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National University
Caving Club

ASF NEWSLETTER

AUSTRALIAN SPELEOLOGICAL FEDERATION



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Edited by John Dunkley, 22/53 Alice Street, Wiley Park, 2195, New South Wales, Australia

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EDITORIAL

Just as this was going to press, preliminary proposals for the second edition of the ASF Speleo Handbook arrived from Melbourne. A very keen team of competent, able people has been formed and plans are for a book nearly three times as voluminous as the first edition, although commercial production will keep the size below the 320 pages of the latter. To provide for regular updating of material, computerised typesetting may be used, together with cave summaries on computer cards.

There is no kudos in this immense task for VSA, no private profit, and no attempt to usurp or compete with ASF. The whole job is being done for the

Federation, and the satisfaction will be in a job well done, for the first edition received high acclaim from distinguished reviewers all over the world.

ASF will be a success only while people like this, and those listed on the opposite page, give of their time unselfishly. They all deserve your support - will you help them to help you? The guiding principle should surely be that all publications and especially functions requiring the support of a number of clubs and individuals should be organized in the name of ASF. What do you think of this proposition? What else is the Federation for?

NOTICES

(see also page 26)

N I B I C O N I S C O M I N G . . .

The Ninth Biennial Convention of the Australian Speleological Federation will be held at New College, University of N.S.W., Sydney, from 26-30 December, 1972, with field trips to follow. The highlight will be unforgettable - a Cavemans Dinner on a Sydney Ferry, afloat on Sydney Harbour. THIS IS THE EVENT OF THE DECADE - DON'T MISS IT. See within.

PROCEEDINGS OF EIGHTH BIENNIAL CONFERENCE

The Proceedings of the Eighth Biennial Conference of the Federation (Hobart, 1970) are selling quite well, and stocks are starting to run low. You can still obtain a copy from TCC or SCS direct, or (in Sydney) from John Dunkley. This book of 100 pages, offset with photos and maps etc. is well worth the \$3 demanded.

VISIT OF ALBERT GOEDE

President of Tasmanian Caverneering Club and a lecturer at the University of Tasmania, Albert Goede created quite a sensation in Sydney with his lecture (August 16) on Exit Cave. One would have imagined that the publicity of recent years would have opened people's eyes to the significance of this cave, but apparently not. The occasion also presented the opportunity for a real inter-society get-together under the auspices of the Federation. More such meetings are planned.

MULLAMULLANG CAVE, NULLARBOR PLAIN

Following an invitation from the Committee for Conservation through Reserves, Department of Environmental Protection, the Australian Speleological Federation has submitted to the Government of Western Australia a carefully documented case for the proper preservation of Mullamullang Cave, Nullarbor Plain. A number of copies of the submission have been printed and will be available for interested speleos after consideration by the Committee in Western Australia. The submission was compiled in great haste with whatever support could be obtained at short notice, and apologies are extended to those who may have missed being consulted.

JENOLAN CAVES HISTORICAL AND PRESERVATION SOCIETY

The inaugural meeting of the Jenolan Caves Historical and Preservation Society was held at Jenolan on 8 July, 1972. A Committee of 20 was elected including several guides at the caves, and prominent speleologists Ben Nurse (President), Greg Middleton (Secretary) and John Dunkley (Treasurer). This is believed to be the only historical society associated with caves in Australia. The Society's first major project is to be the reconstruction of the historic old Post Office (ca. 1896); the Tourist Department has made available a site adjacent to Caves House and will arrange for laying a foundation.

About 100 persons attended the first public meeting of the Society in Caves House Ballroom on 19 August; when Research Officer Warren Targett examined the legend of James McKeown, supposed discoverer of the caves. On October 1 a Smoke Concert was held in the Grand Arch to raise funds for the museum project. Smoke Concerts were a feature of the home-spun entertainment of the nineteenth century life at Jenolan, and have only recently been revived.

The J.C.H.P.S. is a unique experiment requiring for its success the co-operation of Caves House staff, Guiding Staff, local residents, speleologists and that growing band for whom Jenolan is still such a peaceful, fascinating draw. Membership is invited:

Single - \$5 Family - \$7 Students (14-21 full-time) - \$2

(address c/o Post Office, Jenolan Caves, NSW 2786)

CAVES OF NEW BRITAIN

-- A PRELIMINARY REPORT

by R. Michael Bourke

Cave exploration in Papua - New Guinea is in its infancy and has mostly been confined to areas readily accessible by road, the Javarere Caves near Port Moresby and the Chuave area in the highlands being the best known. New Britain is included amongst the areas with extensive karst areas, but about which little is known and even less documented, mainly because access to the limestone areas is difficult. New Britain karst is exceeded in area in Niugini only by the very extensive area in western Papua extending from the gulf of Papua northwest through the Darai Hills to the headwaters of the Fly and into Irian Barat in a belt some 450km long by 100km wide. From the air, large areas of continuous dolines are visible, sometimes dissected by deep gorges, and the sides of some river valleys are characterized by limestone cliffs often over 300m tall. A number of small to moderate sized caves, mostly stream caves of a simple structure, and a few very large dolines that lead into caves, are now known.

The island is over 480km long. Annual rainfall varies from 2286mm at Rabaul to 6350mm on the south coast. Geologically it consists of early tertiary rocks, predominantly volcanic pile of andesitic agglomerates and flows into which were intruded intermediate plutonic rocks of Oligocene age. Much of New Britain is covered by thick limestones of Miocene to Pliocene age, the bulk being of Middle Miocene age. Large areas of cream to white, compact limestone are present as cappings in the Whiteman ranges, the Nakanai Mountains and in the Northwest Gazelle Peninsula (Baining Mts.) On the Gazelle, smaller areas also occur on the east coast south of Cape Gazelle, and in the hinterland south to Wide Bay. Ryburn (1970) states that the thickness, which varies considerably, is commonly greater than 300m, but in places exceeds 1500m.

In the Papua - New Guinea caving literature, there are few references to New Britain. Fisher and Noakes (1942) state that in areas where thick deposits of limestone are involved, as inland from Lau and Jacquinot Bay, solution has been an active factor in erosion, and that solution holes and underground streams are common. According to Champion (1968) "a limestone plateau with caves is reported north of Kandrian, and caves are also reported inland from Pomio and Pondo and south of the Wanangai River". Macnab (1970) has described the limestone of the Gazelle Peninsula. Various authors (e.g. Hosking 1967, Ryburn 1970, Williams 1972) refer to the occurrence of the limestone. Bourke (1971, 1972a) has described two caving trips to the Baining Mountains and a trip to the Pomio area (1972b).

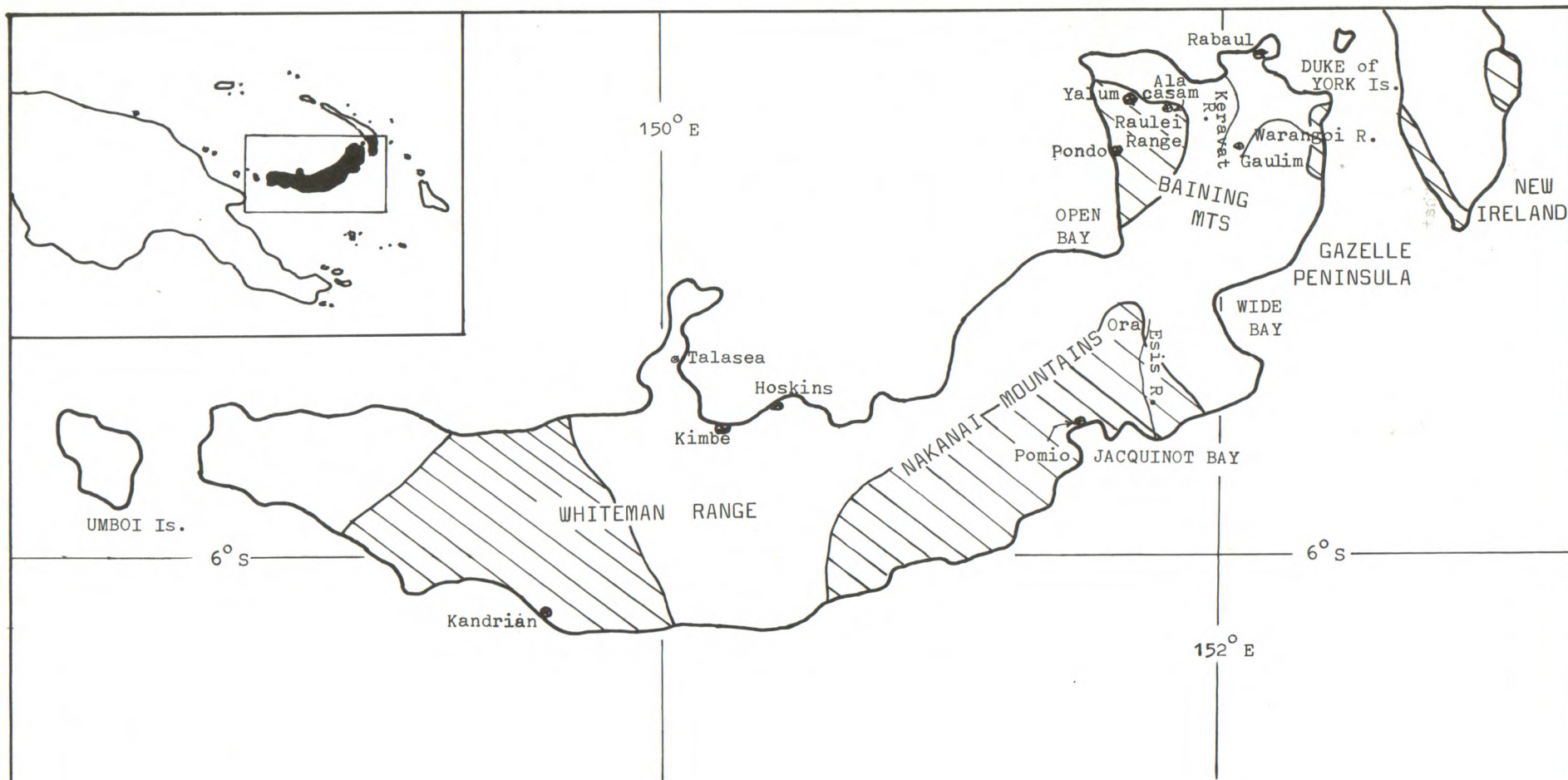
New Britain caves often contain streams and consist of a single uncomplicated passage with upper levels or extensive side passages, suggesting a relatively young age. As is common in many tropical caves, decoration is not well developed although not entirely lacking. One of the most striking features is the abundance of cave life, especially, floor-dwelling insects and bats. Several species of bats and flying foxes can often be found in the one cave in large numbers.

Information on caves visited by the author and one visited by K. Reed and C. Borough is given below according to the three major karst areas.

NAKANAI MOUNTAINS

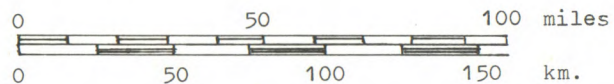
Stories of great river effluxes and cave entrances are common for the area inland from Pomio. The well known territorial caver, Fred Parker, reports "really extensive caves around Pomio and indeed on much of that coast". (pers. comm. 1970)

At the headwaters of the Pandi River a river from a cave at a village on the walking track that crosses the island from Pomio to Ula Mona on the north coast. Flow from the efflux was estimated as 42 cubic metres per second (1500 cusecs). Chris Borough and Kevin Reed of the Port



SCALE

1 : 2,500,000



NEW BRITAIN

SHOWING SEDIMENTARY ROCKS IN WHICH

LIMESTONE IS PREDOMINANT

(after Williams, 1972)

Moresby Speleological Society visited the cave in 1968. They were washed from the efflux by the force of the water as they clung to the cave walls. About 1600m (1 mile) from the efflux there is a large doline with this river flowing across the bottom. The doline is almost circular and is 800 - 1200 metres ($\frac{1}{2}$ - $\frac{3}{4}$ mile) across at the top and 800m across at the bottom. Depth was estimated as 300 - 600m. The sides are steep and covered in vegetation. They descended to about 60m above the river to where the sides became too steep to go further without more than a single line. There are two cave entrances under 25m high where the river enters and leaves the doline (pers. comm. K. Reed 1971, C. Borough 1972).

At the headwaters of the Kanu and Esis (pron. 'Isso') there are marked several dolines on the wartime army maps. One is described as "sinkhole approx. 1500' deep" and another as "sinkhole approx 1250' deep". The author entered the former in April 1972 (Bourke 1972b). The doline is located at about 1100m altitude and is 800m long, 400m wide and 250m deep with a large cave entrance at the bottom into which flows a river. This emerges a mile away in a cliff 150-250 m below the influx to form one branch of the Esis River. The potential cave depth would be about 400m. Other small dolines investigated in the same area were blocked. The village people along the Esis River report several caves and numerous other karst features are indicated on the maps.

THE GAZELLE PENINSULA

This consists of the Baining Mountains and a very fertile area of recent volcanics in the north-east portion separated from the mountains by the Warangoi and Keravat River valleys.

The Raulei Range in the North Baining Mountains in the north-west part of the Gazelle rises to 1830m above sea level. Along the eastern edge of the range there are limestone cliffs 750m high. The limestone is middle and possibly Upper Miocene in age and is more than 1000m thick. It is mostly shallow dipping. Widely spaced horizontal and vertical jointing has been noted. It outcrops over 600 sq. km (Macnab 1970). The surface topography is characterized by innumerable continuous dolines covered in tropical and some moss forest. As well as doline karst, crevice karst occurs where the surface is dissected by fissures up to 15m deep.

Only a fraction of the area has been explored for caves. Nine caves are known, none deeper than 24m (Bourke 1972a). The caves are vertical in nature, and most dolines are soil filled or contain small caves that are blocked. Stream effluxes occur in the adjacent lowlands down to sea level. The depth of the limestone and altitude contrast suggest that nonblocked systems would be very deep.

Other caves are known at lower altitudes in the same area. An hour's walk from Yalum village (ca. 900m) there is a small cave 100m long (Oreat-Satadat). Two hour's walk from Alacasam village (520m) is Oberungeram Cave, about 460m long. A smaller one is reported nearby the village. In this area, many of the streams are dammed by impressive travertine deposits. Caves are reported in the vicinity of Wilumbinki village and, in fact, this area corresponds to Champion's "inland from Pondo".

The Yalum limestone series also forms steep rugged hills with karst topography immediately east of Tassaul Bay. Behind Matanakunei village in Open Bay, Pliocene limestone more than 200m thick covers an area of 40 sq. km and forms the highest point of the Takit Range about 845m above sea level. The topography is karst and steep slopes or cliffs bound the unit except on the north west side (Macnab 1970).

Three river caves are known in limestone in the Gaulin area on the edge of the Bainings. The area is relatively not so mountainous and is accessible by road, in contrast to the fore-mentioned areas on the Gazelle where 1-3 days walking is necessary. One of the caves (Iuminas) is 150m long, another (Synnongoinga) is 150m, and a third (Durwy) is 75m long. There are others in the area according to village people. Altitude would be less than 300m.

South of the Warangoi River, at least one cave is reported by village people 'klostu' Simbum village. The area is covered with Pleistocene reef-shoal limestone.

There are sea caves in the Pleistocene reef limestone on Mioko and Duke of York Islands in the Duke of York Group between Rabaul and New Ireland. Coralline limestone is known in Niugini as coronous.

The Rembarr Range is composed of limestone with a thin veneer of volcanic ash. Peaks are up to 404m a.s.l. Local political problems have prevented investigation of reported caves here.

Also on the Gazelle are caves formed in the pumice subsoil by stream action. They are from 6 to 15m underground and boast passages and chambers. Near Malabunga High School, three caves are known, being 37m, 28m and 25m long respectively. The former two contain streams. Comunga Cave near Taulil village is another such cave and is about 18m long. Another one has been formed by a line of weakness in consolidated sand and pumice of volcanic origin. An interesting feature of these caves is the presence of charcoal in the parent material, presumably timber burnt when the material was deposited. This charcoal should allow the deposits to be carbon dated.

Inside the crater of Matupit volcano at Rabaul there is a small cave beautifully decorated with a variety of minerals displaying orange, cream and green colours. Despite the number of visitors to the volcano, the minerals are well preserved as access to the cave is fortunately not easy. At many locations near Rabaul there are tunnels dug for the wartime occupation. Japanese army in the soft pumice. Some are quite extensive and contained facilities for long occupation.

WHITEMAN RANGE

No details known, but the limestone is extensive (see map). Reports of caves are numerous

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(Cavers intending to visit New Guinea for some caving are invited to contact the Author for information. Write to R. Michael Bourke, c/o D.A.S.F., KERAVAL, New Britain, T.P.N.G.

- editorial note)

CONSERVATION O F FANNING RIVER CAVES

-- A PRELIMINARY REPORT

BY Andrew Graham

This preliminary report is a condensed and updated revision of a submission made to the Board of North Australia Cement Ltd earlier this year.

INTRODUCTION

The area dealt with in this report is centered about 14 miles north of Mingela, a very small town 52 miles from Townsville on the Flinders Highway to Charters Towers.

The caves have attracted some local attention since first officially recorded by Jack in 1879, but recently they have become well known to zoologists from the University of Queensland and James Cook University of North Queensland. A second official, unpublished report is found in Wyatt (1969). Wyatt reported two caves and not many bats but, as reported by Hindley in Dwyer (1970), a third cave was discovered containing "tens of thousands" of bats.

The need for this report became obvious when it was found that mining operations were proposed in an area in which was centrally placed this recently discovered cave of great biological importance. It is a maternity cave for the bent-winged bat Miniopterus schreibersii and M. australis. Another cave, Main Cave, is probably a maternity site for the horseshoe bat Rhinolophus megaphyllus, according to Dwyer. The value of these bat populations is that they help control local insect populations.

In addition the area could be considered to have value in terms of geomorphology and the geological stratigraphic record. The surface fauna and flora are probably similar to other limestone areas in the region, although this has not been confirmed.

GEOLOGY and GEOMORPHOLOGY

The limestone occurs as one unit in a group of resistant beds which make up a discontinuous strike ridge running generally south for nearly 10 miles. The regional trend of the beds ranges between E - NE and generally dips between 60 and 90 degrees.

The nearest limestone mining at present is from an outcrop of the same Fanning River Group at Calcium, south of Townsville. The limestone there which is becoming increasingly difficult to work, has been used for production of quicklime (for cyaniding) at Charters Towers, for lime used in sugar mills, and presently for cement manufacture. The area containing the caves appears to offer very large quantities of limestone.

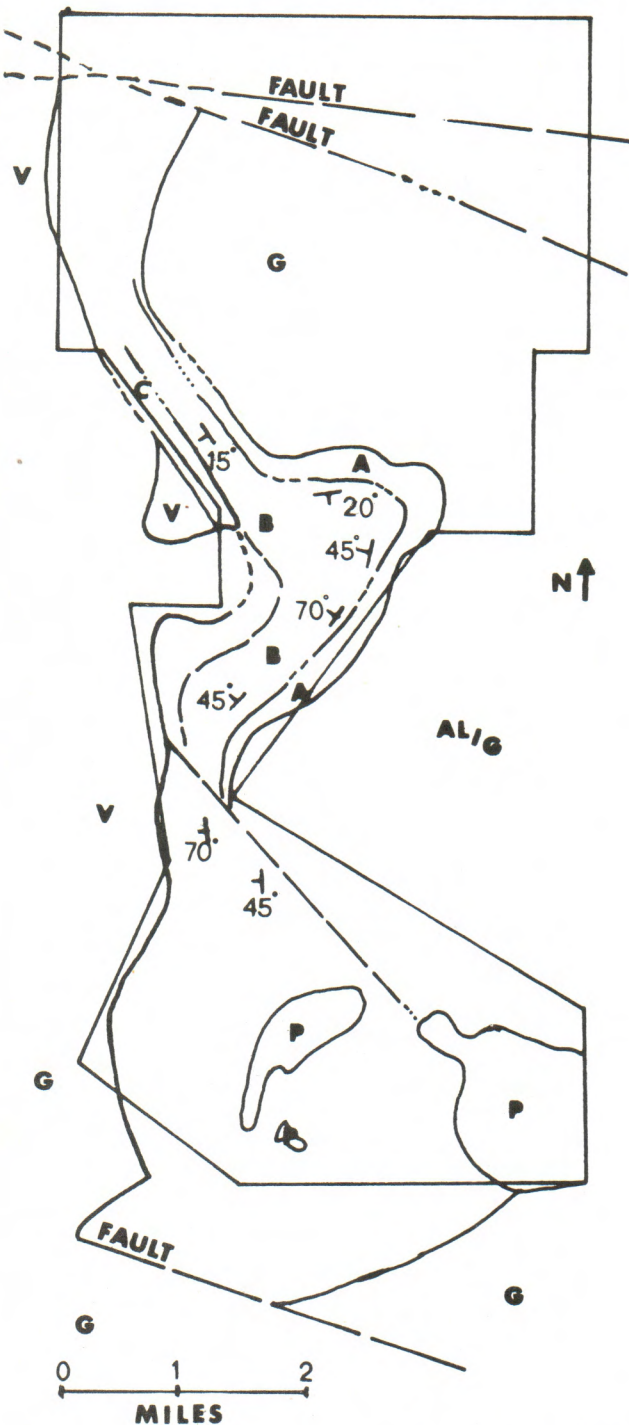
The area known to be cavernous is no more than one mile long and wide, although much of the northern end may prove to have enterable caves or at least conduits significant to karst drainage. Bare rock and vine scrub characterize the known cavernous area. Surface runoff is collected in solution gutters (rillenkarren and rinnenkarren) and diverted into grikes and sinkholes. The large scale grike development resembles the Kimberleys and Katherine karst areas and, except for more limited vertical development and number of caves, is also like Mt Etna.

FAUNA and FLORA

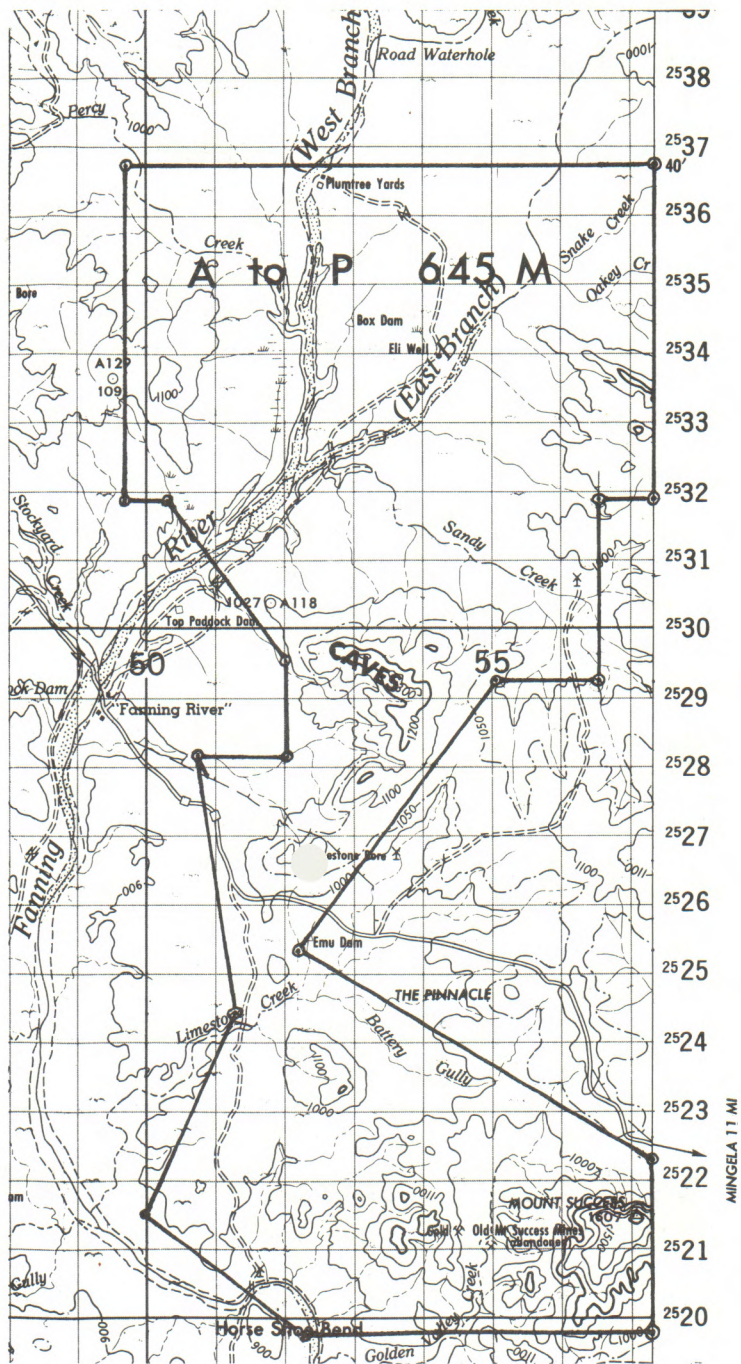
Wyatt (1969) and Dwyer (1970) recorded observations on fauna and flora associated with the karst surface and subsurface environment. Scrub turkeys, rock wallabies and bats are all common in the area. Recent reports indicate the area also contains important reptilian fauna.

GEOLOGICAL SKETCH

(after Wyatt 1970)



- | | |
|---------------------------|------------------------|
| AL Alluvium | C Cultivation Gully Fm |
| V Vanneck Fm | A Big Bend Arkose |
| B Burdekin Fm | P Pall Mall Adamellite |
| G Ravenswood Granodiorite | |



An estimated 10 - 20,000 bent-winged bats (Miniopterus schreibersii) inhabit one cave. As they are insectivorous, they are of benefit to local station owners, consuming possibly 1-2 cwt of insects per night (based on data of Dwyer and Hamilton-Smith).

Wyatt (1969) and others recently (Burdon-Jones et al, Submission to House of Representatives Select Committee on Wildlife Conservation, 1970) comment on "distinct flora" of limestone country of this region, noting "this environment is not represented elsewhere in the district and is inadequately represented within National Parks". No description of the karst or vegetation is available for west of Fanning River. Other limestone regions along the Burdekin also require investigation to determine if the "distinct flora" extends over a wider area than Wyatt noted.

CAVE DESCRIPTIONS

MAIN CAVE (station usage (Haines 1972), "The Southernmost Cave" (Wyatt 1969))

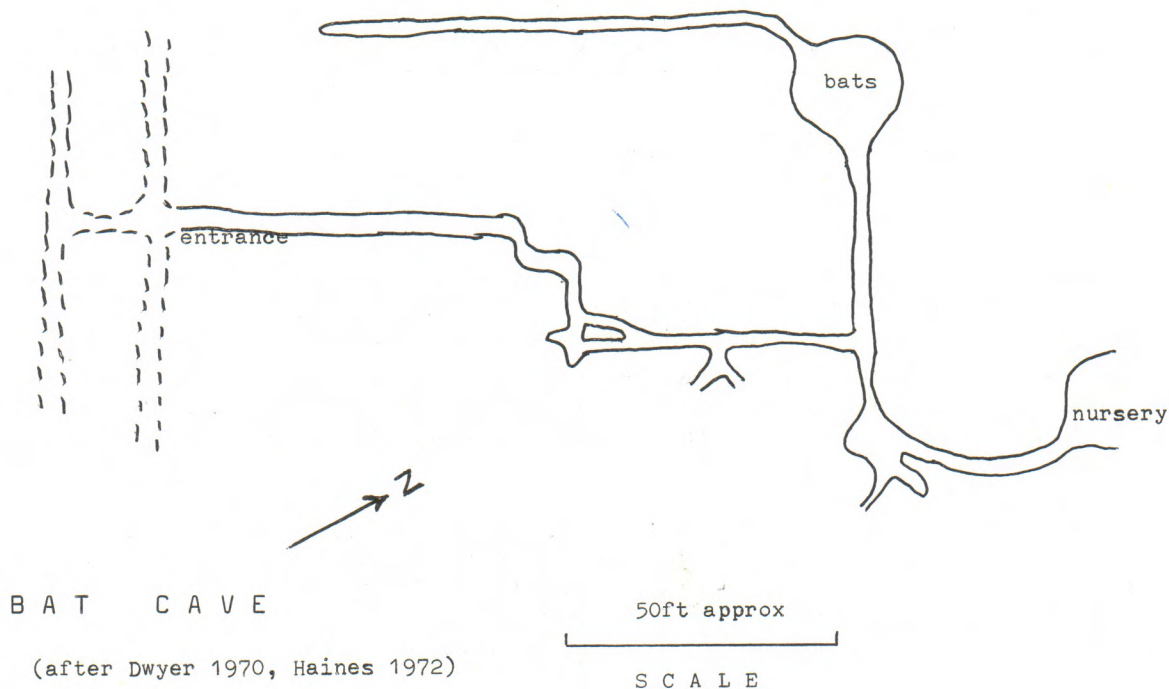
Entrance is a narrow slit 4' high x 1½' wide in the bottom of a sinkhole with fig tree, 50' below crest of ridge. Inside, a sinuous antechamber 60' x 15' x 12' high leads to a balcony overlooking the main cavern, 40-60' x 20-30' x 35-40' high, reached by a ladder pitch. Beyond is a maze of corridors, another major cavern and several minor chambers. One major corridor continues for several hundred feet, dropping gradually to a small muddy terminal chamber which fills with water in wet weather. Total passage length is over 1000ft. The cave is probably a nursery site for the horseshoe bat Rhinolophus megaphyllus and for both species of Miniopterus.

HOVANS HOLE (Station usage (Haines 1972), "The northernmost cave" (Wyatt 1969))

Entrance is in thick scrub 100' below crest of ridge. A rubbish scree descends to the floor of a cavern 120' x 30' x 20-25' high. Decoration includes small stalactites, shawls, large columns and possibly moonmilk. Minor offshoots and another chamber bring total length to 250'.

BAT CAVE (adopted usage (Haines 1972))

Entrance is a narrow vertical slot extending from an H-like pattern of surface grikes. The cave is strongly joint controlled and is about 700' long. It is a maternity colony for the bent-winged bat Miniopterus schreibersii.



PRETTY CAVE (J.C. Uni. Nth Qld Bushwalkers usage)

A chimney entrance leads to a fissure-like cave 200' x 10' x 25' high with a wealth of formations on one wall requiring care on passing. A chimney gives access to a multi-level, false-floored chamber branching off to the right.

WALK-IN CAVE (usage as Pretty Cave)

The entrance to the main chamber (50' x 60') is in dense scrub but is large. The cave concealed extends only 200' further in a low bifurcating passage.

POSSIBLE CONFLICT IN LAND USE

1. PRESENT ACCESS AND USE

The property owner has closed the area to all persons except mining company employees so that at least the wildlife is not being disturbed by shooters.

2. MINING

North Australia Cement Ltd (NACL) held a 3-year Authority to Prospect no. 645 which expired on 1/7/72. Extensive drilling has been carried out and the caves are known to the company. After expiry, NACL had the option either to apply for a mining lease in the area or apply for extension of the Authority to Prospect, BUT HAS NOT DONE EITHER up to 9 August, 1972. While the Authority to Prospect is now officially 'dead', the exploration expenditure in the area to date suggests that in the future mining interests may again be active. Since the Company's present leases south of Townsville are likely to terminate soon, alternative sources must be found. There are other alternative sites: there are deposits adjacent to Greenvale Railway for example. It would also be feasible and by no means vandalistic to seriously consider a truly dead, sub-fossil coral reef.

3. BIOLOGY

Protection of the maternity cave is critically vital. Dwyer (1970a) records the "first nursery of Miniopterus found in Australia in a man-made structure", a storm water tunnel in Rockhampton, but further research on the acceptance by bats of such sites would be necessary before considering an artificial alternative to the present site (this point was raised in discussion by the G.M. of NACL).

4. FLORA AND GEOLOGY

The distinctiveness and aesthetic value of the karst topography, the caves and the flora for recreation and for scientific reference purposes has now been established.

POSSIBLE APPROACHES TO RESOLVING POTENTIAL CONFLICT

1. NATIONAL PARK RESERVATION

The requirements for such reservations are, broadly:

- i) representatives of every important natural biotype.
- ii) as many minor biotypes and variants of the main ones as can be obtained.
- iii) any geological formations of such interest that permanent access to them is desirable

Wyatt (1969) and others subsequently have considered that the area meets these requirements, particularly since the presence of a maternity cave has been established. Local conservationist groups are now more aware of the value of the area and are pressing for such reservation.

2. PROTECTION OF THE MATERNITY CAVE

Precedents protecting a maternity cave against mining have been set at Willi Willi, NSW, in 1963 (Dwyer 1964), and Hamilton-Smith (1966) has emphasized the critical importance of such steps. Willi Willi Bat Cave is now in a nature reserve of 302 acres. There is a fine of \$100 for unauthorized entry into an equivalent cave at Naracoorte, SA.

Some possible ways of achieving this desirable aim are :

- a) Reserve to include maternity cave and a geological type section.
- b) Smaller circular reserve of radius one-sixth mile around bat cave, with a restriction on blasting.
- c) man-made structure as alternative maternity site, only as a last resort.

3. SEASONAL BLASTING RESTRICTIONS

There is a good basis for a condition requiring cessation of blasting within half a mile radius of the maternity cave during the maternity season, which may be approximately defined, subject to further observation, as October to February.

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O B I T U A R Y

"regret to advise Alan Hill passed away 21st June"

The final telegram arrived on my desk this morning - so far away that one feels more than the usual sense of helplessness. Words can never express my sense of loss and sorrow, yet I write, perhaps because words might recall the past.

I have personally lost a very close and true friend whose companionship and support has greatly enriched my life. My own sadness makes it difficult to write, yet having known him so well, I appreciate also the extent to which my personal feelings will be shared by many.

*Alan Hill was one of the founders of CEGSA, its first Secretary, later its President, and was recognised by the conferring of Honorary Life Membership. However, his influence on Australian speleology was much wider. He first conceived the numbering system, now adopted throughout the country, he worked closely with Bob Sexton in refining and developing techniques for cave surveying, he led the 1966 Mullamullang expedition, the report of which proved to be a landmark in standards of publication, then also had a major part in preparing CAVES OF THE NULLARBOR. And by no means least, he invented the notorious *Diprotodon hillii*.*

Many of us will remember even more some of the intangible but nevertheless enduring things. He enriched our vocabularies, he amused us, set standards, inspired and stimulated us, and helped us to achieve more than we might otherwise have done.

Elery Hamilton-Smith

LONDON, June 1972

CONSERVATION ACTION

LAKE PEDDER

Most readers will no doubt have read of the discovery by activist conservation interests that the flooding of Lake Pedder by the Hydro-Electric Commission was illegal. Up north we watched with detached fascination and a sense of impending disappointment as the drama unfolded. The Attorney General, Deputy Premier and Minister for Environment in Tasmania, Mr G. Everett, was pressured by State Cabinet into not signing the writ against the HEC, and tendered his resignation as a matter of principle. The Government then forced through legislation to "correct" the embarrassment. The back country of Pedder contains a good deal of limestone of largely unknown potential, but Pedder is in any event one of those landmark battles which we must join, for whether it is won or lost, the experience helps us to prevent another cave being mined or flooded. Poor old Pedder seems to have more than its share of coming within an ace of being saved, perhaps the most dramatic being when the resignation of the former Deputy Premier Mr K. Lyons, a brother of a former heavy in TCC, precipitated an election which was contested by Australia's first wholly conservationist political party. The main practical barrier in Tasmania seems to be that it is a claimant state, very dependent on the Commonwealth, very conscious of its unattractive industrial potential and that it is the poorest and therefore in conservation matters the most backward state of all. The Liberals may be in power up here in NSW, but at least we are wealthy enough to be able to indulge in the middle class ethic of environmental concern. Pity poor Tasmania. The editor trusts that this pontifical screed is not condescending to the incredibly hard working Pedderites.

Two books are available on the Pedder issue. For \$1-80 (only \$1-20 each for 10 or more), you can have "LAKE PEDDER - WHY A NATIONAL PARK MUST BE SAVED". It has 100 pages, several maps and diagrams and 60 photographs. For another \$1-95 you can get "DAMANIA", being a collection of papers from a symposium, "The HEC, Government and Environment in Tasmania". Pocket size and 116 pages of stir. Write to Lake Pedder Action Committee, G.P.O. Box 1258N, HOBART, Tas 7001 & tell them Kevin Kiernan sent you. They'll probably know, because he's the Secretary of LPAC. Oh yes, don't forget your donation to the cause while you're at it.

PRECIPITOUS BLUFF

Applications have been lodged by Mineral Holdings Australia Pty Ltd for exploratory licenses in the area of Precipitous Bluff - New River. Objections flew thick and fast as conservationists have for months been trying to incorporate the area in South West National Park. The speleological potential is believed considerable; the limestone is fairly horizontal, possibly up to 1000' thick and some shafts and many entrances are known. Not much work has been done due to problems about access, though TCC did run a reccy trip there some years ago and another scheduled one last year was aborted.

EXIT CAVE

The Tasmanians are gearing up to save Exit Cave before there is any real threat by stressing its potential for tourism as well as for exploration and scientific work. It really should be one of the great sights of tourism in Tasmania, and is undoubtedly the most impressive underground grandeur potential for tourists. In the meantime, a minor stir arose when rumours arrived that the company mining limestone on the other side of the hill, near Entrance Cave, was planning to divert at least part of the flow of Mystery Creek to their works. This creek feeds into Exit via Entrance Cave. The mining company was quite amenable to suggestion and in retrospect it seems likely that they were genuinely unaware of the significance of their proposal.

(Yes, that's right - Kevin Kiernan is back stirring again. Keep it up, Kevin)

TEXAS

UQSS has launched its campaign to prevent the destruction of Texas Caves, threatened by an irrigation dam on Pike Creek. This is part of the Border Rivers scheme, a joint project of the Commonwealth, N.S.W. and Queensland Governments, and from the economic point of view it appears to be highly suspect (but then it is election year and the Liberal/Country Party is desperate for votes, especially from depressed rural electorates). As usual, UQSS organized a display for the Brisbane Royal Show in August, and a special conservation screed was printed. The whole exercise bears the mark of that remarkable unemployed, full time speleo-conservationist Henry Shannon. You can get a copy of this 5-page, 2-colour extravaganza for a lousy 20c plus 7c postage and if you wish, a donation to the cause. Write to Conservation Secretary, UQSS (address front cover). Why not get a dozen or so to flog to your club members - it's cheap enough.

MULLAMULLANG

The Federation is preparing submissions to the Government of Western Australia on the proper reservation of Mullamullang Cave. A preliminary submission has been forwarded already to an official Committee for Conservation through Reserves, and a further report will be supplied in the next ASF Newsletter if possible.

BUNGONIA

At press time, no decision had been handed down by the Mining Warden in the case involving UNSWSS member Warwick Counsell, though it has been expected at any time. The finances of the case are being administered by a trust, the Bungonia Committee, comprising at the moment local caving heavyweights Counsell, Dunkley, Middleton, Nurse and Pavey. They are still looking for donations if you'd care to address your cheque to THE BUNGONIA COMMITTEE, P.O. Box C317, Clarence St, 2000.

LETTER TO THE EDITOR

3 / 303 Carlisle Street
Balaclava, VIC 3183

At present I am investigating development of an improved radiodirection finding apparatus for cave point locating. I have one reference (R. Zimic, in Communications Occas. Pap. No.1, Oct. 1965). I would be keen to hear comments or information on the following points from anyone working in the field:

1. Operation of the system described by Zimic, practical performance, shortcomings if any.
2. Operating frequency - reasons for selection.
3. Any attempts to calibrate received signal strength in order to give direct depth readout
4. Types of batteries used and if continual returning with ageing of batteries caused any serious problem.
5. A loop TX aerial, compared to a ferrite rod aerial.
6. Any known attempts to modulate transmitter enabling voice communication to surface - particularly interested in this point.
7. Any references available on the subject apart from the one already mentioned.

Finally, on a slightly different subject, has anyone tried a practical experiment in detecting cave systems using a Hall device; if so, what results? I would appreciate your help and any information at all would be most welcome.

Yours, KEN LANCASTER, VSA

(There is a Field Report on operation of RDF equipment in Calcite no. 12; & both SSS and HCG still operate such equipment. Several papers published before that of Zimic, containing similar material and a longer list of references, were reprinted in the 1962 Speleo Digest (NSS, USA), and this is available at least in the SSSS and SSS Libraries. A description of Hall devices and other methods of cave detection is in the Proceedings of 7th Biennial Conference of A.S.F. - ed. note)

CAVES O F AUSTRALIA

NO. 6 : EARLS CAVE

by Fred Aslin

Earls Cave does not appear in any list of longest and deepest caves, it will not attract a team of single rope vertical cavers and it is unlikely to excite the imagination of even the rawest nepphyte. It appears to consist of nothing more than a single water-filled chamber....

Probably named after an early local resident, Earls Cave is quite a well known local feature of Allendale, in the south-east of South Australia. Located within 100ft of a main road, it seems to have encouraged a large volume of rubbish over the years. Following bushfires in 1959, sheep carcasses were dumped in the cave in volumes estimated at from under 100 to several thousand; a more accurate estimate could probably be made by researching contemporary newspapers on the number of sheep burnt in the Allendale district.

The cave appears to consist of a single chamber with a free water surface about 40ft across, only 15'6" below a bench mark next to the nearby road. The water surface was littered with floating rubbish and was penetrated by a mound of very putrid matter and the usual household cans and bottles, reportedly subsiding from time to time under its own weight. The water depth is unknown and considerations of health alone would rule out any investigation, but the volume must be considerable to have consumed so much rubbish over such a long period.

In 1971, Ian Lewis and Fred Aslin (CEGSA) conceived the idea of clearing up the water surface, with several aims:

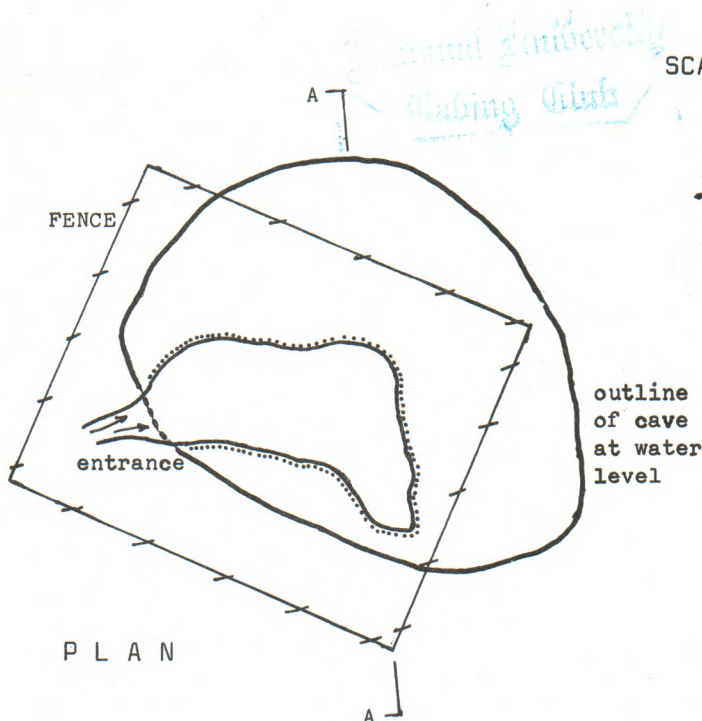
- that cavers care, not just in words, but action
- that a clear water surface has a deterrent effect on potential polluters
- that a clear water surface, by allowing a greater light penetration, would speed the process

The Port MacDonnell District Council gave permission to clean the surface only after long debate and on the chairman's casting vote, and agreed to cart the rubbish away. The Senior Scout group in Mount Gambier assisted in constructing gear to fish the garbage out and ten of them worked with Ross Sweet, Ruth Richardson and Fred and Jan Aslin on cleanup day, 30/10/71. About 8-10 cubic yards (weighing almost as many tons due to its waterlogged nature) was brought out.

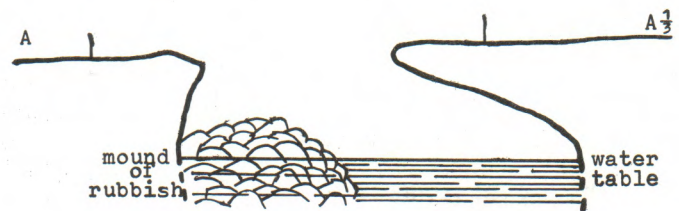
Some weeks prior to the cleanup, the local Regional Engineer of the Engineering and Water Supply Department, Mr D.N. Ide was shown the cave. He later showed it to the Minister for Works and his Committee. Water samples were obtained for bacterial and chemical analysis. Good publicity was obtained in the local press (e.g. the Border Watch, 14/10/71) and the exercise overall seems to have been a great success.

For an official report of a government department, this is a damning piece of evidence, and even then appears to be a masterpiece of judicious understatement. The State Government is sufficiently stirred to have a Committee investigating water pollution in the South East, under the Minister for Works, and the area was also inspected by the Committee on Environment in South Australia.

Over most of South Australia south east of the Murray River there is little surface runoff, drainage being underground to such well known phenomena as the karst rising at Piccaninnie Ponds. This report is a disgraceful commentary on ignorance & neglect and complacency. Must we wait until not only the Blue Lake, but much of this part of South Australia has polluted ground water resources?



SCALE : 1" = 20'



C R O S S - S E C T I O N

EARLS CAVE

(S156)

ALLENDALDE, S.A.



Earls Cave, 16/10/71 -
a typical view before
the clean-up
(photo - R.SWEET)

PRELIMINARY REPORT ON POTENTIAL POLLUTION OF UNDERGROUND WATER IN AND AROUND MOUNT GAMBIER

(Engineering & Water Supply Department, Southern Region, Oct. 1971)

-- A REVIEW ARTICLE

by Fred Aslin

The Blue Lake, Mount Gambier, pride of the region's largest city . . .

Because there is no surface drainage, waste disposal has been by pumping into the water table. Only recently has it been realized that the pollutional load input would one day exceed the capacity for natural purification, and for this reason the City area of Mount Gambier was sewered in 1963-67. At present, the city water supply comes from Blue Lake and although no water table contamination has been proven, the water has been chlorinated in the last few years following testing.

The first significant sign of bacterial contamination was the need to shut down a bore at Compton on 3/2/71, and several more have followed. In January 1971, the District Inspector, Department of Public Health, discovered coliform and faecal coli in the process water at a new vegetable processing plant of A.P.D. Frozen Foods Pty Ltd in Commercial West, Mount Gambier, but the source was never pinpointed exactly.

A full survey of sink holes, caves, bores etc. in Mount Gambier and environs was ordered in June 1971. The preliminary survey on which the report is based, covering a radius of only 4 - 5 miles, lists as sources of potential pollution 26 caves, 21 industrial drainage bores and 68 miscellaneous depressions and natural drains. Sample comments on caves investigated included:

"access impossible because of stench . . . severe pollution" (cave near cheese factory)

"partly filled with putrid refuse and carcases, severe pollution" (S176)

"car bodies, dairy waste, dung, very putrid, extreme pollution . . . unique bat colony
(S52 - Five Corners Cave - editor's emphasis)

"stormwater, cooling tower effluent, chemical wastes, sawdust and creosote. Severe pollution"
(S53)

"stormwater, washwater, small amounts of whey . . . severe pollution"
(Kraft Foods Mil Lel Factory)

"all excess whey and factory waste . . . extreme pollution"
(Farmers Union Cheese Factory)

All this, be it noted, in caves, which have been or apparently are used to dump domestic and industrial wastes, including solids, with the full knowledge of the owner. And even then, only a radius of 4-5 miles is covered in the preliminary survey. Little is yet known about contamination of water pumped out of the water table, nor are there quantitative estimates of the pollutional input load.

DOWN UNDER

ALL OVER

. . . NEWS FROM AROUND THE SOCIETIES

BMSC Apart from Abercrombie, have been busy at Tuglow, Church Creek and Limekilns. At Tuglow, Moonmilk Cave has been tied into the UNSWSS area surveys. A little research revealed that the first cave discoveries in Australia may have been at Limekilns in 1821, some years before the discoveries at Wellington (1828), commonly assumed to be the first. A trip to Benglen Cave at Limekilns has been held.

CEGSA A recent newsletter reports on unusual small caves in intrusive rocks in the North Flinders Ranges. Closer to Adelaide, work has continued in Sellicks Hill Cave. A highly successful Joint Dinner with VSA strained the Naracoorte Hotel to the limit with some 80 people.

CQSS New passages are reported in Johannsens Cave and this is now believed to be the third longest cave in Australia, with a proper survey under way by the Society. Sandstone weathering caves have been checked out at Moonmiera and at Mt Morgan. Tunnels excavated in shale (for brick making) near the mines at Mt Morgan were investigated and some bats found. A Search and Rescue Practice was held at Limestone Ridge in June and the August issue of The Explorer has an excellent account and analysis of the exercise. Shortly after this episode, members assisted in a successful 6-day search for a lost little girl near Yeppoon. It is reported that one of the police in charge of part of search could not read a compass and map.

HCG Trips have gone to Colong, Cliefden, Bungonia, Wee Jasper, Tuglow and an area near Tuglow. Most of the work has been at Cliefden, with some mapping and a dig in a new cave 120' long. In the outcrop where this cave was located there is a sink with a small cave and three other potential dig sites.

KSS Report yet another depressing slog in rain, sleet and other inclemencies to Oven Mountain, overlooking Carrai Plateau. There has been some fascinating conjecture in Kempsey following the UQSS work at Windy Gap, which proved that the water sinking in Willi Willi Creek crosses into another watershed one mile away and 700' lower, via River Cave. This appears to be the first occurrence from the mainland of underground breach of a divide. Two other cases of a similar nature have been reported from Tasmania.

MSS have continued on a long term speleochemical project involving gas and water analysis under the enthusiasm of Lou Zamberlan. This has progressed to the point where some worthwhile results are now being accumulated. The "gentlemen cavers" of MSS have continued that largely unpublicized, unglamorous, often disappointing but potentially exciting task of digging in several locations at Jenolan and Abercrombie.

N U C C

One more Speleograffiti has made it through to Sydney. Wyanbene is still the main caving area it seems and a survey has been under way. The June issue describes a modification suitable for cave surveying that can be made to an Esdaile Prismatic Compass. With proper care, the instrument and attachments can then be used for Grade 5-6.

S C S

recovered a complete skeleton of a Thylacine at the bottom of a 170' pitch in Zulu Pot. An attempt to extend Trafalgar Pot - Erebus in the dolomite at Hastings found a formerly dry part of the cave full of water. Above and beyond, a high extension was seen but could not be reached - it will need scaling of a high mud bank,

S S S

Little to report as only one newsletter has arrived in the last 6 months. The Australian variant of the Whaletail Descender is described by Neil Montgomer in the July issue of JSSS. It is a variable friction abseiling device specially developed for deep vertical pitches and has been used by top single rope merchants in Australia, New Zealand and New Guinea. The same issue has articles on caves at Timor and Myall Lakes and a new section reviewing caving activities around Australia, similar to this column.

S U S S

A section of Taplow Maze Cave seldom entered and previously unknown to SUSS has been relocated and an entirely new loop passage behind the entrance discovered by Jack Vaughan and Bruce Welch. Despite an onset of the dreaded Cliefden lurg (warm days with no clouds in mid-winter do inspire lethargy), 1700' was thus added to the cave to bring the total to about 6000' and still going. At Cooleman there has been surveying, stream tracing and trout fishing, and at Jeholan stream tracing continues still. A new entrance to Wiburds Lake Cave has been confirmed and surveyed and other work continues in this area.

T C C

The "Cave of the Month" is JF14 which has gone beyond 700', requiring 660' of ladders for the 70, 90, 200, 120 and 180ft pitches!! The last pitch was actually the end of the ladder and Phil Robinson couldn't see the bottom through the darkness and spray. Estimates of its depth range up to 400' but as winter was approaching and the system is really wet it has been decided to leave it to the single rope techniquists, next summer. The Tasmanians, however, have succumbed and are now practising single rope techniques themselves. The entrance to this system is located directly above the final chambers of Khazad-Dum so prospects are excellent. Several other discoveries in Junee-Florentine and Mole Creek will be reported when space permits.

V S A

The Annual Report chronicles an active year. 331 caves are now numbered in Victoria, 7 new maps completed this year. VSA is reporting to the Forests Commission on the significance and/or need for protection of caves in the Glenelg River region and at Limestone Creek. A proposal for protection of Narguns Cave (NN1) in Gippsland has already been submitted. A comprehensive plan for the protection of Scrubby Creek has also been adopted.

U N S W S S

has emerged as the most active society in the Sydney region at least, running trips not only to the familiar haunts but also to Fraser Park, Barrenjoey Peninsula, Newnes and Hilltop. Interesting reports and articles recently appearing in Spar cover real Search and Rescue ft Bungonia, a map of B31, sandstone caves of Barrenjoey Peninsula, Narrangullen maps, speleochemistry of cave decoration, Hilltop Cave and an article on cave photography.

U Q S S

Activity seems to have slowed but Down Under is as good as ever. There has evidently been a further reaction against certain prolific writers of trip reports according to the Editorial. Recent work includes publication of a conservation propaganda spiel on Mt Etna and Texas (see Conservation Action herein). The August issue lists Queensland's contributions to the longest, deepest, widest etc. statistics of caves. In the Macleay River area the main work has been the culmination of several trips work by Henry Shannon of fluorescein tests in Windy Gap area (see report on KSS). Henry has also been active down at Jenolan again.

A B E R C R O M B I E

by Ian Bogg

The need to properly document an area seldom visited by other societies first brought BMSC to Abercrombie in November 1969. From the outset it became evident that the information in the ASF Speleo Handbook was both inaccurate and incomplete, as is inevitable as knowledge of an area increases. To obtain a permanent record of all known cave locations, initial maps were produced from aerial photographs and correlation of principal topographical features. The next surveying ventures were preparation of two maps covering the Archway and Grove Creek. With the cooperation of some members of HCG using their RDF equipment some work was instituted.

Several projects were then under way:

1. Grove Creek : several successful digs extended the cave.
2. Long Tunnel : working on the results from an RDF fix, a dig was commenced to open up a choked entrance. A voice connection was eventually established but no further work was done as the Long Tunnel contains the only substantial (about 500) bat colony at Abercrombie.
3. Cathedral Chamber connection with "Trickett's Hole from Surface" : A spike was driven down from the surface to intersect the cave about 5' down but no dig was attempted. Such a connection would enable a through public inspection of King Solomons Temple combined with Cathedral Chamber extension without using the Main Arch.
4. Investigation of the Butchers Shop area in Bushrangers Cave in an attempt to extend the cave.

A total of 44 cave entrances is known and 32 have been located and tagged. Preliminary studies of cave fauna and mammalian remains have been instituted. Mike Grey of the Australian Museum advises that material submitted by BMSC from Abercrombie and Tuglow includes five specimens of Family Theridiosomatidae, this being the first recored occurrence of this Family from within Australia,

Further work is awaiting publication of Bud Frank's studies on the area. It is hoped to publish the full results of this project at some time in the future.

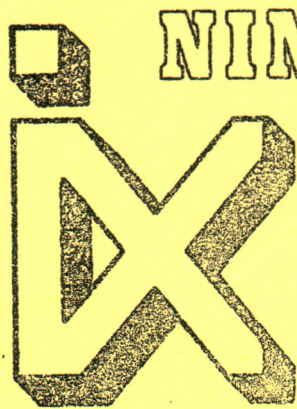
(condensed largely from Oolite 4 (1) : 2-5, Blue Mountains Speleological Club)

GRIPES OF THE NEWSLETTER COMMISSION

The ASF Newsletter Commission has very nearly eliminated the quarterly flood of newsletters returned to the Broadway post box stamped "ADDRESSEE UNKNOWN", thanks to solid work by Ian Wood, the Circulation Manager. However, several problems remain:

- 1.1. We have to rely on club secretaries to forward address lists annually, together with any address changes during the year. If we don't have such a list, you don't get a newsletter. Similarly, we cannot send to your new address unless you or your club advises it.
2. These lists, and the ASF capitation fees, straggle in throughout the year from societies, even though societies become unfinancial two months after presentation of the budget. (end of March this year, end of February next year)
3. This newsletter is still being funded out of the Editor's pocket even at this late date in the year. The first (March) issue of the year always costs twice as much as the other issues (over \$150 this year) and this cost had to be carried by the Editor for several months mainly because of delinquent societies.
4. The Sydney societies responsible for production of the newsletter have to handwrite all 700 odd envelopes 4 times a year, because addressographs are not really practicable due to addressee turnover.

What solutions and suggestions do you have?



NINTH

Australian Speleological Federation

BIENNIAL

CONVENTION

New College — December 26th - 30th, 1972
University of New South Wales

THE FIRST A.S.F. CONVENTION was held in Adelaide in 1956 and was followed by an Expedition to the eastern portion of the Nullabor Plains. Since then each Biennial Conference has been held in one of the states, they being so far, Hobart, Canberra, Kempsey, Perth, Goolwa S.A., Mirboo North, Vic., Hobart again and now Sydney.

Each Convention has seen advancement and achievement as the efforts of organisers has improved with the rapidly maturing of Australian Speleology and Speleologists. This year the word NIBICON has been developed to express the forward drives of a maturing Federation as it prepares itself for the Ninth Biennial Convention. National Conventions have many unique characteristics. First NIBICON will bring together speleologists of all kinds whether they be pure scientists or sporting cavers who have a common bond — their interest in caves.

NIBICON will bring together people from many different occupations and ways of life whose skills and trades reflect their speleological activities so that NIBICON will allow a tremendous interchange of ideas from a widely spread group of people. A "trog" in one state is a lamp, in another it is a person; some advocate carbide lamps, others miners lamps. Every cause is pushed to its utmost, the Conservationists extol us to support, aid or give to their causes, the single rope technique-ists demonstrate. Some sit quietly (?) in their corners and swap yarns over their Swans, West Ends (or is it Coopers!), Melbourne Bitters, Cascade or Bulimba. Other well known identities lobby for their favorite politic and an even more well known identity will TALK. The evenings will see local parties springing up and Sydney in summer should allow for every outdoor activity.

NIBICON represents a milestone this year. For the first time representation from New Zealand and the US are coming. Will this lead to an Interdominion or Pan Pacific Convention?

NIBICON is the most condensed, exacting and high powered Convention so far held by the Federation. NIBICON will undoubtedly be talked about, compared, extolled, condemned but not forgotten.

NIBICON IS COMING — ARE YOU?

Ian Wood,
Convention Director

FLY TAA TO SYDNEY . .

and get your conference off
to a flying start !

MELBOURNE	Mrs. Meg Allen	34 0333
SYDNEY	Mr. David Auld	2 0326
CANBERRA	Mr. John Morris	48 8433
BRISBANE	Mr. Stephen Grieve	33 2011
ADELAIDE	Mr. George Furbow	51 0101
PERTH	Miss Mary Hodgkinson	23 0331
HOBART	Mr. Ron Fellow	34 4411
LAUNCESTON	Miss Rosemary Joscelyne	2 2331
TOWNSVILLE	Mr. Don Hammett	71 6081
PORT MORESBY	Mr. Cec Rycen	2131

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 circular then CASUAL ATTENDANCE (specify your requirements below) Dates : _____
 tick ONE) no. of sessions _____ @ 50¢ Meals: _____ @ \$1-50 TOTAL : \$ _____
 CAVEMANS DINNER & CRUISE (optional extra) \$6 incl. drinks

Enclosed is my cheque / cash / postal order for \$ _____ being deposit / full amount for the categories listed above.

SURNAME _____ GIVEN NAMES: _____

ADDRESS _____

Post code _____

I am / am not interested in presenting a paper on _____

I am interested in attending sessions in these subjects (see list below) :

-- A -- B -- C -- D -- E -- F -- G -- H -- I -- J -- K -- L -- M
 -- N -- O -- P -- Q

I wish to participate in Field Trips : ☐ YES ☒ NO

Time available for Field Trips will be: weekends only 1 week 2 weeks

I would be prepared to lead a Field Party : ☐ YES ☐ NO

(specify area or caves :) _____

I want to go to : ☐ JENOLAN ☐ BUNGONIA ☐ YARRANGOBILLY

others : _____

My particular interests on Field Trips will be : (tick)

spend all time in 1 or 2 areas _____

surface exploration _____

make tour of several areas _____

photography _____

surveying _____ digging _____

slothing around _____

CONVENTION SYMPOSIA

* A - BIOLOGY

* C - METEOROLOGY

* F - ANTHROPOLOGY

* B - GEOMORPHOLOGY

* D - HYDROLOGY

* G - SPELEOCHEMISTRY

CONVENTION SEMINARS

* H - Speleo Publications

* M - Overseas Caving Areas

* I - Cave Physics

* N - Electronic communications

* J - Maps and Diagrams for Cavers

* O - Survey Techniques

* K - Photography in speleology

* P - Caving Techniques (vertical)

* L - Systematic Exploration

* Q - Conservation

NIBICON

INFORMATION CIRCULAR NO. 2

D A T E S : 26 - 30 December, 1972

Delegates can begin to register into the College from 2pm on Tuesday 26 December. An evening meal will be served. The Official Opening will be performed the following day by Mr T. Lewis, MLA, Minister for Tourism. The Convention will finish on the evening of Friday 29th with the Cavemans Dinner and Harbour Cruise, but breakfast will be served the following morning. You will be expected to vacate by 10am Saturday 30 December.

V E N U E and T R A N S P O R T

New College is situated within the 30 acres of park-like setting of the University of New South Wales and fronts on to Anzac Parade, Kensington. The only public transport is the bus (destination La Perouse or Maroubra) which passes the door. The final circular to participants will contain details for you to fill in stating arrival time of plane, train or bus if you are not coming by car. We will then endeavour to arrange transport from the terminal to the College. Otherwise, a taxi from Central Station or the Airport costs about one dollar.

A C C O M M O D A T I O N and M E A L S

Accommodation consists mainly of single rooms, but some twins are available. If you intend to bring your wife/mistress/girl friend, make this clear on your registration form (from this or the June issue of ASF Newsletter). There are no rooms large enough to accommodate a family of (say) 4, but adjoining rooms could be arranged. Rooms are fully serviced and bed linen will be changed daily even if you are stupid enough to bring your sleeping bag. Each four rooms have a common kitchen/lounge with electric jug, stove, 'fridge etc. - you will need to provide tea, sugar etc. Three meals will be served each day together with morning and afternoon tea. All crockery and cutlery will be provided.

C A M P I N G and P A R K I N G

No facilities are available at the University for camping unless you want to play hide and seek with the security service. It's a long way to the nearest caravan park, but let us know if you intend to bring a caravan and we'll try to find somewhere to park it. Residents and visitors will probably be able to park cars within the University grounds.

S Y M P O S I A and S E M I N A R S

The Federation Committee business sessions will be held after the Convention, so that the whole of the available time will be utilised in presentation of symposia, seminars, group discussions and free time. Symposia will consist of the presentation of papers in the categories listed on registration forms, and some others. We hope to circularise copies of the papers, or at least abstracts, before the Convention begins so that those attending can pre-read and prepare questions. The seminars will have a different character. A seminar leader will prepare draft material which will be circulated to those expressing a particular interest in that seminar. A report will, hopefully, be drafted from the discussions to which all participants are expected to contribute to actively, even if only a comment or two. Some sessions e.g. vertical caving techniques, will take a practical form in the way of demonstrations etc.

D R E S S and G R O G

Casual dress. NIBICON officials will screen all nudes. As it is an Anglican College, some discretion will be required in the use and abuse of alcohol. Dispose of empties regularly. There is a bottle shop directly opposite and 2 pubs within 5 minutes walking of the College.

S O C I A L A C T I V I T I E S

Only 10 minutes to several surf beaches, fishing, city theatres and Kings Cross. Walk to Randwick Racecourse, Cricket Ground, squash and tennis (on campus). There is a children's playground and several acres of open space at the rear of College. Pamphlets and information on tours around Sydney and environs will be supplied to all out-of-town visitors. A special, leisurely afternoon trip to the beaches and sea caves of beautiful Barrenjoey Peninsula will probably be organized and will prove ideal for wives and families.

C O S T S a n d C A T E G O R I E S

a) RESIDENT MEMBERS - self-explanatory. Full board, 3 meals daily including dinner on 26th and breakfast on 30th, plus morning & afternoon teas. Bed linen changed daily, hot and cold showers. Also included : copy of Proceedings, reports from seminars, pre-session papers, tourist blurb etc. Cavemans Dinner extra. (4 nights, $3\frac{1}{2}$ days) TOTAL : \$ 35

ADDITIONAL WIFE/MISTRESS/GIRL FRIEND NOT WANTING PROCEEDINGS : TOTAL : \$ 30

CHILDREN 15 YEARS AND UNDER : TOTAL : \$ 15

b) NON-RESIDENT MEMBERS : for those from Sydney or interstate not living in College but wishing to attend all sessions. All sessions included, together with copy of Proceedings

LUNCH, MORNING & AFTERNOON TEA ON 27th, 28th & 29th INCL : TOTAL : \$ 12

SAME AS ABOVE, BUT INCLUDING DINNER ON EACH DAY : TOTAL : \$ 16

POOR MAN'S SPECIAL - ALL SESSIONS, NO MEALS : TOTAL : \$ 8

c) SUBSCRIBING MEMBERS : For those poor unfortunates unable to attend the Convention sessions but who wish to be listed as a participant, take part in Field Trips, have a paper read for them, and receive the Proceedings and all extras such as pre-session circulars etc.

TOTAL : \$ 5

d) CASUAL ATTENDANCE : We recognise that there are some who cannot attend all sessions e.g. those working who can come only in the evenings, or perhaps for only 1 day. For these people, a base rate of \$4 will apply which will entitle you to the Proceedings, pre-sessions papers, circulars etc and right to attend all Field Trips. To this, add 50 cents for each session you want to come to (there are 9 - morning, afternoon & evening on each of 3 days), and add a further \$1-50 for each multi-course meal. Minimum total - \$5

3 DINNERS & ALL EVENING SESSIONS (WORKERS' SPECIAL FEE RATE) : TOTAL : \$ 10

ALL EVENING SESSIONS ONLY : TOTAL : \$ 5-50

ONE DAY ONLY WITH ALL MEALS BUT NO ACCOMMODATION : TOTAL : \$ 9-50

Remember - please specify exactly your requirements for casual attendance.

Want accommodation for only one or two nights instead of the full four ? Please write setting out your requirements - we should be able to accommodate you without trouble and quote you a special rate.

SPECIAL BARGAIN BASEMENT FEE - NO MEALS, NO SESSIONS, NO PROCEEDINGS, NO LITERATURE,

NO CAVEMANS DINNER & NO FIELD TRIPS : TOTAL : \$ 1 !

C A V E M A N ' S D I N N E R a n d F I E L D T R I P S

A fitting climax to every Convention, this premier social attraction will this year be afloat on Sydney Harbour. The ss. Lady Scott, a well appointed vessel fitted out for banquets has been chartered for Friday December 29. The Cavemans Dinner will be held on Board combined with a Harbour Cruise which, aided by daylight saving time, will enable you to relax on the world's finest harbour, seeing the sights by day and the lights by night. Sailing at 7 pm. This will be the unforgettable highlight to your tour and will be talked about for years. DON'T MISS IT, MATE . . .

Field trips will be the subject of a further circular when participants' wishes are known. Houses are available at Edith and Hampton (for Jenolan, Tuglow and Colong), at Yarrangobilly (which can be used as a base for Coolemon too), and 2 at Bungonia. Families will be well catered for and camping will be OK. Trips can radiate from here to Bendithera, Wyanbene, Big Hole, Marble Arch, Cheitmore, Cliefden, etc. as circumstances dictate.

Announcing!!

AN INDEX TO CAVE MAPS IN N.S.W.

As advised in ASF NEWSLETTER 55 (March 1972), an index to all known cave maps in N.S.W. has been compiled as a first step towards a national index being compiled by the Documentation Commission of the Australian Speleological Federation. The Australian Cave Map Index will appear in Speleo Handbook II

Although individual Societies (e.g. OSS, SUSS, SSS, UNSWSS) have in the past published partial or complete listings of cave maps in their possession, there has not been a generally available, comprehensive index to cave maps.

This has now been achieved with the active cooperation and assistance of many individuals and most Societies. As this project involves all Societies in N.S.W. it was felt appropriate by the compiler that the newly formulated A.S.F. N.S.W. Liason Council should publish the index -- thus fulfilling one of the aims of the Australian Speleological Federation in coordinating activities and disseminating information to all interested speleologists. This is the culmination of a great deal of effort and cooperation by many individuals and Societies and epitomises the essential value and viability of the Australian Speleological Federation.

The surplus proceeds will be used to fund the activities of the NSW Liason Council, thereby avoiding, for the present, any financial levies on the member Societies.

All in all, over 40 pages packed with information for a lousy buck! incl. Post.

Only a limited number are being printed - secure yours now! Mail the coupon below with your dollar right away (cheques to ASF). Remember since all the proceeds go to ASF, your dollar comes back to you!

The Index includes over 700 maps arranged according to area and cave and details grade, scale, view, year, society, surveyors, publication details, availability and other invaluable information which should obviate further duplication.

ORDER FORM

AN INDEX TO CAVE MAPS IN N.S.W.

Published by; A.S.F. N.S.W. Liason Council, P.O. Box 388, Broadway, 2007

Please supply _____ copies of AN INDEX TO CAVE MAPS IN NSW @\$1-00ea. (incl. post)

Name

Address

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BUNGONIA SAVED!

Decision of Mining Warden announced

On November 5, 1971, Metropolitan Portland Cement Pty Ltd lodged application for a Special Mining Lease of 87 acres of the Bungonia Gorge. The subsequent few hectic days saw objections by Warwick Counsell, Vice-President of UNSWSS and 10 others, initiating a Mining Warden's enquiry which adjourned in July this year after 11 court days and 2 site inspections.

On October 20, 1972 (two weeks before the year was up from the date of application) the Mining Warden delivered his finding (summarised) :

- a) That the granting of the application tends toward the public in that it would allow large deposits of limestone to be mined.
- b) That objections based on recreational aspects, scenic aspects and danger to the public had been established and that on those counts the granting of the lease tends against the public interest.
- c) The public interest in preservation of the scenic aspects and recreational uses OUTWEIGHS the public interest in mining of the area having regard to the everlasting impairment of the environment as compared with the short term benefits of mining.

(meaning that no mining should be carried out in the area of the application)

He went on to say that:

if any mining was carried out it should not in any event extend beyond the limits proposed by Dr Branagan (my expert witness)

This briefly summarised what must be one of the most courageous decisions ever delivered in Australia. A classic victory for conservation, for the environment and for the staggering beauty of Bungonia; all three combined to defeat an irresponsible act - the Mining Act 1906 as amended, whose unwritten motto is "to promote mining above all else, even the welfare of the country".

I shall prepare a full report and present it as a conservation paper during N I B I C O N.

Warwick J. Counsell,
Vice-President,
University of New South Wales Speleological Society

LATE • FINAL EXTRA

- Photographic Competition - NIBICON

A photographic competition will be held in conjunction with N I B I C O N. Full details and registration forms will be forwarded to all registrants for the Convention. Enquiries : Albert Renshaw at NIBICON address.

ERRATUM

Please note that the article on p. 16 of this issue is continued from p. 17

The Sydney Speleological Society
is proud to announce .
the publication of
its fourth Occasional Paper:

BUNGONIA CAVES

The first hard-cover book to be published by an Australian speleological society, BUNGONIA CAVES represents the efforts of a large number of people over periods of, in some cases, more than three years.

The Society's objectives in preparing this book were twofold:

- 1) to provide a compendium of knowledge on the Bungonia area and its caves and
- 2) to promote conservation of the area.

The first, while it provides much of the basis for the second, also raises problems regarding the disclosure of information; on balance it was decided that all the available information should be presented, in the belief that this will do most to promote appreciation of the area and to foster investigation and research, and that it will be in the best interests of the area in the long term.

CONTENTS

FOREWORD - Sir Garfield Barwick
PREFACE - B. S. Nurse
THE FIRST SETTLERS NEAR BUNGONIA CAVES - J. L. Waite
EARLY VISITORS AND EXPLORERS AT BUNGONIA CAVES - J.L. & T.M. Waite
SUMMARY OF THE HISTORY OF BUNGONIA CAVES AND AREA - B.S. Nurse
THE SURFACE AND UNDERGROUND PLAN OF BUNGONIA CAVES AND PROSPECTS FOR FUTURE DISCOVERIES - J.M. James, A.J. Dowling, A.J. Pavey, N.R. Montgomery
CAVE DESCRIPTIONS - A.J. Pavey, N.R. Montgomery, J.M. James, A.J. Dowling, L.J. Hawkins
THE EFFLUX, B.67 - J.H. Bonwick
BUNGONIA CAVES MAPS - N.R. Montgomery, A.J. Dowling, J.M. James, H. Jones, A.J. Pavey
GEOMORPHOLOGY OF BUNGONIA CAVES AND GORGE - J.N. Jennings, J.M. James, W.J. Counsell, T.M. Waite
FOUL AIR IN BUNGONIA CAVES - E.J. Halbert
FOSSIL RECORDS FROM THE BUNGONIA CAVES AREA - J.L. & T.M. Waite
INVERTEBRATE FAUNA OF BUNGONIA CAVES - G. Wellings
BAIS OF THE BUNGONIA CAVES - E. Hamilton-Smith
BIRDS OF THE BUNGONIA REGION - C. Sonter
AN OUTLINE OF THE FLORA OF THE BUNGONIA CAVES AREA - J.L. Waite
CONSERVATION AND MINING OF THE BUNGONIA LIMESTONE BELT - G.J. Middleton
THE CASE FOR BUNGONIA GORGE
HISTORICAL SOURCE PAPERS ON BUNGONIA CAVES
CONSOLIDATED LIST OF REFERENCES
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ILLUSTRATIONS

The publication contains 55 photographs, comprising 24 plates, eight of them in full colour. The photos include many of the surrounding scenic areas, waterfalls, the Gorge and surface features, as well as the caves and their fauna. The fourteen text figures include maps showing early land grants, geology, vegetation, reserves and mining leases.

CAVE MAPS AND DESCRIPTIONS

A feature of the book is the complete set of cave maps (more than a hundred) occupying 45 pages, including a triple fold-out of B.4-5 and its 3000+' extension. In the pocket at the back is a large (19" x 27") composite surface and underground plan of the area, accompanied by a diagram showing a composite vertical section. These shed new light on the speleogeography of this interesting area and will provide a great stimulus and invaluable guide to further exploration. The written descriptions (with lists of tackle required) will be of great assistance in planning trips and promoting safety through adequate preparedness.

THE EDITORS

Bungonia Caves was produced by an editorial committee of the Sydney Speleological Society, consisting of Ross Ellis, Lyndsey Hawkins, Robert Hawkins, Julia James, Gregory Middleton and Benjamin Nurse.

SPECIFICATIONS:

Page size: 8¼" x 10¼"

No. of pages: 230 + xii

No. of plates: 24 (16 black & white, 8 colour) + frontispiece

No. of text figures: 14 + 45pp of cave maps

Area map (in pocket at back): 19" x 27"

Paper types: 106gsm "Glopaque" and 117gsm "Kycote Art"

Type style: 8 and 10pt Times Roman (Linotype)

Printing: Letterpress and Lithography (Offset)

PRICE: \$6.50 (postage & packing 50¢ extra, overseas 80¢)

ORDER FORM

BUNGONIA CAVES

The Sydney Speleological Society,
P.O. Box 198,
BROADWAY, N.S.W. 2007 AUSTRALIA

Please supply _____ copies of BUNGONIA CAVES @ \$6.50 (plus postage)

NAME: _____

ADDRESS: _____

LATE FINAL EXTRA - ACCESS TO CLIEFDEN CAVES

The owner of "Boonderoo" property, on which Cliefden Caves are situated, Mr B. Dunhill, has advised that a charge of 50 cents per person per trip will in future be levied on cavers camping on his property. The fees are to be collected by trip leaders and handed in at the end of each trip when returning the keys. Camps are to be confined to the flat in the corner of the field on the river bank, next to the island and opposite Taplow Maze.

Mr Dunhill has advised that the proceeds will be used to provide improved facilities. It should be noted that Mr Dunhill has been extremely accommodating to speleos over the years and all clubs have built up an excellent relationship with him, and this levy seems small recompense for wear and tear on his property over the years. The arrangements for obtaining access, on the card system operated by Orange Speleological Society, remain unchanged. Mr Dunhill has assured us that the same discretion will continue to be observed in admittance of groups to the Caves.

(information kindly provided by Grace Matts and Keith Oliver)

ABOUT OUR CORRESPONDENTS . . .

Fred Aslin	Honorary Life Member of CEGSA, a resident of Mount Gambier, co-ordinates cave numbering and documentation in the Mount Gambier region.
Ian Bogg	Secretary of BMSC, main interests other than Abercrombie are at Tuglow and the Mudjee area.
R. Michael Bourke	Expatriate member and former Secretary, UQSS, now agronomist on New Britain (Keravat), well known for his early stirring in the Mt Etna dispute.
Andrew Grahame	Member of UQSS, a geologist and prolific caver in all states
Kevin Kiernan	Prolific correspondent on all subjects allied with caves and conservation, he is Secretary of the Lake Pedder Action Committee and a member of TCC and SCS.
Elery Hamilton-Smith	President, Australian Speleological Federation, a foundation member and Honorary Life Member of CEGSA, member VSA, social worker by profession, has recently returned from short tour of duty with Commonwealth Secretariat in London.

A C K N O W L E D G M E N T S . . .

Editing & typing	- JOHN R. DUNKLEY
Address lists	- IAN D. WOOD
Front Covers	- EDWARD G. ANDERSON
Hard Yakka	- members of SYDNEY SBELEOLOGICAL SOCIETY

ADVERTISING may be had in this newsletter, with a circulation of nearly 800, by speleos and the like. Details and rates from the Editor (see inside front cover)

BACK ISSUES:

Copies of most back issues are still available, but earlier issues are scarce and becoming collectors items; some already are out of print. Later issues are larger, glossier and many have maps and photographs and are printed offset.

OUT OF PRINT:

1, 2, 3, 4, 5, 6, 8, 10, 16, 18, 19, 20, 21, 22, 24, 25, 29, 31, 35

VERY SCARCE :

3, 7, 26, 32, 34, 38, 49

ISSUE SIZE :

Varies from 6 up to 28 pages, later issues being typically 16-20 pages

* * SOME ARTICLES IN PAST ISSUES:

- 23 - Air Photos and Nullarbor Caves
- 28 - First Cave Fatality in Australia
- 30 - Cliefden Caves
- 32 - Early History of Rungonia Caves
- 33 - Water Tracing at Yarrangobilly
- 33 - Glass Cave, Wombeyan
- 34 - Further comments on ropes & knots
- 34 - Ice Formations at Yarrangobilly
- 35 - Subterranean Radio Propagation
- 35 - Review of Caving Helmets
- 36 - Mt Etna Caves
- 3 - The Physiology of Foul Air
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- 38 - Nomenclature of Australian Caves
- 39 - History of Abercrombie Caves
- 40 - Cave Conservation - Broader View
- 44 - Nullarbor 1969
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- 49 - Use of Araldite 113
- 50 - Naracoorte extinct marsupial bones
- 50 - Biological Aspects Cave Conservation
- 50 - Bat Caves as Natural Laboratories
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- 51 - The Descent of Tassy Pot
- 51 - Northern Territory Karst
- 51 - Cave Bones in Tasmania
- 52 - Conservation and Bungonia
- 52 - Exit Cave Field Trip
- 52 - Mullamullang Cave
- 53 - Trog Dip
- 53 - Caves and Karst, Junee-Florentine
- 54 - Easter Cave W.A.
- 54 - Speleo Publications in Australia
- 54 - Holloch - A review article
- 54 - New Guinea Caves
- 55 - Nullarbor Diving Expedition
- 55 - Cave Numbering System for NSW
- 55 - Cave Map Numbering
- 55 - Australia's longest & deepest caves
- 56 - Glacier Caves in New Zealand
- 56 - Water Pollution s.e. South Australia
- 56 - Recommended Safety Code
- 56 - Tourist Caves discussion

PRICES :

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When ordering please specify issue numbers clearly

1 issue - 50c.

2 issues - 80c.

any 5 - \$1-50

SPECIAL OFFER:

28 scarce issues from 9 to 50:

- \$7

- \$8 including nos. 51-54 (total 32)

WRITE TO :

J.R. Dunkley,
22/53 Alice St,
WILEY PARK, NSW 2195