

BOOLE



Journal of
Blue Mountains Speleological Club

Vol. 13 No. 1

OOLITE

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CLIEFDEN March	15
++ PLUS ++ 1982 REPORT SUPPLEMENT ++ LIFTOUT.	

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INTRODUCTION

INFORMATION, EXPLORATION, DISCOVERY, ADVENTURE

&

JUST SHEAR FUN

This is just some of the things in Oolite the editor has tried to capture.

Oolite is a journal based on outdoor activity and to keep it this way I ask all members of B.M.S.C to keep sending publishable material.

I would like to take this opportunity to thank the past editor of Oolite, Mr Ian Bogg for the time and effort he had put into the journal.

Now as you turn the page, enjoy reading our Club Journal.

1983 Editor

Paul Sammut



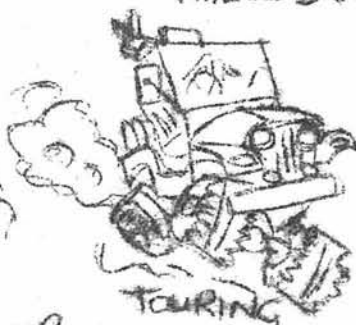
BUSH WALKING



FOUR WHEEL DRIVING



CAVING



TOURING



JUST HAVING FUN

IF ITS WORTH PRINTING I'LL
PRINT IT

Guide Book Cave Types

Or

Who's Who in B.M.S.-C.

1) THE TROGLODYTE: Generally bearded if male, sometimes if female. Usually owns a 4WD and veteran member of club. Generally has a soft spot for areas such as Jenolan. Is often cloudy about meeting dates but usually emerges once every couple of years to vote. Has visited almost every cave at Jenolan, and has left his clawmark in a J41, broken an ankle or two in Mammoth, and has left his footprint in Chevalier

2) THE NEOTYPE: Shows up on first trip several hours late had forgotten directions on how to get there. Usually well equipped with candles (no matches), a ball of string, flashlight, a [redacted] (for killing cave dragons). Usual highlights of a trip include, loss of flashlight in pool, 1 pair of shoes in Cliefden mud thinks crawls undignified.

While being extricated from cave is heard to mutter through chattering teeth, G-G-Gee that was G-Great, w-when can I-I-I come again.

3) THE EXPLORER: Is frequently present at the beginning of trip but seldom seen at the end of it, having vanished in the first inaccessible crevice encountered in search of a new horizon to conquer. Knows all the twists and turns in the wild sections of Mammoth and generally has some pet rabbit hole he is sure goes with a judicious amount of digging. Years after the excavation of this hole which has been stopped by an underground spring or a nest of furious wombats, he still can be heard muttering 'I know it goes we just didn't dig deep enough.

4) THE GEOLOGIST: He leaves no stone unturned and takes nothing for Granite. He is a selective caver but can usually be seen at Wyanbene where he is a real ironman. Always attends the Christmas dinner where he never fails to become stoned.

5) THE PHOTOGRAPHER: Can be heard long before he is seen his movements are accompanied by the rattle of flashes to the clink of reflectors and the clashing of half a dozen cameras strung around his neck. Has a Sunpak for small passages, a Braun F900 for the big caves and PF100's for the Gunbarrel. Carries a box camera for the box work, a Brownie camera for the leprechauns and a Press Camera

for the odd shot of 'the Yowie'. Has been known to burst into tears when a bat refused to smile at the camera.

6) THE CAMPER: (There are two types)

TYPE A: Ground sheet (1), Toothpick (1), Toilet rolls (3)

TYPE B: Caravan, Electric blanket, Heater, Razer (elect) 2 Caving lights, 4 Helmets, 20 Karabiners, 4 sets of Jumaras, 2 Cameras with flashes Items of trading with the natives, Suntan lotion, Porta Pot, Enough food for an army Bath, and Kitchen sink.

7) CON MAN: His car is invariably the one that gets stuck in the Shoalhaven but a few whispers in carefully selected ears always produces volunteers to push it for him. He is usually the type to offer help to Lily Maid (see.. Girl Caver) while he cons a person to carry his gear.

8) GIRL CAVER: (again 2 types)

TYPE A: She heads underground to prove her equality as the stronger sex. Distaining any masculine aid, she climb every mountain, fords every stream, suffering the usual bruises and lacerations with comparative silence. Thinks cave rats are cute. Takes a turn at belaying and wouldn't mind being last man out of the Big Hole. On the surface rates highly with fellow cavers but underneath she is wholly feminine and her pride suffers when she realizes the remark "You fellas" includes her.

TYPE B: Has discovered the

Cont. from page 2

handsomeness, virility, dash & general lovability of the male caver and decided that caving presented the best opportunity for closer proximity thereto. She has no desire to prove her equality to the opposite sex, quite the opposite. Her shriek at the sight of bats, needs for helping hands (male) across 2'

wide pits and quivers at ladders and rope work arouse the protective instincts in male cavers and the killing instincts in type A caver. The high point of the trip is when she carried twittering across a 3 inch deep stream, usually by types 3 & 7. She usually fails in ultimate aim - permanent ensnarlment of caveman, who

"She's just too much darn trouble"...

By Louise Coleborn.

CAVERS "MAD" SECTION



HISTORIC CLIEFDEN

By GREG POWELL.

The original Cliefden grant was taken up by William Montague Rothery early last century and spread all the way to Carcoar. His original homestead was near Wyoming (near Molongulli Cave) and only a crumbling wall remains. In 1832 he moved up to the present site.

He was encouraged to call his grant Cliefden Springs by King George III after the Prince of Wales residence 'Cliefden'. The ruins down on Taplow Flat (Tomato Patch) could be part of an old lock-up (gaol) or a workers quarters.

In 1863 the Ben Hall gang raided Cliefden. They came in Police uniform, taken from troopers at Mt. Macquarie near Carcoar, and so took old Rothery by surprise. After tying Rothery to a chair the gang enjoyed lunch and rode off with a few valuable horses which w-

ere later returned. The Chinese cook was going to poison the Hall gang's food but luckily he did because Rothery was made to taste it first.

The chair in which Rothery was tied in is still in the "Cliefden" lounge room. The house remains much the same as it did then. The stables built in 1842 house Carts and Wagons including the original Wagon which the Rotherys crossed the Mountains many years ago.

The property is still run by the five surviving granddaughters of William Mont. Rothery. The remaining family members including old William Montague rest peacefully in the family cemetery overlooking the house, stables and woolshed.

The family didn't visit the caves much but Rose Rothery is able to remember "The Boot" in Cliefden Main.

CAVEMEN FOUND IN INDIA

(Daily Telegraph 1982)

Indian soldiers have discovered naked stone age cavemen & women, it was claimed in New Delhi.

An Indian army expedition, trekking along the lower Himalayas found the stone age culture near Chetak Pass, about 600k nth.-east of Calcutta.

The soldiers were marching through five metres of snow in a forest when two naked women were seen running away, the expedition leader said.

"They got frightened seeing men like us and tried to run away," he said.

"It was a hell of a job convincing them we were not killers!"

.....

Does this mean some of BMSC members have finally been found?

CAVE FAUNA

Part 4.

BEETLES

Beetles are insects belonging to the order Coleoptera, this is the largest group of species. They include leaf eaters, sap suckers, wood borers, scavengers and parasites. Beetles have adapted themselves to all surfaces of the earth from the polar regions to the tropical rainforests, and certain types of beetles spend their entire lives in caves.

Beetles have four stages of development. Firstly the eggs are deposited on organic material, then the larvae hatch from these eggs and feed on the organic material for several months. Then in the third stage - pupae - they do not feed. After this metamorphic stage they emerge as adult beetles.

They have hard protective forewings that meet in a straight line over the back. All have biting and chewing mouthparts.

The order Coleoptera is divided into many families but I will list only those found in caves.

FAMILY

Carabidae:- are ground beetles and are one of the largest families of beetles. They live in the soil and feed on other insects, centipedes, worms, slaters and others soil inhabiting animals.

Gnathophanus pulcher:- has been recorded from Johannsens Caves area, Qld.

Idacarabus cordicollis:- is restricted to the caves in the Hastings area, Tas. The Hastings Idacarabus is a true troglobite and was discovered in 1963. It is a small brown beetle with reduced eyes and sensory hair.

Loxandris sp:- recorded from

Niggle and Camooweal Cave, Camooweal, Qld.

Lecanomerus mastersi (Macl):- has been recorded from Argylo Hole, Bungonia.

Lecanomerus sp:- has been recorded from Castle Cave, Yarrangobilly, N.S.W.

Hystropomus subcostatus (chaud):- is widely distributed in the Mt. Etna area, Qld.

Notospeophonus jasperensis vicinus (Moore):- a second level troglophile recorded from Fossil Cave, Bungonia.

Notospeophonus pallidus:- recorded from Nullamullang Cave, Nullarbor Plains.

Phloeocarabus nigricollis:- has been recorded from the Haunted caves, Chillagoe.

Rhystiosternus boville:- has been recorded from Camooweal Caves, Qld.

Spectarus princeps:- recorded from Ashford Caves N.S.W.

Spectarus sp:- has been recorded from Weebubbie Cave Nullarbor Plains.

Spectarus lucifugus:- recorded from Karacoorte, S.A. and Jurien Bay W.A.

Tetraphis sp:- has been recorded from River Cave, Yarrangobilly, N.S.W.

Thenarotes speluncarius:- recorded from Abrahurrie Cave, Nullarbor Plains.

Trachimorphus diemenensis:- was recorded from Grill Cave Bungonia.

FAMILY

Catopidae:-

Pseudonemadus sp:- was recorded from the River Cave and Y80, Yarrangobilly, N.S.W.

Pseudonemadus integer (Port):- has been recorded from the Speeking Tube, Johannsens Caves. This genus is a relatively common troglophile in Australian Caves.

FAMILY

Chrysomelidae:- are a family of leaf eating beetles. A special feature of this beetle is its ability to feign death when alarmed. This is an automatic reaction, known as 'akinesis', due to a contraction of the muscles under a particular stimulus. A very useful means of defence. This family are leaf eaters so the following species is probably an accidental visitor.

Nisus submetallica:- recorded from Johannsens Caves (Wellings) Qld.

FAMILY

Curculionidae:- are weevil like beetles. They have elongated heads ending in mouthparts designed to pierce leaves.

Mandalotus sp:- has been recorded from Chalk Cave, Bungonia.

Talaurinas sp:- recorded from Johannsens Caves, Qld.

This species is probably an accidental visitor also, as its usual habitat is on the surface (Williamson).

FAMILY

Dermestidae:- are skin or hide beetles. They are very small and their larvae feed on animal matter throughout their lives.

Dermestes ater:- recorded from Royal Arch Cave, Chillagoe, Qld.

FAMILY:

Dysticidae:- are a family of carnivorous diving beetles, which thrive best in still waters where aquatic life is luxuriant.

Bidessodes miobongi:- recorded from Camooweal Caves, Qld.

FAMILY

Histeridae:- are carrion beetles. They are rarely larger than 18mm long and are usually black with metallic tints.

Sp. indent:- has been recorded from the Winding Stairway, Johannsens Cave, Qld. This species feeds on animal remains.

FAMILY

Holodidae:-

Cyphon:- recorded from Haunted Cave, Chillagoe Qld.

FAMILY

Lathridiidae:-

Sp. indent.... recorded from Webbie Cave, Nullarbor Plains.

FAMILY

Ptinidae:-

Sp. indent. recorded from the River Cave, Yarrangobilly, NSW.

FAMILY

Ptinidae:- are the family of golden spider beetles. This family never exceed 5mm in length, they have a small head and prothorax and a large globular abdomen entirely covered by elytra. They live on decaying plants and animal matter and are commonly found in birds nests and other animal nests.

Ptinus exulans (Erichson):- has been recorded from Grill Cave, Bungonia and also from Murra-ellavyn Cave, Nullarbor Plains. This species is well known cosmopolitan pest and it is found in association with Bat guano.

FAMILY

Scarabaeidae:- Family of dung rolling beetle.

Sp. indent... recorded in Royal Arch Cave, Chillagoe Qld., and Murder Cave, Cliefden NSW.

FAMILY

Staphylinidae:- family of rove beetle and they are all characterised by their very short elytra. Two blind specimens from the subfamily Pselaphidae were collected Chillagoe Caves.

Sub-family Pselaphidae:-

Rybaxis sp.... in Grill Cave Bungonia, and it is thought to be endemic to the area.

Tyromorphus speciosus:- Johannsens Cave, Qld.

FAMILY

Tenebrionidae:- This family inc. beetles of many varied shapes.

Alphitobius diaperinus:- from Bat Cleft Cave, Johannsens Caves Qld. This species of beetle were found in bat guano. It was unusual to find this species in Bat Cleft Cave or any other cave as it is usually associated with damp cereals, and it is usually thought to be a cosmopolitan species.

Helaeus sp.:- is a common surface species but it has been recorded from several of the caves on the Nullarbor Plains.

Brises acuticornis:- has been recorded from several caves in the Nullarbor Plains area. This is a widely distributed form and

has also been recorded from Ashford Caves NSW., Swan Reach SA., and Buckalowie, Flinders Ranges SA. Large groups of this species are found in the cave entrances but it is also found deep within the caves.

FAMILY

Trogidae:-

Trox sp.... Johannsens Caves Qld
This species are very close to *Trox costatus* (Weid) which is known from epigeal habitats in Australia and it has been recorded from Batu Caves, Malaysia.

As you have noticed this article contains more information on Queensland fauna than N.S.W. fauna. This is because the Qld. area has been documented and information on the N.S.W. fauna was difficult to compile. I hope this article will give our members the initiative needed to compile the information on fauna in NSW.

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Spar 26
Conservation of Mulla Mullang Cave - Submission

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Cave Fauna was compiled by....
Terry & Louise Coleborn

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Terry & Louise Coleborn

.....

Oolite

8..

Goodbye Coral
I'm going Caving

Goodbye Brain



While I'm gone Promise
Me one thing !

Ofcource
Darling
anything
???



Promise you'll SHAVE OFF
YOUR MOUSTACHE!!



CARTOON



CORNER

Paul

LIBRARY LIST

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 Victorian Caves and Karst

Our Librarian has gone to a lot of trouble to complete
 a Library listing. Please use your Library.

NEW ABORIGINAL SITES FOUND ON FRANKLIN

from The Age paper.

Archaeologists have found seven more caves containing ancient Aboriginal artefacts on the banks of Tasmania's Franklin River.

The caves are on both sides of the river, downstream from & within 15 kilometres of Fraser Cave, which has abundant evidence of Aboriginal occupation from about 20,000 years ago to 14,800 years ago.

The finds were made during Dr Rhys Jones survey team searched the area.

They bring to nine the number of caves along the Franklin now found to contain artefacts. Fraser Cave and other caves nearby were found in 1981. All the caves are threatened by Tasmanian Government's plans to flood the Franklin for hydro-electric power.

Fraser Cave was one of the 5 most important sites documenting man's entry into the western rim of the Pacific. The others include the caves at Tabon, in the Philippines and Chaukoutien, in China, where Peking Man was discovered.

The 200 mtr. long floor of Fraser Cave is covered to a depth of two metres with debris containing stone and glass tools, bones and other artefacts. More than 50,000 relics have been found.

Flooding the Franklin would drown all the caves, and Dr Allen says the chance of finding other caves from the same era are "zilch".

Already work has started on the dam and it will be months before it may be stopped.

..... POEM

DO YOU JUST BELONG

Reprinted by Louise Coleborn

Are you an active member, the kind that would be missed ?
Or are you just contented your name is on the list.

Do you attend the meetings, and mingle with the flock,
Or do you stay at home, and criticise and knock.

Or do you take an active part to help the work along,
Or are you satisfied to be the kind that just belong.

Do you push the cause along and make things really tick
Or leave the work to just a few and talk about the clique.

Think this over member, you know the right from wrong,
Are you an active member or do you just belong?

.....

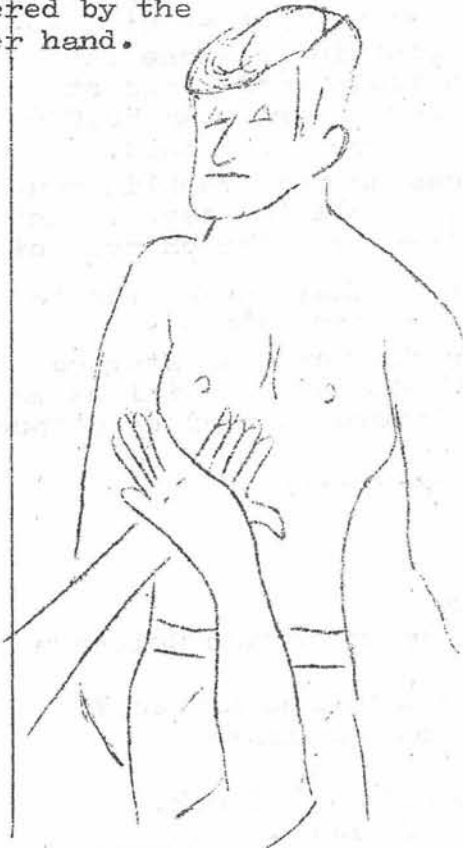
FIRST AID

CHOKING

Choking is something that could happen to the person next to or to yourself. There is two methods to prevent choking.

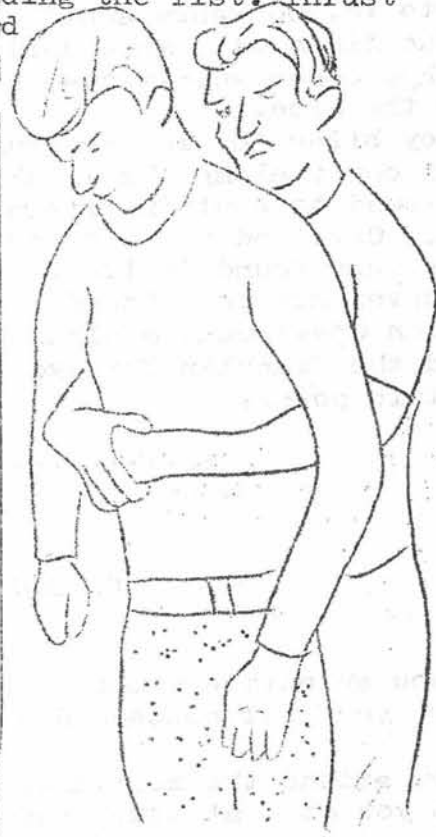
Heimlich manoeuvre:-

If the patient is lying down, roll him on his back, kneel astride his hips and thrust hard on the upper abdomen, between the navel and the lower end of the breast-bone, with the heel of one hand covered by the other hand.



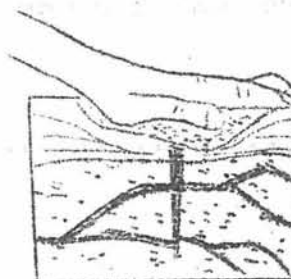
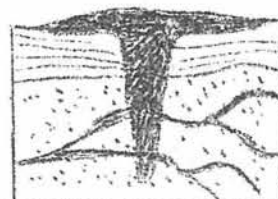
If the patient is standing or sitting, wrap your arms around his waist from behind, put one fist with the thumb edge on the upper abdomen with the other hand holding the fist. Thrust hard

inward & upward.




BLEEDING

As immediate first aid for external bleeding apply pressure with a pad over the site of the injury.



CAVING SONG



Extracted from Labyrinth 29
by Brian N. McQuillan.

Who's that friend or foe with the mud from head to toe
Helmet on his head you wonder if he's dead,
a statue in disguise or did he blink his eyes
He's just a caver.

CHORUS:- Cause, his idea of fun is to

Get a survey done,

His idea of play is to

Abseil all the day,

His idea of life is to

Leave at home his wife,

And spending all his time

Being drunk from dusk till nine.

He climbs down in the ground, to fossik all around,
To crawl through narrow holes, imitating little moles,
A climbing up a rope, No prayers and little hope,
He's just a caver.

CHORUS:-.....

Now the latest thing, you see is climbing S.R.T.,

Prussik is the game, Jumars another game,

When they build a bloody lift,

I'm not a caver.

CHORUS:-

And so this troglodyte, With incandescent light,

Goes searching for a peace to call his own,

A sump a squeeze a pitch, An attempt to find his niche,

He's just a caver.

CHORUS:-

(special verse to be sung only in the presence of
S.S.S. & U.N.S.W.S.S. & similar.)

Now if you practise like you should,

You'll be good as Ian Wood,

And with never a 'no' or 'maybe',

You could cave like Andrew Pavey,

And if you never ever curse, You could be like Benny Nurse,

They're all good cavers.

CHORUS:-

??SAFTY FIRST??

Reprinted from Mittany Grotto
Newsletter by ?????????

Every caver is surely aware that at no aspect of caving deserves more attention than underground safety. If caving accidents are allowed to mount, caving as a sport will decline in public favour, caving societies will dissolve, and then what would all we weirdos do for congenial company furthermore, careless caving is bad bad for the caves themselves - blood spilled in caves is unsightly, and makes them slippery for cavers to negotiate. Finally and perhaps most worthy of note, certain caves are constructed to make recovery of accident victims virtually impossible. If sufficient safety precaution are not taken, such caves will become packed with bodies, and thus be rendered impassable for explorers.

Consider these rules of safety:-

1. NEVER GO INTO A FLOODED CAVE. You will be unable to keep your carbide burning under water, and will surely become lost.

2. NEVER ENTER A CAVE DURING AN EARTHQUAKE. Blocks of stones may fall from the roof, and in doing so may tear your clothing. This may cause you to catch a cold when you leave the cave.

3. ALWAYS USE A ROPE WHEN YOU ABSEIL. This point cannot be stressed to strongly.

4. STAY AWAY FROM CAVES. That are known to be inhabited by cave bears, dragons, sabre-toothed tigers, pterodactyles and bunnies. Some scientists feel that these animals may be dangerous.

5. SHOWING OFF IN CAVES. This is frowned upon. No matter how skilled you may be, walking on your hands on the Hairy Traverser in B4-5 is extremely unsafe. The rock there is rough, and you may scrape your palms most painfully.

6. BE CHOOSEY ABOUT YOUR CAVING COMPANIONS. If you have just stolen your mates girlfriend, or if your flatmate has taken to dropping pellets into your coffee and standing beside your bed at night with a meat cleaver in his hand, it is best not to take these persons into a cave with you. Though they may appear physically weak and puny, they could be possessed of diabolical cleverness. Play safe.

7. DO NOT DO CAVING. If you are suffering from gangrene, a broken neck, bullet wounds, hydrophobia, smallpox, fractured ribs and food poisoning. Many situations arise underground that demand alertness and top physical form.

8. UNDER NO CIRCUMSTANCES. Should you ever try to drive through

gh a cave in a car. If you run out of petrol there is no place to buy more.

METHOD OF RESCUE.

SITUATION 1:- Caver A has ventured out into the middle of a pool of guano without belay or safety line. He suddenly begins to sink out of sight at the rate of one metre per minute. Caver B? C? and D and you are standing on solid ground 3m from the edge of the guano. What DO YOU DO?

ANSWER1:- Take your rope and quickly tie in caver B, pushing in caver B toward caver A. When B begins sinking, tie in caver C and send him out to rescue B (A, by now, has totally disappeared). When C's nose is at a level with the surface, tie in caver D and repeat. When D's helmet is floating on the surface you should be all out of rope. Carefully extinguish flame of D's lamp. Go home.

SITUATION 2:- You and a friend are scaling a rock wall in Mammoth Cave. You have just crawled to the top, when your friend loses his footing, and begins to fall. he seizes your leg. WHAT DO YOU DO?

ANSWER 2:- Lean over the edge, enabling your friend to grasp you about the neck. Reach back and remove the laces from your shoes. Carefully tie your friend's thumbs together with the laces. Slip his arms over your head and hang him securely by the thumbs from a solid rock projection. leave the cave at once to obtain help. Pause for a snack on the way out so that you have energy which will be useful later. Return to the cave with rescuers. Call undertaker.

SITUATION 3:- You are going through a cave with a group. One of the young ladies seems to be tiring, but refuses offers to stop for a rest. As you continue, you suddenly notice that she is no longer with the group. WHAT DO YOU DO?

ANSWER3:- Keep going. The fewer cavers the better.

SITUATION 4:- You have just descended a 30m rock face and your friend is preparing to follow you. Suddenly the entire wall disintegrates leaving your friend stranded on a crumbling ledge 10m wide. Your rope was lost when the wall collapsed. WHAT DO YOU DO?

ANSWER 4:- Remove your clothing, tearing it into stripes, knot together to make a 30m rope. Toss one end of one to your friend, holding firmly on to the other end. Instruct him to tie his end of the line tightly around his waist. When he has done so, slowly and carefully pull him down.

Though time prevent me from presenting complete lists of rescue methods as the subject deserves, my latest book, THE CAVERS SOLUTION FOR THE RESTITUTION OF DESTITUTION, a worthy addition to every cavers library, contains many more helpful suggestions. I am confident that, if every caver will follow the procedures given herein, Australian caving will take on a radical change. Remember, cave safety is up to you. As Floyd Collins, noted caving pioneer, once said....

HEEEELLLPP?????(HELP)

TRIP REPORT

CLIEFDEN

.....

Date of Trip: 12th-13th March 1983
 Aim of Trip: Continue survey of Taplow Maze.
 Members: Terry & Louise Coleborn.
 Visitors: Gary Coleborn, Kevin Coleborn, Matthew Peacock
 Report.

As no one could make it from the mountains we didn't have the survey gear so we spent the weekend checking out the unfinished work and completing some of the detailing in these areas.

We have now completed the Blue Room and the section off G1 - G17.

the following of areas which have to be surveyed.

1. F.Section: Still to be surveyed.
2. O.Section: Small section to be surveyed.
3. H.Section: Complete to near end.
4. B.Section: To be rechecked.

5. A.Section: Correct but need B.survey to comp.

6. Survey and Detail CL31 to find connection.

When we came out from caving Saturday afternoon we decided to go for a swim but the river is not existent as such. The only water near the crossing was our swimming hole but it was full of sheep droppings and leeches. Also our tree for diving was washed away in the floods at Christmas.

All members and visitors spent 9 hours underground.

Report by

Louise Coleborn.

WE NEED
JOURNAL
MATERIAL



NOW

!!!

COOLITE



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Blue Mountains Speleological Club

Vol. 13 No. 2

OOOLITE

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VOL. 13/2

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DEC. 1983

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Edited and Published for B.M.S.C. by Paul Sammut.....

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be directed to the Secretary, Blue Mountains
Speleo Club, P.O. Box 37, Glenbrook, N.S.W. 2773

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Issue Date: December 9th. Club meeting

MERRY CHRISTMAS AND A
HAPPY NEW YEAR

INTRODUCTION

One of the hardest jobs for a Journal Editor is to make each journal better than the last copy.

Only a few members have donated material for this issue of Oolite, and next issue there is no new material to print.

Once again I ask all members of B.M.S.C to send publishable material on any topic.

I wish everyone a Safe and Happy Christmas.

See you in the New Year

Paul Sammut

Editor



GET AN idea for a new year

to get a new year

CAVE FAUNA

PART 5.

FLIES

Flies belong to the order Diptera and are recognised by having one pair of wings. All true flies have large compound eyes which occupy most of their head and the mouthparts although variable, are adapted for piercing and sucking but never biting.

Flies are divided into three major groups:-

1. Nematocera
2. Brachycera
3. Cyclorrhapha

NEMATOCERA

Nematocera contains crane flies, land and water midges, black flies and mosquitoes.

There are several families in this group but the following have been recorded from Australian Caves.

Family Cecidomyiidae:- are gall midges. The adult gall midges are tiny, fragile, flies. Most of the larvae of this family live in the tissues of growing plants, which they provoke into making a swelling known as gall.

One distinction of this family is that a few species have the ability to reproduce by paedogenesis, this means they are capable of reproducing without ever reaching the adult form.

Cave Fauna cont.

Sp. indent..has been recorded from several of the caves at Chillagoe and Johannsens Cave in Queensland.

Sp. indent..has also been recorded from Grill Cave B44, Bungonia, N.S.W.

Family Ceratopogonidae..are stinging midges. These are the insects mistakenly called sandflies. They are very tiny indeed max. wing length usually 2.5mm.and some below 1mm.

Culicoides mykytowyczi..has been recorded from the Haunted Caves, (CH1,CH7) Chillagoe. Culicoides are known to attack warm blooded animals, leaving a red disc around the bite.

Family Chironomidae..are harlequin flies. The adult flies are very familiar to us all. They are the midges that rise and fall in lazy swarms on Summer evenings. Some Chironomidae have a red pigment in the blood containing haemoglobin. These red larvae are known as blood worms and occasionally cause alarm when they appear in domestic water supplies.

Sp. indent..have been collected from the Royal Arch Cave CH9, Chillagoe and an unidentified species of this family has been recorded from Grill Cave Bungonia.

Family Mycetophilidae..are known as fungus gnats. The adult flies are harmless creatures and have no equipment for biting. They are always found where there is gently decaying vegetation, dung, wood, etc., Probably the most known species of this family is the glow-worm.

Arachnocampa luminosa..is the glow-worm known from Waitomo Cave in New Zealand, Mole Creek Caves, Tasmania and from the sandstone caves in the Blue Mountains in N.S.W. They feed on insects which they attract into contact with their masses of hanging threads which form part of the web of the larvae. These threads are sticky and have droplets on them containing oxalic acid. The prey of the glow-worm is mostly Chironomid midges, which breed in pools in the caves and the ravines in the areas concerned.

The glow-worm produces its light in the swollen end of Malpighian tubules. The excretory organs are the insects equivalent of the kidney, which has a reflector ingeniously

adapted from the lining of the trachea. The pupa has a light and the adult female has a very feeble light but the male has no light at all.

Exechia pullicauda. (Skuse)..has been recorded from Grill Cave B44, Bungonia.

Sp. indent.. An unidentified species has been recorded from Grill Cave B44, and Drum Cave B13 Bungonia, Belfry Cave TR2 Timor and from several of the caves at Chillagoe and Johannesburg Queensland.

Family *Psychodidae*..are the family of moth flies and midges. They are abundant farms, caves and the places where organic matter is present. The adult fly has pointed leaf shaped wings covered with hairs.

Phlebotomus..are group within this family and are known overseas as sandflies. They are tiny flies with wings more elongated and less hairy than the moth flies.

Family *Sciaridae*..are a family of land midges and are very similar to the family *Mycetophilidae* but where the *Mycetophilidae* are attracted to fungul spores and mould *Sciaridae* are more inclined towards a higher concentration of animal debris.

Sciara sp..has been recorded from Grill B44 and Chalk B26 Cave.

Sp. indent..has been recorded from Grill B44 and Drum B13 Cave.

Family *Dolichopodidae*..are known as the long legged flies. Most of this family are small, shining metallic flies, which resemble the blue and green bottles more then they resemble the horse and robber flies with which they belong.

Sympycnus sp..has been recorded from Grill Cave B44, Bungonia.

Cyclorrhapha..are the higher flies.

Family *Phoridae*..are the coffin or blood sucking flies. They are tiny flies, the biggest of them only about 6mm long and the smallest is 0.5mm long. They are among the most distinct fo all flies with a bristly head and legs. Their larvae have become parasitic by attacking living tissues. There is a record of them being nourished by the larvae of earth worms and beetles.

Cave Fauna cont.

Some of this family have become associated with termites and have become so highly modified by their secretive life that they are scarcely recognisable.

Sp. indent. has been recorded from Hill Cave TR7 & TR8 Timor, Drum Cave B13 Bungonia, and Haunted Caves GH1 & CH7 Qld.

Family Platypezidae..are hover flies. The larvae of this family live in various fungi. Probably the best known of this family are the smoke flies.

Sp. indent. recorded from Drum Cave B13 Bungonia.

Acalyptrates..contain the families of fruit flies, dung flies and the parasitic flies on bats.

Family Nycteribiidae..are parasitic flies found in the fur of bats. Both Streblidae and Nycteribiidae have the same hosts but they are really very different.

Nycteribiidae never have wings. They look like six legged spiders. The female flies leave their hosts and attach their larvae to the rocks and walls of the caves where bats roost.

Nycteribia parilis vicaria (Maa)..recorded from Grill Cave Bungonia in association with bat guano.

Penicillidia oceanica (Bigot 1885)..recorded from Grill Cave. Its host is Miniopterus sp.

Family Streblidae..are bat parasites. They exist entirely on the blood of bats and have a wide distribution along the east of Australia.

Brachytarsina vereunda (Maa)..recorded from Drum Cave Bungonia in association with Rhinolophus megaphyllus (Eastern Horseshoe Bat).

Brachyt. emboinensis uniformis (Maa)..recorded from Grill Cave, Drum Cave B13 in association with Miniopterus Sp.

CALYPTRATES contains the house flies, blowflies and the parasitic flies on mammals and birds.

Family Calliphoridae..are the family blowflies.

Sp. indent. recorded at Grill Cave Bungonia, Murder Cave CL2, Main Cave CL1- Taplow Maze CL5-CL3 Cliefden, N.S.W.

Family Sarcophagidae..are usually referred to as flesh flies.

Their larvae have a large range of larval habitation from dung and carrion to parasitic.

Sp. indent. recorded at Royal Arch Cave Chillagoe Qld.

Flies from the order Diptera have been recorded from Yarrangobilly, Jenolan, Tuglow, Walli and Wee Jasper but as this record was only a general listing they could not be included in with the families.

This article has been compiled by
Terry & Louise Coleborn

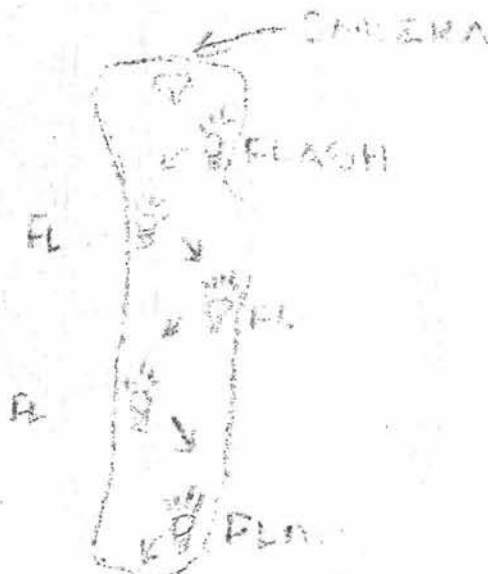
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KNOTS

By
Terry Coleborn.

TARBUCK:

This knot was designed for use as a shock absorbing knot for belaying climbers. It was used with laid ropes and when tied correctly was very effective, but the kernmantle ropes in use today do not lend themselves to the use of this knot as it was originally designed.

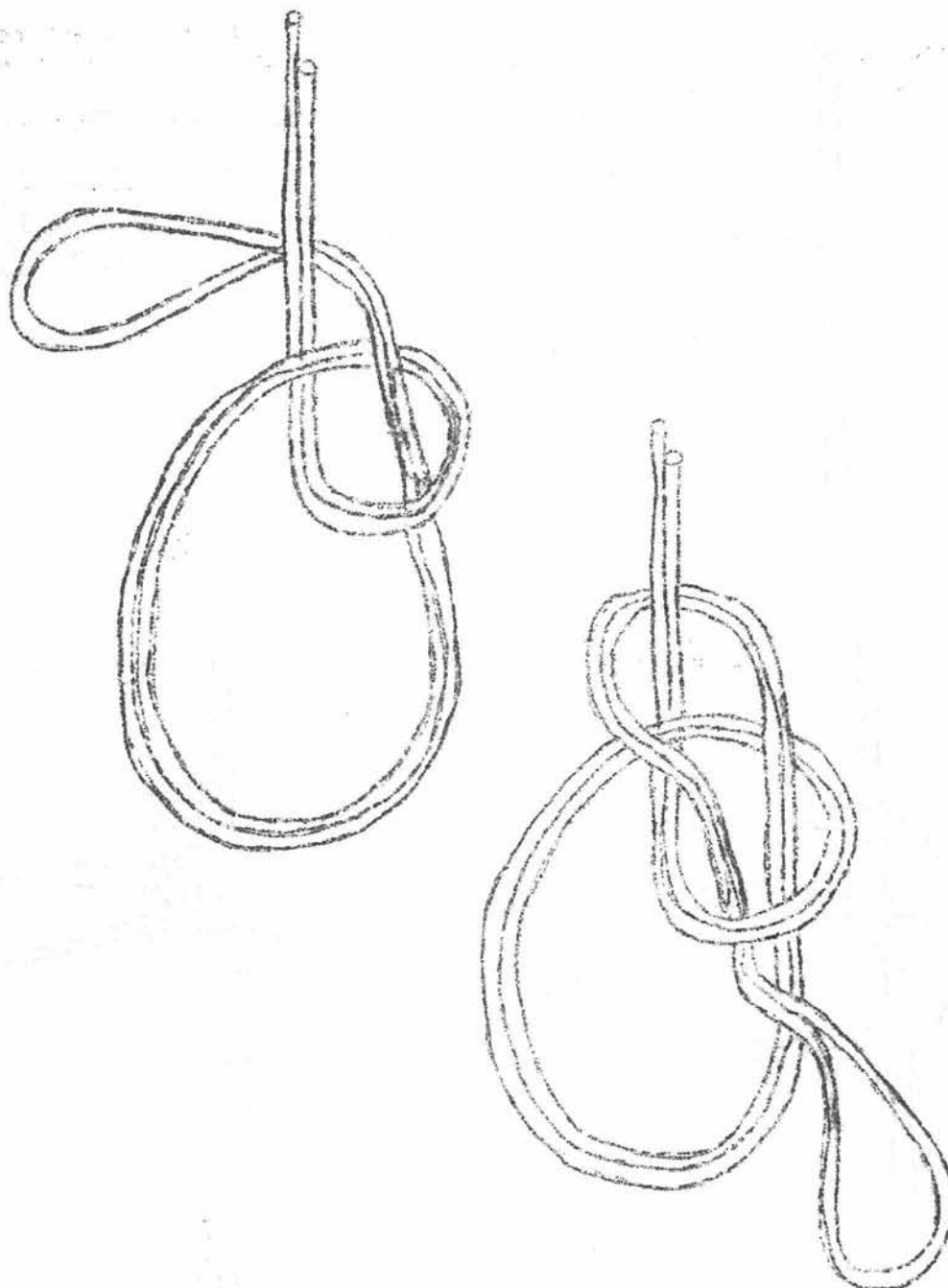
The Tarbuck does however work well as an anchor knot because the rope is not bent before it passed around the anchor point. To tie the knot the tail is passed around the anchor point and is then coiled around the standing rope about five (5) times, (NB. the coils are wound in the direction of the anchor point). The tail is then taken Over the loop rope, Over the standing rope, Under the standing rope, then bring the end up in front of the half loop so formed (the front being the direction of the standing part) and pass it over the two ropes and through the hole beside the coils. This last procedure forms a figure eight. The end is then finished off with two Overhand Knots tied onto the standing rope behind the coils.

Although this knot is fairly complex it is by far the most efficient way a rope should be tied around an anchor point.



TRIPLE BOWLINE:

This is simply a Bowline tied in double rope and as such can be tied exactly the same way as a normal Bowline. Three loops are formed they consist of two loops provided by doubling the rope and one loop provided by the tail. This loop is placed around the chest and the other two are for the legs, providing a very secure chair.



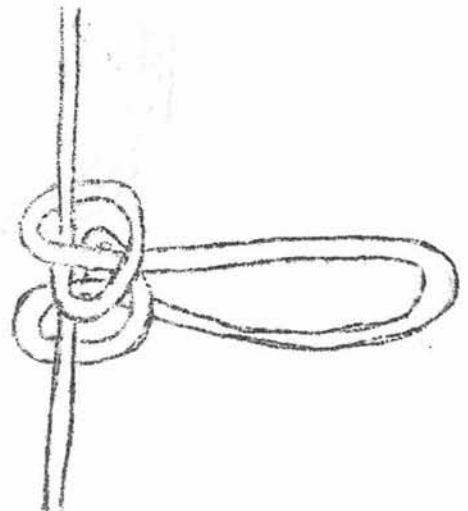
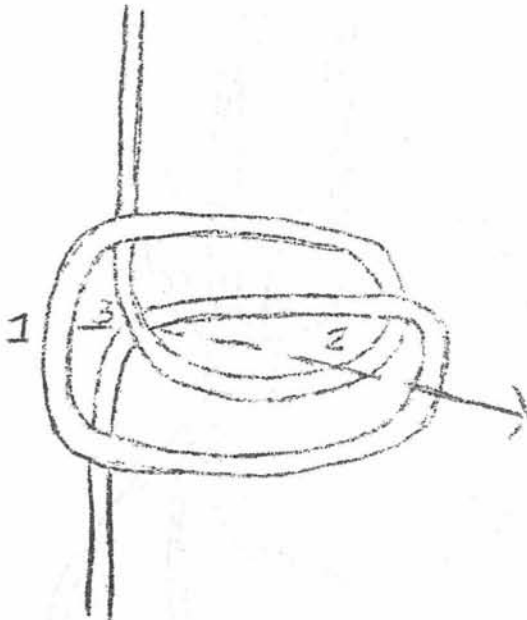
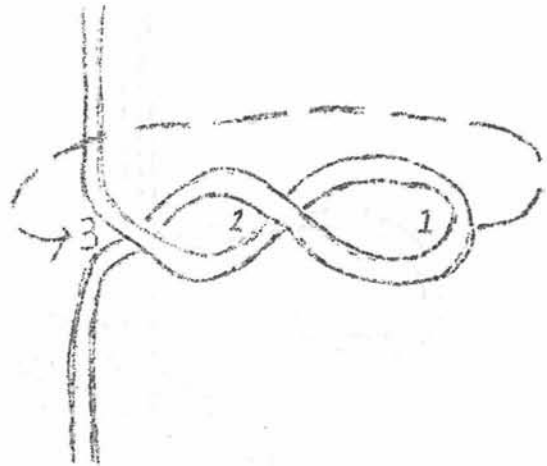
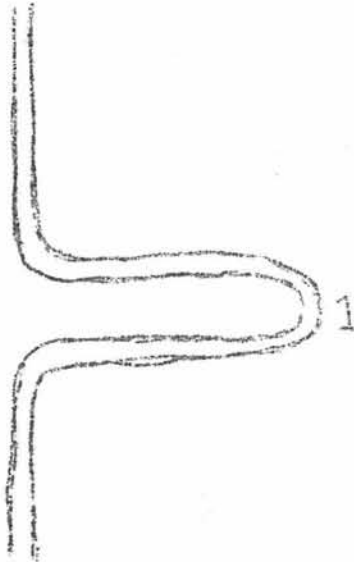
KNOTS Cont.

ALPINE BUTTERFLY:

The Alpine Butterfly is a Knot used to tie hand or foot loops in a rope. It may also be used as an anchor knot for the middle of a handline.

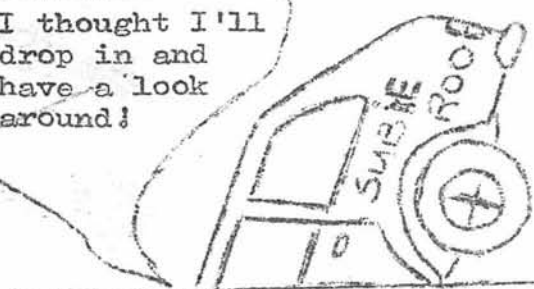
Its main advantages are that it will not slip or jam and is easy to undo, it also keeps the main rope in a straight line with the loop out to one side.

It is tied as shown below.



TRY ALL THESE KNOTS, THE NEXT CLUB MEETING IS A GOOD TIME TO LEARN.

I thought I'll
drop in and
have a look
around!



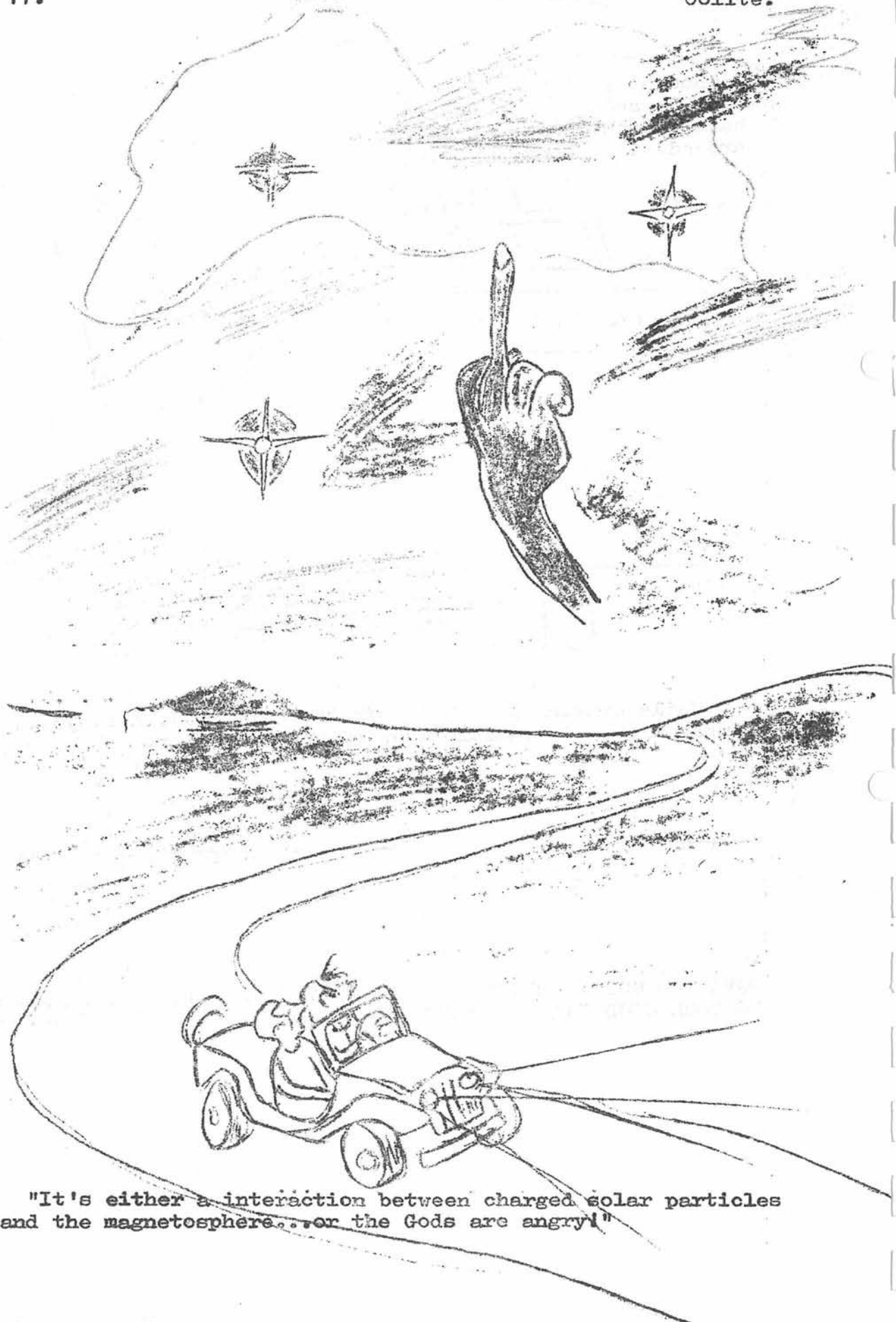
HILLS CELLAR



CLUB NEWS

While driving up a hill off the main road, a B.M.S.C. member drove his vehicle down an unused cellar.

HAVE YOU GOT ANY CLUB NEWS TO TELL? IF YOU HAVE THEN TELL IT TO YOUR CLUB JOURNAL EDITOR SO HE MAY WRITE IT IN THE JOURNAL.



"It's either a interaction between charged solar particles and the magnetosphere...or the Gods are angry!"

CAVING AT WEE JASPER

Getting trogged up the tension rises,
put on my helmet, adjust to size.
My overalls and belt fit just right,
check my battery and my light.

A deep dark hole is all that's clear,
I must descend into the dark and drear.
Knuckles and knees are bruised and battered..
but get to the bottom is all that mattered.
The bottom is reached, a rest is taken,
sitting in mud feeling slightly shaken.

It's damp and cold and I begin to think,
before too long I'm soaked to the skin.
Instead of feeling miserable because of the wet,
I feel great cause on caving I'm set.
Steam is rising from my wet overalls,
there's mud on my face from the squeezes and crawls.

In one cavern bats are flying,
the smell is foul from guano.
In another chamber no water has been,
the air is stuffy rising dust is seen.
The 'Tites and 'Mites,
columns and flowstone beautiful sights.
A helectite is seen through a tiny gap,
the formation is pure there's been no mishap.

I see a formation that's muddy and broken,
thinking of the people who've taken a token,
A wishful thought that they'd never been touched,
but curiosity of feeling is much too much.

I sit on a rock air cool and clear,
at peace with the world no war down here.
Relaxed and calm I let my mind drift,
through happy thoughts my heart does lift.
"I wish I could stay here forever my friend,
escape from reality til lite does end."

*
*

FIRST AID

*
*

SNAKE BITE

Australian snake venoms are amongst the most complex in the world and are particularly rich in potent nerve poisons (neurotoxins). Tiger snake venom, for example, has at least 3 distinct and separate neurotoxins. These venoms can produce:

- a) paralysis of respiratory muscles
- b) desintegration of red blood cells
- c) internal bleeding
- d) coagulation of blood.

A strong coagulant activity is present in the venom of the Tiger snake, Black snake, and Taipan, but this activity is absent in both the Death adder and Copperhead venoms.

The primary reason for the death of snake bite victims are;

- a) ineffective or no first aid
- b) no support of respiration where respiratory failure occurs
- c) failure to report to a doctor for treatment
- d) no antivenene available or not administered by hospital staff.

Australian snake bite is often relatively painless and the bite may go unnoticed. Tender or even very painful regional lymph glands are a common feature and a definite indication that envenomation has occurred. The circulation effect of snake venom may commence with headache, nausea, vomiting, abdominal pain and a sudden and perhaps transient drop in blood pressure which may cause a partial loss of consciousness. Neurotoxic effects are usually first apparent as difficulty in opening the eyes, blurred or double vision preceeding other facial paralysis. Widespread muscle weakness often occurs and the diaphragm may be progressively paralysed.

Alcohol and snake bites are a bad combination because alcohol tends to mask the symptoms of the snake bite.

At least 70% of snake bites occur on the lower limbs while bites to the head, neck and trunk are rare. The venom is deposited on and under the skin and spreads locally quite rapidly. Experiments have shown that the old treatment of cutting the bite area removes very little of the venom and only complicates the problem. There is evidence to suggest that the venom is absorbed and circulated via the lymphatic system, and this circulation can be reduced by immobilization of the limb and by the application of a constrictive bandage at pressures less than either venous or arterial pressure. Such a bandage may be tolerated by the patient for at least an hour with no danger of tissue damage beyond the bandage. Time is a factor to be considered with snake bites. The majority of patients are admitted to hospital within 2 hours of the bite and at this stage their condition is not usually critical.

The first aid for a snake bite victim is as follows:

- a. Confine the venom to the locality of the bite, and immediately apply a firm broad constrictive bandage. The bandage must be placed above the bite on a single bone part. Apply the bandage firm enough to the limb, the veins below the bandage should be seen or felt with your finger tips yet there should also be a pulse around this point.
eg, If bitten on the hand a bandage must be applied above the elbow on the arm and a pulse should be felt at the wrist.
NB. Do Not Release the Pressure of the Bandage once the bandage has been applied correctly.
- b. The bitten area must be washed to clean venom that may be on the skin surface.
- c. Do not allow unnecessary movement of the effected limb as this will minimise the venom in circulating through the blood system. Allow the patient to rest.
- d. Reassure the patient to reduce apprehension and fear. Anxiety left uncontrolled increases blood pressure and again risk the venom to circulate.
- e. If possible transfer the patient safely to the nearest hospital. If you could alert the hospital first.

First Aid Cont.

f. Observe the casualty for signs of respiratory failure. The early effects of the venom will cause paralysis of the respiratory muscles. If respiration fails, commence expired air resuscitation to support breathing.

If possible and with care as long as it does not delay transportation of the casualty, the snake should be killed and taken to the hospital for identification. This will ensure that the correct antivenene is administered. Snakes may only be positively identified by examination of the scale pattern on it's head.

Bites to the head or trunk are very rare, but if faced with such a problem the first aid is the same except that the pressure bandage cannot be applied.

REMEMBER DO NOT CUT THE BITTEN AREA AND SUCK THE VENOM OUT.

QUOTABLE QUOTES..

In many respects, it is easier and better to build boys than to repair men.

.....

There is many a man with a gallant air who goes galloping to the fray but the valuable man is the man who is there when the smoke has cleared away.

.....

BATTERIES

by Terry Coleborn.

Undoubtly the most important item in a cavers equipment is his light source. It must be very reliable, long lasting and easily renewed. The expense of primary cells precludes their general use, and much better value for money is obtained by using rechargeable secondary cells. Most cavers eventually buy a Lead Acid Divers Battery and Light which normally give a long, trouble free life, provided it is properly serviced and cared for.

LEAD ACID CELLS

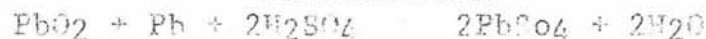
Construction: The basic elements of a lead acid cell are as follows:

1. The NEGATIVE PLATE which is constructed from spongy Lead Pb .
2. The POSITIVE PLATE which is constructed from Lead Peroxide PbO_2 .
3. The SEPARATORS which are normally made from Plastic, Cellulose or Rubber.
4. The ELECTROLYTE which is a mixture of Distilled Water and Sulphuric Acid H_2SO_4 .

The Positive and Negative plates are insulated from each other by the separators, and it is common to have several Positive plates connected in parallel and intermeshed with the appropriate number of Negative plates also connected in parallel. These Plate groups are then inserted into the battery case which is then sealed. During the manufacture of the individual plates they were "Charged" and the battery now only requires Electrolyte to be functional. However the Electrolyte should never be added until the battery is to be put into service.

OPERATION:

Discharge



Charge

This equation represents the electrochemical action that takes place within the cell. During the discharge cycle the Lead Peroxide PbO_2 of the Positive plate and the Spongy Lead from the Negative Plate are both converted to Lead Sulphate $PbSO_4$ and the Sulphuric Acid H_2SO_4 is converted to water. During the charge cycle the reverse occurs and the cell is returned to it's original condition.

As the cell approaches full charge not all of the energy supplied by the charger can be used to charge the cell and the remainder causes the water in the cell to break down into Hydrogen and Oxygen which are given off as gases. This process is called Gassing and it reduces the level of the electrolyte in the cell, therefore it is necessary to top up the cell after it has been charged.

RATINGS:

Voltage: A lead acid cell has a nominal voltage, under load, of two 2 volts per cell, regardless of the size or the number of plates in the cell. The voltage with the cell disconnected called the Terminal voltage is about 2.2 volts.

Capacity: The amount of current a cell can deliver called the Ampere/hour rating or capacity of the cell is dependant upon the surface area of the plates. It also depends on the Temperature and the Specific Gravity 'S.G.' of the electrolyte. The capacity is determined by fully charging the cell followed by discharging at a given rate for a given period of time until the cell reaches a given "Cut Off Voltage". This voltage is the lower limit to which the cell can be discharged without causing damage to the cell. Mostly Lead acid cells are discharged at the ten 10 hour rate, for example a 42 ampere/hour battery would be discharged at 4.2 amps for ten hours down to a Cut Off voltage of 1.9 volts/cell. For higher discharge rates the Cut Off voltage is reduced to an absolute minimum of about 1.5 volts/cell (see figure one).

The final measurable fact pertaining to a lead acid cell is the SPECIFIC GRAVITY 'S.G.' of the electrolyte. The actual figure for a cell depends on when the cell is sealed and access to the electrolyte is impossible the S.G. may be determined by the following method: Using a precision high impedance voltmeter, measure the open circuit voltage of the cell after it has been standing for about one to two hours. The S.G. can be estimated from the following formula:

$$\text{SPECIFIC GRAVITY} = \text{OPEN CIRCUIT VOLTS} - 0.04$$

For example if the measured voltage is 2.04 volts, the S.G. is 1.220.

CHARGING: There are basically two types of charging systems for a lead acid cell, Constant Current and Constant Potential. The Constant Current system is normally used with commercial battery chargers for car batteries. It is a current regulated power supply with a variable output so that the current supplied to the battery is constant regardless of the state of charge of the battery (see figure 2). This is the fastest method of charging a battery and is the most often used, but it is very easy to overcharge a battery if it is not carefully watched. The Constant Potential voltage system is better suited to charging miners batteries. This system requires a voltage regulated power supply with the output voltage set at the

Terminal voltage open circuit voltage of the battery. The current drawn from the supply is therefore dependant on the state of charge of the battery. As the battery charges, the current decreases until the battery voltage almost equals the charger voltage. At this point there is very little current flow, so that the battery can be left connected to the charger without fear of overcharging. The disadvantage of this system is that the battery can suffer from overcharging if the charger is not set exactly. This will cause the battery to lose capacity. Another method is to combine the two systems and have a charger which operates in the constant current mode until the battery reaches a predetermined voltage level, when the charger switches over to the constant voltage mode, however these chargers are expensive and not very practical for our application.

The best alternative is to use a constant voltage system but every once in a while charge the battery with the voltage on the charger set to about 2.6 to 2.8 volts per cell. This will act like a constant current charge.

PROBLEMS: The biggest problem with lead acid batteries is Sulphation. This refers to the lead Sulphate which remains on the plates even when the battery is recharged. It can be caused by UNDERCHARGING but it is more commonly caused by leaving a cell DISCHARGED for long periods of time. If a cell is left uncharged, subsequent charging can not convert all the Lead Sulphate back to the Active material of the plates. This is because the Lead Sulphate CRYSTALLISES and in this form it can not be reconverted. Sulphation effectively reduces the surface area of the plates, it also causes the cell to overheat during charge. Once a battery has started to Sulphate it is very difficult to reverse the process. However charging at a very low rate for a long period of time may reverse some of the Sulphation. But ensure that the cell does not reach the stage of Gassing because this causes the sulphate and some of the Active material to be dislodged from the plates and fall to the bottom of the cell.

Overcharging also causes Active material to be dislodged from the plates and fall to the bottom of the cell. This may have two detrimental effects.

1/ The sediment can cause a short circuit in the cell rendering it useless.

2/ The capacity of the cell may be greatly reduced.

MAINTENANCE:

ELECTROLYTE LEVELS: The electrolyte level in a cell may fluctuate considerably during the operation of the cell. As the cell is discharged some of the electrolyte is absorbed due to the lead sulphate being very porous. During the charging process the reverse occurs and the electrolyte level rises.. Therefore the cell must only be topped up when the cell is fully charged and then only distilled water may be added.

The electrolyte level in a cell should be about 10mm above the plates. When filling a new battery a couple of things must be kept in mind. Firstly, if the S.G. of the electrolyte requires adjustment, always add ELECTROLYTE to WATER never the other way around. The electrolyte S.G. is important, with a higher S.G. electrolyte the cell has a higher capacity but this will shorten the life of the cell as well as accelerating the discharge rate when the cell is left standing. So the choice of the electrolyte S.G. is a compromise between long life and high capacity.

LOCAL ACTION: When a battery is left standing it slowly discharges, due to what is known as Local Action. This is caused by impurities in the plates (Antimony) and impurities in the electrolyte (Iron and Chlorine). These impurities set up small electrochemical cells of their own which discharge the potential on the plates, resulting in areas of lead sulphate amongst the active material. Local Action is accelerated by increasing temperature as is shown in the following table which shows the time taken for a fully charged battery to lose about one half of its charge;

15°C	90 DAYS
25°C	45 DAYS
37°C	14 DAYS
49°C	6 DAYS

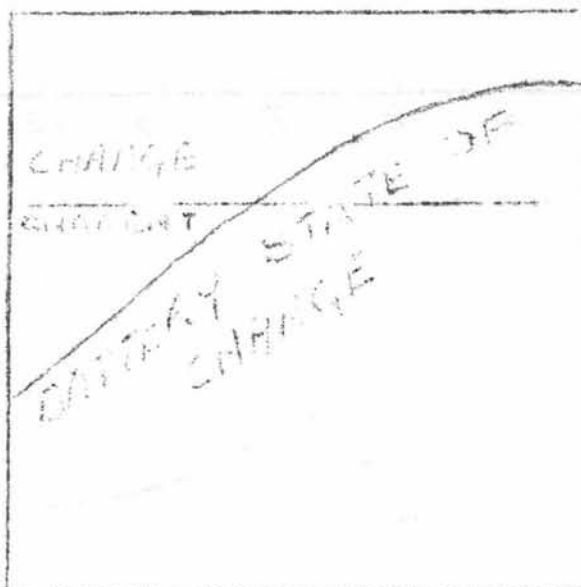
Local Action can be decreased by removing the impurities from the cell as much as possible. This is the reason for using distilled water for the electrolyte as the distilling process removes all the impurities from the water. It can also be reduced by storing a battery at low temperatures. The freezing point of the electrolyte depends on the S.G. but it is about -42 °C for an S.G. of 1.275 (fully charged) and about -15 °C for an S.G. of 1.150 (flat battery); but don't ever let the electrolyte freeze.

Periodic Charging: If the battery has been left inactive for some time it is wise to "cycle" the battery. This means to charge, discharge, and recharge the battery. This ensures that any Lead Sulphate is reconverted into active material and allows the battery to deliver its full rated capacity.

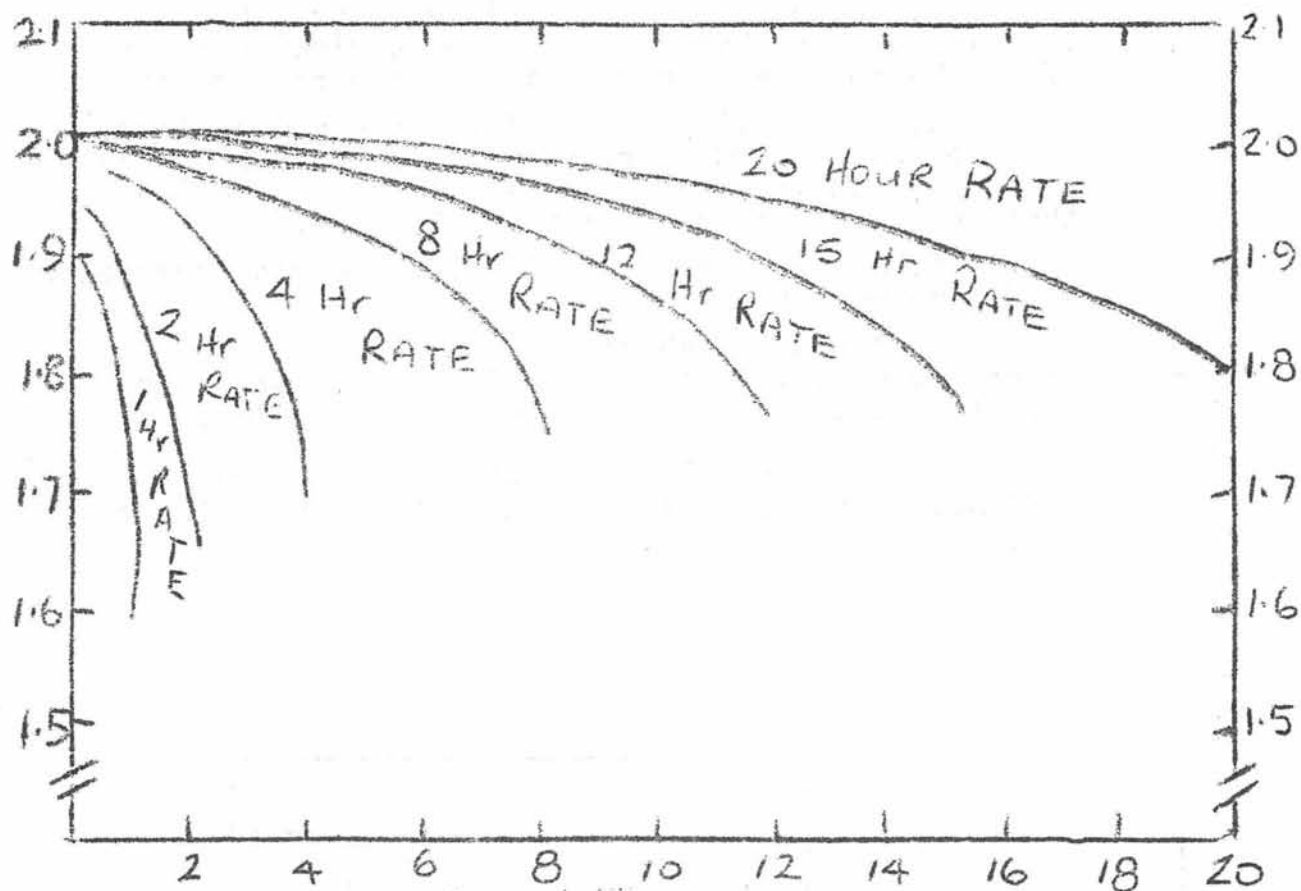
The maintenance of a lead acid battery can be summed up as follows:

1. Always keep the battery charged.
2. Top up the electrolyte level with DISTILLED WATER, only after the battery has been fully recharged.
3. Always ensure good ventilation to remove the gasses given off during charging.
4. Do not allow naked flames near a battery that is being recharged due to the explosive nature of the hydrogen and oxygen given off during charging.
5. Never allow the cell to become more than warm to touch (40°C) during charge. Excess heat can damage the cells, and it is usually an indication that something is wrong with the battery.
6. Always remove any Vent Caps during charge to allow any gasses to escape.
7. A battery should be recharged when the electrolyte S.G. level drops 20 points. For example when the S.G. level drops from 1.275 to 1.245.

Remember that you will get better service from a Lead Acid battery if it is used often and well cared for.



BATTERYS. CONT.



TRIP REPORT NEXT

TRIP REPORTS.

JENOLAN.

Date: 9th - 10th July, 1983

Aim: To further the dig in the Southern Limestone.

Members Present: Brian Skinn (TL), Ricky Brett, Janelle Comrie, Ian Bogg, Andrew Bogg, Jack Charley and Tony Zimmerman.

REPORT:

All arrived Saturday morning to check in, then up to the car park where we changed in readiness for the trip. A steady scrub bash through unfamiliar territory eventually found us in open ground up the left hand branch of the limestone looking for the cave I found in August 1980. Time seems to muddy the mind, therefore, some time was spent finding it, although time spent ground trogging as far as I'm concerned is never wasted.

Ricky and myself entered first, going down as far as was possible. It was then that we noticed a strong breeze flowing through the cave, coming from the very bottom of the known cave. This breeze was later found to be strong enough to blow out a candle. So a digging plan was formulated during lunch.

Jack, Ricky, Janelle and Tony went in and started the dig while Ian showed me the Bottomless Pit, higher up on the same hill, from which a strong warm breeze was blowing. Next trip we must take enough gear to bottom the cave while the others dig in the new cave.

We then entered the new cave and helped with the digging, changing jobs occasionally to relieve the boredom. We finished digging at 3 O'clock to allow us an unhurried trip home. In the three hours digging we had lowered the floor level by about three feet. We had used a medium sized plastic bucket, a medium sized spade and a new rope. The hauling process was not difficult, nor very far, therefore the rope remained unaffected by its misuse.

This new cave definitely has going potential. A survey should be made as soon as possible to determine length. By the next trip a name and number should also be allocated to the cave.....

BRIAN SKINN

JENOLAN.

Date: 10th - 11th September, 1983.

Aim: Dig at Split Rock and exploration of Bottomless Pit Cave.

Members Present: Brian Skinn (TL), Richard Hyslop, Jack Charley, Ricky Brett and Janelle Comrie.

Visitor: Judith Schulz.

REPORT.

Richard and myself drove up Saturday afternoon with good intentions of camping at the five mile camp-site, but an unforeseen problem soon became evident. Whilst at Jenolan itself, after checking in at the guides office we drove around to No 1 car park to see Barry. Then horror, oh no!, now what are we going to do. All our gear is in the car, safe and secure, untouchable to almost everyone, including us. Help! The keys are in the boot and the car is all locked up as well. After about one hour with the very able guidance from Ernie and Barry supported by ourselves, we broke into the carthen through the now removed back seat, enabling Richard to grope around for the keys, we found ourselves once again in full possession of all our gear.

Next morning at around 8.30 the others turned up and by 9 o'clock we were on our way up the valley. Sometime later we were in the cave digging and surveying. We finished the survey finding ourselves in an 18cm long cave digging for the exclusive draught. Finally after three hard hours work we had lunch in the cave as it was too cold and windy outside. Because of the time we then picked up the digging gear and headed over to the Bottomless Pit.

We rigged the ladders and the SRT rope and ventured down. It is really a good 100ft pitch, just right for Jumaring. In fact, its a good training cave as the rigging, abseiling and laddering/jumaring is fairly straight forward with a fair amount of safety. After two hours, we were all heading for home.....

Hours underground,

5 hours.

Brian Skinn.

Oolite.

24.

BUNGAONIA.

Date: 8th October, 1983.

Aim: NSWSC Meeting and General Caving.

Members Present: Brian Skinn (TL), Stu Nelson, Cindy Johnson
and Rob?.

REPORT.

We arrived well before the proposed starting time for the NSWSC meeting.

As the meeting proceeded I left the others to find their own way down into Grill, something which they succeeded in doing, in fact foul air stopped them just past "Safe from the Russians"!

With the meeting over we trogged up for B16-51. Finding the cave on the second attempt we rigged B16, then moved on to the other entrance.

We passed through the middle Aven area and on into the Dragons Teeth, for the uninitiated, Rob and Stu, it didn't seem big enough but through we went anyway. Just past the Spokeshave Squeeze, waiting for Stu to bring up the rear, he was heard to say "Hey, I'm stuck- how did you get up there its too small". "The way up is down, Stu" said Rob. "Oh" was the only comment from Stu.

I belayed Rob up the entrance, then Cindy. Upon reaching the top and standing in darkness outside the cave a certain female casually looked around then quite suddenly said in a shocked voice "Hey we're outside!" Well, it was a very dark night.

HOURS UNDERGROUND:

Brian Skinn	-2Hrs
Stu Nelson	-3½Hrs
Cindy	-3½Hrs
Rob	-3½Hrs

Brian Skinn

