

THE CAVE OF THE WILD HORSES, KILCORNEY, CO. CLARE, IRELAND THE 1983 EXTENSIONS

by

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Entrance: O.S. 1 : 10560, Clare Sheet 9, E57.7 cm, N47.7 cm

Altitude 103 m OD

Total length 865 m

Townland, Kilcorney

Code no. K1

Tackle required:

Pitch Chamber	16m ladder, 4m tether.
East Series Pitch	20m ladder, 10m tether.
Lower Main Series Pitch	5m ladder, 3m tether.
Gour Passage Pitch	8mm bolt hanger and spreader, 8m ladder.
Climb into Frog Passage	(2m) handline advisable.

ABSTRACT

The Cave of the Wild Horses is the only known cave of any size in Co. Clare associated with a turlough. A description of the extensions to Gour Passage discovered in April 1983, together with a revised survey of the cave, is given. The new passages are phreatic in origin, and may be often flooded. A tentative sequence of formation of the cave, together with a review of the available information concerning its behaviour under flood conditions is also presented.

INTRODUCTION

The Cave of the Wild Horses in the Kilcorney Depression was visited by Dr. Charles Lucas in 1736 (Lucas 1740). His is the first recorded description of the cave; it is also the earliest account of any cave exploration in County Clare. Lucas appears to have gone no further than the main aven at the end of the entrance gallery. He includes in his account a folk-tale common in the area, concerning a herd of fine but savage horses, said periodically to come forth and eat corn in the valley. One 'stone-horse' was captured and bred with the native stock to improve their value.

The first serious exploration of the cave was undertaken by E. A. Baker (Baker and Kentish 1913). In 1912 Baker was lowered down the first pitch by Kentish but lack of enthusiasm on the part of their companions prevented further exploration. The following year they returned with two others and successfully overcame the problems of the first pitch. They explored Lower Main Series and also entered Gour Passage, but their progress was stopped by a 'fissure' too narrow for them to penetrate. It is likely that this point was not passed until 1983.

In 1965 Wilson published a description and survey of the cave (Wilson 1965). However, differences between this and an unpublished UBSS survey, drawn in 1962, prompted members of the society to re-survey the cave in 1965 and 1966 (Hanna 1968). Wilson's survey was found to contain considerable inaccuracies.

After this there appear to have been few visits to the Cave of the Wild Horses for seventeen years. UBSS logbooks for this period contain occasional references to the cave and the depression, but no further work was done until Easter 1983, when a combined UBSS and Cerberus Spelaeological Society party visited it, purely from curiosity, and discovered passages not included in any published description or survey.

On this occasion they found that, contrary to previous indications, Gour Passage was neither impassably tight nor completely filled with water. This confirmed Hanna's observation, that the passage could possibly be followed further in dry weather.

Extensions were also made in Lower Main Series. However, it was subsequently discovered that at least one of these passages had already been entered. A notebook containing the 1965 survey data includes a brief description of a 'steeply ascending passage' which was climbed to an aven for a distance of about 30m. This passage was said to be situated about 3m up in the left hand wall, and corresponds to the description given by the party who explored this area in 1983.

On three subsequent trips these extensions were explored and surveyed.

DESCRIPTION

The entrance to the Cave of the Wild Horses lies at the foot of a 30m high limestone cliff, which forms the southern edge of the Kilcorney Depression. The old cave has been adequately described elsewhere (Hanna, 1968) and the following description deals only with the extensions made in 1983, and should be read in conjunction with the survey.

The total surveyed length of the old cave is 520m, covering a vertical range of 48m. The 1983 extensions add 345m to give a total length of 865m, and increase the vertical range of the cave by 18m to a total of 66m.

GOUR PASSAGE EXTENSIONS

The route from Pitch Chamber joins Gour Passage ten metres south of the loose boulder choke at its northern end. This choke lies close to the entrance of the cave, and beneath the depression. Gour Passage continues south as a triangular rift with a floor of thick clean washed gour deposits. After 15m it is possible to climb down on the right into a small well-decorated chamber under the floor of the passage. Beyond this point in the main passage the rift narrows around the first deep gour pool, which probably marks the end of the original explorations. However, by a combination of swimming and elbow traversing, a series of deep gour pools can be crossed. These lead to a final gour dam which forms a previously undescended 9m pitch. As there is no natural belay

along the entire length of Gour Passage, an 8mm anchor was placed in the left hand wall.

Below the pitch, the passage, now named Lower Gour Passage, widens and continues as a high rift. Directly opposite the pitch is a climb to an alcove which was not entered and may lead to a high level passage. On the left wall is a fine example of angular fluting (see Plate 15) which is not often seen underground in the British Isles, but is common in tropical caves. After 15m the passage is blocked by a calcite dam and a small sump. To the left a 10cm high horizontal slot was enlarged to make a passable squeeze. Beyond this the passage changes in character to a 2m high phreatic tunnel entirely coated with mud. The floor descends in a series of pools, each held back by a gour dam, some of which are extremely fragile. Forty metres on, a small stream enters from an impassable inlet on the left. After 20m, and on the same side of the passage, is a static sump, below the level of the stream and separated from it by yet another gour dam.

The stream now winds around mudbanks through a series of high phreatic rifts, finally sinking in an impenetrable hole. A muddy pit next to this is choked after 2m. The way on lies about 5m back along the passage and can be followed, over boulders to the right of the stream, into a small chamber with a floor of cobbles. From here, a low crawl leads into a phreatic tube, half full of water. This crawl has a minimum airspace of about 20cm and continues for 15m until a high level passage can be reached by an obvious short climb. This leads after 10m to a muddy ledge, 2m above the floor of a large cross passage, named Frog Passage. At this point Frog Passage is 5m high by 2m wide, and its walls and floor are thickly coated in mud. To the left the passage immediately ends in a large unstable boulder choke. Attempts to find a way through this failed.

To the right the passage descends down a muddy slide and continues over mud and boulder obstructions to a mud duck which sumps after 5m. About halfway along Frog Passage, immediately before the main boulder obstruction is an area of clean washed pebbles and an impassable hole in the left wall, down which rocks were dropped for about 6m. This area is directly below the boulder choke in Lower Main Series at section 12 on the survey.

In the area between the stream sink and the climb into Frog Passage are a number of low openings, which choke after 1 or 2m, except one which continues as a flat-out crawl over gravel, and chokes after 10m.

LOWER MAIN SERIES EXTENSIONS

Directly below the 5m pitch in Lower Main Series a short section of new passage was entered but not accurately surveyed. The passage is reached by a steeply ascending slope on the left. 40m up the slope a small chamber is reached, and two ways on may be followed, both low muddy crawls leading to avens after 18m. The 1965/6 survey parties seem to have gone no further than this small chamber. The aven in the southernmost passage narrows upwards and continues for at least 10m.

This crawl ends almost immediately in boulders. A third route, out of the south side of the chamber, was not entered. This is 3 m above floor level and will require artificial aid to enter.

DISCUSSION

The cave appears to have had a complex hydrological history, and could well repay a detailed study. The following conclusions are necessarily very tentative. According to Hanna (1968) the oldest parts of the cave are the phreatic tubes in Upper Main Series between Main Aven and Pitch Chamber; these probably predate the formation of the depression itself. A stalagmite sample taken from the tube near to Pitch Chamber has been dated to 41,000 years B.P. (Drew, 1983). This date corresponds to the Upton-Warren interstadial of the Devensian glaciation. This implies that the passages predate this glaciation. At an early stage in the development of the cave, random solution along lines of weakness, rather than directional selective solution under a hydraulic gradient, produced isolated cavities such as the high rifts in Lower Gour Passage.

The next stage was the formation of the Kilcorney Depression (see Drew, 1973). Drainage from the Depression resulted in the formation of a series of passages. The earliest of these may be Upper North East Passage, Pitch Chamber and Frog Passage. Later developments are represented by, in turn, Entrance Gallery and Eastern Series, followed by Gour Passage and Lower Gour Passage, draining to the pre-existing phreatic rifts and thence via the wet crawl to Frog Passage. The stream presently flowing through Lower Gour Passage may be the same stream as in Lower Eastern Series. In this case it is possible that the original Eastern Series drainage was into Frog Passage via the static sump and Lower Gour Passage. A third capture resulted in the formation of the Lower Main Series, draining into the roof of Frog Passage via the boulder chokes at sections 12 and 13. Present drainage from Lower Main Series still takes this route, passes through Frog Passage and down the clean washed, impenetrable hole. During this period some vadose rejuvenation of the Upper Main Series passages took place, forming the small vadose trench in the passage between sections 6 and 7. Later much of the cave became filled with mud, possibly at the same time as mud deposits were being laid down in the depression.

At present the cave is only intermittently active, the main underground drainage having dropped to a level beneath that of the known cave. Under normal water conditions there is a small stream in Lower Gour Passage, which appears to be a misfit, and a tiny stream has been seen in Gour Passage.

Wilson (1965) was of the opinion that the cave is losing mud in noticeable amounts. This is borne out by a comparison of Baker's experience in the cave with the most recent observations. Baker and Kentish (1913) describe the walls of the first pitch as being coated with "a lubricating sheet of mud"; however, under present conditions these walls are relatively free of mud. In view of these facts it seems reasonable to assume that quantities of this mud infill are gradually being deposited in Frog Passage.

The turlough and the cave flood completely, on average 5 or 6 times each year. The conditions under which this occurs are unknown. Old accounts speak of water welling up from the mouth of the cave (Lucas 1740 and Baker and Kentish 1913). This is said to be accompanied by a loud rushing noise and may be responsible for the folk-tale of the horses. We have been unable to find any first hand accounts of this. Hanna (1968) records evidence of water welling up from below in the cave. The water level in Gour Passage was observed by UBSS survey parties in 1966 to fluctuate by up to 3m at a time when no surface water was flowing in the depression.

In recent years the depression has been observed in flood by Mr. J. C. Coleman and Dr. P. Williams (Coleman 1966, Tratman 1968). Both were satisfied that water first appears from the intermittent rising to the north of the road by the site of Kilcolmanbara Church. In contradiction to this, Mr. C. McDermott from Trinity College Dublin (McDermott, 1977) observed water first appearing in the floor of the turlough just north of the entrance to the main cave. This has been confirmed by observations by Drew (1983).

It seems possible therefore that flooding in the cave and the depression is caused by a combination of water rising from below, and draining from the surrounding area. However, the depression has been known to flood on occasions when local rainfall has been slight, and also to empty in less than half an hour (Lucas 1740, Johnson 1983).

The question remains as to the origin of this water. The lowest point reached in the cave is at 45 m OD. The altitude of the Fergus Risings is 29 m OD. This is the proven rising of Cullaun Five, Poulawillin and Poll Cahernaghten, and is the presumed rising for Gragan West Cave and Doonyvardan Cave; i.e. caves of South and East Poulacapple. The lowest parts of these caves are in the region of 100 m OD or higher. It seems reasonable to assume that the Cave of the Wild Horses also resurges at the Fergus Risings. The cave lies close to these drainage routes, and its depth would be near the presumed water table in the area. It is therefore possible that a rise in the water table due to increased rainfall in the Poulacapple area causes floodwater to rise within the cave.

FLOOD RISK

In view of the above it is difficult to predict the weather conditions under which total flooding of the cave will occur. The cave should therefore be treated with great caution when rain is forecast in any part of North-West Clare.

NOTES ON THE SURVEY

The survey of the extensions was carried out using Suunto hand held compass and clinometer, and a metallised linen tape which was read to the nearest centimetre. The compass was read to the nearest degree. The survey of the old cave was redrawn and the two surveys joined at the north east corner of the entrance to Gour Passage from

Lower Main Series. The survey was drawn out at a scale of 1 : 250 and photographically reduced. Due to some difficulty in reading the clinometer in the muddy conditions of Frog Passage, an accuracy of no more than BCRA Grade 4c is claimed. This is in accordance with the 1966 survey.

ADDENDUM

In July 1983 further extensions were made in this cave, but have not yet been surveyed. A passage near the head of the 2 m climb down into Frog Passage was followed up a series of muddy boulder climbs, through high rift passages and small chambers. These lead to the top of the 3 m climb in Lower Main Series, referred to earlier, and as predicted this climb required artificial aid.

Water conditions in the cave were lower than at Easter; the deep gours in Gour Passage were completely dry, and the static sump on the east side of Lower Gour Passage had become a duck. This was passed to a further 10 m of passage which ends in loose boulders in a bedding plane.

A large mud-choked inlet near the beginning of the Wet Crawl was dug and a small muddy chamber entered.

The sump at the north end of Frog Passage was dived but found to be impassable.

ACKNOWLEDGEMENTS

The authors would like to acknowledge the following for their assistance in exploration and survey of the cave: Janet Cooper, Peter and Angie Glanvill, Ted Popham, Charlie Self, and Julian Walford.

Thanks are also due to the Johnson family of Kilcorney for hospitality and information, and to Dave Drew and Chris Pepper for helpful criticism of the first draft.

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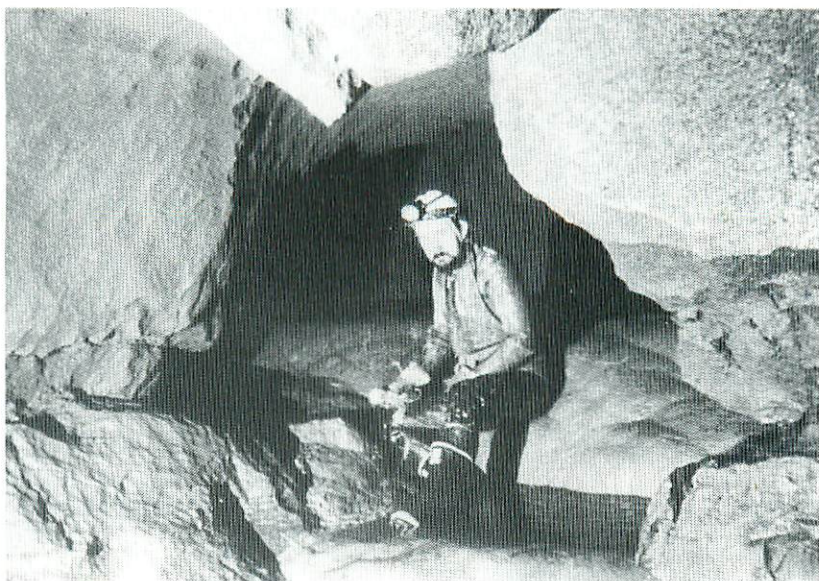


Plate 13. Gour Passage.



Plate 14. Lower Gour Passage near section 17.



Plate 15. Angular flutings near foot of Gour Pitch.



Plate 16. Frog Passage. Note mudbanks and phreatic form of the roof.

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