

"Southern Caver"

Published quarterly by the
Southern Caving Society
P.O. Box 121, Moonah,
Tasmania. 7009.



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Magazine
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Steve Street & Paul Schupp.

Society Meets : each Wednesday 8-00 P.M.
R.S.L. Hall, 188 Lenah Valley Rd., Lenah Valley.

VOLUME. 3 . Number 2.

31st July 1971.

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28th April 1971

Presidents Report

The past two years, have, in many respects, been the most challenging in the society's history. I consider that the Club has capitalised admirably on the opportunities that have come its way during this term, and members should be proud of its achievements.

With the Tasmanian Caverneering Club, we co-hosted the 8th Biennial A.S.F. Conference which proved to be highly successful.

Our application for A.S.F. membership was successfully presented during the Conference. At this point, I should like to note with approval the great improvement effected in our Society's relations with the T.C.C. during and since the conference. On our side, the burden of Conference organisation fell upon Bob Cockerill and Rein de Vries, and I congratulate them on a job well done.

The year under review has seen some spectacular caving successes. Some 54 trips were made to thirteen caving areas. The more note worthy of these are summarised as follows:

MOLE CREEK: 10 trips. Most attention here has focused on Herbert's pot which is slowly yielding its secrets this term to the extent of approximately 2,500ft. of new passage, ^{including} the recent discovery of Paragon Vaults which contain the best display of helictites in Tasmania and is a major find. Useful work also was done in Georgies in a new section of stream passage, and the survey of Kellys is Virtually complete.

HASTINGS: 5 Trips: The new section in Wolf Hole fully explored

Mt. RONALD CROSS: 2 Trips: Several new holes were found, but not yet explored.

LORINNA: 2 Trips: The elusive Limestone Creek cave was found during a Conference trip.

JUNEE)-FLORENTINE. With 27 trips, this area has received most attention during the year with the discovery of several new caves, some still awaiting exploration, and participation in the establishment of a series of Australian depth records. The first of these took place in Tassy Pot when the Society, after five trips, established the depth record at 800ft. This record was destined to stand only for a few months. A series of combined S.C.S. / T.C.C. trips to Khazad Dûm, discovered by the T.C.C., and potentially the deepest cave in the Southern Hemisphere, pushed the depth record to 850ft. On the last combined trip, Kevin Kiernan reached a depth of 950ft. A further expedition to this cave is planned before the onset of winter.

Useful work has been done in cave numbering and surveying, but an enormous amount remains to be carried out in these departments.

SEARCH AND RESCUE: A combined search and rescue exercise with Civil Defence was carried out at Maydena with reasonable success from our point of view. Much needs to be done here. With clubs working at depths of over 800ft. in systems like Tassy Pot and Khazad Dûm, the necessity of really efficient safety procedures and search and rescue are obvious. To this end, a Search and Rescue officer will be elected to the Committee tonight.

Club finances continue at a satisfactory level, although it is expected that a considerable outlay will have to be made early in the next term to renew equipment.

Our magazine, the "Southern Caver" has been generously received in most quarters. I feel this is one of the Society's worth while ventures and I hope the new Committee and members will continue to give it generous support.

In Conclusion, I would like to thank Executive and Committee members Michael Cole, Alex Terauds, Kevin Kiernan, Bob Cockerill, John McCormack, Geoff Fry and Ron Mann for their co-operation and assistance during the past year.

A. J. Elliott

TREASURER'S REPORT

<u>Income</u>		<u>Expenditure</u>	
Subscriptions	\$ 118.00	Southern Caver	\$ 59.77
Trip Fees	37.70	Cloth badges	37.50
Car Badge sales	8.40	Hall hire	38.25
Cloth badge sales	27.50	Gear	50.53
Metal badge sales	6.00		
Magazine	24.99	Sundry	23.39
St. Johns fees	23.80		
Sundries	05		
Bank Intrest	10.62		209.44
	\$ 257.06	Surplus	47.62
			\$ 257.06

Cash at Bank start year	274.81
Surplus as above	47.62

Cash at bank	322.43
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Plus interest bearing deposit	209.40
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531.83

SOCIETY CONFERS FIRST LIFE MEMBERSHIP.

The Societys first Life Membership was conferred on Barry James in recognition of his services to Speleology and particularly the Southern Caving Society.

Barry was one of the prime movers in the formation of our Society and has generously supported us over the years. He was the Societys first President and subsequently filled a variety of positions.

The occasion was marked at the 6th Annual General Meeting by a presentation to Barry on behalf of Members by the retiring President Dave Elliott.....

HONORARY MEMBERS

The following people were elected Honorary Members for the ensuing year.

Mr & Mrs D.W. Frankcombe, Maydena.
Mr. R.L. Grave, Hastings Caves.
Dr. A.J. Hinti - Bayre, Lenah Valley.
Inspector T.E. Howard, Tarooma.
Mr. J.N. Howe, Mole Creek.
Mr. J.N. Jennings M.A., Canberra City, A.C.T.
Mrs Lambert, Mole Creek, Tas.
Mr. G.R. Linger, Caveside.
Mr. R.E. Martin, Caveside.
Mr G.J. Melville, Mole Creek.
Mr. & Mrs. M. Oliver, Chudleigh.
Mr. Richardson, Sandford.
Mr. T. Richardson, Mole Creek.
Mr. C.J. Shaw, Mole Creek.
Mr. & Mrs. Roy Skinner, Hastings Caves.
Mr. D. Turner, Rosebay, Tas.
Dr. J.Wane, Lenah Valley.

1971/72 OFFICE BEARERS

PRESIDENT - Alex Terauds.

VICE PRESIDENT - Steve Harris. (Phone.726450.)

SECRETARY - Michael Cole.

TREASURER - Bob Cockerill (Phone.283428.)

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SEARCH & RESCUE.

OFFICER - Barry JAMES (Phone 284787)

ASSISTANT - Dave Elliott. (Phone.438100)

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TRIP SECRETARY - Chris Harris (Phone 726450)

CAVE LISTING OFFICER - Kevin Kiernan (Phone.278527)

MAGAZINE EDITOR & LIBRARIAN → John McCormack (Ph.729380)

MAGAZINE COMMITTEE -m Chris Harris - Dave Elliott
Steve Street- Kevin Kiernan.
Paul Schupp.

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A Short History of Mole Creek's Tourist Caves by M. Cole.

A Tourist 's Guide to Tasmania issued by the Union Line of Steamers in 1898 says: "Deloraine has many attractions for the lover of the beautiful and picturesque...From here he may visit the Chudleigh Caves, those natural wonders that will yet be recognised as a valuable national asset, and cared for accordingly...The rocks which jut out from the sides of the cavern are covered with fringes of elegant drapery, and the floor sparkles as if with diamonds". This guide was obviously referring to Wet Caves, which have long been superceded as tourist attractions by the Maracoopa and King Solomon's Caves which are the guided tourist jaunts of today.

The first instance of caves being toured at Mole Creek was recorded by Thomas Scott who noted that in 1829 a party of Governor Arthur's visited a limestone cavern at "Circular Marsh" (Mayberry). The Wet Caves, according to Dan Griffen, were probably found by two Murfet sisters, later Mrs. John Hall and Mrs. Pitt, when searching for their father's cows in the eighteen-thirties. For years they were called Oakdens' Caves, after Phillip Oakden, a Launceston businessman and landowner, who was first to explore them. It is noted that Sir John Franklin visited the Chudleigh Caves twice.

Most of the well known Mole Creek caves were discovered this Century by local settlers or hunters. Baldock's Caves were found a few months before Scotts'. Scott, with his sons, including Mr. Anderson Scott, still living in Mole Creek, was fencing his selection after a bush fire in February, 1907, when the boys, searching in a gully, found the caves. When, shortly afterwards, Scott lit his caves with an acetylene gas plant, over 300 people, using horse-drawn vehicles for transport, came to the opening. Scott's Caves were the main tourist attraction for many years, but Baldock's, also lit with an acetylene gas plant, had many visitors. So too, had the Maracoopa Caves, the Byard brothers, applied to select the land they were on, and informed the Surveyor who came to mark off the precipitous block, that they intended keeping goats. King Solomon's Caves, it is said, were discovered by a hunter when a wallaby he was chasing disappeared into a cavity between the rocks. The owner of the property, W. James, developed them.

Whilst Wet Caves, Honeycomb, Baldock's, and Scotts' Caves are now closed to tourists, the two present day tourist caves consisting of Maracoopa and King Solomon's, are a wonderful boost to the tourist trade in Tasmania, with a total of over 200,000 tourists passing through the turn-stiles in the past decade. The caves are the main show piece of the Deloraine municipality, and combined with Gunn's Plains and Newdegate tourist caves' reported a total of over 48,000 tourists inspecting them in Tasmania last year.

"When I slipped off the cave wall like a pot of strawberry jam....."

Most Society members have heard this macabre parody echoing light heartedly through underground caverns and smiled, but Steve Street doesn't think its funny anymore.

Steve is a very lucky chap, he fell 30 feet in Kubla Khan and escaped with a broken shoulder blade and a broken safety helmet.

In the interest of caving safety, the Editor persuaded Steve to contribute an article on his experience.

We hope all members will read it and exercise even more care when underground.

Caving in Tasmania has an excellent safety record, lets keep it that way.



SOME NOTES ON A NOVEL DESCENT IN KUBLA KHAN

by Steve Street

Falling from 30ft is a very nasty experience particularly when in a cave such as Kubla Khan. I found myself in this unhappy position on our last trip to Mole Creek.

On Sunday the 13th June 8 of us decided to go to Kubla Khan, I was in front of the party while traversing across a hole in the floor. All of a sudden I was flying through the air, with my past flashing before me, it surprised me how much time I had to think. 30ft down after hitting the bottom breathing was very difficult, John's voice came from above advising me to keep still, then he was beside me inquiring anxiously if I'd broken anything. After mumbling "my torch" he abused me profusely.

Some time passed before the rest of the party reached me, I had landed on my right shoulder and head, my safety helmet saved my life, and this proves they should always be worn correctly as I had turned completely over and it could have come off.

After a slight rest we started along the old stream passage for Cann Hall - this did not prove too difficult, but by the time we reached the balcony above I was feeling very sick and had the taste of blood in my mouth. Roger Cox, being a Medical student gave me a check, and then the others were ready to lower me over the flowstone onto the sand near the river, this hurt considerably although great care was taken.

I crossed the river, and waited for the others. This is where the worry began as the hardest part was yet to come, finally we started along the river passage. Progress was slow - eventually we reached the traverse above, this part must have been on the minds of everybody as I could use only my left hand. The others went ahead, John Morley, Greg Blake and Chris Harris stayed behind to help me, Greg suggested a rope be put around my waist.

This system was used throughout the traverse, which seemed to go on for ever, I had to drive myself very hard to keep going as the pain in my shoulder was almost unbearable.

When we reached the Flowstone I was hauled up, here I waited for three long hours, the longest ever possible, Graeme stayed to keep me company and lit a fire, which was most appreciated while the others were climbing the rope (there was no ladder). Eventually they reached the top, and had enough manpower to haul me up the 70ft, I was out at last.

By the time we reached the Deloraine Hospital it was 8 hours since my accident, and luckily I only sustained a fractured shoulder blade, after 4 days in hospital and 3 weeks off work, I'm as good as new again my grateful thanks to all concerned, and no doubt a lot was learnt from the experience.

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MEMBERS were pleased to welcome Geoff Fry at a recent meeting. Geoff has been recovering from injuries received in a motor cycle accident last year, and it is hoped that it will not be too long before he is actively caving again.....

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by Chris Harris



Since the Society's last Annual General Meeting in April this year there have been 14 Trips - 2 to Mole Creek 5 to June-Florentine and the rest to the Hastings area.

The clubs apparent enthusiasm for Hastings this year has paid off with the Trafalgar Pot- Erebus link up and the possibility of a link up with Newdegate. Overall 13 caves have been numbered, some trips combining surveying, numbering, and scrub-bashing. Following is a brief area summary.

MOLE CREEK

Exploration has been temporarily halted in Herberts Pot since the discovery of the "Paragon Vaults" extension by the high winter level of the creek, but at the time of writing a new assault is underway. The party plans to further the extension past the talus heap which halted the last team.

The last trip to the Mole Creek area saw a successful "rescue" operation in Khubla Khan involving an S.C.S. member. This "rescue" is described elsewhere in the magazine by one who perhaps is better qualified to judge the efficiency of the operation - the victim. John Morley proved his leadership qualities and the patient was resting safely in the Deloraine District Hospital only 8 hours after the accident occurred. This can be appreciated by those familiar with the torturous terrain offered by the stream passage in Khubla.

JUNEE - FLORENTINE.

Five trips have been to this area since the 1st of May when four caves were numbered (the holes found by D. Francombe and S.C.S. members in the area in February and March) Some scrubbing was also done and three small holes were found, one of these taking a small stream.

The following trip to the area was not until July when some fluoresceine proved a connection between a small swallet hole and the syphon in Welcome Stranger, a small amount of surveying was done and Welcome Stranger (J.F. 229) was numbered.

Later that month Steve Harris introduced a large number of novices to the joy of caving in Pygmy cave.

On July 24th five members carried out scrubbashing in the area above Chrisps road and J.F. 254 was descended to a point where a narrow rift is cho ked by rock debris, J.F. 25I normally impassable due to an active stream, on this occas ion was dry and was entered via a 25ft ladder pitch into a small bell shaped chamber with a gravel floor, a small crawl leads to a 15ft drop but this was left due to lack of time.

The most recent trip to date to this area was a small photo - graphic expedition to Welcome Stranger on July 31st.

HASTINGS (also see article next page.)

On 24th May following directions from Bob Geeves of Geeveston a party set off to scrubbash behind Wolfhole, nothing was found and the party got waterlogged in the process. On the same day other members explored and surveyed a new passage about 60ft long and containing some good orange formation in Newdegate cave, to get to this oassage (behind Christmas caves) a 15ft flowstone wall was scaled.

Seven bods including some visitors spent several hours in K. gV at the end of May, but the next non-touristing trip was in early June when six caves were numbered including some small pots explored and surveyed (H 20I, H 202)

On Sunday 26th June a party visited the area above Lyons Den and found a small hole in which the party spent the rest of the day digging, resulting in it being extended to the grand depth of 15ft. The cave was later named Padre Pot.

On Wednesday evening the 21st July three members descended Trafalgar Pot, discovering and exploring a 150ft extension linking the cave with Erebus (Waterloo Swallet), the party returned to Hobart at 4am just in time to get up for work.

A great deal of surveying has been done on the surface at Hasting with members devoting many weekends to the project of including all of the caves in a large map of the area.

The club has removed the wooden ladder from K.G. V after discussion with the caves guide in an effort to prevent further vandalism.

OTHER AREAS

In May four members visited Exit cave at Ida Bay camping two nights underground, four miles of cave were looked over and a talus section bashed, the members were very impressed with the cave and the sterling work being done by the T.C.C.

In the same month one of our members joined a T.C.C. party which investigated an interesting karst area on the west coast Surrounded by thick west coast scrub, this impressive karst area in the Nelson River Valley is 30 acres of Heavily fluted limestone bared of soiland vegetation on which are 25 dolines.

A labyrinth like cave was explored and there is a possibility of other caves in the area, further trogging is required!

HASTINGS RENAISSANCE

The last few months have seen a great revival of interest in the Hastings area, which despite having a reputation as being perhaps the most thoroughly trogged of Tasmania's cave areas has absorbed an unprecedented amount of members time.

To date this work has mainly been concerned with filling some of the gaps in our knowledge of the Newdegate Cave system.

Newdegate is a large cave containing at least a mile of passage over a linear distance of 2000ft. centred on Mystery Creek, an intermittent stream of unknown origins and destination which has the embarrassing habit of rapidly rising for no apparent reason. One main tributary enters at the downstream end from Hells $\frac{1}{2}$ Acre.

Initial interest in surface mapping the area increased when the close proximity of such pots as Waterloo Swallet and Trafalgar Pot to the far reaches of the Newdegate system was realised. Another point was that plotting of the survey indicated that the former lay within 60ft. of the theoretical position of the long lost (since 1948) Erebus. Clearly they must be one and the same. Although the description of Erebus seems based on an over active imagination, it is still a most interesting pot.

Interest increased still further in June at the "Overhead Waterfall", a small tributary entering through the ceiling at the junction of Hells $\frac{1}{2}$ Acre Ck. and Mystery Creek. Clambering up the muddy walls for 30 ft. a talus section was entered giving access to the stream above the waterfall. After a few yards the passage terminated at the base of a spectacular aven comparable to the famed avens of Exit Cave. The aven is smooth walled 20 ft. in diameter and 60 - 100ft. high. Some talus choked in one side may be climbable, but only for about 30ft. and it doesn't look very solid. This new find reduced the distance between the bottom of Erebus (Waterloo Swallet) and the top aven (assuming 100ft. high) from 300ft. to 170ft. horizontally and 160ft. to 40ft. vertically. Yet Erebus was not the cave we were interested in.

Obviously Erebus stream would seem to be the one feeding the waterfall, but its disappearance into impenetrable talus only 120ft. down the 200ft. deep cave seemed to remove much possibility of following it. It was Trafalgar Pot which held the interest. This is also a swallet, and had been descended to a terminal pool at a depth of 100ft. ~~several~~ years previously, from where there was one wet, cramped, improbable possibility. And so was born a theory that perhaps the Erebus water flowed to a lower level of Trafalgar and joined with that water to emerge at the waterfall.

We tested it only three days later, as ~~three~~ of us set off on a Wednesday night to see what we could do. Trafalgar turned out to be an interesting, easy and rather pleasant little pot, with a 15ft. drop, a beautiful 45ft. drop against a smooth wall and then free, (which could be avoided by chimneying down a side passage) a wide ledge and a 30ft. pitch to the sloping floor

SOUTHERN CAVER. (10) JULY 1971.

of an elongate chamber from which a couple of scrambles led to the bottom chamber. The pool was dry. Into low gravel floored crawl excitement mounted strong draught was felt. After a few yards the walls parted and the roof lifted as we entered a chamber 40ft. in diameter and perhaps 30ft. high. Ignoring a large passage entering from one side (later found to be blocked) we followed the draught to a 6"X 6" hole in a bank of gravel and talus at the foot of which the dry creek channel disappeared. A burst of frenzied activity and a few seconds later the bank was half demolished. Rocks thrown through seemed to indicate a fair drop, but after a ladder was rigged it was found to be only 12ft. but was not without excitement as everything was very loose and was falling in with very little encouragement needed. Beyond a stream could be heard!

A creek flowing in from the North West disappeared down into talus. A few yards of passage and a very high chamber was entered, most unexpectedly a few steps into this and the stream was found to be falling from the roof. Suddenly it was realised that far from being a new upper level of Newdegate, this was the base of the 120ft. entrance waterfall pitch of Erebus! A break through and link up, but a most unexpected one. The decision was whether to be pleased or dissatisfied.

However, this second look at Erebus did some good. Approached from a new angle the talus looks feasible for digging and the trip also jolted memory of a promising but difficult lead at the far end.

Surface surveying continued in later weeks, eventually to the swallet H 215. a spectacular collapse in the permian where Hells Half Acre Creek is now believed to originate. On 4th May 71, 1lb of fluorescein was injected into the swallet in an attempt to prove the connection but due to unexpected delays watch at Hells Half Acre was not commenced for five hours so the fluorescein may have beaten us.

An activated charcoal bag placed in Hot Spring Creek, the surface creek draining the South side of the divide in an attempt to locate any seepage resurgence of Mystery Creek (if the main test worked) proved negative.

However, surveying has proved the swallet to lie 3200ft. away and 700ft higher than the Hells Half Acre Creek / Mystery Creek junction, indicating an average gradient of approx 10° if the link exists, this would seem to fit as although Hells Half Acre has not been surveyed it certainly rises fairly steeply.. It extends a long way in under the permian and there would seem to be too much water for just general permian seepage. An alternative source may be Bell Chamber several hundred feet downhill from H215 and 1/4 mile to the East.

Such a large permian collapse as H2I5 is rather interesting as it would seem in excess of 300ft. of permian would need to collapse to form it. However, the disappearance of a small creek into a fissure in the permian at the head of Bell Chamber Valley several hundred feet above the unconformity may indicate the presence of a fault along the back of the hill which has provided a means of access for water to enlarge.

Thus it would seem that far from being a finished area the most interesting secrets of Hastings are only just emerging. Future work will be centred on pushing leads in Newdegate and Erebus, surveying Bell Chamber and surrounds, and water tracing for the swallets on the back of the hill. It is also quite possible that the King George V and Wolfhole systems to the South East are connected and it is proposed to survey these systems to find out how close they are !

Cave starved mainlanders may find it hard to believe that Tasmania would concern themselves with Hastings rather than some other sensational area such as Junee. But some would realise that the taste of success no matter how small the dose, is much sweeter when it has been necessary to really work, rather than just fall out of one new cave into the next with little effort involved. Hastings Lives!

.....Kevin Kiernan.

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SOCIETY WELCO MES YOUNGEST MEMBER

We are pleased to welcome to S.C.S. a new speleologist Aleksandrs Terauds Jnr., perhaps destined to be President one day. No doubt Aleks Snr. is counting the days when he can take him on his first caving trip.

Congratulations Aleks and Joan, but don't forget he is as yet unfinancial.

The 'occasion' was marked in fitting manner with an ALL night celebration given by the father.....

CAVE CONSERVATION AND TASMANIA

By S. Harris & K.W. Kiernan

Introduction:

Conservation is a subject which arouses much interest and argument in Australia today. The concept of conservation is fairly new realisation but we are approaching a situation where sufficient numbers of Australians are laying aside their characteristic apathy, and are taking an interest in their environment to the extent where pressure from conservationists is becoming a factor to be reckoned with in forcing the hand of governments and big business (e.g. Cooloola, Qld.)

The peculiar Tasmanian attitude must be understood before there is any hope of grasping the situation here as a whole. Australia has not yet realised fully the need for conservation, because the bitter truth has not yet sunk in as it has in many other countries. Tasmania has suffered the least of the states so far. With the island's much varied scenery on so compact a scale Tasmanians have tended to float along with an "all's right with the world" attitude that is the result of vision through rose coloured glasses.

The attitude of Tasmanians as a whole has been described as "provincial" and hardly in a kind or condoning sense either. It has been said that Tasmania does not have National Parks, but merely calls some areas such just for the effect. Both these statements are unjustifiable, to a certain extent, although the rather alarming element of truth cannot be denied. Unfortunately "The Great Australian Apathy" does not hold a candle to that present in Tasmania. However, there is an awakening occurring although this is coming slowly. It is being stimulated by what can only be described as conservation calamities which have occurred in Tasmania over recent years. Governmental insensitivity is largely responsible for this awakening and for example, in 1967 10,000 oil signatures appeared on a petition against the flooding of Lake Pedder which was presented in Parliament; a lot of signatures for a Tasmanian petition about anything, let alone such a touchy subject as conservation. Not even the presenting member would stand behind this document. Still, this is probably typical of any petition. However, the total ignoring of the wishes of so many people roused even people who had had little or no interest in conservation previously. Yet there is not an ardent conservationist in either house

Development, Exploitation, Industrialisation, Population, Progress.

The Tasmanian inferiority complex is as obvious in the over-exploitative nature, and "progress" before all attitude as it is in the newsman asking the esteemed visitor what he thinks of the state as he steps off the plane on arrival. The pride of Australians is their cities and industries. They hate the thought of overseas people looking upon this country as nought but miles of dirt tracks and sheep runs. Tasmanians suffer from a similar complex, only to a greater extent. As a result there exists the strange situation where we seem to think that New Yorkers want to see our sky-scrapers, despite the fact that they have far larger ones than we could ever hope to. We expect San Franciscans to be enthralled by our bridges, Londoners to be excited about our power stations. Tasmanians do not seem to realise that visitors prefer this state for its natural beauties and unique features, and these aspects are under-developed as a result.

The power of the word "exploitation" in Tasmania perhaps cannot be understood by anyone who has not seen it. The HEC for instance has incredible power. Some idea of this is given by the fact that the office of minister for HEC always falls to the Premier. On paper the state government is now, however, slowly awakening and taking steps towards improved conservation policies, but the dissapointing performances with tragic results in the past leaves persistant doubts in the minds of all Tasmanian conservationists.

But what has all this to do with cave conservation? Plenty! The same attitudes towards conservation are present whether the subject is caves, lakes, forests, mountains or any other preservable commodity. The number of caves, like the abundance of scenery leads to the illusion that we have plenty to spare. To a limited extent this is true, certainly the need to tenaciously fight for preservation of caves is not as acute as in, say, Queensland, but there is still a need to remain vigilant to unwarranted destruction of caves. Unfortunately apathy tends to exist even among cavers, and the short-sighted sort of attitude such as "but Maydena isnt finished yet, we dont need these other areas" is all too prevalent. As the old rule says, "As nature gets visually lovelier, mans habits grow visually viler." Very true if one thinks about it.

The situation is not yet all ^{that} serious in Tasmania, but it shows signs that it may well become so. It is hoped that this collection of papers will at least present a clear picture of the present situation, Give some insight into the background and a few possible future occurrences, and provide a starting point for future discussion, work and general argument.

HYDRO ELECTRIC POWER DEVELOPMENTS AND THE CONSERVATION OF TASMANIA

CAVES. Tasmania, known by many (Tasmanians at least) as the "Caving State of Australia" is faced with a number of very serious cave conservation problems. The most important aspect is the possible damage to caves environments by present and future works of the State Hydro Electric Commission. While it may not be vital to preserve every single cave in Tasmania (compared with other States there is a relative abundance of caves and fewer cavers) the magnitude of the possible destruction to cave environments is unnerving.

Under schemes which have been proposed or outlined in one form or another (many have yet to be subject to State Parliament for approval) hundreds of square miles of western and southwestern Tasmania are in danger of being flooded. The flooding of the Lorinna limestone area has been dealt with before in this publication.

In the South-west, the Middle Gordon area is at present being developed. This project includes the construction of dams at a number of localities to form a 200 square mile inland sea. The northern section of this lake, Lake Gordon, will inundate most of a sizeable deposit of limestone between the Gordon and Denison Valleys, plus a number of smaller outcrops. This southern section will flood the former Lake Pedder National Park. Caves in dolomite at Scott's Peak threatened to drain the lake and so were filled in. As for this scheme - access roads were completed and finance arranged even before Parliamentary approval was gained.

A new dam has been proposed for the Upper Gordon, threatening to inundate further tracts of limestone country in Rasselass Vale North of Adamsfield. A dam on the Lower Gordon, near Butlers Island would create a lake of similar dimensions to Lake Gordon, and would effectively destroy much of the huge Gordon-Franklin area, the State's largest limestone area, believed to extend almost continuously from the junction of the crossing and Davey rivers to the Franklin/Andrew rivers junction. Two dams may be built on the Franklin if this scheme does not eventuate and take care of that section of the outcrop.

Before mentioning some aspects of proposed schemes, it is apt at this point to impress the lack of knowledge of the areas concerned. Geological mapping of these areas is far from complete. The Mines Department has only done preliminary mapping which is very generalised and much has to be inferred. The H.E.C. has a small geological team working full-time in the areas in which it is interested ~~but~~ investigation is very slow because of the nature of the countryside. Indeed, it is the rugged terrain and inaccessibility of many of these areas which have prevented speleological investigation and also with the availability of many alternative areas of easy access to cavers they have remained the destination only of occasional Christmas, Easter, or long weekend expeditions.

The proposed Middle Gordon Scheme will create a lake with a surface area of 200 sq. mls. In response to rumours regarding a leakage through dolomite at Lake Edgar (near Scott's Peak) the H.E.C. have said: "Very detailed and thorough geological exploration, now completed has shown no possibility of a leakage path through the out cropping dolomite in the vicinity of the Scott's Peak Damsite. It has been established that leakage cannot occur past the Lake Edgar Dam".

The same problem is rumoured about the Olga Scheme and the H.E.C. has commented "The Olga damsite at present under investigation is situated on the Gordon River immediately downstream of the Smith River junction. Excavation for this dam would be in Silurian rocks which overlie the ordovician limestone and there would be no difficulties in the construction of the dam itself. However, with the presence of limestone discovered in the storage area and also in the Olga river valley, a leakage path through continuous limestone may exist but may be cut off by faulting or other structural possibilities. Present geological investigation is directed to this particular question. Because of the deep drilling involved this is necessarily a slow process".

An alternative of the Olga Scheme being investigated is the Lower Gordon-Davey River development. Preliminary indications are that limestone may not be a significant problem at this site. The ridge between the Olga and the Hardwood is also a possible source of leakage and may require detailed investigations. The area of the lake formed by this scheme would probably be about 57 sq. mls.

A development on the King and Andrew Rivers in the west is also a possibility - this would inundate much of the northern section of the Jukes-Darwin area, and may also affect the Nelson River caves as well.

The Pieman scheme may well flood the large horizontal caves reported to exist near the river junction at Mt. Mayday.
Southern Caver

The awakening to the ^{Realisation} that steps are needed to preserve the best of the natural world for the enjoyment of future generations is slow in coming. Tasmania is particularly unfortunate. Although we have in this state a high "conservation sensitivity" relative to population, there is also a very high "business investment" relative to population. Such industrial giants as Comalco Aluminium, the Electrolytic Zinc Company, Cadbury Fry-Pascal, and Australian Pulp and Paper Manufacturers are the main clients of the Hydro Electric Commission.

The Australian conservation Foundation state that "Tasmania is the most fortunate of all states in terms of water resources, and much of it's industry depends on the availability of cheap hydro-electric power" but the Foundation believes that the high country of south-eastern Australia is of such national importance for water-production, recreation, and scientific study that it is essential, priority should be given to these uses and to the conservation of the resources on which they depend.

LIMESTONE MINING

Limestone mining has not yet proved a major problem to cave conservation in Tasmania. Certainly caves have been and are being destroyed in numbers perhaps similar to mainland, maybe even more, but because of the relative abundance of caves the need to preserve all caves is perhaps not as great as on the mainland, with the exception of systems of major scientific interest etc. No major system has yet been violated and at present the threat of quarrying is not overly severe.

Quite a lot of limestone has been quarried from Tasmania to date. Total to 1967 amounted to 10,850,115 tons valued at \$15,921,508. Most of this has come from areas where there are immense reserves of limestone but few if any caves.

JUNEE AREA

Australian Newsprint Mills Ltd. operate a quarry some distance behind Junee Cave in the Maydena area. The average output is 5,000 tons p.a. Limestone production commenced in 1953, some being sold to the Electrolytic Zinc Co. for use in metalurgical processes in its Risdon works. For its own use A.N.M. crushes the limestone at Maydena for use on its logging roads as road metal. Most of the limestone however is transported to Boyer paper mill where it is burnt in a kiln, slaked and treated with chlorine to form calcium-hypochlorite for use as a bleach. Part of the fines from the kiln are sold locally for agricultural lime, and some burnt lime is sold to a lime-spray manufacturer.

Although in an area where most extensive caves are possible there is as yet no evidence of damage being done to any cave. The nearest yet known is J.F.1, approximately a quarter of a mile distant, but the general area has not been thoroughly explored by cavers.

IDA BAY

Quarrying has been conducted in this area for many years by the Australian Commonwealth Carbide Co. Ltd. for manufacture of calcium carbide in their works at Electrona. Production in 1967 amounted to 16,239 tons, but slightly more has been quarried in the past. The company Southern Caver

sells almost 900 tons p.a. of fines or quick lime for agricultural purposes and previously some fines to the zinc works. A.C.C.M. apparently may close down. A number of seemingly deep pots near the quarry have been made unstable by the blasting. A number of small caves have been opened by the quarry, one of these a pot with an entrance pitch of 60 ft. to a point where it briefly became too narrow, but appeared to continue for a long way down.

FLOWERY GULLY

Australian Pulp and Paper Mills Ltd. produce almost 9,000 tons of limestone from this area annually for use in the manufacture of bleach liquor. The area is also at present the states largest producer of agricultural lime, with 3,088 tons of limestone quarried for this purpose in 1967. A number of smaller quarries exist in this area for agricultural purposes. Conalco Ltd. quarry considerable quantities from this area each year for use in metallurgical processes at their Bell Bay aluminium smelter.

Many caves have been opened and destroyed by quarrying in this area. None have been particularly large but have contained very nice decoration. Flowery Gully Cave (Winkliegh Cave) has been known since early this century. It is a well decorated medium sized system, but the entrance has been blocked by quarrying operations. Vanishing Cave is beautifully decorated but it has been partly quarried away.

RAILTON

Large quantities of limestone are quarried from this area each year for use in cement manufacturing by the Goliath Portland Cement Co. Production in 1967 amounted to 253,611 tons. In addition, large quantities have been and are being quarried from this area for use in the manufacture of agricultural lime.

Some small caves have been encountered in the quarries but none have extended far. The limestone outdrops only in the plains area close to the local base level and no significant caves have been recorded from this area.

SMITHTON

Considerable quantities of limestone and dolomite are quarried from this general area for use in the production of agricultural lime. The Electrolytic Zinc Co. consumes app. 1,000 tons annually for use at their Risdon works.

Caves are not a major feature of this area. However a cave opened in a dolomite quarry on the Scotchtown Rd. proved of interest due to a fill containing numerous bones.

QUEENSTOWN

App. 10,000 tons of limestone were quarried from this area each year by the Mr Lyell Mining and Railway Co. for use in copper smelting, but production has now ceased.

Some small caves were occasionally encountered in the quarries but none extended very far. No other caves are known in the area.

MELROSE-PALCOONA

Great amounts of limestone were previously quarried from this area but production has now slackened off somewhat. In 1939 Broken Hill Pty. Ltd. quarried 300,000 tons of limestone for use as a flux in iron smelting. Production ceased in 1946. The Melrose Agricultural Lime Works quarries large quantities of limestone for agricultural purposes. Many other smaller quarries operate in the area for agricultural purposes.

Few caves are known in this area and none are apparently threatened. The geologically important Eugemma Beds, Devonian Cave fill, were discovered as a result of quarrying activity. Small caves have been entered due to quarrying, but apparently nothing of significance has come to light.

Quarrying has been occurring in the above areas for a considerable time. In other areas exploration licences have been granted, but no new quarries have yet been opened. Other areas where quarries are at present operating, are also covered by other exploration licences. Leased areas include Ida Bay, Mt. Ronald Cross, Jukes-Darwin, Bubbs Hill, Hastings and numerous areas in the far N.W. Not all of these leases may be for limestone.

Large scale limestone quarrying will commence in the Mole Creek area in the not too far distant future. Immense reserves of limestone exist, and the area is well served by railway.

The first major lease of concern to cavers was applied for in 1968. This was not granted until consultation between officials of the Mines Department and S.C.S. members. Only a part of the applied for area was granted by the Department "to protect the legitimate interests of both the caving clubs and the tourist industry." The terms of the licence further stated that if exploration could not be carried out without damage to caves it could be revoked. It is hoped that this is enforced, and that this action provides a precedent for the future.

Many other leases exist around the state and many other quarries are in operation. Only those of concern to cavers have been discussed. There does seem to be a definite threat, but with Tasmania's speleologists acting as careful watchdogs satisfactory conservation should be practicable.

PROTECTION OF INDIVIDUAL CAVES AND CAVE

ENVIRONMENTS.

At the present time a number of categories of reserves exist around the state which directly or indirectly, deliberately or accidentally, afford protection to caves or features of speleological interest. These reserves, of five types, are listed here-under.

CAVE RESERVES

These appear to have been declared on two lines:

- (1) Instant declaration following the earliest cave discoveries in the state;
- (2) Automatic and immediate protection for tourist caves.

There is one main problem with the present set-up as regards Tasmania's caves reserves. In deciding the boundaries of the reserves, in some cases little attention has been paid to the direction and extent of the caves they are declared to protect. Some reserves are illogically placed, protecting only the entrance, and leaving the bulk of the cave unprotected, often in favour of including in the reserve another cave entrance or a surface scenic feature. There is no attempt to bring them up to date with more recent discoveries.

There are eight cave reserves in the state at the present time, providing varying degrees of protection, and in most cases only for individual caves. It is significant that no complete and sizeable karst area is protected anywhere in the state.

(1) IDA BAY (Mystery Creek cave) (40 acres)

This reserve protects the entrance to Mystery Ck. Cave (Entrance Cave) and appears to have been declared in the "historical enthusiasm" manner. A poorly placed reserve, it is just a square of protection with the cave entrance in the middle. A considerable portion of the cave extends outside the reserve boundary, but fortunately the risk of damage to this is not too great, as the hill rises steeply, placing the cave over 600 ft. underground. Australia's fourth deepest cave, Midnight Hole, is part of this system, but unprotected. It is also noteworthy that Exit Cave, Australia's longest and third deepest cave is in this area, but unprotected.

(2) HASTINGS (131 acres)

This reserve has been stretched to include the entrance of Newgate Cave (a tourist cave) and King George V Cave, but leaves much of the former and perhaps some of the latter unprotected, whilst preserving a vast area between which contains only a few small insignificant holes. With a little care some most significant caves could be included which are at present not protected. This would require modification, not enlargement of the reserve.

(3) JUNEE-FLORENTINE (Junee Cave) (40 acres)

Whether this cave reserve was declared as a result of "historical enthusiasm", or a genuine realisation of the caves significance is open to conjecture. However as it stands the known cave is well protected, and at present enlargement of the reserve appears unjustifiable. If however, the swallets of the system (eg. JF4-5) can be penetrated a long way towards the rising, this could prove a great opportunity to preserve a major system in its Southern Caver

entirety, as most of the area is still crown land.

(4) GUNNS PLAINS (Gunns Plains Cave) (20 acres)

This reserve appears inadequate to protect the small privately owned tourist cave in this area.

(5) MOLE CREEK

(a) Baldocks Cave (105 acres)

The reserve protecting this former tourist cave appears adequate.

(b) King Solomons Cave (500 acres)

A most satisfactory reserve protects this small tourist cave.

(c) Maracoopa Cave (146 acres)

This reserve is rather too small to protect this extensive system adequately. Part of the main cave, and also the swallets to the system are left unprotected. This is a tourist cave.

COASTAL RESERVES

These exist to protect coastal scenery in various parts of the state. Only two are significant in cave protection. Their usefulness is limited by their size, often only being 100 ft. wide.

(1) LOWER GORDON

Several small limestone caves are protected in this area. These are located in cliffs bordering the river (Gordon River) and more are likely to exist in this promising area, which is virtually unexplored.

(2) TASMAN PENINSULA

Numerous sea caves, natural arches etc. (not in limestone) are a tourist attraction in this area. eg. Remarkable Cave - Brown Mt. Reserve (140 acres)

ROADSIDE RESERVES

Once again these are very limited in extent, but one does protect part of a dolomite outcrop, and a few very small holes therein at Davis Ck. on the side of Mt. Arrowsmith, this being one edge of the Mt. Ronald Cross caving area. This reserve of 18000 acres protects much of the roadside on the Lyell H highway between Derwent Bridge and Queenstown.

CROWN LAND RESERVES

A reserve of this type protects 225 acres of dolomite country near Trowutta. A spectacular natural arch and doline lake in this reserve are tourist attractions, but very insignificant little pots are the only other signs of cave development in this area. The doline lake, when the level is low enough is reputed to provide access into a cave of some sort, but little is known of it.

NATIONAL GEOLOGICAL MONUMENTS.

One such reserve exists at Eugennanna to protect the Eugennanna Beds - terrestrial cavern fill which was of major importance in dating major orogenic events in Tasmanias past. The only known cave in this area, Sherrills Cave, is not in the reserve.

NATIONAL PARKS

At present these are the most significant areas of cave conservation in Tasmania, although it is doubtful if consideration of caves is at all responsible for location of their boundaries. (with the exception of the Rocky Cape Park)

(1) ROCKY CAPE (4000 acres)

This park has been declared to protect abandoned sea caves which are of considerable anthropological interest due to former residence in them by Tasmanian Aborigines. Artifacts and paintings may be found therein.

(2) PIEMAN RIVER

No caves are as yet known in this area, which has never been visited by cavers, but outcrops of limestone and dolomite apparently occur there. The park has already been violated by pollution from the Savage River mines, and the nearby limestone may be flooded by the HEC.

(3) MT. FIELD (40,058 acres)

This park is a very important one as regards cave conservation in Tasmania. It once also protected the Florentine Valley, and caves such as Welcone Stranger and Tassy Pot, but this part of the reserve was revoked by the state government in the 1950s to allow exploitation of timber reserves. Now the only areas of speleological interest protected are high in the Eastern flanks of the Florentine Valley (eg. Growling Swallet). Most of the significant caves of the Junee area are protected, the Chrisps Rd. area being the main exception. However the main cave protection in this area is the thick scrub, and the limited access to the ANM logging roads.

(4) SOUTHWEST (473,500 acres)

This recently declared park, Tasmania's largest, could prove to be as important as Mt. Field Park for cave conservation. However the HEC is active within the park almost half of which will soon be under water. (This park was declared to simmer down the anti flood Lake Pedderists - swapping an area of lakes for a bigger area of mountains.) Caves in dolomite at Lake Edgar near the Scotts Peak damsite, have apparently been causing great concern, but the problem has now apparently been solved by liberal use of cement and gelignite and ^{Ed}water shifting the damsite. These caves have never been visited by cavers.

This park is the only reservation of complete limestone areas in Tasmania. A number of small uninvestigated outcrops occur all over this park, and also within it lies a small part of the Mt. Ann area. The latter appears quite promising, though perhaps not quite as originally thought.

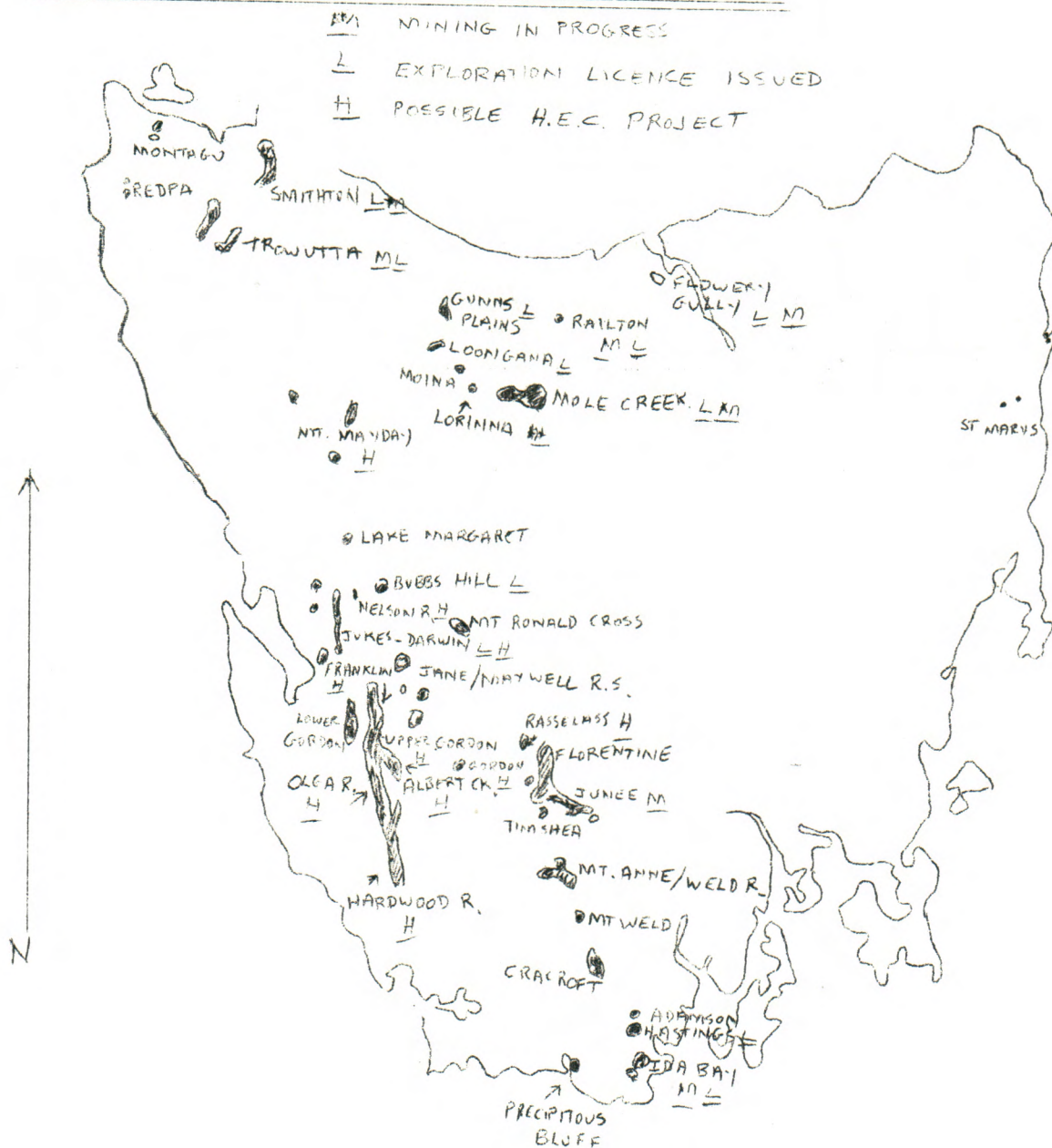
The south Cracroft River area is also almost within this park. In this area is Judds Cavern a cave half a mile long. The area has great potential. As yet there has been barely any cave exploration in the Southwest Park.

Theoretically these reserves sound excellent, but past experience of the state governments habit of "undeclaring" reserves when convenient to them
a "big money" company has not been encouraging.

The State Government delights in saying that Tasmania has a greater percentage of its area as parks than any other state. However while this sounds all very nice it means little - anyone with any knowledge of Tasmania knows that no Tasmanian reserve has ever withstood a conservation battle of any significance. When the people of Tasmania tried to prevent the government
Southern Caver

from un-declaring the Lake Pedder National Park they succeeded. But only because the government just let the H.E.C. go along with its plans irrespective of the fact that the place was a reserve. Such is typical.

TASMANIA'S THREATENED CAVE AREAS



KK 21/9/71

DISCUSSION

Although some areas appear well protected by reserves, just how safe they are is open to speculation. Tasmania's past experiences in conservation have not been very encouraging. A few examples will suffice: in the 1950's timber interests managed to persuade the state government to revoke part of the Mt. Field National Park: in 1967 the H.E.C. released its plans for the S.W. area at Lake Pedder. The result was that the entire Lake Pedder National Park was ignored, a power scheme in the Cradle Mt. / Lake St. Clair National Park resulted in the flooding of a sizeable area within the reserve.

Repeatedly, the H.E.C. mining and timber interests have found reserves no bar to their progress, and all categories of reserves declared to "protect for posterity" have proved violatable, remaining good only as long as no means of commercial exploitation appears--the minute it does the reserve either shrinks or disappears altogether. The fact that no caves reserve has yet been violated is perhaps indicative that no means of exploitation other than tourism has yet been found. The poor placement of some cave reserves has left projection well outside the reserve.

It may be worth considering the possibility of reserving areas from shock-producing activity. Such a reserve would apply where total reservation is impossible, such as private land, and would allow the owner to develop pasture for instance, while still protecting the caves. This would be especially suitable for areas such as the Mole Creek system. It would at least prevent quarrying activity, if not the ravages of artificial lakes.

Mining has not yet become a problem in Tasmania, and although some quarrying does occur, it does not appear to be immediately endangering any major systems. If quarrying is to commence in an area it appears the most advantageous course is to co-operate with the company concerned. After all they don't particularly want to quarry air, and will probably avoid areas of major cave development if these are pointed out to them. It is difficult to envisage a situation similar to that at Colong or Mt. Etna developing, as Tasmania is rather rich in deposits of high grade limestone.

Gating has been done of some caves, but this system, while admirably protecting the cave against the depredations of "civilians," does not prevent official vandalism. For example, Croesus Cave was gated by the Scenery Preservation Board, but this did not stop the H.E.C. building a road almost right over the top of it. In this case the cave itself was not noticeable damaged, but the possible consequences are worth bearing in mind. Unfortunately, gating is not suitable for all caves eg. those with large or many entrances (eg. Kubla Kahn.). It is expensive. In many cases gates advertise the entrance, and what better than the sight of a gate to inspire the idiot? What right have we as a group of individuals to bar access to others? Gating mars the beauty of the entrance, although this is perhaps a minor consideration.

The matter of "civilians" needs serious consideration. Although the society is in no position to prevent these persons caving it is of course, discouraged. This problem is threatening to become quite severe in Tasmania, where the lack of cavers and supply of caves is quite a good incentive to gather up a group of friends and go caving. Furthermore, such a group may do so in this state, and no-one is the wiser.

Thus it has been possible for groups in the N.W. to form and cave for many months before being discovered. Perhaps the best method of discouraging such a group is to refrain from divulging information to them until they have proved to be seriously interested in speleology and conservation.

As far as possible information concerning cave locations is restricted. The entrance itself is left unadvertised, although this is not quite so easy since the advent of cave numbering. Access tracks to some caves are left indefinite. Actual concealment of entrances has probably not been used but may be of value. The scouting movement is a problem here as on the mainland. Names of individuals troops etc. are often found emblazoned on walls - many of these are Rovers, supposedly the most mature and sensible of scouts. Despite claiming an interest in conservation such acts can only be described as blatant vandalism, and place the whole movement in a bad light. However, recently the situation seems to have improved somewhat, and at least one troop has approached the society to request instruction in caving techniques. On the mainland the scouting movement itself has recognised its problem, and at the 7th A.S.F. conference gave a paper in which assistance was requested. If speleo societies would follow the lead of the S.S.S. and the request from the scouts many of these problems and misunderstanding could probably be solved. S.S.S. gained good results when they prepared a list of caves and areas where further damage was likely to be either unlikely or insignificant, and forwarded same to the scouting movement. The result was that the Scouting News published the list and a recommendation that troops restrict their activities to the areas listed. This could be a major step in the right direction towards solving this problem. It may seem hard to condemn any cave in this manner but surely caves which are already in a bad way would be better disclosed to try to take some of the strain off the better systems such as Kubla Khan and Croesus.

The problem of the H.E.C. seems insurmountable. Nothing has ever stopped this concern. All that can be done is to try to learn as much about the areas affected by them before they are flooded as possible.

Finally, genuine cavers must take stock. Some damage done by them is unavoidable but some is just carelessness. It seems a highly dubious practice to take inexperienced persons into caves as Kubla Khan, which are easily damaged. Damage done by such a party is the fault of the party leader, not the new-chuns who are naturally more concerned with their own well-being than that of the cave, and are not used to the extra 2 or 3 inches height added by their helmet. Kubla is a climax, not an introduction.

Obviously, we can not expect to preserve all of our caves, nor is it justified. However, there are obvious reasons for preserving caves which it should not be necessary to reproduce here. Such things as conservation of water supply, and preservation of places of scientific, recreational, tourist and other interests are sufficient justification. What we must do is gain a realisation of their values in this direction, arrange our priorities and strive to protection, while realistically accepting that some must go.

The time for burying our heads in the sand and pretending these problems either don't exist or will go away has passed (if it ever existed). It is hoped that this article has at least provided a starting point for this very difficult problem, and provided a clear picture of the present state of affairs in Tasmania.

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Others less significant and too numerous to list.

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# ERRATUM

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Forestry Reserves

1. Junee- Florentine

Junee cave. Although shown on Lands Dept. maps as a Caves reserve, the 40 acre reserve in this area is gazetted as a forestry reserve. This information has come to light since the writing of this article dealing with National Parks and reserves.

2. Ida Bay

Exit cave. A forestry reserve surrounds the entrance of Exit Cave.

Although these reserves would seem to be of little value in cave protection, it is significant that they have at least provided an argument for the old Scenery Preservation Board to decline having Exit Cave reserved on the grounds that a "reserve" already exists. The new National Parks & Wildlife Authority may take the same attitude.

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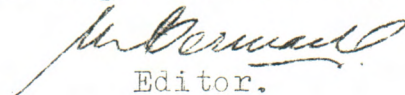


WE regret that owing to printing difficulties and pressures of business commitments, this issue of 'SOUTHERN CAVER' has made a late appearance.

It is pleasing to us to note from correspondence received that our magazine has been missed.

To all who have waited patiently, and a few impatiently, we apologise for our lateness in going to press and anticipate that the next issue will be on schedule.

The Magazine Committee.

  
Editor.



