

# CAVE NOTES: THE COOLAGH RIVER CAVE, CO. CLARE, IRELAND

by

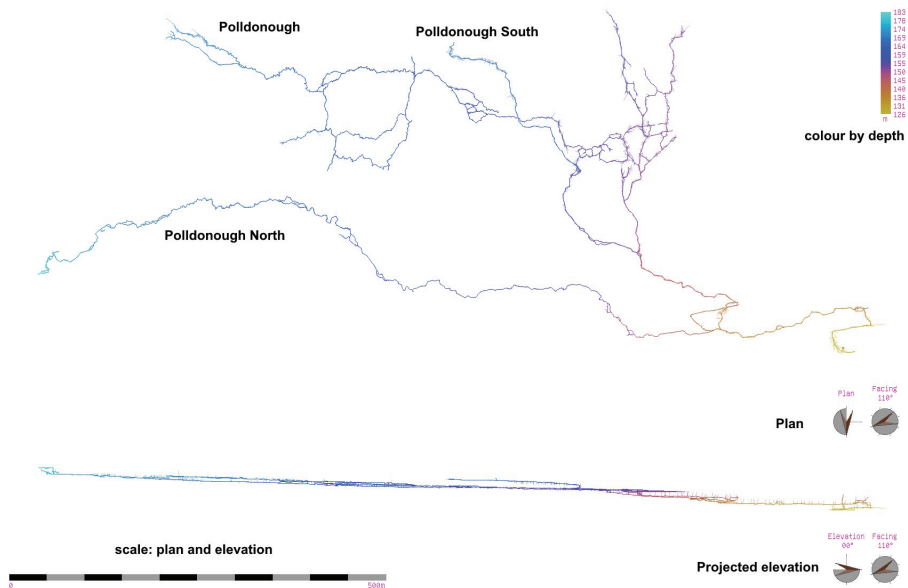
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## ABSTRACT

This report gives details of the Coolagh River Cave, Co. Clare, and the ongoing work to re-survey it conducted by members of the society in September 2022. Surveys and descriptions of the North Entrance and Branch to the Main Drain, the Flooded Bedding Cave and additional bedding cave extensions were produced or built upon. This continues work conducted in 2015 (Gregg and Podesta, 2016) and 2020 (Gregg and Woodford, 2021), and facilitates future, further work in this cave.

## INTRODUCTION

The main objective of the 2022 expedition was to continue the re-surveying of the Coolagh River Cave in the Burren, Co. Clare. This project was started in 2015 (Gregg and Podesta, 2016) and work has continued sporadically in expeditions in 2017 and 2020 (Gregg and Woodford, 2021). Earlier survey work (Bendall and Pitts, 1953; Self, 1979, summarised by Mullan, 2003) had estimated the length of the cave at about 5.3 km, however this was clearly an underestimate and a total length of about 7 km is now postulated.



**Figure 1.** *Plan and elevation of the current surveyed extent of the Coolagh River Cave.*

The Coolagh River Cave consists of several streams which sink and combine underground forming a network of cave passages. Ultimately all of this water collects in the Main Drain of the cave. There are four significant entrances and of those only three allow travel into the central system. These are Polldonough, Polldonough North and Polldonough South. There are also over twenty sinks and streams which feed into the system and the Main Drain ultimately takes all of this flow. Previous work on the Coolagh River valley (Perratt and Tratman, 1975; Self, 1979) used the tags B1-20 to identify sinks and entrances in the vicinity ; this convention is preserved here for consistency.

Work focused on the Northern Branch of the cave from the North Entrance to the Main Drain, building on previous work and tying this section into the overall survey. The Flooded Bedding Cave was also surveyed, as was a significant part of the Upper Bedding Cave. In addition, following discoveries around the bedding sections of the cave, over 200 m of new passage was surveyed off of the Second Bedding Cave. Modern technology was used to make the survey work quicker and more accurate, including laser disto-meters and digital devices for drawing and note taking.

## CAVE DESCRIPTION

### COOLAGH RIVER CAVE

Alternative name: Polldonough.

Total Length estimated: 7000 m; Total length surveyed: 6198 m

Total Depth: 57m

### **Flood warning**

The Coolagh River Cave has a large catchment area (approximately 6 km<sup>2</sup>) and responds very rapidly to rainfall. During a major flood, the entire cave fills to the roof and water fountains out of the surface holes in the proximity of the end of the cave. Polldonough and Polldonough South both become impassable near their entrances before flood water backs up from the end of the cave creating the risk that cavers could become trapped inside the cave before it fully floods. Polldonough North, upstream from the ducks, is probably safe from a small flood but no part of the system should be entered if there is a chance of rain (Mullan, 2019).

### *Access*

It is recommended to park near to the main entrance, where the road passes between two cottages, after a significant dip. There is limited parking space for two cars, and a courtesy call should be made to either cottage to confirm parking arrangements and inform the landowner of plans to visit the cave.

Polldonough:

ITM: 512504 701445

B7

Altitude: 172 m

The Main Entrance (B7) can be found where the Coolagh River, a large stream, disappears underground. A large bowl under a sycamore tree provides a dry route in which quickly re-joins the stream.

## Polldonough South

B9

ITM: 512347, 701076

Altitude: 168 m

The South Entrance (B9) is found where a surface tributary stream disappears underground, into a low bedding passage. After 50 m of bedding cave this joins with the alternative south entrance (B9a), which is a chimney dropping in, first opened by flooding in 1967 (Self, 1979). Both these entrances are in a field by a farmhouse, not far from the road. The alternative south entrance (B9a) is marked by a circular fence on the other side of a drystone wall and is often overgrown with brambles.

## Polldonough North

B8

ITM: 512220, 701854

Altitude: 183 m

The North Entrance (B8) is found at the bottom of a large marshy depression, just north of a small overgrown thicket. A small trickle of water enters a red, peaty muddy hole into a crawl, with evidence of rubbish. This immediately leads through mud into the roof of a tall and very narrow rift.

## Polldonough (B7) to Polldonough South (B9; B9a)

The section of cave linking the main and south entrances was surveyed in September 2015. A detailed account of this section of cave is provided by (Gregg and Podesta, 2016).

In 2023 The field surrounding entrance B9a was recultivated by the farmer. Pat Cronin noticed this and spoke with him about securing access to this entrance. Pat supplied a section of large diameter pipe which was installed using farm machinery and a fixed ladder was installed. It is intended that the area around the pipe will be levelled off and enclosed with a fence. There are no other changes to access.

## Second Bedding Cave and Upper Main Drain

The Second Bedding Cave and Upper Main Drain were surveyed in September 2020. A detailed account of this section of cave is provided by Gregg and Woodford, 2021.

## Gour Passage

Gour Passage was surveyed in September 2017. A detailed account of this section of cave is provided by Gregg and Woodford, 2021.

## The Main Drain to the Terminal Sump

This section of cave was surveyed progressively in 2017 and 2020. A detailed account is provided by Gregg and Woodford, 2021.

## The Flooded and Upper Bedding Caves

At the upstream end of the Main Drain the cave passage decreases in size and eventually splits into several bedding caves. Heading upstream from Balcombe's Pot the first major junction, reached after 120 m, is on the right, and leads to the Flooded Bedding Cave. Continuing upstream the Second Bedding Cave outlet is passed on the left after 15 m, this is a short step up to a stoop and then crawl into the bedding. Further upstream the passage reduces to a crawl before entering a small chamber, marking the end of the Upper Main Drain. A gravelly crawl on the right of the chamber leads to the Upper Bedding Cave. The stream can be followed through a floor level crawl directly ahead in the chamber, which leads into an isolated section of bedding cave. A visual connection is possible back into the eastern extremity of the Second Bedding Cave.

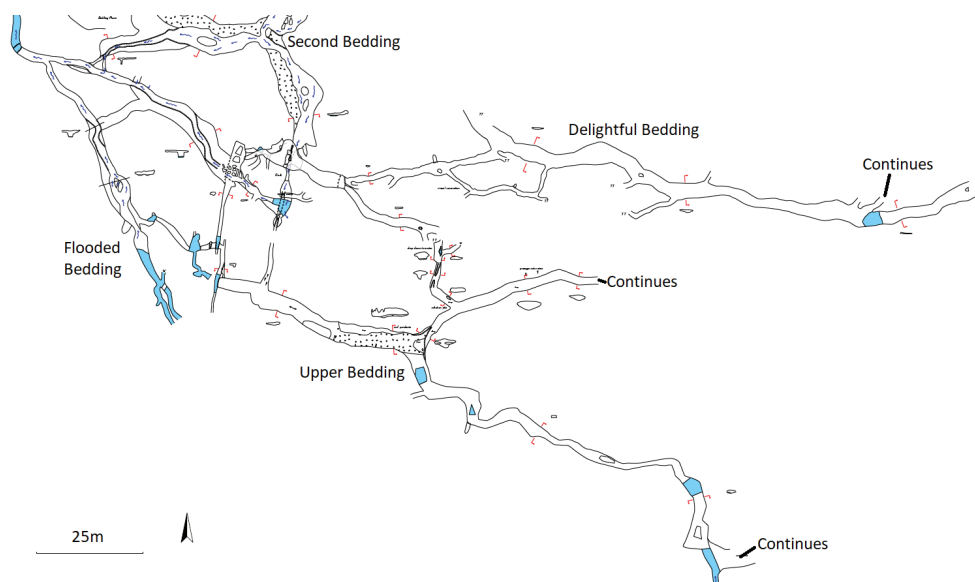


**Figure 2.** *The newly installed entrance pipe at Polldonough South, B9a entrance.*

**Photo © Colin Bunce 2023.**

The Flooded Bedding Cave is a 70 m long tributary to the Upper Main Drain. It starts as a walking-sized T-shaped vadose passage which quickly reduces to a crawl. After 20 m a crawl at ceiling height (1 m) branches off on the left, which quickly links back to the Upper Main Drain further upstream. The Flooded Bedding Cave then takes on its name, becoming a flat-out bedding crawl, with approximately 10 cm depth of flowing water, making it an

unpleasant place to be in. Fifty metres into the bedding, a small gravelly crawl on the left provides an alternate route to the Upper Bedding Cave via a series of tight crawls and pools of water. The Flooded Bedding Cave splits into two parallel smaller passages at its end, both quickly becoming too tight. At this point the passages are half-full of water and the stream flow is almost imperceptible.



**Figure 2.** *Section of Survey showing the Second Bedding, Delightful Bedding, Flooded Bedding and Upper Bedding Caves.*

**Drawn in Therion by Ashley Gregg, 2022**

The Upper Bedding Cave is reached via a dry, gravel-floored tube, from the chamber at the start of the Upper Main Drain, which runs perfectly straight for 20 m to a pool of water at a T-junction. Right is a flat-out wet crawl, leading eventually to the Flooded Bedding Cave. Left continues on to the Upper Bedding Cave, bending sharply right almost immediately. Another, much shorter straight, dry, gravel-floored tube then leads to a left turn above a small pool into a wide bedding cave. The tube continues straight but immediately becomes too tight. The wide bedding marks the proper start to the Upper Bedding Cave.

The Upper Bedding Cave is predominantly dry and clean-washed, with occasional sections of pebbles and pools of water along its length. Ten metres into the bedding a crawl up to the left is a muddy overflow from the Second Bedding Cave. This is too tight to pass but connects visually with the isolated section of bedding cave at the upper extreme of the Upper Main Drain. After a further 50 m of wide roomy crawling, the Upper Bedding Cave splits into a right and left branch. Currently both these branches have not been surveyed to their full extent. The left branch has been surveyed for 50 m, starting with a short step up and passing a crawl up on the left 15 m in. This crawl becomes quickly too tight, but visually connects to the parallel, Delightful Bedding Cave. The right branch has been surveyed for 100m and consists of mostly

flat-out crawling, through some pools of water, bending right after 70 m and then back left a further 30 m on and continuing as yet unsurveyed. A small stream of water is reached at this point, flowing into the cave, it is not clear if this takes an alternate drainage route or only continues through the bedding under high water conditions.

It can be estimated from the compilation survey in Mullan (2019) that there remains a further 40 m of the right branch of the Upper Bedding Cave and 60 m of the left branch still to be surveyed. It is possible a determined caver could push these branches even further.

### The Delightful Bedding Cave

It was discovered in 2020 that an upper section of bedding cave could be reached by scrambling up boulder breakdown near the end of the east branch of the Second Bedding Cave (Gregg and Woodford, 2021). This, the Delightful Bedding Cave, has been extended to 260 m of passage.

From scrambling up through the person-sized hole and out of the streamway, a higher-level bedding cave is reached which cuts orthogonally across the stream below. Right (West), the bedding crawl quickly becomes too tight, however a visible connection to the small boulder chamber at the upper extreme of the Upper Main Drain has been made. Left (East), the bedding crawl continues flat out for 12 m to a small aven/chamber. The bedding crawl continues from the aven, trending slightly southwards for a further 20 m before becoming too tight. It is noted this point is very close to a branch off of the Upper Bedding Cave and almost certainly connects based on the survey data.

From the aven it is also possible to climb up 1 m to gain a higher bedding which continues eastwards. This pebble-floored, flat-out crawl continues for 150 m before becoming too tight, and likely provides an additional inlet into the cave in high water conditions. A couple of small and very tight oxbows exist off of the bedding, but all routes (with the exception of one possible lead still remaining) are too tight to follow. There is also a temporary change in character of the bedding 120 m in, where the crawling becomes more roomy and static water pools, before reverting to flat-out crawling.

### Polldonough North (B8)

#### **NOTE**

The passage is very narrow and constricted in places during the earlier sections of the streamway.

From the entrance hole, a short crawl through thick mud leads to the top of a tight rift passage. At the bottom of this rift the North Streamway is found, and at the first opportunity, drop down to the streamway level as the rift quickly becomes too narrow to descend at any further point. Once down this narrow climb, a section of sideways walking and crawling in the shallow stream is followed for 40 m. The passage is often widest in the water. The passage widens slightly and a 2 m climb up on the left leads to the April Grotto, whilst the stream way continues sharply right and then onwards to the rest of the cave.

The April Grotto is a well decorated chamber, 8 m long with a narrowing in the middle. Care should be taken when visiting due to the multitude of stalactites and stalagmites present. The entrance rift can be followed at the top level for approximately 40 m where it emerges at the top of the April Grotto, 5 m up. Climbing down from this point would be very difficult and is not recommended.



**Figure 3.** *Climbing into the Cascade Oxbow from the Main Drain.*  
Photo © Yi-Chun Chen, 2022

The streamway continues for several hundred metres through narrow passageway of varying character. The streamway is intermittently lost and regained while several small oxbows are passed. Approximately 300 m into the cave the passage widens slightly marking the end of the more strenuous parts of the passage. A further 120 m down, the entrance to the muddy oxbow is reached, which bypasses a low and wet crawling section of passage. The muddy oxbow regains the streamway via a tight portal in the streamway ceiling just after the crawl.

The streamway then leads immediately into the ducks. The first duck is 10 m long, and the second 8 m long, both being relatively low crawls with ample air gap under normal water conditions. These ducks are formed by the passage ceiling being blocked higher up by calcite formations. Just beyond the last duck the passage briefly becomes tight and narrow, passing an oxbow named the Gaol. There exists a small window at the base of the oxbow that connects with the streamway which is blocked by small bar-like columns. Another significant oxbow is passed on the right shortly further on, characterised by a small inlet which enters immediately on the right down a chert lined waterfall. This oxbow soon regains the stream, only bypassing a small part of the streamway. The inlet can be followed up into a tight, wet bedding for 15 m before the passage becomes too tight.

The streamway is followed again passing under a low calcite formation. Soon after, the streamway ceiling drops again as another oxbow continues on a higher level above a large calcite wall formation. The streamway ceiling raises again at the point the oxbow rejoins. The junction for the West Inlet is then soon gained on the right. Despite the significantly reduced distance, it takes approximately the same amount of time to reach this point coming from the North Entrance as the South Entrance, providing you are familiar with the cave, due to the nature of the passage. Passing the West Inlet, the streamway continues, going underneath a large blind aven with a drippy inlet.

The streamway is followed for some distance before several choked boulders are passed. It then carries on for a considerable distance before the ceiling drops. The streamway becomes a canal before dropping after a small waterfall. Just after this, a narrow chert-lined oxbow opens on the right, approximately 300 m further downstream from the West Inlet junction. This can be followed through to a small chamber which has a low exit on the left that rejoins the streamway. Instead of taking the oxbow, the streamway can be followed to a smooth chute which drops down under several large calcite formations to join the oxbow exit.

The streamway then continues past another small oxbow before opening out into a small chamber. Here a muddy passageway opens on the right which leads into a larger muddy sloped chamber which drops at its farthest end back into the streamway through a small mud and boulder ruckle.

The streamway continues, bending southwards, dropping down several chert cascades over the next 130 m, before reaching a more significant chert waterfall. Climbing down this 3m waterfall the stream flows left through holes in the wall, joining the parallel passage of the large Cascade Oxbow. This quickly joins the Main Drain down a 2 m climb into waist-deep water.

## CONCLUSIONS

Considerable progress was made in continuing the survey, with 1565 m of passage added, bringing the current length to 6198 m. Based on known remaining passage the total cave length can be re-estimated to be around 7000 m. Discoveries of potential further new passages could easily put this figure as high as 7500 m.



An accurate survey from the North Entrance connecting to the rest of cave and hence the terminal sump was completed. This gives further accuracy to the cave elevation and the previous repositioning of the terminal sump at 127 m ASL (Gregg and Woodford, 2021). The loop error between the South and North entrances as surveyed is 10.2 m, which over a total of 2007.3m of cave gives a relative error of 0.51%. The loop error between the Main (B7) and North entrances as surveyed is 16.3 m, which over a total of 2528.4m of cave gives a relative error of 0.65%. Given the looser tolerances in the measurement of the GPS entrance points the surveyed error could potentially be lower.

There is much work still to be done and the new extension of the survey allows for exploration of the continuations in the Upper and Delightful bedding caves, as well as into the West Inlet. Finishing surveying the West Series remains a significant objective. The West Entrance, the Mud Branch and Pollclabber all remain to be re-surveyed.

#### ACKNOWLEDGEMENTS

The expedition members; Ben Alterman, Yi-Chun Chen, Ashley Gregg, Mia Jacobs, Merryn Mathews, Dan Runcan, Jake Reich, Rob Watson and Zac Woodford are grateful to the Oliver Lloyd Memorial fund and the Tratman Fund of the University of Bristol for financial assistance. We are grateful to Pat Cronin for the works at the B9a entrance and to Colin Bunce for this information.

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