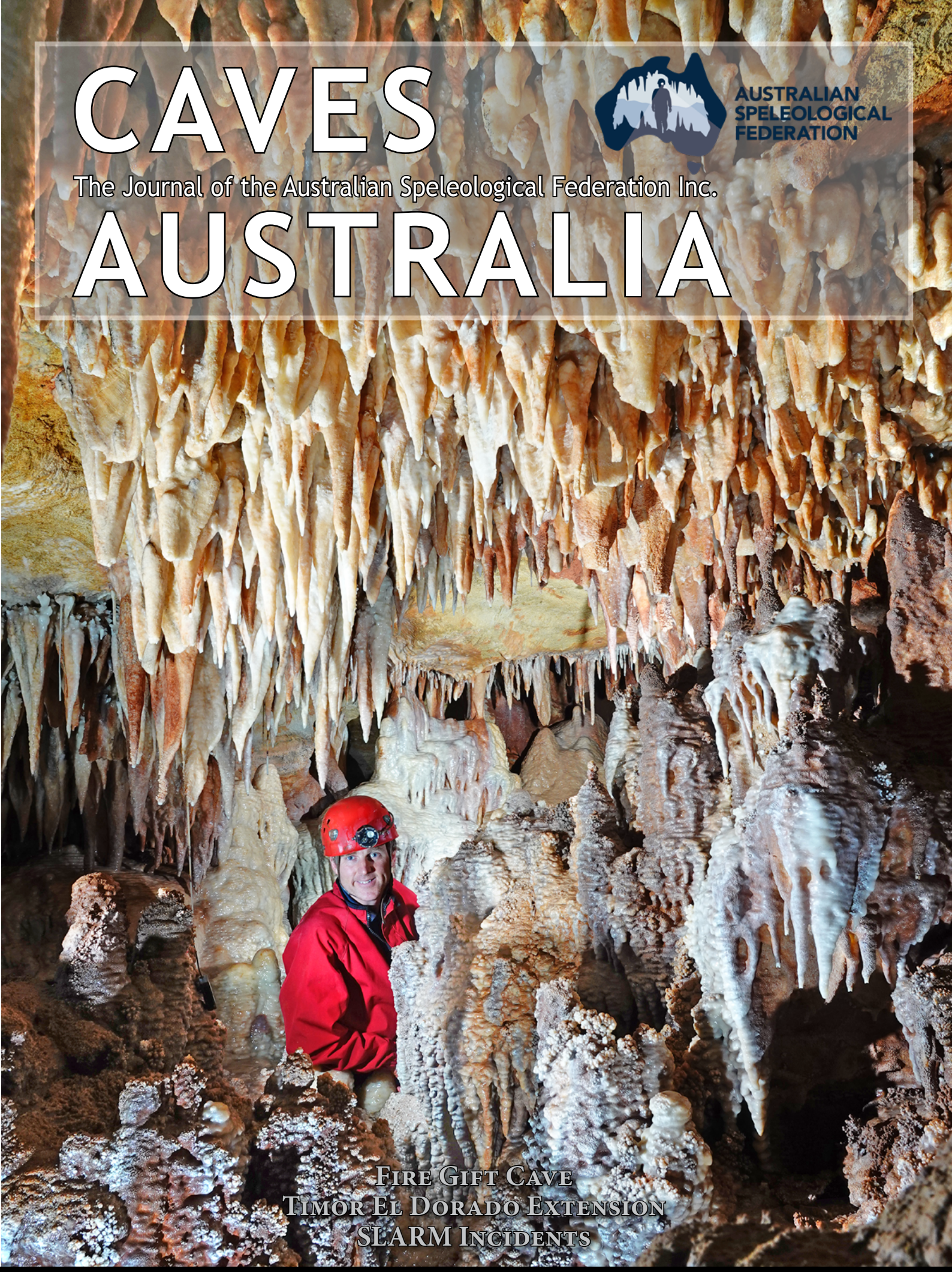
CAVES AUSTRALIA

The Journal of the Australian Speleological Federation Inc.

AUSTRALIAN SPELEOLOGICAL FEDERATION



Fire Gift Cave
Timor El Dorado Extension
SLARM Incidents

No. 219 • MARCH 2022

The next ASF conference in Ceduna has been postponed.
The conference will coincide with the SA school holidays 16th-21st April 2023 (after Easter)

This decision was made by the conference committee and the ASF executive in light of the ongoing uncertainty regarding COVID, travel restrictions, vaccinations, boosters etc.

The activities, field trips and social aspects of the conference are a highlight for many and we want to make sure everyone who wants to attend can get there in person.

There are some things to look forward to, though...

There will be a series of exciting online talks and workshops to be held in early 2022 – more details to come.

The conference has been issued permits to access caves on the South Australian Nullarbor.
The field trips in 2023 will be a rare opportunity to visit caves that have not been accessible for many years.

Early bird registration has been extended to January 2023

We will contact those who have already registered to discuss whether you'd like a refund or to roll over your registration to 2023.

Have a question?
Contact event organisers at registration@asfconference2022.com

COMING EVENTS

COVID-19 is still disrupting international travel and events. Many events are now providing virtual attendance options. Information on UIS-sanctioned events can be viewed at http://tinyurl.com/y7rgb8ah

Don't forget that the International Year of Caves and Karst has been extended to this year — 2022. You can find more information about what's going on and what you can do to help the cause at http://iyck2021.org/

CAVES AUSTRALIA

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Change of address
Notify us immediately of any address changes to ensure delivery of your *Caves Australia.*

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ASF

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Spectacular speleothem display in El Dorado, Timor NSW, Photo by Garry K Smith

ASF Executive

WANTED
ARTICLES FOR *CAVES AUSTRALIA!*

Whether caving, cave diving or generally just caving, *Caves Australia* readers are interested in YOUR story. It is only with YOUR contribution that we can produce a quality magazine for all to enjoy. For writing and style guidelines, contact the Editor or Production Manager.

EDITORIAL

2022 is well and truly under way, along with (mostly) open interstate borders and the opportunity for more and varied caving for those who spent much of 2021 stuck in lockdowns.

◆ ◆ ◆

More-or-less business as usual on the *Caves Australia* front. A reminder that the hard copy cost recovery system passed at the January 2021 Council meeting (advertised in *CA* 218 and repeated in this issue again on page 10) comes into effect this year.

Get in contact with the ASF Treasurer/Executive if you require additional information on how administration of this change will work.

◆ ◆ ◆

With my other hat on as Publications Commissioner, I'd like to thank Ian Binnie for more than ten years of service producing *ESpeleo*. Ian produced his final issue as editor of *ESpeleo* in February 2022.

Cathie Plowman and David Butler have volunteered to take over the reins and I look forward to seeing what spin they will put on it.

If you have any ideas on upgrades to content and format then don't hesitate to contact Cathie and David.

◆ ◆ ◆

A reminder that *CA* is only as interesting as the articles you, the membership, supply me with. My job is to simply make it look presentable.

***CA* is a great platform for showing members in other states and territories what you get up to in your patch and what may seem routine and mundane to you could be fascinating to those who normally cave in a different place or for completely different reasons. Get typing, please.**

— Alan Jackson

President's Report

WELCOME to another year of caving. Hopefully there will be less disruption to our daily lives but it will almost certainly be unpredictable.

Some good news is that the International Year of Caves and Karst has been extended into 2022, continuing to raise awareness and understanding with the aim of protecting karst environments. The largest event will be the 18th International Congress of Speleology to be held in France in July, which will finally go ahead after a year's delay.

In January the ASF had another successful online Council Meeting which enabled representatives from all but one club, as well as many of the ASF Commissioners, to attend. It was great to see so many people there including some new faces. The ASF welcomed back the Cave Exploration Group of WA (CEGWA) who have begun the process of rejoining the ASF by becoming a Provisional Member Club.

The ASF has a new logo, with the final version unveiled at the Council Meeting after receiving feedback from members last year. It was intended to launch the logo at the Cenduna Conference but since that has been postponed to April 2023 there will be a soft launch with a transition to the new logo in the first half of this year.

AUSTRALIAN SPELEOLOGICAL FEDERATION

Three executive positions changed hands this year. Thank you to our outgoing members Bob Kershaw, Janine McKinnon and Karen Woodcock for their contributions and welcome to Steve Milner, Daniel Lansom and Janice March. The 2022 ASF Executive lineup: Sarah Gilbert (President), Colin Tyrrell (Senior VP), Valdi Jonsson (Treasurer), Phil Maynard (General Secretary), Rod Smith (Membership Secretary), Andrew Stempel (Executive Secretary), Daniel Lansom (VP), Steve Milner (VP) and Janice March (VP).

BRIAN EVANS

A special thank you goes to Bob Kershaw who was part of the ASF Executive for 13 years, contributing in his roles as General Secretary (2009-2014, 2017-2018), Membership Secretary (2015), Vice President (2016) and Treasurer (2019-2021). He has also been on the NSW Speleo Council executive (2017-2020), convened the 2013 Trogalong ASF Conference, and contributed to the organisation of the 2017 UIS Congress in Sydney. He was the driving force behind many ASF developments including the website, business plan, updating the ASF logo, constitutional changes, and improving many administrative processes. In his spare time, he's also compiled much of the ASF's history and been instrumental in many conservation campaigns including the protection of Cliefden Caves.

Although Bob is taking a well earned rest from the ASF he will be continuing on the KCF board of directors. He was a patient mentor when he handed over the role of General Secretary to me in 2019 and I'm sure he will do likewise to support Valdi as the incoming ASF Treasurer this year. Thank you again to Bob for his outstanding contribution to the organisation and we wish him all the best for future endeavours, long road trips and new caving projects!

— Sarah Gilbert

'Fire Gift'

Small cave find in Central Queensland

Emily Holt
Independent ASF Member
Cave discovered by Richard Ladynski, former CQSS

INTRODUCTION

In the summer of 2018/2019, bushfires blazed through many areas of Australia. At The Caves in Central Queensland, a severe fire took hold at the end of November 2018. The fire was first noted by local landholders, burning just to the west of the Mount Etna Caves National Park.

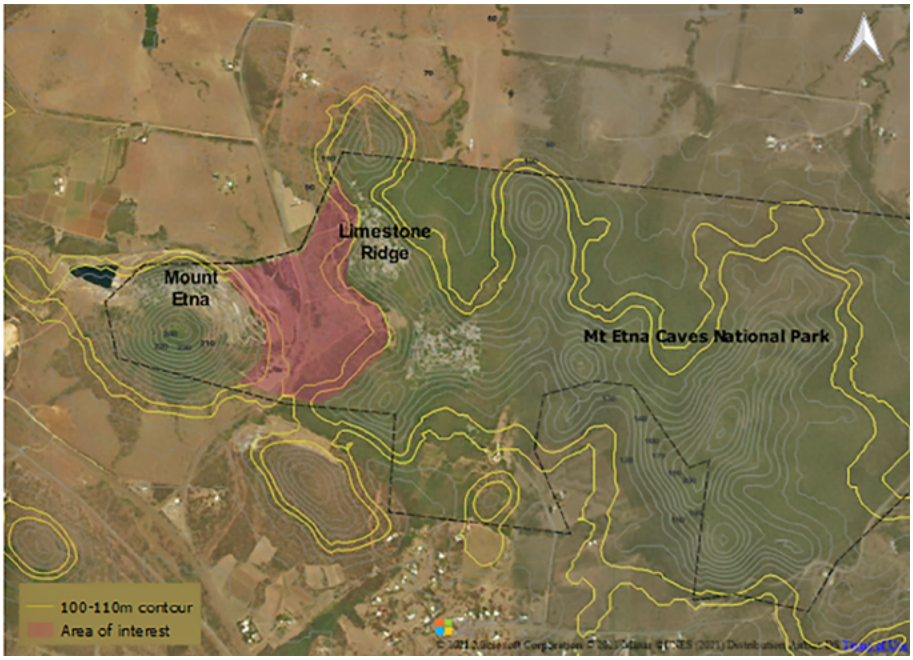
Unfortunately, conditions were such that the bushfire roared unhindered through the park. Most of the park was severely burnt, including large established fig trees, areas of revegetation carefully planted and tended by volunteers, and even the limestone itself was cracked and spalled. With such devastation, it was difficult to see how the park, with its abundance of caves, protected and endangered fauna, and unique semi-evergreen vine thicket vegetation, would recover.

A positive is that the burning of the thick undergrowth, primarily comprised of introduced weeds such as lantana and grasses, revealed areas throughout the park previously unable to be seen and accessed.

It was perhaps serendipitous that during one foray in early 2019 as part of the long-term project of cave marking (i.e. ground-truthing cave entrances using GPS), caver Richard Ladynski was walking back to a main track and chanced upon an 'interesting hole'. Subsequent investigation revealed a small and very interesting cave. Aptly named 'Fire Gift', the cave is the subject of this short entry.

A QUICK GEOGRAPHY AND GEOLOGY OF MT ETNA

The Mount Etna Caves National Park is located approximately 25 km north of Rockhampton in Central Queensland. The limestone, which hosts many caves as well as a complex network of intrusions, occurs as a series of hills, ridges and outcrops. Sediment-filled valleys and saddles occur between the limestone outcrops and these valleys, where undisturbed, host thick vegetation and springs with tufa deposits.



Geologically, the park is located within the Yarrol Province (DNRM), composed of Devonian basalts, limestones and sediments, and which is interpreted to have formed in an intraoceanic backarc basin (Donchak *et al.* 2013). Subsequent folding and uplift during the Middle Devonian to the early Carboniferous has occurred (Webb *et al.* 2003), although it is unknown

EMILY HOLT

The entrance to 'Fire Gift'

as to whether the current outcrops of Mount Etna, and the adjacent Limestone Ridge, are on either side of an anticlinal fold (Shannon 1970, Willmott 2006), or that the Mt Etna outcrop was formed from a series of allochtonous block/s being pushed up into the overlying Mount Alma formation due to a faulted block (Deer 2011). Nevertheless, there have been events leading to limestone recrystallisation (including fluid diagenesis), overturned blocks and bedding, and multiple intrusions, particularly in the Mt Etna outcrop (Deer 2011).

IMPORTANCE AND DESCRIPTION OF THE NEWLY DISCOVERED CAVE

Long has the connection between the two outcrops of limestone, namely Limestone Ridge to the east, and Mt Etna to the west, been debated and sought. A 'saddle' of limestone apparently extends under the valley, but is covered by a layer of sediment and hosts a bitumised road. Therefore, whether such a connection exists between the outcrops, and is passable (or diveable) by humans, remains to be seen.

Fire Gift is the lowest elevation cave yet discovered on the western side of Limestone Ridge, located between 100 and 110 m elevation, while all other marked cave entrances on this side of the Ridge are above 120 m.

On the eastern aspect of Mt Etna, Resurrection Cave (E22) is the lowest accessible known entrance, located between 100 and 110 m elevation — Resurrection Cave was discovered during quarrying operations and was accessed after blasting activities. Fire Gift and Resurrection Cave are approximately 500 m apart.

Although now filled with sediment and relatively dry, Fire Gift has features on the floor suggestive of past drainage e.g. smooth tubes.

Additionally, we can see on the ground surface above Fire Gift aged rubble from a cave, including layered sediments and speleothems e.g. flowstone.

Although Fire Gift is relatively close (~110 m) to the previous quarry and guano mining at Johanssens Cave (J2), no mining or spoil placement was undertaken in the immediate area.

Therefore, it is suggested that Fire Gift was a lower chamber of a much larger cave, now reduced to rubble, although it is unknown if the floor of this chamber, now cave, led to a terminal sump.

Fire Gift is a small cave, approximately 2.3 x 1.6 m with 2 m depth, with a pothole type entrance. Despite the small size, the cave hosts large, inactive speleothems, speleogens, bones, snail shells, spiders, geckos and cane toads.

EMILY HOLT

Gaps and fractures

EMILY HOLT

Boxwork and recrystallised stalactites

EMILY HOLT

Snail shells and bones

EMILY HOLT

Large inactive stalagmites

EMILY HOLT

Ceiling and wall features include limestone blocks in layered sediments

The speleothems include unbroken, broken and recrystallised stalactites, broken and eroded stalagmites and eroded flowstone. Boxwork is evident on the ceiling, and the walls reveal moderate blocks of limestone in layered sediment and flowstone.

There is also evidence of rock fracturing and gap formation between 'blocks'; despite this, the cave appears stable and well-protected.

FINAL WORDS

The future for Fire Gift is as with any other new cave find; documentation and recording into the Karst Index Database. With the nearly three years that have passed since discovery, and even though annual rainfall has been much lower than average, this cave is once more hidden by thick, long grass and shrubs. Future forays into the Mount Etna Caves National Park to discover and mark caves such as Fire Gift require a hardy disposition and much crawling — I'm sure any caver would be up for it.

REFERENCES

Deer, L. 2011 *Limestone and speleothem trace element geochemistry as tools for palaeoclimatic reconstruction, Mount Etna region, central-coastal Queensland.*- Queensland University of Technology, 360 pp.

Donchak, P. J. T., Purdy, D. J., Withnall, I. W., Blake, P. R., & Jell, P. 2013. New England Orogen. [In] P. Jell (ed.), *Geology of Queensland.* Geological Survey of Queensland pp. 305-472.

Shannon, C. H. C. 1970. Geology of the Mount Etna area. [In] J. K. Sprent (ed.), *Mount Etna Caves: a collection of papers covering several aspects of the Mt Etna and Limestone Ridge caves area of Central Queensland* The University of Queensland Speleological Society, Brisbane.

Webb, J., Grimes, K. & Osborne, A. 2003. Black holes: caves in the Australian landscape. [In] B. Finlayson & E. Hamilton-Smith (eds.), *Beneath the surface: a natural history of Australian caves.* UNSW Press pp. 1-52, Sydney.

Willmott, W. 2006: *Rocks and landscapes of the National Parks of Central Queensland* Geological Society of Australia Incorporated, Queensland Division, 170 pp., Brisbane.

Map created using QGIS 2.18.25 (Los Alamos). Imagery layer — Bing Aerial, contours via point elevation from GPS and QGIS, Mount Etna Caves National Park boundary (approximate) — traced from physical map.

JF-4 Khazad-Dum

P-hanger installation in the Serpentine route

Junee-Florentine, Tasmania November 2021

Janine McKinnon
STC

PARTY

Gabriel Kinzler, Alan Jackson, Janine McKinnon, Ciara Smart, Ric Tunney.

BACKGROUND:

The Khazad-Dum (KD) system is arguably THE classic Tasmanian vertical cave system.

It has three routes from the JF-4 entrance (where the stream enters the cave) down to around the mid-way point (Traditional Route, Serpentine Route and Wet Way) and two routes to the bottom of the complex (down the KD streamway or from Dwarrowdelf - JF-14 - entrance).

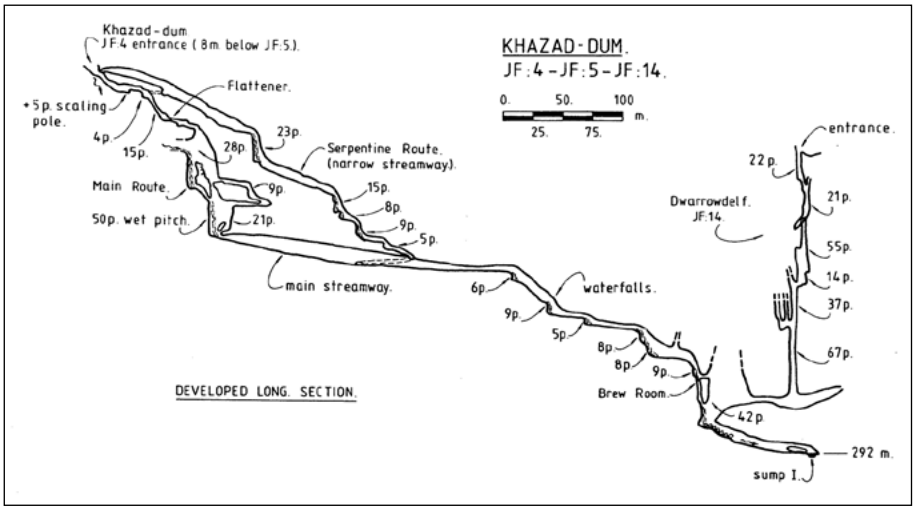
P-hangering of these routes has been done in several exercises over the last couple of decades. All this work was done with Parks and Wildlife Service approval and following the guidelines established.

All had been completed with the exception of the Serpentine Route, which was only partly done in the first flush of P-hangering in Tasmania in the early 2000s. Further work was delayed by Jeff Butt's untimely death and by our being distracted on other projects (in essence, we forgot).

Due to the inadequate rigging options, safety issues and the technical difficulty of rigging on this route, it is rarely done. This is unfortunate as it is a great patch of cave. It would make an excellent beginner SRT trip, and an even better exchange trip with the traditional KD route. It is much shorter and easier than a Dwarrowdelf–KD bottom exchange trip.

Perfect for visiting vertical caving parties from the mainland who don't want to commit to the full show.

After a trip down there a couple of years ago (after long neglect) a few of us decided it was time to complete the task.



BUNTON & EBERHARD 1984

THE PRESENT

I used the opportunity of an advanced SRT rigging course I was running to do the initial reconnaissance for potential permanent bolt placement sites.

The training crew put in the concrete screws we needed to get down the pitches sensibly and we used the opportunity to discuss bolt placement theory. A few weeks later, with a couple of changes in personnel, we returned to start the job.

ASF Grants Commission had provided us with the money to purchase two dozen 10 x 80 mm Raumer Superstar glue-in hangers and glue.

We were very appreciative of this as it reduced our costs significantly.

With a lot of gear to carry we were happy to have five experienced cavers along for the installation day.

We had three drills and lots of batteries, so we planned (hoped) to get all P-hangers installed on this one day. We had sufficient expertise in the group at this installation process to split the group and multi-task the site selection and hole drilling.

It had been raining pretty consistently for weeks but it had stopped raining for a

GABRIEL KINZLER

Ciara conducts an Aspiring cave pack audit

GABRIEL KINZLER

There is clearly a drilling dress code

day or two so at least we had a nice day to get to, and from, the cave. The stream was high but not as high as our reconnoitre visit a few weeks previously for the training trip. However, the water may have been less in total volume than last trip but a greater percentage of it was diverting down the Serpentine Route entrance than previously seen in my years of visiting it. It appears that there had been a water-course change with the recent floods. We were in for a damp trip.

Ric and Gabriel left us at the junction to the Traditional Route to drill holes for P-hangers on the safety line for the dangerous traverse across the top of P3 on the Traditional Route. This has had concrete screw rigging for several years as an interim measure. They would then drill the holes for a safety traverse line over the 4 m drop at the start of Serpentine Route and follow us down.

Alan, Ciara and I carried on to P1 of the Serpentine and spent some time considering P-hanger locations and drilling the holes.

It was actually convenient that we had had a wet spell of weather, and that the stream has had its course change before we had finished this installation. It made it easier to see where best to place the hangers to minimise getting wet in these new conditions (or reduce it anyway).

We all (including Ric and Gabriel) met up at the top of P3 and continued as a team to the bottom, discussing P-hanger locations and drilling as needed. One result of this consultation was Alan's excellent advice that we could avoid three P-hanger redirections by drilling holes through the rock for threads.

As we headed back up Alan stayed last and applied glue and then came charging past us all sans pack but with glue applicator, gluing up the cave.

Overall, we installed 18 glue-ins, three

GABRIEL KINZLER

Manufacturing a thread for a redirect

GABRIEL KINZLER

Drilling under close supervision

GABRIEL KINZLER

Duelling hammer drills

holes for threads and a few temporary concrete screws (for protection while drilling the real holes). It all went very smoothly and we were all out before 5 pm.

A week later Ric, Alan and I were back to finalise the job. The day was spent testing, labelling and generally tidying up.

We started into the cave just before 10 am. The water levels at the entrance were significantly less than the previous Sunday however a significant amount of the water was now going down the Serpentine route. It was only marginally drier than Sunday.

We first headed to the traverse on the traditional route and whilst Alan tested the new P-hangers (according to protocols) Ric and I organised the P-hanger labels, re-tied the traverse rope and generally did the support stuff.

The traverse line has now been moved over to the P-hangers and the concrete screws removed. Next was the traverse at the start of Serpentine Route. Same deal.

We headed down the cave continuing the tasks of testing P-hangers, placing labels on them, removing concrete screws, placing permanent Spectra line in re-direction threads and cutting off the old carrot bolts left from earlier generations of cavers. It was interesting to note the excellent condition of the carrots despite their surface rust.

We de-rigged the cave on the way out. Carabiners HAVE NOT been left on the permanent redirection threads.

P-hangers are easy to find as they have labels with reflective tape on them.

All P-hangers passed test.

We were out of the cave by 2:15 pm.

I expect to see groups making full use of this fun and sporting route now with safe and functional rigging anchors.

A comprehensive rigging guide is available from STC upon request.

REFERENCE

Bunton, S. & Eberhard, R. 1984 *Vertical Caves of Tasmania.* Adventure Presentations, Miranda.

Caves Australia print edition

A reminder

TO MEMBERS receiving the printed copy of *Caves Australia:*

In line with a motion passed at the Council meeting of January 2021 that:

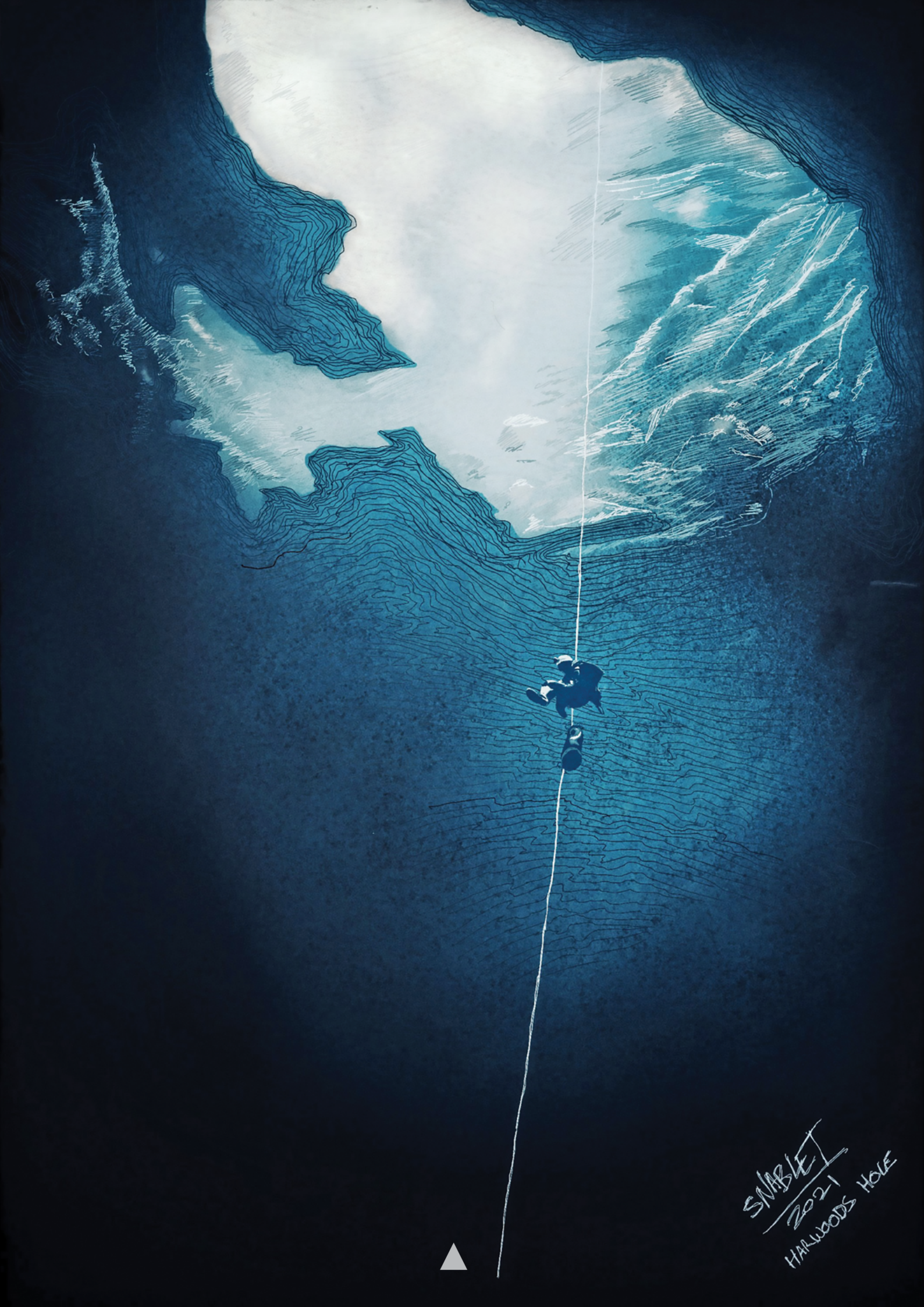
'From January 2022 printing and postage of *Caves Australia* to be provided on a cost recovery basis, paid for by the member receiving the printed copy.'

The cost for each issue of a 24-page print issue will be $10, which covers printing and postage. Issues with more than 24 pages will be at a higher cost.

The Treasurer will invoice each recipient via email after each edition is posted to the member's email address in the Membership Database. If there is no email address then there will be no further hard copies sent to that person. If no payment is received no more printed editions of *Caves Australia* will be sent to that person.

Layout costs will continue to be borne by ASF through your membership fee which also covers the PDF version.

There could of course be a complete discontinuation of hard copies altogether, in which case you will receive the PDF version via an email link from the database.


SNABLET
2021
HARWOODS HOLE

Congratulations to the winners of the IYCK Creatives Competition

As part of the 2021 UIS International Year of Caves and Karst ACKMA, ASF and NZSS collaborated to organise a creative arts competition to celebrate all things relating to caves. The competition was open to any artistic medium and attracted more than 50 outstanding entries. Thank you to Ledlenser for their generous sponsorship.

Leah Miller (Grand Prize)

Winner Stories and Poems entry: 'A karst of shadows' — page 14

The judges recognise the skill to play on words, the character and the journey. Leah was also able to create sounds in the heads of our judges through her creative writing.

Sil Iannello

Winner Video entry: 'Adapted to the dark' — page 13

The judges recognise the original work, the science behind the subject, the importance of the conservation message and the overall flair of the presentation.

Peter MacNab

Winner Creative Arts entry: 'Harwoods Hole' — previous page

The judges recognise the cutting edge techniques of a cave scene of significance which also made the judges feel drawn into the scene.

John Oxley

Winner Photograph entry: 'Croesus wandering' — above

The judges recognise the ability to achieve depth, reflections and composition which draws you in and the old mythology of the scene Croesus in a modern day image which brings the traditions of mythology of the past into modern day technology.

ADAPTED TO THE DARK

Rhaphidophoridae

A Karst of Shadows

Leah Miller

TINY rivulets of water seeped down through ancient rock strata formed from the discarded shells of ocean dwellers long since dried up.

Like tiny, insentient, explorers, they curled and twisted through the cracks that splintered the rock, dissolving away a little of it in their passage. The millionth drop wiggled free into a subterranean cave, sliding along the curve of the roof, until it leapt off the edge and plunged a great distance to the floor.

Plip.

With a minute splash, it landed upon the spire of a stalagmite, which seemed to have grown out of the cave floor to meet it. The stalagmite rather resembled a melted candle, with the drop forming a tiny pool of wax upon its flattened top. Each subsequent drip, falling one upon another, until the wax poured down over the sides, adding another visible layer to the stone.

The last drop fell, froze, suspended above the rippling waxy pool like a watery candle flame, glimmering still with the light of the land far above this strange, otherworldly place.

The soft illumination painted shadows across the walls, which went moving across the floor like leaping, spinning dancers about a campfire, though their feet never left the ground. Those dancers were anchored there for eternity, rooted to the ground that held their last earthly remains. Their heads forever cast downwards, accepting that their ultimate fate was tied here in the cold, humid underworld.

Amongst those whirling silhouettes emerged something else, one shadow that didn't move as they did, but instead prowled across the walls like a wraith… *circling… circling…* trapped within this ancient oubliette, a life long gone and forgotten within its damp, cavernous belly.

Upwards the shadow's nose pointed, ghostly claws tracing worn, crisscrossing scratches upon the walls etched long ago, a silent cry caught dead within her throat. It appeared futile. ***Futile!*** For each time she pulled herself higher, digging her claws into the cracks and crevices of the stone, she tipped more and more backwards, until she was suspended only by her forepaws, hindlegs scrabbling at the curving wall in a desperate search for purchase.

Her weight was too much, or the stone too weak, and she tumbled backwards onto the muddy earth. Back amongst those feverish, faceless dancers, who continued on relentlessly, passing by her as if she were nothing more than another of the rock formations that decorated the space.

Sprawled shamefully amongst gleaming fragments of bleached white, which shone through her striped, ethereal pelt, she refused to remain there. Refused to accept the futility of her situation, which the others had long ago accepted.

Lifting herself from the mud, from the damp and the cold, even though each part of her ached from the fall that had brought her there, her soulful eyes lifted upward searchingly. Her body arched towards where a rough cut circle of blue had once been suspended between the open fingers of rock overhead. What had been the ground had become the ceiling, her world turned over between one blink and the next, leaving her disoriented.

Now, those fingers had closed tight into angry fists, squeezing out the inviting blue, and leaving nothing but endless, jagged grey behind. Sealing her in, confining her here in this airless place, where her brother, the gentle wind, could not find her. Without him to whisper her name to her, she could no longer remember what it was.

Who am I?

She asked it of those shadows, who moved ever onwards in their endless processions in that flickering, watery light, searching their empty, vacant eyes for some acknowledgement.

Yet, they did not pause. Did not stop. Did not answer. Like time itself, they moved ever onwards, leaving her behind in their circular wake.

Have you forgotten too? Is that why you do not answer?

The droplet of light started to sputter and gutter, thickening and deepening the gloom that wrapped sticky as tree-sap all about her. It clung and clutched at each of her limbs, ghoulishly tugging her back towards where she'd fallen.

Towards the sharp, bleached stones that curled up in the imprint she'd left behind. That gloom permeated everything, even as she fought its tug, it inched its way through her short, striped pelt so it could creep beneath her skin. If it got there, it would dissolve her away, melting her back into the shadows and stealing what little of herself remained.

Her fear grew ten-fold, for she was certain that if she gave in to the unrelenting pull of the dark she would become another in that long, circling parade of dancers. She'd be bound, imprisoned, with no means to escape and gain back her name.

Darkness descended in a rush, the droplet falling into that pool with a resounding plip, which sounded as loud as a thunderclap that could shake the very earth beneath her. In the sudden Stygian darkness, she paused and crouched, and even then she felt their movements carrying on, remain implacable and final. They had become an endless cycle like that of the seasons, one following another in a steady, undeviating pattern.

Plip.

Plip.

Plip.

Each falling drop fell as drum beats for the dancers, urging them ever onwards, steadying their rhythm and step. Or was it the heartbeat of this prison? A throbbing life that went on and on without stopping

or slowing… wearing everything away until it all collapsed.

I am still here, she raged against it all. *I am not gone.*

Overflowing out from the pool of stony wax, a pearlescent drop streaked down the side of the stalagmite to be swept up in the tiny trickle that wove its way between the channels in the earth. Even that speck of light was enough to cast long shadows across the floor of the cave, making all of those dancers seem all the larger, casting them up across the walls until they seemed to reach the vault of the ceiling. They crowded in, as oppressive as the gloom that waited to descend upon her once more. Threatening to steal back every ounce of her individuality, reducing her back to nothing but empty bone.

She pounced upon the droplet determinedly, long, sleek muzzle nosing into the water determined to catch that errant drop of sunshine that had somehow slipped between the bright world above and this one. It had brought with it some facet of the life she'd lost over all the years she'd been trapped in the belly of this geological beast.

Yet, try as she might to capture it, it darted past her nose, swirling this way and that along the small crevice, falling away from her.

Down…

Down…

Down…

It was swept away…

…by subterranean currents unseen…

… slithering and sliding into the earth.

That sparkle twinkled in the watery darkness beneath her, and she saw it carried away by the lifeblood of the earth and glistening stone. Where was it going?

For an instant she looked back at the creeping shadows in their endless, mindless dance, lost to time and then to darkness. Looked at the curled up scatter of white laying there upon the stone floor, half buried in mud and grime. No, her heart railed at this world, I will not dance.

For she could feel that her name was down there, quickly flashing like the scales of a fish's tail away into the rippling darkness of the unknown. She could almost hear it breathed by the sighing waters as they passed her by deep down in that strange space beneath her paws.

Her nails bit into the stone, trying to widen that fracture, to chip away at the rock so that she might squeeze herself through, might wiggle her way through. Refusing to give up, she fought for every inch, every small give in the stone, her head pressing downwards into it, her nose almost able to touch the boundary line between herself and where the light was continuing moment by moment to be swept further and further from her.

Shaking off the grasping, tugging limbs and nipping jaws of the shadows as they tried to push and tug at her with each relentless circle, she refused to give in, refusing to lay down. Refused to forget. They would not have her! For her name was there, just there…! She could almost make it out! Harder and harder she pushed herself into that gap, until suddenly she seemed to slide all the way through.

Down…!

Down, she went!
Plunging into the cold… the dark
and the wet.

No air.

No breath filled her lungs.

But she swam with all her might despite that, chasing through the oppressive, unrelenting blackness, through the twists and unseen turns after the tiny flicker of light that was ever before her. There and gone, vanishing past every curve and obstruction, tantalising her with its promise, leading her ever onwards.

Time was distorted as she pushed and crawled through a submerged, labyrinthine current, flowing about her… through her. It stretched her, changed her, forcing her to squeeze through passageways that were tight and close against her sides, forcing her to crawl and squeeze and go beyond all endurance to get to that light, yet she continued on relentlessly.

Almost there.

Almost.

So close that she thought could feel the touch of her brother's gentle fingers running through her fur, whispering into her ear that which she most longed to know.

Before her, the teardrop glow blinked out, wept out into the world beyond, trickling down a wall of colourless white, faded to grey at the edges. And she followed, the current taking her out... out into the world beyond...

A ghost of sand, ochre and charcoal stained the white canvas of stone, eyes drawn as if by a caring hand gazing out at the sweeping, shimmering swaths of green… and up to a sky so true and beloved blue that she wept for the sight of it.

Plip.

Plip.

Plip.

Brother! She cried. *Brother! I am here!*

He came across the treetops and hills, invisible and ephemeral, yet so real to her. His gentle fingers brushed away the tears that she had shed, so that they might not streak her coat, might not blur her outline. Might not render her into a grey, indistinct shadow, washed clean of colour and shape upon this white limestone wall.

Who am I, brother? Those curving, swooping lines of her pleaded.

And the wind smiled, whispering sweetly into an arching ear at long last the name she'd forgotten, reminding her for all her days who she was.

Thylacine.

Eyrie Cave (TR-81) – El Dorado Extension

The pit toilet that became the best cave at Timor, NSW

Garry K. Smith
NHVSS

ON 2ND AUGUST 2008, NHVSS launched the Timor Caves book at Murrurundi (Taylor-Smith 2008a).

Over the years NHVSS members had worked closely with property owners to document the caves on their properties, so many of the residents turned up for this special occasion.

However, the concerted effort to find new caves and document them for the book failed to find any caves on the property owned by Chris and Maureen. They were feeling a little left out that they had no caves, but there were many on surrounding properties.

During a conversation a month prior to the book launch, they mentioned that there was an old pit toilet at the back of their property, which had not been used for more than 100 years.

NHVSS members had also became aware of the proposal to develop a new limestone quarry at Timor in early May 2008, so the push to find more caves closer to the proposed mine site was also a factor (Smith & Rutledge 2008).

A trip was organised for 5th and 6th July 2008, a month before the book launch, and the old pit toilet was investigated (Taylor-Smith 2008b). The remains of the toilet shed consisted of a pile of jumbled slab planks lying flat on the ground with a lemon tree half covering everything.

The timber was cleared away to reveal a small depression just knee deep. NHVSS members embarked on a dig to see if it was actually a filled in cave or a manmade hole.

As we gradually dug deeper, interesting artifacts were uncovered. These included all sorts of coloured glass bottles once containing alcoholic beverages, cosmetics, pharmaceuticals and cattle vaccines. Other items included an old gun, rolls of negative film, broken crockery and household utensils. It was a treasure-trove of items dating back to the late 1800s.

GARRY K SMITH

Tambalyn Durney in cramped and muddy digging conditions in Eyrie Cave.

As the hole became deeper with every bucket load of the best soil imaginable (well composted faeces) that came out, it became more evident that this was actually a cave. About two metres down some small stalactites and flowstone were found. The property owners decided to call this cave Eyrie Cave.

There where many memorable moments during excavation trips.

One such incident occurred on a digging trip in October 2008. There were people below ground madly shovelling dirt into buckets, then hooking them on to haul ropes for the surface gang to pull up the entrance pitch and dispose of.

The weather closed in and looked rather threatening, so a large tarp was erected over the entrance to enable work to continue when the rain came. Unfortunately the tarp had not been properly tensioned, so the rainwater could not run off — it just collected in the middle of the tarp until there was a huge dam suspended overhead.

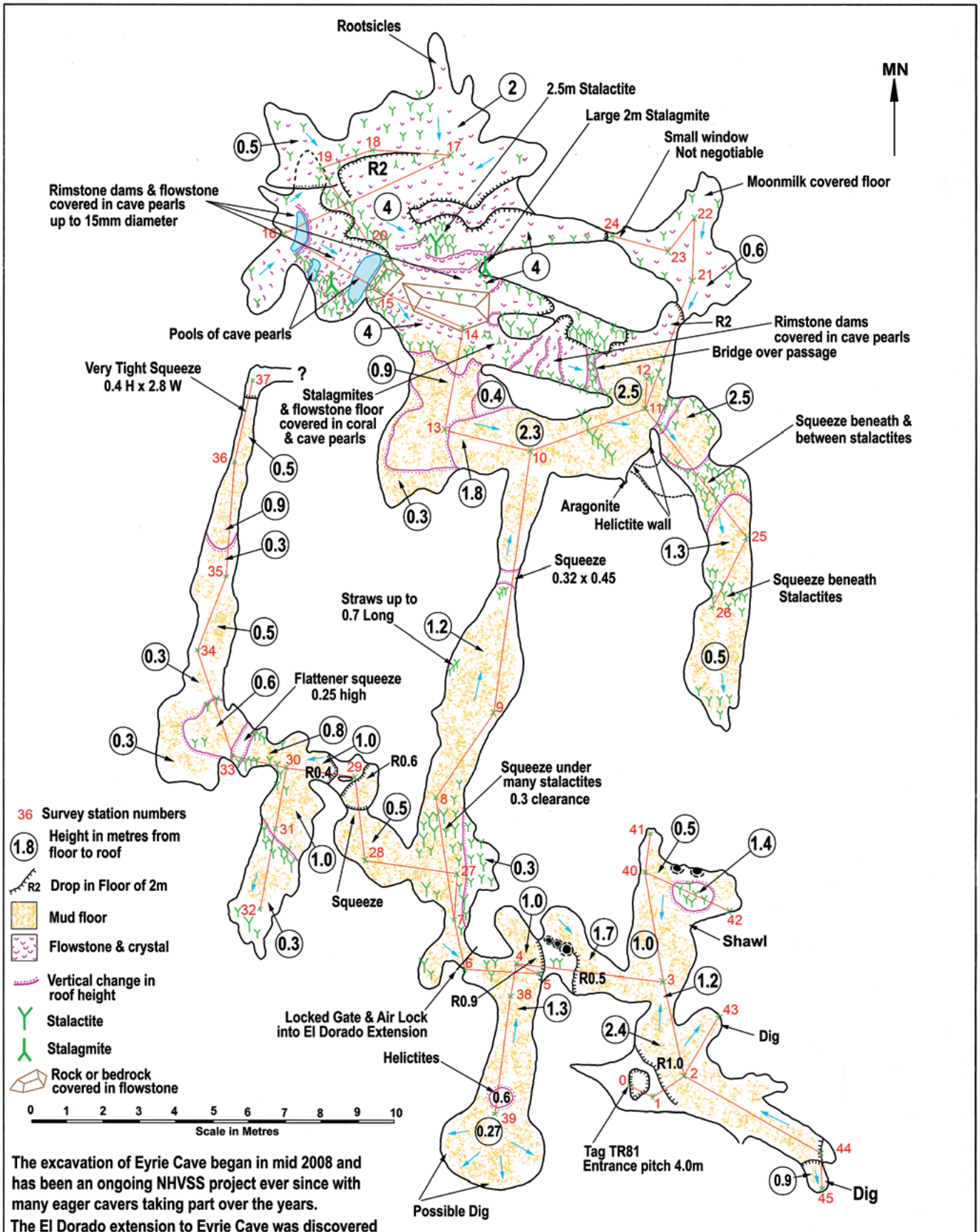
The tarp and poles were heading toward a catastrophic collapse under the weight of water. An unnamed member of the surface party tried to alleviate the problem, but only made it worse, with the full contents being discharged down the shaft onto the workers below. What a drenching!

Over the next couple of years, numerous digging trips were organised and eager NHVSS members and sometimes members from other clubs joined in the quest to find out how far this earth-filled cave actually went. There were occasions when we broke into small air pockets containing stalactites and other speleothems. These minor breakthroughs lifted our spirits and inspired further digging trips.

The dig became one of my pet projects, so I built a dedicated adjustable tripod to make it easier to haul buckets of infill to the surface.

Our groups of diggers on each trip worked like a well-oiled machine with everyone taking on tasks, including filling buckets, hauling the full buckets along the gradually lengthening cave passage, hooking buckets on the haul line, pulling them to the surface and emptying their contents on the ever growing dirt heaps. After the

Eyrie Cave (TR-81) — El Dorado Extension



The excavation of Eyrie Cave began in mid 2008 and has been an ongoing NHVSS project ever since with many eager cavers taking part over the years.
The El Dorado extension to Eyrie Cave was discovered during a dedicated digging trip on 29th May 2021.
Due to the delicate and fragile nature of this extension, it is to be set aside as a reference cave, with access only under exceptional circumstances, such as specific research.

Total survey length = 124 metres
Maximum depth from entrance tag = - 5.8 metres

CAVES LOCATION	Eyrie Cave -El Dorado extension	CAVE No.	TR81
SURVEY GRD.	5.4	SURVEY PARTY	Tambalyn Durney, Andrew C. Baker and Garry K. Smith
DATE:	17-7-21	MAP No.	116
SCALE		DRAWN BY	Garry K. Smith

NEWCASTLE & HUNTER VALLEY SPELEOLOGICAL SOCIETY. (NEWCAVES)

Eyrie Cave (TR-81) — El Dorado Extension

GARRY K SMITH

The extremely well decorated El Dorado extension, view from survey station 17 to 20.

initial enthusiasm of the first half-dozen trips, interest subsided a little. However, I tried to include at least one digging trip each year.

There was always the lure of finding another small air gap, which gave hope that the cave kept going. By April 2017 the cave was large enough to warrant a survey and resulted in a map showing the excavated cave had 34 m of surveyed passage, with a maximum depth of 5 m. Ironically on this first map I included a couple of 'Dig' notes where I thought were good prospects.

Digging trips over the next couple of years were infrequent as a result of the drought, fires and floods of 2019-20. The final crunch came with the outbreak of COVID and social distancing regulations, which put a halt to caving in NSW National Parks as well as on private property.

When the restrictions eased in early 2021, we were able to resume caving trips on private property and continue digging in Eyrie Cave.

I organised a trip for 28th-30th May 2021, to continue the cave excavation (Durney and Sattler 2021). Ten people were involved in the dig during this weekend and I will say that a huge effort was put into the dig.

Everyone worked really well as a team and pulled a mountain of dirt out of the cave. In fact I think the amount of dirt removed in one day far exceeded that of any previous trip.

It was ironic that I had kept telling people to dig in a particular location as I had a gut feeling regarding the shape of the bedrock, yet it appeared that consecutive diggers just kept choosing to dig in other locations while I had rotated onto the task of hauling buckets. Thankfully, after lunch Murray and Ryan had taken up my suggestion and began digging in the location which I thought looked the most promising. Anyway, after rotating jobs again I went back to digging in that spot again. It was certainly the location.

It was a special moment when I began pulling the dirt out and the chamber behind started looking larger and larger through the narrow gap between solid rock. When the hole was about the size of my head, I called out for Hayden Sattler or Tambalyn Durney (new members of our club) to ask if they wanted to dig the hole a little larger and be the first into a new chamber. Hayden was the closest and took on the challenge. I have personally been the first into many new caves after digging, so wanted to give someone else a thrill. It certainly made Hayden's day and the rest is history.

When the hole was just large enough for Hayden to squeeze into the chamber, he pushed more dirt back out of the hole. Eventually I was able to crawl inside to see that the passage just kept going. There was a very low squeeze with just a 30 cm gap beneath delicate white stalactites and then others at the sides with just centimetres of clearance for us to squeeze past more delicate stalactites. One wrong move and they could be broken.

Eventually Hayden and I crawled into a four-metre-high chamber so amazing that we could not go any further without a complete detrog and the need to protect the delicate floor decorations. Over the next hour or so those who were able to fit through the entrance squeeze entered one at a time to the point where the crystal floor began.

I think we were all paranoid, watching each other's every slow movement as there were delicate decorations everywhere.

My first impression was that if such a place existed, as in the legend of El Dorado, the lost city of gold and precious stones, then this was it — the holy grail of the Timor Caves karst area. This name was adopted after I ran it past those first into the new extension and then the property owners, Chris and Maureen.

During this first entry Tambalyn Durney found a very unusual bright red and black cockroach, the likes of which we had never seen before. This cockroach species needs to be identified as initial inquiries suggest that it could be a new species.

An interim plan was drawn up to ensure that we had all the appropriate checks in place to undertake the documentation of the cave with the minimum number of people and entries into the cave. A short list of people with the appropriate skills was compiled and determined. A documentation trip was then hastily organised for 17th-18th July, because we were heading toward a possible lockdown due to a new outbreak of COVID-19 Delta variant in Sydney, which was spreading fast.

There was also an urgent need to install an airlock to maintain the cave's humidity and prevent bats taking up residence. It was also necessary to fit a locked gate to restrict access once word spread about the discovery.

Our small group consisted of Tambalyn Durney, Andrew Baker and myself to undertake the documentation and Murray Dalton to install the gate and air lock barrier. Bear in mind that we were already under regional NSW COVID restrictions dictating a maximum of five visitors to a residence, i.e. our accommodation at Glen Dhu hut. We arrived at Timor on Friday afternoon to be greeted by a hailstorm and strong wind.

Saturday morning was very cold with wind and scattered showers. At 8:30 am we entered the cave to find the outer section containing pools of water and very sloppy mud after rain during the preceding days.

We began surveying from the entrance. Andrew was on point, Tambalyn on Disto-X taking measurements and I concentrated on drawing the cave in the Topodroid program on my Samsung tablet.

The beauty of this method of surveying is that the laser measurements are automatically uploaded to the program which then draws the splays and legs as true horizontal and vertical lengths. This allowed the cave and features to be accurately drawn on the tablet on the go as we progressed forward. The survey up to the detrog area was completed and we exited at 1:30 pm for a lunch break back at the hut. It was quite an effort getting out of all that muddy gear to drive the car back.

There were still intermittent bursts of rain and a brisk breeze as we returned to the cave around 2:30 pm. Murray had finished the gate installation before lunch, so he headed back home.

The three of us then entered the cave for the second time. This time we had a considerable amount of detrog and photographic gear to transport inside.

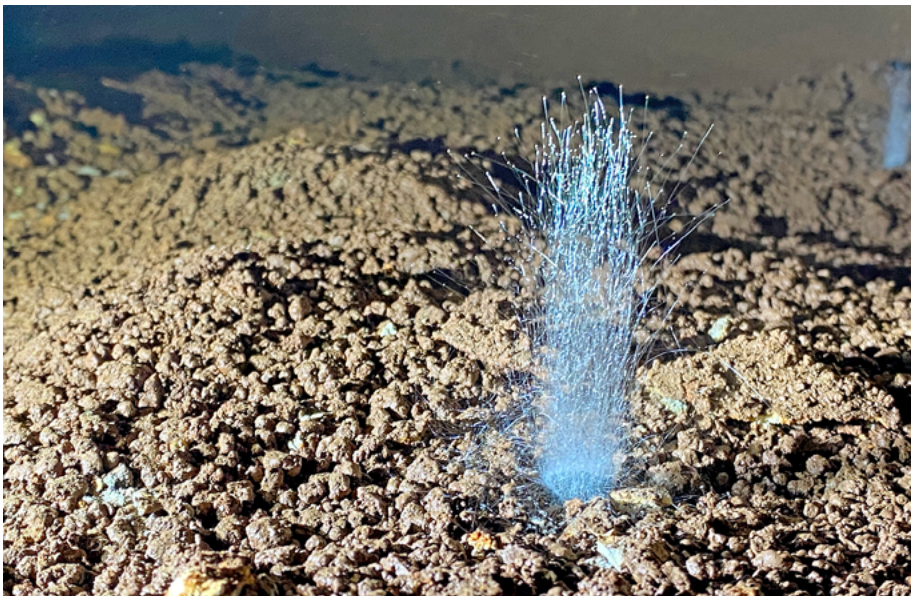
Carefully manoeuvring the packs of gear through the tight cave passages while watching every movement to avoid delicate decorations took some time but

GARRY K SMITH

Tam admires the fragile, well decorated passage between survey stations 12 and 14

GARRY K SMITH

Rounded cave coral looks like cave pearls covering floor and rimstone dams



GARRY K SMITH

Five cm high fungi growing on rat dropping - located on first entry.

finally everything was at the detrog area.

A large plastic sheet was spread out on the muddy floor near the start of the crystal area. This became the detrog area where clean clothes and soft-soled footwear were put on.

To say we were paranoid about watching our every movement is an understatement. High-density foam pads were placed over delicate sections of floor coral, which allowed us to cross it without causing damage and continue with the survey.

Many of the decorations are extremely delicate and fragile, so special care was taken to avoid them and protect those in areas we needed to cross.

Compared to other major caves in larger karst areas around Australia, this cave is very small, but for Timor this cave has no equal in beauty and variety of speleothems. There is everything from aragonite crystals, moon milk, rootsicles, helictites, cave pearls and coral as well as the usual stalactites, stalagmites and columns. The cave coral in many places is quite unusual as it looks like cave pearls (pea to marble size) stuck all over the rimstone dams, flowstone and stalagmites.

There are also pieces of charcoal (partly burnt timber suspended in delicate formations and partly coated in flowstone) perfect for carbon dating. There were several very small snail shells balancing in delicate formations off the ground. I also photographed a white troglobitic millipede.

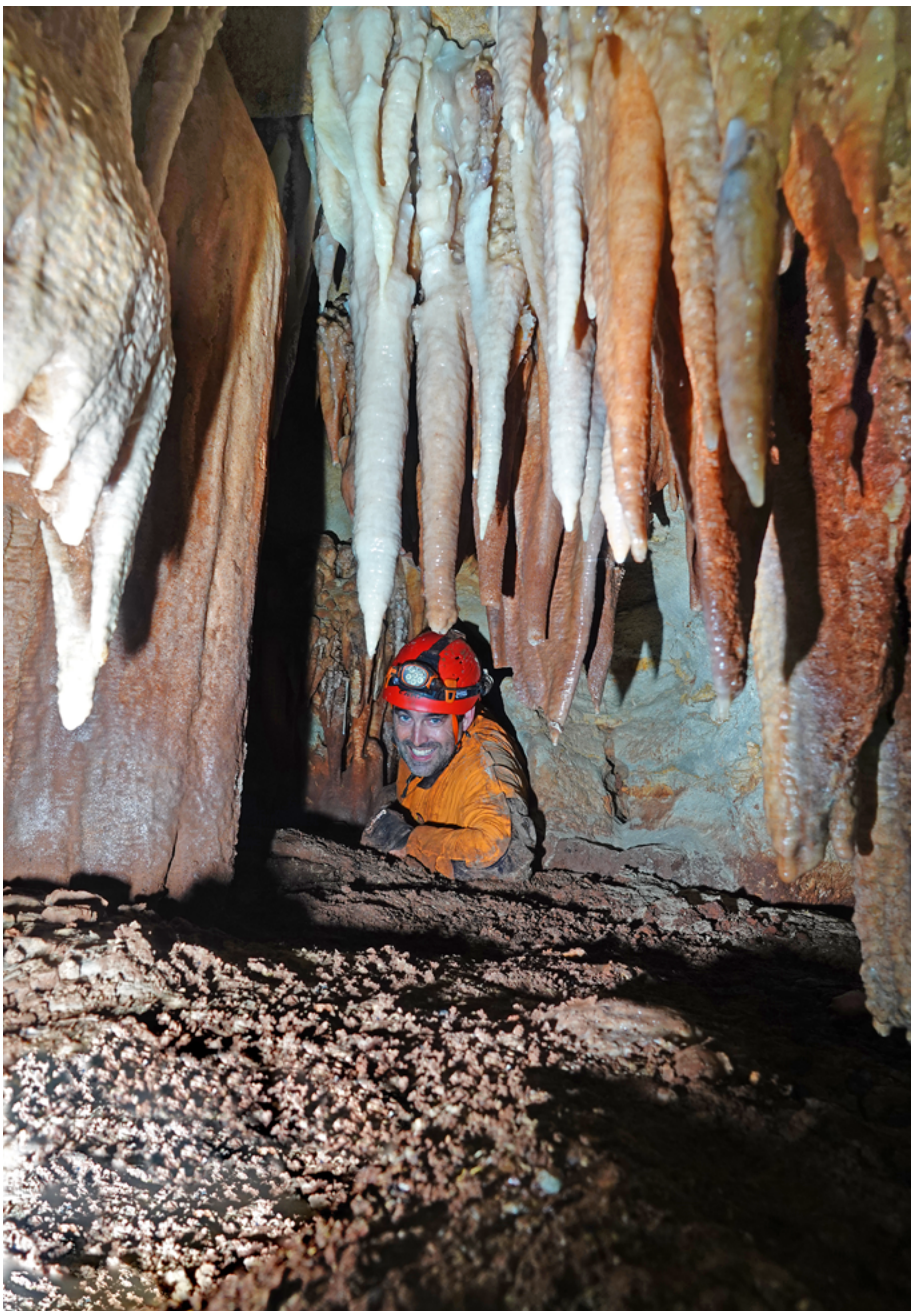
After completing the cave survey we took multi-flash chamber photos and images of all bones found next to a scale bar, specially noting their location relevant to survey stations. Tambalyn also took some video in the cave for future reference.

After the trip, the images of exposed bones were sent to a palaeontologist and initial feedback indicates they all belong to extant species of rodents and small mammals.

This is understandable because when the cave was first entered after excavation, there were some small fresh droppings observed inside — possibly rat. Some of these droppings had 5 cm high fungi growing from them. This indicates that there could be a small passage leading from the surface that is allowing rodents to enter.

The documentation, air barrier (tunnelcore black double-walled plastic board) and a locked gate were all completed during one long day. We exited the cave at 11 pm to a very cold breeze and sprinkling rain. It had been an amazing cave to document, but we were all now absolutely covered in mud and feeling tired and hungry.

Back at the hut we showered, ate and managed to get to bed around 2 am. Thank-

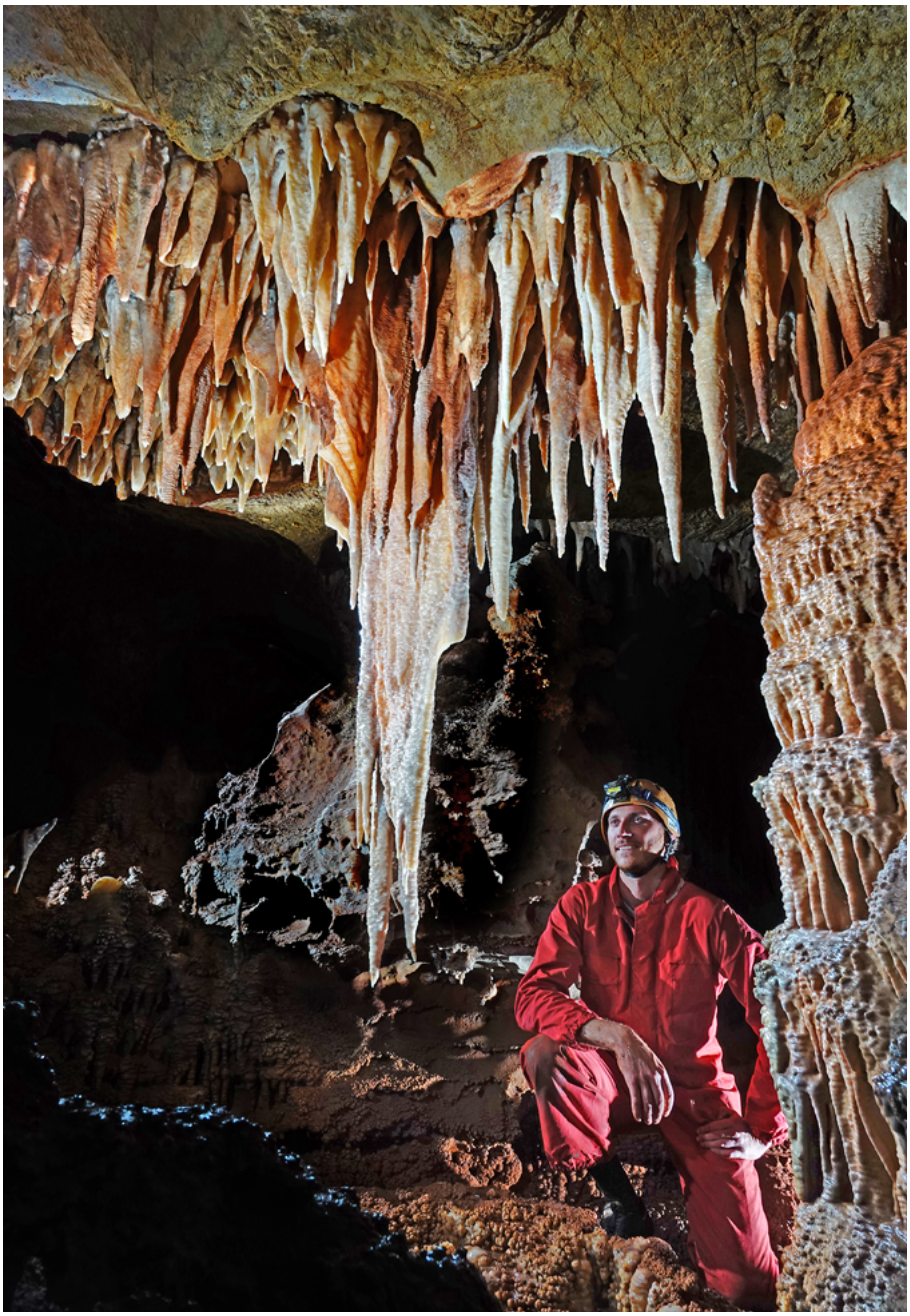


GARRY K SMITH

Jeff Cwach squeezes through the tight El Dorado entrance — stalactites are just 300 mm above the floor.

GARRY K SMITH

The NHVSS team of diggers who broke into El Dorado. Entrance beneath bucket hauling tripod..



GARRY K SMITH

Tam near the 2.5m stalactite & 2m stalagmite, location noted on map.

GARRY K SMITH

Coral and pearls in a pool between survey stations 15 and 16.

fully, we didn't have to go back to the cave on the Sunday, as all our gear was absolutely covered in gluggy mud.

It was quite a shock to find that several of our bits of equipment left just inside the cave entrance had had holes chewed in them by rats while we were inside the El Dorado extension. A lesson well learnt — don't leave anything unattended.

In the weeks following the trip I was able to draw up the final cave map and label all my photos with file names that linked them to locations near survey stations.

Eyrie Cave, including the El Dorado extension, now has a survey length of 124 m and a depth of 5.8 metres from the entrance.

However, the cave extends back into the hill, so it would be deeper underground toward the back of the cave. The final map is included in this publication.

For me, El Dorado became a real dilemma, as there have been many people involved in digging the cave over many years. It would be great to have everyone explore this cave, but unfortunately that would be disastrous because of its delicate nature. So how could this amazing cave be preserved? I spent many a sleepless night stewing over this question.

I discussed a proposal with the property owners to make this cave a reference cave with restricted access only for specific research purposes. Chris and Maureen were in favour of the proposal to protect El Dorado.

So from having no known cave initially on their property — they purchased the adjoining Moorse's property in late 2015, which contained several significant caves — but who would have known they had the best cave at their back door all the time?

Because of the significant and fragile nature of this cave, NHVSS members are in favour of keeping El Dorado as a reference cave, restricting access to well-grounded specific research.

A big thank you to Chris and Maureen for allowing NHVSS members to stay at their Glen Dhu hut and dig in Eyrie Cave over the past 13 years.

REFERENCES

Durney T. and Sattler H. (2021) Timor - Eyrie Cave extension 28th – 30th May 2021, *Newcaves Chronicles* 56: 23-25

Smith G. and Rutledge J. (2008) Update on the Timor Limestone Mine. *Newcaves Chronicles* 31: 36-40

Taylor-Smith S. (2008a) Timor Caves Book Launch, 2nd August 2008. *Newcaves Chronicles* 31: 13-15

Taylor-Smith S. (2008b) Timor – Rock-me cave gating. *Newcaves Chronicles* 31: 8-9

ASF SLARM 2021 Incident Summary

Rafid Morshedi
Cave Safety, Leadership & Risk Management (SLARM) Commissioner

THIS will be one of my first articles in *Caves Australia* as SLARM Convener. I strongly believe in a 'no-blame' culture when it comes to reporting incidents and encourage all cavers to report incidents (or near misses) in the interest of sharing lessons learnt.

The purpose of the incident notification system is to determine trends and learn from incidents to either prevent them from happening or to find ways to limit the negative outcomes if they do, as part of overall risk management and mitigation.

The following incident Summaries and Actions were all the incident reports received by the ASF in 2021.

They are published in the interest of safety education. While every effort is made to ensure accuracy, the ASF makes no representations about their accuracy, as information is based on incidents as received.

Check them out! What can you learn? Do you have alternate courses of action to help prevent recurrence? Discuss with your fellow cavers, trip leaders and club executives.

CATHERINE STARK

A complex rescue operation at Mt Cripps, Tasmania, in October 2020

ANCHOR FAILURE DURING RESCUE EXERCISE

The anchor was being tensioned up for a tyrolean by a single person using a 3:1 Z haul. The rock popped, hurling an approx. 30 cm x 30 cm x 30 cm projectile down a cliff. Back up anchor held all the gear. No injuries. Upon inspection of the failure, the bolt had not failed but the rock itself had failed along an existing hairline fracture which had been filled with soil.

Action:

Careful attention should be paid to the rock surrounding an anchor, especially under rescue loads. Bystanders were asked to stand clear should the line fail, which they did. There were no injuries.

STUCK ON CONSTRICTED PITCH

Caver was able to descend past narrow constriction on rope. The constriction required the brief removal of helmet and breathing out to make chest smaller. The caver had no additional gear beyond a helmet, headtorch, and SRT kit. They were within voice contact of the surface party at all times. On ascent, the caver was unable to pass the restriction.

The caver reported that his chest was physically trapped in the constriction and he was unable to release his chest ascender, making most standard caving self-rescue moves impossible.

Action:

The surface party attempted a hauling system, but it jammed him more tightly in the constriction. Cave rescue and police rescue were called.

A second rope was used to lower the caver to the bottom of the pitch, using a rack to belay the descent. The primary rope

was cut. He was provided food, water and additional clothing. Police Rescue used a winch which provided fine control of vertical movements to haul the caver up past the restriction.

The caver had removed all unnecessary gear and was tied into the winch rope at his harness D-link. His SRT kit had been striped to a harness and D-link. The caver was assessed by paramedics and had no significant injuries.

SICK IN CAVE

Caver suffered from vomiting/shaking in a cave at the top of an abseil.

Action:

Casualty was assisted/belayed down the abseil. Second group exited the cave and alerted cave rescue which went on stand-by. Casualty exited the cave safely and the rescue stand-by notice was lifted.

FALL ON ABSEIL

Novice caver slipped while abseiling over a lip, fell heavily and ended up inverted. Injuries were minor bruising. They were on a bottom belay. Their helmet was not suitably tightened.

Action:

The incident has been reviewed by senior members and procedures have been implemented to reduce the likelihood of recurrence of this type of incident in the future. Club members have been reminded of the importance of looking after those of lesser experience and the importance of a thorough equipment check by another experienced caver prior to any descent.

FALL ON CLIMB

At second obstacle in a canyon (a moderate but slippery slide of about 8-10 m) group was deciding on how to tackle this obstacle with either handline or abseil. The caver attempted obstacle prior to any belay setup and got to half way down. They slipped and slid feet-first the last 5 m crashing into rocks, injuring ankle.

Action:

Caver administered self first-aid (stretch bandage) prior to any help arriving. The trip continued and victim was administered pain killers to help. The canyon was completed including a number of abseils, climb downs and difficult terrain virtually unaided.

FALL ON SHORT CLIMB

On an exit from a canyon there was a 1-2 m climb with a hand-line which in the past had a useful tree root as a foothold. This has now rotted and the hand-line has a couple of foot loops that can be used, but it's in an awkward position. One of the party (a very tall person), did not like the hand-line and elected to go up a small climb to the right, which did not have a hand-line. On going up the climb this person called out that it was extremely slippery and in fact the person slipped but had a good hold of a convenient root and so did not fall.

Three of the group used the existing hand-line, whilst the fifth person elected to follow the tall person, this person was shorter than the previous climber. Halfway up, the person lost traction/ footing and was not able to hold onto the root and fell approx. 3 m (no measurements were taken). The person landed face down amongst some rocks, but the face of the person landed in an area that did not have a rock but was filled with leaf litter.

Action:

DRABC, no cuts or abrasions, the person complained about a sore shoulder and sore neck. The person proceeded to climb up the hand-line and completed the climb without incident, then completed the walk out without incident. Upon medical assessment, a small fracture was found in the neck.

FALL ON ABSEIL

Slipping on an abseil in a canyon resulted in fractures to the 8th and 9th ribs.

Action:

Whilst experiencing some pain, the injured party was able to walk out to the cars with only very minimal assistance.

FALL ON CLIMB

Caver fell about 2 to 2.5 m while climbing a cave ladder in a waterfall. Suffered from a fracture of five ribs, contused lungs, small pneumo-thorax, fluid on both lungs, fracture of both scapulars, fractures of the spinal processes from thoracic region down to the lumbar region (lots of fractures), possibility of pneumonia.

Action:

Cave rescue was mobilised along with police and SES. Casualty extracted via helicopter. The full report of tjhis incident can be found in *Troglodyte* December 2020.

THUMB STUCK IN HARNESS

After ascending a ~15 m pitch, the casualty was taking off his harness to squeeze through the constriction into the next section of the cave. An audible pop was heard as he tried to take off his harness. He had hurt his thumb from taking off his harness. Medical investigation later indicated that ligaments had detached from the bone and required surgery.

Action:

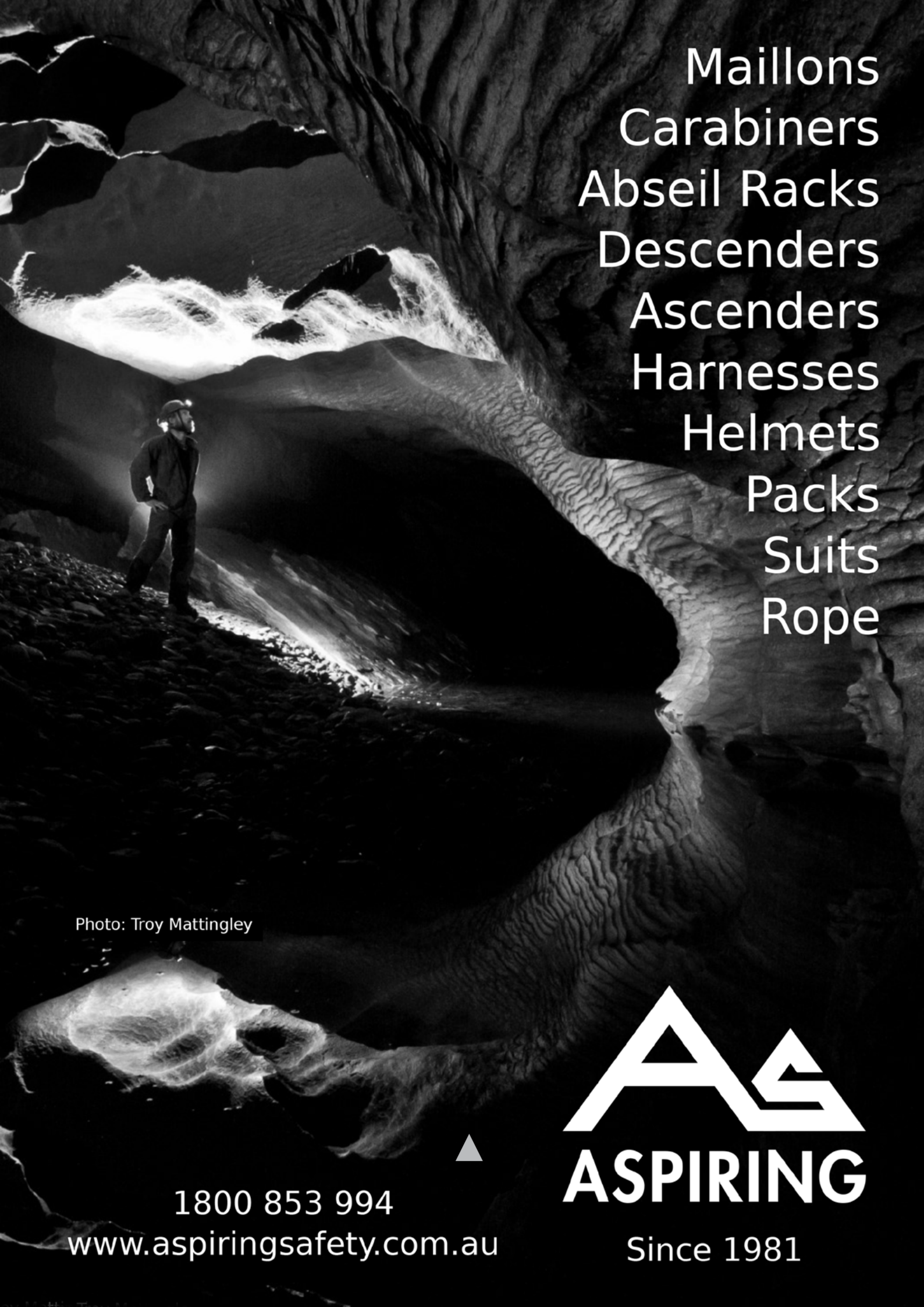
His right hand was unable to be used from that point but he was otherwise okay, but in a lot of pain. He managed to get through the next few squeezes on his own but was lowered down pitches via a belay. He ascended the final SRT pitch with one hand and exited the cave.

STRUCK BY ROCK

Caver was at the bottom of the lowest pitch, contemplating getting on the first rope (standing next to it). There were four people above him on a series of pitches and the rope was free, so while the caver should have stood further away until committing to it, the caver could also have been there legitimately. Without any noise or warning, a rock about the size of a small dinner plate impacted the caver's foot and the rock he was standing on — enough to give the smell of impacted rock, and to break (and spectacularly bruise) his little toe through a gumboot, explorer sock and neoprene sock. The caver was glad it hit something relatively unimportant and the break was pretty textbook.

Action:

Much swearing was required at the time, but getting out was not a big deal; two days later the caver did not feel anything. It's unclear where the rock came from, but it could have been unwittingly knocked off by any of those above, even the top of the big pitch (i.e. the start of the rope) likely has an alternative way down. The group noted a few loose rocks near the top of the long pitch (i.e. the start of the rope), so some better tidying would be a good investment for the future. The cave has had a moderate amount of use. It is a good reminder to be careful, especially when heavy bags and weariness at the end of a long trip are involved.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Abseil Racks
Descenders
Ascenders
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