

ASF NEWSLETTER

published quarterly by the AUSTRALIAN SPELEOLOGICAL FEDERATION

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Members offering positive assistance in this issue: SUSS, UNSWSS, MSS, TCC, (in addition to above production) SCS, UQSS, VSA

Logistical problems, including a shortage of some needed paper types in Sydney due to the Tasmanian shipping strike, have delayed this issue.

AUSTRALIAN SPELEOLOGICAL FEDERATION

A WORD FROM THE PRESIDENT

Since returning from the Conference and field trips in Tasmania, I have had the opportunity of talking with speleos from a number of parts of Australia who had also been present in Tasmania. Naturally, the main topics of conversation seem to be the awe-inspiring dolines, shafts and waterfalls of the Junee. Florentine area or the grandeur and beauty of Kubla Khan. However, it has impressed me that the other universal topic which arises in such discussions is that of safety, o to be more accurate, the lack of it.

Australian speleology has an excellent ent safety record, yet on such occasions as the national convention, we see examples of neglect that could very easily result in serious injury or death, either to the careless one or to others. It certainly seems to be that this is due in part to the different characteristics of caves and cavers in various parts of Australia. A particular society may have no previous experience of certain situations, and so may either be particularly neglectful of these or may, on the other hand, be sensitive to dangers about which others have become blase.

Unfortunately, it is also due to those who are over-confident, neglectful, or just bloody stupid. There is no conceivable excuse for clumsy blundering about on loose talus, particularly when other cavers are below. The talus of the Junee-Florentine caves has already caused one serious accident and there have

been some near misses. We are lucky that the only mishap of the recent trips is that some cavers have added another name to the list of "people with whom I will never go caving again". Equally, there is no excuse for not using a belay rope on a ladder pitch. There are now perfectly adequate techniques for self-belaying whenever this is necessary. The over-confidence that leads some people to see the belay rope as unnecessary has killed others in the past. I hope we will see this sort of foolishness disappear. Cavers, of course, have the normal human rights about their own life, but if they wish to kill themselves, I suggest they choose to cut their throats outside the lccal undertakers. which saves the rest of us a lot of effort.

Having said all that, let me also make one comment from the perspective of many years' association with the Federation - that the level of safety, competence and technical expertise shown in Tasmania is an immense improvement on the past.

Obviously, many societies have worked very hard to bring this abo about, but I am sure we can point to the interchange of knowledge and ideas between societies and the stimulus to better standards which has come about through the Federation as another factor in this. It is one of the less tangible benefits which we all share to which the Federation has made a contribution over its sixteen years of existence.

ELERY HAMILTON-SMITH

EDITORIAL '

Welcome to the fifty-first issue of the A.S.F. Newsletter. The second half - century starts on a bright note: the dark, dire dissertation on the impending demise of the Newsletter foreshadowed editorially in the last issue, was remedied by a major infusion of cash, raising the annual budget from \$200 to \$500, and a greater than usual degree of co-operation from the member clubs. Commercial duplication will remove one major bottleneck, the one major remaining problem is that the Editor still does the typing, and neither he nor the Federation owns a suitable typewriter.

As an encouragement to improved standards of speleological writing, both in this and other club publications, I am offering to establish Annual Awards for the best contributions in the following classifications:

- 1. Best Club newsletter of the year.
- 2. Best article in a club newsletter, of general interest.
- 3. Best article submitted to the A.S.F. Newsletter.
- 4. Cave of the year (based on widespread excitement engendered, work done, documentation etc.)

Just what the prize will be remains a secret, but I will do my best to make the Newsletter worth writing for. A number of new features are being introduced in this and future issues, such as a feature series on the major caves of Australia, a series on speleo personalities, and occasional photographs. But the best way to ensure a worthwhile Newsletter is to write for it yourself. I won't even complain if you are as prolific as Kevin Kiernan, who pens a piece almost every week.

. . CALENDAR

This section will list briefly some of the major forthcoming events of the speleo logical scene in Australia. Members of all clubs are invited to enquire:

May - CHILLAGOE - continuation of systematic work. Contact SSS for details.

May - CAMOOWEAL Expedition. Leader M. Pound, UQSS or 21 Purdy St, Aspley 4034

August - PALMERVILLE - EINASLEIGH, North Queensland. Particulars from SSS

December - PRECIPITOUS BLUFF, Tasmania. Walking & caving, remote area. Details TCC.

December - FIJI ISLANDS for 6 weeks. Contact SSS.

January - TASMANIA, diverse areas. Preliminary plans from SUSS.

January - A.S.F. Committee Meeting, Melbourne, hosted by VSA. Details later.

December - NINTH BIENNIAL CONVENTION OF A.S.F., Sydney, hosted by SUSS/UNSWSS.

SOUTHERN CAMING SOCIETY

.... ANOTHER MEMBER OF A.S.F.

The Southern Caving Society came into being as a breakaway from TCC, and was officially formed on 7th April, 1965, largely through the efforts of Barry James and Bob Cockerill, with a foundation membership of 36. This membership has been roughly maintained to the present day. The first year saw some 14 trips to Mole Creek, the Junee-Florentine area, and Hastings. The Mole Creek area was the main attraction and this has remained a major SCS project. The most notable result was the publication of hydrological experiments conducted there with Mr J.N. Jennings.

The second year saw 23 trips and the biggest news was the discovery of Satans Lair at Junee which was pushed to -470', then the second deepest cave in Australia. New areas were examined in the third year, including limestone outcrops on the Hydro Electric Commission road into the South West, and Mt Ronald Cross. A reconnaissance went to Mt Anne, and a dangerous sandstone cave explored but not bottomed near Ranelagh.

The fourth year continued active caving, the major news being the rescue of an amateur caver at Claremont in Hobart, as a result of which several members of both SCS and TCC were decorated by the Reyal Humane Society. Later in the year two more amateurs were extracted from Rescue Pot at Junee.

In 1970, 47 trips were conducted, including initiation of exploration at Lorinna Montagu and Mt Mayday. Other trips went to Mt Ronald Cross, Junee-Florentine, Mole Creek, Hastings and Trowutta.

This year has been by far the most active and successful yet. Southern Caver, the club newsletter, first published in 1967, revived considerably and now averages 25 pages. A new caving area, Jukes-Darwin was opened up and discoveries made. Other trips went to Mole Creek, Mt Ronald Cross, Mt Mayday, Bubbs Hill, Railton, Lorinna, Hastings, Ida Bay and Junee-Florentine. In November 1970, SCS bottomed the last at a new record depth for Australia of 800°, but within five months, in conjunction with TCC, Khazad-Dum was pushed to 950° without reaching bottom.

In December 1970 - January 1971, SCS and TCC jointly hosted the Eighth Biennial Convention of the Australian Speleological Federation in Hobart, and SCS became a member of ASF. As a result of this convention the two clubs have begun to co-operate closely and although remaining active and strongly independent, are on the best of friendly terms. This must remain as the greatest benefit to Tasmanian speleology of the Convention. SCS's financial position is sound, we have plenty of keen young active members, and in general the future looks bright.

CBITUARY - JARGOT GREENHALGH

The Editor regrets to report the death on 16/11/70 in New Zealand, of Margot Greenhalgh, a well-known member of UCSS since 1967, during which time she played an active part in the conservation campaigns for Texas and Mt Etna, and in 1969 she had been Treasurer of UCSS.

CAVES OF AUSTRALIA

.... A NEW SERIES ON THE MAJOR CAVES OF AUSTRALIA

NUMBER 1 EXIT CAVE

by Albert Goede, TCC

Exit Cave is a resurgence cave with an impressive entrance near the base of a limestone cliff bordering northern margin of the floodplain of the D'Entrecasteaux River. A large stream emerges from the entrance and meanders through wet swampy forest before joining the river. The cave was probably discovered by timber getters around the turn of the century as an old tramway constructed about this time crosses Exit Creek only one hundred yards below the cave mouth. As far as we know the cave was not explored beyond the entrance chamber as deep water blocked further progress.

A party of TCC members was shown the cave entrance by a local bushman in 1947 but access was difficult and no time was left for exploration. Not until 1954 did we return. A small passage was found to bypass the deep water and half a mile of stream passage of very large dimensions was explored until progress was halted by a rockfall. During the next twelve years little progress was made apart from some exploration of upper level passages and chambers. Several parties went astray in the bush while trying to locate the cave while others found the entrance blocked by floodwaters. During the field trips following the 1958 A.S.F. Convention the cutting of an access track was commenced from the north via the summit of Marble Hill and completed nine months later. The route was a strenuous one and because of its steep grade and broken limestone surface soon became known as the Kokoda Trail.

In 1966 a bold plan became reality. We realized that better access to the cave was needed and a track was cut across almost level ground from the old Leprena road westwards through the near impenetrable vegetation of the D'Entrecasteaux floodplain When completed, walking time with heavy packs was reduced from eight hours to two. Intensified exploration paid off. In November 1966 a route was found through the talus which since 1954 had held up progress. With the establishment of Camp 2 as a cave base further exploration was rapid and the survey gathered momentum. By July 1967 nearly four miles of passages had been surveyed and another two miles were known. In the same month the surface entrance to Mini Martin was discovered and on August 19 was linked with Exit Cave to make the system the deepest in Australia at the time. The 360' entrance pitch to Mini Martin was also an Australian remord for a free ladder drop which has only this year been surpassed.

Work in Exit Cave continued with further exploration and surveying. In February 1968 water tracing proved that water going underground in Mystery Creek (Entrance) Cave entered the Exit Cave system, demonstrating a breach of a major surface divide (Goede 1969). Exploration was aimed especially at linking the Exit Cave system with Mystery Creek Cave but little progress was made with the two systems still separated by 850°. By June 1968 TCC was able to claim that Exit Cave was the longest in Australia with seven miles of passages surveyed. The same month saw the discovery of a new extension — the Dribble system. Over the next, months a little more surveying extended the known length to $7\frac{1}{2}$ miles but more and more

work was concentrated on the exploration of potholes on the northern side of Marble Hill in an attempt to locate the m ssing link between Exit and Mystery Creek Cave. In this we were unsuccessful but one pothole (Midnight Hole) was linked with Mystery Creek Cave to provide a cave system at least 665' deep — then the second deepest. Australia. Another pothole (Revelation Cave) was pushed to a depth of 450'. However as the link continued to elude us work in the Ida Bay area faded out and attention became focused on other promising areas such as Junee and Mt Anne.

That exploration of Exit Cave is far from finished was demonstrated by the Ida Bay - Mt Anne party following the 1970 Hobart A.S.F. Convention. Despite flood problems as a result of continual heavy rain (necessitating a four-day stay in the cave for one party, and no entry for another), the party found a major extension at the Mud Passage - a side passage from the East Grand Fissure. An estimated mile of passages was found of which 3000' were mapped. The new discovery extends the cave under the northern slopes of Marble Hill well beyond the Permian caprock. There is now a good chance that another entrance will be found in this area. It must also brighten the prospects of a link with Mystery Creek Cave as the new extension runs parallel to this system. So Exit Cave joins those of world class as its length passes ten miles.

Exit is more than just a large cavem though. It is of outstanding interest to earth scientists and biologists. There are several high levels indicating earlier stages in the development of the system. Another interesting feature is the large number of vertical shafts (e.g. Devils Stivepipe) going up towards the surface. Gypsum is abundant in certain parts of the cave (Edies Treasure, Lost Squeeze) and there is evidence that growth of gypsum crystals has caused considerable weathering by flaking. Gypsum crystals up to 3' long have been found and to our knowledge are unique in Australia.

On the biological side the best known feature is the large population of glow worms (<u>Arachnocampa tasmaniensis</u>) found in places. Of considerable significance is the occurrence of two troglobitic beetles. <u>Idacarabus troglodytes</u> has long been known from Mystery Creek Cave but the other as yet unknown species is a trechine beetle, the first completely eyeless beetle discovered in an Australian cave.

The cave has a lot to offer whether one is an explorer or a scientist and much work remains to be dine in both fields.

REFERENCE

GOEDE, A. (1969): Underground Stream Capture at Ida Bay, Tasmania, and the Relevance of Cold Climatic Conditions.

Aust. Geogr. Studs. 7: 41-48.

DR. B. J. O'BRIEN

The imagural President of the Australian Speleological Federation (1956-1958), Professor Brian J. O'Brien, has been appointed Director of Environmental Protection in Western Australia. A Ph.D. from Sydney, Dr O'Brien was later Professor of Space Science at Rice University and designed for N.A.S.A. dust detectors placed on the moon. He still commutes to Houston for Apollo launchings. In 1970 local cavers had the opportunity of meeting him at several speleo functions. We trust that his new appointment will prove as outstandingly successful as his previous vocation.

THE DESCENT OF TASSY POT

by Kevin Kiernan, TCC-SCS

About midnight on 14/11/70 three cavers stood in a small passageway 800' below the surface of the Florentine Valley and shook hands. Minutes later other members of the party went into jubilant rejoicing. They had just broken the three year old Australian depth record of 720' by bottoming Tassy Pot.

Tassy Pot (JF223) is situated in the Junee-Florentine area, at the western end of a large belt of Ordovician (Gordon) Limestone, 10 miles west of the logging town of Maydena in S.V. Tasmania. It lies just outside the boundary of the Mt Field National Park, and an Amstralian Newsprint Mills Ltd logging road skirts the doline in which it is situated, passing within 30° of the entrance. The cave was discovered by A.N.M. Ltd. employees in late 1957. Don Frankcombe. A.N.M. Manager at Maydena, showed the hole to a TCC member early the following January and TCC made the first descent on 23/1/68.

From the entrance a short, steep slope leads to a 140' vertical drop down a shaft about 15' in diameter. 150' of ladder is required. The climb ends where the shaft is cheked with debris. Looking up, the cutline of a map of Tasmania is silhouetted, giving the cave its name. A rift 10' high then opens into a tall chamber requiring a 90' ladder drop onto a wet, muddy floor. The chamber is about 50' long with a talus pile in one corner. Here exploration halted initially, 250' down on the brink of an unpromising looking 40' drop. The following weekend an SCS surface exploration party in the area, unaware of TCC's efforts, explored right to a dead and at #350'.

Then, for two years, Tassy Pot remained untouched until on 20/6/70 SCS visited it for ladder practice. From the chamber at -0501 a droughty crawl was explored leading out onto a catwalk on the edge of a great shaft and across into a sizeable chamber 300' down. The big shaft falts from an unknown height above this point and is 60! in diameter. Initially estimated as being 100 - 1201 deep, it eventually turned cut to be 270° with a very narrow ledge where it is possible to rest 140 down, making it the fifth longest pitch in the country. The first attempt at the descent of this ritch was thwarted when available ladder proved insufficient by 201 A return trip 3 weeks later bottomed the shaft, 17 hours being spent underground by David Mitchell, Kevin Kierman, Graeme Watt, Chris Harris, John Morley (all SCS), Phil Robinson (TCC) and Arthur Clarke (VSA). The last three reached bottom, the others belayed from Goodbye Chamber where every available hand was needed to raise the exhousted "bottomers" from the depths. John McCormack and Kevin Rassmussin had a long wait as surface below party.

At the foot of the big shoft is a large chumber at a depth of 640°. From here a path through very loose redstall, full of falling water, leads down over a series of short drops. This area of the cave is unstable to the extent that those who have been there vowed never to return. It has been named Morocl Passage. Eventually, the system which to the last pitch had comprised huge shafts broken by ledges and talus blockages, levelled out, and about 100° of horizontal passage was followed to an impenetrable squeeze, and SCS claimed a new depth record of 800°.

Unlike the provious record holder (Mini Martin - Exit Cave), Tassy Pot does not have a bottom entrance to walk out of. The need to return up the long ladder pitches makes it a very severe pot, one of the worst in Australia.

KYZAD-BUT -- 1000 FEET; WEEK?

ty Kevin Kiernan, TCC-SCS

During the long weekend February 27 - March 1, 1971, a combined TCC / SCS full-scale expedition pushed exploration in Khazad-Dum (JF4-5) to a depth of 950', from where a further drop of at least 60' was visible.

On Saturday a bypass of the 70' and 93' pitches not far from the entrance was found. The new route involved drops of 25' and 60', the latter having three ledges 20' apart. Eight hours was spent rigging the upper pitches and leaving a large quantity of spare tackle at the top of a waterfall 580' down.

Sunday morning saw the commencement of a mammoth 21 hour trip. Beyond the furthest point previously reached at -850', Phil Robinson, Kevin Kiernan, Norm Poulter and Chris Harris explored down another 70' drop and a short slope to the top of yet another waterfall initially estimated at 40' drop. The descent is in the full force of the waterfall all the way. Kevin Kiernan climbed down 30' to snatch a new Australian depth record of 950', but had to return half drowned. From his precarious perch he was able to see the water falling further down the pitch, the estimated depth of which he revised to at least 80'. Water conditions were judged too dangerous under the volume experienced, and it would be necessary to insta eye-bolts to bring the ladder clear of the torrent. However, near the top of the previous 70' pitch is a dry shaft thought to be 150' deep and as yet unentered; it may well prove to bypass the waterfall.

Khazad—Dum is truly a ferocious cave and is not yielding secrets without a struggle. It will probably rest in peace until next summer, for the rain is getting wetter and the waterfalls damper, and there are very few people around who will give it another go. With any amount of luck, though, it will have fallen by next January.

CAVE SOCIA STATION COMMITTEE

by Peter Matthews

At the recent Convention in Hobart I was asked to investigate and draw up recommendations for the systematic recording of cave information by societies. As with previous convenors, I propose to gather the ideas of as many people as possible and circulate for comment before drawing up final recommendations for the Meeting.

I am therefore interested in receiving comments or suggestions from anyone at all who has ideas on the subject, and particular from every Society recorder on

- 1. How their Society at present records cave information.
- 2. How the information is retrieved
- 3. Details of how their cave numbering system operates.
- 4. Suggestions on what should be the recommended standard, including any local difficulties foreseen.

I will need to receive this information by the end of June to be able to use it. Do not wait until the next meeting to air your views — make sure you get them included in the actual recommendation beforehand. Send them to Peter Matthews, 66 Frogmore Cres., Park Orchards, Vic. 3114

AUSTRALIA'S BOTTON TWELVE

AMNOTATED CHECKLIST OF AUSTRALIA'S DEEPEST CAVES

by Kevin Kiernan, TCC-SCS

1. KHAZAD-DUM (JF4-5) (Junee-Florentine, Tas.) 950', TCC/SCS, 1/3/71 Swallet 1300' above, $2\frac{1}{2}$ miles distant from presumed rising. Creek averages 2 cusecs. Numerous waterfall pitches, longest ladder drops 93' & 70'. Exploration incomplete, very hard cave needing many hours underground. Surveyed to -628', aneroid & estimation beyond.



- 2. TASSY POT (JF223) (Junee-Florentine, Tas,) 800', SCS, 15/11/70 Very severe and dangerous pothole with ladder drops of 150', 90', 270' & 80' chimney. Depth by aneroid & estimation. Held record from 15/11/70 to 23/1/71/
- 3. MINI-MARTIN / EXIT CAVE (Ida Bay, Tas.) 720', TCC, 19/8/67 Very deep pot linked to Australia's longest cave. Ladder drops of 360', 100' & 80'.
 - 4. MIDNIGHT HOLE / MYSTERY CREEK CAVE (Ida Bay, Tas.) 665', TCC, 13/10/68

 Pothole linking at bottom to Mystery Creek (Entrance) Cave. Six pitches 70', 40', 120', 30', 110', 180'. Surveyed to -645'.
- 5. GROWLING SWALLET (Junee-Florentine, Tas.) 560', TCC Feb. 1957

 Large inflow cave with sizeable stream subject to flooding. Angle of descent 45° in most places, very noisy wet pitches.2x30'ladders & 3 x 120' ropes needed. Depth by aneroid, survey grade 4 to -230'. Glow worms. Held Australian depth record Feb. 1957-19/8/67
 - 6. KELLERS CELLAR (Mt Anne, Tas.). 510', A.S.F. Field Trip,7/1/71' Cold pothole with initial drop of 420' (longest inin Australia). Depth by estimation. Blocked by frost shattered debris.
- 7. SATANS LAIR (Junee Florentine, Tas.) 470', SCS, 1966. Swallet with diverted stream, small entrance. Very large chamber at bottom with good decoration and 80' waterfall. Sporty pot requiring 9 x 30' ladders. Depth by estimation.
 - 8. Unnamed Cave 24 (Bungonia, N.S.W.) BCA / SSS, 485¹ 16/1/71 Dug out by Baptist Caving Association, explored by SSS. Has main ladder drops of 60¹ & 90¹. Appears to be deepest at Bungonia. Wet in places, ends in deep pool, rather dangerous.
 - ** depth information arrived after author's manuscript. Actually 7th.

(1++**

- 9. REVELATION CAVE (Ida Bay, Tas.) 450', TCC, 1969

 Normally dry pothole, but has small stream after heavy rain. Even grade, two short drops, one 60' ladder pitch. Depth estimated.
 - 10. RIFT CAVE (Junee Florentine, Tas.) 430', TCC, 1947
 Inflow cave with small stream. Depth by aneroid.
- 11. ARGYLE POT (B31) (Bungonia, N.S.J.) 420', UNSWSS, 1960 Sporty pothole with four ladder pitches up to 90' long. Foul air intermittently, pool at bottom. Tight squeezes in places.
 - 12. FOSSIL CAVE / HOGANS HOLE (B4-5) (Bungonia, N.S.W.) SSS, 1969
 Pothole with long crawls, foul air at times. Some decoration.
 Depth about 400'. Dangerous tendency to flash flooding.

THE LOIGEST PITCHES

- 1. 420' Entrance Pitch, KELLERS CELLAR (Mt Anne, Tas.)

 Laddered and descended during A.S.F. Field Trip, 7/1/71.

 Formed in dolomite.
- 2. 360' Main pitch, MINI-MARTIN (Ida Bay, Tas.)

 First descent made by combined party under TCC 19/8/67. Leads down into Exit Cave.
- 3. 270' Big Shaft, TASSY POT (JF223) (Florentine Valley, Tas)

 First descent by SCS ended 20' short of bottom due to insufficient ladder. Return trip July 1970 bottomed shaft.
- 4. 240' BIG HOLE (N.S.W.)

 "Subjacent" collapse doline in sandstone into presumed underlying limestone. Large collapse material at bottom, open to daylight all the way. Depth given is minimum, on high side a 360' sheer drop is possible.

LONGEST CAVES?

The longest cave in Australia is Exit Cave (Ida Bay, Tas.) with over 10 miles known. The second longest is Mullarullang (Nullarbor Plain, W.A.). Beyond these two, documentation is poor and likely contenders include Jenolan Tourist Caves, Mammoth (Jenolan), Niggle (Camooweal), Easter (W.A.), Colong Cave, Corrells Cave, Royal Arch (Chillagoe), Victoria (Noracoorte). All these run about 1 to 2 miles.

MOTES ON THE NORTHERN TERRITORY KARST

by Henry Shannon, UQSS

I was able to get a fairly widespread though superficial look at the limestone of the Daly River Basin towards the end of the dry season in 1970. The weather was rather hot, and as I was being ferried around by a non-speleologist who was fundamentally interested in pub-crawling, my style was rather cramped.

There are three limestone formations in the Daly River Basin, all Middle Cambrian in age (and thus equivalents, more or less, of the Camooweal dolomite). The most important one is the Tindall limestone which occurs at the base. The basin is a gentle structure with dips commonly less than 10°. The Tindall limestone has a vaguely oval outcrop area roughly 200 miles long and up to 15 miles wide.

Rainfall is around 30", and in the large outcrop areas dolines occur either isolated or in chains. I saw dolines in every area of the Tindall that I got to, but they were never very thick on the ground by comparison with, say, Yarrangobilly. Relief is generally low and soil cover thick. This hampers cave prospects seriously.

The principal cave areas so far known are near Katherine, the Kintore group 3 miles north of the river, and the Venn group 15 miles or so south. I didn't get into the Kintores. The limestone scenery there is very good, even if low. It consists of residual hills up to 30' high with flat floored valleys and dolines in between. It appears that the rocky country occupies low spots relative to the surrounding soil covered country.

Near Venn is the Cutta Cutta Cave which is open for tourists in the dry season. Beyond the tourist section is a bat breeding area. The formations are quite good as tropical caves go, much like that in Winding Staircase at Mt Atna.

I was told by Bill Walsh in Darwin some interesting stories. The Reserves Board at one stage gated the cave with one wire grill, leaving two openings for the bats. This proved to be not sufficient. The bats when next seen were hysterical, and were congregating around the bottleneck. Breeding failed that year. The Reserves Board promptly acted to remove the entire barrier, which undoubtedly saved the colony. Protection of the cave from vandals could be achieved by surrounding the entrance with a conventional man-proof fence. This could not be a bat barrier since they would be able to get over it easily.

Beyond the tourist section the temperature and humidity rose toapproximately 90° and 100% respectively. This could be among the hottest caves in the world. Adding to the horrors is the presence of snakes which are apparently quite thick inside; mainly these are the harmless brown tree snake but the king brown is also present (second most poisonous snake). No-one has been bitten yet, but many have given up caving in the Territoryafter getting bad frights.

The limestone is the principal aquifer providing permanent water in the Katherine and Daly Rivers and their tributaries. The running water (30 cusecs) at the low level reserve is the making of Katherine. A large spring behind the CSIRO home farm sends out nearly 10 cusecs. I could actually see into the cave the water is coming from and it certainly looks as though it could be dived.

Further downstream the Daly grows to a big river by Australian standards. It has gours across it 50 yards long. From the north there is a short but very wide creek joining the river; I think this is a huge karst spring.

In one area where I was mapping I bypassed a sinkhole complex at 131°10'E, 14°24'S approximately; a blind valley system east of Bamboo Creek. It is a bit frustrating to know I missed it, as on checking the air photos later I discovered that it takes the kankfull discharge of a creek system 3 miles long.

For other areas there are some rumours to report. The mining tenure map shows three groups of "meteorite craters" in what could be called the summit area of Arnhem Land. One of the pub-crawling chauffeur's rough mates told me about steep sided holes 200' deep at the heads of the Wilton and Mainour Rivers which correlates with the map. I believe these are large scale dolines and I do not believe they are meteorite craters. I don't know if there is limestone there, but it is worth remembering that the 'ruined city' (a perfect grikey type karst landform) is developed actually on a quartz sandstone.

Another area of interest is Calvert Hills, on the Territory side of the border 300 miles north of Camooweal. My pub-crawling chauffeur related to me a tale of a doomed packhorse which was engulfed by an opening sinkhole. It was then shot dead since it could not be rescued. This hole is still open and is close to thehomestead. There is also a gorge there, where a stone dropped from the overhanging side will hit the opposite wall. There is water at the bottom.

I hope to be working up in this area in 1971 and perhaps there will be more to tell.

SOME NOTES OR ELYSIUM CAVE AND BLAST DAVAGE

by Henry Shannon, UQSS

The cave is found in the Crystal Peak massif of Limestone Ridge at Mt Etna. A single entrance leads off down a narrow shaft of around 70' best rigged with a handline. Near the bottom the trafficable route is offset and here the CQSS have installed a bar gate. The last little bit is quite awkward since the chimney ends in the roof of the top cavern leaving 5' of air between the last holds and the floor. A fixed ladder has been left here.

The top cavern is very large in floor plan but rather low, mostly about 4' high. It is mainly excavated in the andesite/basalt dyke which controls the development of Ballroom and Lost Paradise caves. The roof is smooth, but the floor is very potholey with several big shafts. One of these is the way on. The chamber is so large and rough that it takes quite a while to go around the circumference and one is quite likely to get bushed. There are few side passages, mostly quite well decorated.

The shaft going on is a 60 footer, and the more impressive for being a fair way in from the entrance. It gives something of the feeling of depth, of getting somewhere that you find caving at Camooweal or the bigger caves in the south.

After this ladder pitch a short handline is needed for a short slippery cliff and that is all the equipment needed for the cave. The passage from the drop splits at a junction giving rise to a North branch which goes to the Cinema and a southwest branch to the Terminus. Both have side passages and there is a big drop giving alternative routes to the Terminus. The Cinema is a large cavern about 60' x 30' x 30', largely excavated in andesite dyke rock. There are several dykes which branch and cross-cut each other. One effect is to set out the "screen" which is a block of limestone in the end wall, surrounded by brown andesite. The Terminus is a level floored chamber acting as an earth sump, quite a good place to eat lunch. It was in fact while eating here that it came to my mind that the cave showed classic signs of blast damage. I then said to a sceptical audience that the Pilkington's quarry must lie out from the right hand wall of the Terminus. This proved to be the case when the traverse was drawn up.

Blast Damage

The dynamics of blast damage are different from natural cave breakdown in that blast waves and related resonances are the effective agents rather than gravity. The style of breakage by each process is markedly different. Under gravity, ceiling blocks will peel off along joint planes, until the adhesion of the residual attachment is overcome. There is very little non-joint-controlled, fresh break surface. There is more in rock piles where pressure chipping occurs around stressed points. There is little of either at the Mt Etna caves area. Wost of the broken rock is talus embedded in soil.

Blast damage is not dependent on the existence of joint surfaces but on the geometry of the cave walls. Roof pendants, buttresses, and arches of limestone are vulnerable, as are massive stalactites and thick helictites. Straws and shawls are comparatively resistant, probably because they have less inertia and are more flexible than the massive forms. Flowstones are also resistant, possibly because they lack resistance.

There is an experiment in elementary physics which illustrates the point neatly. Pennies are lined up on a table, and one is hit against the row. The last coin at the other end of the row is flicked off. The shock wave from a quarry moves in much the same fashion through the rock and the ends of rock projections are shaken off. The broken ends do not normally follow joints. The break surfaces are practically all rough fracture planes, exposing fresh limestone. Helictites and the like will fall off the wall but do not scatter very far.

The most useful feature of the broken surfaces in Elysium is that they are no longer fresh: they have developed a patira of chalk of the normal cave wall type abthough it is not fully developed yet. Since patina is universal at Mt Etna it means that freshly broken limestone without patina must be less than 15 years old. And it means that any freshly broken limestone must be recent and when combined with the stylistic features of blast damage, can be attributed to quarrying activities beyond reasonable doubt.

The previous two examples of the hand of that prolific and voluble speleo Mr Shannon, were extracted from <u>Down Under</u>

SPELEOS SEEN . . .

... ON THE SPELEO SCENES

... a new series on the caving personalities of Australia. ...
Ne. 1 - ELERY HAMILTON-SMITH ...

Considered taking up either skin diving or caving in early 1950s; after pricing Foundation President of CEGSA 1955 - 56an aqualung. atatted looking for a cave. first Secretary of ASF 1956-60, President ASF 1960, 1962-66, 1971. Foundation President of VSA 1967-68. Has convened various ASF Committees, including conservation Delegate to Intercave nomenclature and bat research, and review of ASF structure. national Union of Speleology. Has caves in all states, in New Zealand, introduce Still has ambitions to Japan, New Guinea, New Hebrides and Philippines. Japanese bath houses to Australian caving areas. Main caving interest is biology: edits Bat Research News, is Honorary Zoologist to S.A. Museum, responsible fauna collections. Has written papers on biology of cave fauna. profession, currently consultant on social research and social planning, particularly in regard to young people. Wife Jean, also a social worker, enjoys caving, but looks askance at such things as beetles, spiders and bats.

and then there's HENRY ("cusec") SHANNON ...

Latent speleological interests evident in childhood: "Daddy, why do they spoil it with that wire netting, Daddy, why must we go home now?, Daddy, it'd be much better without that guide." Further inoculation occurred through a lecture on caving given at school by Laurie Bishop. Arriving at Sydney University, took to caves like a bat. A disciple of Jon Hinwood and other SUSS Nullarbor veterans in early 1960s, has always flavoured serious speleology over sporting caving. In SUSS 1959-62, concentrating on Jenolan (hydrology and speleogenesis). Moved to Queensland 1963, joined UQSS. Was essociated with growth of that club, mapping, exploration and speleogenesis studies at Texas and Mt Etna. Much time and effort on conservation campaigns in those areas. In between, has visited caves in all states and several ASF Conferences. President UQSS 1968-69, elected Honorary Life Member 1970. Professional geologist, drives crook VW.

Goede, Alan Hill and Greg Middleton. But first ...

No. 3 - TED ANTERSON . . .

· Fortunate enough to enjoy the ideal introduction to caving; rediscovery of the Began mythical Woofs Cavern, Colong, in 1957, when its decoration was virginal. eaving with SUSS in 1959. Early practical experience at mudslinging in Mammoth Jenolan was later effectively employed as SUSS Secretary 1963, and other positions oulminating in capture of Presidency in 1969-70. Natural inclinations to idealism sated as foundation member of Speleological Research Council Ltd in 1964 and as Secretary) treasurer. Judicious juggling of employment has permitted expansion •aving activities into all states. Secretary and Assistant Leader SUSS Expedition 1963-64, Surveyor on S.A. Museum - sponsored expedition to New and New Hebrides 1965-66. Neat confidence trick by Hamilton Hyphen Smith resulted in enslavement to ASF Newsletter in 1964 (he hasn't escaped yet - ed.) and (horizontally) to Vice President in 1965. Has reversed conventional adaptation of professional training to caving to conform to earlier ambitions in cave surveying, and now pursuing Ph.D. in surveying. Present interests include use of expensive borrowed equipment and advanced techniques in Nullarbor, Jenolan, Bungonia and Wyanbene. Convenor, ASF Survey Standards Committee. Vice President SUSS, member UNSWSS, to organize best yet ASF Conference in Sydney in 1972.

CAVE BODES IN TASTAMA

by A. P. Andrews, SCS

Despite their age and degree of complexity, limestone caves in Tasmania differ from those on the Australian mainland in that an endemic vertebrate fauna is entirely absent. The invertebrate fauna which up until recent times (Goede 1967) has been comparatively little known except from purely taxonomic considerations, is on the other hand complex and exhibits a comparatively high degree of endemism. Nevertheless vertebrate groups such as the Chiropteran faunas characteristic of many mainland cave systems are conspicuous by their absence.

Vertebrate remains, chiefly in the form of skeletal material, have long been known from Tasmanian caves (Higgins & Pettard 1884) and in many cases their presence is a highly conspicuous feature.

Cave bones are considered to have arrived at their destination by one of the following:

- 1. Animal lairs. Although it is probable that some of the larger mammals such as the Thylacine and Tasmanian Devil may have used cave entrances as temporary dwellings, the evidence is largely inconclusive and little is known in detail.
- V2. Surface casualties. This probably accounts for a large proportion of cave bones as in some areas cave entrances are restricted to small vertical shafts at ground level and could well act as traps for many of the nocturnal species such as the wombat, wallaby and devil.
- 3. Surface washing. Run-off of surface water into underground caves is a characteristic feature in many areas and the possibility of dead carcases being carried in by
 water cannot be ruled out entirely. It also seems that the only plausible explanation for the transport of bones found in some caves is by movement of flood waters
 underground.

Fossil and sub-fossil vertebrate material has not been extensively studied, and is comparatively rare in most Tasmanian caves. All the species listed below are considered to be recent material indistinguishable from living species. Where water is present bones frequently become encrusted with calcite and cemented to the formations giving the impression of "Fossils", the process appears, however, to be fairly rapid and subsequent removal of bones from the calcite matrix has so far, yielded only material of recent origin.

The following species have recently been recorded from Tasmanian caves but it is highly likely that further collecting will yield many more:

CLASS AMPHIBLA .

Subclass Anura

Miscellaneous frogs, Mole Ck.

CLASS MAMMALIA

Order Monotremata

Ornithorhyncus anatinus Shaw & Nodder 1799 -Mole Ck, Caveside, Florentine Valley (Tassy Pot) Order Marsupialia

Family Dasyridae

Antechinus swainsonii Waterhouse 1840

Mole Creek (Scotts Cave), Florentine Valley (Tassy Pot)

Sarcophilus harrisi Boitard 1841

Mole Creek , Caveside (Pyramid Cave)

Family Phalangeridae

Pseudocheirus convolutor Oken 1916

Mole Ck, Caveside, Florentine Valley (Tassy Pot)

Trichosurus vulpecula Kerr 1792

Mole Ck, Florentine Valley, various locations.

Familty Vombatidae

Vombatus ursinus Shaw 1800

Florentine Valley (Tassy Pot)

Family Macropodidae

Potorous tridactylus Kerr 1792

Mole Ck (Scotts Cave), Caveside

Thylogale billardierii Desmarest 1822

Mole Ck (Scotts Cave), Florentine Valley (numerous)

Wallabia rufogrisea Desmarest 1817

Mole Ck, Florentine Valley and other localities

Macropus tasmaniensis Le Souef 1923

mode Ck, Florentine Valley

Other Mammals

Canis familiaris (domestic dog)

Oryctolagus cuniculus (European rabbit)

Mole Ck, Caveside (Scotts cave)

Familty Muridae

Rattus lutreolus Gray 1841

Mole Ck, Caveside

Pseudoys higginsi Trouessart 1899

Ida Bay (Exit Cave)

Discussion

The high humidity and free water content of many Tasmanian cave systems is not indicative of good preservation of animal material and decomposition aided by bacterial action is rapid. Leaching by water and abrasion by rock and gravel leads to a fairly rapid breakdown of the remaining bone material. Consequently such remains tend to have a comparatively short underground life unless rapidly excased in a protective medium such as fine mud or calcite.

Nevertheless, studies in cave bones may in the future be able to shed new light on the problems of surface distribution of animals and provide evidence of water movements within caves and its effects on cave structure.

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REVIEW ...

Mount Etna Caves. ed. J.K. Sprent, University of Queensland Speleological Society, 1970.

iv + 116 pages, 29 photos, 12 maps, 1 chart. Photo-offset, semi-hard 2 colour cover. Price from the Society \$2-75 + 11c. postage.

This book represents several years of solid effort by the UQSS and was a challenge which considerably strengthened the Society and speleology generally in Queensland. The publication is intended in the first place for persons interested in speleology, but it also provides an insight for the non-speleologist into an increasingly popular sport and a significant science. In particular it is a collection of all the evidence for proper conservation of a major caving area and a landmark of Central Queensland. Contributors include not only well known UQSS members but also scientists and conservationists generally, including Dr Peter Dwyer (zoologist), Dr Len Webb (CSIRO ecologist), Dr D. Hill (Research Professor in Geology), Dr D.H. Kemp (CSIRO) and Mr J.G. Tracey (ecologist). The forward, written by Professor Zelman Cowen, Vice Chancellor, University of Queensland, is an indication of the significance of this publication.

Part 1 covers the geology, palaeontology, meteorology and survey of Mt Etna and the caves, and includes a checklist and description of over 70 known caves. Part II is concerned with biological aspects of the surface flora and fauna and the cavernicolous invertebrates. Part III deals with the history and conservation of the area. It summarises legislative developments and mining, speleological, recreational and conservation activities. The book concludes with an outline of the present situation, regrettably not offering much hope for the proper preservation of the region.

"Mount Etna Caves" represents another landmark in Australian speleology. It is the first book to be produced wholly by one society which attempts to summarise accumulated knowledge about one of Australia's many smaller caving areas (less than one square mile). In this respect it is able to devote greater attention to detail than was possible in earlier books, those on Mullamullang and the Nullarbor.

The main purpose, though, is not to present a scientific monograph but to promote a case for conservation, and its value should be judged in this light. Thus it does not make easy reading for the armchair or lay conservationist, and even the average caver, who would have the motivation to wade through the whole lot, will be inclined to skip over a great deal.

Nevertheless, "Mount Etna Caves" is another valuable addition to the still inadequate literature on Australian caving areas. The price of \$2-75 and the quality are quite reasonable by today's standards for a small run book.

DOM: UNDER ALL OVER

..... PER'S FROM AROUND THE SOCIETIES

Most of the club newsletters so far this year have waxed enthusiastically on what their members did in Tasmania during the Christmas -- New Year period. With some

clubs having most of their members down south, that is not surprising (would you believe 33 from VSA??). But other trips have gone . . .

A few years ago Canberra journalist Maxwell Newton incurred the wrath of the Country Party, and queered the pitch of the McMahon-for-P.M. machine because of the alleged support by Mr McMahon for a Newton organization known as the Basic Industries Group, which the Country Party saw as a threat to its existence. Well, justice will triumph, and today Mr McMahon has at last succeeded as No. 1, and as far as speleologists are concerned, the most effective use being made of any Maxwell Newton Organizations is that they are printing "The Very Latest". This formerly irregular newsletter of CSS now appears resplendent with photographs, fancy headings and the whole text set on what is presumably an I.B.M. Compositor and printed by a photo-offset process. Easily the most impressive club newsletter in the country and well worth a look.

held a highly modessful Search and Rescue at the end of October. An excellent report officers in the December "Explorer". Surface trogging has been done at Marmor, not far from Rockhampton, which has been visited only once or twice by cavers before. Other than that, the usual weekly trips have gone to Mt Etna and Limestone Ridge, and a locked gate has been installed on the Elysium Cave. Members also participated in the filming of the A.B.C. documentary on the caves reported elsewhere in this newsletter.

Much of our activity has been carried out in conjunction with one or other of our accociated clubs, EMSC and HCG. Members took part in the "mini-conference" trip to Mudgee on October long weekend and assisted in locating, exploring and reporting upon caves in that area. A local report of caves some 15 miles north of the town was thoroughly investigated without result, although some interesting resurgences were found which could warrant further examination after a period of heavy rain. The site was on private property south of Goolma and we were invited to check it out by a rest member of SSS residing in the area. Caves were located also in the Apple Tree Flat area, while members of other groups checked outcrops as far afield as Cudgegong.

Interesting results have been obtained from temperature and humidity readings being done particularly in the Grill Cave at Eungonia where some unexplained fluctuations were found. Similar studies have been done in conjunction with HCG in the lava caves of Voctoria and are detailed in BMSC's "Oolite". A dig off the entrance tunnel of B31 at Eungonia has yielded bones at varying levels and these are being submitted to the Australian Museum for identification. The dig is showing promise of development and will be worked again in March. Finally, with a member of HCG we surveyed the Toad Mall (Coronet) Cave at Jenolan and a map will bepublished in the next issue of the MCS Journal.

- ISS report that access to the Bendethera area is threatened. First, they had trouble getting Land Rovers up the normally readily negotiated "Big Hill", and had to be towed by the property owner's blitz wagon. Second the property owner is rightly upset by the theft of 35 gallons of fuel following a trip into the area by a Canberra based 4 Wheel Drive club. Meantime, efforts at the Bendethera efflux have not yet been rewarded: it's a bit dicey using an electric drill while lying in a foot of water. Conditions have been very wet in this area in the last three months, during which half a dozen trips have tried to make progress.
- have continued trips to Carrai Bat Cave to read the thermometer in conjunction with bat research. Temperatures inside the cave had fluctuated from $3\frac{1}{2}$ to 10°F between winter and early summer. The variation is attributed to cold dense air flowing down valley and funnelling into the entrance to displace warmer air. In February, piloted by member David Gowing on flood relief work, several members did some aerial 'spotting' of limestone outcrops in difficult country of the upper Macleay.
- seem to be suffering from a shortage of trips and have found it necessary to advertise the cave holiday resorts in their area to encourange people to go caving. However they did jaunt to Timor and member Noel White took in the Hobart conference while working in Tasmania. The President's report for 1971 memtions that most of the last year's work has beem in the Macleay Valley, especially in the Mt Pleasant area. The highlight of a bone digging operation was the discovery of the remains of a Tasmanian Tiger (thylacine).
- held an auction in December which raised over \$300 for Society publications. Photographs of President Ben Nurse alone raised some \$16-75, but then we always knew there was something odd about those Triple-S brand speleos, didn't we? At Bungonia, work has begun again on the Efflux which collapsed some time ago. Some 15 tons of debris was shifted one weekend but at least another 75 remains and a light railway has been suggested to ease the burden. The rumour that SSS will be applying for a dumping lease at South Marulan has been hotly denied. At Jenolan most work has centered around surveying in the ImperialCave to establish possible routes for a tunnel to McKeowns Ck proposed by the Tourist Bureau.
- 8 members attended the Hobart conference and field trips. Back home, SISS trips have gone to Tuglow where a little-known cave was re-entered and found to cuntain bone deposits worth examination. A deterioration was noted in the garbage situation at Colong Caves and a special trip is being organized to clean up. At Cooleman, Easter (Rebellion) Cave, named by SUSS in 1966 on the 50th Anniversary of the Irish Easter Uprising, was relocated and surveyed. This cave may be identical with one known to CSS as Frustration Cave. Its siphon was swumpand the cave extended a little. More work will be done at Easter. The Society has recently acquired a new survey instrument and with the annual influx of new prospective members exceeding 65, an active year is promised.
- The most significant news, of course, is the continuing story of the Mining Warden's Court hearing over the granting of leases at Marulan. The application was objected to by UNSWSS member Warwick Counsell.

The big news is the publication of the Society's major cave project, "Mt Etna Caves", a book which, it is hoped, will help strengthen the case for conservation of this area (see review p. 16). Meanwhile, the Central Queensland Cement Co. has knocked a huge hole near the top of their quarry which is mostly part of Winding Staircase Ceve. The cement company found at least five new caves at the back of the mountain and managed to destroy all but one. Some rumours started circulating of caches of American guns and ammunition being found in the caves (Mt Etna was used during World War II for commando training, and had the Japanese invaded Queensland, it would have been one of the sites for stronghold). Acting President Ant Sprent managed to con the A.B.C. into filming a documentary on the fight for the caves which was screened on the news programme, This Day Tonight (see report elsewhere in this newsletter).

Ran a trip to Timboon in south-west Victoria to follow up reports of caves in the area. A small well-decorated cave was found and there appear to be prospects for more. On the way home, a VSA "first" was claimed when the blowhole at Pt Campbell was laddered and descended. Another major achievement was the clean sweep by the Society of all the Executive positions of the A.S.F. at the Hobart Conference, which was attended by no less than 33 members of the Society, surely a record for the Society which has consistently supported the Federation more strongly than any other.

The attention of readers was drawn to this group in the last Newsletter, when I predicted that news might filter through any time now. Well, it seems that they are still alive, as one of their number turned up in Tasmania at Christmas, and lo and behold if in March, A.S.F. Treasurer John Taylor doesn't get money and an address list from them. The address list looked most impressive so I wrote off to them to see whether any of them ever go caving. There has not been a reply from Perth yet, so watch for the next enthralling episode in the saga of caving in the west, or at least speculations about caving in the West.

Not a peep, not a single lousy printed word from anyone in any of these groups. Sorry mate. OSS is missing, believed lost, no newsletters for over a year, NUCC is presumably undergoing the annual students disappearance, CEGSA must be still active as their heavies were in Tasmania, HCG are no doubt asleep, NSA probably in Central Asia in their Land Rovers and unfortunately we never hear anything from NTSS although they religiously pay their subscriptions every few years, together with back dues.

I had almost forgotten about this inestimable group, not having had any journals or whatever from them, However their hard working man, Ian Bogg rang the other night to enquire about the Newsletter (fancy someone actually taking an interest in it!!) and I obtained the intelligence that that they have been very busy numbering caves at Abercrombie for the Toutist Bureau, and at Tuglow. In both cases there were many more holes than you would have imagined.

That prolific writer Kevin Kiernan penned a vast amount on activities of the Tasmanian clubs, but as there is already enough on Tasmania for one issue, it has been held over until later.

CONSERVATION ACTION

Mt Etna

On Wednesday 24th March, the A.B.C. through its daily news programme, This Day Tonight, televised a short session on the fight for saving Mt Etna from cements bags. Personnel from UQSS and CQSS provided labour, technical advice and human interest during the filming seessions on the previous Saturday, while on the Sunday photographs were taken for the Brisbane Sunday Mail. The Central Queensland Cement Co. representative, Mr J. Tickner, did little to improve his company's tarnished image. Interviewed by the TDT team, he refused to discuss conservation, mining or anything else, and reaffirmed the company's refusal to allow any access whatever to the lease area, whether or not the quarry was operating.

Bungonia - South Marulan

In 1970 Southern Portland Cement Ltd (a B.H.P. subsidiary) applied for a dumping lease adjacent to their open cut at South Marulan, which is already an eyesore across one of the finest views in Australia. A company representative has been quoted as saying that Bungonia will have to go sooner or later. Objections were lodged by Milo Dunphy, well-known conservationist, and Warwick J. Counsell, a member of UNSWSS. Because more intensive mining of this area is one of the key alternatives to the Colong Mt Armour lease, the Colong Committee arranged a site inspection which SUSS, SSS & UNSWSS joined the National Parks Association, the Federation Bushwalkers and others, all being impressed by the superb scenery. Warden's Court hearing opened in Goulburn in February. Witnesses included Dr J.G. Mosley, appearing as assistant director of the Australian Conservation Counsel for the two objectors, Mr R. Meagher, elicited a confession from a B.H.P. senior surveyor, that the company had been illegally dumping mullock from the quarry towards the creek. Later the Court held a site view before adjourning for two months Excellent press coverage was obtained, particularly in the Australian, and a further detailed report will probably be given in the next Newsletter.

Colong

The N.S.W. State Elections produced a crop of Colong Committee candidates running under the Australian Party banner, and the Committee fielded a full - page non-political advertisement in The Australian giving publicity to the Colong affair. The Labour Party promised, if elected, to revoke the lease, and the ruling Liberal-Country Party Government promised nothing. Guess who won.

On another note, the villains of the piece, Australian Portland Cement Manufacturers Ltd, are on the run. Their Annual Snareholders Meeting on April 28 is to be held in Melbourne for the first time ever (to avoid embarrassing press coverage, or so they hope). Even so, a good roll up of conservationists proxy holders is expected and the case will gain good interstate publicity. A serious tactical error, perhaps.

Lake 'Pedder

I have commented before in this Newsletter that every conservation battle that is won, no matter how insignificant, makes it that much less likely that a cave somewhere else will be mined away. Lake Pedder is not entirely lost. Give your support to the Tasmanians on this important matter and help show that the Hydro Electric Commission is not the duly elected Government of Tasmania.