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CAVE NOTES: CO. CLARE, IRELAND

by

ASHLEY GREGG and ZAC WOODFORD

ABSTRACT

This report gives details on the Coolagh River Cave, Co. Clare, and ongoing work to resurvey it conducted by members of the Society in September 2020. Surveys and descriptions of the Main Drain to the Terminal Sump, the Second Bedding Cave and parts of the Northern Branch were produced or built upon from work conducted in September 2015 (Gregg and Podesta, 2016), allowing for further future work.

INTRODUCTION

The purpose of the 2020 expedition was to continue the resurvey of the Coolagh River Cave in the north-west Burren started in 2015 (Gregg and Podesta, 2016). There are four sinks enterable by a human and of those, three connected to the central cave system allowing for travel between them. These are Polldonough, Polldonough North and Polldonough South. There are in total 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) gave the tags B1-20 to identify sinks and entrances in the vicinity and this numbering system preserved here for consistency. Work to resurvey the system continued from previous expeditions in 2015 and 2017 using the same survey stations marked before, where available. Work was focused on the Main Drain down to the Terminal Sump, the Second Bedding Cave and both the north and south end of the Northern Branch. Contemporary technology, such as laser distometers and personal digital assistants (PDAs), was used to make the survey work quicker and more accurate (see http://paperless.bheeb.ch/).

COOLAGH RIVER CAVE

Alternative name: Polldonough.
Total Length (estimated): 5285 m+ Total length surveyed: 4681m
Total Depth: 62.5 m (from Polldonough North to the terminal sump).

Flood warning

The Coolagh River Cave has a large catchment area (approximately 6km2) 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 around 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. Polldonough North, upstream form 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 (B7)

ITM: 512504 701445, Altitude: 172 m

The B7 entrance can be reached from the parking spot by first walking back down to the dip in the road. A gap in the trees on the north side of the road gives access to the stream entering Coolagh River Passage. The entrance is in a bowl underneath a sycamore tree north of the river sink.

Polldonough South (B9, B9a)

ITM: 512347, 701076, Altitude: 168 m

The south entrance is found by walking west down the road in the opposite direction and then turning left at a set of crossroads. This road is followed past a farmhouse for 200 m before going through a gate into the field on the left of the road. A courtesy call should also be made to inform this landowner of the caving plans. On the opposite side of the field a dip with the remains of a drystone wall can be seen. The alternative south entrance (B9a) is marked by a circular fence on the other side of the wall and is often overgrown with brambles. By walking east from here the river can be found cutting through the field. Following the river downstream arrives at B9 main entrance. This is a low wet bedding plane which links with B9a after 50 m allowing this section to be completely avoided. B9a was first opened by collapse in 1967 (Self, 1979).

Polldonough (B7) to *Polldonough South* (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 in Gregg and Podesta, 2016.

The Second Bedding Cave

The Second Bedding Cave begins approximately 250 m downstream of the Four Foot Pot, or 80 m downstream of the main route through to the bedding beneath Column Chamber.

There are several other connections to the bedding beneath column chamber beyond the main or easiest junction with the main stream passage. The first two of these (heading downstream) are constricted due to rocks or stalactites and are not passable. Continuing downstream it is required to duck or crawl as the passage narrows before re-widening. Upon reaching a large section of wall collapse a wide chest-height bedding opens on the right. This can be pursued through tight flat-out crawling passage back to the bedding beneath column chamber. It can also be pursued in the opposite (southerly) direction to by-pass the main second bedding cave.

The Second Bedding Cave properly begins by following the main streamway until the passage ceiling lowers, enforcing a squatting walk. The stream level increases to roughly half the height of the passage. This then opens into the wide and shallow second bedding cave, with another branch of the stream entering immediately on the left. This is not a place you want to be in under high water conditions.

Shortly into the bedding the stream splits at a significant junction, with both options having the same characteristic shallow stream with pebble banks either side. The right split continues for 30 m before reaching a duck followed immediately by the passage sumping. Just before the duck, scrambling up through boulder breakdown provides access to an upper

bedding section of cave. This, upper bedding cave, consists of an extension of dry crawling passages running perpendicular to the stream cave.

The left split in the Second Bedding Cave provides the route through the bedding. The passage narrows and heightens into a T-shaped canyon after 30 m, with the drier bypass coming back in on the right at the end of the bedding. The passage concludes by dropping into a larger, 2 m high, stream canyon passage from the right. This stream passage is the Upper Main Drain and can be followed downstream to eventually reach Balcombe's Pot.

Shortly after the end of the Second Bedding Cave the Upper Main Drain passes a significant tributary joining on the left, which likely leads to the Flooded Bedding Cave. In addition, following the Upper Main Drain upstream, the passage flattens, becoming constricted at a point not too far from the sump at the end of the left-hand bedding branch.

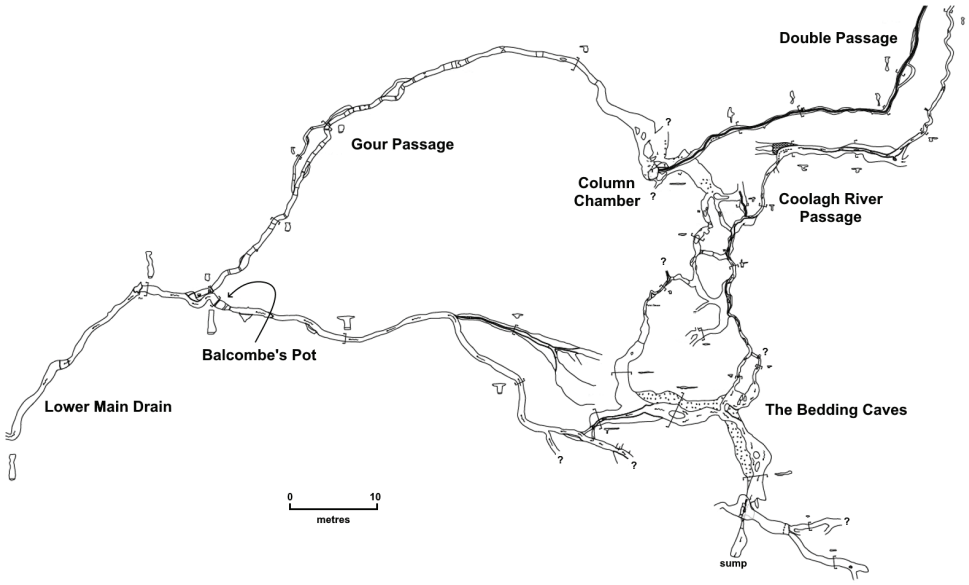

Figure 1. *Draft plan of the junction area between the Polldonough and Polldonough South passages, Coolagh River Cave. Passages marked '?' continue but have not yet been surveyed*.

Gour Passage

Gour Passage provides the easiest route to the Main Drain from the bedding plane below Column Chamber. From Column Chamber follow the bedding north-west for a short distance past various stalactite formations until the passage heightens to walking height.

Gour Passage is 150 m long and contains a very small stream (excepting when the cave is in flood) connecting pools of water, separated by calcite dams and the broken remnants thereof. These calcite dams are not gour pools but the remnants of a false floor (Bendall and Pitts, 1953). A couple of significant oxbows are passed heading downstream to where the passage terminates at a 6 m pitch into the Lower Main Drain. A handline is required and a ladder is advised

The Main Drain

The Upper Main Drain runs as a broad, shallow streamway for approximately 200 m from the end of the Second Bedding Cave, descending in a broad chert waterfall a few metres upstream of Balcombe's Pot. At Balcombe's Pot the river descends in a steep, but not vertical, sluice into the pot which is 5 m deep (G. Mullan, *pers. comm).*. Gour passage enters the main drain immediately after the pot at roof height on the right.

From Balcombe's Pot the streamway becomes the Lower Main Drain, a master cave consisting of a spacious high-ceilinged canyon that continues for roughly half a kilometre in a series of sluice cascades and pools. Approximately 150 m downstream from Balcombe's Pot a fast flowing 'log-flume' cascade is passed just prior to the Cascade Oxbow. The oxbow enters at ceiling height on the left and rejoins the passage 15 m downstream where it crosses and continues north. The Lower Main Drain stream continues and changes character to a wide, stooping height passage with significant boulders against the right-hand wall. Immediately after this the oxbow rejoins on the right via a narrow chert lined canyon that runs north-south.

The Cascade Oxbow provides the junction for the Polldonough North stream into the Main Drain. Just above the chert topped waterfall near the downstream end of the oxbow are a couple of windows in the western wall through which the stream passes. Going upstream through these windows the Chert Waterfall is immediately reached, an easy 2 m climb. The rest of the Cascade Oxbow consists of a dry, narrow and muddy canyon, noted for its sudden and sharp change in direction.

The Lower Main Drain continues along a tall level spacious canyon passage which is generally shallow and gravel bedded with an occasional fallen boulder. One hundred metres downstream of the end of the oxbow is a smaller oxbow approximately 5 m in length and half the height of the canyon. The floor begins to gradually lower a few meters upstream of the Gravel Pool which is often deep enough to require swimming. The stream quickly shallows and reaches a closedown which blocks the entire canyon. This closedown can be bypassed either by ascending the ramp of pebbles and gravel into the chamber above the collapse or by entering the portal immediately in the western wall which follows through to a deep and narrow rift created by the wall of the main streamway falling into the stream (an awkward traverse can be avoided by crawling along the top of the wall segment). The stream can be seen to pass under the closedown but almost immediately makes a sharp 90° turn west at the point where the chamber above the closedown meets the narrow rift. The closedown chamber requires caution due to the large amount of loose debris inside, there is also an aven above its north west corner.

The stream continues in a broad passageway due west before entering a large boulder chamber where it drops down by several meters. Traversing the boulders down to stream level on the far side of the chamber is a large north south rift canyon. The southern branch is the entrance point from Pollclabber and the Mud Branch, and as such it is heavily choked in mud at least a metre deep. The stream flows north through the rift passing several chert protrusions before reaching the Terminal Bedding Plane at the northern end of the rift. The Terminal Bedding Plane is accessed through a broad low portal at stream level. The stream bed changes here to not only gravel but also large amounts of mud and other detritus. Frogs and cave shrimps can also be found in this region. The bedding plane slowly curves from its western heading back southwards where it soon ends in the terminal sump at 127 m ASL. Before the sump a shallow beach can be found against the western wall. Above this beach an aven which almost reaches the surface can be found.

CONCLUSIONS

Considerable progress was made in continuing the survey, with around 1.4 km of passage being added. Accurate positional data on the north entrance also allowed for fixing the height of the previously survey sections of the north branch. A connection was also made between the second bedding plane and Balcombe's pot allowing for measurement of loop error. A tremendous amount of progress was also made in the Main Drain with the survey now extending to the terminal sump. Several leads were also noted in the vicinity of the second bedding cave. The repositioning of the terminal sump at above 120 m ASL instead of 111 m ASL has given weight to the proposition that the Coolagh River flows through Poll Cloghaun, discounting the suggestion in Mullan (2019) that it was at too low an elevation. A resurvey of Poll Cloghaun, including an accurate fix on the height of the entrance, would be of benefit.

There is much future work still to be done and continuation of the survey allows for exploration of the multitude of active leads around the Second and Flooded Bedding Caves, as well as the West Series. Finishing the survey of the Northern Branch and writing a detailed description are major future objectives, connecting all the current entrances. The West Entrance and inlet, the Mud Branch and Pollclabber all remain to be resurveyed.

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A. Gregg
ashley.191@hotmail.co.uk

Z. Woodford
rs19764@bristol.ac.uk