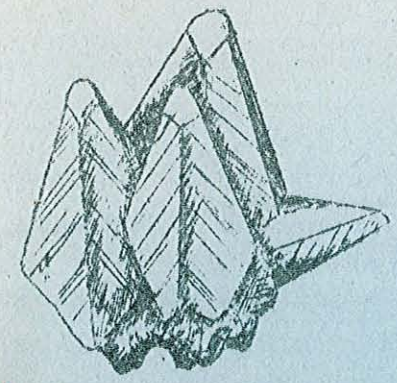
1:3



CALCITE

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OFFICIAL NEWS-LETTER OF HIGHLAND CAVING GROUP.

HIGHLAND CAVING GROUP

VOLUME 1 NUMBER 3 SEPTEMBER 1977

C A L C I T E

The Newsletter of the Highland Caving Group

Office Bearers

President	Evalt Crabb	Sydney
Vice President	Michael Webb	Canberra
Secretary	Jenny Hopkins 7 Borthwick Street,	Minto 2566
Treasurer	Michael Johnson	Canberra
Assistant Secretary	Judy Bament 6 Mosely Place,	Kambah 2902 A.C.T.
Editor	Michael Webb 7 Wallis Place,	Spence 2615 A.C.T.

Correspondence should be addressed through the Secretary or Assistant Secretary.

Deadline for next issue: 23 September 1977.

FROM THE EDITOR

It appears that some members of the ASF do not subscribe to that body's code of ethics. On a trip to Yarrangobilly some person went down a cave to take some pictures. By now Y58 must be one of the most photographed caves in this area. The person in question took a photograph of a magnificent column in the Rawlinson Chamber. To do this he first walked on the Crystal River leaving more muddy footprints on clean flowstone, set up his camera and took his pictures using flashcubes. We know this because we have the flashcubes. The owner may collect them by application to the editor.

do people really wonder why Yarrangobilly is restricted?

COMING TRIPS

Bungonia	10 September	General meeting
Cliefden	17-18 September	Judy Bateman (490412W)
Buchan	October long weekend	

In addition, Yarrangobilly trips are held at approximately 4-weekly intervals.

SYDNEY

Jenolen	October long weekend	Jenny Hopkins 7 Borthwick Street Minto NSW 2566.

MEETINGS

1 September	14 Bromell Circuit at Sandy Fristad's house in Wanniassa.

FROM THE SYDNEY BRANCH

The Sydney H.C.G. programme is as follows:-

August 6, 7	Mudgee	Evalt Crabb
August 21	Meeting Liverpool guide hall	
August 27, 28	Tuglow	Rik Tunney
September 10, 11	Bungonia- We propose to meet Canberra H.C.G. in Becks Gully.	
October 1-3	Jenolan - a permit has been obtained.	

We propose to print a "Cave Safety Handbook", nothing has been done yet but a few ideas could be discussed at Bungonia in September.

There is a Bungonia dance in late September. I can probably get more details on 10/11 September. This is a township dance but is generally a good night.

Rik Tunney has changed his address:-

P.O. Box 6
Dee Why 2099
Home Phone 9821947

Yours in-a-hole
David Stenson.

.....

Easter 1977 - G. Smith, S. Bunton, D. Stenson.

We flew to Tasmania, Thursday night we stayed with Tony Colberg, then Friday we went to Exit cave. The party in Exit cave spread over two campsites and ten miles of cave numbered about twenty. Exit cave is big (quote, under-statement, un-quote). Unfortunately in the 25 hours we were underground we saw less than half the cave.

(contd.)

Easter 1977 (contd.)

Saturday night we stayed with Anne and Steve Annan at Maydena. Sunday morning John Parker and Anne Annan led us into the Junee-Florentine area where we went into Kazad-Dum. This cave is rather cold and wet. John said that more water than normal was flowing into the doline.

12¼ hours after entering K.D. we exited having successfully sumped Australia's deepest known cave. Here I make a special note of thanks to John and Max for the trail markers which even in the middle of the night helped us to find our way to the road before we froze to death.

That night we spent at Junee Homestead and on the Monday we flew home.

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St. John's First Aid Course for September until Christmas is now full up.

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Mike Webb tells the story of a Victorian caver who had stapled his big toes together. Apparently he'd been told by a Sydney troggy that "if you can't lick them, join them".

.....

The Waitomo District, New Zealand

On New Zealand's North Island, beneath the rugged King Country hillside, studded by weatherworn limestone outcrops, are a vast and largely uncharted series of caves, including three which have been opened to the public - Ruakuri, Aranui and Waitomo (Glow-worm).

In 1887, Waitomo cave (2) was first explored by Taane Tinorau, the local Maori Chieftain, and Fred Mau, an Assistant Surveyor. They entered the Glow-worm Grotto section of the cave by the river entrance and from there explored the other levels of the cave. Immediate interest was shown in their discovery, and from 1887 until 1907 visitors were entering the Grotto by canoe through the river entrance. After crossing the stream by means of a footbridge they climbed up through the cave to the upper entrance which is some 18 metres above the river. Wooden and rope ladders were used to climb from one level to another, with tallow candles carried to light the way, and magnesium flares to illuminate special features.

The caves at Waitomo have been formed in limestone which, about 30 million years ago, was a sandy accumulation of broken shells and coral on the floor of a large bay of the sea. This limey sand was later buried by other sand and silt and the water was extruded from it. The shell and coral fragments were compacted and cemented into dense, hard, crystalline limestone with insoluble grains gathered into thin, horizontal beds. Near the caves, flagstone outcrops of limestone contain some fossils of giant oysters and giant scallops.

Over many millions of years the range of rugged hills to the west of Waitomo rose from beneath the sea. The very large area of crystalline limestone cracked into smaller pieces and uneven mountain uplift faulted the rocks into a series of mile-wide steps rising towards the west. Forest that grew on the land produced soil acids that seeped into the cracks in the limestone and enlarged them by dissolving the rock. Below the ground at a level where every space within the rock was filled with water, larger tubes and caves were dissolved by the acid water. This period of cave development can be seen in the upper levels in the Glow-worm Cave where there are rounded passage-ways and numerous narrow wall recesses.

(contd.)

The Waitomo District, NewZealand (contd.)

The level of the sea has risen and fallen several times during the ice ages of the past million years. When sea levels were low streams cut deeper valleys - and deeper caves, usually narrow and high like Ruakuri Cave. During these times, the stream flowing through the Glow-worm Cave cut deeply into its limestone bed. Some large ceiling blocks later collapsed into the lower space, to form above them the Cathedral which disrupts part of the uppermost passage. Enormous heaps of rocks fell from the ceiling of Ruakuri Cave.

Vigorous volcanic eruptions in the Rotorua-Taupo district spread dust and sand over much of the North Island, and this quickly washed into the caves and valleys - Aranui Cave contains thick deposits of such sediments. The sea returned to near its present level. Acid seepage water gathered above the limestone and dripped down to cut vertical fluted shafts, like the Tomo, which passes through the upper level and joins the lower level in the Glow-worm Cave. Most of the stalactites and stalagmites began forming at this time.

The annual rainfall at Waitomo is heavy, averaging approximately 180-190cms. This rainfall and the natural bush covering play an important part in the growth of the stalacites and stalagmites. The limestone rock which forms the caves is dissolved by the action of rainwater made acid by carbon dioxide which is supplied by the soil and decaying vegetation. Massed roots of the bush help regulate the flow of water into the cave - the slower the flow of water the more saturated with lime (Calcium carbonate, $CaCO_3$) it becomes. In the cave atmosphere, the acid water releases carbon dioxide (3), leaving minute deposits of lime. Over thousands of years, these deposits have produced the great variety of formations seen in the caves.

The Waitomo district is one of the main centres for cave exploration in New Zealand. In the area are caves of various sizes, many with underground streams and some at the bottom of deep vertical shafts. Three kilometers west of Waitomo is Gardner's Gut, New Zealand's longest cave, with 10km. of passages and 10 known entrances. A few kilometers away is Hollow Hill, a cave with the largest cavern in New Zealand, measuring 244 meters (800 feet) long, 73 meters (240 feet) wide and 34 meters (114 feet) high.

(contd.)

The Waitomo District, New Zealand (contd.)

New Zealand has an active Speleological Society with constituent groups throughout the country. Further information on trogging in N.Z. can be obtained by writing to the New Zealand Speleogical Society, P.O. Box 22-196, Otahuhu, Auckland.

NOTES

1 (a) I intend to make this a regular feature, but have already encounted the problem of finding suitable material. Should anyone have any books or magazine articles on this particular topic could they contact me (Greg Martin). My work number is 483969 and address, 96 Kambala Cresent, Fisher.. A.C.T.

(b) This particular article serves a double purpose in that it presents a less technically orientated explanation of speleogenetic theory as well as describing the Waitomo karst area. For a more demanding discussion of cave development see: Jennings, J.N. "Caves Around Canberra", Australian Speleological Federation Guidebook Number 1. December, 1976.

2. KERMODE, L.O. "Waitomo Cave Country", Waitomo Caves New Zealand Pictorial Publications Ltd. Hastings, N.Z.

3. According to John Brush and Bob Nicolai in their "Guidebook to the Caves of Southeastern N.S.W. and Eastern Victoria", "A special warning is given here on the presence of foul air at Bungonia: high concentrations of Carbon Dioxide (CO_2) accompanied by a low concentration of O_2. The combination is at best unpleasant.....at its worst, fatal. Its generally present in the lower reaches of the caves... sufficient to put out matches, cause headaches and laboured breathing....A box of matches should always be carried while caving at Bungonia....if the match will not light do not panic, but move to a more healthy area of the cave."

(contd.)

As far as I know, this is the only local caving area where foul air commonly occurs. However, it is also found at Wee Jasper in the section of Dog Leg immediately beyond the water trap if the water level is high, also in Church Cave and Thermal Pool Cave.

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A VISIT TO GNOMEDOME

0930 on a Sunday morning.

The roar of semi-modified family sedans shook the sleepy village of Bung-in-Door. No, it was not the commencement of the '77 Monaro 1000 Road Race but the beginning of the Trog Squad's day trip to the Gnomedome.

The signal was given and in a Le Mans style start the five "drivers" leapt into their pulsating machines and the local dogs ran for cover.

Past Lake George, over the railway (gates opened in record time by a fleet-footed female ferret from Fisher who made sure the gates were closed after so the trains couldn't get out), and into the paddocks. Then disaster struck - A Fence! Yes folks, a devestating blow! Some unscrupulous plus totally inconsiderate (to cavers and amateur racing drivers) grazier had constructed multi-strand, eight gauge (and barbed) wire defensive perimeters aroundthe target area. Not to be thwarted, the fearless commando struck the defences and prevailed despite heavy losses. i.e. a tactical retreat was ordered. Following the furry four-eyed freakedout fiend in the fizzling fire red "Foobaroo" plus four cars full of frustrated cavers finally found themselves.

Behind lies the fences, two kangaroos, four galahs and a trogsuit but ahead lies Nirvana. The galant band approached the entrance with awe.

(contd.)

TRIP REPORT: EXIT CAVE (Tasmania)

7 May 1977

Leader: Roy Skinner.
Participants: Liz Hurst (UNSWSS), Peter Macrow (SANPWS), Ross May (Victorian NPS), Dr. John Watson (WA Dept. Environment and Conservation), Robert Ceraver (Tas. NPWS), and Mark Hallam (HCG).

We left Hobart at 8a.m. and arrived at the carpark at about 10a.m. Roy then guided us along a 3km. track which he, and members of TCC had cut from dense scrub a few years ago. The cave was entered at about 11a.m. We went through the gate, along an upper level passage to the right of the stream, crossing it twice until the usual campsite 1 was reached. My first thoughts were of the cave's size. Besides being the longest Australian cave (16km. at present), the passages are also enormous, particularly along the stream passage where cavern sizes were in the order of 100 feet across and 80 feet high.

Having rested briefly, we crossed the stream again, then climbed up a couple of side passages to view the formations. Unlike the crystal translucent formations such as those found at Yarrangobilly, the formations appear somewhat chalky. There is also large areas covered by "moonmilk", a softer calcite formation thought to be caused by bacteria. It gives the impression of white coral growing on the muddy floor. Some of the formations seen include the "ballroom", "columnades" and the "pendulum". The pendulum is actually moonmilk growing on the end of a straw.

We then proceeded back down to the stream of the beginning of the first rockpile. After crossing the stream again we went through the "hammer" passage, then back down to the stream again. On the way out we stopped near the entrance to observe the spectacular display of glow worms above the stream. We left the cave at about 4p.m., getting back to the cars as darkness fell. It is indeed a spectacular cave and worthy of preservation - and a visit should you go there.

Mark Hallam - 6/5/77.