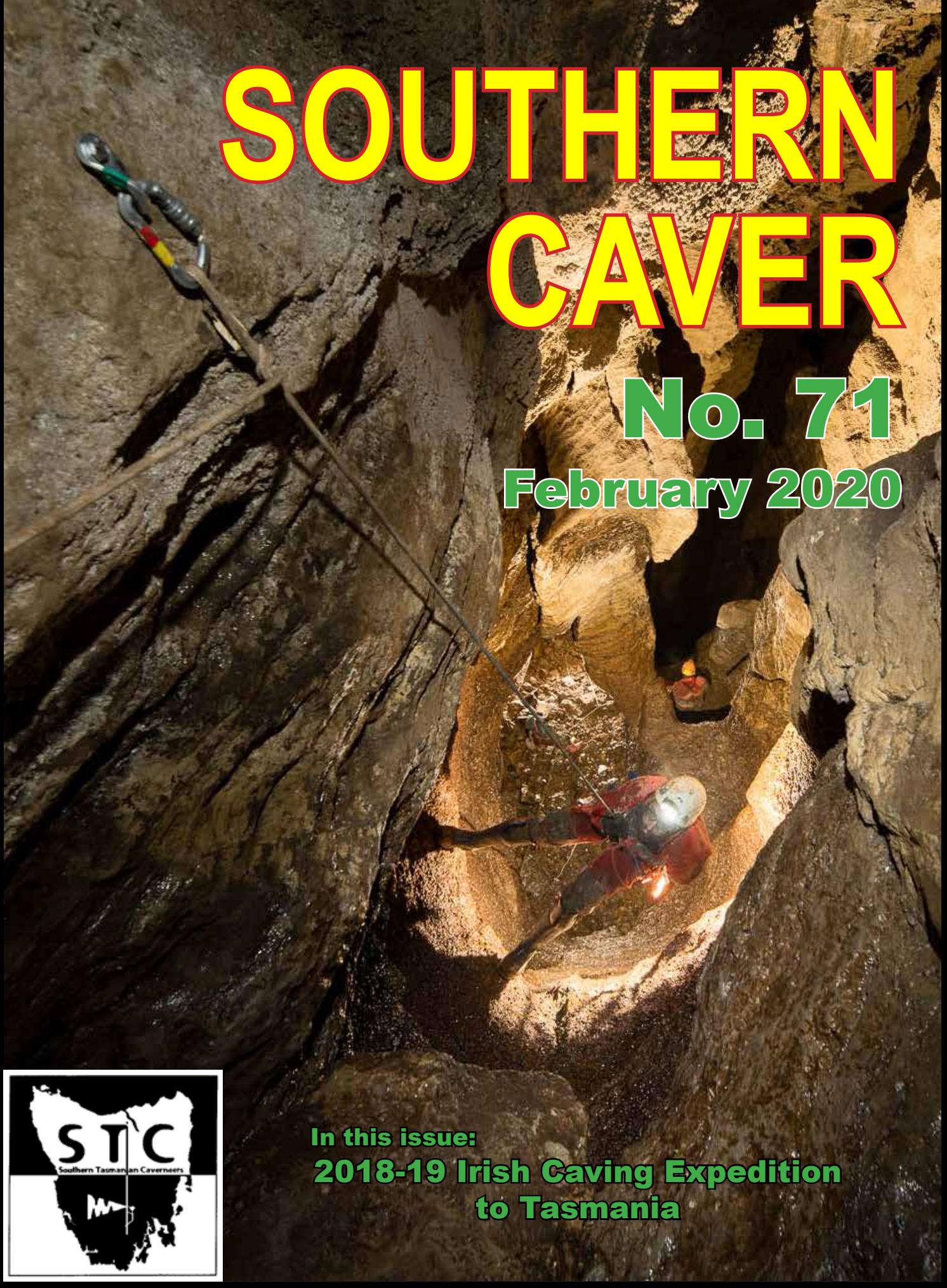
SOUTHERN CAVER



No. 71
February 2020

In this issue:

2018-19 Irish Caving Expedition to Tasmania

Occasional Journal of Southern Tasmanian Caverneers Inc.

PO Box 416 Sandy Bay, Tasmania 7006, Australia ISSN 0157-8464

Editorial

In this issue we are pleased to be able to bring you the very fine report of an expedition by a group of Irish, British and German cavers to the Junee-Florentine karst area of southern Tasmania.

It has been said that "The Junee-Florentine is undoubtedly Australia's premier vertical caving area and has become a mecca for this country's sporting cavers. Many cavers have cut their teeth on the Junee-Florentine classics before venturing further afield to participate in international caving expeditions" (Bunton & Eberhard 1984). And it is clear that the reverse also applies – international cavers can find sufficient challenge in the Junee-Florentine karst to organise expeditions to investigate its hidden wonders.

The seeds were sown for the 2018-19 Irish expedition during 2013-14 when, as a Victorian resident, Seamus Breathnach joined a few STC exploration trips to JF-463 Constitution Hole. The expedition was given serious consideration from January 2018, from which point Alan Jackson and Seamus exchanged regular correspondence sorting out dates, leads and logistics. Coincidentally an English caver, Hannah Moulton, with whom Alan had caved on expedition in China in 2011, simultaneously and independently contacted Alan with the idea of an English JF expedition. Alan put them in touch with one another and Fleur Loveridge (a mutual friend of Hannah, Andreas Klocker and several of Alan's international caving friends, as well as an occasional visitor to the JF karst). While Hannah ultimately pulled out Seamus, Fleur, Andreas and Alan saw it come to fruition.

Ultimately the timing of the expedition clashed with the ASF conference in Devonport which unfortunately limited the level of interaction with local cavers. Hopefully there'll be a 'next time' and that can be remedied.

Some preliminary reports of explorations by expedition members were published in our bimonthly newsletter, *Speleo Spiel* No. 431, March-April 2019, pp. 14-16 – and on our Facebook page, however, this issue provides a comprehensive and detailed summary of all the expedition's trips and can be considered the authoritative account.

Greg Middleton
ozspeleo@iinet.net.au

Reference:
Bunton, S. & Eberhard R. 1984 *Vertical caves of Tasmania: A caver's guidebook.* Adventure Presentations, Miranda NSW.

STC was formed by amalgamation of the Tasmanian Caverneering Club, Southern Caving Society and Tasmanian Cave and Karst Research Group in 1996.

STC is the modern variant of the oldest caving club in Australia, founded 1946.

Southern Caver

Occasional journal of
Southern Tasmanian Caverneers Inc.
PO Box 416, Sandy Bay,
Tasmania 7006 Australia

http://southerntasmaniancaverneers.wordpress.com/
ISSN 0157-8464
[formerly the journal of Southern Caving Society]

Southern Caver is published (only) in digital format and is freely available for download from the STC website.

Issue No. 71, February 2020

Report of the 2018-19 Irish Caving Expedition to Tasmania

Edited by
Petie Barry

This version of the expedition report has been modified slightly to comply with the normal publishing styles of *Southern Caver*.

Cover photo:
Approaching the 70 m pitch in JF-338 Lost Pot, visible below the second caver. (Photo by Axel Hack)
Back cover:
Looking over the forest from the Gordon River Road. (Photo by Axel Hack)

The views expressed herein are not necessarily the views of the Editor or of Southern Tasmanian Caverneers Inc.

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1. SUMMARY

Seamus Breathnach

In December 2018 - January 2019, a team of cavers from the UK, Ireland & Germany visited the Junee-Florentine (JF) area of karst in Tasmania. The area is home to many of Australia's deepest alpine caves, which drain into the 'Junee Master Cave'. The Master Cave is only known in small unconnected sections and the primary objective of the expedition was original cave exploration, ultimately connecting into the larger vision of discovery and documentation of the remaining sections.

Through surface work, pursuit of known underground leads and support of local diving objectives, the team had exploration projects in 12 caves, were 19 days on expedition, surveyed 500+ metres of previously unexplored passage and discovered two new caves on Wherretts Lookout.

Mount Field National Park traverses one of Tasmania's most significant karst areas – the Junee-Florentine (JF) Karst, which covers an area of about 185 square kilometres and contains almost 700 documented cave entrances, including many of Australia's deepest caves. The western part of the park and the Junee Cave State Reserve are located within the karst catchment and contain numerous significant karst features of high geoconservation value. State forest adjacent to the park and reserves also contains significant caves and karst features, including caves linked to the Junee River master system, which resurge at Junee Cave near the town of Maydena. The expedition base was located in the Left of Field campground, about 10 km northeast of Maydena, near the entrance to Mt. Field National Park.

The campground served as a solid base-camp with privileges of shelter, electricity, showers and food storage – all the modern comforts needed. The campground also had internet access, allowing a raft of gadgets and laptops to be powered up to produce mapping data and analysis on the fly on a daily basis to aid in exploration.

Good relations had been developed with some local JF cavers over the years by the team, and these local cavers kindly agreed to collaborate in sharing local knowledge, equipment and general guidance in return for shared information on any expedition findings to progress the potential of the region. Several local cavers also joined the expedition at various times, with a total of 21 cavers participating in the expedition in total. The expedition was welcomed by local cavers in the hope that it would assist in unlocking more cave passage in the area.

Thanks to good relationships with local cavers, information was shared on some potential leads and areas of interest for discovery. With many of the leads described as "character building", it gave the team a good indication that the caving would be just like home, and discoveries would not be easily won! Route finding was very time-consuming initially until teams orientated themselves with the rainforest. But leads were then prioritised and the team split up into a number of groups on a daily basis to pursue various exploration or reconnaissance projects, described further throughout this report.

2. AIMS AND OBJECTIVES

Seamus Breathnach

AIM 1. Original Exploration

OBJECTIVES

1. Surface prospecting
2. Known underground leads
3. Supporting ongoing dive projects

Teams rotated in and out of surface prospecting duties to search for undiscovered caves. Dense undergrowth was a consistent feature of any prospecting trip and hampered abilities at covering ground during each outing.

Notably, during the early stages of the expedition, a lot of time was invested into route finding, way marking and getting our bearings in the Serendipity Valley. Local advice helped expedite this process but an investment of expedition time was needed nonetheless.

Dedicated Prospecting trips undertaken were:

- East of Satans Lair
- West of Satans Lair
- Z-Caves past Wherretts Swallet
- Z-Caves via 6-Road
- Bunyips Lair area
- North of JF-202, past Satans Lair

The fruits of these prospecting trips were the discovery of two new caves, JF-689 and JF-690, and the realisation of JF-484 Hot Prospect.

The following known leads were identified as objectives pre-expedition and were prioritised amongst other leads as they materialised:

◊ JF-380 was widened and pushed to a rift too tight for even the smallest of the expedition team. A promising draught was found to exit up through an aven just inside the initial constriction

◊ JF-40 was dug and progressed with a high rift being too tight for further progression. The cave was re-surveyed in anticipation of reaping greater rewards

◊ JF-207 Voltera was not explored due to more viable prospects developing during the course of the expedition

The team had discussed assisting on dive trips with local cavers prior to the expedition. The following trips were identified initially as objectives:

◊ JF-237 Niggly Cave – a multi-day push by local cavers was completed just before the expedition commenced. Cavers exited from Niggly the day we arrived having made significant findings. No further exploration within the cave was completed during the expedition but the surveyed output from the new findings led our expedition to focus exploration on areas around Bunyips Lair and yielded a breakthrough at JF-484 Hot Prospect.

◊ JF-210 Sesame – a number of trips were undertaken to portage equipment, initially held back due to high water levels. A draughting lead up and over the wet crawls was pushed and surveyed but eventually choked off.

◊ No dive trips were undertaken into JF-387 Porcupine Pot during the expedition but a tourist trip was undertaken by two members of the team

AIM 2. Development of International Caving Relations

OBJECTIVE

1. Local Relationships
2. ASF Conference 2018
3. Interest in future PNG Exploration

Good relationships were developed with local cavers during our stay in Tasmania. We were warmly welcomed by the local caving club, the Southern Tasmanian Caverneers, who were very kind in assisting with logistical support before and during the expedition. A number of locally-based cavers also joined us and contributed for varying stints during the expedition:

◊ Andreas Klocker (from Austria, resident in Tasmania)

◊ Mark Euston (Canberra, Australia)

◊ Ola Löfquist (Sweden)

◊ Gabriel Kinzler (from France, resident in Tasmania)

◊ Djuke Veldhuis (from the Netherlands, resident in Melbourne)

◊ Tony Rooke (from the UK, resident in Melbourne).

Past and future expeditions were discussed regularly with local and visiting cavers. West Papua had been visited in recent times by Andreas Klocker and Pete Talling and the Irish PNG expedition team will make contact with the STC for any future expedition to Papua New Guinea. Additionally, through contacts made with Andreas Klocker, Petie Barry will attend the 2020 Huautla expedition in Oaxaca, Mexico.

AIM 3. Development of Irish Caving

The team required a broad range of skillsets to execute this expedition in the Junee-Florentine region. These skills permeated throughout the team to help develop the individual capability and experience of each participating caver:

◊ Daily hiking and progression through rainforest, route finding, way marking

◊ Research and analysis of existing caving literature to determine priorities for further exploration

◊ Computer skillsets for GIS, surface mapping and cave surveying

◊ Cave surveying and documentation

◊ Ropework and alpine caving progression

◊ Camp logistics

◊ Cave rescue

AIM 4. Documentation and promotion of findings

All caves where feasible were surveyed to UIS Grade 5 with accompanying write-ups. Caves were also photographed by Axel Hack.

Expedition talks have been given at Hidden Earth 2019, the Irish Student Caving Forum 2019 and SUICRO 2019.

The expedition report will also be shared with local cavers *[This publication –Ed.]*.

3. THE TEAM

Leader: Seamus Breathnach

Previous caving expeditions, France x2, Spain, Romania x4, Papua New Guinea x2, Albania, as well as caving throughout Ireland and UK, Australia and New Zealand. Previous exploratory trips to Tasmania during 5yr residence in Australia. SUI qualified Cave Leader and part of the SUI training team. Rescue warden with ICRO, Wildernesses Medic (WEMT).

Axel Hack: Expedition photographer (Ambassador for RICOH-PENTAX Germany). Numerous expeditions in Europe, regular Dachstein expedition contributor. Involved in Irish expeditions to PNG x2 and Albania. Exped. Photographer for 2017 ARIO Project, 2016 Albania expedition, 2011 & 2015 PNG expeditions.

Axel is an established, professional photographer who specialises in cave photography using the latest lighting and composition techniques. He has featured in numerous high profile caving publications.

Stephen Macnamara: Numerous caving expeditions, some as leader (France x4, Spain x2, Russia, Georgia x4, Romania, Slovenia, Croatia, China, Albania x2, Papua

New Guinea x2, UK/Ireland x many). Reached bottom of then-deepest cave in world, leading hydrological monitoring programme. Extensive surveying experience. Rescue warden with ICRO.

Claire Macnamara: Expeditions to PNG, Spain, Albania, UK/Ireland. ICRO core team member. Surveying and digging experience in Ireland with Shannon Group.

Róisín Lindsay: Expeditions to Papua New Guinea and Albania. Caving experience across Ireland and UK including exploration, surveying and cave rescue. Extensive digging experience with Shannon Group. Hydrogeologist.

Aileen Brown: Expedition experience in Ireland, Europe, Eastern Europe and Papua New Guinea. Bottomed the deepest cave in the world as part of a group conducting a hydrological monitoring program. Extensive surveying and digging experience with Shannon Group. Previously an ICRO committee and core team member.

Petie Barry: Over 10 years caving experience, much of it pushing and exploring caves in Ireland, particularly the Irish Northwest. Competent surveyor and survey drawer with extensive experience of cave publishing. Editor; *The Shannoneer,* Co-editor; *Irish Speleology*. Participated in expeditions to Gouffre Berger (2017) and Dachstein (2018). ICRO core team member and a member of the Shannon Group.

Stephen McCullagh: Over 20 years caving experience. He is an experienced rigger and rescue rigger, experienced in primary exploration (digging, aven climbing, wilderness prospecting and surveying). Currently a member of Shannon (Caving) Group and Germany Valley Karst Society (GVKS, WV) in the USA. Previously: ICRO member: 2002-15; ICRO rescue Warden 2011-15; SUI & ICRO Committee member various years. Expedition Experience: Spain, Austria, Slovenia, Papua New Guinea, China, USA and Albania.

Nick Edwards: Started caving in 2005 with Oxford University Cave Club, and has been an active caver since then. Has been on five caving expeditions to explore deep alpine caves in the Picos De Europa, Spain, including one as Leader. Also participated in caving expeditions in China and Papua New Guinea. Currently a member of Canterbury Caving Group in New Zealand, and on the callout list for NZ Cave Search and Rescue. Currently active in cave exploration and re-surveying on the West Coast of New Zealand South Island, as well as alpine cave exploration in Bulmer Cavern, NZ's longest cave system.

Kayleigh Gilkes: Expeditions: PNG, Spain, China, Romania and across the UK and Ireland. Veterinary Surgeon currently living in New Zealand. Currently a member of Canterbury Caving Group in New Zealand, and on the callout list for NZ Cave Search and Rescue. Currently active in cave exploration and re-surveying on the West Coast of New Zealand South Island, as well as alpine cave exploration in Bulmer Cavern, NZ's longest cave system.

Conor McAdams: A PhD candidate at University of Wollongong (UOW), Australia. He is currently studying the effects of tropical conditions upon the preservation and degradation of archaeological and palaeoecological materials in the Pleistocene cave sediments of mainland Southeast Asia, part of Professor Richard "Bert" Roberts, "Out of Asia" Australian Research Council Laureate funded project. Conor has presented this speleological research at several international conferences and was awarded 1st place in the UOW School of Earth and Environmental Sciences "Three Minute Thesis" competition for his talk, "Making human stories from cave sediments." A keen caver and was captain/chairperson of Queen's University Belfast Caving Club. He has been included on a number of digs and expeditions, including exploration on Largy, Co. Leitrim, and the Ario Project, Picos de Europa.

Fleur Loveridge: University lecturer and member of OUCC, York CC and Red Rose CC. Previous expeditions to Myanmar x6, China x6, Spain x10 (one as leader), Croatia, Slovenia, Yemen, Austria x5, New Zealand, East Timor. Secretary of pill DDU cave management group until 2017. Experienced expedition team member, rigging, surveying, etc. Fleur has caved in Tasmania previously on exploration projects.

Pete Talling: University Professor and a member of the UBSS, York CC and Red Rose CC. Previous expeditions to Myanmar x6, China x9, Yemen, Croatia, Spain x4, Austria x5 New Zealand, Philippines, Kyrgyzstan, East Timor, West Papua and more. Experienced expedition team member, rigging, surveying, etc.

Brían McCoitir: Numerous (20+) expeditions to Spain, France, UK, Germany, Italy and Majorca, and expeditions to PNG x2, India x3, Albania. Qualified SUI Basic Cave Leader. Rescue warden with the Irish Cave Rescue Organisation, expertise as Wildernesses Medic (WEMT).

Rowena Sheen: Member of the Clare Caving Club and has extensive exploration experience in Co. Clare. Expeditions include Meghalaya in 2008, Nepal in 2010 and Albania in 2016. Has also caved across Ireland, England, Wales, India, Nepal, Albania and Iran. Member of the SUICRO 2018 organising committee.

We were also joined by several local cavers:

Andreas Klocker has lived in Tasmania for over a decade, and is one of the most active local cavers. Andreas joined us for almost the full duration of the exped. and was invaluable in providing advice on where to cave and providing us with equipment. Several of our main projects, such as Udensala, Boulder Jenga and Sesame were suggested to us by Andreas.

Mark Euston: From Canberra, Mark was a regular visitor to the JF for several years and participated in the exploration of Constitution Hole and Dissidence. As our exped. coincided with a planned trip to Tasmania to go

Figure 1: The majority of the team assembled at the end of the expedition - from left to right; Axel, Nick, Rowena, Róisín, Claire, Conor, Pete, Mark, Seamus, Petie, Brían, Steve Bus, Steve Muh, Aileen, Fleur and Kayleigh. (Photo: Axel Hack)

pack-rafting, Mark joined us for two weeks of caving. This was to be Mark's caving swan-song, as he retired from caving following our tourist trip into Niggly on the last day of the exped.

Gabriel Kinzler: A Frenchman, Gabriel has been living in Tasmania for a number of years and is a key member of the STC. Gabriel joined us for a few days and assisted in our exploration of Whistler.

Ola Löfquist: A Swede, Ola previously visited Tasmania in 2017, where his first trip turned into the biggest cave rescue in Tasmanian history (*Speleo Spiel,* 422: 7-30). His return to Tassie was less dramatic, and he joined us for a few days before leaving for the ASF Conference in the north of the state.

Djuke Veldhuis: A Dutch caver previously resident in the UK, but now Melbourne-based, Djuke joined us with Tony for a week or so.

Tony Rooke: A veteran caver from the UK, who arrived along with Djuke.

4. TRAVEL

Seamus Breathnach

Expedition Dates: 16 December 2018 – 4 January 2019

Expedition Duration: 19 days on expedition, plus an additional 4-5 days travel to/from the expedition area.

International Travel

The majority of the expedition team travelled from Europe and were joined by other cavers living in Tasmania, mainland Australian and New Zealand. The most cost effective flights from Europe routed via the Netherlands, UAE or China in order to reach Melbourne.

Due to the diversity of locations that cavers would be flying from, it made little sense to organise group bookings for flights. Instead it was agreed that we would rendezvous in Hobart on 16 December to divide up cars, shopping duties, etc. Some team members arrived into Melbourne on 14/15 December and travelled on to Hobart on 16 December. Others decided to fly direct to Hobart.

Figure 2. Location of the destination: Hobart, Tasmania.

The first team member to arrive in Australia was Brían McCoitir, arriving in Melbourne on 12 December with Rowena Sheen being the last to return home on 23 January after holidays post-expedition.

Of the core expedition team, the majority spent the full 19 days on expedition with the following exceptions:

- Steve McCullagh – 18 days
- Conor McAdams – 16 days
- Rowena Sheen – 14 days
- Nick Edwards – 13 days
- Kayleigh Gilkes – 13 days

Local Transport

The expedition used four rental cars for local transport with local and visiting cavers providing supplementary transport.

As all of the exploratory areas were off unpaved roads, it was decided that All Wheel Drive vehicles would be a prudent investment. Car rental policies also dictated that all wheel drive vehicles were needed if travelling on unpaved roads. Three AWD cars and a smaller "runabout" were rented for the duration of the expedition:

- 1 x Subaru Forester
- 2 x Toyota RAV4
- 1 x Kia Rio

The route north-west to Mt. Field National Park from Hobart took just over an hour by road (Figures 3 & 4).

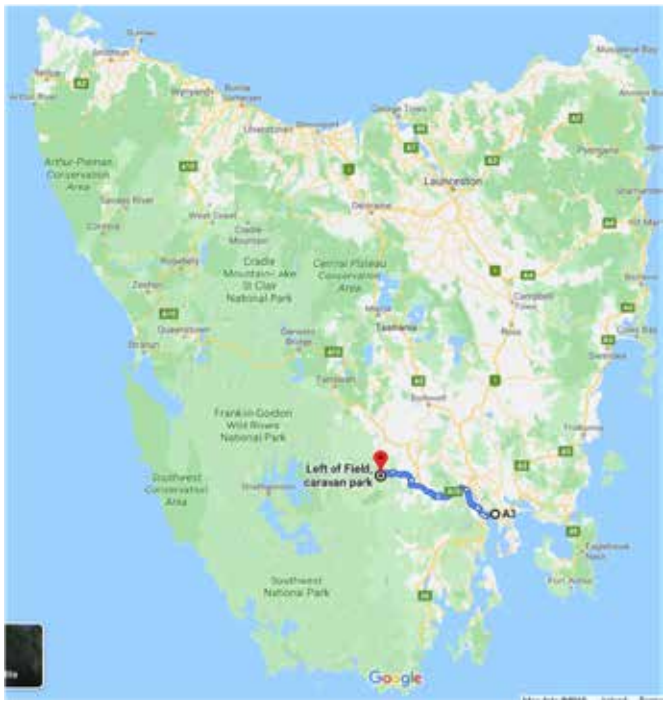


Figure 3. Showing the route from Hobart to our campsite near the National Park – from Google Maps.

And Figure 4 – also from Google Maps – shows the route from Hobart to our campsite near the National Park in more detail.

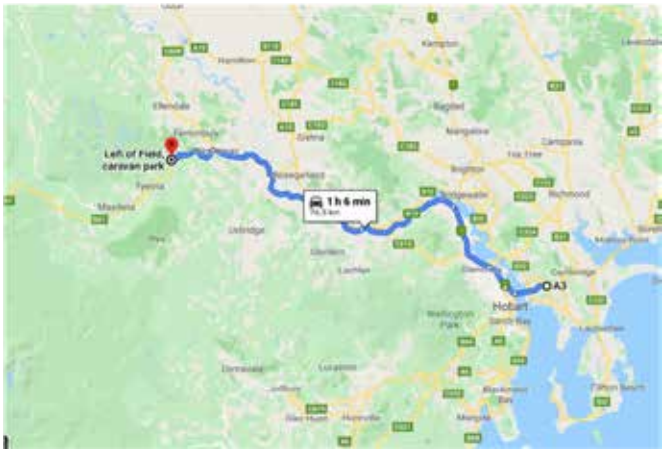


Figure 4. Showing the route from Hobart to the campsite in more detail – from Google Maps.

The primary Junee-Florentine caves explored on the expedition were off the Florentine Road, which was approached from our camp by travelling to Maydena and taking a right onto unpaved roads shortly after the village. The Google Map screenshot in Figure 5 shows the approximate daily journey which ranged from 30 to 60 minutes by car depending on the cave location.

Figure 5. Approximate daily journey – 30-60 minutes by car depending on the cave location.

5. EQUIPMENT

Seamus Breathnach

Logistical organisation of equipment prior to the expedition was through the use of Google Drive and collaborative spreadsheets containing various types of equipment, accountability and status.

A screenshot from the equipment spreadsheet is shown in Table 1 with a sample of caving, surveying, GPS/mapping and communications equipment shown from the expedition preparation stages.

The bulk of the group equipment was divided up and brought by individual team members from home e.g. each team member to bring five krabs for group consumption.

The expedition is hugely grateful for the assistance STC cavers Alan Jackson and Andreas Klocker in arranging the loan of equipment from local cavers in advance of

Caving	Lump hammers x 2		Alan can lend x 1 (or x2 if repair handle on other)	Collect 1 x from Alan	Tas	Y	
Caving	Rope protectors x 4		Alan/STC x 4 or more - they advise that they never use them	Collect 4 x from Alan	Tas	Y	
Caving	First Aid / Mini Survival Kits x 4	Personal gear combined with some kisu/storm shelters?	Aileen has sourced: 2 x mini-stove - 1 x Axel. 2 x kisus - another KISU TBC 3 x medium sized dry bags (for the kit) 3 x pans Need thermals or lightweight sleeping bags, karri mats and light first aid kits.. Seamus/Brian have first aid kits	Buy 1 x cheap kisu or storm shelter Buy 3 x cheap sets of thermals Buy 3 x double bivvy bags Buy 3 x karrimats Buy 3 x screw in small gas cylinders + lighters	Tas	Y	
Caving	Tackle sacks x 12		Andreas can lend 4 x cave packs Roisin x1 Fleur x1 Pete x1, Seamus x1, Petie x1 Nick x2 Kayleighx1 Axel x1	Collect 4 x from Andreas	Group Tas	Y	
Caving	Dry Bags		Seamus x 1, Steve x 1, Axel x 1, Nick x 1, Rowena x1		Group	Y	
Caving	Bolting bags x 4		Andreas can lend 3 x small bolting packs Petie x1	Collect 3 x from Andreas	Group Tas	Y	
Surveying	DistoX x 4		Petie, Steve & Fleur Axel		Group	Y	
Surveying	PDA x2	Optional if laptop	Not using		n/a	n/a	
Surveying	Suunto Tandem x 1	SM: If anyone has a southern hemisphere compass that would be nice to have...	Steve x1		Group	Y	
Surveying	Field tape x 1		Alan/STC can lend a 25/30m fiberglass tape	Collect 1 x from Alan	Tas	Y	
Surveying	Waterproof notebook x 8		Steve/Petie x 8		Group	Y	
Surveying	Pencil x multiple	2H :-)	Roisin		Group	Y	
Surveying	Graph paper x2		Seamus/Claire	Buy	Tas	Y	
Surveying	Logbook x2	Hardback notebook - large for daily reports	Buy when arrive in Hobart	Buy	Tas	Y	
Surveying	Laptops x 2	Compatible with usb/sd card. Excel software and windows. SM: also Therion	Seamus/Axel/Fleur		Group	Y	
Surveying	SD card/USB stick	Compatible with laptop/tablet/PDA	Seamus/Axel		Group	Y	
GPS/Maps	Printer	For printing descriptions and surveys on the fly	Buy cheap injet from Harvey Norman Hobart on Sunday when we arrive. Confirmed that shop opens on Sundays	Buy	Tas	Y	50
GPS/Maps	Printer Paper	For printing descriptions and surveys on the fly	Buy when arrive	Buy	Tas	Y	15
GPS/Maps	Map cases x 4	For transporting surveys/descriptions underground	Roisin buying		Group	Y	40
GPS/Maps	GPS x4	Preload local maps ** Locals advise that high sensitivity GPS are best for the bush. Turn them on before going into the bush to keep accuracy. Turning them on in the bush takes a long time to get accuracy..	Seamus x1 Axel x2 Andreas x 1 - GPS with cave locations loaded, but very heavy on batteries Steve Bus x1	Collect 1 x from Andreas	Group Tas	Y	
GPS/Maps	PLB x 2		Kayleigh/Nick x 1/ Possibly rent from national park service in Maydena	Rent 1 x from Park	Group Tas	Y	
GPS/Maps	Maps hard copy x 4	Local OS maps	Alan confirms Local 1:25k 1:50k will require 4 x sheets to cover the area we need. Might be easier to create large digital section and print. Seamus TBC	Buy (Axel TBC)	Tas		
GPS/Maps	Maps digital	Get onto laptop & GPS	Laptop people..		Group	Y	
Comms	Mobile phones local	Local SIM cards	All team - Telstra have best coverage. Roaming should allow this.. Rowena TBC on campsite		Group	Y	
Comms	PMR (UHF) x 4	For prospecting	Axel x 2, Brian x 2, Nick/Kayleigh x2		Group	Y	

Table 1. Screenshot from the equipment spreadsheet with a sample of caving, surveying, GPS/mapping and communications equipment.

the expedition. Local cavers were able to assist with lending the expedition bulky camping gear, caving gear and various other pieces of equipment.

Adrian from the Left of Field campground also kindly opened his doors, and his shed, to us for the loan of all sorts of equipment, notably a lump hammer which is still wedged in a rift half way down Whistler. Adrian at the campground also provided a horsebox trailer which was used as a general gear store. All equipment was logged in a logbook for safe return to all contributors. An annex to Adrian's house was used as a makeshift expedition office, affectionately known as the "nerd shed" where charging stations were set up, laptops and printer were positioned, and whiteboard and maps were laid out.

The Financial section of this report will show any substantial equipment expenses, the largest being 400 m of 9 mm rope purchased in advance and shipped to the Left of Field campground.

6. EXPLORATION HISTORY

Petie Barry

While caves have been known in the Junee-Florentine since the early 1900s, little cave exploration occurred in the area until the mid-twentieth century. The Tasmanian Caverneering Club was founded in 1946 and sporadic exploration of the Junee-Florentine area occurred in the following decades.

Growling Swallet was bottomed in 1957 at a depth of 70 m, and was for many years Australia's deepest cave. However, while the Junee-Florentine is now the main caving area in Tasmania, containing most of the longest and deepest caves, initially most caving in Tasmania occurred in the more easily accessed caves of Ida Bay, Mole Creek and Hastings areas. The predominantly vertical caves of the JF were quite labour intensive in the days of ladder and lifeline.

Cave exploration took off in the JF in the late 1960s. The Southern Caving Society was formed, in 1965 adding another party to the scene, and increased use of ladders meant that vertical pots began to be explored to greater depths. In 1970 a new Australian depth record was set at Tassy Pot at -250 m, beaten in 1971 by Khazad-Dum at -290 m. Around this time Splash Pot, Owl Pot, Niagara Pot, Dwarrowdelf and Cauldron Pot were explored for the first time. Following a dramatic flurry of exploration around KD, the mid-70s were quieter, though the major caves of Threefortyone and The Chairman were discovered and explored in the late 70s.

The early 1980s saw a number of major advancements in exploration in the area, in part due to the arrival of SRT. In 1981 a major breakthrough occurred at Growling Swallet, which within a few years would swell from a few hundred metres in length, to over 9 km long and 360 m deep, regaining the Australian depth record in the process. Concurrent with this, Serendipity (-278 m) was explored, as was Flick Mints Hole (-204 m), Porcupine Pot (-202 m), Peanut Brittle Pot (-186), Lost Pot, (-175 m) and Udensala (-182 m).

In the 1990s, the major discovery was Niggly Cave in 1991, which quickly reached -371 m. Rift Pot - Threefortyone were connected in 1995 to create a 250 m deep and 9 km long system, while there was also a major breakthrough in Sesame.

In 1997 SCS and TCC amalgamated to form the Southern Tasmanian Caverneers. After a relatively quite start to the new millennium, a major new cave was discovered in 2006 in the form of Tachycardia, pushed to -375 m over the course of the year, and equalling the Australian Depth Record. 2001 had seen a breakthrough into Dissidence, which was explored to 321 m deep and 4 km in length. Beginning in 2013 Constitution Hole was explored to 2.5 km long and -140 m deep. 2015 was a

busy year for discoveries, with Voltera (-310 m), Boulder Jenga (-153 m) and, finally, Ring Hole (c.1 km of passage) explored and connected to Sesame.

The most recent major discoveries in the JF have been in Niggly, where several kilometres of passage were explored in 2018 and 2019.

While cave is not easily won, cave discoveries can be made quite easily compared to Ireland, owing to a small caving population, a large amount of karst and the fact that much of the karst is hidden in dense forest and bush. Large scale digs are almost unknown. The caving here may be compared to early 70s Britain, where large discoveries could still be made, with effort. While local cavers contend that the rate of new discoveries has slowed, large breakthroughs of a kilometre or more still happen every few years, and it seems that this will continue for the coming years. There remains a huge amount of the Junee Master Cave to be discovered, as well as a multitude of small pots that have yet to be determinedly pushed.

7. LEADS

Alan Jackson and Andreas Klocker

This list of leads was provided to us by Alan and Andreas. All but a few of the projects were visited by us - only Hot Prospect was a lead we isolated by ourselves.

JF-380: Currently a 20 m deep strongly draughting hole which requires some modification to progress and is located at the head of the Serendipity valley. It is expected to add ~40 m depth to JF-382 if it connects at the downstream end. Or it may alternatively intersect the JF-344 Serendipity water (downstream of the current end of the cave) and help fill in the gap between Serendipity/Dissidence and a specific location in JF-36 Growling Swallet, one of the major river systems in the area, where the water reappears.

JF-40: currently a 30 m deep cave, with a challenging dig about 10 minutes from the entrance. The dig is strongly draughting, but may take some effort to get through. It is theorised to connect to end of JF-10 Splash Pot. Presently, it takes several hours (including a 40 m long, 1 hour squeeze) to get to that point via the JF-10 traditional entrance and as a result there is a lot of cave there which has not been pushed to its limit. Surveys estimate c.20 m separating the caves, and both ends draught strongly and have the same amount of water.

JF-387 Porcupine Pot and **JF-237** Niggly Cave: Both caves had current dive projects by the Southern Tasmanian Caverneers and we were to provide support to assist with these dives.

JF-210: Sesame: A dive project exists at the sump at the distant end of this cave, which is close to the downstream end of the Niggly Cave master cave section. It is thought that a push by divers could intersect the main drain just downstream of the terminal rockpile in Niggly.

JF-232: Udensala: A very loose and wet cave in an interesting location, with potential to fill the gap between JF-402 Burning Down the House and JF-387 Porcupine Pot. Andreas visited this cave in the winter of 2018 and reported a strong draught. Returning would allow us to revisit the end for a re-assessment.

JF-398: Boulder Jenga: A major cave discovered in 2015, pushed to a sump at a depth of -150 m, and not revisited since, owing to a nasty reputation. The cave draughts extremely strongly but the source of this draught is unknown. There are a number of very good leads in this cave.

JF-373 Punishment Pot: Major streamsink up near the head of the Serendipity valley. Only 30 m deep but must go further. The draught in the entrance climbs is spectacular but it is not possible to follow this further down into the cave. The volume of water and its position suggested that it was the source of the waterfall for the Vertical Euphoria pitch in Dissidence, but some rudimentary dye tracing efforts have failed to prove that. If it joined to Dissidence then it would add another 20 m of depth to the system.

Benson and Hedges Series – about 20 caves all in a row. Visited sporadically since their discovery in the early 1980s, they're always worth another look with a fresh pair of eyes.

JF-381: Small/shallow cave just uphill from Dissidence. Water has been traced to Dissidence (the waterfall half way down Union Jack passage). Good draughting slot in wall that needs blowing up. Would add ~13 m to Dissidence depth if connected.

JF-338 Lost Pot: While the main route has been well looked at, there may be prospects in the boulder choke at the bottom of Iron Anniversary, pushed in 2005. This also requires surveying. If it goes, a connection with Serendipity is expected, or a bypass of the downstream sump/gravel choke in Serendipity. Would add over 20 m of depth to Serendipity.

JF-435 Kangaroo Cave: Contains a good draught in a very tight rift. Needs a very slim caver.

JF-293 Whistler: A short cave containing a huge draught. Quite tight and difficult but contains a good mid-pitch lead, a draughting narrow crack. Slim cavers are required.

8. PREVIOUS IRISH EXPLORATION

Petie Barry

There have been a few previous visits to Tasmania by Irish cavers. The earliest known is Pat Troy's visit in 1991, notable for Pat being part of a group that got flooded into Growling Swallet (Morgan 1991).

Pat's 2015 rescue from Pollnagollum in Clare gives him the dubious honour of having been rescued from caves in both hemispheres.

Adding to this illustrious list was Niall Tobin in 2007, who showed up in Tasmania and tagged along on what on one of the big breakthrough trips in JF-382 Dissidence (Jackson 2008). 650 m of new passage was surveyed on that trip, more than we found on our entire exped., the jammy bastard (Figure 6).

Figure 6. "A rather grotty Niall waits his turn at the top of the 42 m pitch" (Alan Jackson)

More recently exped. leader Seamus Breathnach was involved in Tasmanian explorations, flying in from his home in Melbourne. He mostly pushed in Constitution Hole (e.g. Jackson 2013, Morris 2013).

References

Jackson, Alan 2008 JF-382 Dissidence – More bloody new cave. *Speleo Spiel,* 364: 13-14.

Jackson, Alan 2013 JF-463 23 March 2013. *Speleo Spiel,* 395: 18-19.

Morgan, Dean 1991 How to make an easy trip into an epic – The great tale of the Englishman, the Irishman, the Romanian and the Australian. A growling great flood II. *Speleo Spiel,* 267: 7-8.

Morris, Dickon 2013 JF-463 Constitution Hole – August Blitzkrieg. *Speleo Spiel,* 398: 14-15.

9. ACCOUNTS

Róisín Lindsay

A summary breakdown of expedition finances is present in Table 2, opposite. Spends were made in Euro (€), GBP(£) and AUD($), for the purposes of clarity all spends and income are provided in $AUD and Euro.

Main expenditure

The list of leads provided to us by Alan Jackson covered a wide geographical area accessed through branching tracks off the Florentine Road. To enable the team enough flexibility to locate and explore these leads it was determined that we would need four hire vehicles with three drivers assigned to each car which would also be supplemented by Andreas' car and visiting cavers' vehicles. Transport was therefore the main expense with vehicle hire, fuel and separate zero excess insurance costing €2,941.83.

The total costs for camping for the core team was $2,570 (€1,616.35) based on $10 per person per night. Food prices were comparable to the UK/Ireland, possibly more expensive and came to $2,264.91 (€1,424.47).

The largest capital expenditure was for the purchase of rope: 400 m of 9 mm rope was purchased online from Climbing Anchors in New South Wales and conveniently delivered direct to Adrian at the campground in advance of our arrival. The remainder of gear was borrowed from STC or provided personally by cavers (personal gear was not included within the cost summary).

By far the largest personal expenditure for the expedition were the travel costs which were between €1200-€1800 from Ireland/UK to Hobart. This was due to the distance and Christmas season which also coincides with the Australian summer holidays.

Funding/Income

Applications made to Ghar Parau Foundation and Speleological Union of Ireland in 2018 provided the expedition with funding of £400 and €3000 respectively.

Over the 19 days of the expedition we had up to six visiting cavers who also contributed to the running costs of the expedition, such as food and cars/fuel. Camping costs were paid on an individual basis. Non-core contributions totalled $500.

10. FOOD

Róisín Lindsay

Having made contact with Adrian before departure we were confident we were to be in for exceptional expedition comfort. Electricity, running potable water (even hot water), a fridge for food and a fridge for beer, a kettle, toaster, two BBQs, even a chest freezer – all at our disposal.

STC had kindly loaned us a range of camping equipment such as chairs, stoves and pots which we added to over the course of the expedition. We discovered the wonderful world of Bunnings; team member Conor had a discount card through his girlfriend which we certainly put to good use. The modern conveniences were fully taken advantage of, breakfast was established as a two course affair with most people having muesli followed by toast with bottomless cafetières of coffee on the go; we were a three cafetière expedition. We had a wide selection of cereal bars as cave food in addition to the ham and cheese sandwiches which were hurriedly made and stuffed into tupperware boxes for pre- and/or post-caving consumption.

	Spend/Income(by original currency)			Conversion to $AUD		TOTALS	
ITEM	**$AUD**	**£**	**€**	£ → $	€ → $	**Total $**	**Total $ → €**
Conversion rates to $AUD	*1.000*	*1.710*	*1.590*				
A. Hire Car/Fuel/Insurance						**$ 4,677.51**	**€ 2,941.83**
Fuel	$591.91	£84.57		*$144.61*			
Car hire		£1,114.70	€1,033.62	*$1,906.14*	*$1,643.46*		
Insurance		£99.75	€138.88	*$170.57*	*$220.82*		
B. Group Accommodation						**$ 2,570.00**	**€ 1,616.35**
Campsite	$2,570.00						
C. Trip Logistical Costs						**$ 1,531.70**	**€ 963.34**
Camp stuff	$1,148.51	£165.61		*$283.19*			
Andreas camp fees	$100.00						
D. Food						**$ 2,264.91**	**€ 1,424.47**
Food	$2,264.91						
E. Equipment/Hardware						**$ 1,336.97**	**€ 840.86**
Rope			€785.86		*$1,249.52*		
Misc. Hardware			€55.00		*$87.45*		
Total Out						**$ 12,381.09**	**€ 7,786.85**
INCOME							
SUI Grant			€3,000.00	*$4,763.78*			
Ghar Parau Grant		£400.00			*$684.00*		
Non core contribution by visiting cavers	$500.00						
Total In						**$ 5,947.78**	**€ 3,740.74**

Table 2. Breakdown of income and expenditure.

Indulging in the novelty of refrigeration on expedition, the biggest issue we had was meeting the demand for dairy and meat products. Supplies of milk, cheese and ham were restocked on a near daily basis. Normally 2-6 people at a time would have a day off and would inevitably be presented with a shopping list. Beer was purchased from a separate kitty which was enthusiastically replenished by expedition members on an ad hoc basis. Small cornerstores were located in Maydena and Westerway but were limited to very basic and expensive essentials so were generally avoided in favour of visiting the larger supermarkets in New Norfolk or Hobart.

Adrian recommended his local butcher at Gretna, 30 minutes drive away. We placed weekly orders of sausages, lamb chops, steaks, bacon and mince for collection. The sausages especially were excellent and were very versatile for feeding the masses. He also sourced bulk quantities of black-eyed potatoes, a laudable local variety for the potato connoisseur, certainly on par with a Kerr's Pink.

There were 15 to 22 hungry mouths to feed at different times over the course of the expedition. Generally those who had a day off would prepare the evening meal for those out in the bush. The BBQs were great bits of kit and ensured that meat could be freshly cooked or kept warm for those arriving back to camp late. We also purchased a powerful gas stove which could be connected to gas bottles for boiling potatoes/pasta/rice, for we could not survive on BBQed meat alone. The standard of meals was excellent and varied; honourable mentions include:

- Fleur's sausage carbonara
- Axel's German mashed potatoes and lamb chops
- Somebody's steak and cheese rolls

On Christmas day we all sat around in the blazing sunshine with Adrian, his daughter Quinn and other campers and enjoyed a fantastic traditional-ish Christmas meal. The BBQs really came into their own with Adrian using them like ovens. Adrian generously put on an amazing spread of turkey, stuffing, ham, duck and all the trimmings.

On days off the local lunch place to see and be seen was the Possum Shed, a super spot 10 minutes' drive from the campground. It was cherry season during our visit and the roads from Mount Field National Park to Hobart were full of sign posts directing you to local orchards which made for delicious road trip snacks.

Figure 7. Róisín preparing sandwiches. (Axel Hack)

11. MOUNT FIELD NATIONAL PARK

Fleur Loveridge

The Junee-Florentine karst area lies at least partially within the Tasmanian Wilderness World Heritage Area, due to its position near the border of the Mount Field National Park. The World Heritage site description attests to the majesty of the situation:

> *"In a region that has been subjected to severe glaciation, these parks and reserves, with their steep gorges, covering an area of over 1 million hectares, constitute one of the last expanses of temperate rainforest in the world. Remains found in limestone caves attest to the human occupation of the area for more than 20,000 years."* [https://whc.unesco.org/en/list/181]

The JF karst lies specifically at the southern and western boundaries of the Mount Field National Park, but close also to the Southwest National Park to the south and the Franklin-Lower Gordon Wild Rivers National Park to the west. The caves are partially within the national park and partially within the adjoining state forest. The lower slopes of the national park, where the karst is present, are covered with rainforest. Outside the national park boundaries access into the dense forest areas can be provided to some extent by logging tracks of variable quality and maintenance. But away from those tracks and within the park itself there are few easy routes, and depending on the popularity of the marked cave tracks, progress through the forest can be very slow.

Above the tree line, the karst area is watched from above by a higher elevation plateau, with a number of summits. Mount Field West is the highest of these at 1435 m, with the slightly smaller Florentine Peak (1376 m) and Tyenna Peak being directly above the Junee Cave system (Figure 8). Evidence of glacial activity is common, with numerous tarns and other lakes of glacial origin both above and below the treeline.

The Mount Field and adjacent Southwest national parks offer a wide range of walking for tourists and distracted cavers alike. Near to the visitor centre, and at low level within the rain forest, there are short and easy "day-off" walks to Russell Falls, Lady Barron Falls and Marriotts Falls (Figure 9). Above the tree line, well-maintained tracks take in Mt Field East, Mt Field West and a scenic circuit of the Tarn Shelf and lower level lakes (Figure 10). All of these are rewarding and include diverse scenery from dense rainforest, tall trees, boulder fields and some boggy alpine plains. Further west fine views of the southwest wilderness area and Lake Pedder can be obtained by a short ascent of The Needles to the south of the Gordon River Road. Or even better, the more substantial ascents of Mount Eliza and Mount Anne in the Southwest National Park (Figure 11) are only 40 minutes' drive from the JF karst and offer truly stunning panoramas of one of the world's finest wildernesses.

*Figure 9. Rowena Sheen at Marriotts Falls (*Fleur Loveridge)

Figure 8. The view from Mount Field West, taking in Naturalist Peak, Florentine Peak and the JF karst below. (Fleur Loveridge)

Figure 10. Nick Edwards above Lake Seal (with Lake Webster in the background) in the Mount Field National Park. (Fleur Loveridge)

Figure 11. Pete Talling with Mount Eliza behind and right and Mount Anne behind and left. (Fleur Loveridge)

Sadly, the period immediately following the expedition saw the one of the most intense and widespread periods of wildfire burning in Tasmanian memory. While the JF karst area and Mount Field National Park mainly escaped damage, the broader wilderness area, including the approach to Mount Anne, suffered substantially with the loss of significant areas of ancient rainforest and other wilderness vegetation.

12. CAMPSITE

Rowena Sheen

While doing some online digging for potential accommodation in the vicinity of Mount Field National Park, Conor had the good fortune to come across Left of Field campground, located between Westerway and Tyenna. While we had hoped to get somewhere in Maydena for proximity to the caves, the extra 10 minutes driving was well worth the compromise for the excellent base we found ourselves settling in to.

The campground itself is set between the main road and the Tyenna River, with lots of trees, ferns, grassy camping bays and no shortage of space. Adrian, the owner (Figure 12), went out of his way to ensure we had everything we needed during our stay, installing electricity, along with a fridge, toaster, kettle and hotplate in his outdoor kitchen for our use. Combined with the camp gear we had bought and borrowed, this meant we had a comfortable communal space to cook, eat, drink and be merry.

Figure 12. The two Steves with Adrian, enjoying a beer as a massive bushfire approaches from the west, which threatened to destroy his house and livlihood. (Petie Barry)

After some debate, most of the group, bar two, opted for tents over hammocks and we were given our own area to occupy with plenty of space to spread out (Figure 13), trees to set up lines for drying gear (Figures 14, 15) and an old horse box to store our group kit (Figure 16), as well as our very own, specially installed, portaloo (Figure 17). We soon discovered that the nearby river had a weir that was easily accessed and was perfect for washing gear (Figure 18). Muddy cavers became a fixture at the riverside in the evenings as the sun went down.

Figure 13. Camping under eucalyptus trees. (Petie Barry)

We had been concerned about having a dry, secure place to charge and store all of our electronics – Adrian kindly allowed us to take over a shed attached to his house for the duration (Figure 19). This quickly became known as the nerd shed - full of maps, surveys, laptops and batteries on charge. While the shed was completely open air, we never had any worries about security as the other campers consisted mostly of very relaxed retirees and families on holidays and Adrian was generally around keeping an eye on things.

Figure 14. Ample space for drying. (Petie Barry)

Figure 15. Dedicated drying logs. (Petie Barry)

Figure 16. Adrian even provided us with this horsebox for storing gear. (Petie Barry)

Figure 17. Setting up the camp shower and toilet block with Adrian. (Axel Hack)

Figure 18. Convienient washing spot in the Tyenna River, just behind the campsite. (Axel Hack)

Figure 19. Nerds in the 'nerd shed', our central information and communication node. (Axel Hack)

The kitchen was the focal point for the group (Figure 20), with relaxing breakfasts in the sun followed by hurried sandwich-making followed by plenty of faff before each group headed out for the day (Figure 21). Whichever group made it back to camp in the evenings first would get the dinner on and many's the gourmet meal that was had around the kitchen table. Inevitably, there were quite a few late callouts, so the beer drinking didn't begin in earnest 'til everyone was accounted for (Figure 22), which was probably for the best. Aside from all of the very hardcore caving we were doing, we did manage to relax a little, from drinking G&T and playing croquet on the lawn to swimming in the river to escape the heat, as well as barbecues and music for Christmas and New Year's Eve - all part of the package when you stay at Left of Field campground.

Figure 20. The camp kitchen, and our living room for three weeks. (Petie Barry)

Figure 21. Packing up for a day's caving. (Axel Hack)

Figure 22. The entire team back at base. (Axel Hack)

13. GEOLOGY

Seamus Breathnach

An Ordovician sedimentary sequence nearly 2 km thick, known as the Gordon Group (Burrett and others 1984) makes up the majority of the limestone in the Junee-Florentine area. Deposited on top of sandstones and conglomerates of the Denison Group, these rocks were subsequently warped into folds known as the Florentine Synclinorium (Corbett and Banks 1974) during the Tabberabberan Orogeny; a significant mountain-building event in eastern Australia during the Devonian period.

Further sedimentation from the late Carboniferous to the Permian/Triassic formed the Parmeener Supergroup, a sequence that unconformably covers the limestones.

The peaks of the Mount Field massif are the remains of eroded dolerite intrusions through these Parmeener sediments.

Di Davies (1980) summarises the Gordon Limestone sequencing, being divided into three formations described below:

> "1. Karmberg Limestone: 150 m of the upper limestone is rich in chert and the lower 300 m consists of impure nodular limestone and siltstone and can be seen out-cropping at the Nine Road junction. The chert member is mainly unfossiliferous, dark grey and contains up to 50% chert. It out-crops on the Four and Six Roads and the north-west slopes of Wherretts Lookout.
>
> "2. Cashions Creek Limestone: thickly bedded dolomite limestone which forms prominent strike ridges and weathers to a white colour. Outcrops can be seen at the junction of Lords and Westfield Roads. *Maclurites* (a large flat-bottomed gastropod) and *Girvanella* (spherical colonies of alga up to ½ inch across) occur in profusion.
>
> "3. Benjamin Limestone:
>
> a) The lower member is exposed in the vicinity of 16 Road. The lower half of the member is mainly unfossiliferous with occassional brown to black beds of limonitic limestone. A distinctive fossiliferous horizon is exposed about 100 m south-west of the Eden Creek and Lawrence Creek roads' junction. The rock is mainly composed of fragments of corals, sponges, brachiopods, gastropods and cephalopods.
>
> b) The Lords Siltstone member is 15 m thick and is exposed on the Florentine Road 200 m east of the Florentine Road Bridge.
>
> c) Upper Limestone member is 600 - 700 m thick and is exposed at the southern end of the Westfield syncline. Fossils are distributed throughout the member, corals being most common with gastropods, brachiopods and some cephalopods also present. At least six zones of very impure brownish black limonitic limestone occur (Two Straws - JF-147).

Limestone crops out over an area of over 30 square kilometres, from 250 m near the confluence of the Junee and Tyenna Rivers, to approximately 800 m on Wherretts Lookout (Eberhard 1994). Caves in the Junee-Florentine area are predominantly formed in exposed areas of the Karmberg, Cashions Creek and Benjamin limestones, which present in between the Parmaneer rocks.

The geological map at Figure 23 was developed by the expedition team. The map shows the geological profile

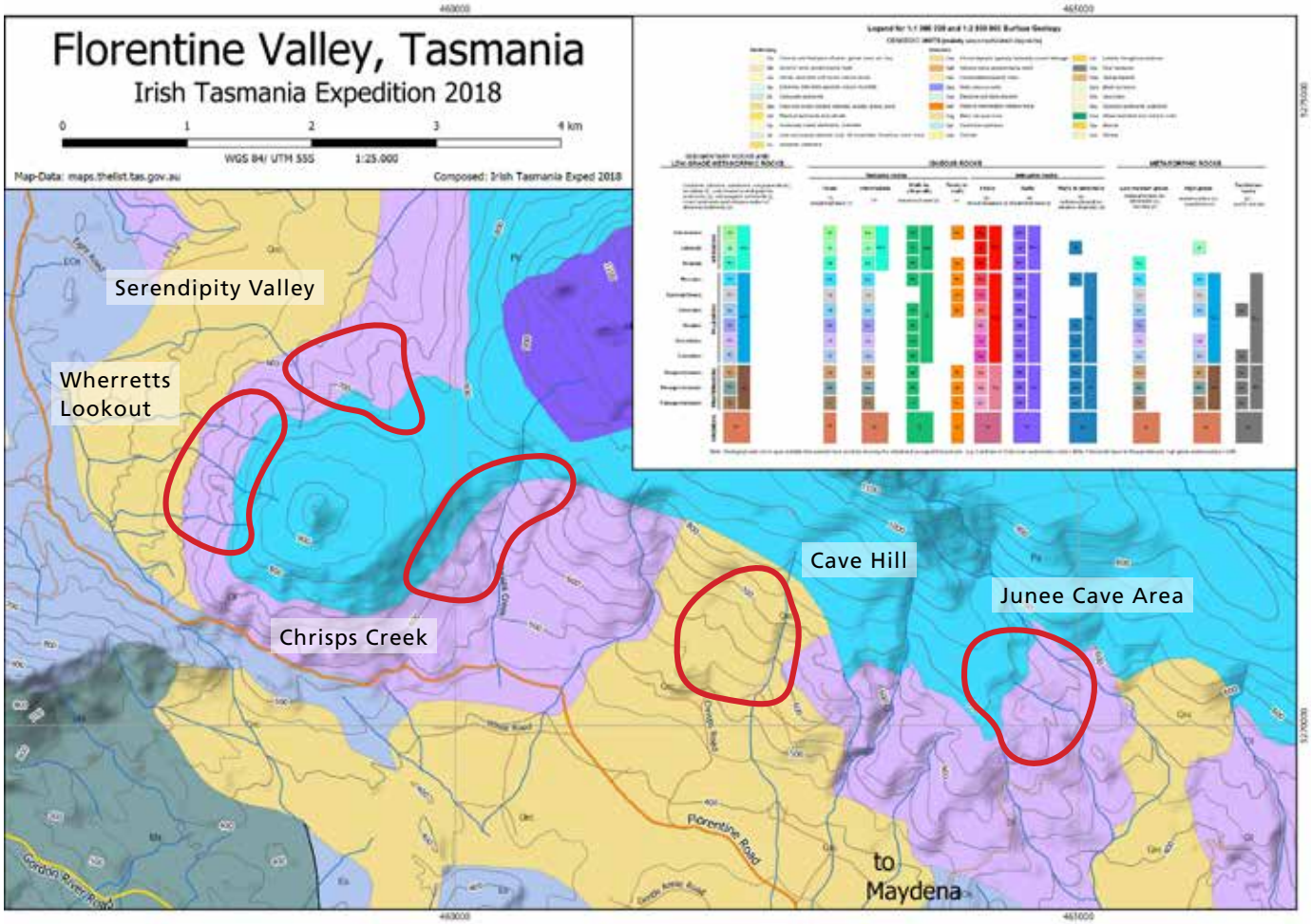


Figure 23. Geological profile of the Junee-Florentine karst area with areas of limestone contact and the areas investigated during the expedition.

of the Junee-Florentine karst area with areas of limestone contact and the areas investigated during the expedition.

In terms of limestone relief, karst in the Junee River catchment has few parallels in Australia and is outstanding in this respect. Karsts of greater relief are present in Tasmania, but these are developed in different rock types. In terms of extent, the karst conduit and hydrological system linked to Junee Cave is unusual and outstanding in Australia.

Finally, the location of the karst on the margin of an area that was subject to past glaciation is of great significance, as few such karsts are present in the Southern Hemisphere.

References

Burrett, Clive, Stait, Bryan, Sharples, Chris & Laurie, John 1984 Middle-Upper Ordovician shallow platform to deep basin transect, southern Tasmania, Australia. [In] Bruton, D.L. (ed.) Aspects of the Ordovician System. *Palaeontological Contributions from the University of Oslo, Universtetsforlaget,* 295: 149-157.

Corbett, K.D. & Banks, M.R. 1974 Ordovician stratigraphy of the Florentine Synclinorium, Southwest Tasmania. *Proceedings of the Royal Society of Tasmania,* 107: 207-230.

Davies, Di 1980 Florentine limestone in particular. *Speleo Spiel,* 161: 3-4.

Eberhard, Rolan 1994 *Inventory and management of the Junee River Karst System, Tasmania*. Forestry Tasmania: Hobart. 125 pp.

CAVE REPORTS

AREA OVERVIEW

The caves of the Junee-Florentine are laid out in a crescent which sweeps along the western and southern flanks of Mount Field West. All accessed off the Florentine Road, they are geographically divided into two main areas, those in the Florentine River watershed (though draining to the Junee River), and those in the Junee River catchment. The caves are futher grouped into smaller and more infomal clusters such as Wherretts Lookout, Cave Hill and Chrisps Creek.

Using GIS software and publicly available mapping data, we were able to plot topographic information and overlay cave locations to assist with exploration. Geological maps could also be overlaid (see Geological section) to plot boundaries of limestone contact. In preparation for the expedition, maps were printed and laid out on hardboard within the "nerd shed" in base-camp so that the team could orientate, plan and plot relevant trips. Figure 24 provides a high level 1:50,000 overview of the Florentine Valley with the areas explored on the expedition indicated in red.

The following map (Figure 25) is a zoomed in 1:35,000 section of the Florentine Valley showing some of the explored areas in more detail.

NINE ROAD

JF-232 Udensala

Length: c. 450 m (212 m surveyed)

Depth: 182

Overview

Udensala is a 182 m deep cave developed along a steeply inclined joint. It consists of a series of loose wet climbs and short pitches, which enter a large chamber. Steep down-climbing brings the caver to a final 9 m pitch, after which the cave chokes off. Explored in 1984 by members of the SCS and TCC (Hume 1984a, b), it lay unvisited until 2018, when Andreas Klocker became interested in it (Klocker 2018). The interest in this cave lay in its position midway between Burning Down the House and Porcupine Pot. Given that a large conduit must exist between these two caves, there was the possibility that a westward extension of Udensala would intercept this conduit.

The name of this cave comes from the Latvian for 'water cave' (*udens alu)* as one of the original explorers, Aleks Terauds, was of Latvian descent. It is an apt name, as it is almost impossible to avoid a complete soaking in this cave. The extant survey of the cave made it look pretty intimidating, essentially showing a near-continu-

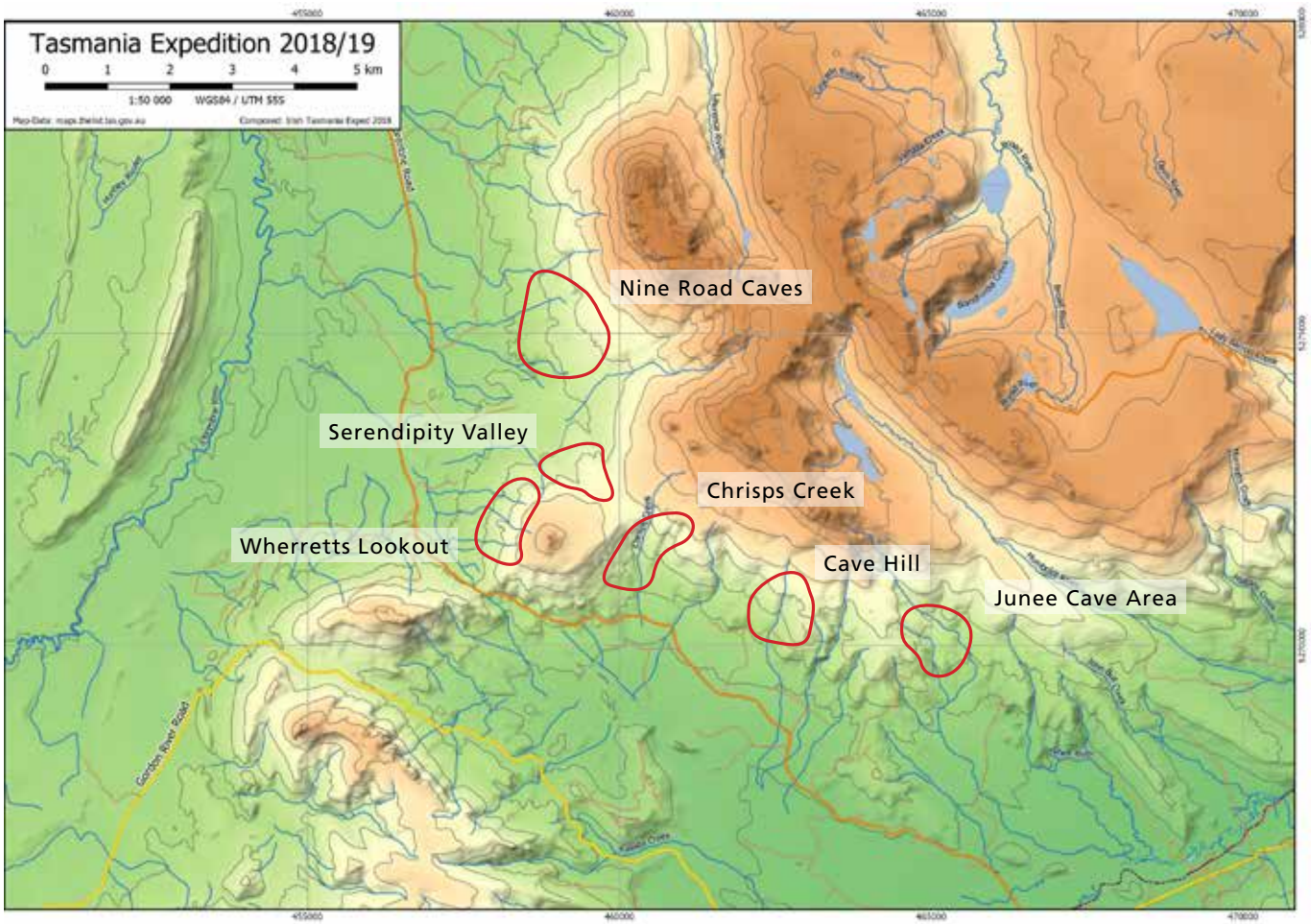


Figure 24. A high level overview of the Junee-Florentine karst area with the areas explored on the expedition indicated in red.

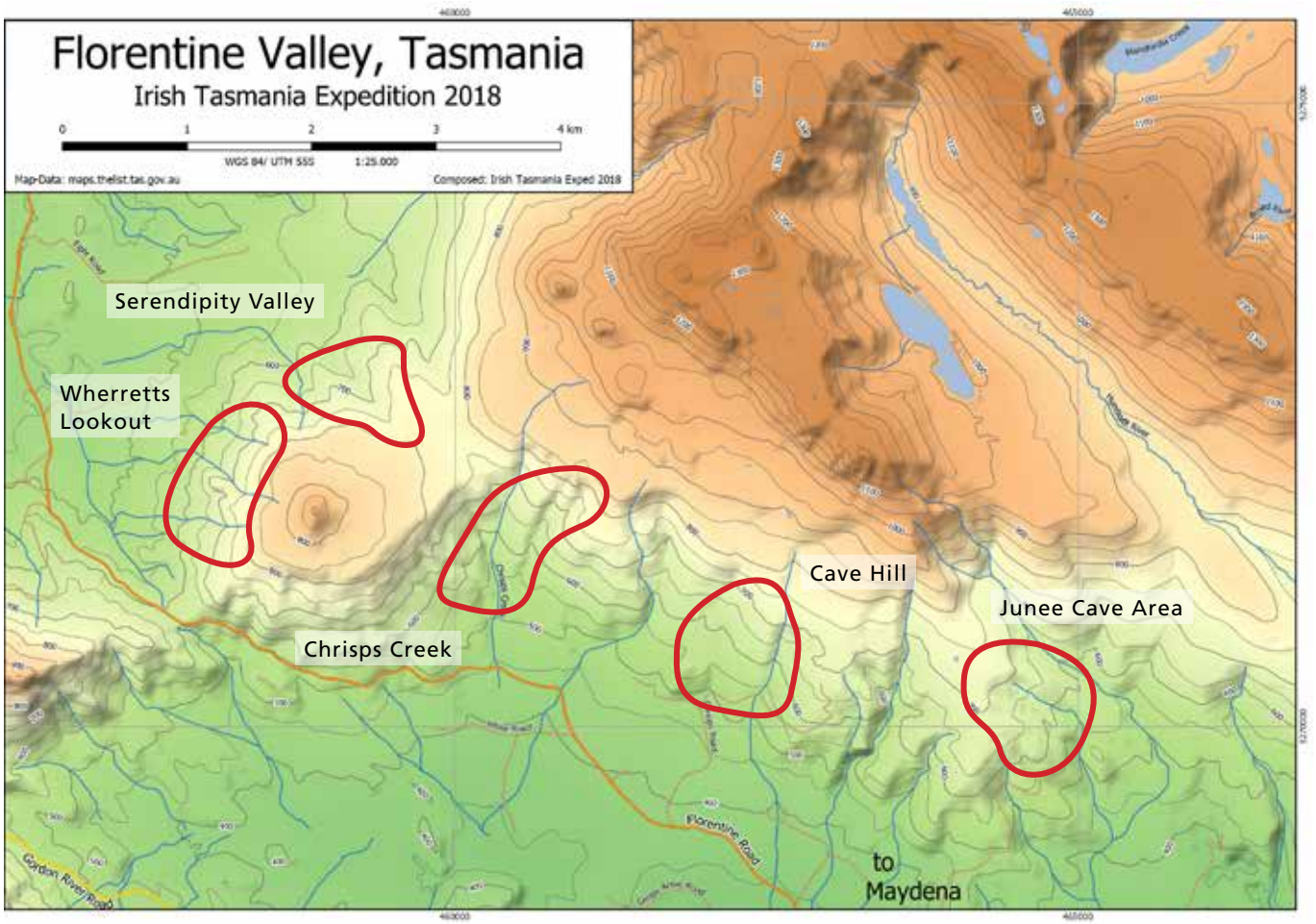


Figure 25. An enlarged section of the Junee-Florentine karst area showing some of the explored areas in more detail.

ous descent through boulders to a depth of -182 m. The descriptions also hinted at a death-defying horror show of a cave. In reality it wasn't quite so bad and made for a good bit of gnarly sporting caving, though it certainly was very loose and wet.

Previous Exploration

Udensala was discovered in January 1968 by a party from the Southern Caving Society and explored over two trips in March of that year. They do not give a detailed account of their explorations, but from a sketch survey they appear to have descended as far as the head of Communication Breakdown at a depth of approximately 30 m (Terauds 2014a, b, c).

In the winter of 1984 the cave was pushed by members of the SCS and TCC over the course of a number of trips. Following a recce, Nick Carnes and Nick Hume descended Communication Breakdown and followed the cave as far as the chamber above Spring Rain. A survey party the following week found Spring Rain. A large joint party of SCS and TCC cavers joined forces a week later, with the SCS bottoming Spring Rain and surveying the cave, while the TCC party pushed a separate shaft series beneath the Culture Bunker, reaching the head of the 28 m pitch (Hume 1984a, b). This appears to have been pushed on a later (unpublished?) trip. A survey was drawn up, though not published until 1995 (Jackson 1995) – Figure 26.

Before we arrived in Tasmania, Andreas Klocker began efforts to re-explore this cave, bolting down as far as the top of the Culture Bunker (Klocker 2018).

Push Dates

21 December 2018

Stephen McCullagh, Andreas Klocker, Petie Barry, Pete Talling

Continued to re-explore the cave past Andreas's previous limit, getting as far as the head of Spring Rain (-170 m). Explored the Infinite Rift and searched for TCC extension without finding it.

23 December 2018

Stephen McCullagh, Andreas Klocker, Petie Barry, Stephen McCullagh, Aileen Brown

Re-located and re-explored TCC series. Surveyed The Culture Bunker, Infinite Rift and the TCC Extension.

Description

A small creek flows into the cave. The cave starts off as a scramble down over dolerite boulders, passing through a squeeze and then down a short climb. Wriggling down through boulders and short sections of rift reaches a miserable wet climb down through boulders. A 6 m pitch follows soon after. At the foot of the pitch an obvious route descends down a boulder slope (which takes a stream in wet weather), however after c.15 m this chokes off. The way on is made by doubling back at the foot of

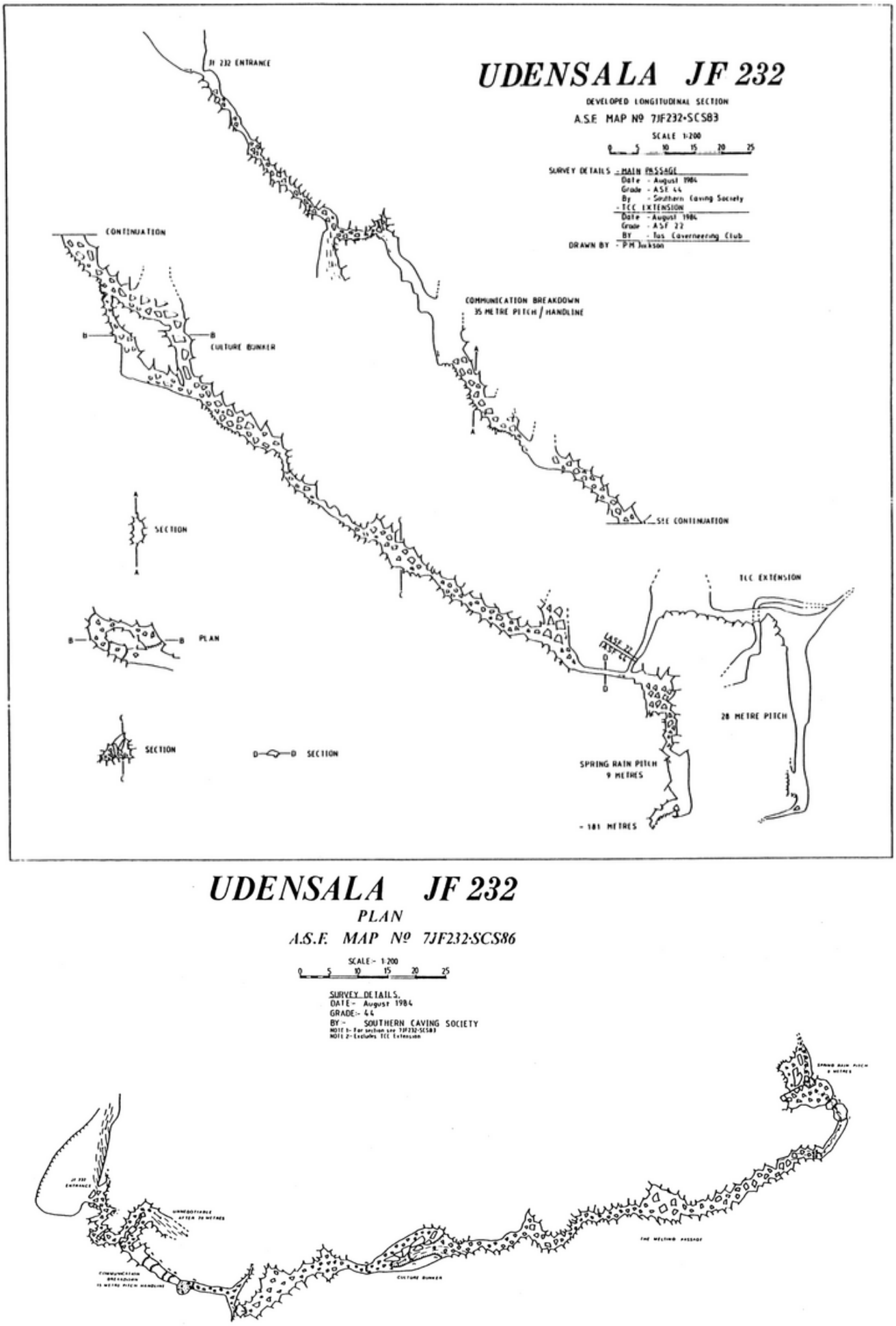


Figure 26. The intimidating existing (1984) survey of Udensala, from Southern Caver, *68:10 (Jackson 1995)*

the pitch through a slot between boulders and the wall. This reaches a very loose slope of sandstone cobbles and boulders down to the head of Communication Breakdown - an inclined and very wet pitch of c.25 m. At the bottom a short section of stream passage leads to an 8 m pitch with a tight pitch head. From the foot of this pitch the stream flows into a choked hole - a loose downward squeeze is found just to the right of this.

The passage continues as an inclined rift, dropping down a series of short steps until a 10 m pitch is met. Not far beyond the foot of this pitch the stream vanishes into a large pot. This can be skirted around to the left, the passage pinching to a crawl and reaching the head of another pitch. This inclined low descent drops down between the passage roof and a large collapsed slab to enter The Culture Bunker, a very large chamber some 50 m long and 30 m square at its largest. The character of the cave changes dramatically as you enter this chamber, from wet active streamway, to large dry(ish) chambers and rifts. Clambering down over a mass of huge boulders brings the caver to the foot of the chamber, beneath drips from an inlet high above. A number of ways on present themselves.

Straight ahead, following the boulders downwards leads to a steeply inclined rift. The descent eventually levels off as a small inlet appears from under the boulders. This stream is followed into a small passage with solid walls (on either side!). This quickly reaches a 4 m climb-down into a small junction chamber. To the left a clamber over boulders leads into a short section of passage with a large stream, presumably the re-emergence of the main stream lost just before reaching the Culture Bunker. This quickly chokes off. To the right and downwards at the foot of the 4 m climb leads to the head of Spring Rain, a 9 m pitch, not bottomed by our party. From the foot of this pitch it is possible to follow a low crawl over mud-banks which soon chokes in large boulders.

Back in the middle of The Culture Bunker, an obvious tall rift continues upwards to the NW - the Infinite Rift. This can be followed at a number of levels. Staying low, an easy scramble leads to a steeply descending tube, which evidently takes a stream from time to time. This curves around to the right and soon chokes off in mud and boulders. Climbing higher up in the rift, various levels can be followed. No definitive upper end to the rift was found - various hideous-looking routes up into the boulders could be seen which didn't tempt us. A more promising climbing lead is found at the far NW end of the rift, though its approach is guarded by a series of threatening boulders.

Back once more in the Culture Bunker, the route into the TCC extension can be found underneath the high dripping inlet. A drippy pitch against the back wall can be skirted around and a climb down through boulders leads into a series of small boulder chambers. These emerge into a larger chamber. It is possible to spiral around this chamber and down to the head of a drippy 28 m pitch. At the bottom a streamway is met, with low passages heading NW and SE. Downstream can be only followed a short distance before lowering and choking. Upstream can be followed for c. 50 m through low crawls over boulders. It continues, however it is not hugely promising.

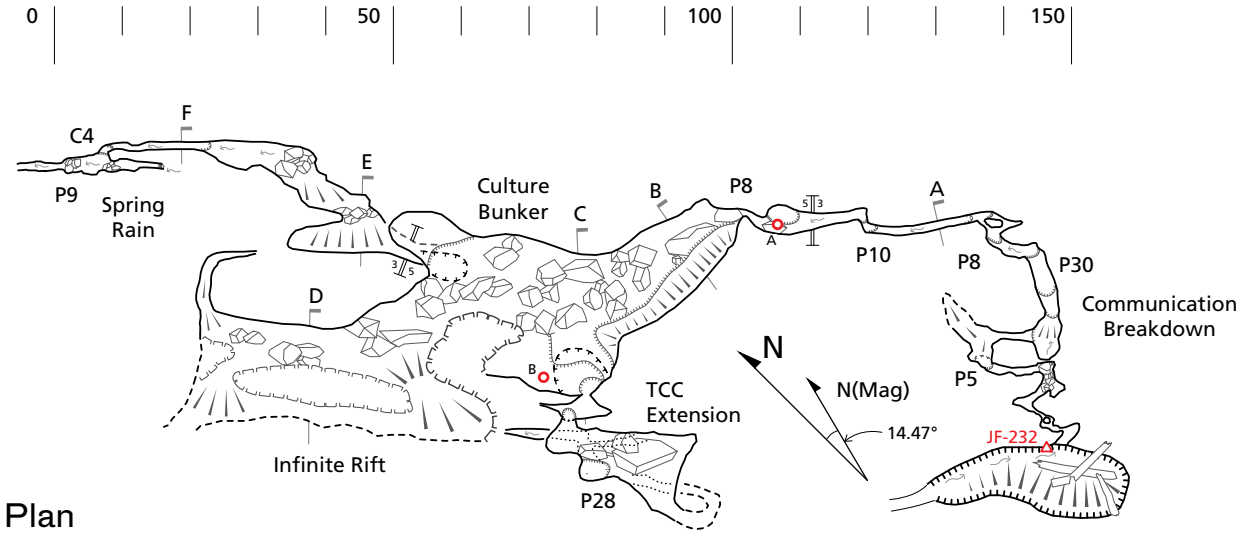
Back in the large chamber an obvious route SE can be found, this drops down a 20 m handline pitch and leads to a 14 m pitch with a streamway audible below. The 1984 explorers presumed this to be the sound of the main streamway flowing under the Culture Bunker. This passage was not fully explored by us, however a sound connection was noticed between here and the 28 m pitch. It seems likely that the 14 m pitch drops into the foot of the 28 m pitch, via an inlet visible half way up the pitch, and that the stream heard by the 1984 explorers was that below the 28 m pitch.

Discussion

The aim of these explorations was to see if it was possible to extend Udensala west and intercept the conduit running between Porcupine Pot and Burning Down the House. In the end, little new cave was discovered, and there seems little immediate possibility to extend the cave west. The TCC extensions were our main focus. While initially difficult to locate due to the confusing survey data, once found it was quickly bottomed and found to offer little hope of extension. Downstream at the end of the series was quickly found to be dead, while the upstream lead is still going though in the wrong direction, and unlikely to yield a significant breakthrough. It might be possible to force a way on in the Infinite Rift. High up at the far western end of this was a promising-looking climb, though the presence of several large dangerous-looking boulders just before it is a disincentive to pushing it. It is not certain whether this would lead to a route over the top of Spring Rain, or just climb towards the surface. The boulder choke at the bottom of Spring Rain was not investigated, and a dig with modern techniques might create a breakthrough here. A strong inward draught was noted in the upper parts of the cave, though this became impossible to trace once the cave widened out.

A note on the survey (Figure 27)

The 1984 survey of Udensala (Jackson 1995) was found to be unsatisfactory, and seemed more like a low-grade sketch at times. The large feature of the Culture Bunker is barely indicated, while the TCC extension was shown in entirely the wrong place. However the original survey notes were all well-preserved and scanned copies of these were invaluable in re-locating the TCC extension. We undertook a high-grade survey from the top of the pitch into the Culture Bunker, taking in the Infinite Rift, then down to the bottom of the TCC extension. Time constraints prevented us from resurveying the remainder of the cave, also it would be very difficult to protect the



Plan

JF-232 Udensala

Junee-Florentine, Tasmania

7JF232.STC437

Shannon Group Tasmania Expedition 2018-9

UISv2 5-3-A, remainder to UISv2 3-2-A

Surveyed by Petie Barry, Stephen Macnamara and Aileen Brown 23/12/2018

Drawn by Petie Barry Jan 2019

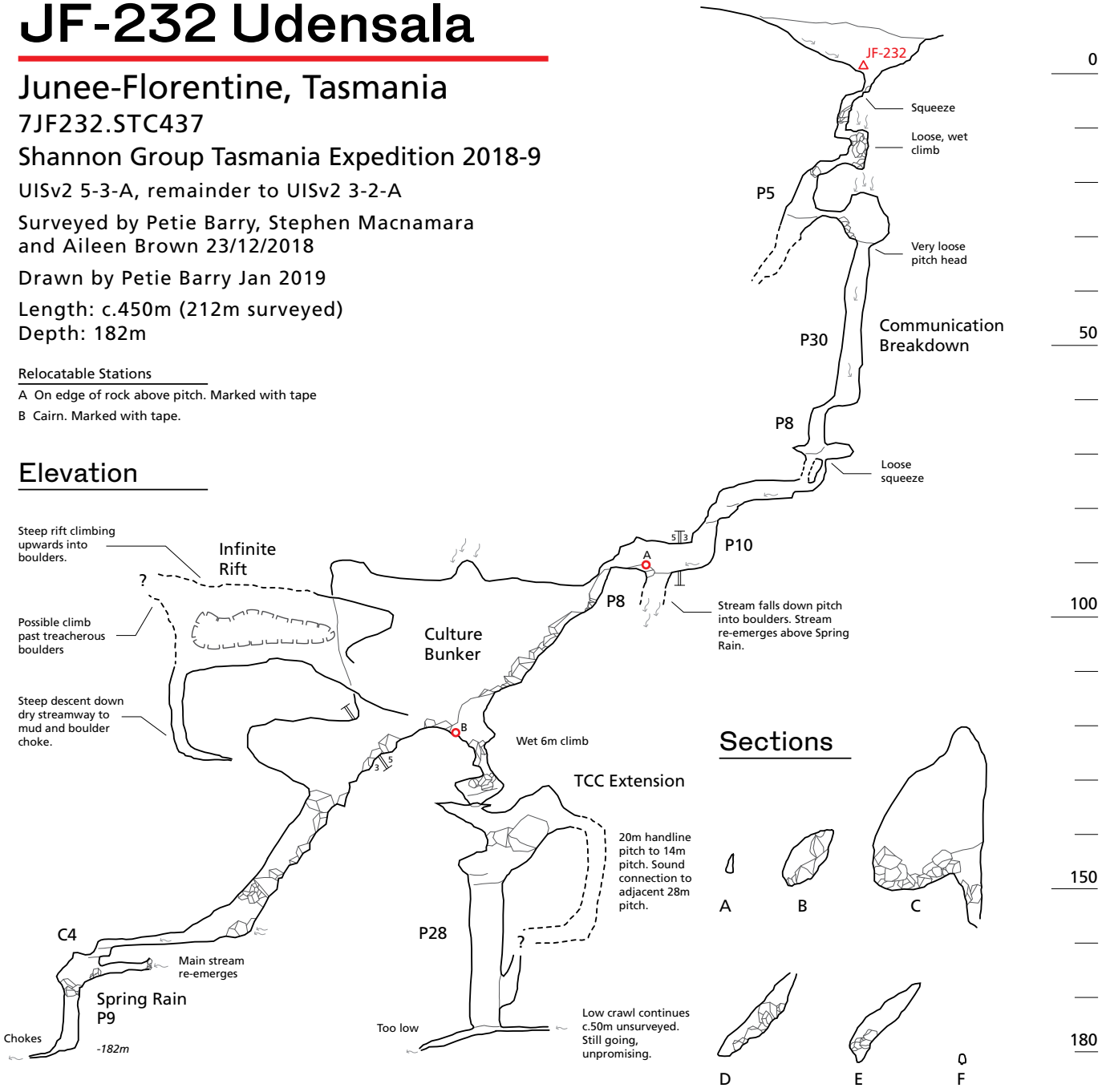
Length: c.450m (212m surveyed)
Depth: 182m

Relocatable Stations

A On edge of rock above pitch. Marked with tape

B Cairn. Marked with tape.

Elevation



Sections

Figure 27. Resurvey of JF-232 Udensala.

sensitive DistoX from water damage in the upper parts of the cave. The remainder of the cave has been drawn based on careful sketches made shortly after exiting the cave.

When plotted by us, the 1984 survey data showed the cave to run due north. However, the sections surveyed by us show the cave running from SE to NW, more in line with the dominant direction of Junee-Florentine caves. Accordingly, the unsurveyed parts of the cave have been oriented on these lines. Given that the original survey notes include the comments 'CUNT' and 'FUCKING CUNT', it is safe to say that the cave was surveyed in fairly trying conditions and inaccuracies are to be expected. In our survey the unsurveyed sections of passage are shown running in a NW-SE direction. In the absence of better data, the 1984 survey depth of -182 m has been maintained, which in any case seems a fairly accurate figure.

References

Hume, Nick 1984a "Udensala" - Every which way is loose. *Speleo Spiel,* 200: 11

Hume, Nick 1984b The saga of 'Udensala" - Episode Four. *Speleo Spiel,* 200: 11

Klocker, Andreas 2018 JF-232 Udensala - revisiting the JF's loosest cave. *Speleo Spiel,* 429: 9

Jackson, P.M. 1995 Udensala (JF232). *Southern Caver,* 59: 18-19

Terauds, Aleks 2014a Florentine Valley, F9 Road 21/1/68. *Southern Caver,* 68: 9

Terauds, Aleks 2014b Florentine Valley, F9 Road 17/3/68. *Southern Caver,* 68: 10

Terauds, Aleks 2014c Florentine Valley, F9 Road 3/3/68. *Southern Caver,* 68: 10-11

Figure 28. Kitting up for Udensala. (Petie Barry)

WHERRETTS LOOKOUT

JF-689 Night of the Radishes

JF-690 Tom Bawcocks Pot

Overview and previous exploration

Rolan Eberhard's forestry report of 1994 had produced a list of Z-caves, not fully explored and documented but locations recorded nonetheless (Eberhard 1994). JF-Z65 and JF-Z66 were recorded as being on a northwestern ridge of Wherretts Lookout, just south-west of Wherretts Swallet One and Two. These caves were also recorded by Clark (2000). Jackson (2009) attempted to locate these caves, but failed.

SS 389 describes the most recent attempt prior to the expedition at locating these caves in 2012 by Bunton, Klocker and Euston (Bunton 2012). In the write up, Stephen Bunton was convinced at one stage that JF-590 was actually JF-Z66 due to potential errors in the location of the nearby Wherretts Swallets which would indicate that Z65 and Z66 could also have been recorded erroneously. The proposed locations of Z65 and Z66 were indicated by Jackson on an overlay of Eberhard's map (Jackson 2012).

Push Dates

21st December 2018

Brian McCoitir, Claire Macnamara, Stephen Macnamara, Aileen Brown, Róisín Linday

A first excursion bush-bashed its way up the Serendipity Valley, making their way to the surrounds of Wherretts Swallet, but did not find any further leads for Z-caves.

23rd December 2018

Seamus Breathnach, Djuke Veldhuis, Mark Euston, Conor McAdams

After parking at the end of 6 Road, we used forestry-cleared areas to gain a quick 100 m of progress up the hill. Heading SE, the objective was to zig-zag and bush bash up the ridge, aiming to find Z67/68 and 69 on the way, but no obvious signs of these caves were found. At 740 m, on the contact, two surface pots were found about 15 m apart, matching approximately the elevation and recorded locations of JF-Z65 and JF-Z66.

The southern pot was explored first, presumably JF-Z65 (now tagged JF-689) and named Night of the Radishes. It had an abundance of animal skulls at the bottom of a 10 m shaft. A 6 m climb down to the left at the bottom of the entrance shaft ended in a tight rift. Following the higher level passage, another 10 m pitch was dropped, and after a further 2 m climb down ended progress at another tight rift, with a sliver of draught.

The northern pot, presumably JF-Z66 (now tagged JF-690) and named Tom Bawcocks Pot, initially seemed more promising (Figure 29) but also bottomed out at about -12 m in a tight rift.

JF-689 Night of the Radishes

Junee-Florentine, Tasmania
7JF689.STC443
Shannon Group Tas. Exped 2018-9
UISv2 3-2-A
Drawn by Petie Barry June 2019 after sketch by Mark Euston

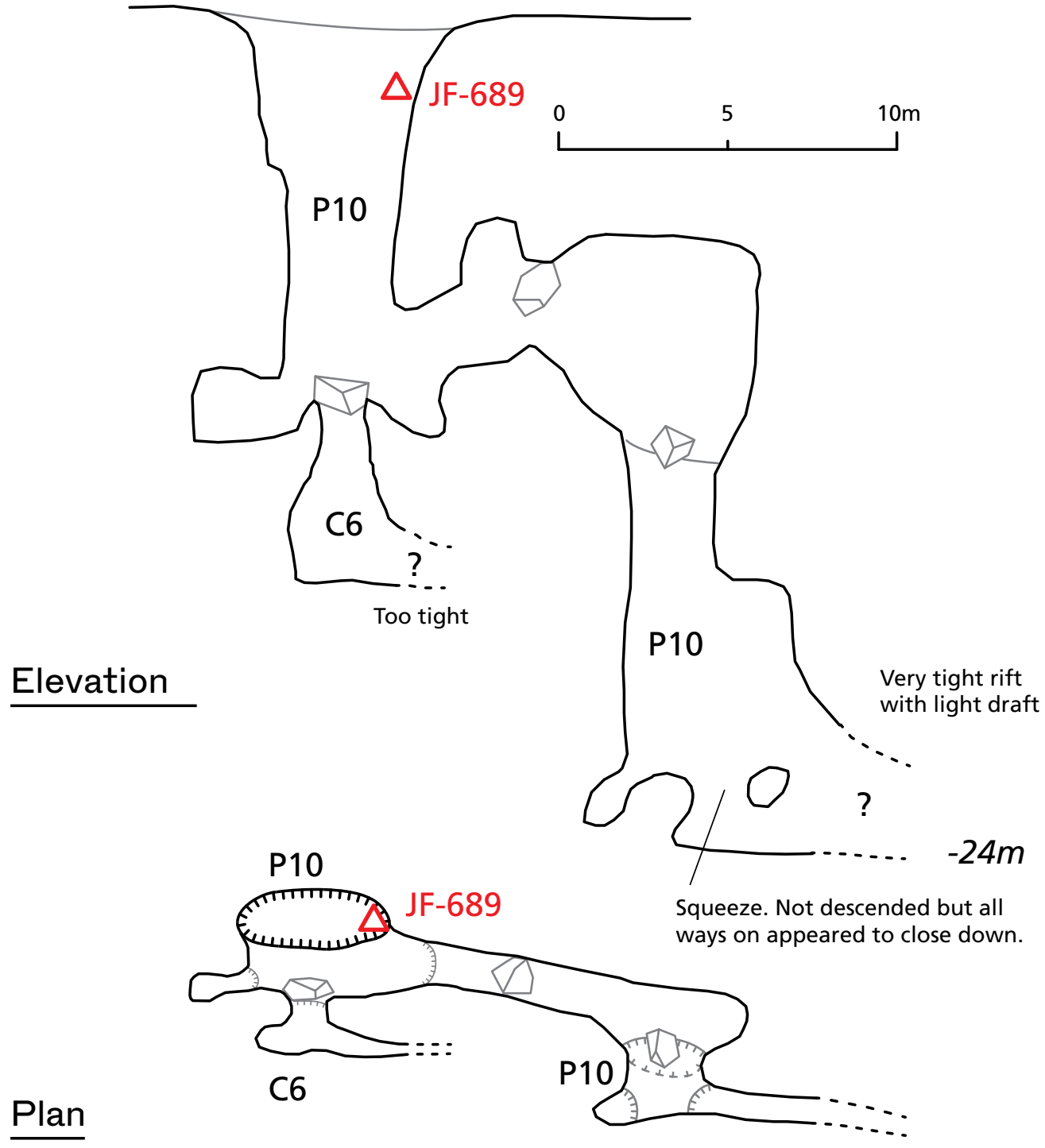


Figure 29. Plan and elevation of JF-689 Night of the Radishes.

JF-690 Tom Bawcocks Pot

Junee-Florentine, Tasmania
7JF690.STC442
Shannon Group Tas. Exped 2018-9
UISv2 3-2-A
Drawn by Petie Barry June 2019 after sketch by Mark Euston

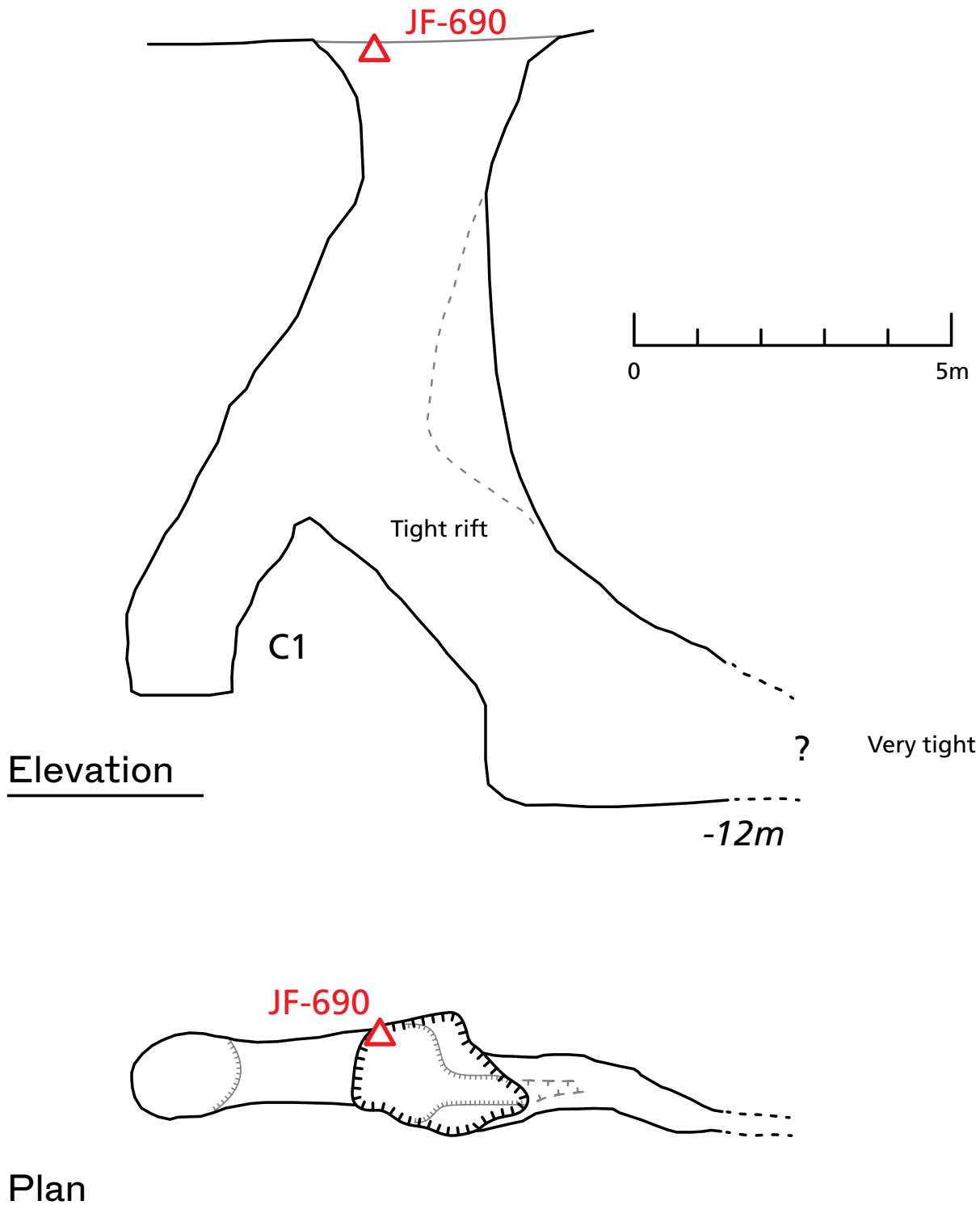


Figure 30. Plan and elevation of JF-690 Tom Bawcocks Pot.

The two caves were surveyed (Figures 29 and 30).

Discussion

Since the expedition, the caves have been re-visited by Alan Jackson and tagged JF-689 and JF690 (Jackson 2019). At the time of prospecting, the expedition team did not have the cave descriptions from Eberhard's 1994 Forestry Report and only had approximate locations from contour maps. It seems that even though the caves are in the approximate locations reported for JF-Z65 and JF-Z66, the descriptions do not match those in the Report and therefore are unlikely to be these Z-Caves. It seems likely that these caves are new discoveries.

The names given reflect the caves' exploration on 23 December and reference offbeat celebrations held abroad on this day. 'Night of the Radishes' is a radish-carving festival held in Oaxaca, Mexico, while Tom Bawcock's Eve is a celebration held in Cornwall, England in memory of a brave fisherman who saved the town of Mousehole from starvation.

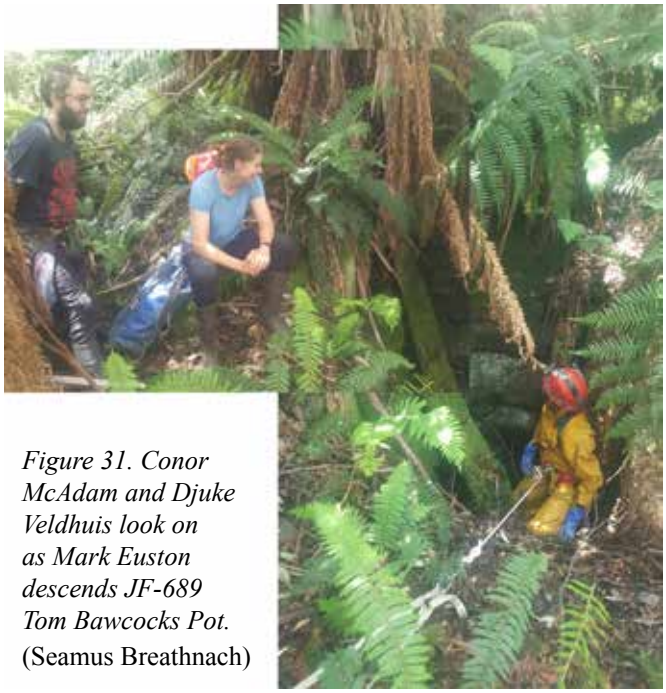


Figure 31. Conor McAdam and Djuke Veldhuis look on as Mark Euston descends JF-689 Tom Bawcocks Pot. (Seamus Breathnach)

References

Bunton, Stephen 2012 Where Warhol was and Wherretts Swallets are now. *Speleo Spiel,* 389:15.

Clark, Arthur 2000 A complete list of known caves in the Junee-Florentine Karst. *Speleo Spiel,* 318: 27.

Eberhard, Rolan 1994 *Inventory and Management of the Junee River Karst System, Tasmania.* Forestry Tasmania, Hobart. 125 pp.

Jackson, Alan 2009 JF-248 Four Road Swallett via Hell. *Speleo Spiel,* 389: 15.

Jackson, Alan 2012 Perfidy, Frownland and Pendant Pot surveying. *Speleo Spiel,* 393: 17.

Jackson, Alan 2019 JF cave numbering on Wherretts Lookout. *Speleo Spiel,* 433: 21.

SERENDIPITY VALLEY

JF-338 Lost Pot

Length: 608 m

Depth: 183 m

Overview and previous exploration

Discovered by Stefan Eberhard in 1980, the location was thought to be lost until re-found in 1983 (Eberhard, R. 1983; Eberhard, S. 1983). On the first push it was bottomed at a choke at -175 m. Further pushes in 1984 and 85 failed to extend this branch of the cave (Hume 1984, Wailes 1985). A breakthrough came in 2005 when a traverse across the top of the 70 m pitch revealed a second pitch series (Brett 2005). This was pushed down a series of pitches but eventually rejoined the terminal chamber (McKinnon 2005). Another push saw a 40 m pitch to the side pushed in to a high rift, Iron Anniversary, which terminated in a boulder floor (Jackson 2005).

Although there is a strong outward draught at the entrance, this is lost inside the cave and the way on is unclear. The cave has significant depth potential and is situated over 150 m above Serendipity. The choke at the bottom of Iron Anniversary was thought promising and might give way to a more determined push.

Push dates

26 December 2018

Stephen Macnamara, Claire Macnamara, Brían McCoitir, Axel Hack, Conor McAdams

Rigged down as far as the head of the traverse over the top of the 70 m pitch, where it was discovered that through-bolts had been used, rather than the expected spits, so there were no nuts on hand to secure the hangars. The 70 m pitch was dropped and a brief re-investigation undertaken in the boulder choke at the bottom of the cave.

27 December 2018

Stephen Macnamara, Claire Macnamara, Brían McCoitir, Axel Hack, Conor McAdams, Kayleigh Gilkes.

Claire, Kayleigh and Brían went to the bottom of the 70 m pitch and had another unsuccessful foray into the boulder choke there, however it was very unstable and the unpromising leads require digging. A drop into a large boulder chamber was spotted and left for the following day. Stephen, Axel and Conor re-rigged the traverse around the top of the 70 m pitch and descended as far as the balcony looking into the main chamber.

28 December 2018

Stephen Macnamara, Claire Macnamara, Brían McCoitir, Conor McAdams, Kayleigh Gilkes.

Conor, Kayleigh and Brían went to the bottom of the 70 m pitch to drop the short pitch into the boulder chamber.

Figure 32. Conor McAdams in Lost Pot. (Axel Hack)

This, however, turned out to be part of the main chamber. Claire and Stephen went over the traverse to undertake the climb up to Iron Anniversary, however upon arriving they found that the hangers had been forgotten. Instead they dropped the final 25 m pitch into the main chamber and joined the other group. The main 70 m pitch was derigged.

29 December 2018

Stephen Macnamara, Claire Macnamara, Brían McCoitir, Conor McAdams, Rowena Sheen.

Stephen and Brían pushed ahead to undertake the climb into Iron Anniversary, while Conor, Rowena and Claire surveyed. Iron Anniversary was dropped, and promising digging leads noticed, however the drill had become wet and died, leaving the team unable to operate. The cave was derigged as far as the top of the 70 m pitch, whereupon a bag containing 80 m of rope was dropped down the pitch.

30 December 2018

Brían McCoitir, Rowena Sheen.

The 70 m pitch was re-rigged and the rope retrieved. The cave was then fully derigged.

Description

From the entrance, a steep muddy climb down reaches the head of the first pitch, a 10 m drop. This passes a large passage heading back to the surface on the left. The main rift continues downwards via a narrow rift, reaching the head of a 12 m pitch. The main 70 m pitch is reached soon after. This is a superb drop down a fluted shaft, free hanging all the way with a single rebelay half way down. At the bottom the final 7 m pitch is met. Below this a deep pool is found in a rift to the right, and the main route past this meets a large rock pile just beyond this. It is possible to squeeze down into the drippy boulders here for a good distance before the way on becomes too desperate and tight. While the air is very fresh here, the boulders are very loose and no promising way on could be determined. Opposite where you climb down into boulders it is possible to clamber up into a huge chamber, some 60 m long, and boulder floored throughout.

The 2005 extensions can be found via the traverse on the LHS of the head of the main pitch. A series of four through-bolts are available for this very exposed traverse. At the far side a 10 m pitch is met in a tall meandering rift passage. At the foot of this another 10 m of rift and then another 10 m pitch. A short length of canyon reaches a 25 m pitch down onto a broad balcony, with another 25 m pitch dropping into the large main chamber.

From the balcony a 10 m climb leads to the continuation of the main rift, a 40 m drop into a large rift chamber named Iron Anniversary. This ends after 40 m in a drippy boulder choke in the floor, at a similar level to the choke in the main rift.

Figure 33. Brían McCoitir at the head of the 70m pitch. (Axel Hack)

Discussion

The main focus of the efforts in Lost Pot was to dig the draughting boulder choke at the bottom of Iron Anniversary, which had only been briefly visited in 2005. The 2005 extensions also had not been surveyed. In the end, due to a series of equipment failures and planning mistakes which left key bits of kit on the surface, it took four days to reach Iron Anniversary. By then over 200 m of rope was in the cave, the majority of the exped's rope, and it was decided to derig the cave in order to use the rope in our going leads in Whistler and Hot Prospect. The dropping of 80 m of rope down the derigged 70 m pitch summed up a frustrating adventure in this cave.

After all that effort, the boulder choke at the end of Iron Anniversary was not found to be very promising, the boulders seeming to choke quite solidly. However above the choke there are a number of dark spaces in the roof of the rift, which may yield to a bolt climb.

Our survey of Lost Pot is at Figure 34.

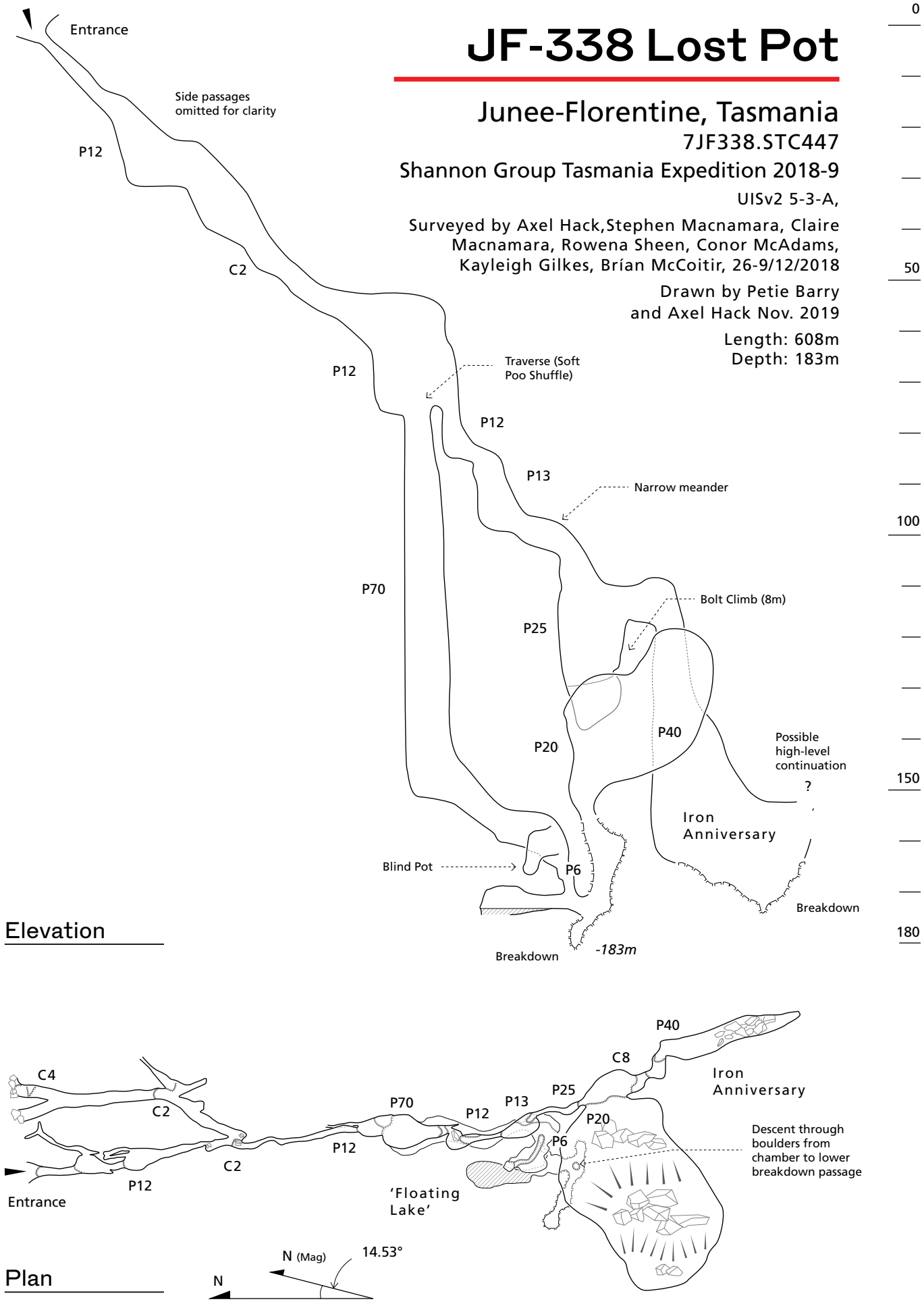


Figure 34. JF-338 Lost Pot, elevation and plan.

References

Brett, Gavin 2005 JF-338 Lost Pot - Horizontal experiments in vertical caves : 16 October 2005. *Speleo Spiel,* 350: 9.

Eberhard, Rolan 1983 Lost Pot. *Speleo Spiel,* 190: 7.

Eberhard, Stefan 1983 Florentine Valley 23/24-2-83. *Speleo Spiel,* 185: 7-8.

Hume, Nick 1984 "Lost Pot" - Apathy gets me down - 16 September. *Speleo Spiel,* 201: 9-10.

Jackson, Alan 2005 Lost Pot: 13 November 2005. *Speleo Spiel,* 351: 6.

McKinnon, Janine 2005 JF-338 Lost Pot - More up than down: 5 November 2005. *Speleo Spiel,* 351: 5.

Wailes, Trevor 1985 Lost Pot. *Speleo Spiel,* 206: 6.

THE BENSON & HEDGES SERIES

Overview and previous exploration

The Benson and Hedges Series is a collection of shortish shafts located at the head of the Serendipity Valley and named for the cigarettes one of the explorers was smoking at the time. First looked at in 1982, the holes were explored and numbered by the TCC between 1983 and 1986.

There is no precise definition of which caves are part of the Benson and Hedges Series - the TCC produced surveys of 14 potholes in the series in 1985, other potholes such as JF-380 which were not included in this list are part of this same cluster of holes. For an overview of the area, refer to the maps in Eberhard (1982b) and Eberhard (1985).

The holes have received sporadic attention since the mid 1980s. Given the position of the holes right at the head of the Serendipity Valley they have a very great depth potential, somewhere in the region of 400 m.

Petie Barry

Push dates

22 December 2018

Stephen McCullagh, Andreas Klocker, Petie Barry, Stephen Macnamara, Claire Macnamara, Rowena Sheen, Róisín Lindsay, Brían McCoitir.

Holes 6-13 all checked out.

23 December 2018

Claire Macnamara, Rowena Sheen, Róisín Lindsay, Axel Hack, Brían McCoitir.

Frost Pot dropped.

Descriptions

B&H Pot 6: Pitta Patta Pot (JF-353)

Refs: Eberhard 1982b, Eberhard 1984b, Goede 1984, Jackson 2008

Identified with tag, located in a small alcove to the side of the main pot. Dropped by Petie, Rowena and Stephen McCullagh. In the absence of any decent trees to rig off of we bolted a pair of Y-hangs down the SW wall of the pot. At the bottom a climb down a boulder slope reaches the bottom, which is fairly terminally choked. The survey in *SS*185:11 shows a descending slot at the bottom of the cave - this appears to have been buried under the collapsing boulder slope. Eberhard (1984b) indicates that the lead was never very promising in the first place.

B&H Pot 7: (JF-354)

Refs: Eberhard 1982b, Goede 1984, Hosking 2012

Identified with tag. A picturesque pothole, which sits next to a large blind doline 40-50 m across. A 23 m pitch down a beautiful oval shaft leads to a short climb/pitch to a terminal chamber. It was descended by Stephen Macnamara, who reported good digging possibilities at the bottom where the stream vanishes into a small hole in the wall of the chamber. After returning to the surface for equipment and a Petie Barry he descended once more. At the bottom we set to work in the roof of the hole. Then by digging out the bottom of the hole, which was an easily removed clay, we opened up a human-sized hole. It looked pretty miserable though, wriggling down in the stream and dropping down beyond. Stephen went first and found the drop beyond the hole to be about 2 m – with an ongoing rift beyond. A series of short drops down the rift brought us to a 4 m diameter chamber. The roof of this chamber is composed of boulders and clay, and appears to be an older section of cave which was originally associated with the large doline nearby. The stream vanishes into a bouldery hole in the bottom of this chamber. We removed one or two rocks here but it doesn't seem hugely promising, looking to choke more solidly in clay and boulders further down.

Our survey is at Figure 35.

B&H Pot 8: Pox Pot (JF-355)

Refs: Eberhard 1982b, Goede 1984

Identified with tag. Descended by Stephen Macnamara. Not worth pursuing any further.

B&H Pot 9: Gunge Pot (JF-356)

Refs: Eberhard 1982b, Goede 1984

Descended by Petie Barry. Found to be solidly choked at the bottom and not worth pushing. -13 m.

B&H Pot 10: (JF-357)

Refs: Eberhard 1982b, Goede 1984

The cave was identified from the sketch map in *SS* 185 - no tag was visible. Goede (1984) indicated that in the absence of any usable bedrock, the tag was placed on a 10 cm diameter myrtle tree. A myrtle tree was not in evidence.

Descended by Petie and Rowena. A 4 m pitch lands on a pile of clay with a sharply descending clay-floored rift dropping down and around a corner. Too tight to drop

JF-354 Pot 7

Benson and Hedges Series, Serendipity Valley
Junee-Florentine, Tasmania

7JF354.STC441

Shannon Group Tas. Exped 2018-9
UISv2 3-2-A
Drawn by Petie Barry Jan 2019
Length: c.50m
Depth: c.38m

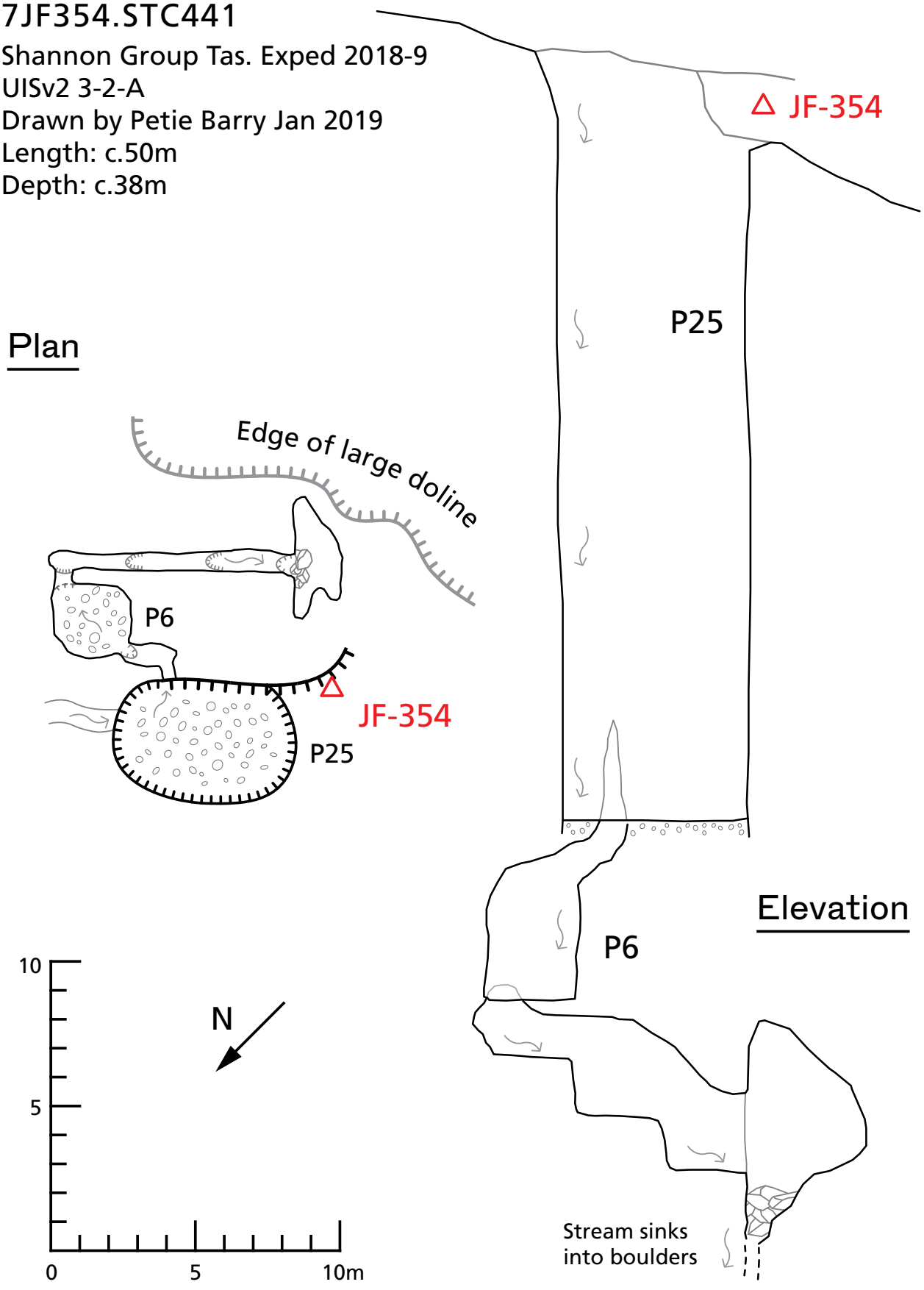


Figure 35. JF-354 Pot 7 in Benson & Hedges Series.

directly, but about 15 minutes was spent digging into the clay floor. Spoil loosened fell down the rift and around the corner, but it did not make any particularly encouraging sounds - just a soft thudding a short way away. Eventually gave up as it was clear a good bit more work would be needed before being able to see around the corner. There was a draught indicated in *SS*185:11 but it was not apparent on this visit.

B&H Pot 11: Ménage-à-trois (JF-378)

Refs: Eberhard 1982b, Eberhard 1985a

No tag found. Claire free-climbed part of the way down the pot, but no full descent made to check out the supposed draughting lead at the bottom.

B&H Pot 12: (JF-358)

Refs: Benjamin 2008, Eberhard 1982b, Goede 1984

Descended by Róisín. Too tight at the bottom and not worth pushing.

B&H Pot 13: Gash Pot (JF-379)

Refs: Eberhard 1982b, Eberhard 1985, Eberhard 1984a

No tag located. Not dropped for some reason. This was a bit of an oversight considering that the draught identified in JF-380 in all likelihood comes from this pot. The report given in Eberhard (1984a) seems quite final, however.

Frost Pot (JF-347)

Refs: Eberhard 1982a, Goede 1983, Goede 1984, Jackson 2004, Tunney 2004

Descended by Brían (Figure 36). Easily located from the Serendipity track and possible to rig off trees and naturals. First drop is 35 m to a ledge and a rebelay for another 20 m to the pot floor. The exit from this is a narrow meander with evidence of a previous visit. Rowena forced herself along this as far as the previous push, but the meander did not appear to be opening up. A better option might be to dig in the floor of the pot.

Discussion

Pots 1 to 5 were not visited by us. Pots 1 and 2 appear unpromising, but Pots 3 and 4 have possible continuations and might be worth pushing - they do not seem to have been visited since their exploration in the 1980s. Pot 11 was not bottomed by our party - again this might be worth a look.

The only cave where we made any gains was Pot 7 (JF-354) - this cave might repay a further visit to check out the boulder choke at the bottom of the cave, though it does not appear overly promising.

References

Benjamin, Serena 2008 JF-358, JF-380 and JF-395 - Pottering amongst the pot holes. *Speleo Spiel,* 364: 8

Eberhard, Rolan 1985 Cave numbering - Florentine Valley. *Speleo Spiel,* 207: 4,12

Eberhard, Stefan 1982a Florentine Valley 9-10-82. *Speleo Spiel,* 181: 5

Eberhard, Stefan 1982b Florentine Valley 23/24-2-83. *Speleo Spiel,* 185: 7-12

Eberhard, Stefan 1984a Shaft Bashing in the Hollow Hills. *Speleo Spiel,* 202: 8-9

Eberhard, Stefan 1984b Hollow Hills. *Speleo Spiel,* 202: 11

Goede, Albert 1983 Cave Numbering - Junee-Florentine. *Speleo Spiel,* 186: 2

Goede, Albert 1984 Cave Numbering - Junee-Florentine. *Speleo Spiel,* 195: 2

Hosking, Ken 2012 Day Trippers in the Hollow Hills (JF-436, JF-354 & JF-380). *Speleo Spiel,* 389: 13-14

Jackson, Alan 2004 JF-347 Frost Pot and JF-346 - Expanding leads: 2nd October 2004. *Speleo Spiel,* 344: 8-9

Jackson, Alan 2008 JF-293 Whistler & JF-353 Pitta Patta Pot. *Speleo Spiel,* 366: 10-11

Tunney, Ric 2004 JF-344 and Surrounds - Serendipity Valley: 5th September 2004. *Speleo Spiel,* 344: 4-5

Figure 36. Brían McCoitir in Frost Pot. (Axel Hack)

JF-380 (A Cave)

Length: c.60 m
Depth: 45 m

Overview and previous exploration

JF-380 is one of the deeper potholes in the Benson and Hedges Series, at 45 m (Eberhard 1986). The cave ended in a narrow rift taking the stream and a strong draught, prompting sporadic interest over the years (Benjamin 2008, Eberhard 1984, Eberhard 1985, Jackson 2017).

This cave was suggested to us by Alan Jackson as a promising lead, and was pushed early on in the expedition. It was hoped that this might lead to a higher entrance to Serendipity, or perhaps head straight over that cave and head south as a separate system.

The cave does not appear to have a name, though Gavin Brett proposed and Ken Hosking (2012) adopted the name 'A', which does not appear to have stuck.

Push dates

18 December 2018

Seamus Breathnach, Brían McCoitir, Rósín Lindsay

Located the cave after much aimless bush-bashing. Gear dropped for the following day.

19 December 2018

Seamus Breathnach, Brían McCoitir, Rósín Lindsay, Pete Talling.

Rósín passed the terminal squeeze and explored the dismal remainder of the cave. The squeeze was hammered to allow the men through, though this was soon abandoned.

Description

The cave is located adjacent to JF-379 Gash Pot, and there is a sound connection between the two. JF-380 has two entrances, an upper and a lower, though the lower entrance is the only one used. The entrance pitch of 28 m can be rigged off a tree at the surface then a series of naturals down the shaft. Steep, loose down-climbing brings the caver to the previous end of the cave, a narrow rift taking the stream. A very tight squeeze can be passed, and 2 m beyond this the stream turns to the right and enters an even narrower passage. The main rift continues past the stream outlet and rises into a narrow aven, too tight to enter. The draught vanishes up this aven.

Our modification to the existing survey is at Figure 37.

Discussion

This might be worth another look - the stream route appears to be too tight for further progress, but it might be possible to force a route up into the narrow aven. However it seems as if the draught is just circulating up through the adjacent Gash Pot, and is not thought to be overly promising.

References

Benjamin, Serena 2008 JF-358, JF-380 and JF-395 - Pottering amongst the pot holes. *Speleo Spiel,* 364: 8

Eberhard, Rolan 1985 Cave numbering - Florentine Valley. *Speleo Spiel,* 207: 4,12

Eberhard, Stefan 1984 Shaft bashing in the Hollow Hills. *Speleo Spiel,* 202: 8-9

Eberhard, Stefan 1986 JF-380 Survey. *Speleo Spiel,* 221: 10

Hosking, Ken 2012 Day trippers in the Hollow Hills (JF-436, JF-354 & JF-380). *Speleo Spiel,* 389: 13-14

Jackson, Alan 2017 Bits and pieces in the Serendipity area. *Speleo Spiel,* 423: 13

JF-293 Whistler

Length: 251 m surveyed, plus an estimated additional 40 m.

Depth: 122 m surveyed, plus an estimated additional 35 m.

Overview and previous exploration

JF-293 Whistler is a cave on the north side of the Serendipity valley about 200 m SSE from JF-388 Lost Pot and 50 m north from JF-371 Flick Mints Hole (also known as Florentine Pot). The cave is named for the extremely strong draught which whistles out of the entrance, and is particularly interesting because it lies between Serendipity and Flick Mints, giving the potential to connect two large caves. It was found by Serena Benjamin and Alan Jackson in 2006 (Jackson 2006) and explored to a depth of 50 m in 2008 by Alan Jackson and others (Jackson 2008a, b, c, d, e). Their final exploration trip identified a possible way on through a very tight section of rift which appeared to open out again beyond the constricted section (see survey in Jackson 2010).

Given the howling draught and interesting location we decided this cave was worth another look. The first three trips were spent re-rigging the entrance and widening the constricted section of the rift. A further two trips explored beyond the constriction, extending the cave to a depth of 159 m and a length of 294 m. From the breakthrough point in the rift, a further series of pitches dropped another 80 m in the same rift system. After this the cave levels out and enters an unpleasant meander section, before enlarging into dry stream passage which eventually breaks out at a window above a large void. Unfortunately time and enthusiasm did not allow for further exploration of this somewhat miserable cave, and the cave was derigged on 1st January.

Push dates

24th December 2018

Mark Euston, Ola Löfquist, Gabriel Kinzler

Relocated the entrance and rigged the entrance traverse and first pitch, installing new bolts along the way.

26th December 2018

Seamus Breathnach, Mark, Aileen Brown, Rowena Sheen

Rigged the second pitch. Scouted at the bottom of the pitch but couldn't find any way on, as Alan Jackson had previously reported. Pendulummed into the rift halfway up the pitch and installed a Y-hang. The rift proved to be too constricted for most, but Aileen managed to squeeze through and reported it widening beyond the constriction. After "interesting thrutching" to get back through the squeeze, the team made a brief start on the widening attempt.

27th December 2018

Seamus Breathnach, Nick Edwards, Aileen Brown

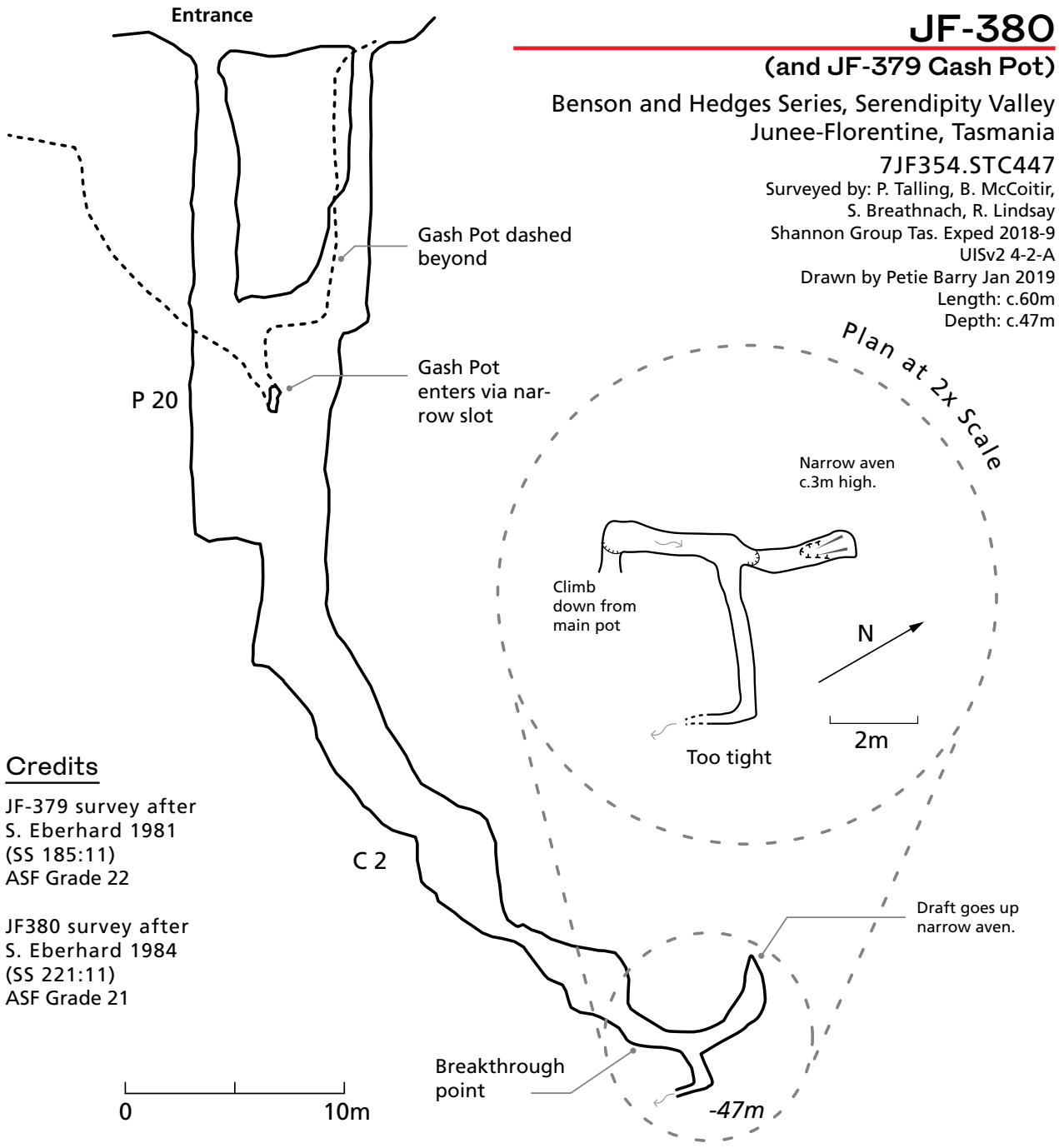


Figure 37. JF-380 vertical section showing JF-379 connection (1984) with added partial plan.

Hammering and further excavating in the rift. Some widening and two bolts placed at the top of the constriction to rig a line through – this is best used as a handline. Nick went through the constriction and confirmed the cave appears to continue below, but still too tight for general traffic.

28th December 2018

Aileen Brown, Steve Bus, Nick Edwards

Re-rigged the entrance rift using original bolts that had been missed the first time and placed a traverse line at the top of the second pitch to protect the slippery climb above the pitch. Did a bit of work in the constriction, widening it to a point where non size-0 cavers could pass. Beyond the constriction is a ledge large enough to put SRT kits on. Climbed down a further 5 metres to a floor. In one direction this can be followed over a small depression to a small chamber. A small passage looks to be joining about 5 m up. A 2-3 bolt climb would be required to reach it. In the other direction the floor slopes down to a small window at floor level with a strong draught – named "Hypothermia Hole" due to the freezing wind and very sticky cold mud. Rigged a Y-hang and descended approximately 20 m in wide rift to a floor. A few metres along the rift the pitch continues.

30th December 2018

Nick Edwards, Mark Euston, Steve Bus, Aileen Brown

Nick and Mark re-flagged the route to the cave and surveyed to the limit of exploration (see map, Figure 38). Aileen and Steve rigged down the next pitch, which continues over a blind pot to a window approximately 15 m

below, then drops another 5 m to a chamber. From the chamber there is a dry too-tight streamway joining from the side and another pitch down in rift. Over the top of the pitch the rift continues with a draught but was found to quickly become too tight. Aileen rigged down the 7 m drop to another small chamber, from where the way on is a low, muddy, unpleasant meander. They followed this for 50 m using a lump hammer to aid progress, until it ended at a short climb down to a small chamber, descended using a sling. Beyond, they rigged down a short drop into a larger chamber, then climbed up the far side to a large window. Below the window was a seemingly blind pot but after rigging down to check they found a small window to a rift which soon opened out to another chamber with howling gale. Short on time, gear and enthusiasm, plastered in freezing sticky mud and chilled by the freezing howling gale, they headed for home.

31st December 2018

Steve Muh, Nick Edwards, Kayleigh Gilkes

Nick and Kayleigh continued the survey while Steve headed to the pointy end to continue pushing. Surveying the meander was truly horrible and, despite wearing multiple extra layers, was a very cold job. From the previous limit of exploration Steve climbed down about 6 m into a chamber with a dry inlet joining in an aven. Beyond this point the cave became less muddy and the limestone better quality. The cave continued as a series of four cascades of 2-10 m in an almost dry streamway, eventually reaching a window into a vast void where stones thrown clatter down a slope for at least 10 seconds. On the way out, Kayleigh exhibited symptoms of mild hypothermia and had difficulty negotiating pitch-heads and the constriction. Steve and Nick de-rigged as far as Hypothermia Hole.

1st January 2019

Steve Bus, Aileen Brown, Mark Euston, Rowena Sheen, Conor McAdams

Completed de-rigging the cave and filmed a video of the entrance series. Mark's penultimate caving trip.

Description

The entrance to Whistler is an obvious hole at the base of a tree at the top of a shake-hole with a howling draught. The tree is used as the first anchor. A small low entrance chamber leads to a crawl over the top of a mudstone boulder before a tight vertical squeeze between the wall and the far side of the boulder. The squeeze opens out into a muddy rift which is the main feature for the first section of the cave. The route initially traverses high until a small rift chamber is reached, then turns back on itself and descends. The descent is initially on a steep slope before becoming free-hanging, with the last 15 m being a nice free-hanging pitch in a wide rift, almost directly underneath the entrance. Care is needed on the entrance traverse to avoid dropping rocks on cavers on the pitch.

At the base of the pitch there appear to be several ways on. The obvious pitch at one end of the chamber was descended by the original explorers and found to be blind. The rift continues in both directions but quickly gets too tight. The way on is a muddy slope down behind a large boulder at the base of the pitch. This leads to another pitch which drops around 5 m to a ledge from where the rift opens out. Continuing straight down from here is again blind. This was the limit of previous exploration. The way on is to descend around 5 m before swinging into a tighter section of the rift, then head diagonally downwards. This section is very tight, despite the efforts of the expedition to enlarge it. Most people need to remove their SRT kits on the way up; some on the way down too! Below the tight section is a ledge where harnesses can be put back on, before descending another 5 m to a floor.

From the bottom of the pitch, one direction takes you over a small depression to a small chamber. A small passage looks to be joining about 5 m up but would require bolt-climbing to reach. In the other direction the floor slopes down to a small vertical slot at floor level with a strong draught – named "Hypothermia Hole" due to the freezing wind and very sticky cold mud. After about a metre the slot opens out to a wide rift. The pitch descends around 20 m to a ledge, then continues down over the top of a blind pit to a window, beyond which a final 5 m pitch leads to a larger chamber. A dry streamway joins the chamber but is too tight. The rift continues at the same level but despite strongly draughting also becomes too tight and the way on is a further 7 m drop into a smaller chamber.

After this point the cave changes character and becomes a low, muddy meander with a small stream. This continues for approximately 50 m heading initially south-east then turning south and is a mixture of stooping and crawling. There is still a fairly strong draught. The meander ends at a short climb down into a small circular chamber, followed by a 5 m abseil into a larger chamber, then a climb back up the far side to a large window. A lump hammer was accidentally left at this window and the explorers lacked the fortitude to return through the meander to collect it. If recovered, please return to Adrian Foggerty at the Left of Field Campsite at National Park. From the window another short pitch lands in a seemingly blind chamber. A small window at ground level leads to a rift which soon opens out to another chamber where the draught is re-met. A separate aven joins from the north-west here, estimated to be at least 15 m high. Beyond this point the cave becomes less muddy and the limestone better quality. A series of four cascades of 2-10 m in an almost dry streamway leads to a window into a vast void. Stones thrown from here clatter down a boulder slope for at least 10 seconds.

Our survey of JF-293 Whistler is at Figure 38.

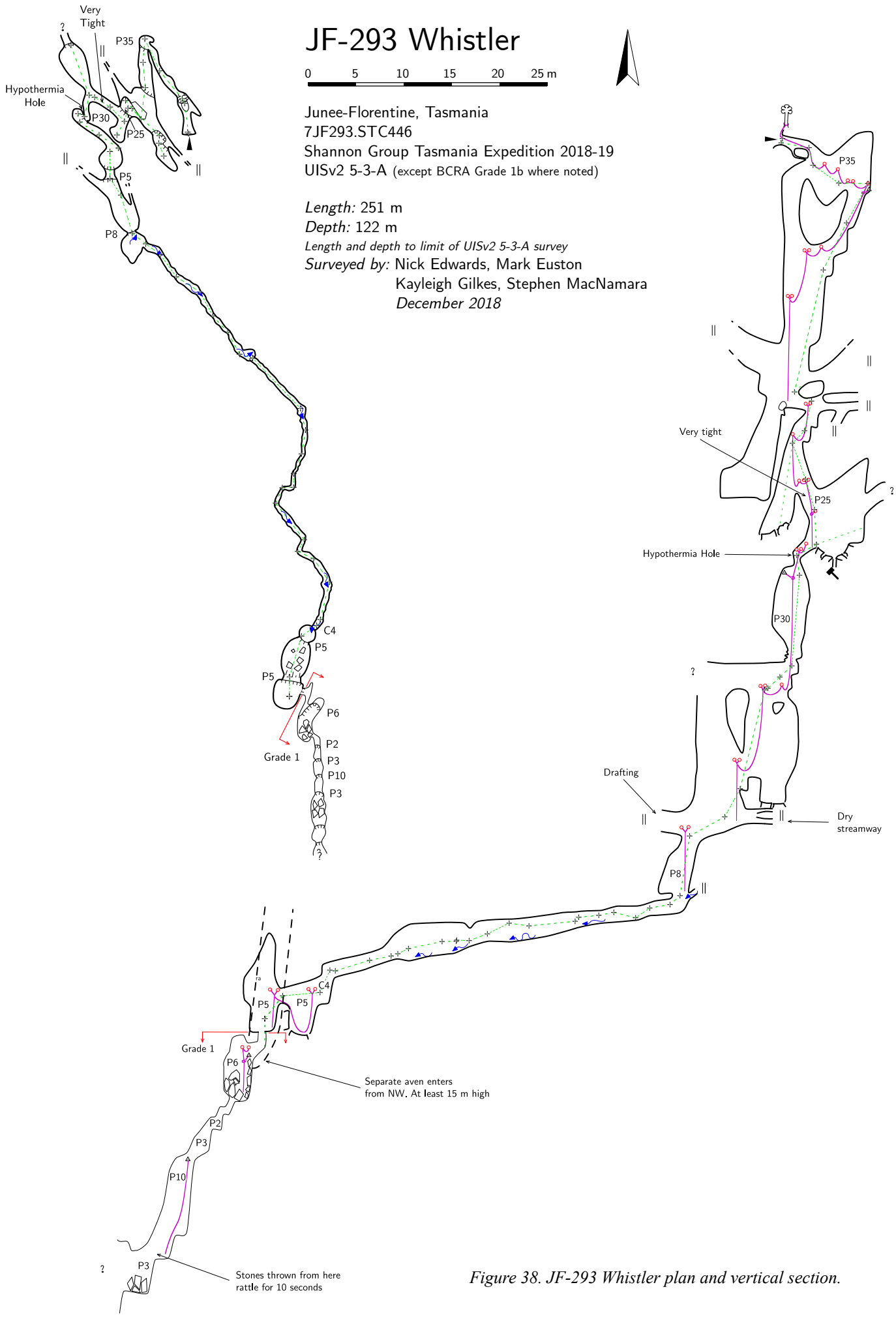


Figure 38. JF-293 Whistler plan and vertical section.

Discussion

Although the explorers found Whistler to be an extremely miserable cave, commuting to the limit of exploration would only take around an hour and would likely not seem so miserable if not stopping in the cold wind to place bolts or survey. The large black void at the limit of exploration is an excellent and tantalising lead which demands further attention.

Plotting Whistler on the area survey shows it passing over Flick Mints Hole (JF-371), with the limit of exploration of Whistler being within tens of metres of Flick Mints at a depth of roughly 160 m below the Flick Mints entrance, so it is possible that they connect. The description of Flick Mints does not make it sound like an easier or more pleasant prospect than Whistler.

Nick Edwards

References

Jackson, Alan 2006 Tagging and relocating old holes: 28 January 2006. *Speleo Spiel,* 352: 14-15

Jackson, Alan 2008a Semi-surface day near Serendipity/Lost Pot/Flick Mints. *Speleo Spiel,* 365: 6-7

Jackson, Alan 2008b Serendipity Valley - tagging, surveying and exploring various holes. *Speleo Spiel,* 365: 10-11

Jackson, Alan 2008c JF-293 Whistler, JF-296 Scrubwren Swallet, JF-373 Punishment Pot. *Speleo Spiel,* 366: 6

Jackson, Alan 2008d JF-293 Whistler & JF-353 Pitta Patta Pot. *Speleo Spiel,* 366: 10-11

Jackson, Alan 2008e JF-293 Whistler. *Speleo Spiel,* 369: 12

Jackson, Alan 2010 Survey of JF-293 Whistler. *Speleo Spiel,* 380: 25

CHRISPS CREEK AREA

JF-398 Boulder Jenga

Length: 620 m

Depth: 153 m

Overview and previous exploration

JF-398 was first recorded in 1986 (Eberhard 1986), though owing to the extensive boulder collapses at the entrance, it was not paid much attention. The cave was identified as a promising dig by Dickon Morris, who pushed it in February 2014, penetrating to a depth of 10 m (Morris 2014a). Returning later that month, and accompanied by Andreas Klocker, they pushed the cave over five consecutive days, pushing all the way down through the choke and to a point not far above the sump (Morris 2014b, c). More pushes in May reached the sump and a fortnight later a larger party entered the cave to survey and push. On this trip a flood pulse hit the exiting party, making for an extremely difficult and dangerous exit from the cave (Jackson 2014). Following this very unpleasant trip, there were no further visits to Boulder Jenga until our arrival.

The potential for Boulder Jenga is significant. It is situated far away from any other major systems, though lies close to the presumed flow paths of caves such as Dissidence, Serendipity and Constitution Hole. The cave has a very strong draught. Andreas, delighted by the arrival of pushing cavers who were blissfully ignorant of the cave's nasty reputation, ultimately persuaded us to do not one but three trips into this lethal cave. Our objectives on this trip were to re-open the choke, re-rig the cave and push some of the leads at the bottom.

Push dates

24 December 2018

Stephen McCullagh, Andreas Klocker, Kayleigh Gilkes, Nick Edwards, Róisín Lindsay

Descended through the boulder choke, clearing various collapses and re-finding the way on. Steve went down Hydrophobia and swung onto a ledge 20 m below the pitch head, finding a short pitch into a 6 m diameter chamber. A tight rift in the corner was pushed a short way, the floor dropping away into a 20 m pitch.

26 December 2018

Stephen McCullagh, Andreas Klocker, Kayleigh Gilkes, Nick Edwards, Róisín Lindsay, Petie Barry

A large boulder in the entrance choke moved while Kayleigh was beneath it. After a time the boulder was stabilised and the group moved on down. We opened and descended the previously located pitch, naming it 'Go Chad!'. This linked into previously discovered passage at the bottom of the cave. We then explored some of the known cave beyond this and discovered a short length of new passage off Hall of the Hilti Cap ending in a 15 m high aven.

02 January 2019

Stephen McCullagh, Aileen Brown, Stephen Macnamara, Mark Euston

The 'derig trip'. The trip was aborted following boulder collapse approx. 15 m into the choke. The intention had been to push the promising lead at the end of the vadose canyon.

Description

Boulder Jenga is found quite easily on the way up the Niggly track, as the track runs through the centre of the doline. A small stream flows around and into boulders before the entrance, a low overhang beneath a 10 m high cliff. This stream dries up in summer, though it runs in spate at times in the winter. The draught from the cave is strong, causing the marking tape hanging from the number tag to flutter about and in summer the doline is filled with cool air.

The cave starts off as a short flat-out crawl over boulders, leading into a 2 m long horizontal corkscrew

squeeze, then a tight downward slot. This is the worst of the squeezes over. After this there is a long series of climbs and wriggles through the boulders. The way on is not always obvious; the best method is to follow the draught, which remains obvious throughout. This boulder choke should be treated with great caution - it is extremely loose and dangerous and it was observed that the two large boulders that collapsed were boulders that were not regarded as being dangerous. Presently the cave is blocked about 15 m in by a large dolerite boulder.

At about 30 m depth the choke comes to an end, where a short section of stream passage in solid rock is found. This ends at a 60 m pitch, Hydrophobia. This can be descended directly, through a spray of water, and is quite wet. The pitch lands into a section of tall descending rift with ways on at either end.

The alternate route to the bottom of Hydrophobia is found by descending Hydrophobia for c.20 m and swinging onto an obvious ledge. Here a window pitch of 7 m leads into a 6 m diameter chamber with a small inlet high above. To the right a steep rift descends back down into Hydrophobia at a lower level. At the far side of the chamber a narrow muddy rift can be found. After a few bodylengths this meets a tight pitch-head - Go Chad! Below this the shaft opens out and a 22 m descent lands into a cherty passage. To the left, climbing up cherty ledges leads to a rift passage, which evenutally chokes with cobbles and silt. Falling water could be heard in the distance beyond. An obvious route leads down along some bouldery climbs and scrambles to emerge into the large rift at the foot of Hydrophobia. Though less direct, Go Chad! offers a dry, and therefore safer, alternate route to Hydrophobia.

A number of ways on are apparent from the rift at the bottom of Hydrophobia. Opposite the foot of the pitch, a ledge can be climbed onto from which passages lead north and south. To the north a short crawl reaches a small chamber which turns to the right and becomes too small. To the south a walking rift heads up a series of short climbs before eventually becoming too narrow after c.40 m.

Further down the main rift, the stream flows into a rift to the east. This can be climbed down a series of short drops following the water to reach a breakdown area.

Alternately, and more conveniently, continuing down past the stream sink in the main rift leads to a climb. A series of short climbs reaches a crawl which passes over the top of the wet route and into a bouldery chamber - The Hall of the Hilti Cap. A down-climb at the end of this chamber leads back to the stream and meets the wet route.

The combined routes enter a large breakdown area, The Rock Garden. Following the stream leads down a climb and under the boulders. This reaches a short pitch, rigged off naturals. A short section of stream passage reaches a slightly deeper pitch of 7 m, again rigged off naturals. A solid passage taking the stream is followed to a 4 m climb; a wet crawl in the stream is met soon after. Just past the wet crawl the passage becomes higher and walking passage continues for 20 m, as far as the sump.

A crawl over boulders from the end of the The Hall of the Hilti Cap turns left and heads along a muddy T-shaped passage, crawling flat-out along the top. This turns left again and reaches a 15 m high aven.

From The Rock Garden, a short climb-down over boulders enters a dry canyon passage, 8 m tall by 2 m wide. Comfortable progress is made for 40 m as far as a wall of fill which chokes the passage. Several metres further back from this it is possible to chimney up the canyon walls to reach a high-level continuation. This curves around to the south and meets a 6 m climb, at the top of which a narrow canyon is met. This quickly doglegs to the left and reaches an aven, however straight ahead the passage chokes in silt and gravel, with a waterfall audible beyond.

Discussion

We made a few small discoveries here – the discovery of Go Chad! being the most significant, as it allows passage to the bottom of the cave out of the path of the water. On the final day of the expedition we attempted one final trip, to push the high-level climb off the vadose canyon and derig the cave. This however was undone by a boulder collapse which has fairly firmly blocked the cave and put 80 m of new STC rope and several karabiners out of reach (Bus 2019).

The entrance collapse notwithstanding, considerable potential remains at Boulder Jenga. The prime lead in the cave, the high-level climb in the vadose canyon, remains unpushed. Nor has the source of the draught in the cave been relocated. Dickon Morris noted that the draught was still noticeable in the stream passage approaching the sump; possibly a route over the top of this might be found (Morris 2014d). A further lead can be found at the end of the northward-trending passage beneath Go Chad!, beyond which falling water can be heard.

Boulder Jenga is undoubtedly a very dangerous cave. As the name suggests, moving boulders are the biggest danger; two of our three trips had large boulders move on us in the choke. We were extremely lucky not to have been badly injured or trapped here. The other main danger of the cave – flooding – is easier to manage, mainly by avoiding winter trips, though our discovery of Go Chad! means that there is now a dry bypass to the worst of the wet pitches.

The great potential of this cave is unlikely to be realised without significant work to secure the choke. In Britain or Ireland this cave would be heavily scaffed or cemented. In Tasmania scaff is unknown and the boulders remain at liberty to move about as they please. Consequently, passing through the boulder choke is a real case of tak-

ing your life into your own hands. It is more likely that any further exploration of Boulder Jenga will take place from the direction of Niggly Cave, where the 2018-19 discoveries are heading in the direction of Boulder Jenga (Fordyce 2019).

Our survey is added to the existing plan and section in Figure 39.

Petie Barry

References

Bus [McCullagh], Stephen 2019 JF-398 Boulder Jenga. *Speleo Spiel,* 431: 16

Eberhard, Rolan 1986 Florentine Valley Cave Numbering. *Speleo Spiel,* 216: 4-5

Fordyce, Stephen 2019 JF-237 Niggly Cave Atlantis. *Speleo Spiel,* 431: 11-14

Jackson, Alan 2014 JF398 Boulder Jenga: People die on pitches like that. *Speleo Spiel,* 402: 9-10

Klocker, Andreas 2014 JF398 Boulder Jenga. *Speleo Spiel,* 403: 4-5

Morris, Dickon 2014a JF-398: Klockerfest Day 15 - JF's next big system?. *Speleo Spiel,* 400: 21-22

Morris, Dickon 2014b JF398 Boulder Jenga: Cracking Boulder Jenga. *Speleo Spiel,* 402: 5-6

Morris, Dickon 2014c JF398 Boulder Jenga: (Re-) Rigging Boulder Jenga. *Speleo Spiel,* 402: 9

Morris, Dickon 2014d JF398 Boulder Jenga: Thoughts and interpretations. *Speleo Spiel,* 402: 13-14

JF-484 Hot Prospect

Length:155 m

Depth: 65 m

Overview and previous exploration

JF-236 Bunyips Lair is a large sink found 300 m east along the contour from Niggly Cave. Discovered concurrently with Niggly in 1990, it was found to choke off after a short distance (Hume 1990). In 2010 the cave was looked at by a group led by Stephen Bunton. On this trip JF-484 was discovered 20 m to the west of Bunyips Lair. The squeeze at the bottom of the initial section of rifts was passed and a further descent of 4 m made to the head of a tight 2 m deep pot (Bunton 2010). Despite the cave being described as "a hot prospect!", the cave was not returned to. More recently Andreas Klockner modified the boulder blocking the pitch in Bunyips Lair with a view to later bottoming the pitch and re-appraising the cave (Klocker 2018).

In light of the fact that interesting discoveries had recently been made off the Mother of God streamway in Niggly, the area south and east of Niggly was selected as an interesting area to prospect. JF-484 was identified as a promising lead following a review of the literature on the area and a reconnaissance trip confirmed that the cave was indeed a hot prospect. Pushed over three days either side of New Year's, we got the cave down to -65 m and surveyed 155 m of passage. While there were leads worth pushing left, we ran out of time and had to derig the cave.

Push dates

27 December 2018

Petie Barry, Andreas Klocker

Recced the cave. Petie climbed down as far as the terminal slot and could hear water flowing beyond. Very enthused by the prospects.

30 December 2018

Petie Barry, Seamus Breathnach, Róisín Lindsay

Quickly hammered open the terminal slot and made the 2 m descent to the choked head of the first pitch. This was hammered open over the course of an hour and finally descended via a series of naturals for 12 m. The second pitch was found underneath this, and the loud boom of rocks was highly encouraging.

31 December 2018

Petie Barry, Seamus Breathnach, Róisín Lindsay

Returned with a drill, about 120 m of rope and much rigging gear. The first pitch was properly bolted and rigged, then the second pitch of 20 m was descended. Spike Rift was pushed to the bottom.

01 January 2019

Petie Barry, Seamus Breathnach, Brían McCoitir, Róisín Lindsay

Pinnacle Rift was pushed by Brían and Seamus. Meanwhile the cave was surveyed by Petie and Róisín (Figure 40). The cave was fully derigged.

Figure 41. Kitting up outside Hot Prospect. The entrance is just behind the left-most caver. The waterfall tumbling into Bunyips Lair can be seen beyond. (Seamus Breathnach)

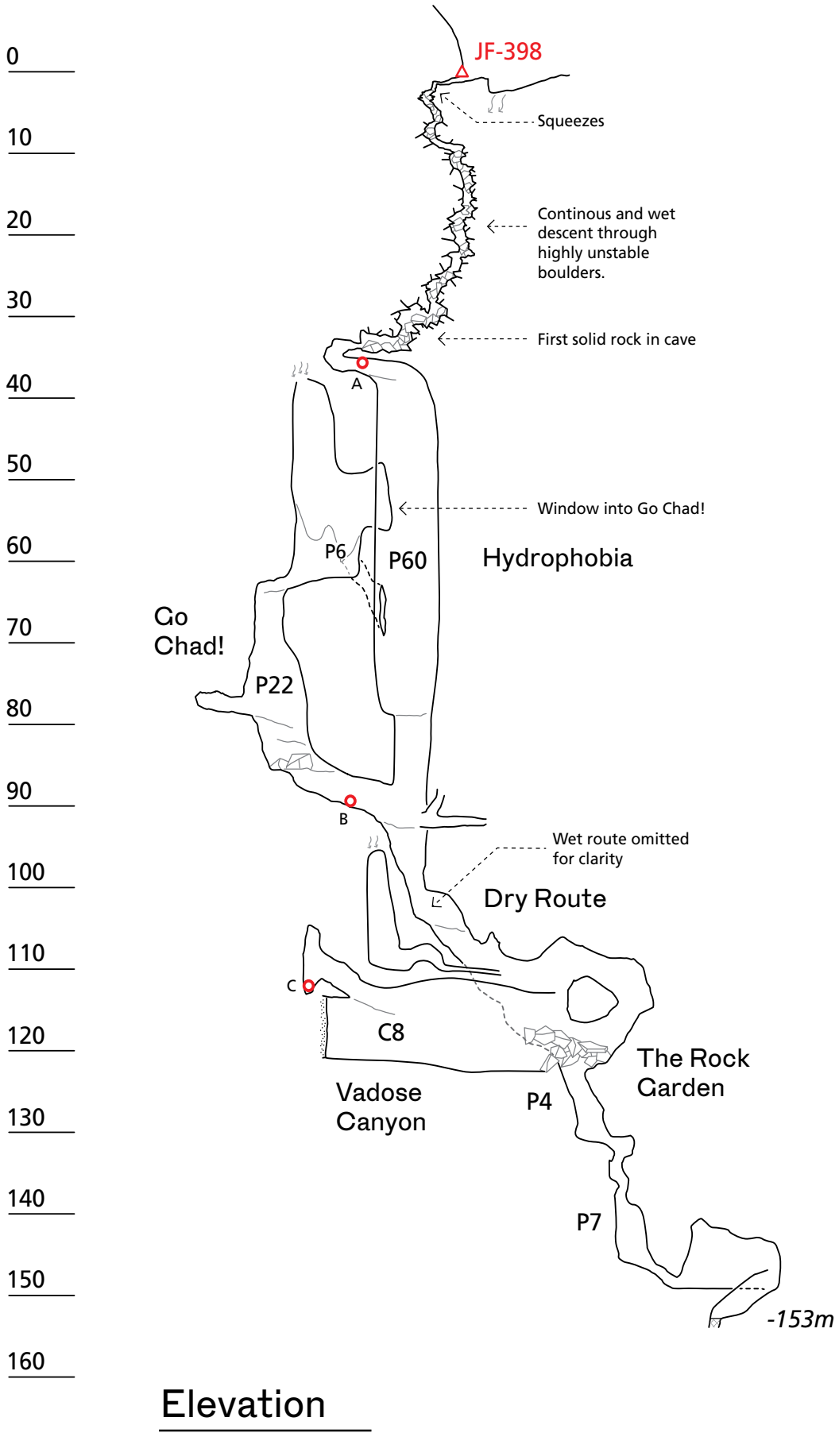


Figure 39. Plan and section of JF398 Boulder Jenga, incorporating previous STC surveys.

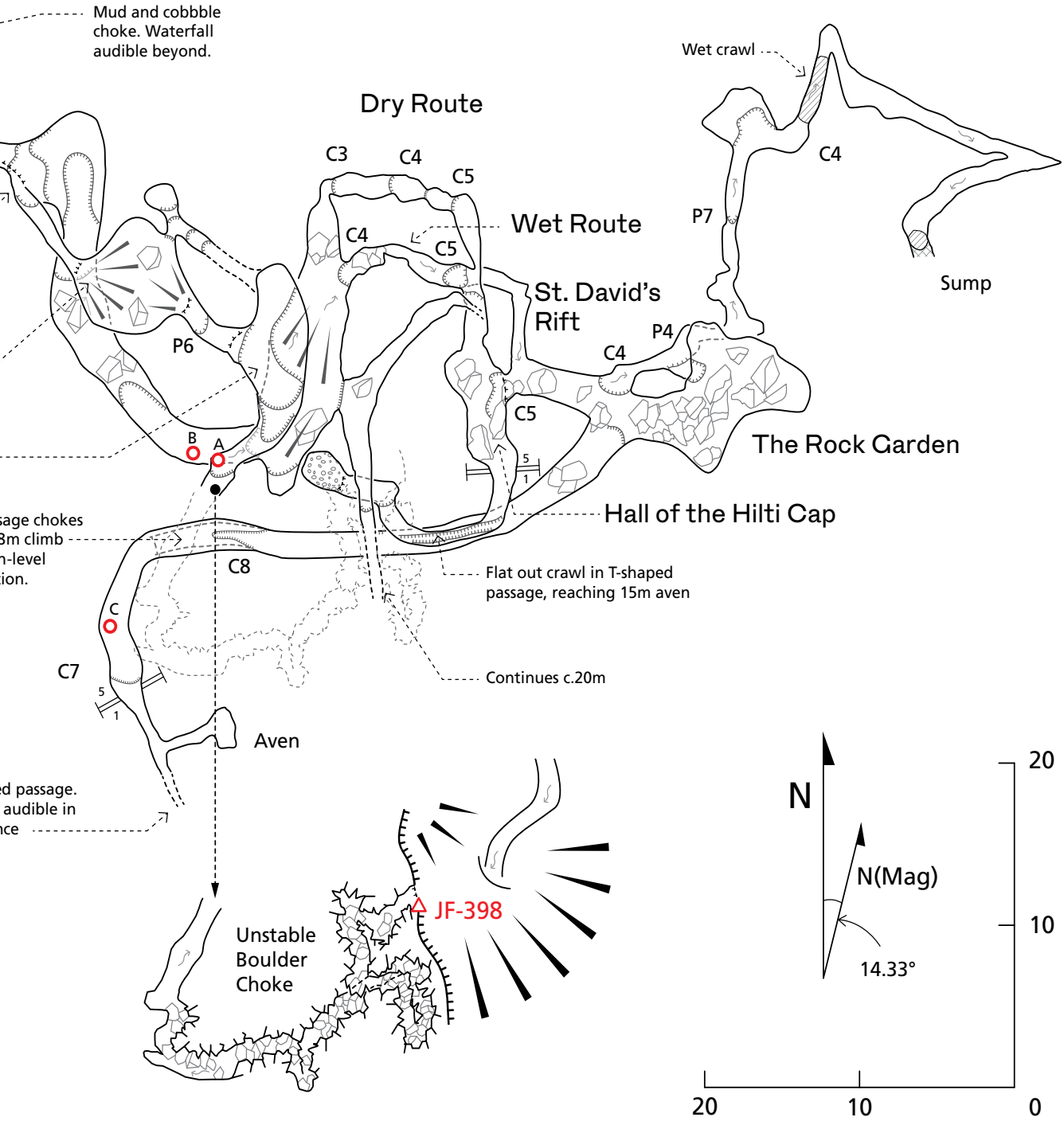
98 Boulder Jenga

Junee-Florentine, Tasmania
7JF398.STC439

Expored by the Southern Tasmanian Caverneers 2014
Surveyed by Andreas Klocker, Dickon Morris,
Alan Jackson, and David Taberner.
ditions by the Shannon Group Tasmania Expedition 2018-9
ed by Petie Barry, Kayleigh Gilkes, and Róisín Lindsay.
Drawn by Petie Barry March 2019
UISv2 5-3-B
Surveyed Length: 620m
Surveyed Depth: 153m

Relocatable Stations

A: Paper tag at cairn
B: Paper tag at cairn
C: Tape marker below climb



JF-484 Hot Prospect

Junee-Florentine, Tasmania

7JF484.STC438

Shannon Group Tasmania Expedition 2018-9

UISv2 5-3-A

Surveyed by Petie Barry and Róisín Lindsay 01/01/2019

Drawn by Petie Barry Jan 2019

Surveyed Length: 155m

Surveyed Depth: 65m

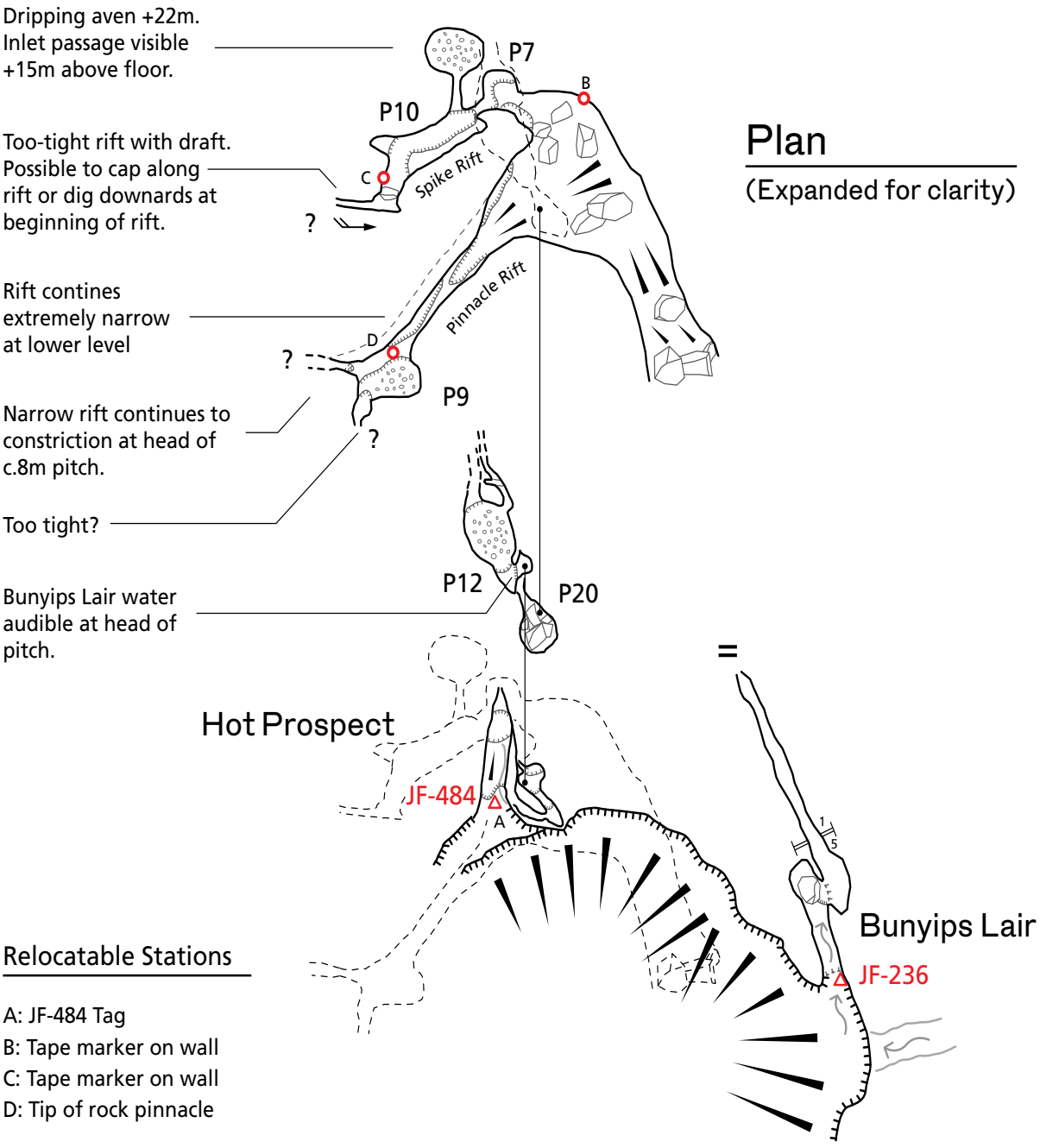


Figure 40. Plan and extended section, JF-484 Hot Prospect.

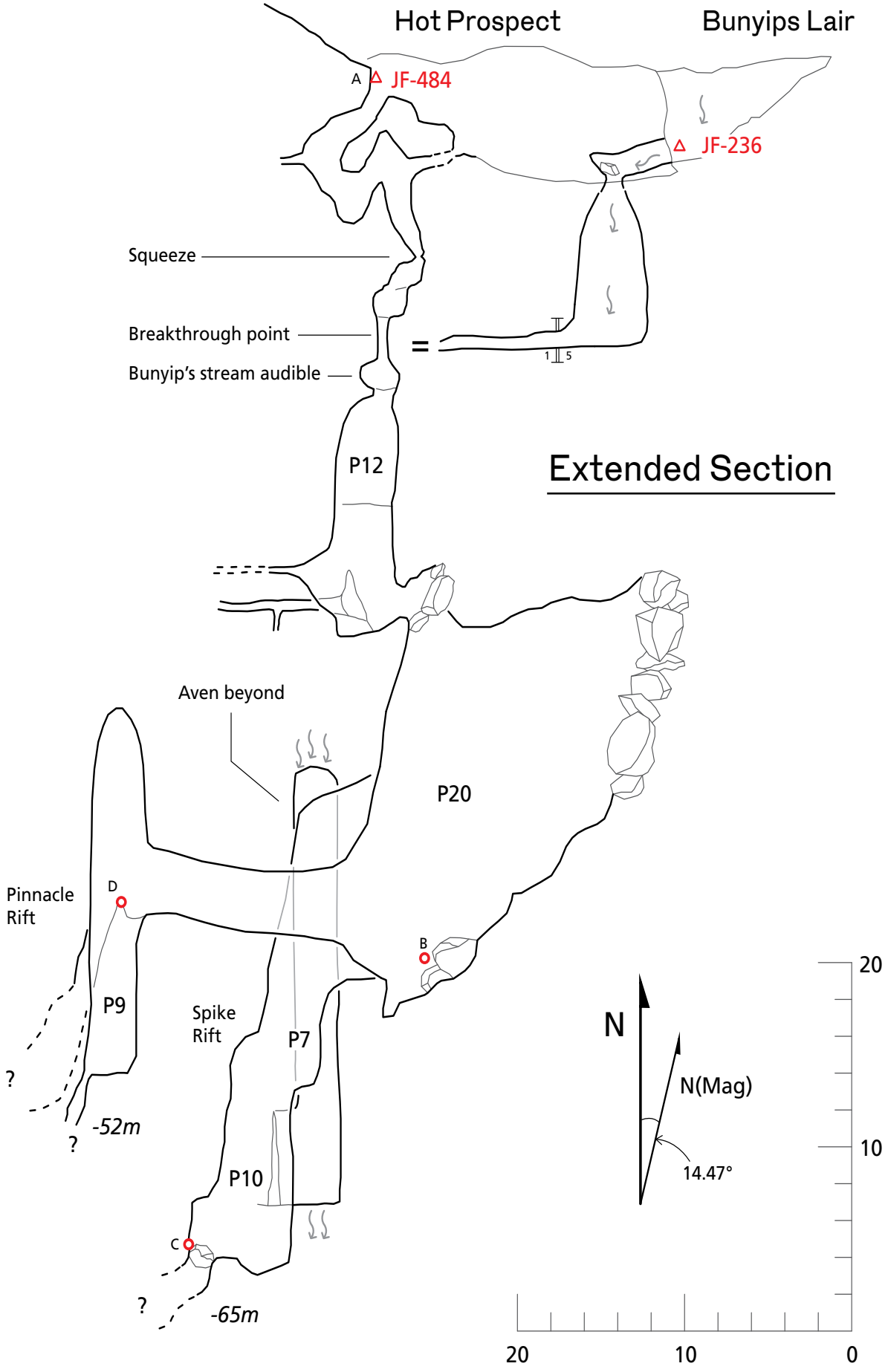

Hot Prospect
Bunyips Lair
A
JF-484
JF-236
Squeeze
Breakthrough point
Bunyip's stream audible
1
5
P12
Extended Section
Aven beyond
P20
Pinnacle
Rift
D
B
P9
Spike
Rift
P7
?
?
-52m
P10
C
?
-65m
N
N(Mag)
14.47°
20
10
0
20
10

Figure 42. Róisín Lindsay descending the slot at the head of the first pitch, JF-484. (Seamus Breathnach)

Figure 43. Looking down the slot at Róisín Lindsay, JF-484. (Seamus Breathnach)

Figure 44. Coral fossil just below the head of the first pitch, JF-484. (Seamus Breathnach)

Description

Hot Prospect is found at the top of the scarp edge 25 m west of Bunyips Lair. A series of rifts descend and double back under themselves, passing through a squeeze and reaching a small 1.5 diameter chamber with a torso-sized pot in the floor. Squeezing down through this for 2 m brings you directly to the constricted head of the

Figure 45. Surveyors at the beginning of Spike Rift , JF-484. (Seamus Breathnach)

first pitch. The Bunyips Lair stream is clearly audible here, the sound emerging through a narrow crack. After an inclined downward wriggle, the pitch opens out and a 12 m descent brings you to the bottom. On the far side of the shaft two passages lead off. These quickly narrow down and become impassable. Just underneath the first pitch the second pitch is found. Dropping down through some large jammed boulders the 20 m pitch bells out into a fine rift chamber. From the bottom of the rope the chamber rises up towards the surface and chokes with large boulders. Down from the rope two rifts are apparent. On the left is Pinnacle Rift; on the right, Spike Rift.

Spike Rift: After a short traverse the head of a 7 m pitch is reached, next to an impressive 3 m tall rock spike. At the bottom another pitch is met, dropping 10 m. After a short length of horizontal passage the passage pinches off at a 30 cm wide rift which becomes impassable. The passage carries part of the draught felt at the entrance and water can be heard dripping into a pool beyond.

Four metres up from the bottom of the final 10 m pitch, a tall narrow rift leads into an adjacent 22 m high aven with a beautiful oval cross section and vertical walls. Drips enter from a gully visible c.15 m above the floor and flow off into a narrow crack in the floor. Plant debris is visible on the walls and floor.

Pinnacle Rift: The rift to the left at the bottom of the chamber can be swung into on the rope from the second pitch. A thrutch up along the rift reaches a sharp rock pinnacle where it is possible to rig a sling to drop the 9 m pitch below. At the bottom a small trickle of water drops down a further 2 m and flows into a narrow crack. A short distance down from the pinnacle the continuation of the main rift can be swung into. This narrow rift quickly descends to a constricted pitch head. Rocks dropped fell an estimated 8 m.

Discussion

The name given to the cave reflects the enthusiasm with which the cave was greeted following the initial recce.

Figure 46. Looking up the second pitch. Pinnacle Rift is the dark passage to the right of centre. (Seamus Breathnach)

Figure 47. Róisín Lindsay coming up Spike Rift. (Seamus Breathnach)

Hopes were high for JF-484 and it was indeed as Stephen Bunton described it – a hot prospect. The cave draughted strongly, was next to a major sink with which there was an auditory connection and was situated above one of Australia's deepest caves. The end of the cave could be passed with a short hammering session, and if the Bunyips Lair streamway could be intercepted then there was every possibility that the cave would take off and plummet to great depth like Niggly Cave 300 m to the west. Unexpectedly, the sound of the Bunyips Lair stream emerged from a crack only a few centimetres wide at the head of the first pitch, and no evidence of the stream is met beyond this. The remainder of the cave is a dry fossil system with only occasional dripping inlets from above. The largest of these comes in via the 22 m aven found to the side of Spike Rift. Interestingly the walls and floor of this aven are covered in plant debris. While it is possible that a small sink on the surface above Hot Prospect feeds this aven, it is also possible that this aven functions as an overflow to the Bunyips Lair stream in times of flood. This latter possibility suggests that the Bunyips Lair stream is immature and/or heavily choked.

Hot Prospect was evidently a major sink at one time; the main rift chamber appears to have been formed as a surface sink further back from the current cliff line which has since been subject to collapse and infill. Features such as the Spike and Pinnacle Rifts (as well as the cave down to the foot of the first pitch) appear to have been formed as the waters re-invaded the choked old shaft and cleared out the infill. Later again the stream has been captured by the present day Bunyips Lair which initially appeared to flow into Hot Prospect via features such as the 22 m aven and the crack at the head of the first pitch. More recently the stream has pursued its own course and bypassed Hot Prospect entirely, with the possible exception of using the 22 m aven as a flood overflow.

The draught is worth mentioning. The cave draughted strongly outwards on all of our visits, audibly whistling past us as we negotiated the squeezes at the top of the cave. While this draught appeared highly promising, on reflection it is perhaps less so. It is typical for higher entrances to draught inwards, and lower entrances to draught outwards. Niggly Cave, at a similar level, draughts inwards. The fact that Hot Prospect draughts outwards suggests that this draught is generated from the nearby Bunyips Lair stream – the falling water forcing air down through the active channel, which is then recycled back to the surface via Hot Prospect.

The strong draught at the entrance is not present deeper in the cave. A much reduced draught emerges from the narrow rift at the end of Spike Rift. The remainder of the draught may emerge from Pinnacle Rift, though it is difficult to detect any air movement along this very tall rift.

The likelihood is that Hot Prospect is the upper portion of a heavily choked ancient shaft system, which has only partly been washed out by modern-day streams. While not completely cooled off as a prospect, the failure to intercept the active stream means that exploration prospects are a bit more tepid than they were on New Year's Eve 2018. Nevertheless, a good lead remains at the constricted pitch head in Pinnacle Rift, which could easily be widened (Prospect level: Warm). The narrow end of Spike Rift could also be pushed, either by widening along the rift or digging down at the start of the rift (Prospect level: Lukewarm). More ambitiously, a bolt climb of the 22 m aven might intercept the Bunyips Lair stream at a higher level, given the possibility that the aven functions as an overflow in times of flood (Prospect level: Cool). Bunyips Lair itself is worth a second look following the last visit to its end in 1990.

Petie Barry

The survey of JF-484 Hot Prospect is at Figure 40.

References

Bunton, Stephen 2010 JF-236 Bunyips Lair, JF-238 Casamassima *et al. Speleo Spiel,* 376: 13-15.

Hume, Nick 1990 Bunyips Lair (JF236) on Wherretts Lookout. *Speleo Spiel,* 260: 9-10.

Klocker, Andreas 2018 Return to JF-236 Bunyips Lair. *Speleo Spiel,* 428: 7

CAVE HILL

JF-210-211 Sesame Cave

Length: 2620 m

Depth: 225 m

Overview and previous exploration

Sesame is one of the longest and deepest caves in the Junee-Florentine. It was discovered and explored to a depth of over 200 m in the 1970s. High-level extensions were made at the end of the cave in the 1980s and following the discovery of the nearby Niggly Cave, Sesame became interesting again, as its then-end was heading towards Niggly. Explorations in 1994 and '95 lead to another breakthrough at the bottom of Sesame. A spacious stream passage was discovered leading to a sump heading in the direction of the elusive downstream extension of Niggly Cave. Due to a miserable wet crawl and plenty of mud before the passage, this section was never surveyed (Eberhard 1995). In fact, the 1990s extension was not re-visited till 2016 (Jackson 2016, Klocker 2016).

More recently, the adjacent JF-633 Ring Hole was pushed in 2015 and 2016, with over a kilometre of passage explored and eventually connected to Sesame.

As Andreas was keen to dive the sump and as the extension still needed surveying, it was to become one of our key projects. The plan was simple: Prepare and support a dive and survey the 1990s extension.

Due to high water and lack of time, neither the dive nor the survey mission could be accomplished, but a different, strong draughting lead was pushed instead.

Push dates

28 December 2018

Andreas Klocker, Petie Barry, Roísín Lindsay, Mark Euston

Planned as a supporting trip, the aim was to rig the cave and carry some dive-leads to the sump. Plans changed however, when the miserable wet crawl came in sight. After a lot of rigging and carrying heavy tackle bags, the crawl did not look too appealing and it was decided to dump the lead before that passage. Prior to making our way down to the water we'd discovered a passage leading over the top of the stream, which ended in a 5 m climb upwards, carrying a very strong draught. This was noted as a lead well worth returning to.

30 December 2018

Andreas, Claire Macnamara, Pete Talling, Kayleigh Gilkes, Axel Hack.

With the ropes in place, the journey to Veras Wet Hole (Jackson 2015) was uneventful. Pete, Kayleigh and Clare started to survey while Andreas and I took off into the wet crawl. After some meters, however, we came to a halt. A low bit of the passage (potentially obstacle 2, described in Klocker 2016) was half filled with water and therefore not passable. On our return it did not appear to me that our dry comrades were too disappointed that we couldn't push on. Instead we decided to have a look at the draughting climb which was spotted on the last trip. This short but very awkward climb was done, only to find a short, draughting passage with traces of previous exploration that ends in a 5 m drop. Unfortunately, it was not clear whether the pitch had been descended.

31 December 2018

Claire Macnamara, Axel Hack.

After a small detour, Clare and I arrived at the Sesame doline. Equipped with some rope, a Spit-driver and survey gear, we planned to drop down the mud pitch and find out where the draught was going. Unfortunately the false calcite floor after the main pitches gave way under Claire and she fell several metres to the floor, sustaining a bad blow to her hand. Luckily, the fall was not as bad as it could have been and after some sandwiches we decided to make our way out of the cave and leave the lead for the next day.

01 January 2019

Pete Talling, Axel. Hack

Nothing better to cure a New Year's hangover than a nice, easy caving trip, so Pete and I decided to have another, final go at Sesame. This time we arrived at the small aven in question without any troubles. With a lot of faith it was climbed again. After a good 10 minutes of tapping the mud-covered walls and roof, a Spit was placed in the least-horrifying-sounding rock at the top of the mud-climb. Another rope was clipped into that hanger to descend the 5 m pitch. We spotted half-washed footprints in the passage beyond. This, and the typical black-covered silt indicate that the chamber regularly floods in high water conditions. The draught emerges from a small slot at the bottom of the chamber. Unfortunately it is filled halfway with wet and sandy mud and needs some digging. Before we made our way out the passage was surveyed. The rope up the climb was left in place.

Figure 48. Andreas Klocker and Pete Talling at the JF-210 entrance of Sesame. (Axel Hack)

Description

There are two entrances to Sesame, a higher entrance requiring rope (JF-211) and a lower entrance consisting of crawls and climbs (JF-210). JF-210 is the usual route. This begins as a series of thrutchy climbs and crawls, reaching a stooping passage which ends at a pair of 20 m pitches separated by a short climb. Below the pitches the passage descends down a twisty descending canyon passage with large calcite ledges on either side. Following routes at high level as well as crawling at stream level, a pair of short pitches are passed, 10 and 7 m deep. A tall rift is followed, which then reaches a traverse over a 10 m deep pitch. At the far side the 1980s extension leads off – a spacious muddy bouldery passage with a small stream in the floor. After several hundred metres this chokes off at an area of muddy rockfall. The stream has reduced to a small trickle at this point and just back from the point where it becomes impossible to follow, a short slippery climb leads up through boulders into a larger passage filled with muddy boulders. This is the beginning of the 90s extension.

Heading in an upstream direction, a handline up into boulders in the roof is met - we generally used our jammers on this owing to the exposed and muddy nature of this climb. At the top another muddy climb is met, also roped. This reaches another area of muddy boulders, with the connection to Ring Hole found a short distance 'upstream' of here. Continuing in a downstream direction, an exposed muddy climb up towards the roof meets a hole up through boulders into a comfortable mud-floored passage. The way down to the main streamway is found as a hole in the floor about 20/30 m along this passage, though an obvious horizontal continuation leads over the top of this. This is the point where our survey begins (see Figure 49).

Dropping down the hole leads to a steeply descending mud slope which reaches water. This immediately flows into Veras Wet Hole, an unpleasant and intimidating flat-out crawl in the stream. This requires very dry weather to pass.

Continuing over the top of the hole, a broad and very muddy passage continues to a flat-out crawl over mud. This draughts strongly. The crawl soon reaches an ascending climb; a difficult free-climb, but with a handline left in place. Less than 10 m away a 5 m pitch is met which enters a chamber. The draught emerges from a slot at the far end – this was later dug by the STC cavers who reported it choked again after a short distance.

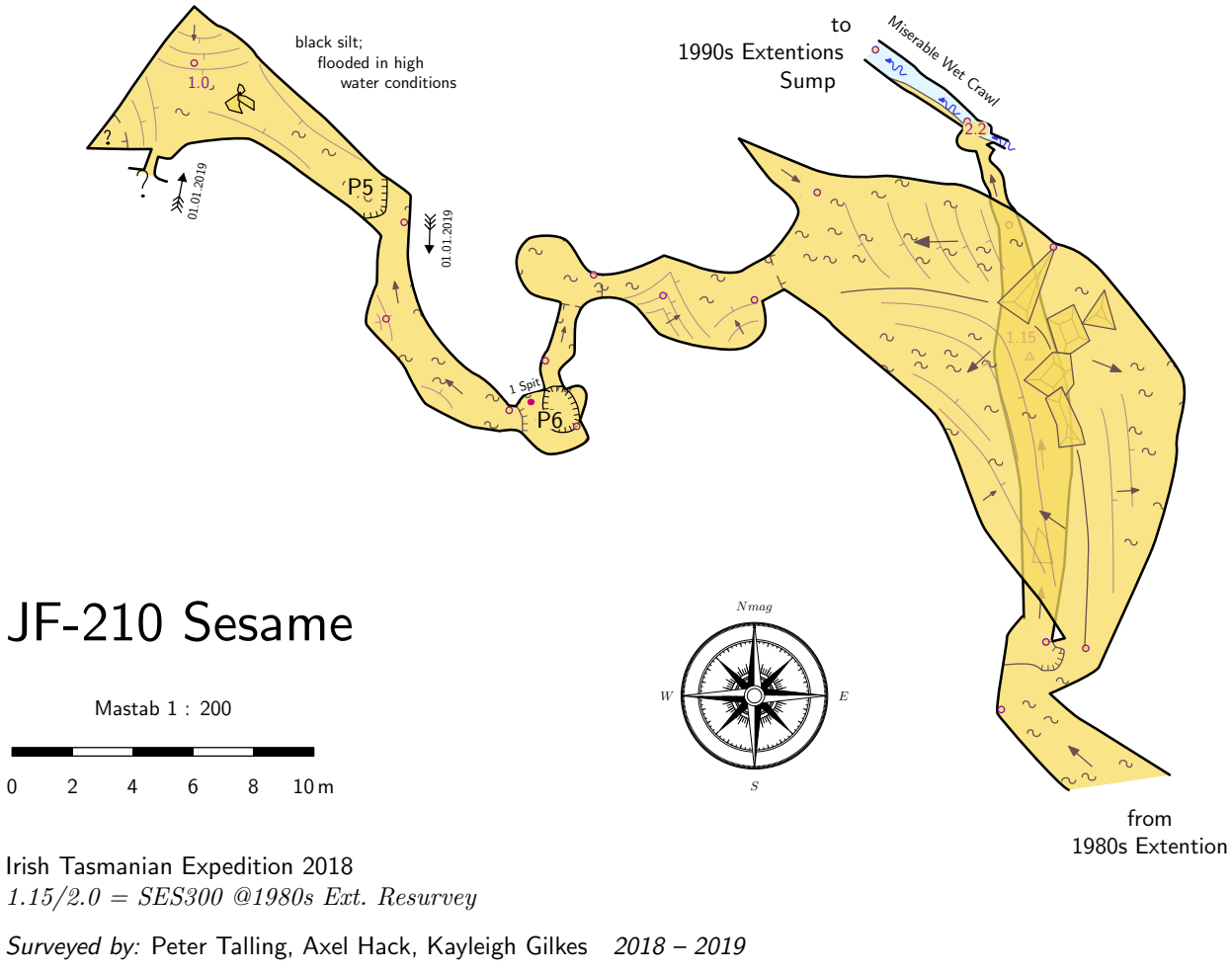


Figure 49. Plan of part of JF-210 Sesame beyond the 1980s Extension.

Figure 50. Pete Talling on the short downward pitch into the exped's extension. (Axel Hack)

Figure 51. Pete Talling in the new chamber. (Axel Hack)

Figure 52. Climbing up into Big Birds Nest. (Axel Hack)

Discussion

The main target was to support a dive at the sump behind 'Veras Wet Hole' and to survey these passages. As it was not possible to pass the squeeze in the streamway we decided to concentrate on the new draughting lead.

It took Andreas several months to go back to the dig (work, bush-fires). Unfortunately the dig took more effort than anticipated. After several pushes the squeeze was opened and passed to find a low passage that ends draughting into a boulder choke.

The passage behind the streamway needs a dry period for it to be got through, but it certainly needs to be surveyed. This would show the exact location of the sump in question and would make it obvious if Sesame could be linked to the main drain.

The source of the very great draught remains intriguing. Given that the main passage ends in a sump, it suggested that there was a dry way over the top of the sump and into the presumed continuation of the Mother of God conduit beyond the terminal choke in Niggly.

However it is also possible that the source of the draught is cave passage to the west and northwest of Sesame. While we did not visit the 1990 streamway, the available descriptions indicate that several large streams enter from the left, as you head downstream (Eberhard 1995, Klocker 2016). It is suggested that these streams emanate from caves such as JF-201 Rescue Pot and JF-202 Tyenna Tomo, found further to the west of Sesame. Tyenna Tomo in particular is one of the largest and most impressive sinks in the Junee, with a large stream crashing into a 15 m deep pothole and reaching a constricted sump c.30 m down. It is possible that rather than emanating from the downstream continuation of the Niggly conduit, the draught comes from the passages that must exist between JF-202 and Sesame, and potentially from caves further afield, such as those clustered around JF-270 Tachycardia and the far downstream end of Niggly.

Axel Hack

References

Eberhard, Rolan 1995 Recent discoveries in Niggly and Sesame caves. *Southern Caver*, 59: 11-12.

Jackson, Alan 2016 JF-210 Sesame (and JF-633 Ring Hole). *Speleo Spiel,* 413: 11-12.

Klocker, Andreas 2016 JF-210 Sesame Cave. *Speleo Spiel,* 413: 13-14

JUNEE CAVE AREA

JF-40

Length:196 m

Depth: 42 m

Overview

JF-40 is a short cave situated close to the large caves of Khazad-Dum and Splash Pot. Splash Pot consists of a narrow vertical entrance series, passing through a series of squeezes along a tight rift called Close to the Bone. Only 40 m long, it can take up to an hour to progress through with bags, and is a considerable disincentive to pushing the cave. Beyond Close to the Bone a predominantly horizontal series of passages leads to the head of Harrow the Marrow, a 113 m pitch, which leads to the bottom of the cave at -306 m. Running back from Harrow the Marrow is the passage Mad Englishmen and Dogs (MEAD), which develops into a complex series of passages on multiple levels. At its furthest northern extent a passage rises towards JF-40, eventually reaching an inlet which can be followed up to some boulders perched on a ledge. The passage continues beyond this.

If a connection could be made between JF-40 and Splash Pot, this would open up MEAD for exploration. Given the remoteness and complexity of MEAD there are many unpushed leads in this part of the cave, and there is a possibility of forging a link with Khazad-Dum, though this has been well looked at from the KD side.

Previous exploration

JF-40 was first explored by a combined STC/TCC/VSA party in January 1971 and initially thought of as providing a higher entrance to KD (Kiernan 1971). It was numbered in 1972 when it was described as "One hundred foot deep with 300 feet of narrow passages" (Anon. 1972).

The cave was revisited and surveyed in 2000 by Jeff Butt, following the discovery of MEAD (Butt 2000). More recently, in 2011 Alan Jackson looked at the cave and was enthused by the prospect of the cave connecting to Splash Pot (Jackson 2011). On his recommendation we pursued this early on as an expedition project.

Push dates

18 December 2018

Stephen McCullagh, Aileen Brown, Claire Macnamara

Located the cave and checked out the dig prospects.

20 December 2018

Stephen McCullagh, Aileen Brown, Claire Macnamara, Stephen Macnamara, Petie Barry

Dug the choke at the bottom of the cave. This was passed after two hours' work, and the passage beyond was quickly explored to its termination. The cave was fully surveyed (Figure 53).

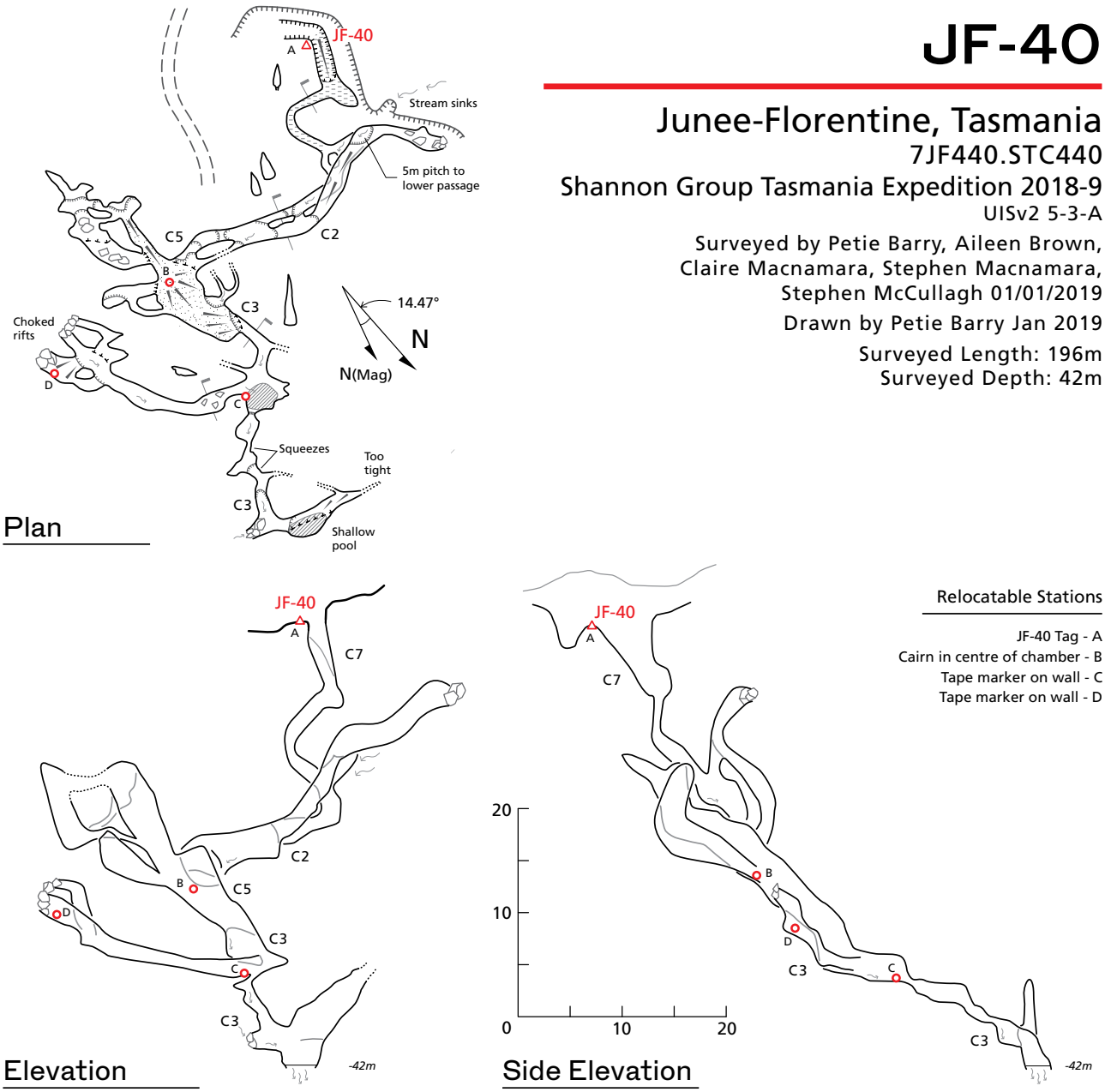


Figure 53. Plan, elevation and side elevation of JF-40.

Description

The cave is found only a few short metres west of the main track to JF-4 Khazad-Dum. An open rift descends steeply down a mucky slope. A handline is recommended for the return. At the foot of the rift a narrow rift descends (again with a soft mud floor) to intercept a stream passage. This passage is fed by a choked sink close to the cave entrance. The stream is followed down a series of climbs and thrutches into a larger chamber, which rises up back towards the surface via a steep rift. At the foot of this chamber another climb down leads to a stooping chamber with a pool of water in the floor. A small inlet comes in from a side passage, which can be followed south to some choked rifts. A wet slither leads down and out of the pool chamber and a tight wet squeeze in the stream is met just beyond. Another squeeze follows – this one leads straight into an awkward inclined climb. At the foot of this a cross-rift is met. A small drippy inlet comes in from boulders on the right, while to the left the floor drops away into a pool of water. It is possible to traverse high up in the ceiling of the rift to the far side of the pool. Here a draughting rift leads upwards but becomes too tight after 10 m.

The entire cave is developed along a single steeply descending bedding plane.

Discussion

JF-40 did not yield the easy route into Splash Pot hoped for, though the narrow gap between the two caves has been narrowed further. The pool of water at the bottom of the cave was found following several days of heavy rain – nevertheless the amount of water entering the cave seemed relatively modest. While a visit in dry conditions might reveal more, the pool did not look overly promising. The narrowing rift on the far side may also be worth a re-appraisal as the draught present in the cave appears to run into this rift.

The cave was also resurveyed (Figure 53), a little pointless considering a good survey already existed (Butt 2000), but as we were half-expecting a breakthrough into Splash Pot, it made sense to get started on a proper survey while the dig was ongoing.

Petie Barry

References

Anon. 1972 New cave numbers. *Speleo Spiel,* 68: 2.

Butt, Jeff 2000 JF40: A piece of the K.D.- Splash Pot puzzle? 2/5/2000. *Speleo Spiel,* 319: 25-26.

Jackson, Alan 2011 JF-4, JF-40, JF-562 & JF-563. *Speleo Spiel,* 383: 10.

Kiernan, Kevin 1971 Area reports: Junee-Florentine. *Southern Caver,* 3(1): 23.

APPENDICES

Appendix A: Wildlife

The wildlife in Tasmania was a delight - quite different from our own. While we were aware of wallabies, possums and wombats, for the first week we were constantly coming across marsupials we'd previously been unaware of, such as quolls, pademelons, bandicoots and potoroos. The wildlife is remarkably tame – wandering along the riverbank behind the campsite at night would reveal a mass of eyes shining back at you.

While Australia as a whole is famed for its wide range of poisonous biting animals, Tasmania is relatively free of these, with only three species of snake. All of these are venomous, though anti-venoms exist for these and they are rarely encountered. Only Axel saw a snake in Tasmania, even then in Freycinet National Park on the east coast.

Sadly, no Tasmanian devils, the iconic Tasmanian animal, were seen in Mount Field. In recent decades the Tassie devil population has been plummeting due to a transmissable facial tumor disease. We may have spotted one or two devils at a distance on the Florentine Road, but we couldn't confirm if these were devils or other small, dark marsupials. Following the expedition Brían and Rowena travelled to Maria Island to see devils kept in a disease-free sanctuary.

Some of the creatures more commonly encountered were:

Bennetts Wallabies: Relatively common in the forest beyond Maydena, they were rarely spotted in the populated valley near the campsite. Typically seen crossing the Florentine Road around dusk, as we returned from a day's caving.

Photo: Róisín Lindsay.

Pademelons: Tiny cousins of wallabies and kangaroos, these delightful creatures were described by Andreas as 'basketballs with legs'. We spotted about 26 of these on the Florentine Road one evening driving back from the caves, and sadly ran over several.

Photo: Wikimedia Commons.

Eastern Quolls: Preposterously cute creatures, bouncing along with their white-tipped tails in the air. Only a few sightings were had of these relatively rare creatures, mostly near camp, or near Russell Falls in the National Park. Photo: Wikimedia Commons.

Short-beaked Echidna: Weird creatures, one of only two types of egg-laying mammal, along with platypuses. Echidnas have fur as well as large spines and walk about on their knuckles, with their rear feet pointing backwards out underneath them. This one narrowly escaped our tyres.

Photo: Fleur Loveridge.

Brush-tailed Possum: Slightly dim animals, there was one in the campsite that several times tried to steal our bread at night, only to fall off the steel shelving it was climbing when disturbed. Photo: Wikimedia Commons.

Leeches: Small leeches, only a few cm long, were often seen in the forest. Most of us escaped without bites, but Pete got 12 bites within a few hundred metres while out bushbashing. Photo: Róisín Lindsay.

Yabbies: Freshwater crayfish, these ones were caught in the pool of water beside camp and used in Adrian's Christmas dinner. Photo: Petie Barry.

Tasmanian Cave Spider *(Hickmania troglodytes)*: A remarkable spider, with an 18 cm legspan and a lifespan of several years (quite unusual for spiders); they build distinctive sheet webs with large white egg sacs often visible. Hot Prospect contained a fine example, which came face to face with Petie on the first visit there. Photo: Garry K. Smith

Huntsman Spider: A common sight around camp, these impressively large spiders are fairly harmless. The one below lived just above the kitchen sink at camp.

Photo: Petie Barry.

Tasmanian Football Spider: Apart from the odd name, I don't know much about this spider. The one above was about 5-6 cm across. Photo: Róisín Lindsay.

Sulphur-crested cockatoo: Essentially the Australian version of the crow, these pretty birds are a considerable upgrade on our cawing black things.

Photo: Wikimedia Commons.

Glowworm: These can be found in the rainforest undergrowth, though the best examples we spotted were in the Glowworm Chamber in Growling Swallet, visited on a rest-day tourist trip. There it is possible to turn off all lights and still have enough light from the glowworms to see by. Photo: Garry K. Smith.

Laughing Kookaburra: Remarkably loud and annoying birds, their monkey-like call was often our alarm clock. Photo: Wikimedia Commons.

Other things:

Platypus: These lived in the Tyenna river behind the camp, and despite several evening trips to spot them, only Rowena caught a glimpse.

Cave Crickets: We spotted a few clusters of these in caves, naturally enough near the entrances, or in passages that rose very close to the surface. JF-40 contained quite a few.

Appendix B: Bushfire

On our final night in Left of Field we partied long into the early morning. Adrian mentioned that there was a big bushfire 100 km to the west that was a cause for concern, but it wasn't really on our minds. By midday the following day things had changed dramatically, with warm winds driving the fire in our direction. Quite quickly it reached the point where the towns of Maydena, Tyenna and National Park were all given orders to evacuate as huge clouds of smoke obscured the sky.

While we escaped the ravages of this fire, as did Adrian's campsite, it would rage for weeks after we left, eventually coming a few short kilometres from where we'd been caving. Only an intensive water-bombing of the Florentine Road prevented the fire from jumping across the broad gravel track and destroying the old-growth rainforest. The local cavers were unable to cave in the area for almost five months. Coming at the end of the expedition for us, it was not the disaster it could have been - such a bushfire a week or two earlier would have ended the expedition.

The day started off inauspiciously, with everyone shaking off their hangovers and starting to pack up their gear. By about 10 pm however the first smoke began to appear on the horizon. (Petie Barry)

The clouds thickened. We all received texts to our phones telling us to evacuate, though many of the families in the campsite had already started to pack up. (Petie Barry)

The clouds continued to thicken. Adrian sent his daughter off with relatives, stuck the dog in the car and set the sprinklers going full blast all about the campsite in an effort to saturate the ground. (Axel Hack)

Darker again. Remarkably, though it seemed to us that we could see glowing in the distance, the fire was still 40-50 km away. (Petie Barry)

Gradually the clouds thickened and the sun became obscured. An eerie orange pallor was cast across the campsite. (Axel Hack)

Cockatoos were silhouetted in white against the smoke. (Axel Hack)

Ash began to fall softly from the sky (dandruff one of the locals called it) and everything was tinted orange. (Axel Hack)

We said goodbye to Adrian, who risked losing his campsite and home, and hit the road, passing a Police roadblock as we went. (Petie Barry)

A few miles further down the road we stopped the car to look back at where we'd come from. The temperature was 39 degrees and it was windy, driving the fire towards us. (Petie Barry)

Apocalyptic scenes in Hobart. Flights for several members of the expedition were delayed until the evening, after the smoke clouds had cleared from above the city. (Fleur Loveridge)

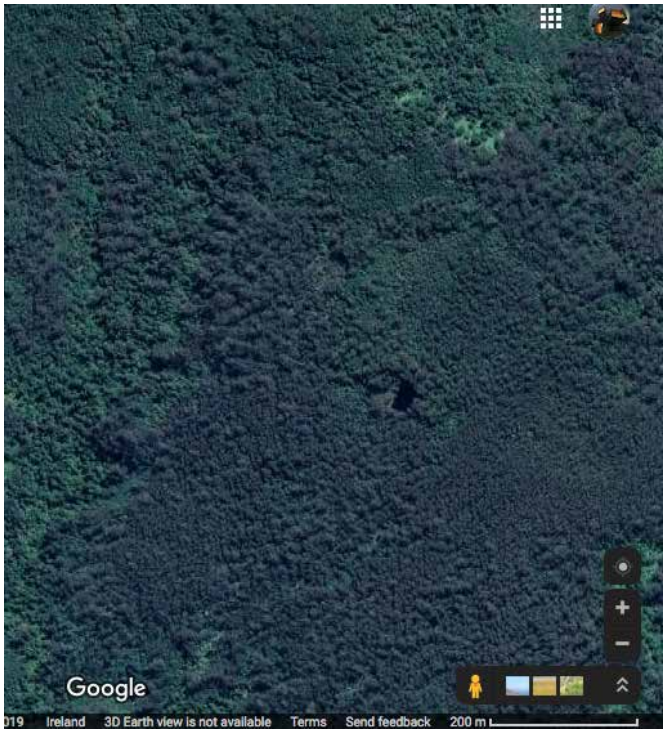
A Tasmanian Fire Service Map, with the major fires for 2018-19 marked in grey. We were based at the location marked by the yellow diamond.

A zoomed in version of the above map, with the caving area indicated by the yellow diamond. The grey indicates the areas burned out over the duration of the fire, some 80,000 hectares.

Appendix C: The KD Thing

Petie Barry

Early on in the exped. we decided to do a bit of bush-walking and prospecting to get our bearings on the mountain. First up was a mysterious black hole on the Google satellite imagery. This looked very much like a pond or pool of water of some sort. There was, however, the remote possibility that this was in fact the entrance to a massive shaft containing a cave of unheralded magnitude, hiding in plain sight on satellite imagery.



Google maps screenshot of the 'KD Thing'.

Since we had nothing better to do we decided to go and look at the black hole, on the off-chance that generations of Tasmanian cavers had failed to spot the largest cave entrance in the JF. Y'never know with these things.

So Steve Muh, Fleur, Pete T and I headed off up Chrisps Road. After parking up at the Satans Lair parking spot, we headed off into the bush, following the marked route down to this unassuming sinkhole. From here we decided to head in a straight line to the Thing which was only a few hundred metres east of us. Following a bearing on the GPS we headed steeply up out of the Satans Lair creek, hacking upwards through extremely thick and steep undergrowth. Finally this levelled off and we could stretch our legs as the scrub would surely give way to nice open forest. Not so.

Instead, we ploughed headlong through more thick bush. After a while Pete and Fleur headed back, leaving Steve and I plodding onwards. Finally we reached the Thing, which was, as expected, a stagnant pool of water.

As it turns out, several STC members have previously wondered what the same feature is, with it tagged as THING on the STC club GPS. In 2010, Chris Chad wrote a pair of articles discussing the feature (Chad 2010a, b) and mentioning Jeff Butt and Dave Rasch had a go at reaching the feature in 1999 but turned back due to thick scrub (Butt 1999). In fact, the feature had been visited by cavers as far back as 1975, with it having been first spotted on aerial photography (Miller 1975).

Photographic evidence of the 'KD Thing' (Petie Barry).

References

Butt, Jeff 1999 Surface exploration near Khazad Dum: 20-21/6/99. *Speleo Spiel,* 314: 16.

Miller, John 1975 Surface exploration Chrisps Area. *Speleo Spiel,* 101: 9.

Chad, Chris 2010a KD Thing. *Speleo Spiel,* 380: 19.

Chad, Chris 2010b The Thing returns. *Speleo Spiel,* 381: 22-23.

Appendix D: Touristing

Petie Barry

In between caving we did some touristy things around the area. Our campsite was directly next to Russell Falls, one of the main tourist sites in Tasmania. Further west we visited the Gordon Dam, the biggest in Australia, and the strange little settlement of Strathgordon, the town built to build the dam.

Following the exped. we spent time on the south and east coasts visiting Freycinet, Maria Island and Bruny Island. Tasmania is a very, very beautiful island.

Out this road you go for 80 km. (Axel Hack)

And this is what you find at the end of the road: the 140 m high Gordon Dam. (Axel Hack)

And behind it, a huge reservoir named Lake Gordon. (Petie Barry)

Nearby is the picturesque town of Strathgordon. (Petie Barry)

Where a Huon Pine, several thousand years old and saved from being flooded in the reservoir, is found. (Petie Barry)

Another view of the pine. (Axel Hack)

Conor, Claire and Steve taking in the view of The Twisted Sister, a huge 80 m high eucalyptus tree. (Petie Barry)

Rowena at Marriotts Falls, a short walk from the campsite. (Axel Hack)

A view of another huge eucalyptus, this one probably only 55 or 60 m high. (Petie Barry)

A fairly horrifying display of pasty northern European flesh on the banks of the Tyenna River. (Róisín Lindsay)

Post-exped. monging out at Whitewater Wall campsite in Freycinet National Park. (Petie Barry)

The famous Wineglass Bay beach, Freycinet National Park (Fleur Loveridge)

Beautiful, but also mosquito-infested. (Petie Barry)

Axel on the way to Bruny Island. (Fleur Loveridge)

Appendix E: Getting to the caves

Petie Barry

The Florentine Road, the only road accessing the caves. This was built and is maintained to allow forestry trucks to access the extensive forests of the Florentine Valley. (Petie Barry)

There are several old logging roads heading off from the main road. Few of these are still used for logging; many are severely overgrown. Some have gates, for which we'd been given keys. (Petie Barry)

The roads would eventually give out and it would become necessary to head off on foot into the forest. (Petie Barry)

This is the route to Growling and, by extension, the Serendipity caves. Note the orange tape on the tree in the distance - the ubiquitous flagging tape. (Petie Barry)

Sometimes the forest was broad and open, punctuated by huge fallen trees that could act as huge walls, forcing you to go the long way around them. (Petie Barry)

Just as often, the forest consisted of thick, exhausting scrub, in which it was easy to loose one's bearings. (Axel Hack)

Flagging tape is pretty vital for making your way around the forest. Most of the main caves have routes to them marked with flagging tape. In certain places we installed flagged routes, where there was none, such as to Hot Prospect. (Petie Barry)

Watching out for flashes of orange, pink or blue became second nature. Missing a tape flag could lead to straying a few metres off the track, and much aimless wandering until the route was regained. (Fleur Loveridge)

Flagging tape is also used to mark the cave tags, as well as permanent survey stations. (Seamus Breathnach)

Appendix F: Expedition caving log

Date / Activity	Prospecting	JF40	JF380	Udensala	Porcupine Pot	Benson & Hedges	Frost Pot
18th Dec	East of Satans Lair: Petie, Pete, Fleur, Muh	Bus, Aileen, Claire	Seamus, Brian, Róisín				
19th Dec	West of Satans Lair: Petie, Aileen, Claire, Axel, Bus		Seamus, Brian, Róisín, Pete				
20th Dec	Boulder Jenga Recce: Seamus, Pete, Conor	Bus, Aileen, Claire, Petie, Muh					
21st Dec	Z-Caves past Wherrets Swallet: Brian, Claire, Muh, Aileen, Róisín			Andreas, Pete, Petie, Bus.	Djuke, Conor		
22nd Dec						Bus, Muh, Petie, Andreas, Claire, Róisín, Brian, Rowena	
23rd Dec	Z-Caves via 6 Road: Seamus, Mark, Djuke, Conor			Andreas, Bus, Petie, Aileen, Muh			Axel, Rowena, Róisín, Claire, Brian

Date / Activity	Prospecting	Boulder Jenga	Whistler	Growling Swallet	Lost Pot	Khazad-Dum Dwarrowdelf	Sesame
24th Dec		Bus, Nick, Kayleigh, Róisín, Andreas	Mark, Ola, Gabriel	Rowena, Aileen, Pete, Brian			
25th Dec							
26th Dec		Bus, Andreas, Kayleigh, Nick, Petie, Róisín	Seamus, Mark, Aileen Rowena”		Axel, Brian, Muh, Claire, Barney		
27th Dec	Bunyips Lair Area: Petie, Andreas		Seamus, Nick, Aileen		Kayleigh, Brian, Muh, Claire, Axel, Conor	Tony, Djuke	
28th Dec			Aileen, Bus, Nick		Brian, Conor, Claire, Muh, Kayleigh		Andreas, Petie, Róisín, Mark
29th Dec	North of JF-202: Seamus, Bus Valley past Satans Lair: Pete			Brian, Muh, Claire, Conor, Rowena			

Date / Activity	Boulder Jenga	Whistler	Lost Pot	Sesame	Hot Prospect	Niggly
30th Dec		Bus, Aileen Nick, Mark	Derig - Brian, Rowena	Andreas, Pete, Kayleigh, Axel	Seamus, Petie, Róisín	
31st Dec		Muh, Nick, Kayleigh		Axel, Claire	Seamus, Petie, Róisín	
1st Jan		Bus, Aileen, Muh, Rowena, Conor		Axel, Pete	Seamus, Petie, Róisín, Brian	
2nd Jan	Bus, Aileen, Mark, Muh					Petie, Bus, Aileen, Mark, Muh

Acknowledgments

Seamus Breathnach

The expedition would not have been possible without support and funding. Those mentioned below played a significant part in making the expedition possible:

- The Speleological Union of Ireland for expedition funding.
- The Ghar Parau Foundation for expedition funding.
- The Ario Expedition team for the loan of survival equipment.
- Adrian from the Left of Field campground for lending equipment and endless support for the expedition.
- Alan Jackson and Andreas Klocker in advance of the expedition for logistical guidance and arranging equipment.
- The Southern Tasmanian Caverneers caving club for lending equipment, general guidance and support.

Speleological
UNION OF IRELAND
The
GHAR PARAU FOUNDATION
Funding British Cave Exploration and Cave Science
The Ario Caves Project