AUTUMN 1983: No. 99

ASF NEWSLETTER

THE AUSTRALIAN SPELEOLOGICAL QUARTERLY



Registered by Australia Post Publication Number NBQ5116

AUSTRALIAN SPELEOLOGICAL FEDERATION P.O. BOX 388 Broadway N.S.W. 2007 ISSN 0313 — 413 X

EXECUTIVE OFFICERS & MEMBER SOCIETIES

Please wri	te direct to the Officer concern	ned as the P.O. Box is only a clearing address	•
Trustees	J N JENNINGS B P MOORE	4 Hobbs St. O'Connor ACT 2601 16 Lambert St. Lyneham ACT 2603	
EXECUTIVE COMMITTEE MEM	BERS:		
President Past President Vice Presidents	JOHN DUNKLEY KEN LANCE STUART NICHOLAS RAULIEGH WEBB RICHARD WILLSON	3 Stops Place Chifley ACT 2606 PO Box 2338 South Headland WA 6722 7 Rupert Ave New Town Tas 7009 127 Crawford Rd Maylands WA 6051 5 Balfour Road Austinmere NSW 3127	062 81 0664 091 72 2153 002 28 3054 09 271 7113 042 67 3415
Secretary Assistant Secretary Treasurer	CATHIE ROTHERY TERRY O'LEARY LLOYD MILL	78a Balaclava Rd Eastwood NSW 2122 30/26a Wolli Creek Rd Banksia NSW 2216 11 Warner St Essendon Vic 3040	02 858 3524 02 59 4403 03 379 8625
CONVENORS OF COMMISSION	us.		
Administration	MILES PIERCE	42 Victoria Cres Mont Albert Vic 3127	07.00.07.10
Bibliography	GREGORY MIDDLETON	PO Box 269 Sandy Bay Tas 7005	03 89 83 19
Cave Diving Cave Safety Cave Tourism & Management	TERRY REARDON JUDITH BATEMAN ELERY HAMILTON-SMITH ROY SKINNER	5 Loxton Court Hope Valley SA 5090 PO Box 230 Milsons Point NSW 2061 PO Box 36 Carlton South Vic 3053 12 Baker St Lenah Valley Tas 7008	08 263 4879 02 929 0432
Conservation International Relations	RAULIEGH WEBB JOHN DUNKLEY	·	0.000.000
Library Library Longest & Deepest Caves Newsletter - Editor Newsletter - Manager	ANDREW SPATE ROSS ELLIS JUDITH BATEMAN IAN MANN	3 Stops Place Chifley ACT 2606 PO Box 18 Talbingo NSW 2720 11 Arkana St Telopea NSW 2117 PO Box 230 Milsons Point NSW 2061	062 81 0664 069 49 5219 02 630 5384 02 929 0432
Speleo Handbook Survey Standards	PETER G MATTHEWS KEN GRIMES	64 Cheltenham St. Croydon NSW 2132 66 Frogmore Crescent Park Orchards Vic 3114 13 Dewar Tce Sherwood QLD 4075	02 74 9135 03 876 1487 07 397 3895
CONVENORS OF AD HOC C	OMMITTEES :		
Association Beginners Manual	DARREL WARDEN PH ILI P TOOMER	40 Chester Ave Baulkham Hills NSW 2153 PO Box 230 Milsons Point NSW 2061	02 624 2250 02 929 0432
Cave Documentation Cave Usage	PETER G MATTHEWS PETER B MATTHEWS	66 Frogmore Crescent Park Orchards Vic 3114 81 Cole St Downer ACT 2602	03 876 1487 062 48 9746
CSIRO Data Base	RANDALL KING	89 Marion St Enmore NSW 2042	02 5 19 5296
Gordon-Franklin Karst Incorporation	NICHOLAS WHITE JOHN DUNKLEY	123 Manningham Ave Parkville Vic 3052 3 Stops Place Chifley ACT 2606	03 328 4154 062 81 0664
Nibicon Cave Convict	ANDREW PAVEY PHILIP MACKIE	45 Arcadia Rd Glebe NSW 2037 3 Nowra Court Frankston Vic 3199	02 660 7536
SpeleoVision SpeleoVision 1984 Conference IUS Convention 1989	GRAHAM PILKINGTON STUART NICHOLAS GUY COX	66 Eyre Cres Valley View SA 5093 7 Rupert Ave New Town Tas 7009 180 Short St Balmain NSW 2041	08 264 2598 002 28 3054 02 818 1896
CONVENORS OF STATE SPELE	EOLOGICAL COUNCILS:		
NSW Speleological Council	PHILIP TOOMER	PO Box 230 Milsons Point NSW 2061	02 929 0432
COMMITTEE MEMBERS :			
VOTING MEMBERS			
ACT:			
CANBERRA SPELEOLOGICA CAPITAL TERRITORY CAVIN NATIONAL UNIVERSITY CAV	NG GROUP	18 Arabana St. Aranda ACT 2614 PO Box 638 Woden ACT 2606 Inion Australian National University ACT 2600	
BAPTIST CAVING ASSOCIATI		90 Parkes St. Helensburg NSW 2508	
BLUE MOUNTAINS SPELEOL HIGHLAND CAVING GROUP	OGICAL CLOB	PO Box 37 Glenbrook NSW 2773 PO Box 154 Liverpool NSW 2170	
HILLS SPELEOLOGY CLUB ILLAWARRA SPELEOLOGICA	AL SOCIETY	PO Box 198 Bautkham Hills NSW 2153 PO Box 94 Unanderra NSW 2526	
KEMPSEY SPELEOLOGICAL S		27 River St. Kempsey NSW 2440 ocn Macquarie University Nth Ryde NSW 2113	
METROPOLITAN SPELEOLOG	GICAL SOCIETY	PO Box 2376 Nth Paramatta NSW 2151	
NSW INSTITUTE OF TECHNO ORANGE SPELEOLOGICAL S		c/- The Union PO Box 123 Broadway NSW 2007 PO Box 752 Orange NSW 2800	
SYDNEY SPELEOLOGICAL SO SYDNEY UNIVERSITY SPELE		PO Box 198 Broadway NSW 2007 Box 35 The Union Sydney University NSW 2006	
UNI OF NSW SPELEOLOGICA QUEENSLAND: CENTRAL QUEENSLAND SPE	AL SOCIETY Box	(17 The Union UNSW Kensington NSW 2033 PO Box 538 Rockhampton QId 4700	
UNI OF QUEENSLAND SPELE SOUTH AUSTRALIA: CAVE EXPLORATION GROUP	EOLOGICAL SOCIETY	The Union Uni of Qland St Lucia Qld 4067 /- SA Museum Nth Terrace Adelaide SA 5000	
TASMANIA:	(5577,1612,11167,1117)		
NORTHERN CAVERNEERS SOUTHERN CAVING SOCIET TASMANIAN CAVERNEERIN VICTORIA:		PO Box 315 Launceston Tas 7250 PO Box 121 Moonah Tas 7009 PO Box 416 Sandy Bay Tas 7005	
VICTORIAN SPELEO ASSOCIA WESTERN AUSTRALIA:	ATION	GPO Box 5425 CC Melbourne Vic 3001	
SPELEOLOGICAL RESEARCH WESTERN AUSTRALIA SPELE		PO Box 120 Nedlands WA 6009 PO Box 67 Nedlands WA 6009	
Associates			
AVONDALE SPELEOLOGICAL CAMPELLTOWN CAVING & C CHILLAGOE CAVING CLUB ENDEAVOUR CAVING & REC	OUTDOOR GROUP	Avondale College Cooranbong NSW 2265 PO Box 281 Campbelltown NSW 2560 7 Martyn St Cairns Gld 4870 PO Box 63 Miranda NSW 2228	

____ASF NEWSLETTER_____

AUTUMN 1983: No. 99

TABLE OF CONTENTS

Editorial			1
Notes on the ASF			2-3
Letters to the Editor			4-5
Conservation Column	-South West Tasmania Campaign Report	R King	6-7
	-April 1983		
Chiang Dao Cave, Northern	Thailand	J Dunkley	9-10
Safety and Techniques	-Rescue '83 A Report	8 McQuillan	10
Down Under All Over			11-12
Book Review			12

EDITORIAL

You may have noticed some delay in the publication of this issue of the Newsletter. Put bluntly, this is because YOU have not kept those cards and letters rolling in.

This Newsletter is not a one man band and I am not going to allow it to become one - I just don't have that much free time. As I have said before, I'm here to edit it ${f not}$ to write it!

I am having a very difficult time at present getting this Newsletter to you as I am just not getting your support. I need articles to put in it. PLEASE, someone, anyone!! put pen to paper.

I really feel as though I am operating in a vacuum, no articles, no photographs, no feedback, and since I stopped telephoning every club, no Down Under All Over. If this continues, I shall find it very hard to retain my enthusiasm to remain editor of this publication.

Please don't let me or yourselves down, PLEASE WRITE.

Judith

NOTICES and NEWS

WE NEED COPY SO PLEASE START WRITING

ASF

SERVICES AND ACTIVITIES

Activities of the Australian Speleological Federation are:

- Formulation of national policies on caving standards and ethics, cave safety, documentation and survey standards.
- Preparation of a national automated data bank listing all Australian caves, cave maps and primary sources.
- Biennial national conferences and a biennial Conference on Cave Tourism and Management.
- Sponsoring of specialist consultancy services for karst and cave management plan.

Publications include the Newsletter (quarterly), Conference Proceedings (biennial), Cave Management in Australia (biennial), and occasional ad hoc publications.

Government is by a Committee consisting of a delegate from each member society. Meetings are held annually with each alternate meeting in conjunction with the Conference which is open to anyone interested. Continuing activities are administered by permanent commissions and special aspects of policy are studied by ad hoc committees. Overall coordination is through the Executive Committee Officers.

The Federation has chartered the NSW Speleological Council to provide liaison among member societies in NSW and ACT.

The ASF library is administered by the National Library in Canberra, ACT. Members may obtain copies of all Australian and most major foreign publications by interlibrary loans through their state or local library.

The Federation is the representative of Australia with the International Union of Speleology, Vienna, Austria.

NOTES ON THE ASF

SECRETARIAL NOTES

ASF is now the owner of a three door filing cabinet. After much looking and ringing around, I bought a second hand cabinet in excellent condition for \$85.20 and anticipate that the final cost will be around \$100.00 by the time hangers and labels are bought to outfit it.

As a result most of my time is presently involved in trying to transform a cardboard grocery box of manilla folders and assorted papers (presently ASF records) into some sort of organisation. Hopefully this will mean less frustration (for you as well as me) as things become efficient.

Thank you to Philip Toomer for organising the printing of the minutes of the last meeting.

By now all of your should have made the necessary constitutional changes needed for ASF to become incorporated. If you have any problems ring John Dunkley or myself NOW. I would like to take this opportunity to remind clubs of the need to send me a copy of their revised and amended constitution.

ASF TREASURER'S REPORT

As everyone by now must be aware the capitation fees have increased. Club delegates at Adealide felt that an increase was long overdue as the last substantial rise was in 1976. Also it was felt that many of ASF's communications and other problems were due to the fact that we had been running on a shoestring budget since our inception. Perhaps this was acceptable twenty years ago when ASF was in its infancy and its main role was getting cavers across Australia together. However, today we are faced with many national issues which transend state lines. We require the clout of a strong NATIONAL organisation to have any impact on these issues.

Letters were sent to clubs asking for this year's capitation and the South-West Tasmania levy. I would like to give a public pat on the back to:

- i Canberra Speleological Society; the first full member club to pay
- ii North West Walking Club (Tasmania); the first Associate to pay.

My thanks on behalf of everyone to these clubs for leading the way. I am now sitting back waiting for the flood of cheques which will I'm sure arrive soon. Three points before leaving capitation fees:

- i if your club is having trouble paying all of the money at present don't hesitate to contact me and we can make alternative arrangements
- ii please send the capitation and levy as one cheuqe, not one for each
- iii 198 4 capitation fees have already been set at \$6.50 per member.

SUMMARY OF FINANCES (14/12/82 TO 10/	<u>4/83)</u>
\$ Balance at 14/12/82	\$ 1944.33
Income	
Full members subs (192) 98.00 Full members subs (1983) 104.00 Associate subs (1983) 5.00 Associate subs (1983) 20.00 S.W. Tasmania levy 19.00 Interest on Int. Bearing Dep 25.00	
TO TAL INCOME	271.50
Expenditure	
ASF Newsletter 700.00 Internat Union of Speleology 212.50 Conservation (1982) 135.50 Secretarial Expenses (1982) 100.00 V. Pres Expenses 51.21 State duty on Deposits 0.03	

L H Mill (Treas)

1016.59

ASF AWARDS - CALL FOR NOMINATIONS

Balance at 10/4/83

Each year the Federation makes a number of awards to people who have contributed to speleology and caving in Australia. Nominations are now called for 1984, in the following categories:

- Edie Smith Award for outstanding service to Australian speleology. Closing 31 January, 19 4.
- Fellowship of the Australian Speleological Federation, for outstanding service to the ASF. Closing date 31 January, 198 4.
- 3. Certificate of Merit of the ASF, for specific contributions to the exploration, scientific study, conservation or documentation of caves, including the roles of leadship, administration, publication and development of techniques and equipment. Closing date 31 October, 1983.

Nominations need not be restricted to members of ASF societies, and may be made by individuals or through member societies. Don't be put off by thinking that one has to be a super-caver to qualify for a Certificate of Merit; perhaps there is a member in your club, not well known interstate, who by leading exploration or surveying trips has made real progress in knowledge about just one or two caves.

They should be forwarded to the President, John Dunkley, 3 Stops Place, CHIFLEY ACT 2606, by the dates shown, for consideration by the Awards Commission.

CERTIFICATES OF MERIT 1983

Each year the Federation awards Certificates of Merit to individuals, regardless of affiliation, who have made noteworthy contributions to Australian caving and speleology. All these people have given freely of their own time and skill over the years to raise the stature of Australian speleology, and this is our small way of being able to say 'thank you' for a job well done. In 1983 the receipents were:

NEIL MONTGOMERY:

"For the development and dissemination of information about vertical caving techniques, and for the exploration and documentation of the deep caves of Australia, New Zealand and New Guinea"

HENRY SHANNON:
"For the exploration and documentation of the caves of New South Wales and Queensland in particular, and for leading and inspriring several generations of cavers, notably Jenolan"

JOHN TAYLOR:

"For the many years of service as Treasurer of the Australian Speleological Federation"

IAN LEWIS:

"For the exploration and documentation of South Australian caves in particular, and for Australian furthering speleology generally through cave diving"

ANDREW SPATE:

"For contributions to the scientific study, conservation and management of Australian caves, and for many years of service as office bearer and spokesman for the Australian Speleological Federation"

ROSS ELLIS:

"For advancing the standing of Australian speleology through documentation and editing of publications on Australian caves, especially in New South Wales"

JULIA JAMES:

"For advancing the scientific standing Australian speleology, especially in the field of speleochemistry and through the editing of "Helictite" For promoting vertical caving techniques. Further, for inspiring the exploration, documentation and study of caves in Australia, New Zealand and New Guinea"

"For the exploration and documentation of the caves of Western Australian, for contributions to cave management and tourism, and contributions to cave safety"

ROY SKINNER

"For contributions to cave management and tourism, including assistance with organisation of conferences, and for many years service as Superintendent of Hastings Caves'

BRUCE DUNHILL and RAY ROWNEY:

"Awarded jointly in recognition of contribution to the conservation and management of Cliefden Caves, particularly through wise administration of the access permit system".

WE NEED COPY FOR THE NEXT ISSUE SO PLEASE START WRITING

Fifth Cave Management Conference Very Successful

About 30 cavers, guides, rangers and others attended the Fifth Australasian Conference on Cave Tourism and Management at Lakes Entrance in April. Special guests were IUS Vice-President and Chairman of the International Commission on Cave Tourism, Russell Gurnee and Mrs Gurnee. In between the drinking and general conviviality, those attending had field trips to Nargun's Cave and Buchan. Rod MacKenzie, the Minister for Lands and Forests, who perofrmed the official opening, was dressed in boiler suit and wellington boots for a first-hand introduction to cave management problems in Nargun's Cave, described as possibly the grottiest little cave in south-east Australia. The next conference will be in Waitomo, New Zealand in 1985.

Sign of Early Humans in Franklin Cave Find

Another cave containing highly significant archaeological remains has been found on the Franklin River about 8 km south of Kutikina (Fraser) Cave. Containing further evidence of occupation from pre-20,000 years ago to 15,000 years BP, it was named Deena Reena Cave. Scientists from ANU and Tasmanian Parks and Wildlife Service say there is no question that the region is now the richest archaeological etarehouse in Australia. storehouse in Australia.

ASF Team to Study Jenolan Caves

The NSW Department of Leisure, Sport and Tourism has commenced a management plan for Jenolan Caves Reserve. ASF has been asked to join with local personnel in producing draft propsoals for long term management of both the tourist and non-tourist caves, and for the redevelopment of the Nettle and Arch Caves. Further details soon; we hope that as many clubs and individuals as possible will be involved in this important task.

Visit by IUS Vice-President

Members of several societies were host in April to the visit to Australian of the Vice President of the International Union of Speleology, Russell Grunee, and Mrs Jeanne Gurnee. Cavers in Sydney, Canberra, Melbourne and Hobart enjoyed their slide talks. They managed to get into some 36 caves, and took part in the Cave Tourism and Management Conference in Lakes Entrance. Sincere thanks to those clubs and individuals who helped to make this a memorable visit by two most distinguished and experienced cavers:

Roy Skinner, Tom Hayllar, Elery Hamilton-Smith, Stuart Nicholas, Greg Middleton, Steve Harris, Bob Woodhouse, John Callaghan, Keith Oliver, Mike Chalker, Alan Costigan, Guy Cox, Julia James, Andy Spate and numerous members of CSS, CTCG, NC, SCS, SSS, SUSS, TCC & VSA. Special thanks for their generosity and forbearance to the NSW Department of Leisure, Sport and Tourism, and the Leisure, Sport and Tourism, and the National Parks and Wildlife Service in NSW, Tasmania and South Australia. (Hope that's everyone!)

Letters to the Editor

MACRO PHOTOGRAPHY

I read Norm Poulter's article on the close-up and macro photography in the Spring 1982 issue of the Newsletter with some interest.

For those who don't want to buy a telephoto lens or can't be bothered lugging all that junk into caves to get their close-up photographs, they can do what I did and buy an auto macro converter lens. This is a lens system (4 elements in 4 groups) that fits between a standard lens and the camera body and converts the standard lens into a macro close-up lens. I bought mine duty free in Sydney in September last year for \$77. Since then I have seen them advertised in the mail order section of American Photography as low as US\$65.

The big advantage is that they are no bigger than a standard lens (53 mm long) and weigh only 250 grams. Norm's bellows and lens weigh 1034 grams.

Procedure for use is simple; remove standard lens, screw in converter, screw in standard lens, set standard lens focus to infinity, focus on subject with focus ring on converter, set aperture, shoot.

Picture distance falls between 1.5 mm and 10 cm. At 1:1 ratio the distance from the front of the lens to the subject is 13.5 cm. With the bellows it is inly 4 cm. Hence the depth of field at any aperture is better. Light fall off varies from 2.75 f/stops at 1:1 to 2.5 f/stops at 1:10 and this is marked on the converter for every magnification ratio.

I haven't taken mine underground yet. I used it very successfully taking close-ups of insects on flowers and water droplets on pine needles etc. in the Canadian Rockies where I spent some of my last vacation. Resolution was superb.

IAN WOOD

DEVELOPMENT AT ABERCROMBIE CAVES

Following a resolution at the last ASF Conference, a letter was forwarded to the Premier of NSW expressing the concern of the Australian Speleological Federation about proposals to divest control of Abercrombie Caves from the NSW Department of Leisure, Sport and Tourism.

Early in 1983, a meeting was held at the Caves between senior Ministerial and Departmental officers on the one hand, and representative from the Australian Conservation Foundation, the Field Naturalist Association of NSW, several local community groups, and two representatives of Australian Speleological Federation (Peter Ceapa and Ken Keck).

Support from ASF and other bodies has now resulted in a decision that the caves will remain under the department's control and there will be no change in staffing. Indeed this has been very much confirmed by the release of funds for improvement of walking tracks (now nearly complete) which enables tourists to walk up to Grave Gully and across the top of the Arch on a well graded and stepped track which leads back

down to the northern end of the Arch and will be extended to take in a walk through Stable Arch. A viewing platform has been provided about halfway down the hill which will look directly into the northern end of the main Arch.

I understand that the ultimate plan is to make Bushrangers Cave and Stable Arch into one inspection (avoiding the Arch altogther). Later the new exit to the Cathedral Cave located by MSS some years ago may be opened making a tour of King Solomons Cave and Cathedral one complete inspection, also avoiding the Arch Cave. These changes will permit Arch Cave to become a separate inspection.

Thanks again to ASF for support in this matter.

KEN KECK

JENOLAN CAVE RESCUE

Herewith are a few points which the members of NSW Cave Rescue Group felt need explanation, having read the various reports of the incident.

 Cave Rescue has NO authority to call out any other group. We can only <u>advise</u> the police on suitable action. This was done when the accent changed from surface search to underground - but still some time elapsed before this advice was acted upon.

As a rule the police are reluctant to use volunteers of unknown discipline for obvious reasons.

Guy Cox, in his letter would seem to be supporting the old system, whereby various clubs sent lists of names to the police to be called out in case of accident. This was found to be unsatisfactory by the police as those so named, dropped out of caving, changed address etc., with out notifying them.

This is one reason the CRG was set up - so that the NSW Police Disaster and Rescue Branch would have a reliable, current call-out list of disciplined people to call on. In turn, CRG guarantee to supply further personnel if required.

NOTE: Because the NSW police are charged with the total responsibility for rescue in the state, the UK system cannot operate effectively.

- 2. The first feeling of the police was that the lost boy was injured, above ground within reasonable distance of Caves House. Then it was suggested that he may have left the area, but this was not allowed to detract from the search activities. CRG was called in to check thoroughly, cave entrances within the probable areas. But this was only meant as assistants to police searchers. That Aladin Cave was not checked by cavers in the initial sweep was an unfortunate 'luck of the draw'. This is likely to occur in all similar situations. (It should be noted that CRG did specifically ask police if Aladin CAve had been carefully checked.) The need for additional assistance to search caves became evident to the police towards the end of the day when they were going off duty and CRG had been twelve hours in the field.
- Fatigue is an insidious deterrent to safe caving and particularly so in the rescue situation. The planned night search was of

limited duration to ensure the safety of all.

- 4. Another major concern was our lack of communications. This was to be overcome by the arrival of WICEN operations.
- 5. The mechanism for the search was in operation prior to the arrival of the additional helpers. We were only awaiting who and how many. B Welch and R King were seconded to advise on optimum search patters using their local knowledge. Previously, we were using CRG and cave guides (being most knowledgeable of tourist activities). Team allocation was done in consultation with CRG.
- 6. The only efficient search method is that of a systematic and disciplined pattern. CRG were operating along standard police guidelines (unchangeable) with their inherent advantages, safeguards, and hence, limitations. Thus, Devil's Coach House (and environs) was searched three times, each time with increasing penetration before the pattern was extended to cover the next degree of probability. David Sima could have been found two hours after the search commenced or four days after the time he was actually located, or at any time in between.

It is interesting to note the comments (unrecorded) of one member of a party that actually found David Sima:

- a. while standing at the entrance to Aladin Cave he could clearly hear the conversation between the lost boy and his rescuers
- b. he also commented that there was no sound from the boy until about the time the rescuers \underline{saw} him.
- 7. CRG are very willing to send observers to the individual club's rescue practices but to this date no requests have been received.

Surpassing this would be the need for those who are likely to respond to a request from the police via CRG to assist in a search and rescue situation, to be disciplined, to understand the limitations of operations under which CRG works, to appreciate the responsibilities imposed upon the police and their reaction to them. To achieve this there must be a degree of personal contact with CRG, ideally membership of and total involvement in CRG.

B McQuillan, R Steenson, M Attard, S Murray, E Byrnes, L Zanker, D Matts, G Matts, R Taylor, et al - CRG.

ROPE ARTICLE

Having just read ASF Newsletter No. 98 (Summer 1982) there are a few comments which must be made.

As equipment organiser of "Muller '82". I have grown accustomed to gross misinformation about the equipment we took. More than half of our rope was privately owned by expedition members and as such was to be replaced if damaged or lost. Every endeavour was made to bring back this rope, no matter what it was, so as to avoid the extra expense of replacing it.

Many people were (probably still are) confused as to which rope was which. On more than one occasion we heard complaints about that "terrible Beal stuff" when the rope in question was in fact a length of ancient Downs 10 mm sailing rope.

Abrasion resistance - (I must admit we were a bit sceptical before we used it.) Ropes put on the heavy use entrance series of the caves received a terrible beating. As far as field comparisons go, 11 mm Bluewater II fared the best, followed by 11 mm Bluewater III and (10.5 mm) Beal Dynastat wearing about the same. No other types of rope were used on this main thoroughfare, dirty pitches. Some other high traffic pitches received regular rinsing and so can hardly be compared. I am writing a separate article about stretch so I don't want to say too much at this stage.

Beal was not often used on short pitches because we had a good supply of short personally owned ropes (Beal, Bluewater, Downs, Edelrid, Marlow) to fill that role.

Beal was used on several long pitches because it came in 200 m rolls - eg. the 300 m "jungle abseil" to Nali and Malemuli. On Mt Legari the lighter weight Beal found special favour as all equipment had to be carried through exceptionally thick jungle for 10 km to Uli Mindu (150 m entrance pitch) and back again at altitudes of 2,500 to 3,200 m a.s.l.. If we had had some 9 mm rope we would have used it instead!

Almost all of our Beal was freighted off the Muller but somebody obviously thought it a good rope as a 200 m length disappeared between the helicopter lift and Sydney. Most of the discarded rope was the remains of my 10 mm Downs, some old Marlow and an Interalp climbing rope. In all, 700 m of rope was "written off". 200 m stolen, about 200 m left behind, and the remaining 300 m (various brands, but mainly Bluewater and Beal) is being sold off for what it is worth i.e. almost nothing.

Most of the Beal has been sold off at cost, even in a used condition. We could have sold very much more.

Beal makes an excellent canyon rope, having most of the handling properties of an 11 mm climbing rope, yet lighter, cheaper and less bouncy. If Beal Dynastatit is still available at \$1.40 a metre I suggest that everybody looking at buying rope should march out and get some! (But be careful to get Dynastat, and not Hyperstat.) Dynastat is easily distinguished by its 3 larger braid on braid construction, while Hyperstat has a more conventional cove and sheath.)

ALAN WARILD

Copy Deadlines

SUMMER 1983: No. 102

1 Nov 1983

AUTUMN: 1984: No. 103

1 Feb 1984

Conservation Column

SOUTH WEST TASMANIA CAMPAIGN REPORT - April 83
RANDALL KING

ASF's Role

ASF members have played a long and active role in the South West. Kevin Kiernan in particular has spearheaded this involvement. In the Autumn 1982 issue of the ASF Newsletter Kevin wrote "times have changed since a handful of amateur cavers eight years ago commenced exploration of the Franklin River karst in the hope that their activities might somehow bolster the case against damming the last major wild river in temperate Australia."

Indeed, it is important to emphasise the exact position of ASF with respect to south West Tasmania. ASF has a duty under our constitution to safeguard the karst heritage of Australasia. The position as adopted at the January 1983 Conference was that ASF would run its own independent, apolitical campaign directed solely at promoting the protection of the caves in S.W. Tasmania, which might be adversely affected by dams and dam construction work. However, that said, the reality is that a substantial proportion of ASF membership have a strong sympathy with the broader aims of the wilderness issue and it is inevitable that individual members will become identified with other organisations, such as the Wilderness Society or make strong personal statements.

Publication of these views in the ASF Newsletter does not constitute endorsement by the Federation.

Particular people who must be thanked include Harry Coleman, Greg Middleton, Peter and Glennis Wellings, and John Bonwick both for their contributions to the early Franklin expeditions and for their strong' support of the campaign, including evidence before the Senate Select Committee of Enquiry and organising a public meeting at Rockdale Town Hall in the Barton electorate.

The list of people involved just goes on and on. Judith Bateman for strong editorial support, Nick White and Adrian Davey for setting the ASF directions and co-ordinating the campaign in Victoria, and of course to all those who gave up their time, money and often liberty to attend the blockade - an extra special thanks.

Federal Election Victory

By now the conservation victory in the March 5th, election is history. This is solely attributable to the massive support given to the campaign in such a myriad of ways by people from all walks of life.

The election campaiging was focused on 14 marginal electorates, and additionally in John Howard's, Sydney seat of Bennelong . In Bennelong, the well known conservation candidate Milo Dunphy, claimed 12% of the total vote and tied up John Howard in his own electorate for a large part of the available campaigning time.

The special 'Vote For The Franklin' tickets which were distributed in some of the marginal seats had different preference distributions to the ALP tickets distributed in those seats. This was designed to identify and quantify any significant difference in preference distribution from the ALP how to vote leaflets. Scrutineering of votes revealed that in Phillip (NSW), Bowman (QLD), and Diamond Valley (VIC) 14%, 13% and 16% respectively of ALP votes were cast on the special conservation ticket - or about 15% (1 in 6) of the total ALP vote in all these seats on a unweighted basis.

Pre-election polls indicated that about a third of the people who said they would be influenced by the dam issue were previously Liberal voters. On this basis, it could be said that the wilderness campaign decided the outcome in 3 seats (Diamond Valley, Flinders and Fadden), and was an important factor in the outcome of another 9. In fact, in Anne Summers book "Camble for Power" (1), the ALP concedes an additional 2 seats - Casey and Petrie for the National South-West Coalition (NSWC) campaign.

In Victoria, where we were the most successful, the 5 Franklin seats averaged 6.62% swing to the ALP versus a swing of only 4.16% in "the rest" (5.4% versus 3.7% in NSW).

The Democrats benefited even more from the NSWC Senate campaign. The average primary Democrat vote in the 15 "conservation" seats was 13% against an average of 8.87% in the other 110 divisions. This was enough to return the No. 2 democrat Colin Mason in NSW, and to score 4 out of the top 5 Democrat votes in the 34 Victorian divisions, including the national high of 19% in Casey (2).

To give some idea of the scale of the campaign nationally, about 5,000 volunteers gave blanket coverage to polling booths in the targeted seats on March 5th. At some booths, particularly in the country NSWEC workers often outnumbered booth workers from all other parties combined. ALP officials were quoted as saying the full colour double page advertisement printed in the Sun Herald and the Age on March 2nd (the most expensive single item of the campaign) was the most effective single political advertisement they had seen.

Even outside the 15 targeted electorates, the momentum of the interest generated by the 1,500 arrests in South West Tasmania and strong, but little publicised local efforts had a subtle but critical influence on how the Federal Government was viewed by the electorate. In Ian Sinclair's National Party seat of New England in NSW, one Wilderness Society organiser ran a 5 day whistle stop tour of 10 towns, setting up 4 TWS branches, giving media interviews and distributing 8,000 Vote For The Franklin green stickers. Ian Sinclair, a "states rights" hardliner in Cabinet was forced to preferences.

So let there be no question that the national Hawke mandate to create sanity in Tasmania is somehow illusory. There is no better reference than that of the ex-Deputy Prime Minister Doug Anthony, who stated the day after the elections that the wilderness issue was the next main reason they lost after the economy.

The lesson to be learnt by governments of all political complexions is that given this combination of outrageous and provocative circumstances, people can be and will be motivated to vote on the basis of a single issue. The Tasmanian Liberals sowed the seeds

of their own national destructon - had they held a proper referendum or accepted an independent inquiry into the South West (which most people aren't aware was the sole short term objective of the Franklin blockade) they might not be in their present predicament.

A New Sense of Values

This election marks the resurgence of a new sense of values and committment to how we relate to our land. In the same sense that the radical womens' movement in the early 1970's marked a turning point in public attitudes, the Franklin campaign symbolises a focal point within the community for disenchantment with the cavalier and self serving political machinery which has led to the situation in South West Tasmania today.

The hallmark of the Franklin campaign has been the way in which middle class concern has been translated into action (3). We all now have a responsibility to build upon these foundations.

Economics and Employment

The Tasmanian Wilderness Society has entered a new phase of operations. A team of researchers is now tackling the problem of providing ideas for positive long term economic strategies exclusive of the brief hydro-industrialisation. These projects cover a wide range including a speeding up of work on the Pieman Scheme; development of tourist facilities; road, school and rail construction programmes; upgrading of fishing ports, sewerage and water supply developments.

All the above projects meet the criteria of provision of long term economic advantages whilst requiring a workforce with similar skills to the HEC workforce. These projects could be funded through Commonwealth, State and Local Government agencies. There is strong local support for most of these proposals as authorities have been starved of capital by the funding of the HEC over the years. Before the first Labour Cabinet meeting on the South West, a paper entitled "Immediate Non-Hydro Employment For The Gordon Below Franklin Workforce", was produced by this research group. This paper was instrumental in providing many of the ideas later developed by the new Government (4).

Another paper released recently analyses the latest available information on demand for electricity in Tasmania (5). The three most important points raised are:

electricity demand actually fell by 0.5% for the first time in calendar 1982 (6)

consuption is now 112 megawatts below the 1979 HEC projection used when justifying the Franklin project

at the average growth rate of 1.5% per annum of the last four years (assuming the present decline corrects itself) it will take 21 years to exhaust the 1025 mw capacity of the Tasmanian grid after the Pieman, Great Lakes and 3rd Gordon generator projects are completed.

On this information there can be no justification of the claim that hydro electic construction needs to be commenced immediately. A Moratorium should be declared.

At the National Economic Summit, a paper was released to all participants and media "New Directions for Tasmania - We Mean Business" (7). This addresses the longer term requirements and alternatives for moving the economy from the present capital - intensive, primary resources manufacturing base, to

job-intensive, skilled industries such as sunrise technologies. Tasmania is ideally placed to adopt these strategies if some of the hydro industrialisation capital funding (57% of all available capital funds in 1982) is redirected. These factors hit at the core of the present problem and, if the alternatives are adopted, will inevitably lead to a rationalisation of HEC operations.

Where To From Here

Since 1967, when the Lake Pedder scheme commenced, the wilderness area has been whittled down from over 20% of Tasmania, to 11% before the current development commenced; soon only a few percent. Even the Labor Government has been promoting the continuation of the Crotty Road development right through the World Heritage area. In March the Tasmanian Government announced the lifting of the moratorium on mining, forestry and commercial development of the South West.

So the dream of a true temperate wilderness area in Australia of significant size will not be achieved. Our job now is to work towards minimising the impact of these proposals and trying to introduce a breath of sanity. Before we can afford to broaden our sights on the other significant national problems outside the South West it is VITAL that we don't sit back on our laurels and get rolled just when our chances are bright.

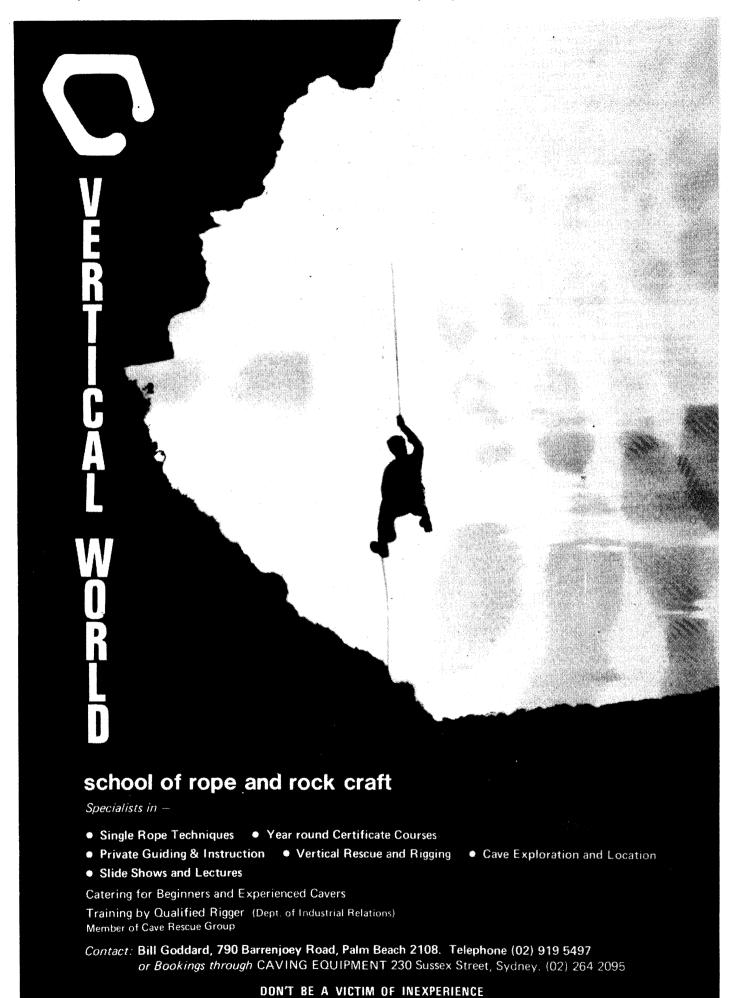
What You Can Do

Write to the **popular** newspapers and magazines (eg. tabloids, Womens Weekly etc.) expressing your feelings. It is important we counter the campaign being conducted by the "organisation for Tasmanian Development". Speak to your Federal Parlimentary Representative on:

- the need for a strong South West Tasmania Management Plan
- objection to the Henry, Anthony and King River hydro electric proposals which are either in or effect the Australian Heritage area. This only continues the economic folly of hydro industrialisation
- join the Tasmanian Wilderness Society, support their shops and stalls, continue your donations and help organise the continuation of the campaign. Ring the TWS in the capital city of your state for further details. If there is not a local branch in your area, why not start one?

REFERENCES

- (1) "Gamble for Power", Anne Summers, 1983 p
- (2) "The Franklin Dam Issue In The Federal Election", Dr G A Lambert. South West Tasmanian Committee (NSW), April 1983.
- (3) "Time of Testing", Craig McGregor Penguin, 1980 p 129, 130
- (4) "Immediate Non-Hydro Employment For The Gordon Below Franklin Project", Tarlo, Fraser, Coleman. Tasmanian Wilderness Society, March 1983.
- (5) "Report on Demand on Electricity in Tasmania", Dr G A Lambert. South West Tasmanian Committee (NSW), April 1983.
- (6) "New Directions For Tasmania We Mean Business", Tasmanian Wilderness Soceity, April 1983, Hobart Research Group.



Chiang Dao Cave, Northern Thailand

JOHN DUNKLEY

Across the northern part of Thailand is a small part of the largest limestone area in the world. This area covers most of south-west China, some of northern Vietnam and extends across the fabled Golden Triangle of Laos, far northern Thailand and northern Burma.

My interest in getting to the area some day was sparked by a talk given by Elery Hamilton-Smith at the ASF Conference in 1968. He reported conversations in Bangkok with Fred Stone, a member of the NSS (USA), who had walked over and caved under much of Asia. Fred claimed to have walked, run and swum through railway tunnel sized caves for up to twenty kilometres with no sign of an end. Trouble was, where were these caves? Fred doesn't seem to have been one to commit much to paper; his reports were rather sparse and I didn't have time to contact him.

Ah well, yet another elusive speleological Shangri-La! However, in 1976, following our largely abortive reconnaissance trip to Burma, Andrew Pavey in a fine display of suicidal bravado, rented a motor bike and rode the 80km from Chiang Mai to Chiang Dao. He returned to Australia with news of a large tourist cave and a high limestone plateau, the latter rather inaccessible because of local political troubles and the odd bit of opium growing and drug running. About the same time an Austrian caver visited Chiang Dao and reported in 'Die Hohle' that it was "said to be 10 or even 14 kilometres long". It is evident, though, that he did not go beyond the first few hundred metres of electrically lit tourist section.

Finally, a 1981 letter from the inimitable Mike Bourke, who has also poked around northern Thailand, enthused me about the caving potential. I reached Chiang Dao without trouble in December 1981.

The cave is 800km north of Bangkok, about 500m asl., 5km west of Chiang Dao village on a rough tarred road and is an active outflow at the foot of Chiang Dao, (or Doi (Mountain) Luang) which rises very steeply to 2186m and is all limestone. Like a surprising number of other caves in Inailand, income from tourist inspections helps support the local Wat (Temple). About 400m of the northern branch is electrically lit and another 300m can be explored readily with a hand torch. It ends in a deep pool of water which appears to underly and drain a re-entrant valley on the mountain slopes north-west of the entrance.

There are two distinct overlying passages in the southern section of the cave, trending almost due west. The upper level (Tham Mar, or Horse cave) is typically 4-5m high and wide, quite well decorated and ends in a flowstone blockage after 400m. There are connections to a lower passage known as Grass Cave, which is of similar proportions though much wetter. I was shown two places where water obviously sinks still lower in the wet, and a short distance further on, a muddy section which fills completely in the wet season. Another 100m and we reached what the guide said was the limit of inspections except in the dry season.

In the second half of the dry season, which lasts from December to March, guided trips can be arranged further into the cave for a whole day for 200 Baht (\$8) which must mean many more kilometres travel.

Each of the three sections of the caves is more or less level walking, or running. Grass Cave seems to be the main drain, running due west almost directly into the massif of Doi Chiang Dao. There can be little doubt that this in one of the big ones and no reason to contradict the claim that it runs 10 to 14km. As well, there is at least the theoretical prospect of the deepest cave in the world: the local limestone relief is 1700m, rainfall is high and the Doi is at least 20-30 sq km in area, covered with rain forest and has vertical cliffs 200-300m high on its south face.

There are significant variations in available geological maps, probably reflecting advances in exploration, but they suggest large outcrops of Permo-Carboniferous Ratburi Limestone on all sides of the small plain containing Chiang Dao village. A very steep mountain (limestone?) is visible to the east, while to the north-west a long range of limestone mountains apparently extends continuously to the 500m high cliffs towering above the main north road 25km north of Chiang Dao. A little further north still is Tham Tap Tao, or Dap Dao Cave. Said locally to be even larger than Tham Chiang Dao, one story has visitors walking between Buddha images for most of the first 2km of the cave. A detailed geological map shows this cave is also opening at the foot of a high limestone massif. I obtained details of 30 other caves in the area and 200 in the whole country.

The area obviously has immense potential but at this stage deserves a 3-4 man reconnaissance exploration rather than a large expedition. The trip could be as easy or hard as desired. Being readily accessible, Chiang Dao Cave alone would repay the effort, but some attempt should be expended in reaching remoter villages, many of which now have motorable access tracks. Chiang Dao village is sophisticated enough to serve as a base (the main street boasts a sign in English announcing 'Toilet for Rent') and the winter climate is dry, mild and pleasant day and night.



EED MORE COPY SO PLEASE WRITE WE NEED MORE COPY SO PLEASE WRITE WE NEED MORE COPY

Safety and Techniques

RESCUE '83 A REPORT

Rescue '83, a cave rescue training and practice weekend and organised by the Cave Rescue Group with the assistance of many, was held at the Bungonia State Recreation Area over the weekend of 12-13 March. This was the eighth such exercise held by the Group and had by far the largest attendance; nearly 400 persons.

The breakdown of those who registered was this:

Cave Rescue Group	27
Scouting Movement	118
Caving Societies	87
VRA Squads	30
Sydney Police	3
Victorian Police	3
	•
Squad Training & Assistance	-
Group (VRA)	5
Fed. of Bushwalkers	7
W.I.C.E.N. (V.R.A.)	20
Nat. Parks	1
V.R.A. Executive	4
Volunteer Air Patrol (ground	
S.E.S. Squads	15
'Vertical World'	3
M.S.A.	2
Ambulance (on duty)	15 3 2 1
St John's Brigade (Goulburn)	23
Outdoor Groups	6
The state of the s	24
Ungrouped	707
TOTAL	282

Friday evening saw large numbers of participants arriving at the Area, keeping Registration on their toes until the early hours of Saturday morning.

On Saturday, teams based on previous attendance at this exercise were selected and the most experienced (yellow) began a cave rescue practice in a difficult cave with two patients. This exercise took some nine hours to complete. The rest of the teams, (red, green and purple) were given lectures during the morning on such topics as 'The Role of the Cave Rescue Group', First Aid, Cave Safety, Map Reading, Leadership and Bushcraft. The afternoon was devoted to workshops. Topics and practices included Orienteering, Hauling, Types of Stretchers, Manoeuvring stretchers in a mock cave, and Single Rope Techniques. Saturdays events were concluded with the showing of the film "Life of Brian".

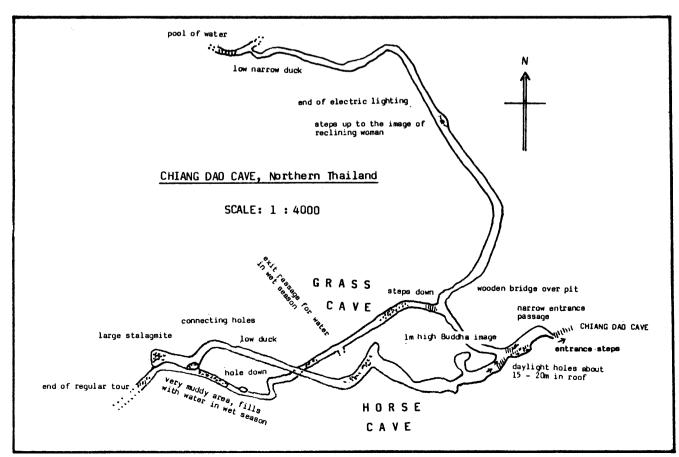
On Sunday morning, the yellow group had their debrief and discussion session while the rest were divided into twenty teams for some four hours of cave rescue practice. After lunch a short general debrief were held and the offical activities for the weekend were concluded.

The weekend was a huge success with many favourable comments being noted on the team questionnaire. The large number of participants certainly cause a problem and generally the teams were too large for good efficiency. The CRG was run ragged because of the shortage of staff.

Catering was superbly handled by Senior Constable Neil Turley of the Sydney Police Rescue Squad and the police catering van. Where would we be without him?

The weather was very hot which contributed nothing to the smooth running of the exercises but most came away well pleased with the events and the information offered, vowing to 'see yhou at Rescue '84'.

Brian N McQuillan, Convenor Rescue '83 Committee.



DOWN UNDER ALL OVER

CICG

A weekend trip to Deua Cave and Ridge Mine Pot was conducted in fine weather with a magnificent camp site on the Deua River. Most of the night was spent learning the intricacies of damper making. Ridge Mine Pot was visited the next day but as the weather was so inviting we decided to forego caving and indulged into the old standby - surface exploration. A

euphemism for mucking about.

The Cooleman Caves were visited over the January long weekend. Murray's Cave was the highlight as it was open beyond the sumps owing to the drought. In March we visited Yarrangobilly and gave Joe Jennings and Andy Spate the first official inspection of Y58 since its rehabilitation. The following day was spent with Joe on a guided tour of some of the hydrological and geomorphological puzzles of the Yarrangobilly district.

Jim Reid

MSS

The Society has had a busy year to date with trips to Abercrombie, Wombeyan, Yarrangobilly, Jenolan, Timor, Wyanbene and Lake Burrenjuck.

At Yarrangobilly cleaning of parts of Glory Hole was commenced under the guidance of Andy Spate. Other work at Yarrangobilly included photo-tagging, surveying and the discovery of further extensions and voice connection in Y48-49. These two caves are very unstable and extreme care needs to be

A small cave was recently discovered at Abercrombie (A220) and there is the possibility of further discoveries in

The Department of Leisure Sport and Tourism are retaining their intrest in the Abercrombie Cave Reserve and money has been provided for track development and improvement of tourist facilities. The Society was lucky enough to be able to visit Lake Burrinjuck, with members of HSC, prior to the dam refilling. It may be decades before the numerous

caves in the area become exposed again.

Scott Macfarlane

n ss

Little activity was evident during the summer months. Interests other than summer months. Interests other caving seem to be occupying membershiup for the present. survey of Diprotodon Cave at Canomodine has now been completed and is being put on paper at present. Most of our activity will continue here for the

meantime. Bruce Howlett is the new President taking over from Bill Johnston; and Derrick Halls is the new Secretary, taking over from Ray Rowney. Brian Bunbridge is the clubs new ASF representative.

SRCWA

The group is slowly getting into it's stride after the Christmas break and the ASF Conference. Robert and Norman Poulter caved for a short time on Kangaroo Island and visited Nurina Cave on their way back from the Conference. Several more amphipods and water samples were collected from the cave. It is now evident that the main colony of amphipods are centralized around a of amphipods are centralized around a $1m^2$ lake at the base of the entrance rockpile so visitors should exercise care on entering the cave. A scientific description of this new species is currently in progress negating the need for any more collecting.

Work is proceeding on the cleanup of Yallingup tourist cave with the Group presenting a slide show at the nearby Caves Hotel whenever they are in the

The television documentary that the Group was involved with last year went to air in mid-March receiving good audience response. Just on 30% of the fifty minute programme was devoted to caving and diving under the Nullarbor Plain. Press reports indicate that the series will be shown throught Australia in the near future on the Channel Nine network. Known as The Wonder of Western Australia, the three episodes produced so far are well worth watching out for.

Norm Poulter

WASGA

Webb reports Rauleigh Webb reports on WASG activities for the last six months. Pre-Speleovision trips to the Nullarbor were organised by WASG and were quite successful. In general these trips were fairly touristy but some work was done. A small cave found on Mundrabilla station by the Williamson and Parr's travelling 'circus' was and Parr's travelling 'circus' was surveyed to ASF grade 55 and a resurvey of Webb's Cave, to a similar grade, was commenced. Water flow experiments were conducted in Nurina Cave and to everyone's surprise the water was found to be flowing beneath the calcite

The only disaster of the trip was a certain South Australian who found that all of the great photos that he had been taking for the previous two weeks were figments of his imagination as the

camera had no film in it.
Post conference trips were in general poorly attended by WASG members as we all had to head for home but Mike Butcher arrived from WA just in time for the Post Conference Corra Lynn and Nullarbor trips.

Surface mapping has continued at Yanchep with Mike Butcher leading many one day trips to tag, survey and mark onto an area map, the many caves of this area. Following a burn in the Melaluca Cave area several weekends were spent finding new caves. Several significance

DOWN UNDER ALL OVER

standards and have been named. For excample Mia Mia Cave (Yn 68) and Tree Cave (Yn 70). Another cave Yn 61 contains a reddish deposit that is yet to be identified but may be the result of bacterial action.

In the South-West few new discoveries have been made except by would be vandals. Crystal Cave has been broken into again and this time the unauthorised party managed to get through the second gate into the Christmas Star Extension. This very delicate section of cave has never been broken into before. We can only hope that no damage has been done. At Golgotha Cave vandals have been very active over the past six months and senseless vandalism has occurred. Several large stalagmites have been deliberately broken but fortunately left in the cave. Because of the clean nature of these breaks an attempt to

glue the stalagmites back together will be made in the near future.

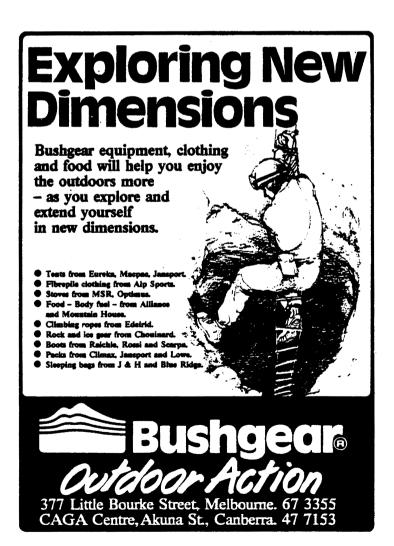
Visitor pressure on caves in the South-West appears to have increased quite dramatically in the past year and attempts are being made to impress upon the National Parks Authority that an increase in on-site managment is necessary if the caves of this region are to survive into the next decade.

A recent trip was held to Nambung where members of the Naturalist Club were treated to the delights of the Pinnicals and a bit of caving. A likely site for a dig was found and Rob Foulds is to obtain permission to carry out this dig.

Mike Newton recently returned from a very successful trip to Cave Range where several blind fish and shrimps were collected for the WA Museum. Besides this collecting many of the interesting caves at the Cape were visited. These include Dry Swallet, Shothole Tunnel and Anomaly Cave. On the social scene 1983 is WASG's 25th birthday and a birthday party is to be held at a Perth restaurant to celebrate

the occasion. HAPPY BIRTHDAY WASG!!!!

0 0 0 0 0 0 0 0 0 0 0 0 0 0



Book Review

'SHIBUMI' - Trevanian (1979) Ballantine Books, New York

TERRY O'LEARY

You may wonder what a book review on a spy novel is doing in the ASF Newsletter. The main reason is I read it, enjoyed it, and found that a popular novel could get some of the pleasures of caving across in a clear and lucid manner.

The author must have had some experience in caving. The techniques are dated and some even breach the ASF Safety code (!). However there is nothing stupid or implausible (in a caving sense) about the main character's technique except the size of his caving party. The magnificant caves described and the map supplied would require much larger parties and better logistics.

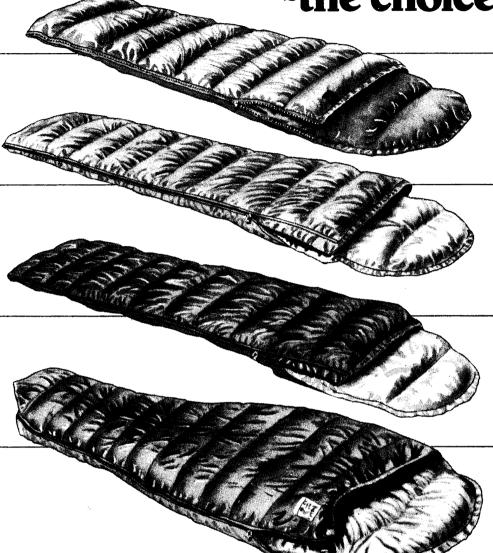
Passages such as,"His flare spluttered out, and the eternal spelean darkness closed in on his mind with a crushing weight. Spots of light like minute crystal organisms under a microscope sketched across the darkness with each movement of his eyes. They faded, and the dark was total." convey sentiments and sensations felt, if not often expressed, by those of us who have a fascination for the spelean world.

The book is a pleasure to read and the author has once again done a good job. His previous effort the "Eiger Sanction" was also excellent but less relevant to cavers.

Generally the novel is worth reading, but it is a work of fiction and some of the procedures used are not safe and should not under any circumstances be imitated.

ST. SKARY 1141, Skright 1911, just down FALCON 703 CROWS Also at mail orders P.O. Box 703 CROWS TO THE MAIL OF THE PROPERTY OF THE PROPERTY

A big range of Paddymade bags -the choice is yours.



KIANDRA — compact! Mini size, mini weight with high quality and high comfort. Kiandra is a "3 season" semi-rectangular down-filled bag with ripstop nylon outer and cotton inner lining which ensures unlimited comfort. Able to mate with similar Paddymade bags. Kiandra's so small, ten will fit into an average size rucksack.

HOTHAM — versatile! The most popular Paddymade sleeping bag, perfect for every conceivable type of outdoor adventure. Hotham's box walls and high quality loft down, ripstop nylon shell and its ability to mate with similar Paddymades, make it the versatile, happy compromise sleeping bag.

BOGONG — the snow bag! The no-nonsense, no compromise winter sleeping bag. A versatile flat opening semi-rectangular bag, nevertheless is designed for truly cold conditions—perfect for skiers and climbers. Mates with similar Paddymades.

SNOWLORD — Everest conditions!

The top-of-the-range tulip shape specialist sleeping bag. Designed for superior performance for major overseas climbs, extremes or high altitudes. Slanted walls, tapered ripstop nylon shell and boxed foot section make Snowlord the Ideal "expedition" bag for serious users.

PADDYMADE SLEEPING BAG COMPARISON CHART

						SIZE IN	
MODEL	WEIGHT INC. STUFF SAC.	CONSTRUCTION	FILL WEIGHT	FILL	TEMP. RATING*	ZIP	STUFFSACK cm
KIANDRA	1.25 kg	Sewn Thru	500 g	550 Loft Down	5°C	Full Zip	30 x 17
BIMBERI	1.00 kg	Box Wall	550 g	550 Loft Down	-5°C	Side Zip	30 x 17
HIGH PLAINS	1.80 kg	Box Wall	1100 g	Featherdown	-5°C	Full Zip	34 x 23
HOTHAM	1.60 kg	Box Wall	700 g	550 Loft Down	-5°C	Full Zip	34 x 23
MELALEUCA	1.55 kg	Box Wall-	800 g	550 Löft Down	1.5°C	Side Zip	34 x 23
BOGONG	1.60 kg	Box Wall	900 g	550 Loft Down	-1.5°C	Full Zip	34 x 23
SNOWLORD	2.00 kg	Slant Wall	1100 a	550 Loft Down	-25°C	Side Zin	37 x 27

All bags fit people to 190 cm (6ft 3in) tall; bags to fit people 205 cm (6ft 9in) are available in most models.

*Temperature Ratings are a soft measurement — they represent an average expected performance level for a standard person although individuals will differ by up to ± 10°C. Paddymade reserves the right to alter these specifications without notice.



Paddy Pallin

Sydney: 69 Liverpool St. (02) 264 2685 **Miranda:** 527 The Kingsway. (02) 525 6829 **Parramatta:** 61 Macquarie St. (02) 633 3749

Outdoor Shops

Canberra: 46 Northbourne Ave. (062) 47 0949 **Melbourne:** 55 Hardware St. (03) 67 4845 **Hobart:** 32 Criterion St. (002) 31 0777