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EDITORIAL

1970 will long be remembered as a vintage year in the history of Tasmanian Speleology. Members of the Southern Caving Society will derive great satisfaction from the part they will have played in two events - one past and one to come.

The event now past was, of course, the successful descent of Tassy Pot by a Society team on 14th November which resulted in the establishment of a new Australian depth record of 800 feet. As a full account appears elsewhere in this journal, we wish here only to emphasise the importance of team work by all club members, without which such an enterprise will surely fail, and to offer our congratulations to all who participated.

The event still to come is the A.S.F. Eighth Biennial Conference to be co-hosted in Hobart by our Society and the Tasmanian Caverneering Club.

The Conference offers a great opportunity for cavers to glean specialized information, meet their Mainland counterparts, and enjoy a number of combined field trips. We strongly urge all members to support this venture.

In conclusion, the Executive and Magazine Committee take this opportunity to extend to readers their best wishes for a Happy Christmas and a prosperous New Year.

Dave Elliott. President.

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CAVES OF THE HASTINGS DISTRICT

One of Tasmania's biggest tourist drawcards is Newdegate Cave in the Hastings district, through the gates of which pass almost 20,000 people a year. The cave boasts three permanent guides, and other attractions in the area include a naturally heated swimming pool.

The area is 70 miles by road S.S.W. of Hobart, and 5 miles from the township of Hastings, at the gateway to the rugged south-west. The district has previously seeN farming, coal mining, silica quarrying and logging activity, the latter having provided a reasonable network of roads, and the discovery of the earliest caves known in the district. Two reserves exist in the area, one to protect the hot springs, and the other a 40 acre caves reserve.

The area is one of rugged relief, rising from sea level to the summit of Adamsons Peak (4010 ft.). The hill containing the caves, Caves Hill (unofficial name) rises 800 ft. from Creekton Creek to the north, and the plains of the Lune River to the south to an altitude of 1100 ft. The area experiences a cool temperate climate and a mean annual rainfall of 60 inches (150 CMS) distributed throughout the year. The hills are thickly clad in rain forest vegetation.

The caves are developed in a considerable thickness of Hastings Dolomite, which is correlated with the lower Cambrian Carbine Group on lithological evidence. The dolomite lies on the edge of a syncline, dipping steeply S.S.W. and is light coloured, unfossiliferous and thickly bedded, impurities in it resulting in an interesting colouration of cave decoration. The area has not been completely mapped geologically, and while the southern side of Caves Hill is fairly well known, the northern is not fully explored, but in any case the dolomite area is probably not greater than 5 square miles. The outcrop is faulted to the south-east, and overlain by younger sediments to the north-west. The reported occurrence of impressive chasms somewhere on Adamsons Peak suggests a possible continuation of outcrop there. The dolomite has a maximum local relief of 400 ft. and overlies quartzite, and is in turn overlain unconformably by Permian sediments. The basal member of the Permian is the Wynyard Tillite which is not present at all locations, then a highly fossiliferous mudstone probably correlating with the Golden Valley Group, and also Fern-Tree Mudstone. The picture is further added to by Tertiary faulting and glaciation in the Pleistocene.

The degree of development of karst in this area is considerable, considering the limited dolomite outcrop, and underground drainage is the norm. The upper edge of the dolomite is marked by a series of swallets, and the area by Hot Springs Creek by a number of effluxes.

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Except when in flood, Hot Springs Creek seeps into its bed shortly after entering the dolomite area to rise again near Chestermans Road possibly upon contact with the quartzite. Many dolines of varying size occur, the largest being a spectacular subjacent collapse in the "Golden Valley Mudstone" on the N.E. side of Caves Hill. This is approx. 150 ft. long, 100 ft. wide and 70 ft. deep, with a stream of approx. 2 cusecs entering as a sheer waterfall to flow underground through a pile of talus. The warm springs, which have previously been dealt with in this publication, (Vol. 2 No. 2) are believed to owe their origin to surface water being heated after sinking deeply in the dolomite, and rising again in a fault zone.

Considering the size of the outcrop, the area is very well endowed with caves. Many are developed on the southern side of the hill, and others have long been rumoured, while the northern side is not very well known. However, at least one sizeable stream sinks there, one cave is known, and holes are said to exist there. One cave reportedly discovered by timber getters near an old tramway, is yet to be located.

HASTINGS CAVES (IN ORDER OF DEPTH)

EREBUS - This cave is the deepest yet explored in the district, and was discovered andfirst explored by the Tasmanian Caverneering Club in 1946. Just inside the entrance, which is situated in a doline, is an area of very nice decoration and a 150 ft. vertical ladder drop. From the bottom of this, a passage leads steeply down-wards to choke after 300 ft., at a depth of 275 ft. A passage about 20 ft. up in the wall in the final chamber appears to be a continuation of the cave, but attempts to reach it in the early days using rigid ladders was thwarted by the lack of a solid base for the ladder. This cave is reputed to be rather dangerous, and has been lost. While its map position is known, it has proved difficult to locate, and recent attempts by S.C.S. to do so have all failed.

WATERLOO SWALLET - is a fairly recent find, having been discovered by S.C.S. on 28/11/65. Descent of this pot was not attempted until 1969, with several trips having to be called off due to excessive water dropping down the entrance ladder pitch. To date there has only been one descent, on 10.2.70, when the cave was bottomed at approx. 200 ft. The entrance is situated in a doline at the unconformity, and the creek has cut back into the mudstone and drops underground some 30 ft. above the contact. From a rather unstable ledge 120 ft. of ladder is necessary to negotiate the drops, and when the creek is running the ladder is directly under the waterfall. The descent is into the huge rift in which the entire cave is developed. This rift is up to 100 ft. wide, 150 ft. high and perhaps 400 ft. long, although no one has reached the end due to "Verticallity". The first 60 ft. of the ladder drop is 3 ft. from the wall to a small ledge, then 20 ft. against the wall onto a 40 ft. wide platform, with a passage leading off the end which is yet to be explored,, but may provide an alternative route to the surface.

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From this platform a 20 ft. drop leads to two branching passages, the oneto the right possibly carrying the water but becoming too tight after a few feet, the one to the left leading down steeply over talus to a 40 ft. drop which can be avoided by a chimney to one side. A short passage leads down into a chamber about 40 ft. in diameter which has a coating of mud at least 1 ft. thick on the floor and walls. The acoustics in this chamber are rather odd, as the mud muffles voices quite remarkably. Beyond a 12 ft. high mud dam at one end of this chamber lies a short length of passage which eventually chokes with mud. The cave runs straight in under the Permian, controlled strongly by NE-SW jointing. There is no decoration except some broken stalagmites in the mud.

NEWDEGATE CAVE. This is the main system known in the district, and was discovered by timber cutters in 1917. Part of thecave, in and around Kings Hall, has been developed for tourists, and was opened to the public on 19th January, 1939. It is a very complex system, having at least one mile of passages, mapped by T.C.C. to Grades 4 & 5, and reaching a depth of 200 ft. The cave contains a number of large chambers and a semi-permanent creek - Mystery Creek - which is subject to rapid fluctuations in level. Much of the early work of T.C.C. was done in this cave, and resulted in two large extensions via the stream passage, Christmas Caves and Binney Caves. The Binney Tunnel was excavated to provide all weather access to the latter. It took four years to dig and was completed in 1947, a 40 ft. ladder pitch being part of this section. The cave is strongly influenced by S.W.-N.E. jointing and the stage of development ranges from depositional to collapse. The cave is profusely decorated containing most varieties known. Straw stalactites over 15 ft. long occur in Christmas Caves while intricate helectites and needle crystals in Binney Caves, flowstone and terraced stalagmites in the tourist section are special features.

NEWDEGATE RESURGENCES (unofficial name) This is a rise pit 20ft in diameter and 20ft. deep and may be the efflux of Mystery Creek.

WOLFHOLD (Wolf's Lair) This cave was probably also discovered by timber cutters around 1917, but the vertical entrance may have prevented exploration until the advent of T.C.C. in 1946. The entrance is an impressive "hole-a-doline" 80 ft. in diameter and 100 ft. deep, formed by collapse of 50 ft. of the Wynyard Tillite. The entrance ladder pitch is 100 ft. open and free. Wolfhole is a medium sized, strongly joint controlled and very complex system, app. 200 ft. deep, and consisting of a few chambers and many branching passages. A creek flows through part of the cave. There is some good decoration and a small underground lake - Lake Pluto - which is up to 50 yards long, and 20 - 30 yards wide. A new section of this cave was recently discovered (June 1969) and explored (April, 1970) by S.C.S. beyond Lake Pluto. This consists of a series of small dry chambers.

BELL CHAMBER This cave was discovered and first explored by S.C.S. in 1967 and is the only cave yet explored on the northern side of Caves Hill. The entrance drop is 120 ft. although a crawl through talus blocks allows the first 50 ft. to be avoided. If this route is used, a narrow squeeze from a ledge leads to a free 60 ft. ladder pitch into a tall bell-shaped chamber with a clean, solid rock floor. A low crawl leads off but becomes choked with gravel at a depth of 140 - 150 ft.

TRAFALGAR POT This pot was discovered by S.C.S. on 28th Nov., 1965, and is situated in a doline only 50 yards from Waterloo Swallet. The one, and, as yet, only descent was on the day of discovery. The pot is quite difficult and narrow decorationless crevice 100 ft. deep, at the bottom of which is a very low water passage, presumably of the small creek which sinks near the entrance, and this has not been pushed.

KING GEORGE V CAVE This is one of the earliest caves known in the district, having been discovered by timber cutters around 1917. Entry is down a fixed 20 ft. wooden ladder, into a decorated chamber. It is a medium sized system with a complex network of passages and a few chambers. Control by two sets of joints is obvious, especially the one trending NE-SW. A small creek at the bottom of the cave flows only after rain. The decoration is among the best to be found in the Hastings area, with some good straws, gours, and pretty deep red flowstone. Encrusted Spiny Anteater skulls were found in a gour pool. The cave has reached the in-fill and erosional stage of development, and is probably no more than 100 ft. deep. Unfortunately this cave is readibly accesible, and has suffered the depredations of vandals.

UNAMED Upstream from Newdgate is a small cave 60 ft. deep with 130 ft. of passage.

LYONNS DEN. The entry to this cave is a 40 ft. vertical ladder drop. The cave consists of a single chamber app. 40 ft. in diameter, and is about 50 ft. deep. There is no decoration. A crawl leading off one end becomes too tight, but is a good candidate for a digging attempt.

FLAG LOCKER This small cave was first explored by S.C.S. in early 1970. Two tiny entrances close together lead over talus into a small chamber 60 ft. long, 10-30 ft. wide and up to 30 ft. high. From the lowest point in the chamber a slightly draughty crawl leads down but is choked with talus. The only decoration is small patches of dark red coloured flowstone.

BEATTIE CAVE This cave too was discovered by loggers around 1917. Due to degradation of the entrance pitch, no gear is now required to enter the cave although entry was formerly down a fixed wooden ladder. Beattie consists of a single chamber 40 ft. in diameter and 20 ft. high. It was slightly developed as a tourist

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cave in the early days, and the decoration was very pretty, but enlarging of the entrance about this time expediated the deadening of it. The decoration is chiefly stalactitic, but like that in King George V Cave has fallen prey to morons seeking souvenirs, and is now mostly muddied and broken. A good breeze often blows out of the entrance, but it is difficult to find the source within the cave. There have been at least two digging attempts, both foiled by heavy clay.

UNAMED A very pretty little cave was found by S.C.S. in 1967. It consists of four entrances into the main chamber, from where a talus and flowstone slope leads into a short passage to a moderate sized chamber containing many long straw stalactites, some with "cat's claws" at the end.

In addition to the caves listed above, there are many other small unamed holes known. Many are to be found in the vicinity of Beattie Cave, some up to 50 ft. deep, and most would probably go further with a dig. Below Lyonns Den are a number of draughty holes, and another which blows strongly is Alan Chesterman's Cave, above Newdegate, but this is penetrable for only a few feet.

In all, Hastings is a rather interesting area, and a rewarding one in which to go trogging, despite the lack of big hairy caves compared to someother areas.

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--THE CONQUEST OF TASSY POT--

--K.KIERNAN

Following the society's recent spectacular success in Tassy Pot this article has been compiled as a record of a history making event in Australian speleology. Call it flag-waving if you like, but the SCS is very proud of this acheivement, and feels that others may perhaps be interested to know of the system, the history of its exploration, some of the problems involved therein, and some general observations regarding the descents that may perhaps be equally applicable to exploration of other deep holes.

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A series of trips to Tassy Pot(JF223) in the Junee-Florentine area of South-western Tasmania by the Southern Caving Society has resulted in the exploration of the cave to a depth of 800ft., thus making it the deepest known cave system in Australia. Initial exploration by the Tasmanian Caverneering Club was to a depth of 250ft. Some time later the Southern Caving Society discovered a large extension which allowed penetration of the system to greater depths. Several trips followed, the cave gradually yielding more passage as it was pushed first to a depth of 360ft., then 400ft.,610ft., and finally 800ft., breaking by 80ft. the Australian depth record set in Mini-Martin/Exit Cave by TCC in 1967.

Exploration of Tassy Pot proved to be a major club project. It was a great team effort which showed how vital every member of the club can be, from the fittest members who actually bottomed the cave to the members who remained on the surface to belay or even stoke the fire. Naturally some were a little dissapointed not to see the bottom, but the party worked beautifully together as a real team, and spirit was such that it wouldn't have mattered who bottomed it in the end, the whole party was still wildly jubilant.

Over the last five trips more than 370 man hours were spent underground, and countless more on the surface. The cave contains a ladder pitch which, at 270ft. is the countrys third longest. It also is noteworthy that this cave does not have a bottom entrance as have the next two deepest Australian caves, Mini-Martin and Midnight Hole. Thus it must be exited by the same route as it is entered, and must be regarded as the most severe cave in Australia. Phil Robinson, a former member of Englands Nottingham University Speleological Society who bottomed Tassy Pot, regards it as being in the same class as a "severe" British Pot.

DISCOVERY OF TASSY POT AND INITIAL EXPLORATION BY THE TASMANIAN CAVERNEERING CLUB

An amazing number of Tasmanian caves have been found by timber-getters. This is perhaps due to there being a predominance of logging activity in limestone areas.Whatever the reason, Tassy Pot was no exception. Three holes in a dry valley below Mt. Field West failed to escape the eagle eye of employees of Australian Newsprint Mills late in 1967. Don Frankcombe ANM manager at Maydena, showed the holes to Albert Goede ,president of TCC early in January 1968. First exploration of the cave was by TCC on 21/8/68.

A large party staggered up the foothills of Mt. Field West from the main Florentine logging road to explore the new holes. Walking time from the cars was ¾hour. Two of the holes were disposed of

quickly as they were rather dissapointing, but the upper hole seemed rather promising.

Brian Collin descended the first pitch, 150ft.The top 40ft. is steeply sloping,followed by a 110ft. drop down the wall of a shaft app. 20ft. in diameter. Exploration was delayed while members returned to the cars to get more ladders. Then down again, Brian being followed by Peter Brabon. At the bottom of the first drop is a choke of logs and rocks cemented by mud.To the left is a cleft 20ft. high, opening to a further drop of 90ft. The ladders for this were rigged off the entrance pitch ladders and Peter descended to find himself in a muddy chamber with a number of high avens extending almost right back up to the surface From here he explored to a talus pile, behind which he found a narrow fissure going down app.60ft. to a small chamber.No air movement was noted and further exploration was not carried put due to lack of gear and suitably thin cavers.The cave to this point contains no creek but is rather wet and muddy. Looking up the smooth walled entrance shaft the outline of the entrance resembles a map of Tasmania, thus the name Tassy Pot was given to the cave at the AGM of TCC on 27/3/68.

Reference: Goede,A.-trip report in Speleo Spiel no.21

LATER EXPLORATION BY SOUTHERN CAVING SOCIETY

Unaware of this exploration by TCC, an SCS party surface exploring in the area a week later came across the hole, and descended it a fortnight after the TCC trip.

Eddie Guinan, Aleks Terauds, Michael Cole, Malcom Smith,and Steve Harris descended the first pitch, belayed down by Bob Cockerill and Geoff Fry. Steve then belayed Aleks, Malcom and Eddie down the next pitch.

The fissure behind the talus pile at the bottom was located and a 30ft. ladder rigged. Eddie descended to a tiny chamber at a depth of around 300ft. Despite a concerted effort to push a squeeze at this point he could make no further progress, and the party retired from the cave, belayed up by Barry James.

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Between 1968 and 1970 access to the area and the cave improved greatly. Not so good was the fact that during logging activities a tree felled near the entrance toppled into the shaft to jam across it 40ft. down, and present a constant menace to explorers from then on.

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EXPLORATION THIS YEAR(1970)

TRIP " 20/6/70-EXTENSION FOUND

PARTY: Kevin Kiernan (leader), John Morley, Greg Blake, Chris Harris Graeme Watt.

DETAILS: Unaware that the rift reported by Peter Brabon had already been attempted, the party planned to do this before going to Chrisps Rd. to explore some other holes. AS it was they were very nearly talked out of going. The day was to see plenty of ladder practice, and the two prospective members on the trip were keen to try their hand at the longish pitches.Perhaps Aleks Terauds constant propoganda that the cave could still go had something to do with the trip going. Whatever,

this basically "tourist" trip mushroomed into a chain of events and a succession of trips that was to eventually see the Australian depth record topple.

The entrance pitch was quickly rigged and Kevin descended the first drop and photographed John as he came down. Graeme, Chris and Greg followed. With Kevin belaying the next drop, John, Chris and Graeme and Greg descended. The rift was located, but John, seeing little Chance of descending it , went to a lower point in the chamber to attempt to find an alternative entrance to it. He was successful. Exploration revealed the presence of a low, muddy and restricted crawl, with a good breeze blowing in. It is amazing that this had not been seen before, as it is at the lowest point in the chamber, and the obvious continuation.

Greg and John continued on to find themselves in a tiny chamber in the floor of which is a rather uninviting short drop to an awkward bedding plane squeeze. This was negotiated, and the duo found themselves in an interesting 70ft. chimney. This chimney is of varying width and is climbed free. The variation in size is due to large talus slabs within the chimney itself, fortunately most of which are stable. The chimney varies from a tight squeeze to very wide and necessitating fully outstretched manoeuvres, while it is necessary to transfer to a single face to climb down the final 15ft. This climb is easy but should not be attempted by anyone without at least some rock-climbing experience. At the foot of this chimney John and Greg began to wonder where the water-table was, but pressed on over a further 10ft. drop, down a narrow passage, through a squeeze out onto a catwalk on the edge of a big shaft and across into a chamber at a depth of around 360ft. The big shaft is really enormous, being app. 50ft. across, and falls from the upper levels from such a height that neither carbide lamps, torches or magnesium ribbon allow the top to be seen. It was estimated at 100-150ft. deep. Above the chamber there is another aven. The floor of the chamber consists of talus blocks.

The party then moved back to the -150ft. ledge, where Kevin had managed to catch some bugs and get bitten by a frog. He took some convincing that a major extension had been discovered. The trip up from the ledge was a slow one. The last few tried to light a fire with some of the wood on the floor, but this attempt was abortive to say the least. The last person regained the surface at 6:30pm. after 6 hours underground. So much for Chrisps Rd!

TRIP. 28/6/70 -DEFEATED BY LACK OF GEAR AND TIME.

PARTY: Greg Blake (leader), Kevin Kiernan, Chris Harris, David Mitchell, Leonne Smith.

DETAILS: The entrance pitch was rigged and Kevin descended stopping half-way down to clear a monumental tangle caused when the ladder caught on a snag. After some gymnastics this was cleared and Chris, David, Leonne and Greg descended. Then down the next pitch, and after some exploration proceeded through the muddy crawl (dubbing it the Glory Hole) and down the chimney.

One look at the big drop showed the 120ft. of ladder carried by the party to be insufficient to bottom this impressive shaft. After

much rock dropping and awed gaping at the shaft the party were entirely carried away and estimated the drop to be as much as 170ft.

Exploration of this chamber was then carried out. At the far end Greg went down a 50ft. chimney to reach a depth of about 400ft.,but this promising looking lead did not go. A short crawl on the opposite side of the chamber to the big shaft was discovered but not entered.Rocks thrown through this indicated a vertical drop at the end.

The party then started back for the surface, Greg wishing the chamber goodbye as he went, and thus the name"Goodbye Chamber" was born.

It had been a battle to get the gear in but it was more so to get it out again, and by the time the surface was reached 12 hours had been spent underground. Chris had a nasty moment when a large rock fell unexpectedly from atop the second pitch and glanced off his leg.The performance of the prospectives on the trip was nothing short of amazing They did not complain once on the ladder pitches, even after such a long time underground.

Once out of the hole the party was further delayed by car trouble and did not arrive at the ANM gate until 1;00am.,narrowly avoiding an S&R callout.

TRIP 13/9/70-ONE OF THOSE DAYS

PARTY: Kevin Kiernan(leader),Aleks Terauds, Barry James,Bob Cockerill, Dave Elliott, John McCormack, Chris Harris, Graeme Watt, Leonne SmitH, Steve Street,Peter&Julie Henley.

DETAILS: Despite careful planning everyone should have stayed in bed.The party was divided into three groups :assault;rigging;surface. We also had six field telephones.

However the day dawned wet after a week of similar weather.Fresh falls of log and rock into the shaft ensured that climbers brought down plenty of debris with them, and anyone familiar with the lack of protection to shelter under in this slightly funneled shaft will appreciate the plight of those below. The constant rain had thoroughly soaked and weakened the ledge.

The rigging of the pitches was delayed when the rigging party found some of the gear tangled. With John belaying, Bob descended the first pitch, followed down by Graeme, who, after spending some time trying to put a terrier in for the belay man on the second pitch, found the rock rather hard and drove a stout peg into a convenient crack instead.The telephones proved another problem. Instead of there being 1500ft. of cable on the main reel it fizzled out at 200ft. As a result, we were limited to only one, on the -150ft. ledge. Yet another problem came to light. With six people on the ledge,which had been weakened by the rain, it made a number of perceptible vibrations, this naturally causing just a little consternation.

In addition, one member of the descent party hurt his hand on the first pitch and was unable to go on. We had already been robbed of another descent member who had been unable to make the trip at the last moment. Thus by the time descent of the next pitch was attempted it was

late afternoon. Soaked to the skin after six hours underground, another member who had been hurriedly conscripted into the descent party decided not to go on. With some hurried conscription two replacements were found.

Too late in the afternoon Kevin started down the 90ft. pitch, belayed by Bob, but only went a few feet before re-appearing with some rocks and an armful of fire-wood. Some time was spent in an attempt to clear this pitch a bit, but due to the mo tley nature of the ledge this was impossible, and ever since this trip it has remained dangerous, raining down mud, rocks and pieces of wood at the slightest encouragement. Meanwhile, Aleks, Steve, Leone, Graeme and Chris got wet & cold.

Everything seemed against us. We were all cold, tired and wet, and our nerves were ragged. Finally the descent was reluctantly abandoned, and all those who had been underground were glad to get out of the place. As Aleks said later to a member on the surface-" I never thought I'd be so glad to see your ugly face!" It is a demoralising pot in many ways.

Then came the marath task of evacuating cavers and transporting all the gear back to the surface. The operation was accompanied by ominous rumblings from deeper in the system, and those present on the ledge wondered what sight would greet those who next ventured down there.

By this stage rather un-nerved, when Chris and Kevin saw a chock-stone on the edge of the ledge on which they were standing collapse, they hurriedly clipped onto the foot of the ladder. An hour later and all the gear and the last two bods were back on the surface-and glad to be !

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Some discussion followed this trip. After some time it was decided to have another go at descending this pothole, with a large and strong party for safetys sake. +

TRIP 31/10/70- TOWARDS THE DEPTH RECORD:

600ft. DOWN VIA AUSTRALIA'S THIRD LONGEST LADDER PITCH !

PARTY: John Morley(leader), Greg Blake, Kevin Kiernan, Geoff Fry, Chris Harris, David Mitchell, Graeme Watt, and visitor Phil Robinson of TCC.

DETAILS: At 11:00am. John descended the first pitch followed by Graeme, Kevin and Greg. Graeme then placed a terrier and eyebolt for belay man on the second pitch. A good belay for the ladders was found around a bollard at the edge of a recessed ledge about 20ft. up the wall from the -150ft. ledge.

The second pitch was quickly descended and these four bods moved quickly down to Goodbye Chamber, with the others following. The big pitch was rigged, and the party gaped in dis-belief as 240ft. of ladder was swallowed by this impressive chasm. Two 120ft. ropes were knotted together for lifeline. Greg started down the big drop. The ladder was against the wall for the first 140ft. He stopped to rest on a ledge 18 inches wide at this point. Below him the ladder was hanging free into the gloom of a big chamber. Greg then went to the bottom of the ladder and reported that he was still some distance from the floor. He went back to the ledge and John descended, with 8ft. more ladder. This was added and Greg descended again. He found it difficult to see past all the steam he was creating, so went back to the ledge again, and John went down. He managed to see that the ladder was still some 20ft. from the floor.

and then returned to the ledge. Greg went to have another look. Both then climbed back to Goodbye Chamber. The party left the cave after 13hrs. underground.

Total depth reached on the trip was 600ft., making this cave the deepest in the Junee-Florentine area, ahead of Growling Swallet (now Australia's fourth deepest cave, at 560ft.), and Australia's third deepest cave after Midnight Hole (660ft.). The big pitch is the third longest single drop yet descended in the country, after Big Hole (near Braidwood, NSW-288ft,) The total length has since been found to be 270ft. This trip also saw the deepest descent yet made in Australia where it has been neccessary to come back up again via the same route, rather than walk out via a bottom entrance. By days end Greg had done nearly 1000ft. of ladder climbing.

There was no apparent re-arrangement of the scenery in the cave that could have accounted for the disconcerting rumbles heard on the previous trip. Many bones were collected by David and Kevin.

TRIP 14-15/11/70-THE COUNTRY'S DEEPEST CAVE SYSTEM !
A NEW AUSTRALIAN DEPTH RECRD IS SET-800ft. DOWN !

PARTY: John Morley (leader), Kevin Kiernan, David Mitchell, Graeme Watt, Chris Harris, John McCormack, Kevin Rasmussin, Greg Blake, Geoff Fry and visitors Phil Robinson of TCC and Arthur Clarke of Victorian Speleological Association.

DETAILS: The entrance pitch was rigged and John Mac readied himself for what was to prove a very long wait. John Morley descended, followed by Graeme and then Kevin Kiernan. John Mor. used his camera freely. Kevin then descended the next drop as Chris came down the first. Chris then came down the second drop followed by the gear, and then these two moved on through the Glory Hole. Kevin managed to capture a single speciman of the cave cricket Parvotettix sp,, this being only the second record of it from the Florentine. The gear was then ferried down to Good-Bye Chamber and the big pitch rigged with 290' of ladder. The 260' courlene rope was not quite long enough so a shorter rope was knotted on to the end of this. By this time the rest of the underground party, John, Phil, Arthur, David, and Graeme entered Good-Bye chamber. Greg. and Geoff. decided not to come underground.

Arthur, Kevin and David explored the Talus at the end of the chamber while John descended to the ledge 140' down the big pitch. He found the ladder was badly twisted and he was unable to untwist it as it was caught on snags further down, resulting in a very hard ladder climb. Arthur found a short passage leading to a drop of 60' in the talus, then Phil and he followed John to the bottom of the big drop. As these three went off to explore, those waiting in Good-Bye chamber amused themselves by investigating the crawl on the opposite side of the chamber, found on 28/6/'70. Graeme and David rigged a belay rope while Kevin cleared some rocks and crawled through, but then retreated hurriedly realising the floor was false. However, on the other side is a shaft as wide as the one being descended. It was possible to see 100' down but not the bottom. Alfie's Hole may provide a better route to this. David and Kevin then meticulously excavated about two square feet of mud to a depth of about 18" to reveal numerous bones.

Unfortunately in the excitement later, these were left in the cave.

Meanwile, down the ladder pitch: John, Arthur and Phil found themselves in a big chamber. They then climbed down over and through some talus. Over a series of unstable drops -- all quite small -- the party pressed onwards until they found a small and shallow stream 18" wide. This was followed through a very tight squeeze. The vertical movement gave way to horizontal, as the party made its way 100' along a flat floored chamber. A glance at John's altimeter showed a depth of 820' but this was later amended to 800' to allow for error in the aneroid. Still not satisfied, Arthur dived into a tight and panicky squeeze with John following. Only 30' more passage was their reward at the expense of getting thoroughly soaked by the stream. They appeared to have entered another cave-- there was even another stream -- but there was no way on. The bottom had been reached! A strong draught was blowing in this section, which was named Morocl Passage.

Back in Good-Bye chamber some most interesting songs were being sung as the party tried to keep warm. Suddenly a whistle blast was heard and a pregnant silence fell upon the group. Upon hearing John's announcement that the depth record had been broken, the party went wildly jubilant, with great cheering, handshaking, and dancing around the chamber. It was a tremendous moment.

Then came the long climb back to Good-Bye chamber with the four belay men hauling mightily to assist the climbers up the pitch. Once at the top, Arthur tried to keep warm by burying himself under a pile of wet sugar bags. Graeme used his camera to advantage. This was the pattern for the rest of the ascent to the surface, as the strain of so many hours underground was felt. John Mac. proved a mighty belay man and was much appreciated on the ascent of the first pitch, at the top of which he and Kevin R. were still waiting faithfully. The party staggerdd to the surface after 17hours underground. Gear retrieving proved a murderous task and it took over an hour to raise four of the bags. All members were back on the road at 7 a.m. but too tired to appreciate their success. Phil. stayed at Maydena to go trogging with T.C.C. later that day but strangely did not go underground! Graeme and Kevin tried to escape to Hobart but found themselves back in the scrub at Crisp's Road. two hours later. The rest of the party fell asleep on the road.

* * * * * * *

Some more work remains to be done in this system. The new shaft discovered off Good-Bye chamber should be laddered. John & Co. apparently saw no sign of it entering the cave where they went. It is noteworthy that this shaft is nearer to Three Falls Cave (the swallet of a sizeable creek only 200 yards away) and may even provide access to this creek. It also is significant that the water-table, worried about for so long, still has not been reached. However, the chances of getting any deeper than the 800' already attained are not very great.

* * * * * * *

SOME OBSERVATIONS

COMMUNICATIONS

TELEPHONES are a very nice thought but proved to be too much trouble for only temporary installation. If they were to be left in a cave over a series of trips, they would doubtless be of value.
WHISTLES may be an oldfashioned means of communication but are still very effective.

TEAM MEMBERS

FITNESS is a major need in a pot such as this. Some members were surprised at how unfit they were when it came to climbing long ladders.
PARTY SIZE. This is always a contentious point. A small party can certainly move faster, but with a smaller safety factor, and gear transportation is a problem. It is useful to have plenty of bods to haul on the rope to assist a tired caverup a long pitch. Whereas one or two people on the surface are enough to do this, underground, the belay men themselves are tired and in this case, four proved a good number for belay of the big pitch. Three proved a good and safe number to continue exploration at the foot of the big pitch.

TECHNIQUES

On one occasion it was necessaryfor a member to climb a 90' ladder unroped. This is an undesirable practice, but to add some s safety, a rope running down the pitch was tied into figure of 8 knots at regular intervals. A karabiner running down this rope ensured that the length of any fall would be very limited.

GEAR

PREPARATION is vital. On one occasion, gear that was in a mess from a previous trip took some time to untangle. On the same trip a problem arose when the length of borrowed telephone cabl was found to be shorter than expected. The time taken to carefully lower a ladder over a pitch is well worth it. On one occasion a twisted ladder proved a major problem.
RESTING SLINGSused were of two types Waistloops allow theclimber to clip on to the ladder and rest, but not with such comfort or confidence as a Beaudrier Alpin chest harness set-up. The value of these slings is great when a caver becomes very tired on a long pitch. On two occasion on the final trip when the belay rope was thrown down, it passed between two rungs of the ladder. The potentially dangerous need for the climber to undo the belay rope on such an occasion can be made safer by his clipping on to the ladder.
LADDERS. Thin runged Bonwick ladders proved a little tiring on the long pitch. These are good for shorter drops, but the wider runged ladders seem better for long drops. However, it probably depends largely upon which of the two types the climber is used to.
ROPES The long length of Jourlene rope proved indispensable on the long pitch. Knots joining lengths of rope on the top pitch were a

constant hinderance, catching easily on snags, besides being weaker than a continuous length. When it is necessary to haul a tired caver up a pitch the advantage of having no knots is obvious. Despite the the slippery appearance the courlene rope proved fairly easy to handle, but is easily damaged by abrasion. The polypropelene ropes in use by the society since 1967 are still the best we have tried.

WATERPROOF CLOTHING is very handy. A parka and a pair of waterproof trousers worn under a trog-suit certainly makes a caver sweaty while moving but if woolen clothing is worn underneath the sweat is absorbed and the caver remains dry. Waterproofs are perhaps not so practical for an energetic cave where movement is constant, but in a slow pot long periods of waiting can be much warmer if such clothing is worn. Waterproofs also mean that you can sit down anywhere and remain dry-even in a puddle-a much better deal for a belay man.

LADDER BAGS Some gear was transported in large sugar bags, but these, due to their irregular shape and texture tend to catch on everything. Due to their size there is also a temptation to pack so much gear into them that they become un-manageable. The ladder bags loaned by TCC proved excellent These measure app 10" wide by 2' long, and are fitted with a strong handle.

TERRIERS These were placed at the top of the second drop. Despite every care in their installation they tended to work loose.

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TACKLE REQUIRED FOR TASSY POT

FIRST PITCH-Approach from western side
LADDER-150ft.
ROPE-240ft. (belay off large manfern near entrance)
HEADERS-60ft. (belay off tree 30ft. N of entrance beyond JF222.

SECOND PITCH-Rig carefully or gear may prove insufficient.
LADDER-90ft.
ROPE-120ft. (belay off eyebolt right hand side of cleft)
HEADERS-30ft. (belay as single strand off bolard on edge of small ledge, 20ft. up E. wall of shaft.

CHIMNEY- ROPE 120ft. for handline and gear hauling (belay off flake in Glory Hole.)

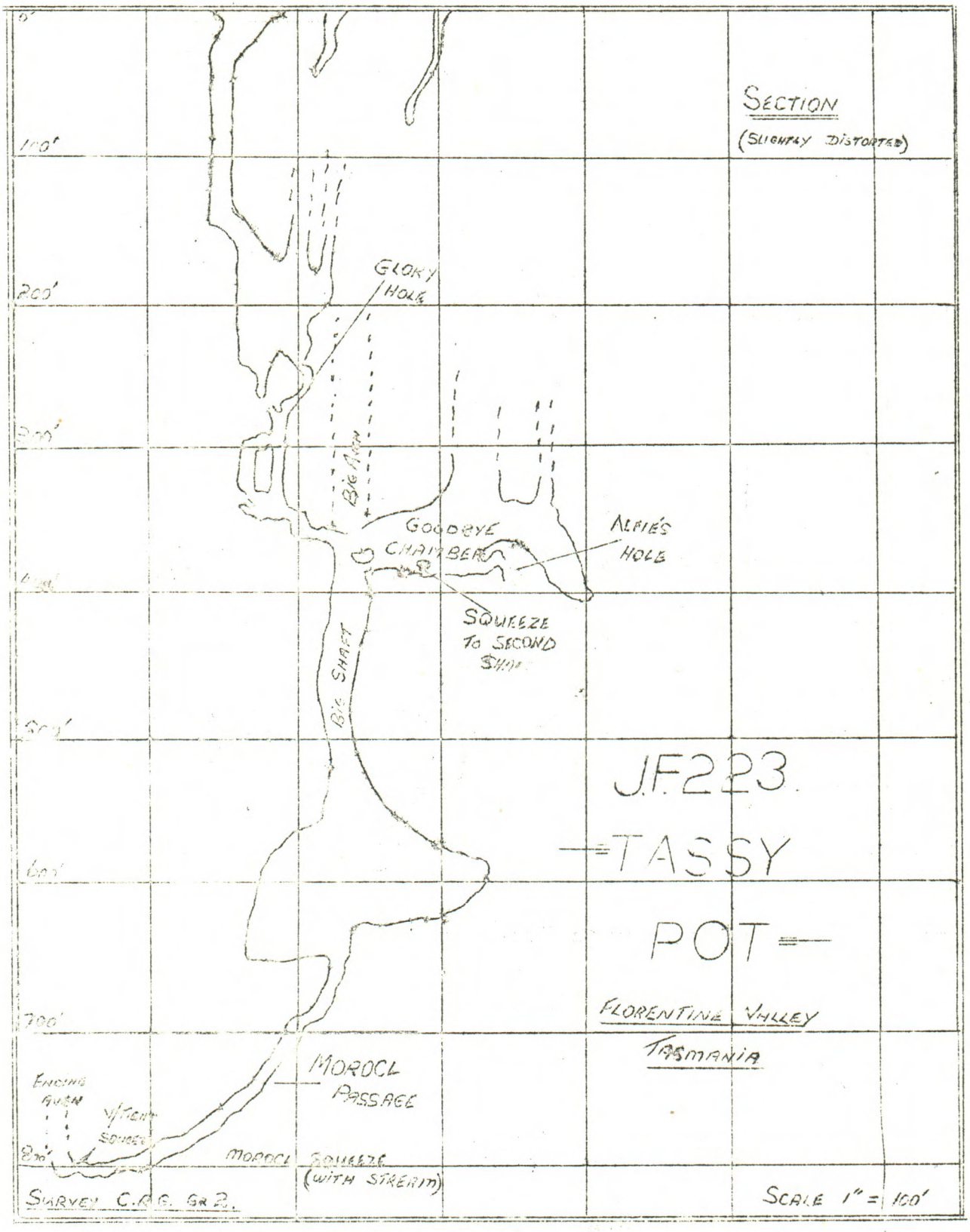
THIRD PITCH-Approach from where Goodbye Chamber is first entered.
LADDER-270ft.
ROPE-360ft. (belay off talus blocks)
HEADERS 30ft. (belay off directly below entrance to chamber.)

TOTAL GEAR REQUIRED: LADDER-510ft.; ROPE-840ft. HEADERS-120ft.
TIME NEEDED TO EXPLORE TO BOTTOM=AT LEAST 15 HOURS.

ACKNOWLEDGEMENTS

IN CONCLUSION, we wish to thank the many people who aided us by providing equipment and encouragement in various ways. To this end, our special thanks are offered to the Tasmanian Caverneering Club, who, at the expense of seeing its depth record fall into the hands of another club, generously made available equipment without which this descent would not have been possible.

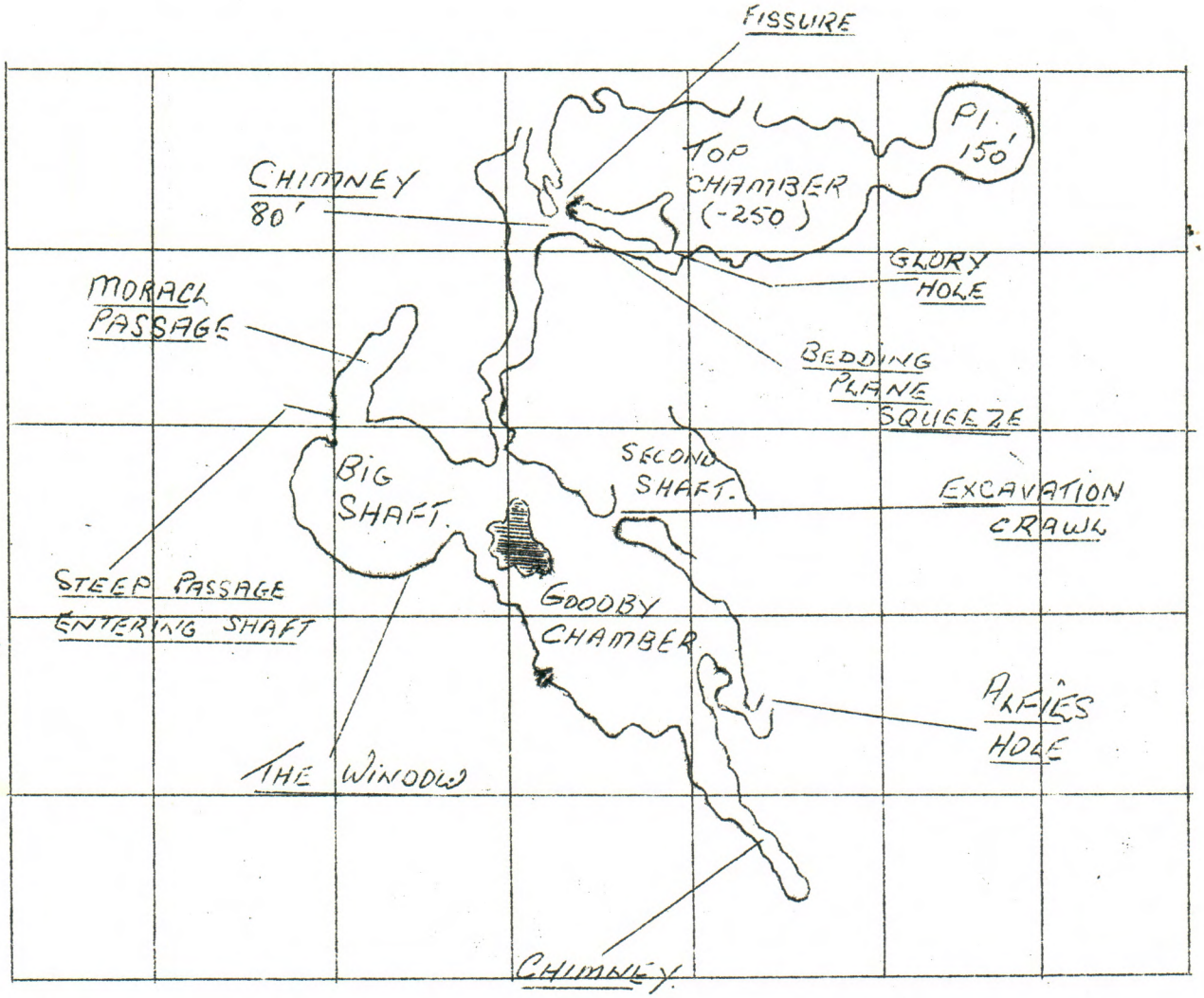
Many thanks also to Mr. D. Turner and Mr. P. Andrews for making special equipment available. Finally, to the members of SCS, congratulations and many thanks for pulling together to make this great moment possible.



J. MORLEY
K. KIERNAN.
9/12/70

TASSY POT — PLAN

FLORENTINE VALLEY, TASMANIA.



SCALE 1" = 50 FT

SURVEY. C.R.G. GR 2.

K. KIERNAN
T. MORLEY
9/12/70

JMS

CAVE BONES

Despite their age and degree of complexity, limestone caves in Tasmania differ from those on the Australian mainland in that an endemic vertebrate fauna is entirely absent. The invertebrate fauna which up till recent times (see Goede, 1967) has been comparatively little known, except from purely taxonomic considerations, is on the other hand complex and exhibits a comparatively high degree of endemism. Nevertheless vertebrate groups such as the Chiropteran faunas characteristic of many mainland cave systems are conspicuous by their absence.

Vertebrate remains, chiefly in the form of skeletal material, have long been known from Tasmanian caves, (Higgins & Petterd 1884) and in many cases their presence is a highly conspicuous feature.

Cave bones are considered to have arrived at their destination by one of the following:-

1. Animal lairs. Although it is probable that some of the larger mammals such as the Thylacine and Tasmanian Devil may have used cave entrances as temporary dwellings the evidence is largely inconclusive and little is known in detail.
2. Surface casualties. This probably accounts for a large proportion of cave bones as in some areas cave entrances are restriced to small vertical shafts at ground level and could well act as traps for many of the nocturnal species such as the wombat, wallaby and devil.
3. Surface washing. Run-off of surface water into underground caves is a characteristic feature in many areas and the possibility of dead carcases being carried in by water cannot be ruled out entirely. It also seems that the only plausible explanation for the transport of bones found in some caves is by movement of flood waters underground.

Fossil and sub-fossil vertebrate material has not been extensively studied and is comparatively rare in most Tasmanian caves. All the species listed below are considered to be recent material indistinguishable from living species. Where water is present bones frequently become encrusted

with calcite and cemented to the formations giving the impression of "fossils". However the process appears to be fairly rapid and subsequent removal of bones from the calcit matrix has so far yielded only material of recent origin.

The following species have recently been recorded from Tasmanian caves but it is highly likely that further collecting will yield many more

Class Amphibia
Subclass Anura
Miscellaneous frogs. Mole Creek.
Class Mammalia
Order Monotremata
Ornithorhynchus anatinus Shaw & Nodder, 1799.
Mole Creek, Caveside, Florentine Valley, Tassy Pot.
Order Marsupialia
Family Dasyridae
Antechinus swainsonii Waterhouse, 1840
Mole Creek, Scott's Cave, Florentine Valley, Tassy Pot.
Sarcophilus harrisi Boitard, 1841.
Mole Creek, Caveside, Pyramid Cave.

Family Phalangeridae
Pseudocheirus convolutor Oken, 1916.
Mole Creek, Caveside, Florentine Valley, Tassy Pot.
Trichosurus vulpecula Kerr, 1792.
Mole Creek, Florentine Valley, various localities.

Family Vombatidae
Vombatus ursinus Shaw, 1800.
Florentine Valley, Tassy Pot.

Family Macropodidae

Potorous tridactylus Kerr, 1792.

Mole Creek, Scott's Cave, Caveside.

Thylogale billardierii Desmarest, 1822.

Mole Creek, Scott's Cave, Florentine Valley, Numerous.

Wallabia rufogrisea Desmarest, 1817.

Mole Creek, Florentine Valley and other localities

Macropus tasmaniensis Le Souef, 1923.

Mole Creek, Florentine Valley.

Other Mammals.

Canis familiaris (Domestic dog)

Oryctolagus cuniculus (European rabbit)

Mole Creek, Caveside, Scott's Cave.

Family Muridae

Rattus lutreolus Gray, 1841.

Mole Creek, Caveside.

Pseudomys higginsi Trouessart, 1899.

Ida Bay, Exit Cave.

Discussion. The high humidity and free water content of many Tasmanian cave systems is not indicative of good preservation of animal material and decomposition aided by bacterial action is rapid. Leaching by water and abrasion by rock and gravel leads to a fairly rapid breakdown of the remaining bone material. Consequently such remains tend to have a comparatively short underground life unless rapidly encased in a protective medium such as fine mud or calcite.

Nevertheless studies on cave bones may in the future be able to shed new light on the problems of surface distribution of animals and provide evidence of water movements within caves and its effects on cave structure.

A.P. ANDREWS

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Have you tried producing a Magazine at Christmas?

The Magazine Committee does not recommend the practise. It regrets that some minor errors have crept into this issue, and that the December rush necessitated utilising a variety of typewriters. The Committee wishes to thank all who volunteered or were "pressed into service" for their help in enabling it to meet the "deadline".

The quarter has seen spectacular success. Exploration of Tassy Pot pushed the depth of this cave to 400ft, then 600ft and finally set a new Australian depth record at 800ft. Numerous new holes have been found in the Junee area, and flood damage at Mole Creek has been investigated. Other areas visited include:

IDA BAY (1 trip)

In an incredible display of speleo - masochism one party spent a perfectly good Saturday night staggering up the La Perouse track on Marble Hill laden with gear, in search of Hobbit Hole and Revelation Cave. They failed to get there because it just so happens that this track does not go to those caves. After a heavy down pour the party retired to Mystery Creek Cave for a couple of hours general trogging in this large but rather uninspiring system.

MOLE CREEK (3 trips)

The biggest floods for 20 years have left their mark in this area. The tourist lighting in King Solomons Cave was destroyed, while in Maracoopa I Cave some of the paths were washed away, the entrance gate removed and rocks washed onto the tourist paths that the combined efforts of four guides could not remove. Mole Creek itself has piled sand 20ft above normal level between Wet Cave and Honeycomb I Cave, and at Scotts Rising. It also ripped out a large gum tree near Wet Cave.

Perhaps as a reaction to Tassy Pot a week previous, a party in Maracoopa I Cave did the tourist trip to end all tourist trips. A brief trip up the canyon towards Tank Head Chamber was followed by a 2 hour stroll through the tourist section during which time no-one strayed more than a few feet from the paths.

A few weeks later Herberts Pot was visited, the party touristing to the end of the Sandy Crawl before the chimneys. That night Honeycomb I Cave was visited, the party touristing through the upper levels and gaping in horror at the flood debris caught in the ceiling 30ft above normal stream level.

A trip to Liena to investigate the landslide reported in Vol. 2 No. 1 was thwarted by the hospitality of local residents. A second

look some weeks later found that things still look very messy. An active creek now flows down the course of the slide, but further investigation was not conducted.

Croesus Cave was visited and inspected for flood damage. No damage was sighted. An N.B.T.C.C. member reports pulling a drum out of the ceiling which was formerly stationed as a foothold in the "masterlock", some half mile upstream.

At this point we would like to congratulate T.C.C.N.B. on their recent success in Kubla Kahn.

SHANNON (1 trip)

This area was briefly visited. However, correspondence with the geologist involved in mapping this area has disclosed that the reported basalt tunnels are only lizard size. Oh , well, it was a nice thought anyway!

JUNEE-FLORENTINE (5 trips)

The quarter has seen spectacular success in this area. New caves have been discovered and explored in the Junee area, and a new Australian depth record of 800ft. has been set in Tassy Pot (exploration of Tassy Pot will not be dealt with in this area report as it is written up elsewhere in this journal).

Junee Area - Surface exploration at Chrisps Rd. is starting to bear fruit. A number of new holes have been found, and some interesting exploration carried out in others.

J.F. 204 has an interesting narrow entrance shaft of 45ft, at the bottom of which is a small chamber, and an aven reaching almost right back to the surface. J.F. 205 has been re-explored with no further advance. Exploration of J.F. 206 reached a depth of app. 100ft. From a dry entrance above a large swallet a short passage leads to a talus chamber and a 20ft drop. Beyond this a crawl leads to a slope and a 30ft chimney. The cave fizzles out in small passages too tight to follow, but carrying a strong draught. A short length of passage has been found in Voltera, but this terminated in a choke.

Near Voltera, an insignificant hole(J.F.208) was entered to reveal a large chamber packed with good decoration. A further 200ft of passage leads to a smaller chamber containing some nice flowstone and a pool of water. Further progress is prevented at present by a talus collapse.

Sesame II (J.F. 211), a small hole on top of the doline containing Sesame (J.F. 210) has been explored to a depth of about 100ft. The entrance pitch of 30ft leads to a short slope and a further 50ft. pitch into a talus chamber. Further progress is not possible

at present, but some work should allow this hole to go further. A strong draught blows through a hole in a false floor, and it is possible to see some distance further on.

Surface exploration of Cave Hill has revealed a number of new holes. One, discovered by a member who had spent the previous night in Tassy Pot when the depth record was broken, was explored to a depth of 60ft. where it abruptly stopped. It has been named Anticlimax. A number of other holes in the area have been explored but generally stop after 20 or 30 ft.

An apparently deep pot, J.F. 217 has been numbered. This may be Deefour Pot. J.F. 218 proved rather disappointing. The entrance pitch of 50ft comes to a dead stop. After some hairy rockclimbing a passage 15ft up the wall was reached, but this becomes progressively narrower, and terminates after only a few yards. A feature is tree roots coated with calcite to form odd looking stalactites.

J.f. 219/220 proved disappointing when it stopped dead just inside the entrance. It contains a small decorated chamber.

A member visiting on a T.C.C. trip to eastern Junee had a look at one of their recent discoveries, J.F.10. This is a small swallet. A narrow stream passage, similar to parts of the upper levels of Herberts Pot, is followed to a depth of 150ft. Then follows a series of spectacular ladder drops to a depth of 320ft, where exploration ends at present at a wet crawl. Leaving this cave the party found a number of holes. Two weeks later, three S.C.S. members joined T.C.C. in exploration of one of them, named Hairy Goat Hole. This was followed to a depth of 100ft., via a series of short ladder drops. A strong draught blows at the bottom but digging is needed to effect further progress.

Florentine area - Welcome Stranger has again been visited. The party touristed through most of the system. The recently discovered extension still awaits exploration.

Not desiring to sloth while seven members slaved underground, three of the surface party on the Tassy Pot trip occupied themselves with a little scrub-bashing off Westfield Rd. A hole was discovered and given the number J.F. 226. Muddiness is a special feature of this cave. This in fact has turned out to be previously known (S.C.S.1967). Exploration has linked it with another hole, J.F.227. The cave is quite small much of it being traversed by crawling. It provides a through trip of about 150 yards and carries a small creek through a limestone ridge, whilst surface exploring in the area of this cave a deep doline was discovered. This has been numbered J.F.228. The doline appears to have many entrances due to collapse of the sides leaving large piles of jumbled boulders. Only one entrance has proved

(con't.)

to go anwhere, However,although one high in the doline wall is yet to be explored. The entrance consists of a crawl through talus. From here a series of medium sized chambers is entered, then a narrow, rounded and meandering stream passage which can be followed for 400 feet to a siphon. Looking to the upper levels a way was found over this obstacle, but after only another 200 feet, a sump was encountered with a 6 inch air space over--head which is quite narrow and only accepts a head sideways. This duck was negotiated by one Member, but due to lack of time the party had to turn back.

Two days later another party attacked this cave but about 500 feet beyond the sump the cave is blocked by a talus collapse - total length approx.1000 feet ; depth 1oo/150 feet. Some upper levels remain unexplored. This cave is subject to flood--ing.

Intensive surface exploration has been done in the area of these caves and RAINBOW CAVE. This area is just off Westfield Road.

Kevin Kiernan
Trip Secretary.

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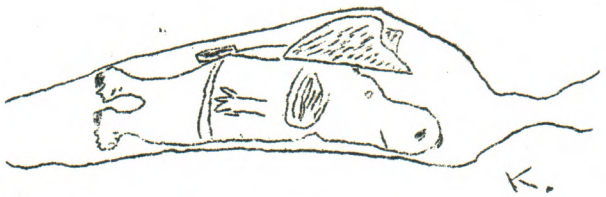

CORRECTION !!!!!!!!!!!!

Cave Numbering - Numbering allocation for cave Numbering in Tasmania is :-

Tasmanian Caverneering Club - 0 to 100.

Tasmanian Caverneering Club (Northern Branch) - 101 to 200.

Southern Caving Society - 201 to 300.

This information was incorrectly published Southern Caver"Vol2 No3 page 21.

CAVE NUMBERING SINCE 30TH SEPTEMBER, 1970

JUNEE-FLORENTINE
(Junee-Chrisps Rd. Area)

J.F. 214 PYGMY CAVE (Numbered (18/10/70) Small dry cave with two or three small chambers connected by low crawls. Good decoration including long straws, gour pools and mondmilch.

J.F. 215 ZULU POT (18/10/70) Ladder drop of 170ft. with ledges at -90 and -150ft. Passage in wall 20ft up from bottom. Exploration incomplete.

JF216 (18/10/70) Unexplored cave. Walk in entrance to ladder pitch of unknown depth.

J.F. 217 (18/10/70) This is possibly Deefour Pot.

J.F. 218 (18/10/70) Pot 15ft. in diameter and 50ft deep. No continuation.

J.F. 219 (18/10/70)

J.F. 22?

(Florentine - F9 Road Area)

J.F. 221 OWL POT (31/10/70) Large dry cave 250ft. deep with two large chambers and one 110ft. ladder drop. Some decoration damaged, presumably by timber trucks passing overhead.

J.F. 222 (31/10/70) Small pot beside Tassy Pot, 40ft. deep with 25ft. ladder drop.

J.F. 223 TASSY POT (31/10/70) Very deep pothole with ladder drops of 150ft., 90ft., 260ft., and 70ft. chimney. Currently Australias deepest cave, bottom reached at 800ft. by S.C.S. 15/11/70.

J.F. 224 (31/10/70) Small pot 70ft. deep. Two 30ft. ladder drops separated by short slope.

J.F. 225 THREE FALLS CAVE (15/11/70) Small cave with some decoration in picturesque setting behind large waterfall.

(Florentine - Westfield Road Area)

J.F. 226 (15/11/70) Partially explored cave, very muddy with small creek, 150 yards long. Connects J.F.227.
J.F.227 (15/11/70) Bottom entrance to J.F. 226.

J.F.228 (15/ /70) Small stream cave explored for 1000 Ft. no decoration. Jubject to flooding. Exploration incomplete.

CAVE TERMINOLOGY

EROSION: Wearing away of solids by chemical and/or physical action.

FAULT: A fracture in the earth's crust along which movement has taken place. (The displacement is usually vertical, but may be horizontal. In master joints, no appreciable movement has occurred, nor do they usually have such a vertical range as faults).

FAULT, NORMAL: a fault due to tension, resulting in one side of the fault slipping down. The fault plan is usually nearly vertical, any slope being towards the downthrow side.

FAULT PLANE: The plane along which movement in a fault has taken place.

FAULT, REVERSED: A fault due to compression, resulting in one side rising and sliding over the other. The fault plane is usually less inclined than in a normal fault and slopes towards the upthrow side of the fault.

FAULT, TEAR: A fault, due to shear, in which horizontal displacement predominates. (whereas in limestones normal and reversed faults usually run parallel to one set of joints, tear faults may run in any direction).

FAULT, THRUST: A reversed fault.

FISSURE: Strictly a narrow opening, due to the moving apart of the containing walls. Often used by cavers to indicate a narrow, vertical cave or cave passage, but this usage should carry no implication of origin.

FLOWSTONE: A continuous sheet on floor or wall, formed by secondry precipitation from a thin film on slowly flowing water.

FLU ORESCEIN: An organic chemical which fluoresces green in water, detectable even when present in minute quantities only. Used in tracing underground water flow.

GALLERY: Remnants of an upper level of a stream passage.

GOUR: Rimstone pool derived from the French.

GROTTO: A room in a cave system of moderate dimensions but richly decorated.

SOCIETY NOTES

Our commiserations to Geoff Fry and Greg Blake who were injured in a traffic accident, and at the time of writing, are in hospital. We wish them a speedy recovery.

Congratulations to Michael Cole, who was appointed as Acting Secretary to the Society during the period of Geoff Fry's absence.

Welcome to David Mitchell who has joined the Society after suffering his apprenticeship in Tassy Pot.

oOo