Speleo Spiel 449

March-April 2022

Newsletter of Southern Tasmanian Caverneers Inc. ISSN 2208-1348

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Front Cover: *Ciara Smart practicing pole dancing - caver style - in H-19 Dirty Dancer*

Photo: Gabriel Kinzler

Back Cover: *Who gave that man a machete? Doesn't look like they lived to regret it.*

Photo: Phil Jackson

STC was formed in December 1996 by the amalgamation of three former southern Tasmanian clubs: the *Tasmanian Caverneering Club*, the *Southern Caving Society* and the *Tasmanian Cave and Karst Research Group*. ***STC*** is the modern variant of the oldest caving club in Australia.

Speleo Spiel

Newsletter of the Southern Tasmanian Caverneers Incorporated

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Contents

Editorial

New (STC office bearers) year, new *spiel* editor. Or to be more correct, the return of the old (pun intended). After a two-year break, I'm back. Thanks enormously to Gabriel for doing such a wonderful job as Editor during that time.

My first issue back is full of exciting caving stories and a few interesting articles. I have been impressed by the flood of copy that has appeared in my in-tray. In fact, I have more than I can publish in this issue (unless it was going to be HUGE). I know it is a cliché, but this (or any) magazine is only as good as the submissions. I think this club can be proud of the effort our members put into recording our endeavours.

Thank you to all who take the trouble. Keep the copy coming!

Stuff 'n' Stuff

A message from Steve Fordyce:

Better late than never, I have been meaning to let everyone know that getting to Owl Pot/Tassy Pot/Porcupine in a low-clearance car is going to be pretty hard.

After grading Westfield Road, there's now a ditch and ridge about 5 m from Westfield Rd, which my Territory only just got over (and that was after hacking at it for a bit and putting some logs down). Gabriel's RAV4 got over ok. A lot of work would have been needed for my old Falcon to get over it.

Vulcanospeleology

The 20th International Symposium on Vulcanospeleology (ISV20) will be held in Vietnam from November 22 to November 26, 2022. The ISV program will be conducted in and around the Dak Nong Global Geopark.

The 20th ISV Website is now live. There is a program outline, information on hotels, registration and excursion information as well notes on some of the local volcanic caves. You can also sign up to receive news updates.

You can access the site here: **https://20isvdaknong.com/**

On-line registration will become available in July.

Geological Society of Australia and Royal Society of Victoria

Lecture: Thursday 23 June 2022; 6.30-8pm

Each year in June these two organisations have a joint public lecture on a significant earth science topic. In 2022 this is a hybrid event (i.e. a very limited face to face due to the RSV theatre size) and a much more expanded Zoom/Facebook access.

Details on booking is posted on the RSV events page <https://rsv.org.au/events/australian-caves/>, where the abstract and speaker short bio are also posted. Tickets are available below to either attend in person (first window) or participate in the webinar via Zoom and/or Eventbrite (second window). RSV and GSAV Members are prompted to **enter their "promo code" to access a member's ticket**. Alternatively, you can watch along via our **YouTube channel** at the appointed time without buying a ticket.

On some advertisements the date is incorrect but it is the **4th Thursday in June; 23 June 2022.**

The topic has been chosen to celebrate the extended International Year of Caves and Karst (IYCK) and has been advertised internationally.

Australian Caves: Diversity, Wonder and Risk

Australian karst has something for everyone, from the razor-sharp towers of north Queensland to the cold, deep shafts of southwest Tasmania, the carbonate dunes of southwest Western Australia, the clear cenote lakes of south-eastern South Australia and the ancient reefs of northwest Western Australia. Join us to explore the diverse nature of Australian caves and karst with **Professor John Webb** (La Trobe University).

Office Bearers' Reports

PRESIDENT (Chris Sharples)

Life over the last year has again been dominated by the ongoing COVID-19 plague, however, the resulting restrictions and protocols have had less impact on caving activities than they did during the initial period during 2020. For much of 2021 it has been more-or-less back to "caving as usual", at least for local members (although caving in Tasmania still hasn't been quite back to normal for visitors, there has been a trickle of these as well).

Activity levels underground have remained high, ranging from tourist jollies in caves like Kubla Khan to continuing exploration of new caves ranging from the exciting prospects of Delta Variant to the (reportedly) soul-destroying nightmare of Turret Cave. It has been particularly pleasing over the last year or so to see a new cohort of hard young cavers emerging to keep activity levels and enthusiasm high. Indeed – and at the risk of sounding hopelessly "yesterday" for even thinking this should be mentioned at all - I must note that the current demography of the STC membership continues to provide strong evidence that caving is one of the most gender-balanced adventure sports around.

A notable new initiative introduced by Janine McKinnon and Ric Tunney has been the introduction of a semi-formal Rigging Training course, which has been well received and hopefully will be repeated at regular intervals. The last year has also seen the introduction of monthly rescue training sessions (mostly at Fruehauf quarry in South Hobart) aimed at consolidating our rescue skills beyond what can be achieved in an annual training exercise. To date these sessions have been both useful and fun, which portends well for their continuation.

While on the subject of rescue training, 2021 saw a major training exercise at Honeycomb Cave (Mole Creek) involving all Tasmanian caving clubs, Police SAR, SES, Parks and Wildlife Service and Ambulance Paramedics, which continued to consolidate the good working relationships that STC continues to foster with all these players. So many people from STC and other clubs played important parts in organising this event that I am loath to name anybody for fear of forgetting somebody but do read the Search and Rescue report for more on this!

My role as President in 2021 has been generally drama-free and straightforward, and this is particularly so thanks to the support of the other Executive Committee members, Russell Fulton, Karina Anders and Gabriel Kinzler. However, since my three years as President are now up, I will not be standing for this position at this AGM.

VICE PRESIDENT (Gabriel Kinzler)

I will echo Chris Sharples' President report by saying that it was a pleasure to share the duties of the Executive with him, Karina and Russell. Beside ruling on a number of matters as a member of the team, I didn't have much to do as VP. Didn't even get to chair a meeting!

I equally agree that the club is currently thriving, in particular under the impulse of new members of all ages and genders, but especially a wave of young women, which is something I hope will become so commonplace that it won't have to be explicitly spelled out anymore. On the caving front, you could always do more, but a lot has been happening considering COVID-related restrictions, so we just have to keep that momentum going and capitalise on it this year.

I'd be honoured to continue in this position.

SECRETARY (Russell Fulton)

Well, it was another interesting year with COVID-19 related restrictions and protocols in force for most of the year. Tasmania was isolated from most of eastern Australia for a significant period, to the detriment of mainland members (although Steve Fordyce managed to give the JF a good hammering in some brief windows of access and post borders opening).

The average attendance at GBMs through the year was 12.9, the same as during the pre-COVID 2019 year, so members clearly decided to carry on regardless. Meetings averaged 75.9 minutes, an improvement on the 2019 measly 73 minutes average. Good times.

The minutes show that 82 trips were reported during the year. These include surface trogging, dye release and hydrology-related exercises and some trips involved multiple caves. Niggly Cave and Wherretts Lookout featured prominently as destinations and there was a brief revival of caving at Mt Weld, with several exciting new finds.

The quest for a habitation at Maydena continued, with the latest thrust being to secure a piece of land that was a former apiarist site with the aim of building a humble abode on it. The mansions in downtown Maydena are now beyond the reach of the club.

There was some paper correspondence received and even a few letters written, however, the digital age has greatly diminished the opportunities for physical correspondence.

I'm happy to go again as Secretary.

EQUIPMENT OFFICER (Alan Jackson)

Things come and go at the gear store – 'tis the nature of the beast.

Nothing spectacular happened over the last twelve months on the gear store front, but then I wasn't home much to monitor it. I'd like to thank Loretta and Gabriel for their efforts keeping gear available to the masses during 2021 while I was away a lot in the north of the state for work.

Rope stocks were a bit on the low side for part of the year but that was mostly a symptom of multiple ongoing projects which saw a few caves rigged for months at a time. I didn't have to get grumpy on that front but, regardless, here's a friendly reminder that members should do their best to ensure that any projects which involve locking up club gear for an extended period of time (i.e., more than a few weeks) should be planned to be as short as possible. We bought a

new roll of 9.5 mm rope late in 2021 and at the time it felt that meant we'd be flush for rope stocks for a year or two to come but February 2022 rope testing results have suggested we need to retire the F, G, I (anticipated) and J (unanticipated) rolls of rope. That's 7-800 m total, but the I roll is mostly assigned to SAR duties, so the tangible effect on borrowable rope is more like 5-600 m. I'm still working through my conclusions on the rope testing, but it seems likely that we'll need to buy at least one new 200 m roll of skinny rope in the first half of 2022.

I'm happy to continue in the role for another year if you'll have me. I'm equally happy to palm it off to some unsuspecting sucker if they want it.

EDITOR (Gabriel Kinzler)

I have thoroughly enjoyed being Editor for two years. *Speleo Spiel* is in good health and although it hasn't changed much under my editorship, I think it has improved in a few little ways. Most issues came out on time (or close), including one behemoth (#444, with 88 pages).

However, my enthusiasm for the task has waned over the last year, and I am therefore returning the keys, at least for the time being. I will stay involved as much as I'm needed and can always assist in various capacities.

I extend my thanks to my sub-editors Alan Jackson, Janine McKinnon, Ric Tunney, and Greg Middleton, to Russell Fulton for the printed copy business and to everyone who has otherwise contributed.

SEARCH AND RESCUE (Gabriel Kinzler)

It has been an exciting year on the SAR front. STC helped Tasmania Police with a very successful, large-scale cave rescue exercise in Mole Creek, which was attended by all Tasmanian caving clubs as well as SES, PWS and AT, further strengthening people's skills and relationships state-wide.

Hot on the heels of this, Karina Anders and Bec Foxen spearheaded a new training regime that saw us actively school club members in cave rescue skills and SAR leadership roles on a monthly basis. We will continue to carry this out indefinitely.

STC will hold an annual SAR exercise in 2022, the content and date of which are to be determined. We also hope to organise another joint exercise with TasPol. Elsewhere, I represented the club at TasPol's Annual Southern SAR advisory meeting, which is a low-key "must-attend" for us.

We had several close calls throughout the year, meaning overdue parties for which we almost deployed contingency plans. Thankfully, we were able to call them off in every instance. I will laud our responsiveness in each case but would also like to remind cavers to think more about their call-out parameters before going out there. Our official "call-out tree" was also updated with appropriate personnel.

Finally, STC, MCCC, NC and SRCC were all presented with a Commissioner of Police Appreciation Award for their involvement in the Snowy Creek Cave rescue. Individual awards were also given to several STC members and AT personnel.

I deem my tenure as SAR Officer positive overall (certainly nothing negative) and would like to thank the club for putting their trust in me and Alan Jackson in particular for showing me the ropes both literally and figuratively and for believing in me. I think someone with more intuition, mental fortitude and who's generally quicker off the mark will be more proactive and do a better job than me, which is why I will relinquish the position this year with my head held high

SCIENCE OFFICER (Chris Sharples)

The Science Officer's portfolio has been a quiet one during 2021.

Certainly, the most notable science-related activity in the last year has been the continuation of Stephen Fordyce's major and high-tech. dye tracing project in the Junee-Florentine karst system. Many STC members have contributed to this project by releasing dyes and downloading data loggers, often in notably remote and uncomfortable subterranean circumstances. The next challenge for this project will be the data archiving and analysis phase, which I do not predict will be any simpler than the data collection phase has been!

The other science-related matter of note this year was an approach to STC from Dr Perry Beasley-Hall from The University of Adelaide for assistance in capturing cave crickets from a range of Tasmanian caves for a comprehensive study of cricket genetic diversity across Australian Caves. Following expressions of interest in being involved from a number of STC members, we are waiting for the proponent to get his various collection permits and other formalities completed so that we can begin the sampling work. Which after all is just another excuse to go caving!

SOCIAL SECRETARY (Phillip Jackson)

Despite COVID-19 there has been quite a few social and Fringe social events through 2021.

Outside of lockdowns between two and six people have met at the Prince of Wales Hotel for a pre-meeting meal and drink.

The highlight of the year was the 75th anniversary dinner attended by 43 past and present members. The dinner was postponed to a new date thanks to some COVID positive wannabe gangster. Many thanks to Gabriel for looking after the pictures and videos. And of course, many thanks to all those attended and made it a great night.

Alan organised a Christmas BBQ with pyrotechnics at the Brett's ranch. Thanks to Alan, Gavin and Claire for organising this.

Over the course of the year there have been quite a few un-official social events that included cavers from other groups and much frivolity. These include such things as search and rescue exercises, rope testing and joint caving trips.

If anybody has any ideas or concepts for events, feel free to propose them or send it to me.

TRAINING OFFICER (Janine McKinnon)

It has been a relatively busy year in the training department. We have even retained most of the beginner SRT trainees (at least beyond their first trip underground), which could almost be a first. A few are shaping up well to be long-term club members, which is awesome.

Also, for the first time, this year past I decided that we really should put a bit more structure into further vertical training. Our historical ad-hoc method of rigging training where anyone who expressed interest in learning to rig did so on the odd pitch during a trip they happened to be on seems too random in this brave new world of competency, safety and professionalism. So, Ric (Tunney) and I developed a (fairly loose) course for training competent vertical cavers in rigging principles (forces etc.), basic vertical rigging techniques, rigging on naturals, and an introduction to bolting (with concrete screws).

Four club members started this course (course is a bit too impressive a word) with a three-hour theory session one evening. They then did a practical day on the Fruehauf quarry, followed by three of them doing a rigging-specific day in Owl Pot and Tassy Pot. Two of them went on to a bolting and naturals session in a cave. I think this was a successful operation and will plan to use it again for future advanced SRT training and rigging training.

S&R training falls under the S&R officer.

I think there might be room for some training beyond rope work, such as surveying skills. I will have a think about implementing that, or probably first canvassing members to see what interest there is out there.

For those who like statistics:

Number of beginner-SRT trainees trained: 8

Number of Fruehauf training sessions held: 6

Number of beginner caving trips by me (others did some too): 2

Number of rigging training trips in cave done: 2

I am happy to continue in this role.

PUBLIC OFFICER (Bill Nicholson)

This has been an exceptionally quiet year with only a small number of agreements to process.

I will not be continuing in this role.

WEB MASTER (Michael Packer)

Not received.

LIBRARIAN (Greg Middleton)

STC Librarian / Archivist Report 2021-22

Since February 2021 the Library has received only 22 paper journals/newsletters (16 last year), but six of those were from earlier years and ten were from overseas. Our total holding is now 5,080. Many of these we also received in digital format.

Previously I have raised the matter of discarding the large number of duplicate copies of journals and newsletters (including *Spiel*s and *Southern Caver*s) which take up a lot of space. As was suggested, I offered these to other club libraries. The only response was from the ASF Librarian who offered to take any duplicates we don't require. I'm in the process of boxing these and will transfer them to the library in NSW at a convenient time.

Digital copies of journals and newsletters are stored on a 1TB hard disk which is backed up to another. Additions in the last 12 months include:

ACKMA Journal: #122, #123, #124, #125

ASF Annual Report: 2020

Caves Australia: #215 - #218 (2021)

CEGSA News: Vol. 66(1)-(4)

ISS Newsletter: Vol. 27(1)-(3)

J. Sydney Speleo. Society: Vol. 65 (2021), 66(1)

Speleo Spiel: #442 - #447

Speleopod (SRCC): #87 - #89

Trog (KSS): Vol. 56(6) – 56(10)

Troglodyte (NC): 31(1), (2)

NSS News (USA): Vol. 79(2)-(12), 80(1), (2)

J. Cave & Karst Studies (USA): Vol. 83(1)-(3)

Cave & Karst Science (UK): Vol. 48(1)-(2)

We seem to have ceased to receive copies of *SUSS Bull* and *The Western Caver*.

Eight new books have been accessioned, four of them gifts from R. Eberhard. Our holding stands at 441. A list of major books is on the website; a digital catalogue is available.

One new CD/DVD was added. The collection stands at 53.

Loose papers and articles are stored in a series of binders. 35 papers were accessioned, bringing the holding to 852. Many more remain to be recorded.

No new issues of *Southern Caver* were produced.

I'm prepared to continue in the position, but this would be my 24th year so I'd be happy to hand the position – and the considerable volume of books and papers – over to someone else.

ELECTRONIC and MAP ARCHIVIST (Michael Packer)

Not received.

TREASURER'S REPORT (Karina Anders)

	2021	2020
Income		
Membership fees	$6,030.75	$6,042.35
Speleo Spiel subscriptions	$50.00	$75.00
Gear hire	$96.00	$155.00
Trip fees	$0.00	$0.00
Donations (to STC General Funds)	$464.12	$2,600.00
Grants	$0.00	$0.00
Interest	$71.09	$101.42
Sundries	$3,065.00	$0.00
Total income	**$9,776.96**	**$8,973.77**
Expenditure		
Speleo Spiel & ***Southern Caver*** production	$236.54	$192.30
Corporate membership (e.g., ACKMA)	$0.00	$50.00
ASF fees	$3,597.70	$3,533.50
Gear purchase and repair	$1,800.35	$590.56
Website hosting	$65.34	$65.34
Google 2Tb subscription	$124.99	$0.00
Equipment officer honorarium	$0.00	$99.00
Annual return fee	$89.10	$64.80
PO Box Rental	$215.00	$211.00
Bank fees	$18.70	$92.10
Training	$0.00	$0.00
Sundries	$3,799.08	$381.20
Total expenditure	**$9,946.80**	**$5,279.80**
Net surplus (loss)	**-$169.84**	**$3,693.97**
Balance Sheet		
General Account (bank balance)	$8,761.88	$8,931.72
Fixed Term Deposit (bank balance)	$10,000.00	$10,000.00
Total cash position	$18,761.88	$18,931.72

NOTES to Treasurer's Report

1. Donations included were $218.12 from Ric Tunney, $4.00 from Trevor Wailes, $2.00 from John Oxley, $240.00 from Lachlan Bailey.
2. Income sundries comprised entirely of the 75th anniversary dinner fees.
3. Expenditure sundries comprised of $38.50 in membership refunds, $271.43 in scanning for the archive, $25.00 for backpacks to assist in the removal of trash from exit cave, $173.15 in screws for Steve Fordyce, $50.00 civic club fee, $2610.00 payment for the 75th dinner anniversary, $631.00 in refunds for members who could no longer attend 75th anniversary dinner after the date changed.
4. Accounts are to be audited internally by Alan Jackson
5. No changes to ASF Fees
6. Membership breakdown as at 31 December 2021:

CATEGORY	NUMBER
Single	27
Single – less ASF	5
Household	20
Concession	12
Introductory	25
Life – Active	5
Life – Inactive	3
TOTAL	**97**

COMMENTS

The club was at a loss of $169.84 this year, with approximately $8,400.00 in the operating account at AGM time and $10,000.00 in the term deposit. Funds were spent primarily on the purchase of gear, spending $1,800.35 (gear store in general) and $173.15 for gear for Steve Fordyce, as well as spending $271.43 on scanning for the archive.

Election of Office Bearers

Below is the list of nominations received for officer bearers for 2022.

The Executive	Nominee	Nominator	Seconder
President	Janine McKinnon	Russell Fulton	Gabriel Kinzler
Vice President	Gabriel Kinzler	Janine McKinnon	Philip Jackson
Treasurer	Karina Anders	Russell Fulton	Janine McKinnon
Secretary	Russell Fulton	Janine McKinnon	Ric Tunney
Other General Committee Positions (as defined in STC Constitution)			
Equipment Officer	Alan Jackson	Ric Tunney	Greg Middleton
Librarian/Archivist	Greg Middleton	Ros Skinner	Gabriel Kinzler
Karst Index Officer/ Digital Archivist	Stephen Fordyce	Gabriel Kinzler	Ric Tunney
Science Officer	Chris Sharples	Janine McKinnon	Ric Tunney
Editor	Janine McKinnon	Russell Fulton	Greg Middleton
Search and Rescue Officer	Jemma Herbert	Karina Anders	Alan Jackson
Additional General Committee Positions (as per section 10.2 of the STC Constitution)			
Social Secretary	Philip Jackson	Russell Fulton	Ros Skinner
Training Officer	Janine McKinnon	Philip Jackson	Greg Middleton
Map Archivist	Ric Tunney	Philip Jackson	Greg Middleton
Webmaster	John Oxley	Gabriel Kinzler	Chris Sharples
ASF Google Groups	Ric Tunney	Janine McKinnon	Russell Fulton

All persons were elected unopposed.

Trip Reports

January 2022 Junee-Florentine (JF) Extravaganza

The chronicles of **Stephen Fordyce**. (Photos by Stephen Fordyce unless otherwise credited).

(Due to the extensive nature of this report, it will be appearing in serialised form over several Spiels *(or more than one anyway). Note the trip reports will NOT necessarily be in time-order. They will be published so that they tie in with others' reports of the same cave/trip around the same time- – Ed)*

Part 1

Introduction

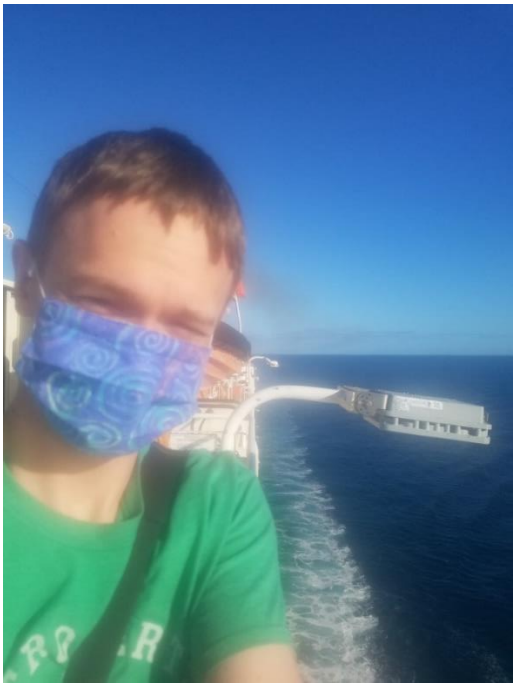
In the last two years, Melbourne went from "most liveable city in the world" to "most locked down city in the world" thanks to COVID-19, until vaccination availability paved the way to reopening and cautious optimism. I'm proud of my home city and state, and although I tapped into my inner introvert and survived better than most, the toll it took on friends and family (and on occasion, me) was obvious.

To put it in perspective, Melbourne spent:

- 263 days in assorted lockdown stages
- 272 days unable to visit anyone else's home
- 151 days confined to 5 km of home
- 122 days with a nightly curfew
- 308 days with no dining at restaurants
- And for those with kids: 162 days of playgrounds closed and 174 days of schools closed

(stats from https://lockdownstats.melbourne/)

As they say, "the hardest thing about a five-day Melbourne snap lockdown is getting through the eleventh week".



You haven't lived until you've slept in your mask on the Spirit of Tasmania (pro tip: clean your teeth)

Obviously, everyone in the world was impacted by COVID in various ways – including significant impacts on Tasmanians, and other states (NSW copped a lot of lockdown time too). COVID influenced this and my other trips, too, in the form of names, attitudes, behaviour and personnel. Tasmanians (past, present and future) might consider that the Tasmanian COVID experience is likely insufficient to fully appreciate some of the cringe I and other mainlanders have brought down when restrictions permitted.

Anyway, when the pollies said it was time for borders to open (again), who was I to disagree? Another January extravaganza with a motley crew from all over was pulled together, existing projects were continued, new projects (ergh!) were started, and some projects were (almost) finished.

Other reports:

This report is intended to report on everything unless otherwise mentioned. Additional reports anticipated include:

- A hasty placeholder "expedition highlights" article (was published in *SS*448)
- Ice Tube Incident report
- Amphipod collection/report
- Sesame project report
    - 2021 stuff
    - 2022 stuff
    - Dive report
    - Maps
    - Dye tracing
- Dye tracing and hydrology experiments

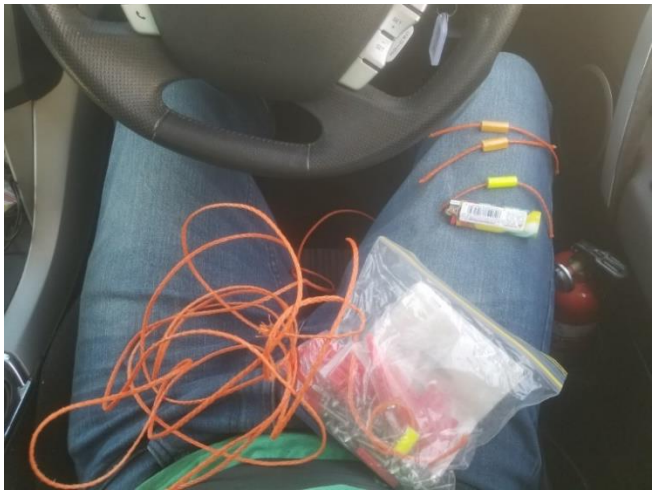
Thanks to everyone who did dye releases while I was stuck in Melbourne (and when I wasn't!)

Mon 27th Dec: Goodbye Melbourne

Apparently, I'm getting better at this packing business. Not only did everything fit without too much on the roof, but I also shoved in a doona and assorted homewares to drop off to Tom Porritt along the way. General packing and the preparation of dye tracing kit expanded to fill the time available but with a slight contraction in the devices to be left out in the field, was bearable.

Detector preparation carnage

I should probably mention the most stressful part of getting into Tasmania was the PCR COVID test required at that time. My travel dates meant that I would need to get the test on Christmas Day, no mean feat in Melbourne (or Sydney either, as Ciara discovered). The stress was pretty epic, but after three hours in the queue at the third place I tried, I was successful. Fortunately, the results came through on time – a week later most of the system was overwhelmed and in chaos.



Making Christmas parsnips in the testing queue on Christmas Day

Tues 28th Dec: Hello again Tasmania

It was great to be back, and even greater was finding a nook on the Spirit of Tasmania to roll out my sleeping bag and avoid the festering cesspit of COVID that I suspected the ocean recliner room would be.

I was literally first off the boat (perks of too many SCUBA tanks and being designated an attaché to the gas cylinder ute) and took the scenic route to Hobart. Tom swapped homewares for apples, honey and a spectacularly excellent homemade walnut and date log. Very nice, even if it did look like animal droppings. A quick drop in on the Smejkals soon turned into lunch (thanks!) and pleasant conversation under the new porch with Lucy, since Petr was off with the kids. Also very nice. Assorted gear was collected as I hurried around to other places and then out to Maydena. I'd forgotten the strange assortment of food and things left with Gabriel in my haste to get to the airport back in August. Jemma was met for the first time and enthusiasm was exchanged.

I was mad keen to replace the detectors at Junee before we went into Niggly and also spent a bit of time that arvo looking for potential campsites off the Florentine Rd. Criteria: mobile reception, hidden and/or unlikely to be disturbed, no gates. The results of this are in QGIS, and I settled on a good candidate at the end of Sunshine Rd, to set up camp and stash a whole lot of stuff I wouldn't need for a while.

Note to self: bring more shade for this campsite

Wed 29th Dec: Niggly (1) Day 1, Shopping and Parking

Party: Stephen Fordyce, Jemma Herbert, Petr Smejkal

It was nice to finally see Petr and (perhaps less nice) to head up the familiar Niggly track again. Jemma's reputation for competence and enthusiasm turned out to be well-founded, and the three of us made for a very pleasant trip. We swapped detectors, fixed the tyrolean rigging, labelled P-hangers and extolled the virtues of the Hume Highway bypass to arrive at The Dunes campsite in good time. "Shopping and Parking" by the Scared Weird Little Guys was bedded in as the trip theme song.

The Mt Niggly weather station

Thurs 30th Dec: Niggly (1) Day 2

Party: Stephen Fordyce, Jemma Herbert, Petr Smejkal

We pushed the end of Mother of God, the terminal downstream rockpile of the whole cave. Petr's intuition paid dividends as usual and after he, with the help of Jemma, moved a rock in an obscure place, access was gained to a

large chamber later named Biohazard. This had multiple pitches going down into muddy horror and a possible traverse that would need a drill. The survey showed this to be a diverging inflow (presumably) passage which as Petr pointed out, could have been a contributor to the rockpile. Alas, the crowbar was sacrificed (for now), but Petr's trusty bolting hammer was ok.

Jemma had excessive amounts of fun

Lacking said drill, we pushed and surveyed up high in the rockpile (above the concrete screw hole), with some quite interesting results. Petr and I had pushed up there together previously in ~2017 (his memory was better than mine!), but we found a few untrogged areas and felt we got further this time around, although left it with only one draughting dig lead near the tight and nasty extents. It also felt bigger and more open than remembered. We also found a climb which would need a few concrete screws to do safely and remarked on how dry it was when we went just beyond the Never Never Sump to replace the detector there. The 30 m climb near the end of MoG was finally retrieved, and most of the rigging gear returned to camp.

Petr whips a mean chocolate mousse

Petr having been tasked with whipping it for 4 minutes on high power as penance for being too fast to get ready that morning, the packet mix/powdered milk chocolate mousse was waiting deliciously for us at camp. However, "shit in a bowl" became a recurring theme for the rest of the trip…

Fri 31st Dec: Niggly (1) Day 3 & clean-up

Party: Stephen Fordyce, Jemma Herbert, Petr Smejkal

Birthing day! We made excellent time out of the cave, despite hauling out the well-loved 40 m dynamic rope and some other random stuff which didn't belong there anymore. In fact, we were back in Chigwell washing stuff at some absurdly early hour of the afternoon. Jemma bid a fond farewell, and I spent a lovely New Year hanging out with Petr, Lucy and family. By tacit agreement, we were all well and truly in bed by midnight.

Jemma demonstrates that being able to spread out is the best bit of cave camping

Sat 1st Jan: Hangouts, Admin & Prep

My lack of detector charging ability had been highlighted but luckily Petr had a big old power supply and we made it work. The washing was more or less dry and the JF was calling, so I headed back out to the carefully selected campsite to spread and faff.

The Sesame camping/diving trip was looming ominously and I wanted to have everything packed and ready (*Report in future* Spiel – *Ed)*. I also took the opportunity to put the final touches on an STC grab bag - more on that separately, but it's a pre-packed caving bag with sleeping bag, stove and other things to bring to an injured caver, which now lives in the gear store. Use it!

Sun 2nd Jan: Brendan unexpectedly arrives and we set up Camp Carnage at Left of Field campground

Vaguely feeling like I should do something useful, I portaged all the dive gear to the Sesame entrance.

The perfect campsite up Sunshine Rd turned out to be fatally lacking in such commodities as shade (it was in a recently logged area with ~2 m high regrowth), and with an uncharacteristically hot day for southern Tasmania the freezer with my precious pre-cooked meals was struggling, as was I. When my laptop ran out of battery and my inverter crapped out, this was the final straw, and with some regret for having tried to cheap out, I began to shift camp to the infinitely preferable Left of Field.

At some point the penny dropped that the COVID situation had taken a quantum leap in the last few days (I nearly crapped my pants when I saw the numbers) and while the Tasmanian border was still open, the mandatory pre-travel

COVID tests were rare as Hens Teeth. Brendan Moore, one of my key mainlander buddies for the first half of January wasn't due for a couple of days but in a calculated panic we decided he should change his flights to <ASAP>.

Thus, the evening was spent in an airport run and a strange supermarket experience, as we decided it would be best that Brendan not risk turning it into an exposure site. At that point, COVID was off and racing in Tassie, but not like the wildfire on the mainland. I did the shopping while he stayed in the car, with frequent clarifications as to appropriate brands and vetting as we went. Coffee, body wash and moisturiser being particularly well-discussed items – we both recognised the critical importance of getting these right.

Tues 4th Jan: Easy rest day light bushwalking (with JF-761 Delta Variant (#0))

Party: Stephen Fordyce, Brendan Moore

The promised easy light rest day of gentle bushwalking took 10 hrs and was described by Brendan as a hard slog off track – we were on taped routes for most of it, otherwise I would have to agree. We went up the Niggly route, around above the Niggly entrance, over to Bunyips Lair, North Chrisps Swallet and Tachycardia via the taped route, and down the Tachycardia route, then had a rather soul-destroying walk back along the road to the Niggly carpark.

After setting a oneshot dye release at the creek crossing (Boulder Jenga was dry), we left the Niggly Route near JF-238 Cassamassima, and contoured off to a delicious LiDAR target (JF-T-0870 in QGIS) I'd been eyeing for ages, finding a 3 m deep blind doline not worthy of tagging. We milled about finding not much until we ended up on the clifftop west of the Niggly canyon, finding a chocked fissure not quite worthy of a tag (JF-D1047).

Not far away, a narrow but passable slot was discovered, it had a strong draught and appeared to drop 2 m and go around the corner to the right (survey shot 3.42 m, 279 mag-deg, -64.6 deg). Regularly acknowledging the Brigadier General had been a source of much hilarity since I attended Brendan's graduation concert (he's now a full-blown captain in the army band, and a bizarrely hardcore intellectual), so the first cave of the day was duly tagged JF-760 Brigadier General. We scooped out some leaf crud to ensure it was passable and worth a return – tick on both counts – but a caving suit would be nice.

We continued around through reasonably easy going and dropped down a sketchy 1.5 m earth bank into the gully just above the Niggly entrance. 20 m upstream was a nicely flowing waterfall down mudstone outcrop about 4 m high, 10 m downstream was the small cliff where the trickle of a stream flows into Niggly. Going to the lip above Niggly, there was an obvious discrepancy between the flows with some big logs choking the gully in between. I couldn't bear the thought of proving myself wrong, so Brendan was first under the log to find the fabled JF-761 Delta Variant swallet which I theorised would exist (in *SS*445) and arrogantly pre-named. We yipped, howled and enthusiastically went a bit too far in with what we were wearing (but with enough presence of mind to do a quick survey). It wasn't huge, but had a lovely big stream and felt like a goer if ever there was one. We did a dye release to confirm this was the swallet that fed the Niggly waterfall (it was). It appears that the water splits, but I suspect that careful examination will show Niggly being fed by one of the side gullies.

Just inside the Delta Variant entrance, lit by petty vindication

Basking in the glow of petty vindication we carried on around the contact, crossing some small gullies, some of which had summer flow (noted in QGIS). By this time, it was obvious we had a long way to go and morale had peaked and was waning, so we dropped down a small stream (needs to be followed to its swallet – somewhere below JF-F0989) to the Bunyips Lair route and gave up on prospecting.

We lost the route after Bunyips Lair and followed our nose, naturally finding a plethora of caves (and having stopped recording GPS tracks) in an interesting series of dolines at the contact above JF-704 North Chrisps Swallet, which were notable LiDAR targets. This area would be well worth another look as we were a bit over it by then. Perhaps the draughts are an indicator of getting access to the cave system which presumably exists under the nearby (but comprehensively choked) JF-704 North Chrisps Swallet.

By this point Brendan's digestive system was rebelling at the number of cherries consumed in recent days, while he didn't completely poop out his mojo (this was reserved for Sesame later), JF-762 Bush Poo was gleefully tagged and named in solidarity. It's a vertical entrance under a big log – 1.5 m drop to 1.5 m horizontal section, obvious draught but unclear where to/from. Large Hickmania spider blocked a dubious but potential dig. Needs a caving suit and a little bit of time.

The Delta Variant entrance – easy to miss if you weren't specifically looking for it

We took it in turns to name my next discovery JF-763 Booster Pot (small entrance near top of doline, good draught going in, diagonal passage heading down into rift and possible pitch. Tight but with some dirt moved will be passable) and Brendan's JF-764 Nuns Nasty (small rift entrance in car-sized doline, goes down 3 m out of sight, good draught going in. Passable but maybe shift some more dirt). There's enough stuff there now to justify hauling caving gear up there I reckon. JF-278 Charnier nearby is actually a decent (if precarious, apparently) cave which was never properly finished, and JF-663 The Chasm is right over Game of Thrones in Niggly, 100 m deep and unsurveyed.

We collected the oneshots I left in August – the JF-277 one still had plenty of battery and was none the worse for spending winter high in the JF. Great success. The JF-280 one had gone off (I think), but had some of the crap fluorescein and wasn't detectable anywhere. We'd brought some of the good stuff but it was so dry that there was no water. JF-280 may well be consigned to the dye tracing too-hard basket…

This lovely waterfall over mudstone is 20 m upstream from the Delta Variant entrance

The slog down the hill and then down Chrisps Rd (we were too chicken to try the enticing cross-country shortcut) and along Florentine Rd was not fun. A very short notice stop was required for yet another bush poo and while I was waiting and eating cherries, I remembered the Gastro-stop just added to my first aid kit (and with us all day). Ooops. Fortunately, we had discovered the cave of the century, and made it to the pub for dinner, so on balance it was a good day.

Wed 12th Jan: JF-761 Delta Variant (#1)

Note: This is where dates first deviate. We are now following the Delta Variant story - Ed

Party: Stephen Fordyce, Brendan Moore, Gabriel Kinzler, Ciara Smart

It had been over a week since our spectacular discovery of JF-761 Delta Variant just above the Niggly entrance and Gabriel was almost completely consumed with impatience. Ciara wasn't too broken to pass up a shot at it and Brendan was leaving tomorrow.

I was again chuffed that the cave did as expected, with 270 m of quite time-consuming and annoying meander passage ("The Test Station Queue") which Ciara and I painstakingly surveyed on the way in. She's already bested my sketching abilities! It's not super tight, but quite awkward – walking sideways is required, and tall people also have to stoop (sideways). Ominously, the more times the Test Station Queue is negotiated, the more annoying it gets – figures, I guess.

About a third of the way along, a small inlet stream rift joins from the left. Unexpected and surprisingly virulent, it was named the Omicron Inlet. Roughly another third of the way is an old and dry inlet, it was named the Alpha Inlet. Several trips later, both of these remain unexplored – as I pointed out to Ciara, side leads are for chumps when the main passage is open and going!

Side leads are for chumps!

We finally started to get some survey legs longer than 1.5 m (including a 10 m one which nearly brought tears to our eyes) and the going became slightly easier. Eventually we caught up to a sheepish Gabriel and Brendan who had been waiting long enough to realise just how much shameless passage-bagging they'd indulged in. In a hasty attempt at redemption they placed only the first two anchors just shy of where the floor and the water dropped away into blackness, and the rigging gear was proffered to the noble surveyors.

At this point the passage is still narrow enough that overtaking requires one person crouching on the floor and the other climbing over them; there are actually very few overtaking points, so that's fun. Ciara was satisfied with her contribution thus far, so I grabbed the drill and rigged a traverse out to a Y-hang across the rift-with-no-floor. Ciara had one more contribution to make though – we kicked a few loose rocks down, which turned into a surprising avalanche of perched crud from the pitch head. We got a better grip on our respective handholds, looked at each other and giggled maniacally, one of those exploration memories that stays with you.

Brendan gets a taste of Quarantine

Happy days in Delta Variant (photo by Gabriel Kinzler)

Getting out to the pitch head took about three concrete screws and the hang was nice, into a belling out chamber which quickly got to 6 m wide. The rope didn't reach the bottom (we thought it was 40 m, which is why Gabriel named the pitch "Quarantine") and I wanted to rig it nicely, so spent a long time balancing on the drill bit with my outstretched toes on the opposite wall to get a rebelay in. Resting on my laurels, I went up, and Brendan had a quick bomb down to the end of the rope, seeing the faint shimmer of a big chamber at the bottom.

We called it a day – the cave was obviously going to yield plenty more. On the way back, I slogged up and around to JF-396 for a dye release. Fortunately (surprisingly) it was flowing, and I got back to the cars just after everyone else.

Tues 18th Jan: JF-761 Delta Variant (#2)

Party*:* Lachlan Bailey, Stephen Fordyce, Corey Hanrahan, Lauren Hayes, Jemma Herbert

Lachlan and I were distinctly seedy after untold horrors in Sesame *(report in later* Spiel – *Ed),* but Tuesday was the window for this group to carry the baton further into Delta Variant, and nobody was sitting this one out.

Lachlan was ceremoniously presented with the drill and did a great job of bottoming Quarantine (50 m), putting in a couple more rebelays for efficiency and getting away from the water. There is scope for one more – the last hang goes over a ledge and a bunch of awful rock to land in the (summer) drip zone. At the base of Quarantine is a spacious flat-floored area, later named "5 km Radius". There are drippy avens and windows at assorted levels – one of these later became the main route. The stream disappears into meander down and to the left, while off to the right is a mud and rock-floored alcove which continues into smaller walking stuff, named the "Nasal Passage". Lauren stickybeaked up here and reported 150 m+ of mostly walking passage that was still going, albeit getting crawly. At time of writing, this still needs revisiting and surveying.

We followed the water (side leads are for chumps, remember?) through a trivially short bit of meander to a pitch-head almost identical to that of Quarantine – bottom drops out of the rift, an easy but airy bridge out to a belling-out pitch. It was Jemma's turn to rig and she put in eight or so concrete screws in record time (and for the most part, in good places). This pitch was only 16 m, so we didn't bother with rebelays or a fully dry landing zone for the moment. The pitch was named "COVIDSafe" for reasons explained later.

Jemma popped down out of the way, followed by Corey, then me. As Lachlan and Lauren joined us, Corey and

Jemma appeared from a crawlway at the stream babbling about a big pitch. No, a really big pitch. As in, if you don't chuck a decent rock, you don't hear it hit the bottom (that got my attention). I like to think the abnormally wide eyes were telling too. Jemma had been crawling along at full speed and nearly crawled into an abyss of nothing!

Yep, we all independently verified that the low water-carrying passage intersected a shaft of spectacular proportions, going both up and down. Scientific and important pitch-clearing operations yielded a distant boom 6.5 seconds after the necessary rocks were dislodged – this pitch was definitely big, well over 100 m. There was much rejoicing and enthusiastic discussion about a suitable name for such a find. Corey pointed out that the only thing bigger than this pitch was daily COVID cases (it was mid-January, with all of our home states setting new records every day). There was no doubt, and the vote was decisive and unanimous: "Daily Cases" it would be.

That was a good time to call it a day (and it was going to be an awful pitch-head), so we headed out. Amazing how after a discovery like that, the way out is so much easier! On the way, we noted an easy climb above the COVIDSafe pitch head going about 4 m up to significant void, perhaps a parallel upper passage. In anticipation of this providing access to the proper top of Daily Cases (and adding some 20 m!) and a better pitch-head, we named the 16 m pitch COVIDSafe. For those in future times, "COVIDSafe" was a federal government app meant to help with the COVID effort. It seemed like a good idea initially, but didn't really work and so everyone stopped using it.

Spoiler: All the predictions came true yet again, COVIDSafe was aptly named (and derigged), and a much better pitch head was found 20 m above where the water shoots out the side of Daily Cases in a lovely waterfall. From the new pitch head to the closest survey station in Niggly (in the chamber at the top of the waterfall climb), it's 60 m horizontal and still an eye-watering 260 m vertical. So, if Daily Cases is 175 m as calculated, we can expect another 75 m pitch soon afterwards – possibly even soon enough to combine them.

On the walk back down the hill, the team played computer (each person remembered a variable), as Jemma solved complex simultaneous equations to calculate from the rock dropping time just how deep the pitch was. Unfortunately, the necessary approximations cancelled each other out and we eventually established that 0 = 0. But later she made a spectacular spreadsheet and even managed to out-argue Alan, which was even more impressive.

The figure of 6.5 seconds was interrogated from the GoPro footage, and Jemma calculates this makes for a 154.4 m drop from the waterfall, including factoring in the speed of sound, and air resistance (spherical rocks only, please). With an extra 20 m to the new pitch head, that's more like 175 m. Can't wait to properly truth it!

MC-202 Herberts Pot

6 February 2022

Party: Lauren Hayes, Stephen Jacobs, Ben Lovett, Janice March (Northern Caverneers), Ciara Smart (STC)

Ciara Smart

Originally there were due to be several more STC members on this trip. A few date clashes and unlucky accidents later I ended up being the sole STC representative. I was quite keen to do this trip because I'd heard good things about Herberts. This was also likely going to be the last chance to see the famous Holy Hell passage before it is closed off for protection as a Special Management Zone.

A bit of miscommunication with the key collection meant we made a relatively late start and entered the cave about 10 am. The cave gets the single pitch out of the way at the very start, meaning the rest of the day is delightfully harness free. Over the next two hours we crawled and climbed our way down to the Westmorland stream. From there the travel became a little easier, mostly walking alongside or in the stream with a few handline assisted climbs for good measure. At points we had to negotiate deeper sections of water which involved some tricky traversing and scrambling. Generally we didn't get wet above thigh deep. I'd had some indecision about whether a PVC or Cordura suit would be better for this cave considering the water. In the end I'd gone with my Cordura suit which was the right decision for ease of movement.

We had lunch just before the Holy Hell passage where the group split. One group headed back in the direction we'd come, placing reflective markers and collecting bedraggled pink tapes as they went. The other half, including me, continued into Holy Hell. This passage lived up to expectations with many delicate and uncommon formations. The most unusual formations were wispy and fairy-floss-like and seemed to be oozing out of the wall as if in a state of motion. As well as the usual attractive helictites, we also saw a few bright blue formations. Although the passage was only about 200 m long, we dawdled and spent over two hours taking photos and faffing with lighting.

From there we continued out the way we'd come. We eventually overtook the other group who had been to visit Paragon Vaults and were still placing markers. We got out about 8 pm, making it a longish but successful day.

Cave chemistry never cease to amaze in its stunning variety.

Photo: Ciara Smart

JF-4, Khazad Dum - Serpentine route

20th Feb 2022

Party: Serena Benjamin, Jemma Herbert, John Oxley, Petr Smejkal

Jemma Herbert

We did the Serpentine route of Khazad Dum, down to the streamway and back. Android wants to autocorrect it to "Khazad Fun" and that's accurate too.

We originally had plans to get to the bottom, or as far as we could. But pulling out all the ropes we'd need at the carpark made us realise that actually that seemed like a lot of work, and we'd prefer a chill easy day instead. So we had a chill easy day.

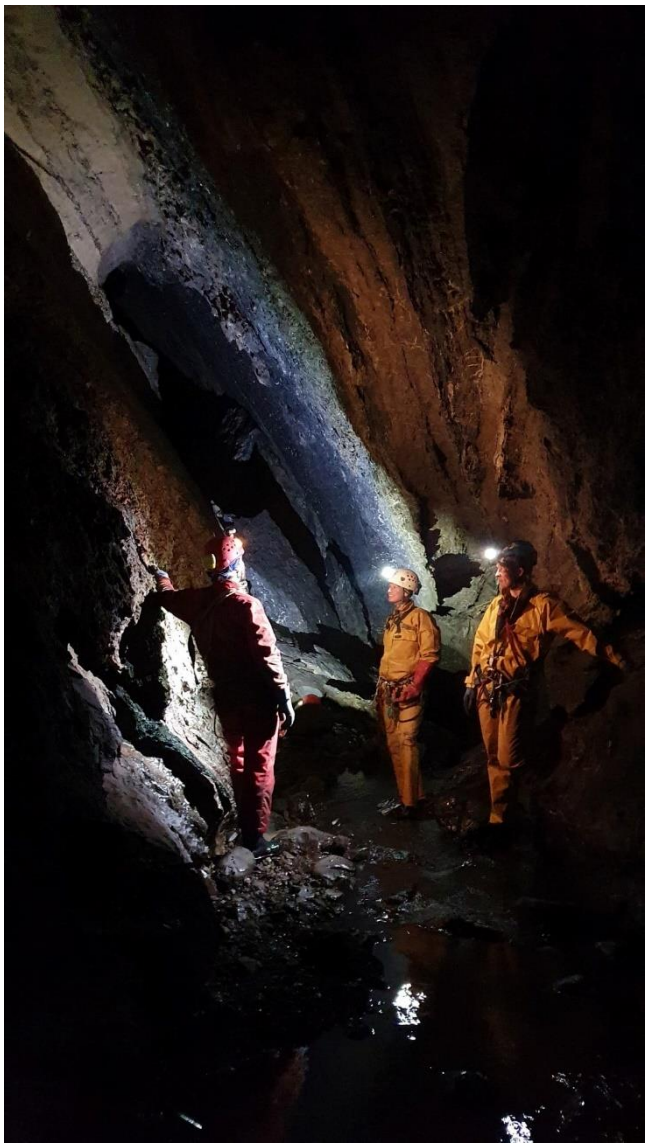
We walked in cautiously, on the lookout for Serena's infamous leg eating log. Somewhere along the route there is a fallen log with a jutty-outy bit at thigh height, which apparently caused significant bodily damage and a spectacular tumble down the hill last time. We all had a go at destroying the nasty jutty-outy bit, but only managed to make it pointier and nastier. So watch out!

The new bolts were nice and the rigging notes comprehensive. Thanks Janine & Ric & Alan and whoever else had a hand in that project. We appreciated the drilled threads for redirects. An elegant solution.

We got to the stream way before lunch and checked out all the side passages we could find. Petr found a passage off river-right near the waterfall. We clambered up it, expecting it to die out at every turn, but it went for ages. Up and up and up until it finally died at a 2001 survey station. We wriggled into every hole we could find, but it was indeed the end.

After lunch we leisurely moseyed on out. We split up for the last little bit. Serena and John went back up the Serpentine, and Petr and I went back via the main Streamway. They didn't realise it was a race, but we smashed them anyway (or perhaps they beat us, at being more leisurely?).

The whole trip was about 6 hrs car to car. Plenty of time for a swim and play on the pylons at New Norfolk on the way home.



Good to see Jemma NOT in black-ninja disguise.

Photo: John Oxley

JF-761 Delta Variant

5 March 2022

Party – Alan Jackson, Anna Jackson, Gabriel Kinzler

Alan Jackson (photos: Gabriel Kinzler)

Participation on this trip was a bit of a moveable feast. The team line up changed multiple times right up to the last second. In the end a small team of three ventured in with mediocre levels of morale and the attitude that ‘a nice day in the bush spoiled by a bit of time underground’ was probably going to be the summary.

We had an ambitious punch list from Steve (situation normal). We started with a dye insertion into the Boulder Jenga stream. BJ was dry so it was inserted where the BJ stream crosses the Niggly track a hundred metres or two uphill from BJ. Then Gab wandered up to the DV entrance and installed a rope over the Niggly cliff face so Anna and I (and future groups) could kit up at the usual Niggly change spot and take the direct route to DV. Anchor options weren’t great and it might need to be tweaked.

The cave entrance location caused me to smile and shake my head. Frigging hilarious that it has sat there discretely during the decades since Niggly was discovered and explored. The entrance series was less than ideal but nothing too nasty – shorter people would enjoy it more than I did, I suspect. The first pitch is a stunner. The second pitch is (was …) bloody awful with some compromised rigging to avoid less than ideal rock. Clipping into exposed approach lines around knee height is always exciting.

The primary mission was to try to find a more pleasant route to the undescended mega pitch (P3) that ideally involved avoiding pitch 2 altogether. None of us had been this far into the cave before, so we went right to the known top of the big pitch to familiarise ourselves with it all. We all agreed that using the known window onto the big pitch would be awkward and dangerously wet in high water levels. Firstly,

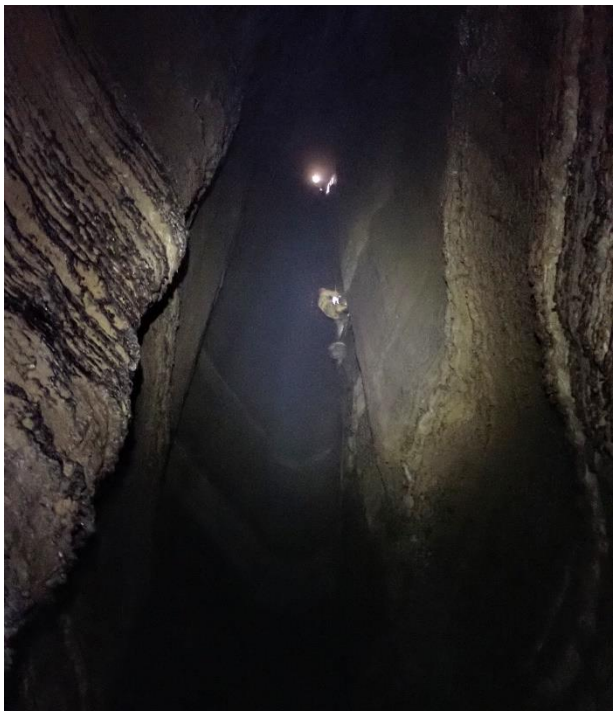
I swung across halfway up the second pitch to see if that nice open passage over there was any good. Skyhook and a concrete screw later, I was in, only to find it fizzled out. We moved to the top of P2 and traversed over the pitch head in the continuing rift. This led to a much nicer approach to an upper level of the mega pitch but not a perfect one (it would still involve the horrors of the P2 approach and an awkward gap to cross at the pitch head. The passage was narrow enough here that I could easily chimney up a few metres and I popped out in a large upper-level section of the vadose canyon which was much more inviting. Plenty of loose shit around but spacious with sufficient ledges and an easy route to a much more pleasant start to the mega pitch.

Gab climbed up the narrow rift upstream of the P2 pitch head and joined me in the upper spaciousness and then headed 'upstream' to see a pleasant connection to the chamber at the bottom of pitch 1 existed. It did, so the deal was sealed. It did involve a ~4 m up pitch to get from the bottom of P1 to the dry upper bypass though, so Gab set to placing two bolts for that obstacle while I grabbed the rope stash at the bottom of P2 and gleefully derigged P2, relegating it to obscurity (much like the COVIDsafe app it was named after). Anna sat around and got cold.

There's a good one for the family album.

To stave off the coldness and a potential mutiny Anna was thrown at rigging the start of the safety line required for long term use of the new upper-level bypass (plenty of nasty holes to fall down). Anna whacked in two bolts to start it (her first bolting ever) then I placed an intermediary bolt several metres along. A this point there is a large active inlet passage that joins from the south-east (right above the original P2). On the other side of the inlet I searched for good rock for another intermediate bolt but the walls were utter choss. The only good rock I could find was in a ceiling ledge and it was only just in reach. Hitting it with the hammer and drilling the hole was just doable but installing the screw was going to be impossible without a boost. Anna was put to use on all fours while I stood on her back to gain the height required to work the spanner – good team effort.

The search for good rock further along at what would probably prove the mega pitch take off point proved problematic. In the process of probing the walls with the drill bit I found something too soft to hold a bolt but hard enough to snap the tungsten-carbide tip off the drill bit when I wriggled it. Bugger. The spare drill bit couldn't be found in the bag (it was found later waiting patiently where it had fallen out of the bag when Gab was bolting the small up pitch). We took that as a sign that our task was accomplished and we swapped to virgin passage bagging instead.



Woohoo!

We bombed up the newly discovered inlet passage, which was generally pretty easy going (without a bag of any sorts) until it popped into a small chamber with an aven and a few grotty ways on. We turned here and surveyed our way out, tying into the DVB9 station in the large aven chamber at the bottom of P2. 200 m all up (about 160 in the side passage and 40 connecting from the junction back up to the old station). Several other side passages require a return to explore and survey. We then headed out, doing a dye release at the DV entrance also.

We trudged down the hill and back to civilisation content with our efforts for the day. The mega pitch is now poised for launch and will be 20 or so metres longer than it would have been if we'd started at the original intersection point. I'd started the trip not overly keen or interested but got back into the groove of exploration caving during the course of the day – new passage, rigging problems to solve and good company are the triumvirate of life.

Post-trip data crunching indicated the new inlet pushed and surveyed mirrors the entrance series (but offset 50 m to the SE and 50 m vertically), heading towards the surface in the vicinity of the various entrances Gavin, Ken and others poked around in many years ago to the east of the Niggly canyon area. Several small dead critters in the passage, so a new surface connection isn't totally off the cards.

JF-345 Ice Tube (through trip)

12 March 2022

Party: Karina Anders, Jemma Herbert, Alan Jackson, Anna Jackson, David Rueda-Roca

Karina Anders

It wasn't a very icy day in Ice Tube, we entered the cave around 10:30 am. Water levels were down and we stayed pretty much dry all the way to the squeezy horizontal bit. Jemma and myself had fun practising some rigging along the way. The squeezy part was slow going but fun, with packs dangling between our legs like giant ball sacks, we shuffled our way through. There was a little hold up with a pack getting stuck however we entertained ourselves with mud paintings, a very therapeutic preoccupation whilst sandwiched.

A bit further along Fallopian Tube and I got stuck straddling a muddy corner, I couldn't get myself unstuck because of all the laughing. David offered a head to push against whilst Alan ordered silence so that I could engage my muscles again. Onwards we walked and into the main passage, crawling through Herpes III, up and down ladders and walking through streamway. A near miss was avoided when David had a slip on one of the free climbs close to the entrance, Jemma caught him single handed, what a woman! Otherwise, a perfectly pleasant trip, exiting the cave around 8 pm.

See incident report later this issue - Ed

H-19 Dirty Dancer – Dancing in the rain

14 March 2022

Party: Gabriel Kinzler, Chris Sharples, Ciara Smart

Chris Sharples

Long ago during 2003, Ian Houshold and I spent three days exploring parts of the karstic dolomite (Magnesium-limestone, OK?) in the upper Hot Springs Valley at Hastings. We noted a number of vertical cave entrances and other features that we thought worth exploring further but weren't equipped to enter at the time. One of these turned out to be H-5 Chain of Ponds with hundreds of metres of well-decorated passage, others eventually turned out to be of greater or lesser interest, and by 2022 there was only one of those 2003 features still left to revisit. This was a stream-sink in what I remembered as a large doline over a kilometre up the Hot Springs Creek Valley from the tourist cave, at what I (still) think is the furthest upstream extremity of the Hastings dolomite. Determined not to let this feature remain un-examined, I talked Gabriel and Ciara into accompanying me for a look.

On the appointed day, the rain over south-east Tasmania started at 6:00 am sharp and just kept going all day as the weather bureau had predicted it would. Knowing that the next opportunity for this exploratory trip might be months away, we all agreed to press on despite the rain, and so spent something like seven hours blundering about in the wet Hastings forest in incessant rain. After a while you get used to it and maybe even start thinking it's fun!

Starting from the Hastings car park we made good time up the banks of Hot Springs Creek, past the side gully leading to H-11 Big Mama, and on into the narrow gorge that Hot Springs Creek has cut through a ridge of dolerite boulders. Ian Houshold and I identified this in 2003 as the terminal moraine of a glacier that once gouged its way down the valley from Adamson's Peak. The steep gorge sides forced us to walk in the creek itself at about the same time that we started to notice the water level was beginning to rise noticeably as a result of the rain. This together with the treacherously wet smooth stream boulders and the increasing stream gradient was starting to make progress a bit tedious, so we soon decided it was time to head straight up the valley side towards the feature of interest. After an initial improbably-steep climb out of the gorge, the going became much easier in the wet forest and it didn't take long to reach the doline feature which was indeed just about where my GPS declared it should be.

Unfortunately, the reality of the feature was somewhat underwhelming compared to my (fairly spectacular) memory of it – an enclosed mossy depression about 10 metres diameter, with walls ranging from 1 to 5 metres high and a flowing stream sinking into it sure enough – but just sinking into a bed of gravel with no enterable holes anywhere to be seen. After a bit of lunch in the dismal rain (which hadn't eased at all since we left the car) we got over the disappointment and started heading back along the valley side at a level I thought to be close to the top of the dolomite. After a few hundred metres we found ourselves traversing below a nice clean dolomite cliff about 5 metres high, and it wasn't long before Ciara announced she could definitely smell a cave! And then almost immediately she found the said cave entrance – the narrow top of a spacious vertical shaft about 10 metres deep with a flowing stream at the bottom visible (and audible) from the entrance. Fortunately, we had brought a rope, so Gabriel rigged it and we descended the first 4-metre pitch into a spacious dry (!) chamber festooned with spectacular fluorescent-green slime moulds and a strong vertical tree root descending the chamber in exactly the fall-line of the anchored rope. This firepole-like feature proved a diverting obstacle while prusiking back out of the cave, leading to Gabriel's inspired naming of the cave (H-19 Dirty Dancer).

Full marks to Ciara for a super-sensitive cave-finding nose.

Photo: Chris Sharples

More rigging was needed to reach the stream at the bottom of the shaft, which Gabriel explored a little further until it sumped, then with no further leads evident, we all pole-danced our way back out of the cave. While Gabriel installed the H-19 tag at the entrance, I consulted my maps and GPS to discover that he and I had previously noted a large but unenterable stream-sink only about 20 metres or so directly up the slope from H-19. This pretty much had to be the same stream we had just found inside H-19, although on that excursion we had remained unaware of the dolomite cliff just a little-way downslope.

No further discoveries were made on our way back to the car park under the still-wet forest in the still-teeming rain, although we did manage to run across several previously discovered (and mostly underwhelming) entrances not far from H-5 Chain of Ponds. It was nice to finally get into the car and out of the rain!

Adding a bit of colour to the cave. photo: Gabriel Kinzler

JF-761 Delta Variant – Team Superspreader

19 March 2022

Party – Karina Anders, Steve Fordyce, Jemma Herbert, Alan Jackson, Anna Jackson, Gabriel Kinzler

Jemma Herbert

Whilst Karina and Steve were rigging the big fella, the rest of us (Gab, Anna, Alan and I) went to explore and survey another passage that starts (ends?) in the vicinity of the pitch head. It is called Superspreader because it has side passages going in all different directions.

The main passage of Superspreader is a pretty comfy walking size for the most part, heading gently back toward the surface, parallel to the existing Delta Variant entry. We were optimistic that it would lead us all the way out to the surface, to create an alternative entry which would make for a very pleasant stroll right up to the head of the massive Daily Cases pitch.

We spent the day getting excited about very tight side passages, wriggling furiously into increasingly tight crawls, until they eventually petered out. Then returning to the main passage and repeating the process with the next lead.

Turns out the Superspreader passage is fractal. Here is a helictite Gab found in the passage with the same loopy path as the passage itself. Photo: Gabriel Kinzler

In the end, we didn't manage to find a way through to the surface, but there are a few spots that look promising given the right motivation/tools/bravery. Steve calculated that, according to the survey, one spot (DVF53) actually gets to 3 m ABOVE the surface LiDAR model. So we need a negative dig... whatever that means. Bring your buckets of soil, or antimatter shovels? How do you recognise a hole sticking 3 m above the surface?

After 200 m or so of heading in a straight line, the main Superspreader passage hangs a left, there is a short climb, and it continues steeply up a boulder-filled rift. Gab climbed really high up this rift (around DVF57), and it keeps going up, but it got too sketchy - maybe an entry pitch it can be found from the surface?

The closest point to the surface (DVF53) was a narrow vertical shaft accessed through a window about 2 m up. The shaft gets increasingly narrow as it gets higher, with a few rocks lodged in there and pretty solid looking rock on all sides. Personally, I don't think this is the best bet.

Another promising option was a steep bouldery ramp in the rift, which was blocked by a 0.5 m^3 chockstone. We couldn't get past the chockstone, but it looked like the passage continued beyond with room to crawl. That was DVF64, which is calculated to be 24 m below the surface.

Fingers crossed for the surface mission / negative dig.

Cave pizza is best pizza. Anna & Alan. Photo: Gabriel Kinzler.

JF-761 Delta Variant – Team Daily Cases

19 March 2022

Party: Karina Anders, Steve Fordyce

Karina Anders

Whilst team Superspreader left us at the Daily Cases pitch head and started having fun poking around, Steve and I started faffing. Usually I wouldn't consider myself a faffer, but this was an exception. Safe to say I was feeling a bit outside my comfort zone and was quite happy to find all sorts of reasons to delay beginning. Alas we had to begin. The start was easy as we wanted to put in a number of bolts for handlines to where we thought we would begin the descent. We rigged a Y-hang down a slot with a redirect on the opposite wall a little further down. That was followed with a rebelay about 5 m further down. Once past the rebelay, Steve joined me and hi-fives were exchanged. Deep breaths were taken as I descended into the dark abyss. I continued down and across to the left (when facing the wall when on rope) to put in another rebelay about 20 m further down, this was approximately level with where the water poured out of a hole in the side of the pitch (where Daily Cases was originally discovered).

When I was drilling my hook which was holding me in place slipped loose. As I had traversed further than expected, it took me multiple attempts to swing back to where I was. Definitely a Tarzan moment. There was also the issue of the drill batteries not being fully charged and more faffing was had swapping them out. Once the rebelay was in place and I had passed it, Steve joined me again for another hi-five exchange this time followed with a feed of beef-jerky, courtesy of Steve. Very Yummy. We then heard the voices of the Superspreader team and it was time to head back up and go home.

A very good mental challenge for myself. Did I enjoy myself at the time? Not really. Would I go back for more? Weirdly yes – strangely I'm even excited to go back.

We need to start a file on the facial expressions of Karina

Photo: Steve Fordyce

IB-11 Midnight Hole/IB-10 Mystery Creek

19th March 2022

Party: Claire Capper, Jason Jeffery John Oxley, Emma White

John Oxley

This trip was part of the 'Caving Mayhem' weekend arranged by Serena to show people from other Tasmanian clubs some caves in the south.

None of the others had been to Midnight Hole before so it was all new to them. We used a 40 m rope for the first couple of pitches then joined the 40 m to a 60 m for the remainder.

Everyone enjoyed the Matchbox Squeeze with the permanent muddy puddle although this time there was a lot less water than on my previous trip last September (*SS*446 p.10). Plague and Pestilence was quite dry this time.

We paused for a bite of lunch in Confusing Chamber then continued out via the Laundry Chute to the waterfall and were back out enjoying the afternoon light after a leisurely four and a half hours in the cave.

Thanks to Claire, Jason and Emma for lugging the ropes at various times to, in and from the cave.

The team. Photo: John Oxley

H-8 Wolf Hole

20th March 2022

Party: Claire Capper, Jason Jeffery, John Oxley.

Photos and Text John Oxley

This was another trip to introduce people from the Northern Clubs to some southern caves. We started with a party of eight. Six headed to King George V and just three of us to Wolf Hole.

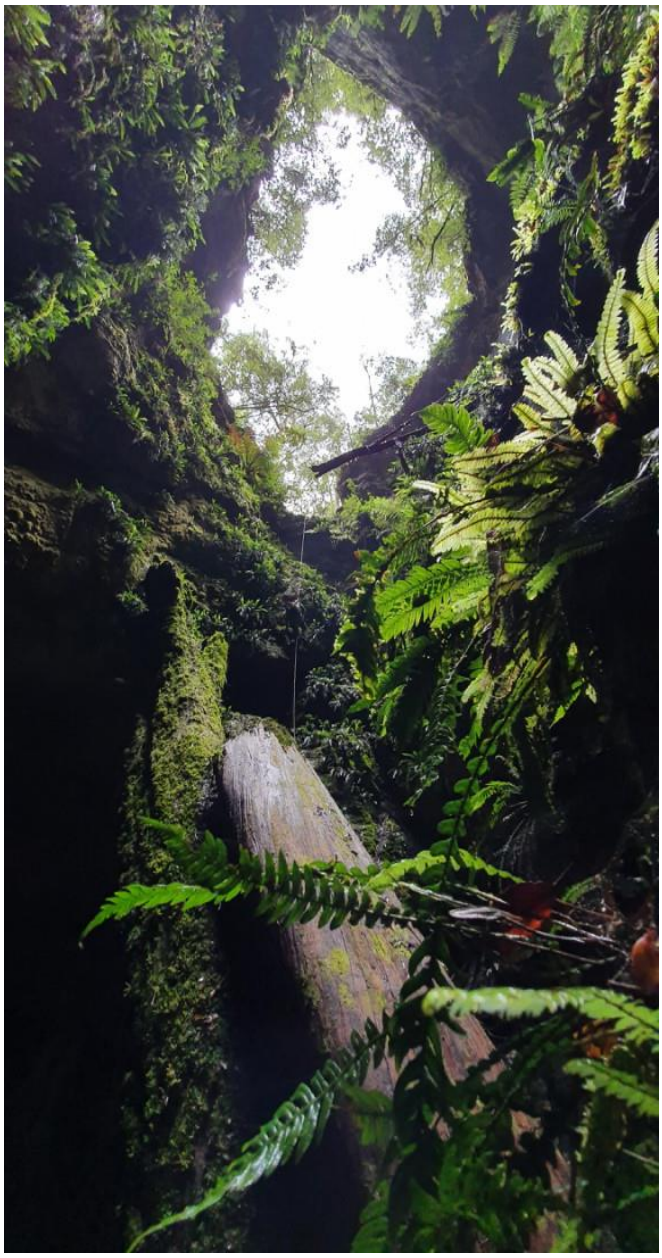
The entrance pitch was rigged with one rebelay and we were descending shortly before 10:00 am. We moved slowly through to Lake Pluto taking photos along the way. More photos were taken around lake Pluto where we spent quite a while admiring the scenery.

Claire and Jason had not previously crossed a rebelay in a cave setting but had no trouble with the hanging rebelay in Wolf Hole and we were out packing up soon after 13:00 pm.

Lake Pluto is always worth a photo

We do have decorations in the south.

The full weekend compliment at Ros Skinner's.



Entrance pitch to Wolf Hole.

It's a "where's Wally" photo. Double points if you can say who it is.

Mt Anne Sherpa Report

2 -3 April 2022

Party: Karina Anders, Stephen Fordyce, Jemma Herbert

Stephen Fordyce. Photos by Stephen Fordyce unless otherwise credited.

The first proper expedition to Mt Anne since Jeff Butt and Madphil in 2002 was carried out by a non-STC party led by Keith Chatterton (and including Alex Williams, Matt Dunwoodie, Stefan Eberhard, Lauren Hayes, and Ben ?), over 10 days in late March.

I couldn't face the thought of getting involved with another karst area but recognised a worthy cause, so offered my services as sherpa. Karina and Jemma liked the proposed weekend itinerary (follow the main drag up, scale Mt Anne, continue on along the northeast ridge, then follow the caver track the quick way back to the road at Sandfly/Gelignite Creek) and came along. We camped at the carpark on Friday night, and on Saturday morning Jemma set up a car shuffle using her bike. We also met a trail runner called Sam, who was going to do the whole Mt Anne circuit that day, promptly recruited her to caving, and helped her set up a car shuffle. Jemma gets credit for pretty much all the Saturday morning logistics, as there was only one bike, and Karina and I had faffing to do/coffee to drink.

We had fantastic weather, with just enough cloud to be scenic, and really enjoyed the bushwalk, including a lovely hour on top of Mt Anne – it turned out that the small plane flying past (which we mooned) had Alan and Loretta on

board! The traverse across the ridge, Pandani Shelf and some more ridge was mildly character-building but we were still travelling light. It was a biggish day (leaving the carpark about 8 am, and getting into camp at 6 pm), but we did stop to admire the views quite a bit.

The caving crew met us enthusiastically, reporting good times (but no major breakthroughs) in MA-10 Deep Thought and MA-21 Potatoes as the focus of their trip. They had also been able to do a dye release in Deep Thought for the detectors I'd provided (these still need collecting from the Gordon River Rd). Yeah yeah, there is a prevailing theory (based on Kiernan 1991) that the NE Ridge caves go to resurgences to the SE, however Scott 1994 points out that the survey data shows the streams in the caves flowing to the NW. I figured we may as well try the easy trace first – more on that when results are in.

We were hurriedly shown the sights and lookouts around the camp (in thick alpine trees and steep ground near the bottom lip of Ann-A-Kananda) before it got dark and we were treated to a delicious and sociable pasta dinner with all the butter you could ever want, featuring prominently in every course. In the morning we were all off not long after sunrise (planes to catch!), it was time for the sherpa crew to burn off all that butter. Apart from butter, the guys had been pretty careful with what they took up, so our loads were surprisingly reasonable.

Relatively fresh, and with (almost) mud-free plains, we were back to the road in 4.5 hrs. The track was pretty good going until we got to the plains, where it was pretty scratchy and unpleasant, but reasonably well marked and (mostly) easy to follow. We shuffled cars and sorted out some gear to make life easier for the main caving crew (who were an hour or so behind us), and I convinced the girls to stop for a bit of faffing at Junee on the way back to Hobart.

The karst area was utterly spectacular and I was sorely tempted to get more involved in caving here. I have a much better appreciation for the logistics involved though…

Too. Much. Energy!!!!!

The caver track was a bit overgrown

Sunset from just above the Ann-A-Kananda Doline

The camp was made of lots of little campsites

Other Exciting Stuff

Incident report – Ice Tube/Growling Swallet

15 January 2022

Stephen Fordyce

Party*:* Lachlan Bailey, Stephen Fordyce (leader), Corey Hanrahan, Lauren Hayes

The plan was to go into the Ice Tube entrance and do a pull-down, getting into the back end of Growling Swallet and making our way out the main entrance. I'd not done Ice Tube, but was confident with using the notes, and with knowing the way out Growling Swallet. The other three in the party were mild to moderately experienced cavers, but all with JF caving experience, much canyoning experience, and good fitness. I'd vetted them all carefully and was confident they would do ok (even in hindsight, I'm pretty happy to stand by that assessment). Our callout time was midnight.

We made good time leaving the car and walking up the hill. Going down Ice Tube (on schedule) felt pretty smooth and with everyone being canyoners, everyone knew what to do and didn't hesitate to coil rope or move on to rig the next pitch. We had a hiccup at the second last pitch (Maelstrom) where the rope got snagged on pulling down, and spent a bit of time before abandoning it. The horizontal section from the bottom of Ice Tube was more horrible than anticipated, route finding was ok, progress was slow, but team morale and energy seemed relieved but pretty good when we hit the main Growling stream. Despite a mojo-sapping fall with a bump on the helmet and a scary moment on a climb.

The call was made that we had enough time to make a quick detour to Dreamtime/Mainline to collect detectors (eek, hindsight is 20/20), which without bags and mostly easy walking seemed reasonable. This cost us a bit of time, but we still had 5.5 hours to callout (from Dreamtime), and the Sat Text with us.

However, when we returned to the bags and headed out, our pace slowed considerably. We didn't lose much time in route finding, but hauling muddy bags of rope (and a drill, for tidying Windy Rift) again started to take a toll through the smaller complex sections and climbs of Necrosis and Bronchial. By the time we reached Avons Aven, it was apparent that we had slowed down considerably and one of the party was really running out of energy. We had some excellent and open dialogue about this, which allowed us to redistribute loads, manage and keep moving along slowly.

We contemplated bailing out through Slaughterhouse Pot, but at that point someone running out of steam on the pitches was a real possibility and Windy Rift/main streamway climbs the lesser of two evils. At least we could spot and boost on those, and this turned out to be a good call from a morale perspective too. I also contemplated splitting the party and sending one lot up Slaughterhouse to send a satellite message, but preferred to keep everyone together to help each other and really nobody else was up for it by then.

The ladders in Windy Rift were negotiated with some difficulty, but by the main rift downclimb and traverse/squeeze to window we had to stop and have a serious discussion about whether to stay the night or push on. At this point we belatedly realised that the potential casualty had run out of food and not eaten anything in a while (hours). Some chocolate and fruitcake were inserted, along with a caffeine pill for good measure.

We rigged a rope to make this section a bit safer, but this cost us a good deal of time. Some of us got wet boots at the base of Windy Rift, but this was a blessing in disguise as it meant we didn't have to spend energy keeping feet dry the rest of the way up. By this time, sugar and No-Doze had kicked in (and more snacks were administered), and a miraculous recovery was made - the almost-casualty grabbed the heaviest bag and scampered off in the lead. The morale boost of being back in familiar territory in the main streamway also helped, and we actually made pretty good time up from there.

We got out at about 1:45 am, well overdue for our midnight callout. We gave the Sat Text a couple of minutes to send but it didn't, so we hightailed it for the car in case anyone was waiting there for us. Eventually it sent just as we were about to drive away, about 2:15 am, so Alan and Gabriel could stand down just as they were about to leave to come and find us.

Big thanks to them for having our backs, to Loretta, and to my wife Nadia for running phones, general worry and lack of sleep (also to the rest of our loved ones). Plus anyone else I missed!

In hindsight, making the detour to Mainline wasn't a great idea, and/or the callout probably should have been a bit later. Still, we did get a similar start to previous parties, and they'd been out by the likes of 8 pm. The big lesson for me as leader is checking on nutrition as well as thermal comfort, energy levels, and general morale across all the team members. Self-care has a tendency to fall by the wayside towards the end of a big one, and this near-miss illustrates how important regular eating (and checking in) is.

The caffeine seemed to be useful too, and I've added that to my caving first aid kit.

Times:

8:00 - leave Left of Field/campground

10:20 - go into Ice Tube entrance

13:00 (approx.) – lunch at top of Fabulous Spangley Part 2

17:00 (approx.) – get into Growling main streamway, have a long break, then go to Dreamtime

18:30 - leave Mainline/Dreamtime Sump

01:45 (+1) – arrive main entrance, try to send satellite text message

02:15 (+1) – back at car and satellite text message finally sends

There are lessons for all trip leaders here, no matter the difficulty of the trip - Ed

Cave Rings and Purple Stuff

Rolan Eberhard

Jemma's report on her trip to Exit Cave draws attention to curious concentric markings ('the rings') on limestone boulders in Western Passage (*Speleo Spiel* 448, p. 13). While Jemma states that 'no one knows what they are', some work has been done to learn more about these features.

I first heard about the rings from Petr Smejkal in 2017. On a later trip with others, we collected a sample by scraping a small quantity into a sterile container – the rings are composed of a thin spongey coating on the surface of the rock (Figure 2). A portion of the sample was reserved for examination under a scanning electron microscope; the remainder was submitted to a mainland laboratory for DNA analysis.

Also in 2017, members of the Northern Caverneers reported patches of magenta colour ('purple stuff') in a few caves at Mole Creek. One of these is Kubla Khan, where the colour was noticed beside the re-direct on the third pitch below the top entrance (Figure 1). Cathie Plowman and I collected a sample of material with a similar colour in Cyclops Cave, which was also submitted for analysis (all samples were collected under permit).

The DNA results indicate that the rings and purple stuff contain rich and diverse assemblages of bacteria, with many hundreds of 'species' across 12 different phyla identified. The samples differ from each other in terms of the mix of the species present, and the Cyclops Cave sample contains more than twice as many species as the Exit Cave sample. Dr Jodie van de Kamp, a microbiologist at CSIRO, is looking at this data in more detail (Jodie investigated the microbiology of caves at Ida Bay for her PhD thesis).

Our working hypothesis is that the rings and the purple stuff are biofilms, i.e. colonies of microorganisms, living on a surface within a coating of extracellular slime. Biofilms occur in many places and in caves are most often noticed as whitish reflective patches covered by droplets of water on cave walls and ceilings. The rings and purple stuff are of special interest, due to their unusual presentation and because they seem to be 'new'. For example, the purple stuff in Kubla Khan is in an obvious place and would've been noticed earlier if it had been for a long time. There was no purple stuff there when Alan Jackson and I replaced the re-direct in late 2013. Western Passage in Exit Cave is not visited as frequently as Kubla Khan but has been known since the 1960s, so it seems unlikely that the rings would've escaped attention if they were there for decades.

A more complete report will be available in due course *(like the next* Spiel *– Ed).*

Figure 1: Purple stuff in Kubla Khan (photo: D. Wools-Cobb).

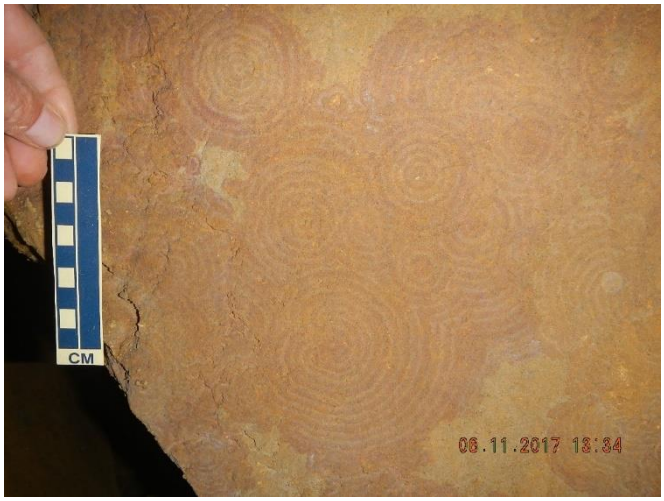


Figure 2: The rings in Western Passage, Exit Cave (photo: R. Eberhard)

STC Grab Bag

Stephen Fordyce

It's not an original idea, but I found some motivation in January to put together a grab-bag for STC. The idea is you bring it with you on a caving trip but leave it in the car. In the event that someone gets injured and needs to be rescued, whoever races back to the car to raise the alarm, can grab the bag and race back into the cave. This should get warm things to a casualty (and chaperone) several hours earlier than otherwise and reduce the chances of succumbing to hypothermia.

There is only one mat and sleeping bag, but two sets of thermals, so both casualty and chaperone can at least be wearing clean thermals while spooning (probably mandatory for comfortable warmth levels). They'll have to fight over the socks, jocks and beanie. There is a tarp and bit of towel, plus a stove kit and assorted hot things and snacks. Even a poo kit and bags for peeing (and collecting water) in. It's in drybags and ready to grab and go, even in a wet cave. The foam mat will get wet, but use the tarp over the top of it, use the towel to dry it if necessary.

Thanks to Petr for the purple "swamp mat" (less swampy after being brought out of Niggly), Alan for the bag, Ciara for the gas canister, and me for the rest. I'm quite chuffed to have found a use for this thick synthetic sleeping bag, which served me well in Niggly for four years (it's been well aired).

Warm things

Eating/drinking things

Pooping things (pooping on the tarp is discouraged though)

Packing order

Sea Caves at Ile des Phoques and Waterfall Bay

Rolan Eberhard (All photos Rolan Eberhard)

Fully submerged sea caves seem to be rare in Tasmania. This article is a brief record of two relatively well-known examples at Ile des Phoques and Waterfall Bay.

Ile des Phoques

Ile des Phoques is a granite island between Maria Island and Schouten Island on Tasmania's east coast (Figure 1). In plan the island is an irregular shape about 500 m long 60-200 m wide. The coast is a series of cliffs on the southern and eastern sides and sloping slabs frequented by fur seals on the west. The highest point is about 50 m above sea level.

Figure 1: Ile des Phoques viewed from the north.

There are at least three main sea caves on Ile des Phoques. The first of these is a blowhole at the north-western corner of the island, marked A on Figure 2. This feature connects to a cavity running beneath the island, causing swell waves hitting the eastern side of the island to generate 'blows' at the opposite end of the tunnel (Figure 3).

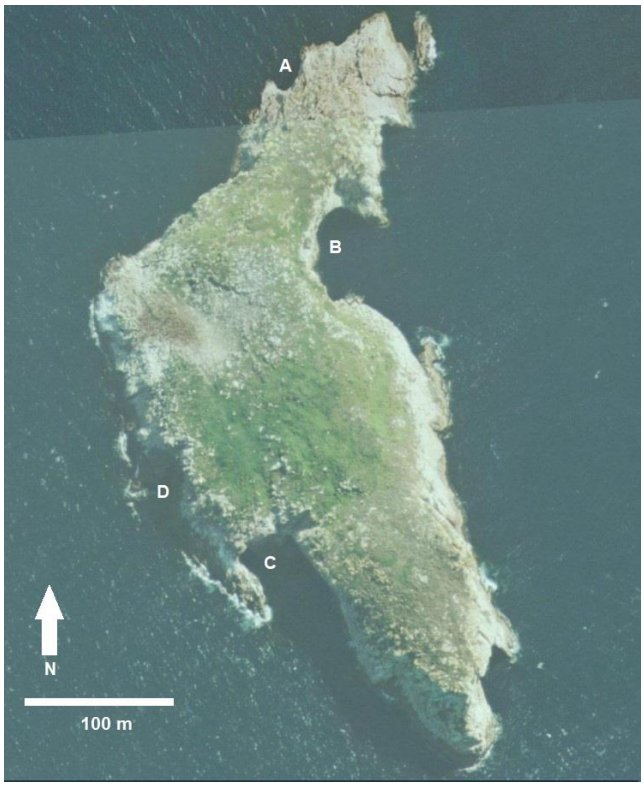


Figure 2: Aerial photo of Ile des Phoques with larger sea caves marked A-D.

Figure 3: Ile des Phoques blowhole with phoques on the rocks (Feature A on Figure 2).

Years ago, I participated in a dive trip to Ile des Phoques with the Tasmanian Scuba Diving Club. We dived a submerged tunnel extending from one side of the island to the other. I recall it being fully submerged and nearly dark at the middle point (we didn't carry torches). This feature is probably the blowhole.

Janine McKinnon dived this feature more recently. She describes it as 'a big, wide swim through… light visible all the way… lots of corals on the walls.'

The large indent on the eastern side of the island, marked B on Figure 2, contains a recess at the back which is probably a sea cave (Figure 1). It is possible that this cave is eastern end of the blowhole described above.

A further large indent on the south-western side of the island contains a definite cave (C on Figure 2, Figure 4). This feature is a spacious, partially water-filled tunnel which extends for several tens of metres in a north-westerly direction. The cavity is sufficiently large and the water deep enough for commercial tour boats to enter (e.g. East Coast Cruises' RIB). Video of boats inside the cave posted on the web show a smaller entrance above water level at the back of the cave, possibly the feature marked D on Figure 2.

Figure 4: Ile des Phoques sea cave on south-western end of island (Feature C on Figure 2).

Waterfall Bay

Waterfall Bay is located 4.8 km south of Eaglehawk Neck on Tasmanian Peninsula. The bay is backed by a cliffed shoreline in Permo-Carboniferous marine sediments (Lower Parmeener Supergroup), including impure limestone. The depth of water at the base of these cliffs at the southern end

of the bay near the caves is 19-22 m. The main cluster of caves is found at similar depth. A small submerged cave is associated with Patersons Arch at the northern end of Waterfall Bay.

Based on sources including dive blogs, YouTube videos and a map prepared by the Eaglehawk Dive Centre (Figure 6), the caves range from simple arch-like caverns to more complex rectilinear networks of intersecting passages. Passage dimensions vary from spacious tunnels several metres in diameter to more constricted conduits capable of accommodating a single diver only. Some passages are distinctly teardrop-shaped in profile and some contain accumulations of rounded bouldery to pebbly gravels on their bases. It is inferred that cave development at this location is strongly controlled by a combination of near-horizontal bedding and steeply dipping joint networks.

Some divers refer to the Waterfall Bay features collectively as 'Cathedral Caves', with additional names for particular features e.g. Cathedral Arch, Skull Cave, Grommets Grotto, Silty Cave, Gnome Cave, Headbanger Cave, Kavanahs Cavern. Janine describes these caves ‘a more complex system with dark zones… [and] small, lower level passages’.

The coastal setting and presence of rounded bouldery deposits suggests that the Waterfall Bay caves are drowned sea caves i.e. cavities enlarged mechanically by wave action during glacial periods when sea level was lower. However, the fact that the host rock is partially an impure limestone raises the possibility that they are to some degree also karstic. If the caves were initiated by solutional effects above sea level, then they are better described as drowned karst caves rather sea caves. Alternatively, they may be the result of both mechanical erosion by wave and limestone solution, making them a composite form of cave.

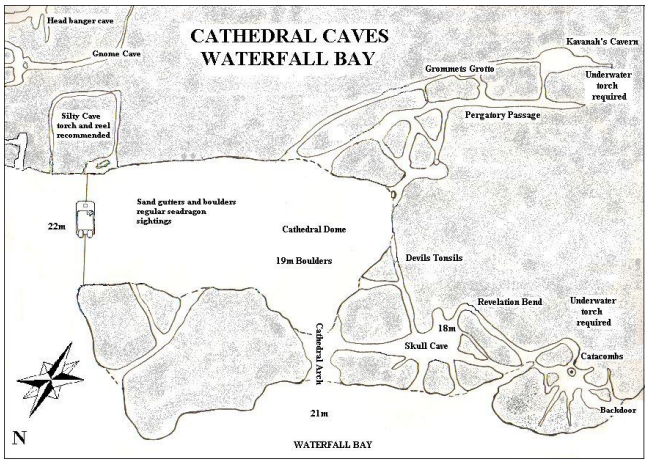
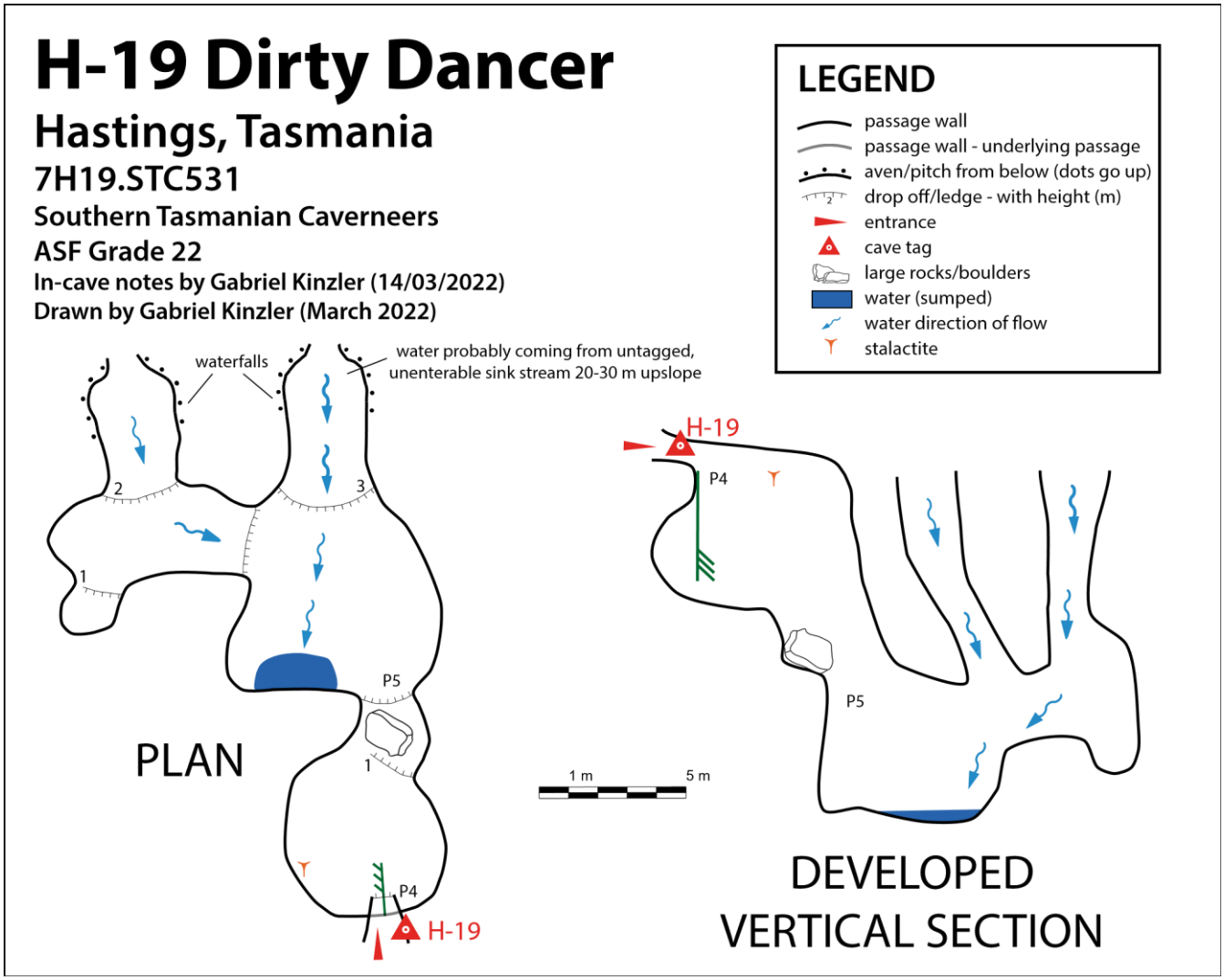


Figure 6: Map of Waterfall Bay caves (reproduced courtesy of Eaglehawk Dive Centre).



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