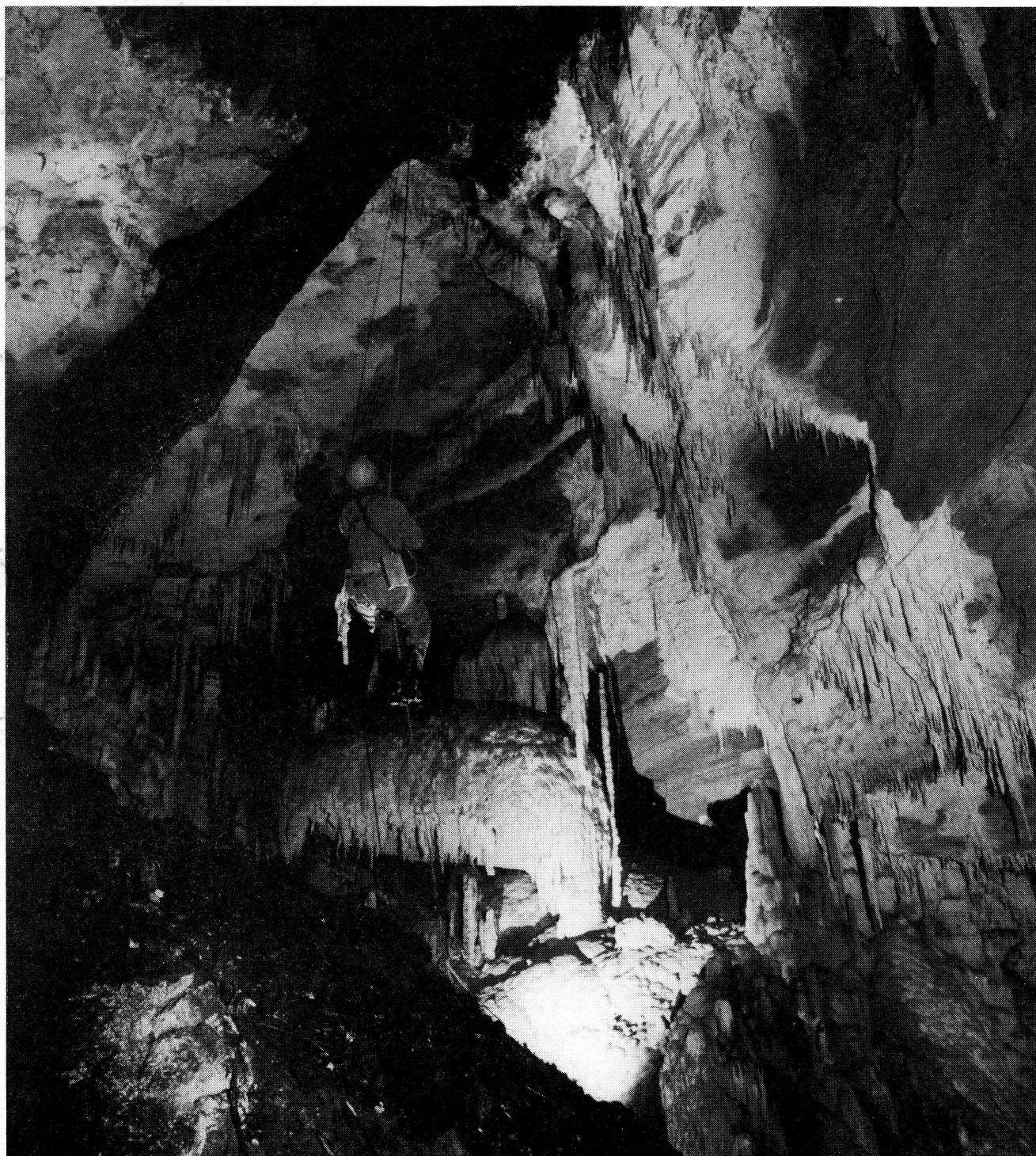


AUSTRALIAN CAVER

THE AUSTRALIAN
SPELEOLOGICAL QUARTERLY

No. 124

1990



AUSTRALIAN SPELEOLOGICAL FEDERATION INC.

MEMBER SOCIETIES

ACT

Canberra Speleological Society Inc.,	18 Arabana Street, Aranda	2614
Capital Territory Caving Group,	PO Box 638, Woden	2606
National University Caving Group,	C/- GPO Box 4, Canberra	2601

NSW

Baptist Caving Association,	90 Parkes Street, Helensburg	2508
Blue Mountains Speleological Club,	PO Box 37, Glenbrook	2773
Endeavour Caving & Recreational Club Inc.,	PO Box 63, Miranda	2228
Highland Caving Group,	PO Box 154, Liverpool	2170
Hills Speleology Club Ltd.,	PO Box 750, Castle Hill	2154
Illawarra Speleological Society,	PO Box 94, Unanderra	2526
Kempsey Speleological Society,	27 River Street, Kempsey	2440
Macquarie University Caving Group,	c/- Sports Assoc. Macq. Uni.	2109
Metropolitan Speleological Society Inc.	PO Box 2376, Nth Parramatta	2151
Newcastle & Hunter Valley Speleological Society	PO Box 15, Broadmeadow	2292
Orange Speleological Society,	PO Box 752, Orange	2800
RAN Caving Association,	c/- 30 Douglas Ave, Nth Epping	2121
Sydney University Speleological Society,	Box 35, The Union, Sydney University	2006
Uni of NSW Speleological Society, Box 17,	The Union, Uni of NSW, Kensington	2033
Uni of Technology Sydney Speleological Society	c/- The Union, PO Box 123 Broadway	2007

QUEENSLAND

Central Queensland Speleological Society Inc,	PO Box 538, Rockhampton	4700
---	-------------------------	------

SOUTH AUSTRALIA

Cave Exploration Group South Australia Inc.,	PO Box 144, Rundle Mall, Adelaide	5001
Flinders Uni. Speleological Society, c/- Flinders Uni. Clubs & Societies Assn.	Sturt Rd Bedford Park	5042

TASMANIA

Northern Caverneers Inc.	PO Box 315, Launceston	7250
--------------------------	------------------------	------

VICTORIA

Victorian Speleological Association Inc.,	PO Box 5425 CC, Melbourne	3001
---	---------------------------	------

WESTERN AUSTRALIA

Speleological Research Group Western Australia,	PO Box 120, Nedlands	6009
Western Australia Speleological Group,	PO Box 67, Nedlands	6009

ASSOCIATED ORGANISATIONS

Avondale Speleological Society,	c/- 20 Avondale Road, Corranbong	2265
Campbelltown Caving & Outdoor Group,	PO Box 281, Campbelltown	2560
Central West Caving Group,	PO Box 1338, Orange	2800
Chillagoe Caving Club Inc,	PO Box 92, Cairns	4870
NSW Cave Rescue Squad Inc,	PO Box 122, Bankstown	2200
Nth Queensland Speleological Association,	1 Boden St Edge Hill	4870
OTC Caving & Canyoning Club	C/- PO Box 1996, North Sydney	2059
PNG Cave Exploration Group,	c/- G. Francis, PO Box 1824, Port Moresby	
Rover Speleological Society of NSW,	c/- 10 Neirbo Ave, Hurstville	2220
Scout Assoc. of Aust. (NSW Branch),	PO Box 115, Haberfield	2045
Scout Caving Group (Sth. Aust),	c/- 44 Fullarton Road, Norwood	5067
Snowy Mountains Speleological Society,	c/- Mobil Service Stn, Adaminaby	2630
Sydney Speleological Society,	PO Box 198, Broadway	2007
Tasmanian Cave & Karst Research Group,	PO Box 338, Sandy Bay	7005
Tasmanian Caverneering Club,	PO Box 121, Moonah	7009
University of New England Mountaineering Club,	University of New England	2351
Warrimoo Christian Caving Assoc.,	c/- 13 The Mall, Warrimoo	2774

CONTENTS

Member societies		page	1
Editorial	by I. Mann	page	2
Notices and News		page	3
Down Under All Over		page	3
Cave Leeuwin - More Details		page	3
Flooding Incident in Growling Swallet	by P. Ackroyd	page	4
Speleo Synopsis August 1989-January 1990	by P. Ackroyd	page	7
Bungonia - It's On Again	by M. Gibian	page	10
Caving in Paradise	by S. Brooks	page	11
ASF Officers		page	14
Cavers Ball Details		page	15

DEADLINES FOR FUTURE ISSUES:

No. 125: end Sept 1990

No. 126: end Dec 1990

All articles, reports, photos and reviews are welcome for publication and should be sent to Ian Mann, 28 Stephen Street, LAWSON NSW 2783.

The opinions expressed in this journal are not necessarily those of the A.S.F. Inc. or the Newsletter Commission.

Cover Photograph: 38m entrance pitch - Pseudocheirus Cave (IB-97) Ida Bay Tasmania (Note large tree trunk on left) by P. Ackroyd; 4 May 1990.

EDITORIAL By Ian Mann

Firstly I must apologise for the late arrival of this issue of AC. Our computer decided it needed a holiday and as a result we could not do any typing.

I would also like to thank our regular writer for their articles (yes Peter) for without articles we don't have a newsletter to print. It actually appears that the only club in Australia doing anything is SRGWA for they are the only club that regularly sends copy for Down Under All Over.

While on the matter of articles this issue exhausts our in-tray for future issues, except for a few photos from Peter Ackroyd. Unless somebody out there starts writing something then there won't be a next issue. If you send an article it would be a great help if you send it on 360k 5 1/4" IBM compatible floppy disk in ASCII form. This makes life a lot easier at this end (if this is not possible just send a typed copy). Note also that we have put the deadline for articles in future issues back one month to compensate for the late arrival of this issue.

On another note I must commend those clubs (I must say a vast majority) that have sent an updated address list promptly. This is the first time this has happened in the eight years I have been involved with the newsletter.

Finally while I'm rambling on I thought I might clarify a few points for the benefit of members: (1) The newsletter year for distribution purposes runs from 1st July to 30th June.

(2) Address lists are updated in July each year and in December each year with information supplied by the club secretaries, or, in the case of individual members, by the ASF treasurer.

(3) If anyone changes their address during the year, just send me a note and I will edit the file in time for the next issue.

Note that because of the delay in production of this issue it is the exception to this rule. Issue 124 will be sent to the 1989 address list as supplied by your club. Issues 125,126,127,128 will be sent to the 1990 address list.

That's all for the time being so get pen to paper and send me some articles to print in order that we may keep the newsletter going, a fact that I believe is most important for the continual survival of ASF (Inc).

NOTICES AND NEWS

ASF BEGINNERS HANDBOOK PROJECT

If any affiliated group has not yet returned the questionnaire regarding the Beginners Handbook, could they do so soon, so that your ideas may be considered.

Reminder...Deadline for articles for the handbook is the end of August 1990.

Any Queries should be directed to : -Alex Kariko
Editor, Beginners Handbook
VSA (Inc)
GPO Box 5425 CC
MELBOURNE
VIC.3001

CAVES IN CENTRAL AUSTRALIA? by C.Brown

Recently Cathy Brown came across a 1931 reference to a cave near Glen Helen Station, in the Macdonnell Ranges about 125km west of Alice Springs. She reports that the area is not mentioned in the 1985 Karst Index and that there are limestone beds in the area, but she hasn't located the cave very precisely yet.

If anyone has heard of this cave or is interested in it she can provide bibliographic details, a copy of the relevant information, or more research if wanted. Her contact is : -Cathy Brown
13 McDonald St
Chifley ACT 2606

DOWN UNDER ALL OVER: SRGWA

Winter has not dampened the enthusiasm of the caving core of the Group with the trip a month programme continuing. A weekend of digging in the eastern side of the Giants Cave doline saw the dig descend to about 10m below ground level. The dig, mainly through sediment, produced a modest return of bone material that was packed off to the WA Museum for identification. A quick survey relating to the entrance on the other side of the doline revealed that the dig must descend at least another 6m before a breakthrough into virgin cave could be expected.

A jointly funded restoration program with CALM in Calgardup Cave - a former tourist cave - will take place in early July.

The Group's study area at Waneroo, north of Perth, has turned up some surprising results in a cave aptly named Unexpected Cave.

Following the Group's successful sortie into the Kununurra last year, a smaller expedition flew into the region recently for another two week stint amongst the cane grass and sharp limestone.

CAVE LEEUWIN UPDATE:

As the year passes the halfway mark the pace of the Cave Leeuwin preparations has naturally increased. By now all recipients of the Australian Caver, and others, should have received a direct mailout from the Conference organisers relating to costs accommodation and registration information. Complementing that is the news that the three caravans mentioned in that and other literature have now been totally booked - almost as soon as the first letter of intent started rolling in. The main forms of accommodation now available is either tents or the nearby Backpackers. Strangely enough, nobody seems interested in the excellent hotels that are available.

In relation to the planned POSTER SESSIONS DR. Julia James of SSS has posted (note the pun) \$20 towards a BEST POSTER AWARD. Thank you very much Julia... Several clubs and individuals have already indicated that they are participating in the Poster Sessions.

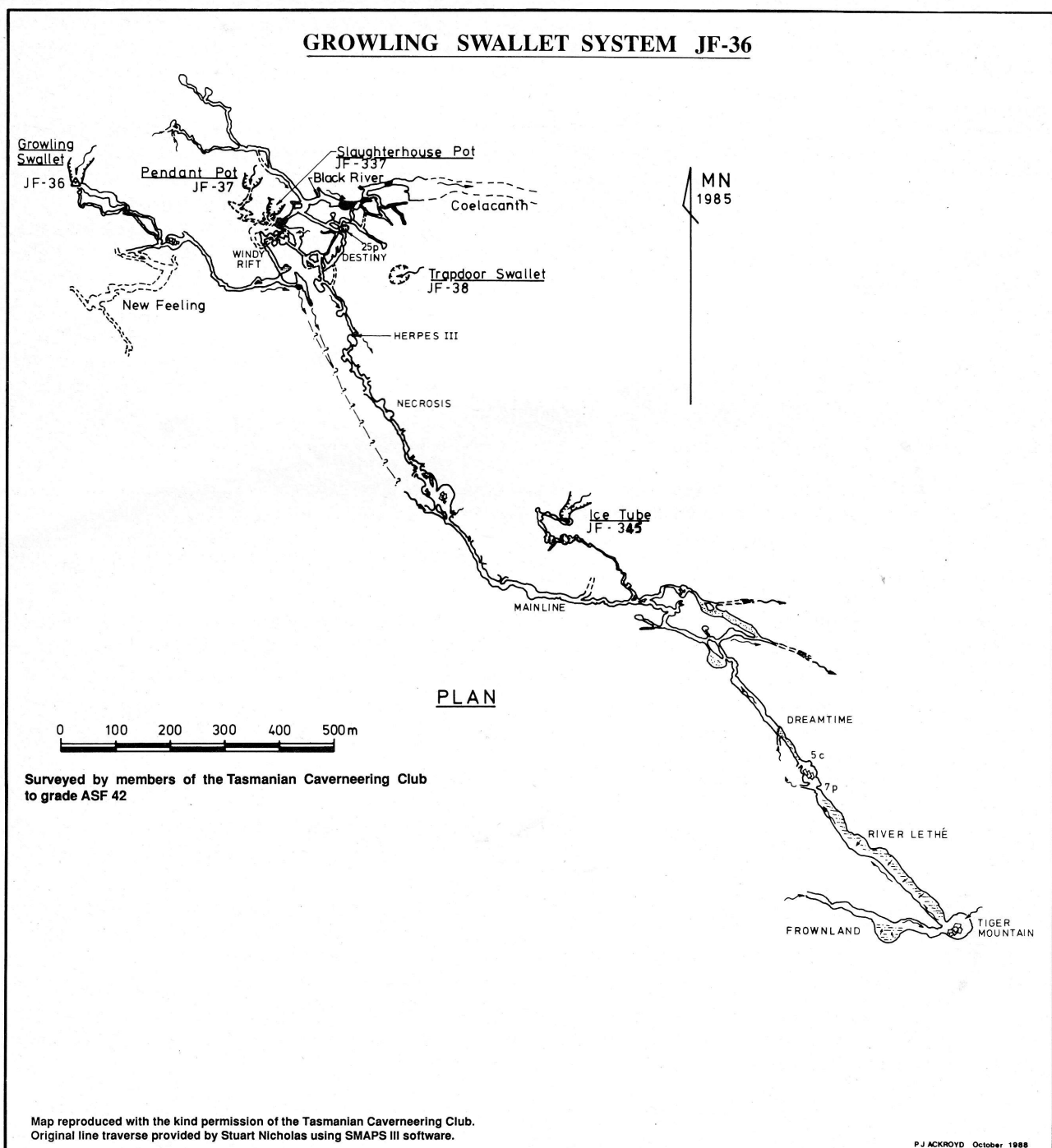
Early returns of the completed registration forms with remittances would be appreciated.

FLOODING INCIDENT IN GROWLING SWALLET

by Peter Ackroyd

Growling Swallet [JF-36] in Tasmania's Florentine Valley is a major streamsink cave and is the largest known underground section of the Junee River in the Florentine karst region. The first recorded entrapment by floodwaters in the cave was in October 1982. In that incident the entrapment occurred in the Windy Rift area of the cave, due to the main sump filling up with snowmelt off Mt Field West. The party of four, who had been exploring the Black River section of the cave, took refuge in the base of a nearby aven, now known as Refuge Aven (Wailes 1982). A cache, consisting of food, a stove and sleeping mats was installed in the base of the aven afterwards, just prior to the commencement of the January 1985 ASF biennial conference held in Hobart (Davies, 1984).

The only other details of the flooding characteristics of the cave are known from a visit by Stefan Eberhard and Richard Hortle in September 1982 (Hortle 1982). In order to gain access to the then unnamed Avon's Aven, the pair had to swim across a small lake which had formed at the sump area of the Trapdoor Stream, just before the notoriously grotty crawl, Herpes III. Since they had been able to negotiate the main streamway satisfactorily on their way into the cave, it would appear that the Trapdoor stream sumps more readily than the main stream.



On Saturday 12th May 1990 a photographic trip by Peter Ackroyd of the Victorian Speleological Association was undertaken. Peter planned to photograph the Mainline and Dreamtime sections of the system. He was to be accompanied by Stuart Nicholas of the Tasmanian Caverneering Club (TCC). At the last minute the party was joined by a young TCC member, Dean Morgan, whose original trip to *Niggly Cave* had fallen through. The synoptic chart and weather forecast were checked at 6 pm the night before. The forecast was for clearing showers and no large cold fronts were apparent on the charts.

Departing from Hobart at 5.45 am on Saturday morning, the ANM gate was reached by 7.10 am and the cave itself entered by 8.15 am. A steady pace was maintained down the cave with only minor delays due to navigation problems - all three having been to the Dreamtime section before.

Photography commenced at the far end of Dreamtime (approximately 3 kilometres from the entrance) just before midday. The last photo session, at the commencement of the Mainline section of the cave (approx 2 km from the entrance) was completed by 2.10 pm, well within the time scheduled to allow a return to the ANM boom gate by 6.00 pm. Normally from this point it is a reasonable leisurely 2-2.5 hours to the entrance of the cave. By 3.10 pm Avon's Aven was reached. However the first person down the 20 metre ladder and through Herpes III found an enormous lake, extending out from the level of Herpes III, which is 3 metres above the streamway. The continuing passage, instead of being an easily negotiated tall canyon, was a lake with a tiny triangular hole at the far end, about 20 metres away.

A quick conference ensued. Stuart readily admitted to being a non-swimmer, while Peter and Dean were both poor swimmers. It was decided to wait till the water level dropped. Clearly there had been heavy rain outside sometime during the afternoon, of such intensity to cause the Trapdoor stream to sump entirely. Previous experience with the system indicated that such floods clear readily and so a wait of less than 24 hours was anticipated. [It was later discovered that a highly localized and extremely heavy shower of only a half hour's duration had fallen on Mt Field at about 1.15 pm. The rain gauge at the ANM boom gate registered 12 mm. It was possibly a bit more on Mt Field itself, but the high intensity of the squall was the main contributor to the resultant flood pulse which passed through *Growling Swallet*.]

A retreat was made to the relatively dry and draught free area at the head of Avon's Aven, at the start of the high level fossil system, Necrosis. All extra clothing carried on the trip was donned, a small meal was taken and the site was made as comfortable as possible for the potentially long wait.

All three were wet through from the trip. Two (Stuart and Dean) were wearing waterproof oversuits with woollens or thermals underneath. Peter was wearing a similar oversuit but a 2 mm thick neoprene surfers "steamer" as an under-suit. Additional clothing donned consisted of balaclava, gloves or mittens and, for Peter, a woollen pullover. Wetsuit type materials are good for immersion or semi-immersion, and whilst moving, but suffer from the disadvantage of continuing to hold water, which is slowly evaporated by the body with a consequent loss of heat.

"I spy with my little eye" palled quite quickly, especially as everyone had turned off caplamps to conserve battery power. Soon it was simply a matter of huddling in a foetal position on one's pack in order to retain as much heat as possible. Moderate shivering commenced almost immediately. The air temperature was measured at 8.5° C.

Given the level of flooding it was decided to try to catch some sleep while still fresh, then to check the water level. This latter was a major undertaking since it necessitated an unbelayed ladder descent of 20 metres, a 7 metre crawl while semi-immersed in black sludge, through Herpes III, then a return up to the draught free refuge.

Peter made the first check at 7.00 pm, but when he was 15 metres down the ladder, he looked down to see a vast lake inside the aven. The water level had risen a further 2.5 - 3 metres and Herpes III itself was now closed by water.

Peter returned to a despondent group. A wait of more than one day now seemed a very real possibility. The only other entrance still accessible was *Ice Tube* [JF-345] which contained ten pitches and would require at least a day to rig. In addition, this would be extremely arduous escape route for tired and fatigued cavers. The shivering continued with a new awareness. Hypothermia was now a real possibility and with that in mind each party member checked the other two for signs of undue lethargy or cessation of shivering. [Once shivering ceases, in cold conditions, the body has entered the second, more severe, stage of hypothermia.] Naps of a few minutes were able to be snatched between bouts of shivering and calisthenic exercises.

At 1.00 am Sunday morning, strange watery 'whooshing' noises were heard from below, followed by bathtub gurglings and boulders grinding and rolling along. Peter immediately descended the 20 metre ladder to find Avon's Aven drained of water, the last vestiges of the flood still draining through Herpes III. He dived into the very wet crawl and out the other side to be disappointed by the sight of a lake stretching away in the distance. Something had clearly happened to cause the Aven to drain, but had then stopped. While Peter stood at the head of what is normally the short (3 m) climb down to the Trapdoor streamway, the water slowly rose to his knees. Once again he returned to the head of the Aven to resume shivering. At this stage a discussion on the possible options ensued. It was probable that a call-out of TCC cavers had been initiated by the ANM gateman and that they would be on site by now. Stuart surmised that *Slaughterhouse Pot* would be rigged and access gained that way. They would see what the situation was and guess that the cause of the delayed exit was floodwater. They may not guess that the entrapment was on the far side of Herpes III, but would probably check anyway as part of their search. Physically everyone was still OK but both Dean and Peter were feeling a bit bilious. Stuart was OK at present, but without insulin would be in trouble in 48 hours or so. The other option was for him not to eat, but in the energy-sapping environment that was not seriously considered.

At 3.30 am Stuart did some exercises then went down the ladder and through Herpes III to check the level. He returned with the good news that the water was now 0.6 metres below Herpes III and falling. It was decided to check water levels hourly from now on. The one fear was that another rainfall may close the system off again and so it was felt imperative that an exit be made as soon as practical.

A little after 4 am a far off "Cooee" was heard. After responding Stuart jumped onto the ladder and went to the other side of Herpes III. There he could call across a now much reduced lake to Stefan Eberhard. Stefan, along with his brother, Rolan, and Bob Reid had indeed come down via *Slaughterhouse Pot*. Rolan was off checking the main streamway to see if it was sumped (it wasn't) and Bob was not far behind Stefan. During this discussion the water was visibly falling.

At the earliest moment (about 5 am) the entrapped cavers waded across the lake and started to make their way out as far as *Slaughterhouse Pot's* final shaft. At this point chocolates were consumed with ferocity. Stefan then prusiked out of *Slaughterhouse Pot* to tell those on standby at the top of the cave that all was well. Rolan left via *Growling Swallet* to check it was negotiable all the way to the surface while Dean, Stuart and Peter, accompanied by Bob Reid made their way up a rather 'interesting' series of *Growling Swallet* waterfalls at a more leisurely pace. Ironically only Bob Reid had trouble on the worst of the waterfall climbs. He'd lost a glove, and with a numbed hand could not force the climb. Stuart quickly rigged some tapes and Bob was up. After a record slow trip out of *Growling Swallet*, the last person was out at 8.12 am Sunday morning to have a hot cup of tea thrust into his hands by the waiting rescue squad - wonderful!

All three cavers were still in good condition, and proved it by a brisk walk back to the police caravan waiting at the top of the ANM Eight Road. More cups of tea followed, along with a general debrief.

In the event it hadn't been necessary to mobilise a general rescue operation. Indeed in the early stages, some discussion between the TCC organizers, Steve Bunton and Stefan Eberhard, revolved around whether to simply wait till the next morning, before initiating a general call-out, recognizing that the almost certain reason for the late exit time was flooding of the streamway. But in the end it was that degree of uncertainty which caused them to initiate the call-out at 10 pm. Psychologically it was great to have additional people in the cave and in support on the surface but not strictly necessary. However it did prove that the recently revamped Tasmanian cave rescue call-out procedure worked very well indeed.

The main conclusion to be drawn from the incident is that a fit well prepared party can easily survive a situation which is potentially life-threatening. The circumstances of the entrapment - a 24 hour trip, of which 14 hours were spent immobile in a wet and cold environment - could have caused much more serious consequences for a less well prepared party. It is again the case of "expect the unexpected" when preparing for even the most mundane of caving trips.

References

- Davies, Chris (1984) The emergency kits. *Speleo Spiel* 202:5-6.
 Hortle, Richard (1982) Growling Swallet 4th Sept 1982. *Speleo Spiel* 180:3-4.
 Wailes, Trevor (1982) Further exploration in Growling Swallet - towards the Black Stump. *Speleo Spiel* 182:5-8.

SPELEO SYNOPSIS

AUGUST 1989 - JANUARY 1990

by Peter Ackroyd

AUSTRALIA

Troglodyte 2(2) (Oct 1989) In this issue the Northern Caverneers (Tasmania) discuss the access problems to caves in the Mole Creek area and the proposed extensions to Bender's Quarry at Ida Bay.

Speleo Spiel 252/253 (Sep-Oct 1989) Two special *Precipitous Bluff* issues covering the Christmas 1988/89 PB expedition - *Quetzacoatl Conduit* [PB-3] surveyed, *Damper Cave* [PB-1] surveyed and dived to a 400 m extension, *Christmas cavern* [PB-18] explored, *Persephone* [PB-17] connected to *Bauhaus* [PB-6], hydrological connection between *Bauhaus* and *Damper Cave* proved using fluorescein, summary of *Precipitous Bluff* caves from PB-1 to PB-24 and PB-201 to PB-209.

SUSS Bulletin 29(2) (Spring 1989) Mark Staraj present his ideas on the unknown sections of *Mammoth Cave* [J-13] at Jenolan, and where to look for them.

ACKMA Newsletter 4 (Dec 1989) This issue contains major items on the proposed Tasmanian World Heritage Area management plan. Submissions are being sought by the Tasmanian Government. Also in this issue is a report on an ACKMA consulting team's activities in the caves of Tonga.

Helictite 26(2) (1988) This issue contains an excellent article on the geomorphology of the Jenolan Caves area by Kevin Kiernan. It also contains a short article on the probable diversion (by man) of Camp Creek through the Grand Arch at Jenolan.

NEW ZEALAND

NZS Bulletin Index for Volume 7 - covers issues of New Zealand Speleological Bulletin 121-140 (1981-1986).

NZSS Occasional Publication No 4 (Feb 1989) 'The Little Red Cavers Book' summarises structure, ethics and activities of the New Zealand Speleological Society.

NZS Bulletin 146 (June 1988) Slowly catching up with their backlog, this issue of the New Zealand Speleological Society's Bulletin contains an article detailing the construction of the Nelson Speleological Group's hut at Takaka Hill. Taking only 18 months, the group had first to construct a road to the site of what must rate as one of the most substantial caving huts in the world, with magnificent views to boot. Other items cover *Waipuna* (Moa Bone) Cave (Taihape, North Island), *Babylon Cave* (Fox River, South Island), lava caves in Auckland and the 1983 discovery of *Greenlink* extensions.

NZS Bulletin 147 (Sep 1988) The major article in this issue covers how best to deal with bones found in caves. Trevor Worthy emphasises that, if possible, they should be left in place as this provides maximum information to palaeontologists. Other items include a description and map of *Cemetery Cave* (South Kawhia) and a geomorphological history of *Ramsey's Neck Cave* (east coast, North Island).

NZS Bulletin 148 (Dec 1988) Of interest in this issue is a brief description, with drawings, of the construction of a Topofil cave surveying unit. Other items include underground fortifications at Christchurch, *Erebor Cave* (Kawhia) map and description, *Piripiri Road Caves* (Palmerston North) and a history of the exploration of the *Elver Canyon System* (Northland).

EUROPE

Descent 89 (Aug-Sep 1989) It's strange, but we have to await publication of British or American caving journals before we can learn the details of the *Pannikin Plain* (Nullarbor, WA) exploration and subsequent flood event. A reasonably detailed report is provided by British caver Rob Palmer in this issue of *Descent*. In other items, the 'Three Counties System' (northern England) is now 75 km long with an underwater connection discovered between *Pippikin Pot* and *Gavel Pot*, Howard Jones completes his report on a reconnaissance trip to Turkey, and the British cave rescue statistics for 1988 are published - four cave deaths and one cave diving death.

Cave Science 16(1) (Apr 1989) Uranium series dating of caves at Creswell Crags Gorge; bowl-karren at Nord-Arnoy, Norway; some caves in siliceous rocks in Norway; bones in caves of Anguilla, West Indies.

Caves and Caving 45 (Autumn 1989) The most interesting article in this issue is the description of a small British team's visit to the *Reseau Jean Bernard* (France), the world's deepest cave at -1,535 metres, during January 1989. Due to running low on carbide, they did not quite reach the bottom, turning back with a descent of only 150 metres to go. The whole trip took 41 hours in a single push. Other articles summarise expeditions to Irian Jaya, Austria, Cuba and the underwater lava tubes of the Canary Islands.

Descent 90 (Oct-Nov 1989) Recent dives (mid 1989) in *Lancaster Hole* have added 400 metres to Britain's longest cave and have brought the chance of a classic through trip nearer. An amazing story unfolds in this issue about two cavers who decide to do a highly contrived 'round trip' in *Swildon's Hole* (Mendip). In order to carry out the 13 hour trip, one particular length of passage had to be traversed a total of three times. Also in this issue is a brief report of a British trip to Uzbekistan, in southern USSR. In a similar vein, another article describes a visit by eight Poles to the Yorkshire Dales.

Stalactite 1/87 (Journal of the Swiss Speleological Society - in German and French) Main articles are studies of moonmilk using scanning electron microscope, a description and map of the *Selunhohlensystem* and a report on a 1986 expedition to the *Atlantida Tunnel*, a 1.6 km underwater lava tube in the Canary Islands. The issue finishes with a list of longest and deepest caves in Switzerland.

Proceedings of the University of Bristol Speleological Society 18(3) (1989) Main item of interest is an article by Cox, James, Osborne and Leggett 'Stromatolitic Crayfish-like Stalagmites' which describes the leaning stalagmites to be seen at Jenolan and Wombeyan, NSW, Australia, and proposes a mechanism for their development. Other items include archaeological finds (shaped tools and incised ivory) in *Gough's Cave*, Cheddar, and a description of E K Tratman's pre WWII cine film of caving activities.

Cave Science 16(2) (Aug 1989) This issue contains the best exposition on tufa yet, with great photos. Other articles describe some cave sediments from Guilin (China), the Mulu Caves 1988 expedition (Sarawak) and the karst windows of Nam Khlong Ngu (Western Thailand).

Descent 91 (Dec 1989-Jan 1990) The 1989 drought in England has allowed some normally flooded passages to be surveyed to grade 5. *P-8* (Derbyshire) was one such cave, allowing the joint system to be accurately mapped beyond the sumps.

Caves and Caving 46 (Winter 1989) This issue leads off with an article by some American cavers who explored the bulk of *Tunichil Muknal*, a 3.5 km stream cave in Belize, Central America. Perhaps Tom Miller decided to publish his article in a British magazine because he was a bit peeved. In response to a request from Queen Mary College Cavers (London), he had suggested that they visit his cave, sent them maps and further, indicated that there should be an upper entrance. After finding the upper entrance, and exploring the 50 or so metres of cave passage to the connection, the QMC group immediately claimed the Belize depth record! Other articles include a description of the third deepest cave in the world - the 1,441 metre deep *Sistema del Trave* in Northern Spain. Written by Frenchman, J Y Bigot, it opens with a classic Gallic statement: "British caving groups have done much work in the Picos de Europa mountains in Northern Spain, but even so the deepest cave yet found, the *Sistema del Trave* in the Central Massif, has been explored by a French club." The other article of significance is 'Caving with the Russians', describing a British team's visit to the Baysun area, Uzbekistan (southern USSR) in 1989.

USA

NSS News 47(6) (Jun 1989)

In this issue the lead article is 'The history and exploration of *Robber Baron Cave* located directly below San Antonio in Texas. A historical note of interest is the news that the remains of Floyd Collins, killed by entrapment in *Sand Cave*, Kentucky, in 1925, have finally been properly buried. Until 1948 his body was on public display in a casket located in *Crystal Cave*, Kentucky. Other notes include an exploration dive by Sheck Exley in *Nacimiento del Rio Mante*, Mexico, (Exley penetrated the flooded shaft to a depth of 265 metres) and the news that *Lechuguilla Cave*, New Mexico, is now over 51 km long.

Geo² 12(3) (Summer 1985, issued June 1989) Editorial problems have held up production of this magazine, but it appears that the presses are running again. Articles in this issue date from 1985 and include a theory on speleogenesis of *Carlsbad Caverns* (New Mexico), a description of how to make a physical model of a cave and an obituary to Joe Jennings.

Geo² 15 (1987/88) This issue contains many articles on the karst and hydrology of Door County, Wisconsin. Other items include 'Evolution of Rio Grande Karst of Belize', 'Rapid Karst Denudation in San Salvador, Bahamas', and a program for the tenth Friends of Karst meeting held on San Salvador Island, Bahamas, during February 1988.

NSS News 47(7) (July 1989) This issue has a report on the 1987 Cockpit Karst Expedition to Jamaica, and a description of the exploration and mapping of a 2.3 km long cave discovered in 1984 in someone's backyard in Tennessee. Also in this issue is an update on recent cave discoveries in the USSR.

Compass and Tape 6(4) (Spring 1989) The main article in this issue examines the application of CAD (Computer Aided Design) to the drawing of cave maps. The conclusion is that current CAD software doesn't really suit caves.

NSS News 47(8) (Aug 1989) More details of the *Pannikin Plain* (Nullarbor Plain, Australia) diving expedition and subsequent flooding, this time written by Wes Skiles. Also by this author is an article describing the three month long Wakulla Springs Project (Florida) in late 1987. Other news includes an update on *Lechuguilla Cave*, New Mexico, now 59 km long following the June 1989 trip and a rundown on the Puerto Rico National Speleological Foundation.

NSS Bulletin 50(1) (Jun 1988) Processing cave survey data using CAD; pleistocene mammals remains from *Patton Cave*, West Virginia; pebble indentations - a new speleogen; Bulgarian cave minerals; Proceedings from NSS 1987 Annual meeting; index to Volume 47 of NSS Bulletin.

Speleonics 13 (Oct 1989) Articles of interest include how to build an ultrasonic receiver to allow one to listen to bats, a field test of an altimeter in a wristwatch and a pre-amp circuit for an ELF (1 kHz) receiver.

NSS News 47(9) (Sep 1989) The main item describes the exploration of *Endless Caverns* (Virginia) by the Explorers Club during the early part of this century. There is also a list of USA's deepest and longest caves.

NSS News 47(10) (Oct 1989) An article from an Italian group describes their expedition to the caves of the Dominican Republic (Caribbean). A carefully thought out article on how much impact different caver groups have on caves is also contained in this issue - recommended reading. The issue winds up with a history of the exploration of *Maple Leaf Cave*, a 4.1 km stream cave in Missouri.

Nylon Highway 29 (Dec 1989) the main article in this issue is another of Gary Storrick's analytical examinations of vertical cavers' hardware - this time it is handled ascenders. According to Gary, jumars are streets ahead of the rest. Other items cover a load releasing hitch and the physics of bobbin type descenders, with a view to improving their performance.

NSS News 47(11) (Nov 1989) The lead article in this issue is the history of exploration in *Elk River Cave*, West Virginia, an extensive epiphreatic system below the Elk River bed. Also in this issue, Russell Gurnee has an article on the best way to develop show caves and a report is given on the recent 10th IUS congress in Hungary.

Compass and Tape 7(1) (Summer 1989) The major article in this issue discusses the changes being wrought by the advent of the computer in the way people regard cave 'maps'.

NSS News 47(12) (Dec 1989) The main item in this issue is the news that *Lechuguilla Cave*, New Mexico, now has an Eastern Extension. Discovered in the May and September trips of 1989, it contains extraordinary decoration and an additional 8 km of passage. Other items include a description of caves on Bohol Island (Philippines) and *Phelps Cave* in Kentucky.

BUNGONIA - ITS ON AGAIN!

No doubt a lot of you will remember the conservation battles fought at Bungonia by SSS and others to stop the mining on the northern side of Bungonia Gorge.

Well it's time to act again!

Currently the lease for the Marulan Quarry is held by Blue Circle Southern Cement Ltd. Many of you will have noticed that in the last few years the scree slopes formed off the southern edge of the quarry have been growing. The quarry has also grown considerably in size. In their eagerness to chew up half the gorge the mine has been sending boulders and rocks cascading into the creek below destroying trees on their way down. A small tributary gorge or canyon formed off the western edge of the mine that drains into Bungonia Creek has also been filled with silt.

Unfortunately we can not get rid of the mine, even if it is a horrible eye-sore. However we can hopefully get Blue Circle Southern to clean up their act. Under the conditions of the lease the company MUST adhere to the regulations set out in the Clean Waters Act. This means they cannot pollute Bungonia Creek.

Pollute under the Act means that the physical condition of the water has been changed. "Pollute" in the Act is:-

"any matter of the following nature: - (iii) inorganic matter of any description including ashes, ballast, soil, earth, mud, stones, sand, clay residue or washings from any mineral processing or extractive operation or soil, spoil or washings from any dredging operation;"

Clearly Blue Circle Southern is polluting and we have to act NOW to stop them doing further damage.

On the 19th & 20th of May, SUSS in conjunction with the Bungonia Open Day ran a successful protest to bring this environmental destruction to the attention of the public. We managed to get good TV coverage of the event with news stories on the ABC, SBS and Channel 10. Three helicopters flew down from Sydney to cover the protest which is a good indication of the media interest in this issue.

BUT WE NEED THE HELP OF THE WHOLE CAVING COMMUNITY!

Please write to the following people to register your protest at this environmental pollution and destruction. It is both our and the politician's responsibility to do something NOW:-

The Hon. T.J Moore
Minister for the Environment
Level 9
Legal & General House
8-18 Bent Street
SYDNEY NSW 2000

The Hon. N.E Pickard
Minister For Minerals & Energy
38th Level
Hyde Park Tower
Cnr. Park & Elizabeth Street
SYDNEY NSW 2000

CAVING IN PARADISE

Caving in Paradise is, I must admit, a rather grandiose title for a few pages of words, but in these few pages I intend to describe, albeit briefly and without great detail regarding the actual caves, a caving region that I can only describe as I have already done, as paradise for cavers.

This region lies about 2,300 kilometres north of Perth, is comprised of a total surface area of about 13,700 hectares, and is completely surrounded by water. It is, in fact, Christmas Island, a territorial dependency of mainland Australia.

The temperature varies by approximately 10 degrees through the year, from just above 20°C to just below 30°C. Nearly the entire water supply is sub-surface, pumped from limestone caverns, and only a few surface streams are to be found.

The Australian Speleological Expedition to Christmas Island took place during August 1987 and comprised of the following people.

Rauleigh Webb	...	Leader and organiser
Noel Plumley	...	Medical Officer
Steve Brooks	...	Equipment Officer
Roger Howlett	...	Speleologist/biologist
Jim Fife	...	Speleologist/diver
Vanda Tryka	...	Speleologist
David Longman	...	"
Jacqui DeWhitt	...	"
Derek Hobbs	...	"
Lucinda Coates	...	"
Brian Vine	...	"
Guy Fowler	...	"

The Island possesses a friendly population, the best Asian restaurants and the cheapest beer in the Australian speaking world, surely some of the most important considerations of any speleologist.

The caves on the island develop in two quite distinct categories; coastal caves, which have entrances at sea level and burrow directly into the flank of the island with little perceptible upward trend; and surface run-off caves little deeper than 20 or 30 metres at the deepest with no perceptible downward trend. Yet the coastal caves gush fresh water into the ocean at a tremendous rate. We theorised a connection, but never found one during our explorations.

Here I present just three short vignettes from my memory of that seemingly endless month. To do justice to the Island would require more space than is probably available here, but hopefully I have conveyed the essence of what I feel for that unique place.

FULL FRONTAL CAVE

As stated above, the temperature varies little year round, but the sea was an ever changeable and changing beast. Freshwater Cave was explored on a day of relative calm by dropping directly into the water from an overhanging cliff. It develops from a sea cave entrance. It took two attempts to find the entrance.

The first day we swam a hundred metres along the base of the cliff to a large opening awash with a rolling swell that tried to pound us against the rocks. We explored the sea cave and a few blind leads, one into a delicate roof opening filled with live formation that I was the only one to enter. The floor must have been less than a metre thick in places, and below that a 3 metre drop to the sea and rocks. I exited from this chamber through the middle of a hollow sea carved column.

Later I sat in another small hollow, alternately out of the water and then neck deep as I fought the surging water to keep my seat. I looked behind me into the depths of the hollow and wondered, could it be? Then a swell washed in and filled the hollow with foam and noise as it fought the resistant limestone, and backed away, defeated. No, of course not! and I let the wash take me away into the deeper water.

Of course, yes! We came back the following day, calmer seas, a less violent swell. The hollow was just a water filled opening, the swells rising and falling within it with surprising gentleness. I climbed in, waded waist deep to the end and found a narrow crack leading into darkness. Beyond was approximately a kilometre of water filled passages.

SOUTH POINT

We drove down to Smithsons Bight along the south coast several times exploring known caves and looking for new caves. During one journey we drove our trusty hired Toyota 4WD along to South Point, a fascinating area quite remarkable for its vast entrances, though few unfortunately developed into caves.

One of those that did we called Pool Cave. It was a tiny little alcove opening off a large daylight chamber. It was no more than a few metres long by one metre wide and about three metres high, but the entire floor area was one pool of fresh water about ten centimetres deep, the formation layered and indicating past changes in water level.

The cliffside entrances were all of one kind. Giant inverted V's, fault developed, that closed quickly. Some aspects were rather surprising. The roofs of some of these entrances were at times 20 or more metres above our heads, yet poles were lodged unreachably high on the walls. Bird nesters, we eventually concluded, since these caves were popular nesting sites for the Glossy Cave Swiftlet, but it is claimed that the nests of these birds are unsuitable for "bird's nest soup". We could think of no other explanation, and the arrangement of the poles was remarkably similar to other areas where bird nesting was rife.

Further along the coast, at the very tip of South Point, we encountered something described on the tourist map we were using simply as "The Block". What was this, we wondered, that had such an enigmatic name? We soon found that it was simply that, a gigantic block of limestone sitting only a few metres from the edge of the sea on what could only be described as an otherwise notably flat piece of ground. It was too far from the cliff to have simply dropped off and landed where it was, yet too blatantly square for me to imagine it casually rolling across many metres of flat ground and then stopping within stepping distance of the water.

We stopped here, or were stopped actually, by the presence of a fallen tree blocking the entire width of the track. We chopped and hacked, dragged and hauled, even pushed with the vehicle, but at last we had to surrender to the inevitable, our trusty vehicle would no longer take us where we wished to go.

Of course it wasn't our vehicle's fault, it had served us without fail for weeks - well, nearly without fail - just a few minor problems. For instance, one day part of the bonnet fell into the engine and shorted out the wiring, it was a bit rusty. It was, of course, a hired vehicle, obtained from a gentleman named Mustafa Mahari, or Stubby as everyone called him. Now Stubby had some unique ideas concerning vehicle maintenance. We drove in to his establishment one day because we thought the tyres were a bit bald and needed changing. He changed them all right. He took the left front tyre off, and replaced it with the right front. Then he took the left rear and replaced that with the left front tyre etc, until all the tyres were changed. They were the same tyres, but they were changed. Still, we never had one flat tyre the entire time on the island, so Stubby may have something there.

Anyway, back to "The Block" which, as I have said, is only a hop from the ocean, but not the mild, gentle ocean we encountered on the north side of the island. Huge swells pounded at the rocks, spray flying twenty or thirty metres in the air and inshore. We climbed down the cliff, here only about ten metres high but composed of fantastically eroded shapes and forms, many knife edged and as sharp as a razor.

Here it was that I suffered my most serious injury of the expedition, and I'm embarrassed to say I wasn't even caving at the time, I tripped on a piece of limestone and scraped my leg. We headed back to camp after photographing some of the sights in the area.

THE DALES

Another day we drove down to look around The Dales and explore the area for possible caves. The Dales contain the only perennially active surface streams on the island, and the water is so rich in dissolved calcium that huge mounds of tufa, up to 15 metres or more high and easily that across, have developed near the stream outlets. A few minor and abortive leads were found without discovering any caves worth mentioning, low wide crawls, hard on the knees and backs, with tiny extensions that went as far as a torch could shine but not high enough to allow for exploration. Irritating in the extreme.

Two of us, Guy and myself, explored Drovers Cave and its associated dale, climbing steadily up towards the central plateau for several hundred metres. Old dry formation lined the cliffs either side of us. It was evident that the Dales were the collapsed remnants of old cave systems. Where the water had washed the limestone debris clear the underlying basalt appeared.

Later that day, satisfied that we would find no great cave systems up slope, we joined the others in exploring the sea exit of one of the Dales. The walls towered ever higher as we approached the ocean until they almost touched overhead. The day was brilliant and clear, the sunshine unremitting, the beauty of the scenery astounding. The cliffs rose directly from a wide platform partly awash with gentle swells from a flat, still ocean. Crabs scuttled overhead, the cliffs curving up and around to form a near semicircle of rock, mute testimony to the fact that the seas were often much wilder than we were experiencing. So calm was it, in fact, that it was no trouble to slip off the edge of the reef platform and into water that must have been ten or more metres in depth.

Guy and Jim swam 50 metres or so to, and into, the huge entrance of a sea cave, the gentle hum of waves magnified by its interior dimensions. It extended both left and right but revealed no cave system and, to tell the truth, I really believe we had stopped looking for caves by this stage.

Words fail to convey the perfect beauty and calmness of that day, a sea like polished silver, the blue sky, the feeling that this was the place to be, paradise.

REFERENCES

"Christmas Island Naturally" (1981), H.S.Gray.

"Christmas Island" map produced by Jason Allery, Darwin Institute of Technology.

DOROTHY NICTERLEIN 1949-1990

Dorothy Nichterlein died on 9th July this year after a lengthy illness, just a few days short of 41. Married for many years to long-time ASF treasurer John Taylor, she joined Highland Caving Group after moving to Sydney a few years ago, but was active earlier with the Kempsey and Bermagui societies.

I first met Dorothy at Decavecon, the 1974 ASF Conference in Brisbane. She attended nearly every Conference and Council meeting from then until 1990. At the 1988 Conference she met and later married Phil Fleming.

Dorothy's first love was always the outdoors. As well as caving she was a keen active conservationist, bushwalker and bird watcher and she did a lot of voluntary work for the Wilderness Society, the Australian Conservation Foundation and forest action groups. Fired with enthusiasm after my slide show at the 1984 Hobart ASF Conference, she became one of the original 6 participants in the Thailand expeditions of 1985. She returned in 1986 and 1988 and in that year also she was one of the group of four of us making the world's first speleological trip to Myanmar (Burma).

Dorothy was one hard caver with extraordinary stamina and perseverance. She was one of the unsung who make things work but neither claim any credit nor make any complaint. On the 53-hour "push" trip in Tham Nam Lang in 1986 she broke a rib in a fall almost at the extreme end of the cave, 6.6km from daylight. Not only did she continue the survey and come out unassisted, laden with a 25kg pack, but 2 weeks later she was trekking in Tibet. The rib never did get any attention.

Australian Caver No. 124

Dorothy's middle name was Joy and I know that as well as resolution and determination she brought joy, common sense and femininity to an otherwise all-male group. It is difficult to convey the strong camaraderie which arose from those first trips to Thailand and Burma. She was one of several who said those trips changed their whole outlook on life. Now she has gone, and I know our lives too will never be the same again.

John Dunkley

----- OFFICERS

Please write direct to the Officer concerned

Public Officer Gary Mayo 21 Gaunson Cres Wanniasa 2903 (062)316862

EXECUTIVE COMMITTEE MEMBERS

President	Lloyd Robinson	167 Mt Keira Rd Mt Keira 2500	(042)296221
Past President	John Dunkley	3 Stops Pl. Chifley 2606	(062)810664
Vice Presidents	Pat Larkin	4 Holland Pl. Dundas 2117	(02)6841714
	Lloyd Mill	11 Warner St. Essendon 3040	(03)3798625
	Rauleigh Webb	16 Loftus St, Nedlands 6009	(09)3867782
	Peter Berrill	32 Hogan St. N. Rockhampton 4701	(079)271068
Secretary	Chris Dunne	PO Box 388 Broadway 2007	(02)6057003
Assistant Secretary	Derek Hobbs	Cairnes Ln. Glenorie 2157	(02)6521767
Treasurer	Brendan Ferrari	122 Hawke St. West Melbourne 3000	(03)3290479

CONVENORS OF COMMISSIONS

Administration	Miles Pierce	42 Victoria Cres Mont Albert 3127	(03)8908319
Awards	Lloyd Robinson	167 Mt Keira Rd Mt Keira 2500	(042)296221
Bibliography	Greg Middleton	PO Box 269 Sandy Bay 7005	
Documentation	Peter Mathews	66 Frogmore Cres Park Orchards 3114	(03)8761487
Cave Diving	Ron Allum	18 Riverglen Dr. Windsor Gardens 5087	()5346615
Cave Safety	Ann McLaren	PO Box 549 Ingleburn 2565	(02)6057003
	Ian Lutherborrow		(02) 592357
Cave & Karst Management	John Dunkley	3 Stops Pl. Chifley 2606	(062)810664
Conservation	Mike Gibian	240 Bridge Rd, Glebe 2037	(02)6602782
	Rauleigh Webb	16 Loftus St, Nedlands 6009	(09)3867782
	Arthur Clarke	PO Box 245 Nth Hobart 7002	(002)341150
	Craig Hardy	PO Box 1459 Rockhampton 4702	(079)279016
International Relations	John Dunkley	3 Stops Pl. Chifley 2606	(062)810664
Library	Andy Spate	2 Hoskins St Hall 2618	(062)302322
Newsletter	Ian Mann	28 Stephen St Lawson 2783	(047)591890
Survey & Mapping Standards	Ken Grimes	13 Dewar Tce Sherwood 4075	(07)3793895

CONVENORS OF AD HOC COMMITTEES

Beginners Manual	Peter Stewart	c/-V.S.A.Inc.G.P.O.Box 5425 CC,Melbourne 3001	
Codes & Guidelines	Evalt Crabb	P.O. Box 154 Liverpool 2170	(02)6072142
Geodesy Karst	Pat Larkin	4 Holland Pl. Dundas 2117	(02)6841714
Jenolan World Heritage Nomination	John Dunkley	3 Stops Pl. Chifley 2606	(062)810664
Structure & Organisation	Lloyd Mill	11 Warner St. Essendon 3040	(03)3798625
	Derek Hobbs	Cairnes Ln, Glenorie 2157	(02)6521767
Cave Leeuwin	Rauleigh Webb	16 Loftus St, Nedlands 6009	(09)3867782

CONVENORS OF STATE SPELEOLOGICAL COUNCILS:

NSW Speleological Council Derek Hobbs Cairnes Ln, Glenorie 2157 (02)6521767

1990 CAVERS BALL

CAVERS ANNUAL DINNER & DANCE

7.30pm FRIDAY 14TH SEPTEMBER 1990.

**ANNE WHIGHT ROOM, LEVEL 1 MANNING HOUSE,
MANNING ROAD, UNIVERSITY OF SYDNEY**

Dress: Formal

Tickets \$25.00 each.

Drinks at Student bar prices.

Tickets must be purchased before 7th September.

Tickets available at SUSS meetings, from Suss committee members, or mail reply
and cheques to:-

1990 Cavers Ball
Sydney University Speleological Society
Box 35, Holme Building,
University of Sydney, 2006.

Enquires: Mike Gibian - 660 2782h, 858 8177w.

Sponsored by the University of Sydney Union

Reply: 1990 CAVERS BALL

Name :

Address :

Phone:

Included is a cheque for _____ ticket(s) at \$25.00 each = \$

Tickets will be sent as soon as possible.
