F U S S I

Vol 7. No.1. March 1995.

John and Tim rescue each other, at Bagalowie Homestead 1994.

The Quarterly Newsletter of the
Flinders University Speleological Society Incorporated

ABOUT FUSS...

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EDITORIAL

Well it has come to that time of the year again. I have tried to produce this newsletter in time for the AGM, so hopefully all you faithful speleos who have spared the time to attend will go home with this piece of wisdom in your bags.

This edition essentially contains reports to be presented at the AGM, although some are to be tabled at the meeting.

On a lighter note, welcome to all those new club members, and welcome back to those returning. I hope that you all had a great holiday, and that everyone is looking forward to a great years caving with FUSS.

FUTURE EVENTS

Naracoorte Caves - Experience the South East caves - March 18/19

Tuesday April 3 - General Meeting, all welcome, 6.30pm.

Easter - Ten day trip to the Nullarbor OR
Four day trip to the Flinders.

PRESIDENT'S REPORT

In 1994 a number of important issues dominated our general and executive meetings, which also effected some of our caving activities and trips.

One of these was the fight to save the Sellick's Hill Cave. This matter was taken to court and after a great struggle, was lost. An appeal was not possible without the support of the ASF and an extra $15000.

Our dealings with the ASF continued as the matter of personal insurance arose with the suggestion that we all pay a set amount in addition to the insurance provided by the university. This has raised the membership fee to $20 per year for students and $45 per year for non students - hopefully this won't deter potential new members.

The issue of university vehicles and the lack of access to them by Clubs and Societies for trips was one of the major reasons why the trip to the Nullarbor did not go ahead. The last minute drop in numbers also did not help. Whether there is a chance of reversing this decision will be seen this year.

Fundraising was not a great success, as some of us spent hours in the manufacture of felafels only to find we could not sell them due to lack of numbers traversing through the Plaza. This year however we're taking up car washing with the belief that it should be an excellent fundraiser and subsidise a trip to Tasmania at the end of the year.

Last year's trips included several to Corra Lyn at Curramulka (including a weekend of SRT), joining up with other caving clubs. As well as lots of SRT a general ascending/ descending practice at the uni footbridge. There were also trips to the Flinders Ranges and Naracoorte (including cricket counting) as well as a very successful Women's trip to Town Well.

In January this year the VULCON conference was held in western Victoria and was also hailed a success.

It is hoped we will be able to recruit some new members who will actually be able to attend trips and join in FUSS activities as this was sadly lacking last year, hence our involvement with other clubs to ensure decent numbers.

Sally Harper, President

Secretary's Report 1994

1994 was a big year for FUSS trips; we seemed to be disappearing down holes every couple of weekends, and also ran several extended trips. Corra-Lynn was a regular destination; we held a "first timers" trip, a day trip for those with limited weekend time, and several others. We also visited the Flinders Ranges, Naracoorte (numerous times!), spent several days in the cold and wet at Mt Gambier, and held a womens' day trip to Town Well. An intrepid few ventured into Woltana Cave in the Gammon Ranges in July, and a number of die-hards returned to the Nullarbor for an epic mid-year caving and cave diving adventure.

January was the ASF Vulcon Conference (this year held in Hamilton, Western Victoria), where we were represented by Tim and Clare. The surrounding areas are volcanic, so the post-conference caving in nearby National Parks was fascinating. This trip was closely followed by a journey to NSW, to - once again - sample some Yarangobilly magic. The beauty of these caves is certainly addictive, though we did manage to take some time out from gazing to survey a new hole for NPWS!

Scientific research also featured last year; we gathered data in the Flinders Ranges for a Histoplasmosis/humidity experiment, and ran a couple of cricket-counting expeditions to Naracoorte at the end of the year.

On the training front, we held a rigorous cross-club SRT weekend at Naracoorte in September, which was the culmination of several post-meeting training sessions and numerous bridge-jumping exercises. In fact, the majority of our meetings last year seemed to focus on caver skills training. We organised cross-club Search and Rescue "brain storming" evenings (with resultant ideas collated and filed for club use), and practiced our SRT techniques - with CEGSA's Peter Krahenbeuhl kindly donating his expertise.

Another guest last year was Peter Horn (Cave Diver Extraordinaire), who showed us some of his amazing under-water photography from Australia and USA, and scared us off cave diving with stories of near misses! Clare also gave us regular up-dates on Sellicks Hill Cave at meetings; that battle presently continues on the parliamentary floor.

On to our *favourite* topic...fundraising. 1994 was not particularly successful in this department (we had to limit gear purchases - a bad sign!), but we did manage to stay in the black, and were not force-fed huge amounts of left-over Felafel after the stalls. Some new ideas for 1995 have already been put forward, so gear-freaking will doubtless return to pre-crisis levels this year, when we are rich again!

Good luck to you all for 1995; may Mavis avoid your presence!

Belinda

Safety Officer Report 1994

The year was event free and accident free, with trips to the South East, Lower South East, Flinders Ranges, Gammon Ranges, Nullarbor, and the Eastern States providing opportunities to all members to explore caves in different environments.

In pursuit of safe and environmentally sound caving, training for both beginners and advanced skills was conducted throughout the year. FUSS also ran the only caver training courses for all the South Australian caving clubs in 1994. The courses involved seminars at the university, on equipment appreciation and safe caving practice and were followed up by practical experience on training weekends. A Search and Rescue seminar and a practical weekend at Corra Lynn cave heightened the awareness of all who attended to maintain their personal navigation and first aid skills. Vertical training for beginners took place formally on a training weekend at Naracoorte and informally from the uni foot bridge. Many members took advantage of the uni foot bridge practice to polish advanced SRT skills.

As a member of the South Australian Speleological Council's sub committee of club safety officers I helped finish writing the Horizontal Caving Competency Standards. These standards were then presented and accepted at the Australian Speleological Federation's council meeting at the Vulcon Conference in Hamilton, Victoria as the first part of the curriculum of the ASF's Caver Leadership Training Scheme. This curriculum will make training for easier for our members.

As this will be my last report as Safety Officer, I wish to thank all past and present members for their support and enthusiasm, and look forward to exciting caving this year.

John Callison.

FUSS. Safety Officer. 1987 -1994.

FUSSI. Vol. 7. No.1. 1995. p.

EQUIPMENT OFFICERS REPORT 1995

During the previous twelve months we went a long way towards achieving our goal of obtaining four complete club sets of S.R.T equipment.
A full set consists of : Harness, Cow's tail's, Whaletail, Chest ascender, Top ascender and a Maillon Rapide.

Four Wayatt's Astro Harnesses were acquired from the Wilderness Club at a very reasonable price. The purchase and construction of three cow's tail's, one safety line and one Petzel Expedition ascender also contributed to the sets.
To complete the sets we need one cow's tail, one Petzel Croll (chest ascender) and two Maillon Rapides.

Two Edelrid Ultralight helmets (a beautiful fluro green colour) were purchased in our on going strategy of gear replacement. The ten Cassins purchased during 1990 should be phased out by the end of 1996 due to structural degradation from U.V. exposure. We can probably extend this 'use by date' by a few years since all helmets are stored in the compactus (very dark).

Our final purchase was a Petzel Zoom head lamp and four helmet clips to compliment the existing two Zooms.

We also found a nice retirement home for most of our old dynamic rope with the Strathalbyn Vet Clinic. We do not anticipate buying a new dynamic rope since it is inapropriate for our activities.

A policy with regards to the loss or damage (excluding normal wear and tear) of fuss equipment whilst on trips was discussed and agreed upon last year by the F.U.S.S. membership. It is as follows;

a. An individual or cave group admiting responsibility for the loss or damage of fuss equipment should pay the cost of replacement or repair of the equipment. Price to be determined by the executive.

b. If no individual or cave group will take responsibility for the above mentioned deed then all individuals participating in the trip shall equally share the cost of replacement or repair of lost or damaged equipment.

note: A cave group is considered to be a group of people who enter and exit a cave together and cave as a team whilst under ground.

Eric Schulz

Equipment Officer

16/2/95

GEAR LIST 1995

Item	Quantity	Year Purchased
HELMETS		
Cassin	10	1990
Petzel Vertical	2	1992
Edelrid Ultralight	2	1994
Bump	6	1989
Hard hats	13	1978-83?
LIGHTS		
Petzel Zoom	3	2x93,1x94
Dolfin Torches	2	83?
Carbide Miners	9	78
Lamp Clips (zoom)	3x4	2x1993,1x94
ROPES		
Bluewater 2 Static	1	1989
Bluewater 2 Plus	1	1991
Bluewater 2	1	1992
Dynamic	1	1978
KARABINERS		
Screw Gate Stubai steel.	2	1989
S/G Alum Alloy DMMLarge D.	2	1991
S/G Alum Alloy Stubai colored D	1	1990
S/G Alum Alloy DMM Med D.	2	1992
S/G Alum Alloy Cassin	6	1992
S/G Alum Alloy Bluewater D.	2	1992
Snaps	5	1978
Maillon Rapides Alloy 10mm D.	2	1992
Maillon Rapides 6mm wide mouth	3	1993
RESCUE PULLEYS		
Riley	2	1989
	3	1993
BELAY DEVICES		
Stitch plate (Salewa)	1	1989
Stitch plate (Cassin)	1	1992
DECENDERS		
Fig 8	1	1989
Whaletail	4	1989, 3x1992

ASCENDERS		
Jumars	2	1979?
Expedition Petzel	2	1992,94
Chest Ascender (croll)	3	1992
TAPES		
Brown 50mm x 5 meter	2	1993
Black 50mm x 5 metre	5	????
Tube Tape 1" x 4 metre	3	????
Tube Tape blue 1" x 6m	1	1992
Tube Tape red 1" x 4m	2	1993
Tube Tape purple 1"x 3m	3	1993
HARNESSES		
Spelean Multifit	2	1994
Wayatt's Astro-Harness (red)	4	1994
HARNESS ACCESORYS		
Cow's Tail's	3 sets	1994
Safety	1	1994
LADDERS		
20 feet	2	1978
50 feet	1	1992
20 feet	1	1992
Traces 8 feet	2	1990/2
MISCELLANEOUS		
Compass Suunto	1	1992
Spelean gear bag large	1	1992
Backpack canvas small	1	??
Bag blue general purpose	2	??
25lt water Containers	4	1991
Drag matt	1	1989
Foam Mattres	2	1992
Electric Lights camping	2	197?
Card Index Boxes	2	given
Plastic Crate	1	1987
Wooden Crate	1	1976
Leather Gloves	4 pairs	1990
Carbide Rock	-kg	1990
Carbide Granules	20kg	1989
Carbide Light reflectors etc	10	1985
Rope Protector (carpet)	10	1993
Rope Protector red	4	1993
LIBRARY		
FIRST AID KIT	1	

ASF Rep Report

The ASF has made a number of auspicious decisions this year which will no doubt have long term implications on caving in this country. The ASF after going to court on the Sellick's Hill Quarry cave and losing, abandoned the appeal process, believing that another loss would endanger it's existence. In doing so, the ASF has established itself a precedent to protect itself first before the caves, and to exert itself only if suitable guarantees have been presented which isolate itself from any financial impacts.

A trial program certifying cave leaders, which has been trialed in SA, among other places, is now official and will be phased into existence over the next couple of years.

At the VULCON ASF council meeting held in January a number of constitutional amendments were suggested by CEGSA, to improve the representation of all states on the national executive. These motions were all defeated leaving the executive once again in a situation where certain states control the bulk of the power.

Another monumental achievement of the ASF is the acquisition of an insurance policy. Unfortunately the cost of the package will be distributed to members of clubs in an unfair manner.

In summary, the ASF has become a large unwieldy organisation which is controlled by a few powerful clubs and individuals, the national executive is national only in title and does not represent national interests of caving in an unbiased manner, but is rather unbiased toward the interests of those few powerful clubs and individuals. In general the majority of activity occurs in a few commissions and the state speleo councils. As members of the ASF we should now be asking ourselves whether the benefits of the ASF are now outweighed by the costs.

Tim Payne.

FUSS EXECUTIVE REPORT

SOUTH AUSTRALIAN SPELEOLOGICAL COUNCIL

CLUB REPRESENTATIVE REPORT 1994-1995

The South Australian Speleological Council (SASC) is an organisation designed to represent South Australian cavers and deal with caving issues within the state. The Council meets quarterly and consists of nominated delegates from each of the caving and cave diving clubs in South Australia.

For the year 1994-1995 the two club delgates for FUSS are Tim Payne, who is currently the SASC Secretary and myself, Tania Wilson. During 1993-1994 FUSS held the chair for the council, and nominated Heiko for chairperson.

Throughout the year the SASC has dealt with various issues. One of the most prominent, environmentally and politically important issues was the Sellick's Hill Quarry Cave Conservation issue. Cavers and clubs throughout the state donated funds from both private and club accounts. FUSS donated $200.00, additionally numerous hours of members time was spent lobbying politicians, writing letters, articles and making court appearences. Unfortunately the court case was lost and the appeal process stopped due to the ASF Executive requiring a further $15 000.00 of guarantees to cover the potential cost of the appeal. Local cavers could not raise this money on top of some $30 000.00 which had already been donated for the initial court preceedings. The Parlimentary Environment Resource Development committee is still investigating the issue.

Due to countless hours of hard work and persistance by people such as Allan Jevons, Peter Kraehenbuehl and Clare Buswell the ASF has taken out a national insurance policy. FUSS members are covered by this insurance policy which is specifically designed to suit caving and cavers requirements. A copy of the insurance policy is available if anyone wishes to read it.

The Leadership Accreditation Scheme was piloted by South Australian Clubs and has been operable for some time, resulting in the completion of the Horizontal Caving Competancies section. The Vertical Caving Competancies component is now waiting to be written. FUSS ran a trial training weekend under this scheme.

The SASC has supported the formation of a state branch of NORLD (National Organisation for Recreation and Land Development). The current representation of caving at a national level may be lost due to competition for places on the committee. The formation of NORLD-SA would ensure representation on a state level.

A report on the Cave Cricket and Human Visitation Project is almost finished. South Australian cavers have spent a great deal of time collecting information on cave cricket populations inhabiting Naracoorte caves. FUSS members Jenny Laidlaw, Hieko Maurer and Clare Buswell have also spent numerous hours entering 10 years of visitation data for caves at Naracoorte. Many FUSS members have also spent many hours counting crickets over the past year to complete the data set.

Clare Buswell is the convenyor of the Cave Management Sub Committee. Its purpose is to deal with Government Committees and Risk Management Committees, providing an opportunity for managers of karst areas to discuss the problems of risk management. The sub committee is currently completing its survey of cave managers and their use of the cave classification systems as a management tool.

The SASC is organising the 1997 ASF Conference. It has been suggested that the conference be held in Ceduna with pre/post caving trips to the Nullarbor.

The SASC has had a highly active and successful year and, most importantly, we are all still talking to each other!

Tania Wilson

FUSS SASC Rep 1994

Librarians Report

Ho hum....sigh (sound of fingers drumming on a table top)...

Yep - the FUSS library has had a pretty slow year. That's right there is a library (perhaps the lack of attention has been due to the lack knowledge as to where it actually is)

There has been one working bee which was very successful but has unfortunately not been followed up (due to lapses of librarian responsibility - sorry!!)

The library however is going to suffer the sound of FUSS footsteps once more when it shall participate in a new caving venture

The FUSS Library Discoverathon

to be decided at the AGM

when with the help of those FUSS members who wish to take part in the fun affair of all of last years acquisitions (ie. last years journals) sorted an provided with a home in one of the folders lining the shelves of the IST reading room.

For that's right speleos - one big thing happened last year - the library was relocated in the IST building after demand was received by FUSS for the space it previously occupied.

So... discover the new location, discover the new and latest speleo journals, discover how fun it is to work with FUSS members on a truly exciting enterprise and come to the Discoverathon!!

Kirsty Kitto.

Newsletter Editor

This year has been fairly disappointing in terms of output. I don't believe that it is the job of the Newsletter Editor to have to:

1 Write all the articles for the newsletter;
2 Chase people for articles;
3 Set deadlines, but not receive anything;
4 Feel guilty because you have to keep nagging.

As a consequence of this, we only published two newsletters last year.

To those who submitted articles, thank you. To those who promised articles but never delivered, a big raspberry. To those who didn't feel they had anything to write about, it's simply not true. Even if you are a new caver it's great to know your experiences of caving.

There is no excuse. This is not just the Editor's newsletter, it is the club newsletter. Don't be afraid - submit something. It will get printed!!

Cheryle Johnson.

TROG DELIGHTS

Much has come into the FUSS library over the past few months, what follows is a very brief run down on a few of the Journals that Mavis found and did not want to return. The FUSS librarian had other ideas!

Hills Speleological Club Newsletter. Vol 10. No 3. 1995.

Well at least you can read the print in this issue. On the previous issue not even the new set of glasses Mavis bought would have been a help! A prominent South Australian caver, Alan Jevons features in the later pages of this issue. He is discussing the ASF executive's actions on Sellicks Hill Quarry Cave, insurance, and the Leadership Accreditation Scheme. Does Alan ever go caving these days! There is a great little article on Karst Geomorphology (once again no author is cited, so guess that Mavis wrote it) talking about Karens, (fluted rock).

A newspaper clipping on the problems of having between 850 and 1900 vehicle passages a day through the Grand Arch at Jenolan. Too bad if you are one of the resident spiders in the Arch as you are more than likely to die of lead poisoning. There is also the problem of water run off from car parks which ends up contaminating the water supply in the caves . Options for solving some of the pollution problems include cable cars and shuttle buses.

Another newspaper clipping on the caves of Sarawak, describing the paying tourist attraction of some of the worlds longest caves. "Sarawak chamber at 104,000 square metres [is] the largest natural rock chamber in the world, where it's said you can park 40 Jumbo jets and still have room for a control tower!" Back in the realm of reality, Deer Cave contains the world's longest passage 2600 metres long, 106 meters high and is home to a few million bats, *Tadarica plicata*, (Free-tailed bats). Until very recently only back pack accommodation was available in the area now the five star mega buck multinational hotel has arrived to change all that.

Journal of the Sydney Speleological Society. Vol 39. No. 2 1995.

Long article on the continuation of the ASF sponsored survey of Exit Cave in Tasmania. The Survey started at the Tas Trog Conference in Jan 1993 and continued in January of 1994. Russell Bridge and Ian Cooper have been doing most of the work and this report tell of some of the problems involved in getting things done (rain, rain and more rain).

Illuminations 3. Journal of the Mole Creek Caving Club. Oct 1994.

This as usual thick issue (37 pages), of Illuminations, contains much that will inform and raise the odd eyebrow. First of all an informative history of Croesus cave and attempts to protect it from all and sundry. Many attempts on vandalising the gate and many loads of speleothems taken and sold in the Salamanca market in Hobart are described. Mention is also made of one person's plan to put an electric monorail up the centre of the stream and so develop the cave as a public tourist cave. Some sense was brought into the scene by 1990 with the development of the management plan to limit the impact of trips and to declare a few no go areas. A rubber raft was also installed in 1992 to keep traffic off the Golden Stairs.

Report of an accident and analysis of rescue in Honeycomb Cave by the casualty. "The casualty fell on a 2m downclimb whilst trying to locate a second foot hold when her hand hold broke". The result was a compound fracture of the ankle. A three hour wait ten metres from the entrance for medical help to arrive ensued, despite the fact that ambulance help was just down the road at Deloraine.

An excellent article by Bob Burton from the Wilderness Society, Tasmania, on Resource Security Legislation in Tasi and its effects on the karst environment. Currently only 12% of Tasi is protected Native forest. Since colonisation Tasi has lost 45% of its forests and the last 20 years of wood chipping has left the Tasi Forestry Commission with a $500 million debt. Added to this is the fact that of the total timber harvested, less than 5% goes into timber products.

Another disturbing issue raised is the that fact that under Resource Security Legislation any new species, Aboriginal site or Landform feature, found after the granting of a lease for mining, has to be investigated and if the area where the feature or species is found is excised from the lease the company is compensated. This means that the company makes money no matter what they find, minerals or new species. The legislation basically means that there is no onus on the State or the company, before a lease is granted, to do a detailed study of the area's environment.

The library has move homes and has fallen dow a crack on the third flo of the IST Building. Yc will find it in the Readi room on the south ea corner of the building. S Alan Branford or Joll Secretary for Statistic for the Key to the room.

Mavis.

A Gathering of Women at the Town Well

Clare Buswell

Nov 27th 1994. Cross-Club FUSS and CEGSA Women's Only Trip.

Members Present: Clare Buswell, Tania Wilson, Belinda Skuja, Janine Kraehenbuehl, Anne-Marie Hubycz.

So there it was, 6.30 a.m., both of our cars at the gate and neither of them starting. I needed to be 45 kilometres away by seven a.m. The 1967 Morris 1100 decided, as it had not been driven for a couple of weeks that to be asked to get up so early and help out with jump starting the more modern New Bits are Missing 1985 Colt, was just too much! Of course the Morris was prepared to collect the jumper leads from the next door neighbour a kilometre away without any problems, but as for co-operating with the jump start, that was nothing but an insult, so now it stalled blocking the driveway. Heiko did his best to placate the Morris's mood by invoking the most British thing he could think of (apart from Magie Thatcher), he cited the complete genealogy of the Royal family. When this failed in starting the car he reverted to threats revolving around the local dump. The colt showed no malice, only a dead battery. In the mean time I tried to ring Anne Marie or Tania to tell them that I would be late, an hour late! No luck there either.

As time ticked by and both Heiko and I waved spanners and curses at motor cars, it occurred to me that as this was a female only trip, Mavis was clearly upset that she hadn't been invited. It appeared therefore that she was practising her newly cultivated love for motor mechanics on us. What to do....

Breakfast, when I eventually arrived at Anne-Marie's was mangos and more mangos. We managed to resist eating the entire 15 or so mangos and got on with packing her 1968 Valiant with SRT gear, ropes, a deck chair and the gourmet lunch. A few hours later saw us gather at Town Well Cave and send down ropes like women do in many countries around the world every day to draw water. Our purpose however was very different and we began to set up re-belays and engage in muddied fun.

Belinda was first down, negotiating the water, logs and remaining bits of pipe at the bottom of the pitch. She was followed by Anne-Marie and Janine. I went down and set up the re-belay and Tania took up watch position on the top. The watch position required being in charge of the deck chair, eating more mangos and having several confrontations with the ants that insisted on gate crashing our lunch.

Meanwhile thirty three metres below, Belinda, Anne-Marie, Janine and I visited the squeezy sections of the cave, and tried to sort out why a lot of women we know don't like this sort of thing! Granted the caving helmet doesn't do much for a beehive coiffure, but getting a free mud pack whilst looking at some good speleothems certainly beats paying for a facial at your local beauty centre.

Having decided that it was Tania's turn to play elevators I ascended and had a more thorough look for one of the new bolts that I had missed on the way down. On spotting the said bolt I must say that the Bolt Fairies engage in a great deal of magic in this cave, mmm.

Tania and I changed positions with her giving me strict instructions concerning "ant combat". This involved esky inspection every few minutes and non-violently beating the shit out of it to get the ants to fall off. I sat back in the deck chair, munched on another mango and waited.

Eventually Janine arrived suitably attired in ascending gear and grotty overalls, Prisilla had nothing on this! Janine and I changed places, whilst I descended to one of the new bolts, clipped in and hung around taking photos of Anne-Marie and Tania in ascent mode.

Eventually we all exited, packed up the gear and then set to on the lunch, and evening meal as it was 5.30 p.m. There was stuffed chickens, tabouli, kartoffel salad, marinated olives, bread, sun dried tomatoes, coffee, tea orange juice, chocolates and..... more mangos.

We drove back to Adelaide, fixed the light fuse on the Anne-Marie hoon mobile and wondered if the guys had a good time at the Tupperware party they were going to organise as an expression of their solidarity for our venture. Or did they spend the day mowing the lawn and doing boy things!

Yarrangobilly Cave Hunt Number Two or Three

Clare Buswell

February 17-20th 1995.

Person in charge of survey: Tania Wilson.
Person in charge of the plot, which he frequently lost: Eric Schulz.
Person to blame, but not accepting responsibility: Kevin Dixon.
Real persons to blame: Tania Wilson and Clare Buswell.

Equipment we had: A couple of blackberry bashing sticks, two 30 metre tapes and one 70 metre tape. One set of Suunto instruments, 20 odd survey pegs, camera gear, and the four of us.

Equipment we wished we had: Flame thrower, napalm, a machete, theodolite, a few dozen Grunts from the army to carry the flame thrower, and the theodolite, a GPS, a few more Suuntos and Eric's and Tania's compasses, which we believe Mavis pinched.

FUSS meeting. Feb 7th, 11pm.
"What about a weekend trip to Yagby" I asked Kevin and Eric. I must admit that my mind was a little clouded after the evening spent eating and drinking. "A weekend?" said Kevin. "Yeah, four days, drive over Friday and return Monday. We would fill one car" I said. Pause.
"Well, Eric", I continued, "we've got to find Y61, it can't be that lost! Tania's keen to surface survey the area where we spent eight hours looking two weeks ago. On top of that there is the cleaning we should have a go at in Y4-5 or Y2."

"Whose car are we going to take. Something other than mine." said Kevin.
"Uni car?" I suggested. Long pause, as we all lusted after the luxury and comfort of university cars, remembering the difficulty of getting access to one.
"Which weekend could we go, I'd prefer to go before uni goes back?" said Eric. We all nodded in agreement. Then Eric said, "I've got all these peaches that need eating" .....

That's more or less how this idea got underway and we found ourselves at 7am eating peaches, out on the road to Yagby in the Uni car on Friday the 17th of Feb. Twelve hours later saw us in Tumut collecting the last food supplies (thank Mavis for late night shopping on Friday nights in NSW). Up the hill and finally Cottrills Cottage came into view along with the gas lights of heaps of weekend campers. This sight gave one a view of what Yarrangobilly Village could have been like in its hey day a century go.

We met in Cottrills three seed collectors who were moving on to Round Mountain, deeper into Kosi National Park, the following day to continue with their work. Some discussion on the value of seed banks, types of seed being collected ensued, but after hours of driving the collective brain power shut down and went to bed.

Sat 18th, 7am.
"Does anybody want a peach" asked Eric. Eric's home grown peaches we had been eating since we left Adelaide and it seemed that they just kept multiplying no matter how many we had eaten. "I'll have mine for lunch', I replied. "Well" said Eric, "Tania did not have her 'before going to bed quota', last night, so I'll give her this one". He added the extra peach to the lunch bag. I had seen Tania a minute or so before searching for the loo paper in our gear supply. How many more peaches were left, I wondered.

O.K. we may as well have a practice at reading the instruments on the flat of the car park so we can all agree on what we are doing. I suggested. Kevin had not read Suunto's before so we gave him the "this is what you do" lesson, and we all took a bearing of the right hand handle of the garbage bin. "179 degrees" said Eric and Kevin, "182 degrees" said Tania and Clare. "Let's do another reading and this time don't call it out loud until we have all taken it" said Kevin This time we didn't agree either, but it had nothing to do with incorrect sighting!

"I don't remember it being so steep or having so much vegetation", said the Chief Surveyor as we scanned the 35 degree slope just below the Red Cliff, that we had come to work on. "I remember the blackberries," said Eric. Kevin asked whose idea it was. No-one owned up!

We decided to start at the entrance to Y170 and work in ten by ten metre square grids running down to the Yarrangobilly River and then to the north. The aim was to search the area and plot any karst features and vegetation onto the grid in the hope of locating Y61. According to intelligence (the Yarrangobilly Office karst map), Y61 was meant to be between Y170 and Y171! But intelligence was one of those things that was usually wrong on this trip.

We spent the day leading out tape measures, taking forward and back bearings, clino readings, drawing in vegetation, photo tagging, and trying to stay upright.

"Just stand there, Kevin so I can sight off you and I'll take a reading" said the chief

Yarrangobilly Cave Hunt Number Two or Three

surveyor. Kevin adjusted his position to try and avoid the spiky Grevillea and blackberry bush as he drove home the survey stake. He then disappeared from view. "*@!!*@@! Hang on Tania, bloody blackberries..." Kevin reappeared a few seconds later. "275 degrees", said the chief surveyor. Minus 34 was the next clino call. "That explains it" said Kevin. "No" said Eric. "That can't explain it". "Explain what" I asked, "My inability to walk on flat land." said Kevin." "Oh, that, that skill is not much use here on this slope" I replied. "What was the Plot", asked the chief surveyor. "275 degrees and C8 or D7" I offered by way of an explanation. "Does anybody want a peach?", suggested Eric. That was the general lucid sort of conversation that kept going for the next eight hours.

We finished the day at 7pm totally stuffed and having completed 15 grids, but still not far enough north to reach the limestone cliff just below the track to Castle Cave. We decided to go and visit the Caves Manager, Nick Mayo, who had spent 4 or so hours to no avail hunting for Y61 with us in January. We chatted with Nick and generally blamed the designer of the Gravi-meter for not making it useful on any slope greater than 15 degrees for our lack of success. Nick opted for another day in the office and said that if we found Y61 tomorrow to let him know. We then went and collected a broom to clean up Cottrills Cottage and return it to the well kept speleo cottage that we all knew it to be.

Sat 18th, 8.30pm.
"The problem with the beer" said Kevin "is that it's not cold. It's about 35 degrees" he continued. Pause.

Somehow or other we had forgotten to put the beer in the 'fridge' before we had left for the days work and now all we wanted apart from a hot bath, all over body massage and two equal length legs, was a cold beer. "Well", said Eric "we need some water so I'll go and put it in the creek for a bit". "I think you should swing it" I suggested. "O.K." said Kevin "I'll swing it!" This was the beginning of the evenings conversation and it got a lot worse.

Sun 19th, 9am.
"We got up to row D" said the chief surveyor. "But the last lot of grids did not include Y171." said Eric. "So we are now to do E, at least that should put us into some of the cliff face". Offered Kevin by way of enthusiasm for the days work as we stood back on the track.

So it all started again, laying out the tape, forward bearing, back bearing, clino readings, what sort of bush is this?, Have you photographed this? This looks like it would go if I had a flame thrower to clear away the blackberries. All complemented by the gravitational pull of the slope and subsequent falling over.

At 4 pm we pulled out for lunch and a photo trip into Castle Cave. We had not quite reached the area of Y145 - Y165, but had found a number of untagged karst features most of which fitted up the local wombat population with a home. Only one feature looked in any way promising and it made the Wiggle Woggle squeeze in Y8 look like an easy straight forward crawl. Y61 was not found. Were we in the right area? The ground is scree slope in some areas and there are a couple of possible digs, but these are likely to be nothing more than a right wing plot against the communist aggressors. As far as the intelligence source goes it is not even worth one of Eric's mouldy peaches!

Castle cave provided a small challenge. Nick had informed us that the gate had been forced and one of the bars had been bent back. We were see if the gate was damaged enough to admit the odd human being without unlocking it. Eric and I applied our speleo skills and managed to get through with only a few grunts and groans. Kevin got half way through and called it quits. Tania took the key, unlocked the gate and walked in! We spent around and hour and a half taking photos and wishing that we didn't live so far way.

Cottrills Cottage, 7.30pm
There we all sat, digging the blackberry thorns out of our hands, legs and other body parts, trying to find the energy to cook the evening meal. "This is the best beer I've had in a long time" said Kevin, as he sat on the back veranda taking in the evening. Eric wanted to know if anybody wanted any more peaches. "The beer is very good, Kevin, not at all peach like" I said. Eric gave up and went and opened a bottle of wine. The Chief Surveyor put away the tape measures, took her boots off and picked up her beer. Dinner was going to wait.

Wooltana Cave (or Mavis does Mechanics)

John Callison.

October long weekend 1994.

Members Present: John Callison, Eric Schulz, Belinda Skuja, Scot Pedler, Heiko Maurer, Clare Buswell.

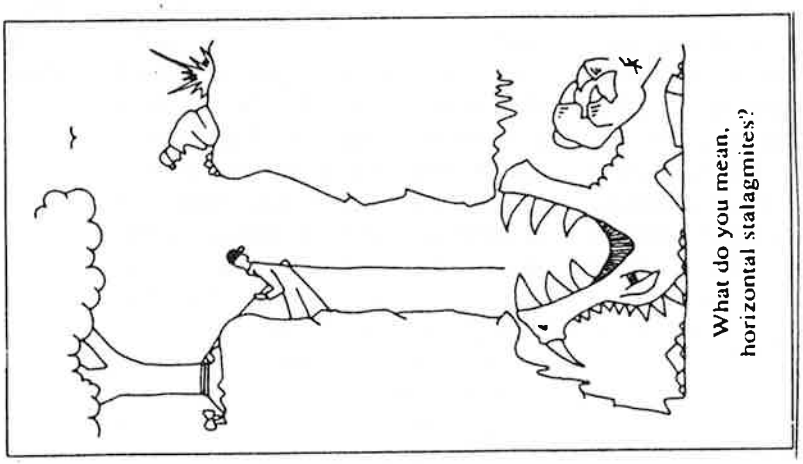
The planned trip which bore no resemblance to the events that unfolded was that Heiko, Clare and Belinda would leave early and bushwalk at Wilpena and Scot, Eric and myself would meet up with them at Balcanoona to explore Wooltana cave.

However, planing without Mavis has its pitfalls (no pun intended). The trusty Holden ute had a seizure at Hawker which left Scot, Eric and myself exploring the high spots of Hawker: the cemetery, the Hotel, the caravan park, then back to the Hotel. What the others were doing I'm not sure, they did not bushwalk at Wilpena as they camped at Quorn. So I'm pretty certain that they had a ride on the Pitchi Richi Railway, but that's not admitted. After the mechanical genius at Hawker fixed the Ute and burnt a large hole in my hip pocket, we travelled on via Leigh Creek to meet up with the others.

In the dead of night we found the camp spot and the cave, something we had difficulty with at mid day on a previous trip, and set about waiting for the others. We eventually met up on the Sunday morning, rather than Friday evening, and prepared for the descent. Wooltana Cave has been described at great length elsewhere, suffice to say it provides S. A. cavers with a reasonably deep descent incorporating re-directions and re-belays. The rock at the top of the pitch is such that it is much safer to have one person on the rope at any one time, so time and the number of people to enter the cave is a consideration when planning a trip here. We all entered and exited safely, a disappointment was that the old newspapers were not in evidence as in previous trips, perhaps they had been buried (hopefully) rather than removed from the cave.

On the trip back to Adelaide we diverted to locate Eyrie cave. The directions were pretty clear and we were a hopeful band, of searchers. Unfortunately Mavis had moved Eyrie cave to another land for the day and had decided that my ute needed a flat tyre. Such events coupled with a shortness of time, meant that we had to admit defeat and press on for Adelaide. This we did, and Mavis struck again just on dusk in the form of a kangaroo. Heiko and Clare's car received a bent bumper bar as a result. Lucky!

The trip was successful as the main objective was to see Wooltana Cave and any visits to other caves were considered a bonus. Anyone contemplating a visit to Wooltana would be well advised to contact club members who have been there as it requires high SRT skills and careful rigging. Mavis in her many guises will plague us for many years to come, so better take the Mavis Decoy bag along. Happy Caving.



Mt SIMS CAVE AND HISTOPLASMOSIS

Clare Buswell and Eric Schulz*

INTRODUCTION

Histoplasmosis infection in cavers in Australia is pretty rare, as is the research done into it. Most incidents seem to be anecdotal, and the few recorded incidents of it come from caves in Wee Jasper in New South Wales. What we tried to do in this experiment was to take a cave known for its humidity and guano deposits and attempt to establish some base line data on any co-relations between them and Histoplasmosis.

BACKGROUND

There are basically three diseases known to be associated with bats: Rabies, The Bat Salivary Gland Virus and Histoplasmosis[1].

1. Rabies: Vampire bats give this virus to people in Latin America and occasionally in the United States. Luckily, rabies hasn't found its way into Australia yet. It is a very nasty and fatal disease.

2. Bat Salivary Gland Virus: This causes fever, coughing, headache, generally feeling awful and infections of the testes or ovaries. Like rabies this virus is not known here.

3. Histoplamosis: This is the major concern for cavers. It is found in the droppings from bats and some species of birds.

There are four main forms of infection caused by inhalation of powdered bat droppings.

1 Asymptomatic. (You don't know you have it.)

2. Acute Pulmonary HIstoplasmosis. This causes coughing, fever, feeling lousy, approximately 5-18 days after inhalation. It is self limiting and requires no treatment.

3. Chronic Pulmonary Histoplasmosis. In this form, there is a gradual onset over weeks or months of increasing productive cough, weight loss and night sweats. The lungs are gradually destroyed and bacterial pneumonia or heart failure can cause deaths months or years later. It almost always occurs in smokers.

4 Acute Disseminated Histoplasmosis. The person is extremely unwell, with fever, weight loss, jaundice, anaemia, reduced ability to fight infections, mouth ulcers, heart inflammation and meningitis. It is often fatal if untreated.

Mt Sims cave located in the Flinders Ranges, is an ex guano mine, one of four in the area, mapped and explored by speleologists from 1969 -1971. It has a number of large chambers and lakes connected by tight tunnels. It is approximately 560 metres in length and as a vertical range of 40m. On the 13th of May 1994 FUSS members undertook an experiment to try and access the cave for any signs of the fungus Histoplasmosis.

AIMS

To determine the correlation, if any, between the presence of Histoplasmosis and humidity levels in Mt Sims Cave. By ,

- Collecting soil samples for analysis of histoplasmosis in the cave.
- Determining the specific and relative humidity at particular locations in the cave.

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[1] The following discussion concerning the types of diseases associated with bats, and the information concerning the nature of these diseases is taken from: Dr. Sackie., Holy Bat Shit Batman! FUSSI. Vol. 1. No.2 1989 p 5-6. For further reading on Histoplasmosis see Australian Caver No 136

Mt SIMS CAVE AND HISTOPLASMOSIS

THEORY

A Psychrometer was used to determine the wet and dry bulb temperatures and hence the humidity levels in the cave. This device draws a constant velocity air flow over two separate thermometers. One of the thermometers has its bulb encased in a water saturated wick, this temperature is called the wet bulb temperature; t_W [^oC]. The other thermometer has no wick and simply measures the air temperature, known as the dry bulb temperature; t_D [^oC]. The wet bulb temperature is a measure of what the air temperature would be if the air was totally saturated with moisture.

If the wet and dry bulb temperatures were the same we would have 100% humidity, which means that for the particular air temperature the air is holding all the water vapour it possibly can, i. e., it is saturated.

It is worth noting that the maximum amount of water vapour moist air can hold is dependent on the moist air's temperature. Cool air has a lower maximum (saturation point) than warmer air. That is, cool air holds less water vapour at saturation point than warmer air.

The specific humidity is not temperature dependent, it is a measure of how much water vapour mass there is in 1 kg of moist air.

Knowing t_D, t_W and the air pressure (Pa), the relative humidity, (expressed as a %), the specific humidity (q [g/kg])can be determined using the equations contained in the formulas section.

FORMULAS

1. $e_{sw} = 6.11 \times 10^{n}$ [hPa]

2. $n = 7.49 \times t_W / (236.9 + t_W)$

3. $e = e_{sw} - 6.60 \times 10^{-4} \times Pa \times (t_D - t_W) \times (1 + (1.15 \times 10^{-3} \times t_W))$ [hPa]

4. $r = e/e_s \; X \; (Pa - e_s / Pa - e) \; X \; 100$ %

e_{sw} = saturated vapour pressure

t_W = wet bulb temperature

e = vapour pressure

t_D = dry bulb temperature

r = relative humidity

Pa = air pressure

Specific Humidity q : mass of water vapour in a given mass of moist air (normal air)

$q = m_V / (m_D + m_V)$

m_V = mass of water vapour

m_D = mass of dry air

5. $q = 0.622 \times e / (Pa - (0.378 \times e))$[kg/kg]

EQUIPMENT

For measuring the air temperature and humidity: Psychrometer, watch and barometer
For collecting the soil samples: Spatular, sterile specimen bottles and ether or other sterilising agent, pen and labels for bottles.

Mt SIMS CAVE AND HISTOPLASMOSIS

PROCEDURES

Collection of air temperature and humidity

1. Suck up a small quantity of water into the eye dropper and insert over the end of the wick on the wet bulb thermometer. Hold the Psychrometer so that the barrels point downward and gently squeeze some water onto the wick until it is saturated.

2. Either record the air pressure at each location, or just at the surface from a weather map in this case.

3. Wind up the spring motor on the psyrometer and point the barrels away from any heat sources that don't represent the ambient temperature (eg human bodies).

4. Check that the mercury columns aren't broken, if they are make sure the Psycrometer is pointing below the horizontal.

5. Record the time and location of the measurement.

6 After say 3 minutes of running the psycrometer (with new windings of the spring if necessary), record t_W and t_D.

7. Proceed to next location and repeat steps 2-6.

8. Determine q (specific humidity) and r (relative humidity) for each location using equations 1 to 5.

Soil samples

Soil samples were collected at the same time and position as the air temperature measurements were taken. They were taken using a sterile spatular and placed in a sterile specimen bottle. They were taken back to the Flinders Medical Centre infectious diseases labs and cultured. This process took a couple of months.

The Culturing Process.

Culturing a soil sample involves placing the sample on a nutrient agar gel and incubating it for a given time so that if there are any microbes in the soil samples, they will proliferate. In this instance these agar gels were specific for culturing fungi, thus they have particular ingredients in order to optimise fungal growth.

Nutrient Agar Gel Contained:

- Sugar Source (Sucrose or Glucose)
- Nitrogen source (Malt or Yeast extract)
- Salts (Phosphates and Nitrates)
- Antibacterial agents (to suppress inevitable growth of bacterial cells)

Mt SIMS CAVE AND HISTOPLASMOSIS

RESULTS

P_a = 1025 hPa at 1500 (local time) from Bureau of Meteorology chart.

13.5.94 TIME	Location	dry bulb t_D [°C]	wet bulb t_W [°C]	difference s_t [°C]	specific humidity q [g/kg]	relative humidity v [%]
13:37	Surface	19.6	10.2	9.4	3.66	48.33%
13:50	1	17.0	11.8	5.2	6.26	78.26%
14:03	2	19.8	17.9	1.9	11.74	93.61%
14:19	3	19.9	18.2	1.7	12.07	94.44%
14:23	3a	19.8	18.0	1.8	11.86	93.98%
14:34	3b	21.1	20.2	0.9	14.12	97.37%
14:49	4	21.6	21.4	0.2	15.54	99.46%
15:37	4a	21.8	21.5	0.3	15.59	99.19%
16:40	Surface	18.6	12.1	6.5	6.26	69.75%

The Soil Samples.

Entrance Chamber: No Histoplasma isolated. Probable saprophytic fungus only.

Location 2, Tunnel: No Fungi isolated.

Location 3, guano Chamber: No Histoplasma isolated. Probable saprophytic fungus.

Location 3b: No fungi isolated.

Location 4 Water Table: No Histoplasma isolated. Penicillium species and a yeast isolated.

DISCUSSION

At 13:37 the first measurement was taken at the surface t_D=19.6°c t_W =10.2°c, the large difference between t_D and t_W, sT = 9.4°c is expressed as a relative humidity of 48%. The specific humidity equals 3.66 g/kg, which means that if we took 1kg of this moist air, there would be 3.66 grams of water vapour in it, the other 996.44 grams is dry air.

The first chamber (location No. 1) has a markedly cooler dry bulb temperature at 17.0°c and there is almost twice the amount of water vapour in the air as what there is at the surface, cf q. (location surface).

Once we enter the cave proper (location No.2), the temperatures increase, t_D = 19.8°c, t_W =17.9 and q=11.74, v=93.61%. As we approach the water table t_D, t_W, q, v all increase, except at 3a. At the water table (location 4) we have specific humidity of 15.5g/kg and relative humidity of 99.5%.

It is interesting to note that location No. 1 and the surface at 16:40, has the same specific humidity but quite a different relative humidity due to the difference in air temperature.

Saprophytic fungus is an extremely common fungi that can grow practically anywhere (rocks, wood, soil, etc), and it's presence in Mt Sims Cave is not surprising.