

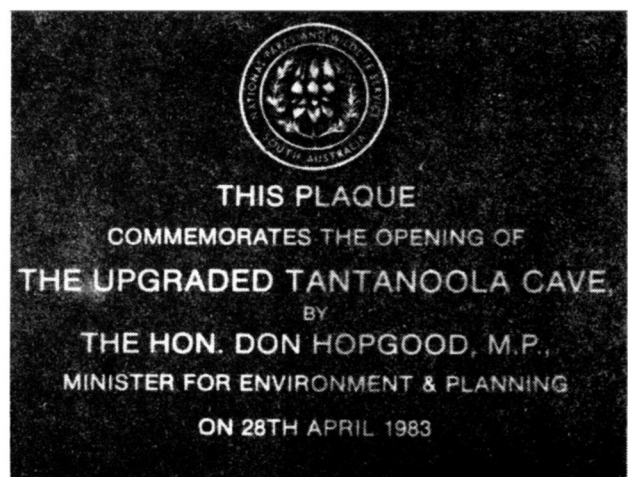
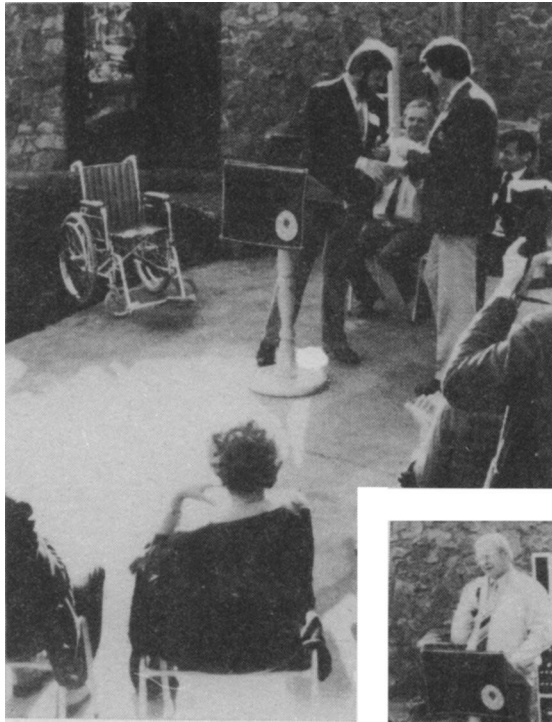
CAVE EXPLORATION GROUP SOUTH AUSTRALIA Inc.

c/o South Australian Museum, North Terrace, Adelaide

VOLUME NO: 28, No: 1 MAY 1983



NEWSLETTER



CAVE EXPLORATION GROUP SOUTH AUSTRALIA Inc.

MEETING TIME: 4th Wednesday of each month at 7.45 p.m.
PLACE: Museum Lecture Room at rear of Museum.

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POSTAL ADDRESS: Cave Exploration Group of S.A. Inc.,
C/- The S.A. Museum,
North Terrace,
ADELAIDE. S.A. 5000

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Cover Photo

Various Scenes from the Opening Ceremony of Tantanoola Tourist Cave.

Apology

*CEGSA apologises to Mr. Noel Speechley for any
embarrassment or inconvenience caused by the
publication in the last Newsletter of an article on
photographing bats in Bat Cave, Naracoorte*

Registered by Australia Post, Publication No: 5 BH 1658

Opinions expressed in this Newsletter are those of the individual authors and not necessarily
those of the Cave Exploration Group of South Australia Inc. or its Committee.

*Below is a copy of David Bellamy's letter of support to the
Tasmanian Wilderness Society after leaving the blockade early in 1983.*

*This letter is significant in the light of the threat the dam poses to
karst in the lower Franklyn region.*

" I am writing this letter as I leave Tasmania in high spirits and yet with a heavy heart. The Gordon Below Franklyn Dam has brought to the attention of the world the issue of UNESCO's Heritage Site Register and the fact that the whole cross-section of Australian society is willing to camp out in the rain soaked forest and as the need arises break the law and go to prison for their beliefs. I was proud to join them and share in their endeavour. The fact that I was granted an entry visa after stating in the press that during my visit I intended to break the law, the fact that I haven't been deported despite the many requests for that to happen made by a member of the Tasmanian Cabinet show that I am a visitor in a democratic civilized country the majority of members of which know that in this case the conservationists are right. This is reinforced by the Mr. Malcolm Fraser's offer of 500 million plus dollars to find an alternative thus saving Tasmania's last wild river, and the decision of the opposition party to fight the next election on the grounds of this issue.

I am elated Dr. Bob Brown member of the Tasmanian Parliament and his Wilderness Society have been shown to be right. My journey, halfway around the world which though by invitation was entirely at my own expense was not wasted.

My heart is heavy for the following reasons:

- 1) I have through my presence and thanks to the media rubbed Australia's reputation as a democratic civilized nation well and truly in the international dirt. For this I apologise with all sincerity to all thinking Australians.
- 2) If Mr. Fraser's half-billion dollar offer and Premier Grey's refusal is no more than a pre-planned political manoeuvre their charade is causing irrevocable damage to a world heritage site. I would remind both of them and especially the former (while commenting upon his fine record in conservational matters to date) that while they vacillate for power large tracts of wilderness are being destroyed. The hydroelectric commission have escalated their work many fold. New helicopter pads pockmark the hilltops, a new camp and road is being constructed regardless of ancient trees and unique river terraces and the litter of twentieth century shame, cigarette butts, packets, beer and coke cans, and oil slicks are defacing the area. Please put a stop to this desecration while there is still time, if you don't you can never again use your strong voice in the cause of civilization.

You are allowing all this destruction for a mere 180 megawatts and 1,200 short term jobs at the cost of a billion borrowed dollars. Detailed studies have shown that by using normal energy conservation principals now being implemented as a matter of great urgency across the rest of the temperate world that amount of energy and much more could be saved. There is therefore no need for this particular dam. What is more such a programme of conservation together with co-generation of electricity using the immense waste from the local wood chip industry would create many new jobs in what are known across the world as the "sunrise sector". If the argument then still goes that Tasmania needs more energy, more construction jobs and that the stockholders of Gibrath Cement who will provide the fabric of the dam must be appeased then the H.E.C. could immediately start construction of another dam. It is common knowledge that there are many of them already far advanced in the planning pipeline. Please stop this destruction within the world heritage site and if you must turn your attention and your borrowed dollars to one of your sites in a less damaging area.

Tasmania, you can both have your cake and eat it too. You can have your 180 megawatts purely by widening your energy options by planning for the future not just for your present. At the same time you can retain the world's admiration and your world heritage site, a proud boost for any country and a tourist resource without equal. If you move out now the Tasmanian Wilderness Society is there ready to clean up any mess, replant the cleared areas and help plan and develop your tourist potential.

I have walked in your forest, I have seen conservationists and policeman alike openly cry as ancient trees crashed to the ground. I have seen brave Australians stand firm in their beliefs in front of bulldozers, charging boats and chainsaws and willingly break the law for the first time in their lives and face the consequences.

This is the real fibre of which Australia is made and therein lies your future. A future steeped in history which predate by thousands of years the time when the first settlers brought alien plants and animals to make the wilderness seem more like home. A heritage older than the oldest Huon Pine. I stood before one such tree not far removed from the presence of two bulldozers, its girth could only be spanned by three people joining hands. There are others much larger deeper in the forests which could be flooded. How old are they? We do not know but by comparison with girth of those already scientifically dated they could be in excess of 4,000 years. The world could be witnessing the destruction of the oldest living thing on earth, the very roots of their living heritage no less.

What is the world going to do to stop this ultimate folly, does the UNESCO agreement have any teeth if so now is the time to use them.

I'm leaving Tasmania. I wish you all the best, GOOD LUCK would be an inappropriate word.-

DAVID BELLAMY

NOMINATIONS FOR HONORARY LIFE MEMBERSHIP

*In recognition of long and valued service to CEGSA,
the Committee has nominated Kevin Robert Mott and
Graham Pilkington for election to
Honorary Life Membership, and gives notice that voting
in that election will take place at the June General
Meeting.*

Letters to the Editor

Dear Sir,

The recent debate about photography in Bat Cave highlights a major problem that exists in undertaking work in reserves under the control of the National Parks and Wildlife Service.

The scientific permit system as it now operates is inadequate. It is not flexible enough to allow a wide variety of uses. Much of the work done on reserves is not strictly of a scientific nature. Cave surveying is not a scientific study although the results obtained may be useful in later scientific studies. Many other pursuits (including photography) fall into this category. When filling an application form for a permit the majority of questions cannot be answered or do not apply.

Scientific permits should be only one type of permit available to users of reserves under National Parks control. Those wishing to cave, hike, climb etc. in reserves should be issued suitable categories of permit for their activity depending upon experience and qualification. Other more specific pursuits such as photography, surveying and conservation projects can have their own type of permit.

KEVIN MOTT.
President.

Dear Sir,

This letter is in response to Gordon Peterson's Rivetts Reward Column in Vol. 27 No: 4 CEGSA Newsletter. Although this response is in the main directed towards defending Noel Speechley's photographic activities in Bat Cave Naracoorte, it does pertain to the broader question of human disturbance of bat colonies.

There are many species of insectivorous bats in Australia which use caves as roosting sites. Most species have been poorly studied and although we can make some general statements and assumptions about them, not a lot is really known of their specific habitat requirements, life cycles and reproduction, food requirements, and their place in the ecosystem. The last few years has seen a considerable increase in the research into bat taxonomy and ecology, and as a result a small number of species have been looked at in some detail.

Recently, the World Wildlife Foundation funded a 12 month study on rare Australian bats. An example from that study and my own experience is the Orange Horseshoe Bat (*Rhinonycteris Aurantius*) This is a small and particularly fragile bat, its roosting requirements of humidity and temperature are very defined - it is an animal that is easily stressed and will last only a few hours in captivity. Disturbance of a colony of this species that drove bats from the cave to the dry exterior would be devastating. Most species are considerably harder than the above, but the example serves to illustrate some of the factors that should be weighed up in our use of bat caves. The following is a general guide for the protection of bat caves.

SPECIES:	1) Rare or endangered species should be given maximum protection from disturbance. 2) Less tolerant or fragile species protected.
SEASON:	1) Colonies in breeding condition or with young should be left alone. 2) During colder months, bats may be in semi hibernation - disturbance at this time may arouse bats and possibly use up critical energy reserves.
CAVE SIGNIFICANCE:	Coupled with the above - i.e. maternity caves, wintering caves.
ROOSTING SITE WITHIN THE CAVE:	In caves which are small, it may be impossible to enter without disturbing a colony - the danger here is if the disturbance causes them to flee from the cave - bats are easy victims for birds of prey during daylight hours.
COLONY SIZE:	It is possible that some populations require a minimum thresh-hold number for its survival - such populations could be marginal as a result of agricultural development or drought conditions etc. further disturbance may tip the balance to destruction.

I guess "disturbance" in the above context ranges from a "one off" visit to whatever, but generally I had in mind continued use throughout the year by cavers for the usual sorts of trips. Clearly, some of the above will not be known with certainty without far more research - perhaps its better to err on the conservative side.

The Bent Winged Bats in Bat Cave at Naracoorte are one of the most studied in Australia. We know that the cave is a maternity site and probably is crucial for the survival of that species. (Recent taxonomic review supports the view that the Naracoorte Bent Wing is a different species from other Australian Bent Wings.)

We know something of the breeding cycle and the movement of Bent Wings throughout the year. In 1969 the S.A. Government declared the cave as a restricted area, open only to approved scientific research. I personally believe this restriction is extreme in the sense, that evidence shows that the colony can tolerate some degree of disturbance, Bat Cave was mined for guano for 10 years around 1890 without extermination of the colony. Nonetheless the restriction has protected the colony and it remains a healthy one in terms of numbers in the face of other colonies in the Eastern States which have declined (E. Hamilton-Smith - Speleovision). I would certainly support continued restriction of entry but possibly with more relaxed conditions at certain times of the year.

Further, I'm certain that the occasional use of flashguns has little effect on the emerging bats from Bat Cave. I'm a little annoyed that Gordon used my comments quite out of context with which they were made. In particular it was remiss of him to leave out that I said that Noel would be best person to judge the effects of flashguns as he is probably one of the most experienced photographers in the bat field.

On Noel's behalf, I should point out that Noel did take the trouble after hearing of Gordon's concern about his forthcoming photographic trip, to seek advice from the Department of Environment and Elery Hamilton-Smith (perhaps the most knowledgeable person on the Naracoorte colony). Both these agencies approved of his undertakings, particularly as it was at a good time of the season and he was operating well away from the main maternity chamber.

It is my opinion that Noel Speechley is a fine photographer with a genuine concern for the welfare and expansion of our knowledge of bats. Many of his photographs have been used for the Australian Mammal Index and will be appearing in the forthcoming publication edited by Ron Strahan. Photographs of this quality take long hours and considerable expense to obtain. Noel has been generous in supplying slides for batto's all over Australia for use as aids in lecturing and the study of flight mechanisms. He has a photograph of a Bent Wing Bat in David Attenborough's book Discovery - Life on Earth. He is a perfectionist and chases that 'flukey' shot but at least they will be used for education purposes etc., not just filed away in a personal collection.

It is an awkward situation - I believe both Gordon and Noel have genuine concerns about the bats at Bat Cave - nonetheless I object to Gordon using the Newsletter to discredit Noel, particularly as he was aware of the Department of Environment's and Elery's sanctions, before submitting the article.

TERRY REARDON

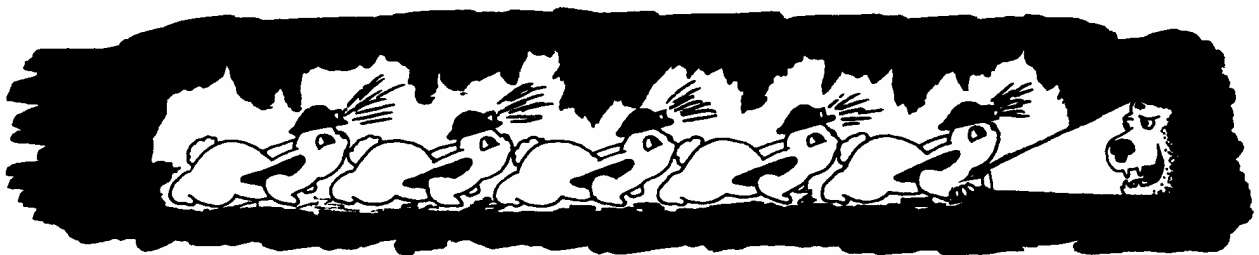
*** If any one is interested in further literature on Bats - yell out!

Dear Sir,

I am writing to register my concern about Gordon Peterson's article in the last issue under the heading of "The Stirrer's Spoon". This article should have been a "Letter to the Editor", as his arguments against Noel Speechley in no way reflect the attitude of CEGSA.

Noel Speechley is a personal friend. He is an excellent photographer with high ethics and concern for the bats he photographs.

MEREDITH REARDON



Five little Cegsa bunnies who loved to explore;
Found a monster in his lair then there were four.

The following poem is an excerpt from an old Tasmanian Caving Club newsletter, "Speleo Spiel". Publication date is not known, but it refers to an old CEGSA trip. Anyone who knows of the trip or the people on it please contact the Editor.

Hast ever heard of the CEGSA boys that hail from Adelaide,
The cave-surveying CEGSA boys that don't drink lemonade?
We never saw but six of them and so we thought it best
To speculate about the fate that overtook the rest.

Ten little CEGSA boys wandering in a mine;
The roof fell in on top of one and then there were nine.

Nine little CEGSA boys travelling interstate;
One stayed in Adelaide and then there were eight.

Eight little CEGSA boys leaving at eleven;
One turned up at a quarter past and then there were seven.

Seven little CEGSA boys up to all tricks;
One succumbed to mal-de-mer and then there were six.

The CEGSA boys that got here, the keenest caving crew,
Were voluntary insomniacs, they had so much to do.
They all maintained a crackling pace and wouldn't take a spell,
But nonetheless we must confess that one by one they fell.

Six little CEGSA boys in Hobart did arrive;
One couldn't stay for caving and then there were five.

Five little CEGSA boys, caving more and more;
One didn't care for it and then there were four.

Four little CEGSA boys out upon the spree;
One demolished all the rum and then there were three.

Three little CEGSA boys, a good surveying crew;
One slithered down a shaft and then there were two.

Perhaps of all the CEGSA boys, as each one has to go,
You wonder who is who, so this we think you ought to know
The names of all the characters this chronicle's about
Can be inferred from what you've heard if you can work it out.

Two little CEGSA boys, far from light of sun;
One ran out of flash bulbs and then there was one.

One little CEGSA boy, when survey work was done,
Went to look for fluorescein, and then there were none.

And so these dire calamities befell the CEGSA men -
But never fear, for right next year they're coming back again.

Trip Reports

PRE CONFERENCE TRIP DECEMBER 1982

FLINDERS RANGES

A brief 2 days was spent in the southern region to Yourambulla Caves - rock shelters holding Aboriginal cave paintings maintained by the Aboriginal Heritage Commission. One of the signs must be replaced as it is badly corroded and unreadable. The sites we visited, not on the tourist trail, have fascinating rock shelters with spectacular views of the surrounding plains.

Mt. Remarkable Blowhole was visited and ladders were used on the descent and ascent to avoid using multiple rope protectors and allow more people to go down. The water level has dropped - as is noticeable in all caves going down to the water table at present.

Those attending:

Phil Jackson (Tas.), John McCormack, Bernie Maegraith, Judy Whitehead, Dave Williams, Martyn Carnes, Terry Reardon, Ian Goldfinch, Meredith Reardon.

MEREDITH REARDON

POST CONFERENCE TRIP TO KANGAROO ISLAND

Those attending:

Western Australia:	Noel and Robert Poulter;
Tasmania:	Steve Harris;
New South Wales:	Judith Bateman, Terry O'Leary, Bruce Stewart, Graham Galloway, Derek Hobbs;
Victoria:	Sue White, Nick White, Alice and Steven White.
South Australia:	Susie Sweetman, John Healey, Melina Healey, Ben (Doon) Davis, Bernie Maegraith, Terry Reardon, Meredith Reardon.

The contrasting trips over and back on the "Troubridge" could not have impressed us more. The slow 12-knot boat travelled at 2/3 speed on the way over because it was so rough. Many passengers felt the need to shout to those on the deck below "Watchunder" - isn't that the derivation of the word "chunder"? Murphy's Law meant of course that everybody who felt sick on the way over purchased travel tablets prior to our return only to find the sea was like glass! Most of us slept at the stern of the boat in the comfort and warmth of our bedding to the sound of the cows being transported over and the howling wind. The voyage is long but cheaper than air fares between Adelaide and Kingscote.

Sightseeing over the island included Cape Gantheaume Conservation Park, Seal Bay, Little Sahara Desert, Vivonne Bay (where 2 of the contingent were nearly swept off the rocks and then had to change their armour!), Rocky River, Remarkable Rocks, Cape Du Couedic, Admirals Arch, Emu Bay, Antechamber Bay and Cape Willoughby.

Caving:

Robert A. Smith owns property south of Mt. Stockdale on which a patch of scrub contains some beautiful caves. A peaceful lagoon lies at the edge of the scrub.

Caves visited were Emu Four Hole (the old rusty fixed ladder was removed), Fossil Cave and Hic-up Cave which was extended by John Healey underwater for a distance of about 25 metres - an exciting development.

Nearby Mt. Taylor Cave impressed us all - particularly since the bees didn't annoy us. Six large hives would be expected to produce a frenzy of bees but Nick told us not to worry - the bees, imported from Italy, are good-natured and do not work up to a frenzy with people.

Kelly Hill Caves Conservation Park provided us with an excellent camping area for much of our stay. Thank you to the staff there for their hospitality. The Tourist Cave is being extended at present and provides a challenge to CEGSARIANS to work with surveying and with really great people at Kelly Hill. Maybe some work by CEGSA could ensue with lighting etc. in the new tourist section.

We visited the tourist cave between the existing run and the old tourist section - very interesting and still being used for school groups etc.

Frosted Floor Cave and Silt Cave were visited. Dead snakes and at least one living one, and many geckos are to be seen in the entrance of this cave.

Ravine des Casours in the north west of the island is a magnificent place with great caves to boot! A walk taking approximately 50 minutes to one hour takes you from the road to the sea and the caves are spectacular. The ravine itself is breathtaking.

Nature Study:

A very interesting activity on our trip was Terry's mammal survey work - using 3 techniques -

- 1) Bat traps and nets for bats
- 2) Pit-falls for marsupials and rodents
- 3) Elliot traps for marsupials and rodents.

It was a great way to try to familiarize ourselves with the creatures we could expect to catch, even if the results were sparse. Incidentally, one of the "most wanted" critters was found dead, by Nick at Ravine des Casours, it was dropped in haste by an eagle or such like, they just happened to see it. Incredible!!

We found a "pseudo-scorpion" near the campfire which is the first record of this existing on the island. Several people also went to see Trilobite tracks and fossils at Emu Bay and were successful in finding tracks.

MEREDITH REARDON

MOUNT GAMBIER EASTER 1983

Party: Nimble, Peter Horne, Jean Turner, Lee Dixon, Al Berry and Andrew Cox (Victorian Diver).

Several caves were visited with the purpose of doing some surveying, location work and a little touring.

Friday was spent wandering around checking on a few reports and doing a little surface work. About 50 metres were added to Morgan's cave in a normally wet area. Saturday was the day we had all been waiting for, a further push in L144. For those who haven't had the joy of visiting this cave, it is normally 99.9 percent underwater. At the moment, due to the drought, it is about 75 percent underwater.

The cave was first pushed underwater by P. Horne and Co. who have about 400 metres to their credit. We were there to put together a map of the first sections. During 11 hours about 800 m. were added to the cave before the cold drove us out. In the afternoon we had a tourist trip to some caves in the Wandillo area.

On Sunday we unsuccessfully tried to find L105 and then mapped a small, wet cave in the area. A grade 3 map is in production. The next day we looked at some of the fire damage in the area and then went to Gran Gran Corner. Here we unfortunately found a hole in the ground, destroying the beautifully complete picture Kevin Mott has produced of the area. It was a nice 15 metre pitch into a very small chamber.

NIMBLE

SELICKS HILL - EASTER MONDAY

Party: John Healey, Susie Sweetman, Melina Healey, Bernie Maegraith, Judith Sweetman, John McCormack, Kate Fraser.

An interesting hand-in-pockets trip was enjoyed as an alternative to some of the more ambitious undertakings that had originally been considered to occupy the Easter break.

For the newbies, Kate and Judith, their first cave proved to be quite an exciting adventure, as the cave demands a considerable amount of caving technique, including looking out for loose rock before placing one's hand in precarious positions, laddering, chimneying and bridging across rifts.

Only one mishap occurred. Judith was attempting to climb down a rift and lost her footing. She was able to plummet about half a metre to the floor with no great problem, and so lived to cave another day.

In the section of the cave that is being excavated, some intriguing pieces of decoration were observed on the surface of some concrete used to stabilize loose rock.

The most interesting piece was a straw that had already grown three centimetres in length since the concrete was placed sometime in the last 10 years. This was an eye-opener for me because I had always thought it took mega-years for decoration to grow to such lengths.

The rate of growth of decoration is, of course, related to the flow and composition of the water, the temperature and humidity of the cave, etc. (and many other factors I didn't know about). This particular straw is even more unusual because there is such a limited amount of calcite growth nearby, indicating a limited flow of water. Perhaps Mr. Rigby would be interested? Believe it or not!

JOHN MCCORMACK

BLACKBERRY CAVE - NARACOORTE

23rd April, 1983

Party: Stan Flavel, John Healey, John McCormack, Bernie Maegraith, Terry Reardon, Andy and Liz Wight.

This was a 6 hour photographic trip into the gated section to the "big straw" chamber.

Trips into this section are rare and the final chamber is still in a pristine state. All enjoyed the privilege of seeing the cave and we came out not too worse for wear.

The gate installed by CEGSA two years ago is very effective but very difficult to manage in the confined passage. I would suggest any future trips contact me or John Ellis for some hints on how to open it.

It was the first occasion I had met the new Ranger, Bill Pyecroft. We have been fortunate to have the calibre and co-operation of such people as Bruce Allen, Ken Heyne, Fred Carbarry and now Bill.

We were also treated to an excellent tour of Alexandria Tourist Cave. It is certainly sad to have lost the hut - life at Naracoorte is not quite the same without it.

TERRY REARDON

Technical & Other Articles

TANTANOOLA TOURIST CAVE

Tantanoola Tourist Cave redevelopment was officially opened to the public on Thursday, 28th April, 1983 by the Minister for Environment and Planning, the Hon. Dr. D.J. Hopgood. The ceremony which took place in perfect weather conditions included speeches from the Mayor of Millicent, the Director of National Parks and Wildlife. During the ceremony the Director of National Parks and Wildlife was presented with a wheelchair by the local Apex Club for use by visitors to the cave.

Those who took part in the official cave tour were generally impressed with the quality of the work carried out and new cleanliness of the cave.

The draft plan of management for the Conservation Park was released on the same day. A copy exists in the CEGSA Library and those interested should peruse it as submissions have to be made by 30th June, 1983.

KEVIN MOTT

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Key to abbreviations used in the index:

B = Biological	G = Geological, Geomorphological	P = Paleontological
C = Conservation	H = Hydrological	Ph = Photography
D = Description	Hi = Historical	S = Surveying (includes recording)
E = Exploration	N = Meteorological	SR = Search and rescue

The index is divided into the following categories:

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Spirit of Caving

Technical and other articles

Letters

In caving activity the cave is listed together with the author, type of activity and reference to issue and page.

Other categories list the title of the article, the author and the issue page.

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L203	27(1) p2	K. Mott	SE
L204	27(1) p2	K. Mott	SE
L205	27(1) p2	K. Mott	SE
L206	27(1) p2	K. Mott	SE
L207	27(1) p2	K. Mott	SE
L208	27(1) p2	K. Mott	SE
L209	27(1) p4	K. Mott	SE
L210	27(3) p13	G. Ninnes	SE
L211	27(3) p13	G. Ninnes	SE
L213	27(3) p13	G. Ninnes	SE
L214	27(3) p13	G. Ninnes	SE

<u>RIVER MURRAY</u>			
M1	27(3) p15	G. Ninnes	E
<u>NULLARBOR</u>			
N3	27(1) p4	M. Reardon	E
N46	27(2) p2	G. Pilkington	E
N62	27(2) p2	G. Pilkington	S E
N132	27(2) p2	G. Pilkington	M
N193	27(1) p4	M. Reardon	E
	27(2) p3	G. Pilkington	S E
N206	27(2) p3	G. Pilkington	S D
<u>UPPER SOUTH EAST</u>			
U1	27(1) p2	K. Mott	C
	27(4) p8, 9	G. Peterson	E
U3	27(4) p8, 9	G. Peterson	E
U4	27(4) p8, 9	G. Peterson	E
U7	27(4) p8, 9	G. Peterson	E
U8	27(4) p8, 9	G. Peterson	E
U10	27(4) p8, 9	G. Peterson	E
U12	27(4) p8, 9	G. Peterson	E
U16	27(1) p4	K. Mott	E
	27(4) p8, 9	G. Peterson	E
U22	27(3) p9	A. Jackson	P C
	27(4) p8, 9	G. Peterson	E
U35	27(4) p8, 9	G. Peterson	E
U47	27(2) p7-9	J. McCormack	E
U58	27(3) p9	A. Jackson	P C
	27(4) p8, 9	G. Peterson	E
Beekeepers	27(1) p2	K. Mott	E
Cave Park	27(1) p2	K. Mott	E
Henschekes Bone	27(1) p2	K. Mott	S
Naracoorte Reserve	27(1) p2	K. Mott	S
<u>YORKE PENINSULA</u>			
Y1	27(1) p8	G. Ninnes	E
	27(2) p14	G. Pilkington	S R
	27(3) p7, 8	M. Smith	D
	27(3) p12	G. Pilkington	S E
	27(3) p14	G. Pilkington	S
Y2	27(2) P10, 11	J. McCormack	E
	27(4) p6	P. Jackson	E
	27(3) p7, 8	M. Smith	D
Stone Cave	27(3) p5, 7	J. McCormack	E D
<u>INTERSTATE/OVERSEAS</u>			
Exit Cave (Tas.)	27(1) p3	M. Reardon	E
Mammoth Cave (USA)	27(3) p5	I. Lewis	D
<u>TECHNICAL & OTHER ARTICLES</u>			
Call out procedure	27(2) p12	J. McCormack	
Caving equipment	27(3) p20	M. Reardon	
Crossword	27(4) p18		
Management Plans (NPWS)	27(3) p9	K. Mott	
Photographing bats in Bat Cave	27(4) p17	G. Peterson	
Tantanoola Tourist Cave	27(4) p13	K. Mott	
Tantanoola Tourist Cave	27(4) p14-16	South East Times	
Snail collecting	27(4) p11	F. Aslin	
Water tube levelling	27(1) p9	N. Smith	
<u>LETTERS</u>			
Tantanoola Cave	27(2) p14	G. Peterson	
	27(3) p15	A. Spate	
	27(3) p16	E. Hamilton-Smith	
	27(3) p17	G. Peterson	
Spirit of Caving	27(1) p8		

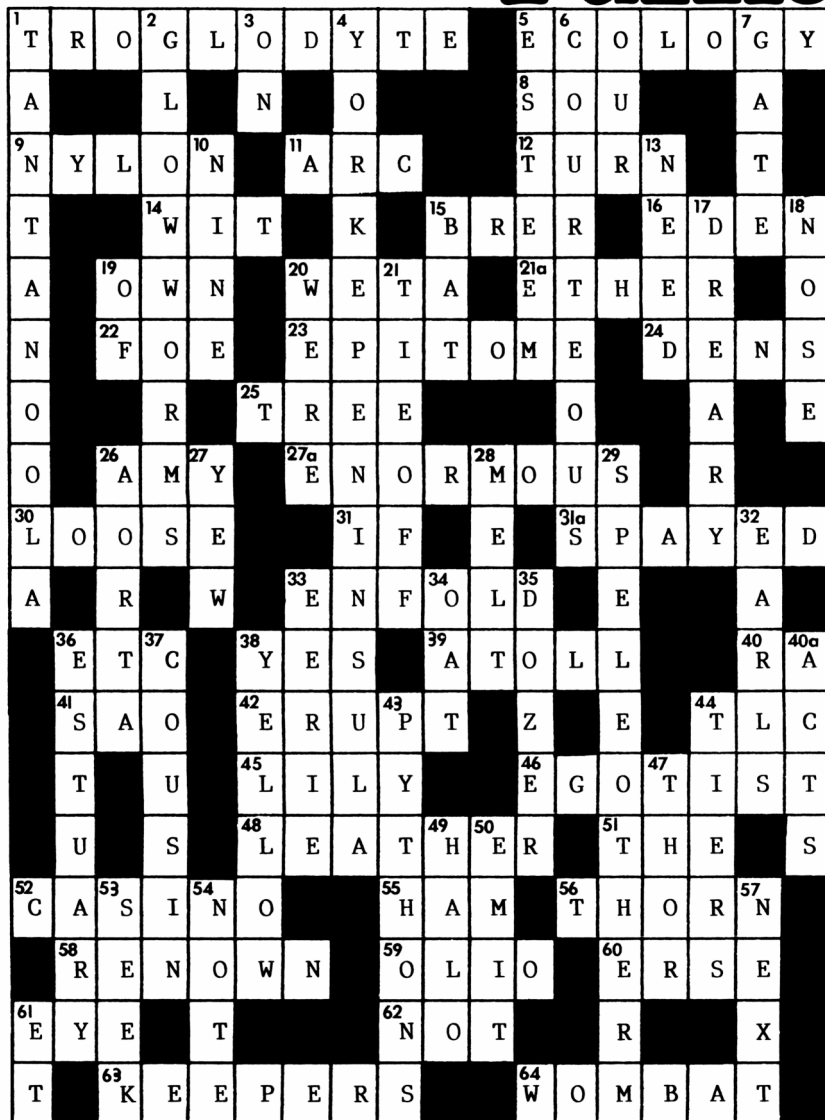
PROGRAMME

JUNE	4,5			
	8	Committee Meeting		
	11,12	Corra Lynn	Search & Rescue	G. Pilkington
	11,12,13	Naracoorte	Training	K. Mott
	18,19	Naracoorte		John McCormack
	22	General Meeting - Hot air ballooning		Simon Fisher
	26			
JULY	2,3	CEGSA/VSA DINNER	Mt. Gambier	
	9,10			
	13	Committee Meeting		
	16,17			
	23,24	Naracoorte	Bernie Maegraith	
	27	General Meeting	Europe	Ed Bailey
	30,31			
AUGUST	6,7			
	10	Committee Meeting		
	13,14	Corra Lynn		G. Pilkington
	20,21			
	24	General Meeting		
	27,28			

ADVANCE TRIP

SEPTEMBER	24,25	SEARCH and RESCUE at NARACOORTE	
LATE JUNE/EARLY JULY		SEVERAL Naracoorte trips - dates to be finalised.	J. Ellis

Crossword Puzzle



DOWN

- 1 Cave in the South east
- 2 Insects that light up
- 3 Forward
- 4 Caving **area**
- 5 Regard
- 6 Polite
- 7 Needed on most caves
- 10 Number
- 13 Want
- 15 Usually found in caves
- 17 Gloomy
- 18 Part of the face
- 19 Preposition
- 20 Mythical wolf (first part)
- 21 point
- 26 Main artery
- 27 Variety of tree
- 28 To liquefy
- 29 Name given to cave decoration
- 32 Noblemen
- 33 Weird
- 34 Grain
- 35 One who naps
- 36 Wide mouth of a river in which the tide ebbs & flows
- 37 Relative
- 38 Colour
- 40a Legislative decrees
- 43 Large snakes
- 44 To place in layers
- 47 God of thunder
- 49 A luminous ring
- 50 To send forth
- 53 Search
- 54 A musical sound
- 57 Immediately succeeding
- 61 Popular movie character

ACROSS

- | | | |
|--------------------------|-------------------------------|--|
| 1 Cave-dweller | 31a De-sexed (animal) | 62 Word expressing negation |
| 5 Branch of science | 33 To embrace | 63 Bee.....Cave |
| 8 Indian | 36 And so forth | 64 A cave on Woods and Forest land at Naracoorte |
| 9 type of rope | 38 Opposite to no | |
| 11 Section of circle | 39 Small island | |
| 12 To rotate | 40 Ancient sun god | |
| 14 Humour | 41 Biscuit (brand) | |
| 15Rabbit | 42 To break out | |
| 16 Garden of.... | 44 Everyone needs it (abbrev) | |
| 19 To possess | 45 Flower | |
| 20 Cave insect | 46 Outspoken in self esteem | |
| 21a Puts you to sleep | 48 CEGSA medal | |
| 22 Enemy | 51 One in particular | |
| 23 Summary | 52 Tasmania has one | |
| 24 Animals live in them | 55 Type of meat | |
| 25 Large perennial plant | 56 A prickle | |
| 26 Girl's name | 58 Fame | |
| 27a Huge | 59 A miscellany | |
| 30 Unfastened | 60 Any Celtic tongue | |
| 31 Whether | 61 For seeing | |