbered and untagged, and these arbitary numbers were allocated to assist in future identification in reports etc. until such time as SSS affixed a tag.

Work continued into 1974, but for several reasons - flooding of caves, pressure of other work etc. - 1974 was not a good year for "getting on with the job". Interest in getting on with the documentation was again roused in November 1974 following the appointment of a new Manager of Caves House earlier in the year, Mr B. Tullett; and the promotion of John Cully to Senior Guide at Jenolan.

It is pleasing to note here that since that time enthusiasm has never waned, and the documentation has proceeded at a very satisfying rate. In November 1974 a list of major survey projects was compiled (Dunkley Nov74 private circulation). Following a Jenolan Subcommittee Meeting on 6DEC74 a list of projects, and a

SUSS Bill 15(9):10e list of priorities circulated, and a list of caves not yet surveyed were compiled (Dunkley Dec74 private circulation).

At about this time, following the documentation of an extraordinary number of untagged caves, the "1000" series was abandoned; and an Un-numbered Caves List (UCL) was compiled by John Dunkley and released for restricted private circulation.

Early in 1975 Randall King joined John to further advance the documentation, and Bruce Welch took on co-ordination of the surveying and gave some assistance to Dunkley & King. Many other members of S.U.S.S. have all given up a great deal of their time to assist also. In February 1975 the S.U.S.S. UCL had reached 69, and with the assistance of many other members of S.U.S.S., this list had reached the remarkable figure of UCL 159 by early September. At this stage the SSS tagging program was up to J151, so to assist them, a joint S.U.S.S./SSS tagging trip was organised on 9-10AUG75. On this trip 49 caves were tagged, bringing the numbering to J200(Nurse JSSS 19(9):234). However there were still many caves not tagged, and a further joint tagging weekend was held on 11-120CT75 and a further 46 caves were tagged. Still more tagging is required.

Since February 1975, Dunkley, King & Welch have kept each other up-to-date, not only with additions to the UCL, but also additions, ammendments & comments on the numbered caves ("J" series) the list of unsurveyed caves, and the UCL. This is no small effort, especially when John Dunkley resises in Camberra.

In March Randall King prepared a "Standardised Cave Area Subdivisions" and a surface map showing these areas. This was done in an effort to assist in the location of caves, by naming each major limestone bluff (see Map No. 2JSUS.11)

In April SSS (as the society responsible for tagging at Jenolan) completed Cave Summary Forms for Speleo Handbook II, and these were checked and amended where necessary by John Dunkley. S.U.S.S. also completed Map Summary Forms for all the maps which it holds, for Speleo Handbook II.

Following the tagging on 9-10AUG75, S.U.S.S. completed Cave Summary Forms for the caves tagged that weekend, and these were checked by Ben Nurse (SSS).

S.U.S.S. has now purchased a copy of the SSS surface map showing cave locations of all caves tagged.

Almost all caves north of the Devils Coach House have been documented and S.U.S.S. will now be able to concentrate almost entirely on completing surveys of these caves. Appended to this report are the lists of caves yet to be surveyed. Although this list appears large (about 80 caves) a greater percentage of them are relatively small, and it is forseeable that only a few weekends work will be involved in surveying those caves which are located north of the Devils Coach House, about 60 caves.

Once this complete documentation (including surveying) of the caves in the Northern Limestone is finished, S.U.S.S. will be able to finish the complete documentation of the Southern Limestone, a project which has dragged on far too long.

TRIP STATISTICS - YEAR ENDING 29SEP75.

No. of S.U.S.S. trips 21 Total No. other society trips 23
Total No. SUSS members 159 Total No. other society members 175
No. of caves surveyed 97
No. of caves documented 90

Average	No.	of	trips	per	month	- S.U.S.S.	1.8
			32.			- total other societies	1.9
						- Grand Total	3.7
Average	No.	of	people	per	trip	- S.U.S.S.	8
						- total other societies	8 . 8

Average No. of caves surveyed per S.U.S.S. trip - 4.6 Average No. of caves documented per SUSS trip - 4.3

OVERALL SITUATION on SURVEYING

		TAGGED	U.C.L.
Caves Surveyed	- Northern Limest.	172	8
	- Southern Limest.	4	nil
	- Eastern Limest.	nil	nil
Not yet surveyed	- Northern Limest.	62	11
55 CH 1877 CO CO 1879 CO CO	- Southern Limest.	2	9
	- Eastern Limest.	nil	2
Surveys in progre	88	3	nil
Unenterable or ju	st a doline	4	nil
Not known or coul	d not locate	9	2
Tourist Caves not	surveyed	7	
GRAND TOTALS		245	50
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Publications

In order to document much of this research, it is planned to publish the results on a strictly limited basis. The first book was "THE EXPLORATION AND SPELEOGEOGRAPHY OF MAMMOTH CAVE, JENOLAN", which has recently been followed by the release of "THE BIHLIOGRAPHY OF SPELEOLOGICAL RESEARCH AT JENOLAN".

Owing to the large number of caves now known, it has become necessary to organise a basis for future workers. Thus the publication "THE CAVES OF THE NORTHERN LIMESTONE" was conceived, and is now in the preliminary stages of preparation. Most of the surveying has been completed over recent months, and it is hopoed to print this in the not too distant future.

Other manuscipts in this series which are hoped to be completed include:

- *"WIBURDS LAKE CAVE AND CAVES OF WIBURDS BLUFF"
- *"CAVES OF THE SOUTHERN AND EASTERN LIMESTONE"
- *"HYDROLOGICAL" AND GEOMORPHOLOGICAL STUDIES AT JENOLAN"

We are endeavouring to involve as many people as possible from a large number of varied fields in this work, and suggestions are always welcomed.

Report on Activities of the Jenolan Subcommittee 1974-75

Originally formed as a subcommittee of S.U.S.S. in about 1953, it faded away over the years. and was officially reconvened in November 1974 to compare progress in 1973-74. Since members of other societies have participated in projects which might loosley be regarded as included in the aims of the Subcommittee, it was considered appropriate, therefore, to extend the present informal nature of the Subcommittee.

This informal nature means that membership belongs to anyone who has taken serious interest in persuing the Subcommittees aims and/or attended the irregular co-ordinating meetings.

A report on activities of the Jenolan Subcommittee was produced by John Dunkley in Nov74. The following paragraphs serve to summarise the four meetings held since that time.

One of the major aims of the Jenolan Subcommittee is the complete documentation of all the caves at Jenolan, and consequently a large part of those meetings has been taken up with this aspect, and is best summarised in "A Summary of Documentation & Surveying at Jenolan", Welch Oct75.

Further projects in the Tourist Caves have been postponed until the Lucas/Skeleton, and Jubilee Cave surveys have been completed.

Following extensive discussions, a map format has been agreed to, standardising such items as border size, scale, orientation, layout etc.

Further meetings will be held as the need arises.

Current & Future SUSS Projects

Under the organisation of the Jenelan Subcommittee, SUSS is continuing its studies and research at Jenolan. Although a massive amount of work has been carried out by members of this Society over the last 25 years, it can be seen from the following list that this only represents the tip of the iceberg. The aim of this section is to demonstrate that Jenolan presents unprecedented opportunities for original projects in a myriad of varied fields. All of the items mentioned are either currently in the process of being undertaken to various stages of completion, or have been proposed by individuals, soon to be commenced.

GENERAL

- (1) Documentation & Surveying of all caves at Jenolan about 300 or more in all. Already, a highly advanced stage has been reached for all of the northern limestone (ie. that north of the Devils Coachhouse)
- (2) Exploration and geomorphological work in the Southern Limestone. This is being carried out in conjunction with the guiding staff.
- (3) Thorough researching of the limestone outcrops north of Wiburd's Flat and their relationships to the rest of the Jenolan Caves Limestone.

 Dunkley has previously published preliminary reports on this (SUSS Bull Dec. 72), but much is still required to be done.
- (4) Hydrology this, will constitute a systematic study by various means on correlations between surface and underground flow. High priority will be given to at least a thorough qualitative study of hydrologic characteristics throughout the area. This aspect of work is toocomplex to deal with properly here, and really requires a seperate paper by itself!
- (5) Surface Surveying Anderson has completed a theodolite survey from Playing Fields to Hennings Bluff, following the creekbed. An EDM traverse from the Devils Coachhouse to the Playing Fields requires only one station for completion. Another survey is proposed by SUSS from Hennings to north of Wiburds. This will mean that a Grade 7 or

better traverse will have been completed for all of the northern limestone. Plane tabling will be carried out where the density of caves requires such location.

- (6) J97 Bluff good prospects exist in this area for future discovery. The bluff is the most massive limestone bluff at Jenolan, with no known big caves, and evidence suggests possible cavernous voids exist.
- (7) A sillouette surface map of all major caves is planned in the near future.
- (8) Conservation SUSS will continue to support environmental issues at Jenolan. Projects are being undertaken to protect caves from damage (eg. Spider Cave, Upper Oolite) with tangible results, and these efforts will continue. The society will also strongly support those measures recomended in the ASF Jenolan Master Plan Submission designed to alleviate, or at least brake, unintentional damage from large volumes of people visiting the tourist caves, and to improve facilities and any future small development at the Caves House area itself.
- (9) Stress Analysis King has shown that an understanding of the tectonic morphology of the limestone requires a quantitative residual stress analysis on both a local and regional basis, and plans to begin this over the next few years.
- (16) Exploration and digging in Spider Cave in the Gorge Area as a possible means of access to the Hairy Diprotodon regions of Lower River.
- (11) A search for a theorised connection between Glass Cave and Rho Hole, and the checking of detailed work on part of the Hyde Glass Cave survey.

MAMMOTH CAVE

Mammoth still plays a leading role in SUSS's speleological activity.

The publication of "The Exploration and Speleogeography of Mammoth Cave"
has given a sound basis for all activities in this cave.

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Surveying

- (1) Can't Get Lost High Grade survey.
- (2) The Neverpass connection from Can't Get Lost to the Brittle Bazaar and extensions into the rockpile to the south.
- (3) Waterfall Passage
- (4) Nudist Colonies before Great North Cavern
- (5) Central River upstream from base of Ohmeneez mudslope
- (6) Resurveying of the area shown on page 34 of the Mammoth Book (Ice Pick Lake/Hell Hole/Unsurveyed Connection/S & XBones with recent discoveries)
- (7) A special levelling technique is being especially developed for the first time whose primary purpose will be to survey accurately and extremely quickly the vertical levels throughout Mammoth using a large number of spot height readings. The equipment is called the MONGOOSE and preliminary tests are being carried out prior to use in Mammoth. This will enable valid geomorphological theories to be proposed for the cave.

Diaging

- (8) For many years, SUSS have been digging intermittently at Denzdig, in the Oolite Loop, Southern Section. This will be resugrected again failing success in other directions.
- (9) Glenzdig in Oolite Cavern will most likely be reinstituted.
- (10) Twiddley Om -Pom still offers good prospects for extension of the northern end of Mammoth.

Hydrology

- (11) Tests have never positively shown whether Central River joins upstream or downstream of Lower River's appearance in the Southern Section. This is a major priority.
- (12) Identification of surface influxes to the rivers and their quantitative components.

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(13) Tracing of the relationships of the lakes in Mammoth with regard connections with Central and Lower River as well as possible interlake flow.

Exploration

- (14) Avens in the Middle Bit, Brittle Bazaar, Great North Cavern and Waterfall Passage necessitate the use of scaling poles. Investigation of one aven in the Brittle Bazaar proved the feasibility of scaling poles in Mammoth, and a major trip is planned to explore these unknown rising shafts using the poles.
- (15) Smirnoff's Passage and parts of Central River may be pushed during the next extended dry spell.
- (16) Climbing of the high aven in the Horseshoe Chamber.
- (17) Further investigation of Waterfall Passage and the Infinite Crawl.

WIBURDS LAKE CAVE

Over recent years, interest has intensified in this cave. During NIBICON, much surveying was completed, and detailing was added to this during Easter, 1975. It is the largest non-tourist cave at Jenolan after Mammoth, and is extremely impostant hydrologically and geomorphologically. Future years will undoubtedly see this cave as a major focus of activity.

Surveying

(1) About 80% of Wiburds has been drawn up to Grade 6. The rest requires surveying in the more remote locations and constricted areas. Undoubtedly more cave will be found before this is finished. This project is progressing as the lake levels permit.

Digging

- (2) Dig in Lake Chamber
- (3) Dig near bottom of Pitter Patter passage
- (4) Henry's Dig holds good hope for extension, and this has been continuing intermittently over a long period. Continuation of this dig will proceed.

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Exploration

- (5) A number of leads remain uninvestigated in Lake Chamber. The stage reached in exploration today is probably comparable with that in Mammoth 10 years ago, and the potential is enormous.
- (6) Scaling Poles Further use of these is required to investigate many innaccessible areas in Wiburds.

TOURIST CAVES

SUSS and the Jenolan Subcommittee currently possess copies of surveys of a number of the Tourist caves. About 40% of these have now been mapped. However, this high grade surveying is a slow, tedious and laborious task, as only the highest standard of mapping is acceptable for these caves. The eventual aim is to produce surveys of all the systems, and work will continue in the future. Current projects in this area are listed below.

- (1) In the Devils Coachhouse, about 50 hours of surveying late at night has about 80% concluded the mapping. Someof the western wall still requires surveying.
- (2) Jubilee Cave needs another few trips to complete the detailing and side passages for the main survey.
- (3) Lucas Cave requires surveying to add to the map of Exhibition Chamber.
- (4) Data on the stability of the rockpile in Lucas Cave is required for an investigation of tectonic forces in the Jenolan area generally. SUSS did some work in this respect 10 years ago, but few results were gathered before equipment proved faulty.

OTHER

- (1) Some further surveying of smaller side passages is needed in Hennings Cave.
- (2) Geology No geological reports on Jenolan have done a detailed study of the northern limestone. Rieder has completed some geological mapping and hopes to continue on his return from overseas.

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- (16) "Brittle Bazaar Braved & Some Surface Work" TR 10-13/1/75 15(3):60-62 July 75
- (17) "Summary of Recent Major Discoveries and Work At Jenola: by SUSS" 15(3):63 July 75
- (18) TECTONIC MORPHOLGY OF THE RAILWAY TUNNEL AND CENTRAL MAMMOTH CAVE, JENOLAN. 13pages (Unpub.-priv. circ)

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 - (4) "Water" TR 12-14/10/73 13(10):125 Feb 74
 - (5) "More Water (Too Much?)" TR 25-28/1/74 13(10):126-128 Feb 74
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- WELCH, Bruce (1) "Work Carried out by the Wiburds Team During Easter" subTR 27/3-1/4/75 15(1):20-21 May 75
 - (2) "Report on Surveying Activities In Rho Hole" TR 25-27/4/75 15(3):52 July 75
 - (3) "Report of Activities at Jenolan, 10/11 May '75" 15(3):53 July 75
 - (4) "Jenolan 16 June '75 Non Permit Trip" 15(4):78 Aug 75
 - (5) "THE Flood" TR 21-22/6/75 15(4):79-81 Aug 75
 - (6) TR 5-6/7/75 15(4):79-81 Aug 75
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NEW SOUTH WALES CAVE RESCUE GROUP RESCUE PRACTICE -

Bungonia Caves - 13th & 14th Warch 1976.

The Cave Rescue Group is intending to hold a Rescue practice at Bungonia Caves on 13-14MAR76, to further the knowledge of Cave Rescue techniques amongst cavers generally. The weekend is being organised for Australian Speleological Federated Societies and other Caving Groups, and we welcome your participation.

The weekend will commence at 8.00am an Saturday, when you should report to control ready to attempt rescue. A canteen will supply tea, coffee and soup to personel throughout the day and a donation of \$1.00 will be expected from each person to defray the expenses of this service.

To facilitate organisation of the weekend, please complete the form below (see overleaf also) and return it to the N.S.W. Cave Rescue Group personally, or post it to F.O. Box 57, Bankstown 2200 prior to the end of February.

Further forms & information are available from the above address.

NAME				* wrete **	•
ADDRESS					
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	& Reg. No==_				•8
SOCIETY or G	ROUF			1.0	
Equipment					
				4. 4.1.	
	ng is a list of				77
will be limi	ted to 4 activi	ties each of	f a 2 hour	duration	for
the Saturday					
Flease	indicate your p	reference w	ith a tick	•	
1. Liori	zontal lassagee (with stretche	s- Carrying r, passage	immobolisof various	ed patier sizes)	nt.
9				over pla	ease

SOME FUTURE ACTIVITIE

Friday 6th **BEUMRY. 7.30pm Barbeque & wine Tasting.
"Gledswood" Hume Highway, Leppington.

weekend- 13th & 14th MARCH. A.S.F. CAVE RESCUE FRACTICE Dungonia Caves.

wednesday 7th ArRIL. 8.00pm General meeting - Don Matts
176 william at, Baukstown.

Application forms for the N.S.W. Cave Rescue Group are available from Don Matts, 176 Milliam St, Bankstown. phone 70-0374 (M) 77-0758 (W); or from our post office box (Box 57, Banketown 2200).

2.	Horizontal rassages - ratient with limb injuries. (without stretcher, various pessages injuries)
3.	Morizontal Squeezes - easy, with improvised stretcher.
4.	Horizontal squeezes - Hard, without stretcher.
5.	Horizontal Traverse - with stretcher, patient immobilised.
6.	Horizontal Traverse - without stretcher, patient with various limb injuries.
7.	Vertical Lifting - Immobilised latient.
8.	Vertical Lifting - ratient with limb injury.
9.	Vertical squeeze - ratient immobilised & with limb injury.
10-	Underground Search.
11.	Durface Dearch.
12.	Communications - Underground, & Surface.