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## Editorial

A rather different Bulletin for you this month, with little being written by Guy McKenna. Luckily, we were able to find enough other material to make up another full issue but I am not sure how long this degree of luck will continue. So unless you want a rather thin bulletin in the future, start writing now. Trip reports, speculation and scientific articles are always welcome. Even if Guy is contributing less now due to pressures from university work, his previous contributions should be some sort of inspiration to the 'non-writing' members of SUSS.

Surveying this issue, there is a long reprint of the new conditions of access to Tourist Department reserves (to be read and digested) and the first installment of the (slightly stolen) SUSS Super Speleo Serial (SUSS SSS). If you were ever wondering why Mike seemed so reluctant to show other people where J168 was to be found, this serial may help clear up the mystery. SUSS will probably be raising its fees next year to cover the defamation charges arising from the serial, but Mark Twigg and rest of the SUSS legal contingent have offered their time at the very reasonable rate of only \$200/hour to help reduce our costs.

As I mentioned in the last bulletin, the next biennial ASF conference is being held in Adelaide between Christmas and New Year. We have now received the "Call for Papers". If you wish to submit a paper to the conference on any matter of speleological interest, I have copies of the application forms. ASF Conference papers do not need to be 'scholarly' or 'scientific' and normally people are much more interested in papers about caves and caving techniques. If you are thinking of attending the conference why not write a paper and achieve lasting fame in the conference proceedings. Even if you decide that giving a paper is too much hard work, you should consider attending the conference itself. This is your chance to explore the South Australian caves (Nullarbor, Narracoorte,...) on trips that someone else has gone to the trouble of arranging. ASF conferences are also enjoyable social events and well worth attending for this reason alone.

As you all know, the annual Speleo Sports will be held at Macquarie University on 4th and 5th of September. SUSS (or rather Ian Mann) is organising them this year and so vast crowds will be needed to help prepare for them and to run them on the day. Ian will be collecting 'volunteers' at the next meeting. People are needed to be both marshals and general lackeys on the day of the event and on the week-end previously. Ian will have more information on how to enter the sports at the meeting.

# AUSTRALIAN SPELEOLOGICAL FEDERATION

P.O. BOX 388

BROADWAY,

N.S.W. 2007

In reply, please address all correspondence to:

Vice-President,  
J. R. Dunkley,  
3 Steps Place,  
CHIFLEY, ACT 2606

PLEASE MAKE SURE THIS CIRCULAR IS  
BROUGHT UP FOR DISCUSSION AT YOUR  
CLUB MEETING, NOT JUST RECEIVED!!

Dear Secretary,

Your club should be aware from discussions at the ASF Committee Meeting and its NSW Speleo Council, that we have established an Advisory Group with the NSW Department of Leisure, Sport and Tourism. The Group is relatively informal and contains individuals from the major clubs with interests at Jenolan, Wombeyan and Abercrombie. This is a relatively long progress report and I hope you will bear with me in view of its importance.

## CAVE ACCESS CONDITIONS

First, the good news. Following the widespread adverse reaction to proposals sent to all clubs by the Department last year, without our involvement, I am pleased to report considerable progress on access to Jenolan, Wombeyan and Abercrombie. The Department has accepted our suggestions and the new conditions will be applied for all trips after 1 July, 1982. The most significant changes are:

1. The Conditions are in two parts; the first being requirements for obtaining a permit, which must be strictly followed; the second being guidelines relating to activities while on the Reserve, which should be read in conjunction with the ASF Code of Ethics and Safety Code.
2. The requirement that the purpose be "demonstrably scientific" has been removed, though we would hope that all trips will continue to aim at productive caving.
3. The requirement to supply names in advance when applying for a permit has been removed, but a trip leader must still be identified and names of all the party members will be required upon arrival.
4. Trip reports are no longer required by the Department, but a log book may be kept locally.
5. A strengthening of the responsibilities imposed upon the Trip Leader, both for the safety of his group and for their behaviour on the Reserve and in the caves.

A few suggestions were not made explicitly in these conditions but are worth mentioning to you:

First, a simple telephone call to Bob McKenzie at the Department (231-7160 in Sydney) will enable you to find out whether your trip can be fitted in when you want it. (This contact may change in time and we will try to keep clubs up to date).

Second

*"What we have now is all there will ever be"* — CONSERVE AUSTRALIA'S CAVES



Second, if for some reason you have to cancel the trip or have fewer starters than expected, a phone call to Bob might provide another club an extra trip.

Third, if you have to change plans upon arrival on the Reserve perhaps to flooding in the caves to be visited, consult the Senior Guide or Superintendent first.

Fourth, make sure your members and especially your trip leaders keep themselves informed about local conditions with regard to camping, the management of particular caves etc. Remember, we will all carry the can if your Trip Leaders do not assume properly the considerable responsibilities now expected of them.

#### CAMPING AT JENOLAN

Next; the may-be-good news. Negotiations are continuing on the matter of camping at Jenolan and a draft of our proposed submission to the Department on this was circulated for discussion at the Liaison Council meeting on 22 May, 1982. We are optimistic about a satisfactory outcome to this contentious matter within a few months. In the meantime, camping will continue to be located at the top of the Five Mile Hill.

#### ETHICS AND ACCOUNTABILITY

But now for the bad news. In the early stages of negotiations we were treated to many instances of behaviour ranging from unsubstantiated rumour and misunderstanding to thoughtlessness and plain irresponsibility. For example, there have been several instances of major discrepancies between what Trip Leaders said they did on trips to the Senior Guide, and what was later reported in club newsletters. Some groups have visited caves for which permission was not obtained, and there have been a number of alleged breaches of good camping ethics.

We were at pains to point out to the Department the lack of disciplinary powers within ASF. However, we do seem to have convinced them that inter-club liaison and peer pressure have been remarkably successful over the years, as evidenced by the relatively small number of complaints over the 24 years or so since access conditions were last overhauled extensively.

Even so, platitudes will not in the long run supplant practicalities. We are shortly going to need answers to questions like these;

- How can ASF continue to offer reasonable assurances about the accountability of member clubs, without infringing on their sovereignty?
- How can we continue to hammer home these messages to the several clubs which consistently fail to attend meetings, appoint a proxy or answer letters and written reports like this?
- How can we best deal with the inevitable occasional complaint about behaviour, before it gets blown out of proportion, again without infringing clubs' rights?

It should be evident from all this that the onus is now being passed to each club to ensure that its house is in order at all times, and that its Trip Leaders are capable of assuming the increased responsibilities now expected of them.

Conclusion . . .



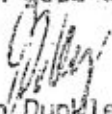
#### CONCLUSION

Those of you who, like me, have watched with growing apprehension the steady erosion of caving flexibility over the years will agree that on this occasion we may have been lucky to avoid a total ban on caving in some areas: it has happened before and in the early stages this time that easy solution was put to us quite strongly. It should not be necessary to remind you that in the United States, for example, caving clubs per se are not allowed access to any caves in National Parks.

We are pleased with the common sense exhibited by both sides to this particular issue and with the outcome so far. However, we are not out of the woods yet, and there is still no camping at Jenolan. If we cannot maintain and improve credibility with the Department, if these new conditions do not work out, if some clubs insist on not taking a responsible interest in matters of common concern by attending meetings, we may not get another opportunity.

This particular job has now taken 4 full days of my leisure (caving?) time in the last year, including 6 trips to the Department in Sydney and to Jenolan, and I sometimes have doubts that it is worth the effort. However, I do want to take this chance to thank those who have assisted in the Advisory Group's work so far, notably Randall King, John Bonwick, Alf Learmonth, Ken Keck, Phil Toomer, Andrew Pavey and Mike Lake.

with good wishes,

  
John Dunkley,  
VICE-PRESIDENT

& Chairman, Cave Access Committee, NSW SC

. . . encl.: Access Conditions, Jenolan, Wombeyan and Abercrombie







# AUSTRALIAN SPELEOLOGICAL FEDERATION

P.O. BOX 388,  
BROADWAY,  
N.S.W. 2007.

SPELEOLOGICAL ACTIVITIES ~ Jenolan, Wombeyan & Abercrombie

CONDITIONS OF ACCESS ~ Effective 1 July, 1982

1. The club or organization must be a full member of the Australian Speleological Federation.
2. Each party should consist of a maximum of twelve speleologists. This could be made up from more than one society.
3. Applications should be submitted in writing not less than 14 days in advance, signed by the Secretary, President or Vice-President of the club, and should contain the following minimum information:
  - i) Dates of proposed trip;
  - ii) Name of trip leader and the expected number of participants;
  - iii) Nature of the proposed activities and/or the caves to be visited.
4. The trip leader should be familiar with his general responsibilities in the area visited and shall undertake the following particular responsibilities:
  - i) As soon as practicable after arrival, to report to the Senior Guide or Superintendent and discuss with him the proposed activities;
  - ii) To provide the names of all participants;
  - iii) As close to the conclusion of the visit as is practicable, and before departure, to provide the Senior Guide or Superintendent with a brief description of the work carried out and the caves visited.
5. The nominated trip leader shall at all times be responsible for the conduct and safety of members of his party on the Reserve. Problems arising should in the first instance be discussed with the Senior Guide or Superintendent.
6. Permits to visit Wombeyan and Abercrombie will not be issued for public holidays or public holiday weekends.

*"What we have now is all there will ever be"* — CONSERVE AUSTRALIA'S CAVES

These guidelines recognize the need to balance legitimate speleological activities with the long-term conservation of some of Australia's finest heritage of cave and karst landscapes.

Speleological projects should be planned in accordance with any management objectives and practices, particularly for the specific caves visited. Projects likely to overlap and/or affect relations with others should first be discussed in detail with other cave users and management.

Individual societies should ensure that trip leaders are well qualified and experienced speleologists, able to assume the considerable responsibilities of leadership expected of them at the cave area.

The primary responsibility of the Trip Leader is to ensure that speleological activity is carried out with maximum consideration for its impact on the cave environment and for the safety of the party members.

The trip leader should be able to accept all of the following responsibilities in addition to those imposed under the permit system:

1. To ensure that all members of the party are familiar with and comply with the Code of Ethics and Safety Code of the Australian Speleological Federation;
2. To ensure that all speleological activities comply with any local management objectives and practices, particularly for the specific caves visited;
3. To ensure that properly qualified sub-trip leaders are available when it becomes necessary to divide the party for any reason;
4. To ensure, for safety reasons, that the Senior Guide or Superintendent is informed of the arrival and departure of the group. If for any reason this cannot be done personally, arrangements may be made for a message, preferably in writing, to be left in an appropriate place;
5. To discuss with the Senior Guide or Superintendent any proposed variations from the stated objectives of the trip e.g. changes due to adverse conditions;
6. To ensure that any aspect on the trip is written in an accurate and responsible manner which will be of value to future visitors;
7. To ensure that the Senior Guide, Superintendent or the Department is informed promptly, by telephone if necessary, should a trip be cancelled or substantially altered, so that others may have the opportunity to take up the booking.



BUNGONIA  
10-11 July 1982

Present: Michael Garben, Mark Hunter, Judy Clarke, Phillip Cole,  
Richard McNeall (D.A.)

Judy reached the Bungonia campsite in her Corolla at about 9.00am Saturday, accompanied by Richard and Phil. Michael and I arrived in his beach buggy a little later, having been misled by Corolla tracks running off the side of the Bungonia road. The group eventually headed off for Blowfly Cave and entered B16 at about 10.00am.

We abseiled the first two small drops leaving a Bluewater and two ladders in place for a self-belay exit with Gibbs. Richard found the way on to the Dragon's Teeth after persevering with an 30cm high slot adjacent to the correct way on. This led, via a chamber, to a downwards rift which was abseiled all the way by those wanting to try to get stuck. A surprise was in store at the bottom, in the form of a narrow vertical shaft with a depth of 50m. By chance we had a long enough rope and SRT gear to descend what Phil told me was called the Adytum pitch (but Mike assured me that the correct pronunciation was "indightem.") While Phil and Judy "did their thing" (a bit like rigging a pitch), Mike picked up a lumpy glove which had been "misplaced" by someone in the slot above the pitch. After putting it down, I arrived, stepped on the glove inadvertently, asked him to explain a pungent odour which came about - and he did so. (I still had to put my footloops on.)

The Adytum pitch itself can be judged by the fact that most of us were more excited by the elaborate rigging at the top (especially Phil). An uneventful exit was made at about 5.00 pm when the Corolla team decided to explore Drum Cave (B13) and Acoustic Pot (B22). Mike and I returned to camp to explore the Eskey.

We all crashed at about 2.00 am, the other three having arrived back about 11.30 pm and Richard having concluded the rumble ritual with Judy. Waking up late meant that we became about the first S.U.S.S. group to be greeted by the ranger with a \$10 camping bill. An even later start was made and we agreed on Acoustic and Drum, since Mike and I had not done the former. Acoustic was worthwhile even though a couple found it a bit hard on the ears (and in Richard's case, on the head.) But Phil had a soft landing at the bottom and so was in best condition for the race to the top.

Only doing the first pitch in Drum avoided a late departure. The Corolla headed off with Richard and Judy driving tandem style while Mike and I braved the expressway (and rain) in an open buggy.

Mark Hunter



Rope protectors can be a major hassle on prolonged SRT trips when cold, numb fingers are unable to tie knots in the cord which secures the protector to the correct place on the rope. This cord is usually 3mm in diameter and tied into eyelets at each end of the protector, secured to the rope by a few simple knots.

The system which I have developed uses large cord-grips (i.e. Karrimor) and thin 2mm venetian blind cord. (See figure). Thread one end of the cord into the protector eyelet. Then thread both ends of the cord into the hole in the cord grip. Tie a small neat double fisherman's knot to join the two cord ends together. The knot also prevents the cord-grip from coming off again.

To use the system, simply position the rope protector, then place the cord-grip against the rope. Wrap (sic) the loop of cord with the small knot in it around the rope and over the bottom end of the cord-grip. Squeeze in the cord-grip and pull down on the rope protector to tighten it.

Don't loop the cord over the top end of the grip or else it will be hard to remove. Only one hand is required to remove the cord-grip. Squeeze the cord-grip button in and pull it away from the rope. The cord loop will lengthen and can then be slid off the bottom end of the grip.

This system can be used at both ends of the protector and the thin cord actually grips onto the main rope better than the larger diameter cord. The greatest advantage is being able to remove it with a cold, wet or gloved hand in a matter of seconds.

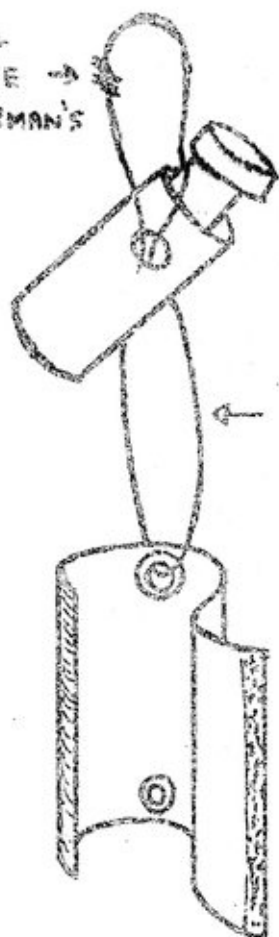
Happy SRTing.

Mike Lake

# THE S.U.S.S. SUPER SPELEO SERIAL: WHAT REALLY HAPPENED AT JENDLAN LAST WEEKEND OR: Why Mike Lake wouldn't give anyone proper directions to J168.



SMALL  
DOUBLE →  
FISHERMAN'S  
KNOT



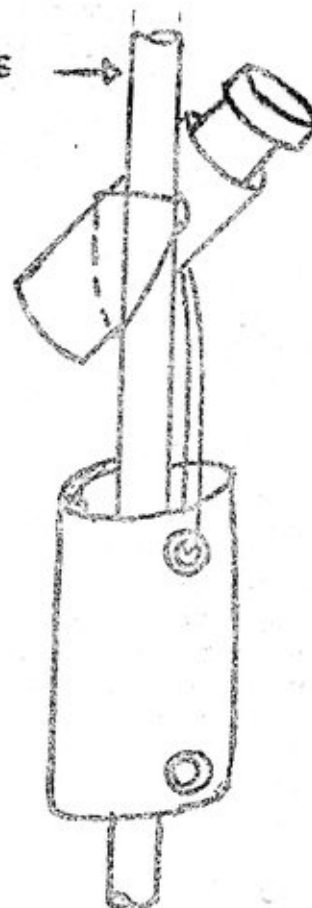
CORD  
GRIP

THIN  
CORD  
(2mm dia)

ROPE  
PROTECTOR

OFF ROPE

ROPE



ON ROPE



2.1.0.



THE FIRST WITH PINE  
 MAY 21 1979  
 Australia. The first and most important is geological structure.

*As a whole the continent tends to be older than others. Many of its rock systems antedate significant life forms and much carbonate rock depends on its formation on the calcareous skeletons of marine organisms. The second is the availability of water. The third is relief to promote active circulation of underground water.*<sup>46</sup>

Conditions in Australia have been unfavourable for the development of caves and karst on all these three counts. For speleologists this places all the more emphasis on identifying and protecting Australia's important caves.

A National Estate grant was given to the Speleological Federation in 1974 to produce a computer-based inventory of Australia caves. The Federation has, like other bodies dependent on voluntary effort, found it difficult to collect the data quickly. Data sheets were distributed to all local societies. From that distribution 4000 individual forms were returned. The quality of recording, however, varied greatly and the Federation decided that the data were too uneven to be entered into a computer file. It is accordingly revising the forms and rewriting the instructions. It expects to reissue the forms within three months. The completion of the inventory is thus likely to take another twelve months.

In the meantime the Federation published in March 1979 *A Check List of Australian Caves and Karst*.<sup>47</sup> The check list assigned a number to each cave and, where the information was available, briefly summarised the name of the cave, its location, its length and depth, other important features and the agency or person responsible for its management.

Caves are very unevenly represented in the Register. The representation ranges from good in Tasmania to poor in Victoria, to non-existent in the Northern Territory. Some of the more important caves listed in the Register, loosely grouped according to their outstanding characteristic, are:

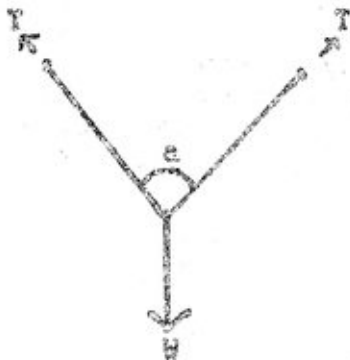
<i>Landform:</i>	Kubla Khan (Tas.) Nullarbor Plain, karst (WA) Mt Etna/Limestone Ridge (Qld)
<i>Fauna:</i>	Willi Willi near Kempsey (N.S.W.)
<i>(Bats)</i>	Jenolan (N.S.W.)
<i>Scenic:</i>	Yarrangobilly, Kosciusko (N.S.W.) Naracoorte (S.A.) Buchan Caves, (Vic.) Koonalda Cave, (S.A.)
<i>Anthropological-archaeological:</i>	



What will happen to Richard and Judy now?!! Stay tuned for the next exciting installment in the next SUSS bull!!

Why is it said that the angle between the two ropes when two anchor points are used should be no greater than 120 degrees? The reason is that at greater angles the force exerted on each of the two anchor points becomes greater than the weight force of the caver hanging on the rope. In the extreme case, a rope hung from the middle of a horizontally stretched rope exerts an infinite force on the anchor points.

I keep referring to the force on the anchor point rather than the rope because if there is a weak point in the system, it is most likely to be the anchor point. A rope's condition should always be known whereas the cave wall is more of an unknown quantity.



W = weight force of caver  
T = force exerted on each anchor point  
a = angle between ropes

Applying a simple vector argument we have:

$$T = \frac{W}{2 \cos (a/2)}$$

i.e. if a = 0 deg.	T = W/2
if a = 120 deg.	T = W
if a = 150 deg.	T = 2W (= 1.93W)
if a = 180 deg.	T = infinity

Thus if you wish to spread the weight between two or more points such that each point experiences a small load, the angle must be narrow.

If the angle is 120 degrees then the force on each point is equal to the weight force of the caver. That is the same force as if the rope was suspended from a single point. Hence the advantage here is not to spread the load, it doesn't, but to have two anchor points in case one should fail.

If the angle is greater than 120 degrees then disproportionately large forces are exerted on the anchor points. This should never be done.

It must also be remembered that if one anchor point should fail suddenly, the other anchor point will be subjected to a shock load which is greater if there is a wide angle between the ropes. Remembering that caving ropes are "static" and that jumars are only made of cast aluminium only serves to underline the fact that in Single Rope Technique the anchor points and equipment should never be subjected to a shock load.

Obviously one should always try to rig pitches such that the angle subtended by the anchor points is as narrow as possible.



Present: Guy McKanna (TL), Mike Lake, John Kaye, Graeme Galloway,  
Bruce Stewart, Zain Scott, David Schofield, David Solkes

### Saturday

This was the first trip to Wombeyan organised by SUSS for many years and as such we were anticipating a pleasant change from our usual areas of investigation.

Guy's ageing Volvo, Demosthenes (as he fondly calls it), soaked up the corrugations with many a shudder as he skillfully guided the car down the winding gravel road into the cloud laden valley of Wombeyan. (I think Mike must be trying for some literary award, ed). This road is a tortuous gravel version on the "Five Mile Hill" section of the road into Jenolan, but about ten times longer and with washouts on most corners. I suspect that it was designed to shed cars like a gull sheds water. The other members in our group had arrived in two Suzukis, complete with pushbutton CB radios (!!), and were waiting on the kiosk verandah, consuming Weston's Wagon Wheels. [The astute reader will note the interest shown by Mike in the particular form of junk food being consumed]. Guy checked in with the guides and then we set up camp. The Wombeyan camping-area, apart from not being 10km away from the caves, has fireplaces and hot showers (these were well appreciated on Saturday night). The provision of showers is also environmentally sound, as the copious quantities of cave mud are returned to the local ecosystem, rather than being brought back to Sydney.

Our first trip was to Basin Cave which was about a half hour walk from the campsite. This cave is mostly walk-through with the most striking feature being exceptional rimstone pools, up to just under 2 metres deep. Guy McKanna took numerous photographs, which may be seen at a future S.U.S.S. meeting. After the photography, we descended a ten metre pitch to explore the lower levels. Nothing significant was found. Some old tin cans and a five metre length of steel cable was removed from the cave as we exited.

After W2, we proceeded to the Efflux. Seeing a decent flow of water pouring out of the ground some two meters above creek level raises the spirits. However, there were only a few centimeters of air space and this precluded any further progress. The bluff above this efflux was searched for any other prospective entrances amongst the undergrowth. Only a few small silted-up holes were found. As evening was approaching, we headed back to the campsite for hot showers and food.

Sunday was spent mostly digging in some hopeful looking holes. These were located north-east of Bullio Cave (W55). One of these holes was a cleft in the ground full of humus. Much of this was removed by Guy, Graeme and John. About fifty metres south of W55, another small hole was found by John Kaye. This was enlarged by the removal of some rocks, enabling him to gain access to a short solution tube which dropped into a rift. The rift was too tight for John and needs to be pushed by someone smaller. The rift can be seen to curve under itself to a depth of about ten metres. This hole is among many other small holes and dolines, and, as many are on a similar bearing, the area could be quite interesting.

A visit was paid to Phillip Cole's old headquarters at Jenolan, New South Wales. The weather was looking bad, so the trip was only a short one. Late in the afternoon, we checked out with the guides and headed back up that tortuous road to the highway after a very pleasant and rewarding weekend.

Future trip leaders should note that, like Jenolan, caving gear may not be worn in the tourist area and must be carried in and out unobtrusively.

Mike Lake

"A Hard Day's Night"  
Jenolan Trip Report  
26th - 27th June, 1982

Upon an early arrival at Jenolan, we divided into two groups. Phillip and Warren Cole went to dig in J168 along with Bruce Stewart, Colin Matthews and Mike Gibbeon, whilst Grant Elliott and myself went to investigate a few holes in the Southern Limestone. J268/9 was descended till the rift that this cave follows downwards became too narrow for me to safely descend. Rocks dropped down this rift fell for a long way; it seems as if this cave proceeds down to at least creek level. Further investigation of this cave could prove profitable; if done by someone slightly narrower than myself, it would also be safer.

J270 was also investigated but found to be partly silted up. It is near the Heffalump Trap, which still seems to be the best site for further progress towards the Southern Limestone Master Cave, as a doline on the other side of the creek would tend to suggest substantial cave underneath this area. J273 was also found (accidentally). This is near Block Cave on the opposite side of the creek and looks promising from the surface.

Grant and I returned to J168 and met Mike Lake and Francis Chee and the others. Further digging in this cave revealed a relatively strong breeze. However, the digging was making the digging site rather unstable and definitely unsafe. As a result we retreated from the cave, leaving a rock with a cross on it blocking the entrance to the dig. Digging cannot continue till the area is either shored up or blasted. Unfortunately, prospects looked very good but are not worth the dangers involved.

Meanwhile Judy Clarke and Richard McNeall had gone to Spider to use the scaling poles again; however, after much trouble in the sump with floating packs and sinking boots, this idea was abandoned, with Judy half-drowned. This effort took them most of the day. Anyone finding a shoe at the bottom of the upstream sump should return it to Judy, she is starting to get tired of caving in plastic bags.

In the meantime, those of us on the surface proceeded up the valley. I investigated J29 and J54 with a view to looking at their relation to Mammoth Cave. They seem to be silted-up past entrances to the Entrance Chamber of Mammoth Cave as does J14 (the old walk-in entrance.)

We then proceeded up the valley to J94. After some rock-removing, it was decided that much work would have to be done to remove more rocks stopping progression. However, it is the most

then investigated. The rifts were not blowing but were negotiable. Century Cave could not be found.

Wiburd's was next on the agenda. Henry's Dig was silted up; rock was removed from the top of the cave pearls in Yaening Gulches - it looked as if someone had put it there; as a result they were rather dry and partially destroyed; some restoration work was done to return them to their original state.

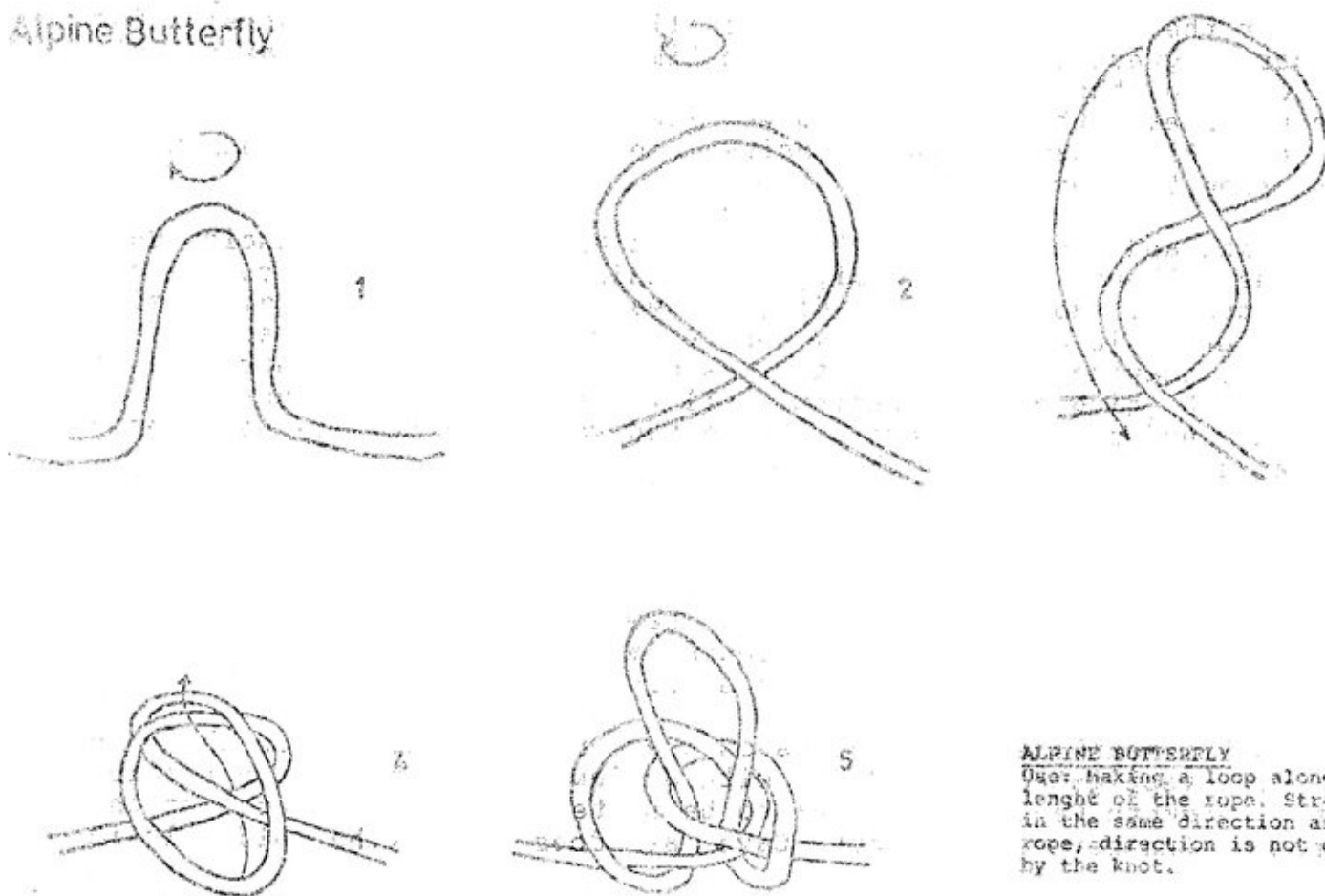
The whole of Jenolan appears to be very dry at present. Lower River in Spider appears to be a few centimetres lower than usual. We returned from within the vast voids of Wiburd's at dusk and met the others along the way back to the campsite.

On Sunday, Grant and I proceeded into Spider to survey the "new" extensions. We spent 9 hours in the cave surveying over 350m of passages. Judy and Richard added details to Mike's earlier "downstairs" survey whilst Phil and Warren aided them. The others were too tired to go caving at all, except Mike Gibbeon who attempted Spider but didn't get through Pirate's Delight. All of these surveys have now all been added to the Spider map thanks to Guy McKenna's work (ed).

The last of us left Jenolan at 8.30 in the evening after a full weekend's caving.

Guy McKenna

## Alpine Butterfly



**ALPINE BUTTERFLY**  
 After making a loop along the length of the rope, strain is in the same direction as the rope, direction is not changed by the knot.

The Alpine Butterfly  
and its relevance to rigging  
by Malcolm Handel

There are very few knots that the caver needs to be skilled at tying. Among these, the double figure-of-eight knot, bowline and tape knot are the most important and most cavers will do all their rigging quite safely using just these three knots.

Only rarely is the alpine butterfly used and it is not even mentioned in Montgomery's book *Single Rope Techniques for Vertical Cavers*. Nevertheless it is an extremely useful rigging knot with one very distinct advantage over the double figure of 8 knot and bowline.

The typical use for the bowline and the double figure of 8 is to make a loop in the end of a rope. In the situation where a free end of the rope has to be passed around a large object (e.g. boulder, pillar) it is quicker and easier to tie a bowline because using a double figure of 8 knot requires initially tying a single figure of 8 knot a long way from the end of the rope and hopefully in the right place. A long running end must be pulled through when tying the single figure of 8. The alpine butterfly is not at all suitable for this purpose.

For joining two ropes end-to-end either the double fisherman's knot or a double figure of 8 may be used. Many people now use the double figure of 8 because they are so familiar with it, it is immediately obvious if it has been tied incorrectly and it means that one less knot is needed in their repertoire.

The alpine butterfly and the double figure of 8 knots are both useful for tying a loop in the middle of a rope. In the double figure of 8 the running and standing end of the rope should not be widely separated (fig.1a), and certainly the ends should not be loaded such that the rope is pulled straight (fig.1b). On the other hand, the alpine butterfly is ideally suited to having the standing and running ends loaded in a straight line (fig.1c).

The incorrect use of the double figure of 8 has the tendency to pull the knot apart causing it to lose the smooth contours that make the double figure of 8 such an excellent knot.

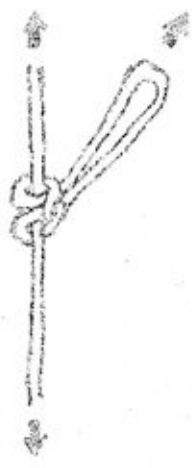
The situation often arises in vertical caving where one wishes to hang a rope with equal load placed on 2 anchor points. This can be achieved in several ways. See figures 2a,b,c,d. It is clearly evident from the diagrams that the most economical of these rigging methods is that which uses the alpine butterfly. This method uses less rope, or tape, and one less karabiner. Other methods of rigging that are frequently employed use the double figure of 8 in the correct manner.



1a: d.F of 8  
used correctly



1b: d.F of 8  
used incorrectly



1c: alpine butterfly  
used correctly

Figure 2: Four methods of distributing load between two anchor points, demonstrating the economy of using the alpine butterfly



2a.  
4 d.F of 8  
3 karabiners



2b.  
1 alpine butterfly  
1 d.F 8  
2 karabiners



2c.  
1 d.F of 8  
2 slings  
3 karabiners



2d.  
3 d.F of 8  
1 sling  
3 karabiners



Guy Cox

This was not a caving trip! I was to spend 5 months in ~~Britain working on the very unusual high voltage (10 million volt) electron~~ microscope there, but naturally enough I soon got in touch with my old club - Oxford University Cave Club - and found them even more active than they had been in my time (and one old fossil from those days was still caving with them!). Of course, they had just discovered the 7th deepest cave in the world (1100m+), which is quite a boost to any club - but also makes most British caves seem rather shallow. Since the English academic year starts in October, the first couple of trips I got on to were freshers trips.

First of these was Swildon's cave, in the Mendip Hills in Somerset, which was a favourite for such trips even before my time. The entrance is a small stream sink, which leads to a steeply descending and most attractive stream passage. The cave is around 130m deep, and contains several km of passage, with several free-divable sumps and similar delights, and is a most enjoyable trip. It is deservedly one of the most popular trips on Mendip, but on the first Saturday of the university term it is decidedly too popular, with cavers arriving in bus loads. The number of people in the cave must have been over 50, which tended to cause congestion at times. Nevertheless a good trip, with enough water in the streamway to make it sporting. The Queen Victoria at Priddy still has the same landlord, and is as good as ever. On the way back to Oxford we even stopped at the same take-away chicken place that we used to patronise 12 years ago.

Next trip was to p8, or Jack Pot, in Derbyshire - equally popular for such trips, but one which I had not been to before. The weather by this time was getting distinctly chilly, and a very cold stream was sinking at the entrance. This is another classic swallow cave, much shorter than Swildon's, but still a first rate trip, in other circumstances. This time, however, there were just too many people. About half-way down there is a wet pitch - only 6m, but with large parties of boy scouts going down, getting soaked, and coming straight up again, it caused a total bottleneck. We were left sitting in the cold for 1½ hours before we could get down - which left me with a cold for days afterwards. A good cave - for weekday trips only!

That was enough of freshers trips, and for our next trip Jim Sheppard, Jan Hunning and I set off to do one of the best trips in the country - Ogof Ffynnon Ddu, in South Wales. This is the deepest cave in Britain (300m) and until recently was the longest (40 km). It has three entrances; we were to go in through the highest of these, and out of the Cwm Dwr entrance. A classic through trip. The upper entrance leads to a complex series of large, old phreatic passages, leading to a steep series of climbs (one of which has a fixed ladder) down to the underground riverway. We got totally lost in these passages, in spite of having a survey with us, but met another party who showed us the way to the river. The riverway is a deep vadose canyon, with lots of water, and some classical, almost invisible potholes. It is also long! All good things come to an end, however, and eventually

the stream disappears into a sump, and we had to enter the sump dry levels again. There is a sump bypass, leading to an entrance (OFD 1) close to the resurgence, but our route led via some entertaining traverses and a boulder choke to the cwm dwr inlet passage, from which the way out is 400 metres of flat-out crawling and a short ladder pitch up a drainpipe. We only got lost twice in this section!

After that the snows descended on England, and caving was impossible for a while, though I did get within a few kilometres of some Yorkshire caves. When they finally thawed, Teresa and I had a couple of days in Wales again. Water levels were, not surprisingly, rather high, but we did several caves in the Little Neath system, as well as Porth yr Ogof, a short but impressive through trip carrying the whole flow of the River Meilte.

Somehow I can never keep away from Yorkshire if I am in England, so in early February we paid a visit to John Forder, on our way to Scotland where I had to give a seminar (and where we hoped to go skiing). John is one of England's top cavers, and lives with his wife and various daughters in an unbelievably picturesque cottage in a steep cobbled street in the centre of Dent, a tiny village surrounded by limestone and caves. We went down Calf Hole, a stream sink which gives a through trip to Brow Gill, the resurgence. A short, but enjoyable trip, with a waterfall entrance pitch and some fine stream passage. Halfway through is a waterfall - freeclimbable if one wanted to, but bypassed by an alternative climb. John, however, had laboriously brought his Mamiya large-format SLR down the cave with him, and intended to make me suffer for it, so I had to climb up the waterfall and pose in the icy torrent for some pictures. Much later, as we left the cave, John said "Oh dear (or words to that effect) - I think I had the wrong shutter speed for the flash!" .....

Skiing in Scotland was HOPELESS! The huge snowfalls of early January had been followed by an equally huge thaw, and all that was left were patches of ice among the heather and rocks. Nevertheless we skied. Teresa gave up after lunch, but I kept at it to get the value out of my day ticket (which was at least cheap). However the facilities for non-skiing were even grottier than the snow - unlike most Oz resorts where you are usually better off in the bar than on the slopes. Words of advice to anyone planning to ski there: 1. only go if the snow is good (the slopes would be first-rate with good snow) 2. bring your own food and grog 3. don't hire skis at the resort - the ones at Glenshee were simply hopeless.

After that, of course, Teresa and I got married (and I still don't know how the news of that got to the SUSS Bull) and it was time to leave - in my case back to Australia via California, Arizona and Mexico. And a few warm days of Autumn before my third winter in succession.

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# Future Events

## August

- Thursday 5th General Meeting. Common Room, Holme Building, 7.30 pm.
- 12th - 13th Bungonia, SRT only. Contact Phillip Cole on 525 2496.
- 14th - 22nd Cross-country skiing. Come for the week, part of the week or one of the weekends. Beginners welcome. Contact Kristin Young on 90 6867.
- August holidays 5 day bushwalk in Deua National Park, with possibility of visiting Bendethera and/or Deua Caves. Contact Paul Chatterton on 48 1910

## September

- Thursday 2nd General Meeting. Common Room, Holme Building, 7.30 pm.
- 6th - 5th Speleosports, at Macquarie Uni. Everyone must come!!!!!! If you can't make a team of 4, enter anyway. Contact Ian Mann for a registration form and for more information on how you are going to help on the day.
- 11th - 12th Jenolan. Mike Lake's birthday trip. Contact Mike Lake on 524 5229.
- 18th - 19th Wee Jasper. Vertical - but no experience necessary (using ladders). All welcome. Contact Richard McNeall on 46 1847.
- 25th - 26th Jenolan. Learn about scaling poles and do the dreaded Dwyer's Cave. Contact Judy Clarke on 869 1276.

## October

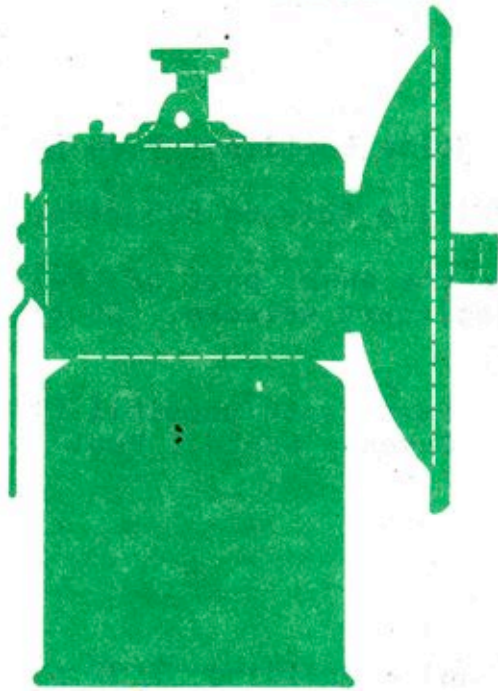
- Long Weekend Bushwalking. Contact Judy Clarke on 869 1276 or Kristin Young on 90 6867
- Bathurst 1000. Contact Richard McNeall on 46 1847.
- 9th - 10th Canyoning. Contact Mike Lake on 524 5229.



I've got it deciphered... It says exit.



Lumen in Tenebris



# SUSS

BULLETIN  
of the

SYDNEY UNIVERSITY  
SPELEOLOGICAL SOCIETY

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