

Poll Ballynahown, Co. Clare, Ireland

By

P. A. STANDING

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| O.S. 6 in. to 1 mile, | Length, 2,085 ft. (636 m.). |
| Clare Sheet 4 | Entrance Altitude—690 ft. |
| E. 19.4 in., N. 7.2 in. | Tackle required: |
| Td. Ballynahown | Ladder 75 ft., Lifeline 100 ft.; |
| | Belay—Karabiner and sling |

Abstract. Poll Ballynahown is situated on the western side of Knockauns near Poulomega. It was opened up, explored and surveyed by the University of Bristol Spelæological Society in July, 1968. The cave consists of a single, meandering stream passage which courses S.S.W. for 1,480 ft. to "Choir Chamber". From here the stream turns sharply and follows the 16° joint for 345 ft. to a 70 ft. pitch. A further 228 ft. of meandering stream passage, at the bottom, terminates in a sump. The total length of the system is 2,085 ft. and the depth about 250 ft.

INTRODUCTION

Poll Ballynahown is situated on the western flank of Knockauns and is best approached via the track which runs north from O'Brien's Farm to Poulmagree (*Fig. 19*). The cave entrance lies in a small depression.

Poll Ballynahown is one of a series of swallets along the shale edge between Poulomega in the south and Poulmagree in the north. The site has been known for many years and was originally recorded by the society in 1953 as swallet 300. Under the system of numbering adopted in 1956 (Ollier and Tratman, *Pl. 6*), it becomes A4a. Detailed examination of the area in July, 1968, revealed a small section of unroofed canyon passage with an undercut western side, blocked with boulders which had been placed there by the farmer. These were easily removed on a subsequent trip and the cave explored as far as Choir Chamber. Three further trips were made, during which a 70 ft. pitch was discovered and descended, and the whole cave surveyed. On completion of our work the cave entrance was again covered over to prevent cattle falling into it.

The writer is indebted to D. Hasset, R. J. Taylor and S. Trudgill who did much of the survey work, to Dr. E. K. Tratman for much helpful advice and to Mr. O'Brien for permission to open up the entrance.

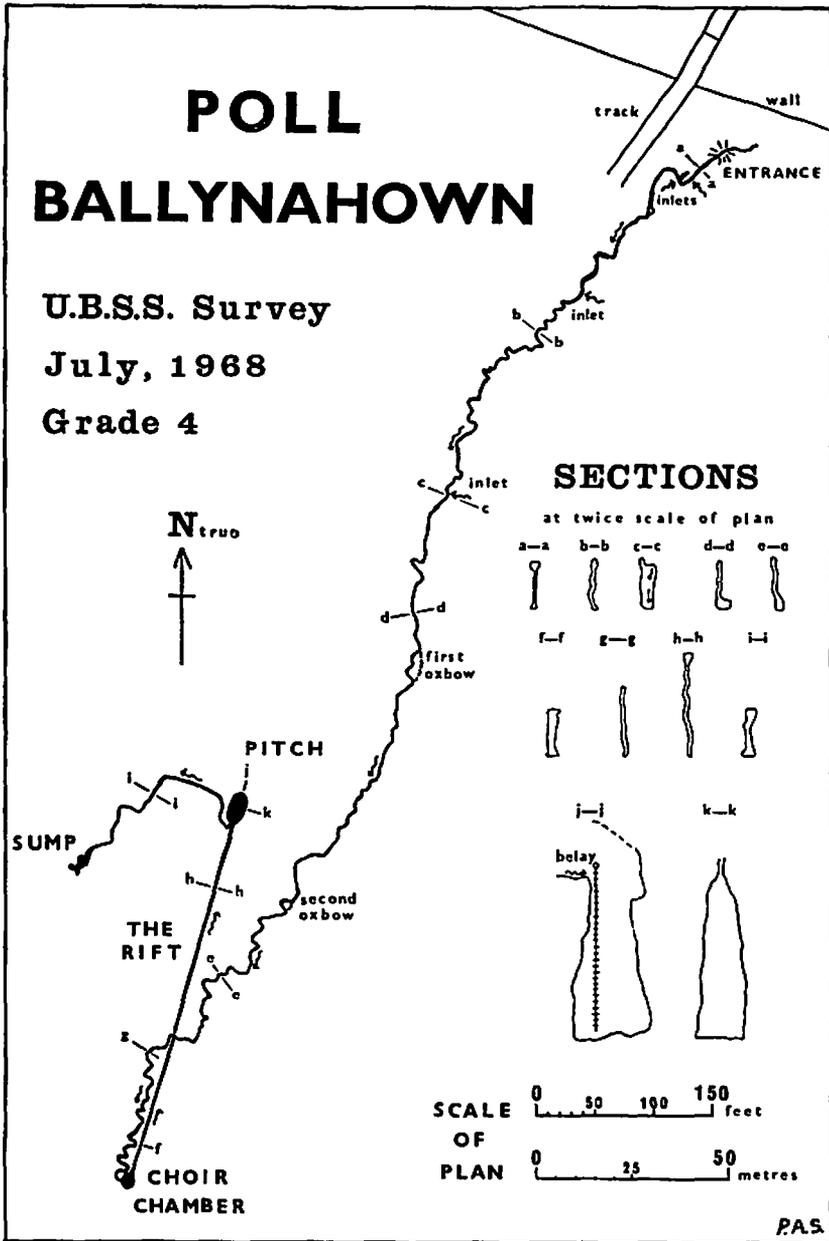


Fig. 18.

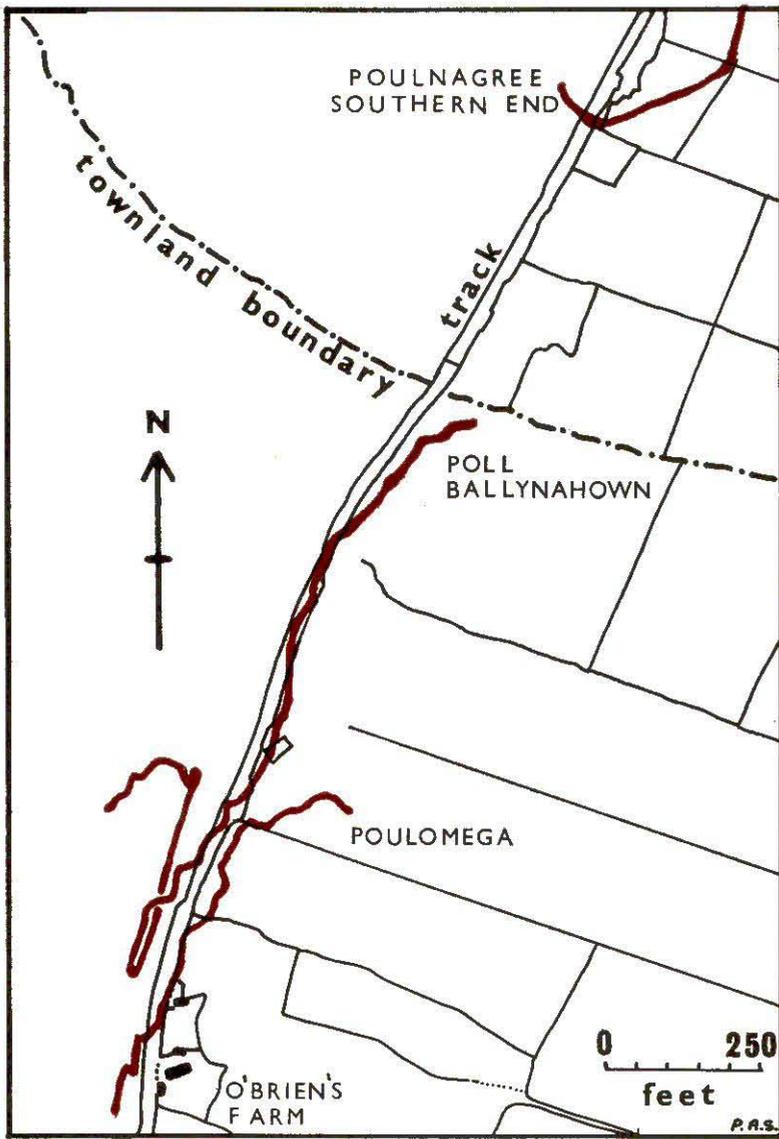


Fig. 19. Based on the Ordnance Survey by permission of the Government of Ireland. (Permit No. 1242).

DESCRIPTION

From the entrance there is a descent of 8 ft. under some dangerously poised boulders, into the roof of a narrow canyon passage, 10 ft. high. For the first 35 ft. it is just wide enough to get along at roof level but after this it is possible to climb down to the stream. A small tributary enters immediately on the left-hand wall. For the next 1,440 ft. the cave consists of a single, tortuous, meandering stream passage which is monotonous in its uniformity. It is generally 1-2 ft. wide and 15-20 ft. high. The passage roof is always in phase with the floor and also has a similar gradient to it. For much of the route it is necessary to crawl in the stream but occasionally it is possible to walk sideways. The only notable landmarks are the first and second passing places at 380 ft. and 540 ft. respectively from the entrance and two short oxbows at 740 ft. and 1,010 ft. The oxbows are parts of the main passage which have been abandoned by the stream late in the cave's development. At 1,470 ft. from the entrance there is a third oxbow which rejoins the stream at a pleasantly decorated chamber—called Choir Chamber on account of its fine acoustics. It is about 10 ft. wide, 10 ft. long and 20 ft. high.

From Choir Chamber the cave reverses its direction and follows the 16° joint for 345 ft. in a section of passage known as "The Rift". The passage starts off about 2 ft. wide and 15 ft. high and it is possible to traverse it either at stream or at roof level. The latter route is easier but if it is taken it must be remembered that there is only one point wide enough to permit the explorer to drop down to the stream—this is about 100 ft. from Choir Chamber. Due to its narrowness The Rift is an extremely arduous passage and may take over half an hour to pass. There is an exceptionally tight squeeze after 155 ft. which can only be passed by thin cavers. The floor of The Rift drops about 30 ft. gradually but the roof remains almost horizontal so that towards the end, the total passage height is around 45 ft.

The Rift terminates at a fine 70-ft. pitch which is formed along the same 16° joint and is a type "a" vertical feature (Ollier & Tratman, 1956, fig. 25). The walls of the original passage continue above the top of the pitch to the far wall, but the stream has cut back along its bed so that the point at which it now falls into the pothole below, is some 15 ft. from the far wall. There is a convenient rock flake for belaying the ladder on the left side. There is no satisfactory belay point for the lifeline but the stance at the lip of the pitch is reasonably firm. The ladder hangs free all the way and after a short distance the pothole bells out to measure 25 ft. by 15 ft. From the bottom of the pitch the cave reverts to a meandering stream passage, a little wider but about the same height as its predecessor, and terminates in a sump after 228 ft. The total length of the cave is 2,085 ft. and the depth about 250 ft.

The Survey. (Fig. 18). The cave was surveyed to Grade 4 as far as the 70 ft. pitch and to Grade 3 beyond this. The instruments used were an ex-R.A.F. hand-bearing, liquid-filled, prismatic compass read to 1° and a metal reinforced, linen tape read to the nearest 6 in. Due to the tortuous nature of the cave passage the average survey leg was about 9 ft. and it was impracticable to take clinometer readings throughout. Vertical drops were measured wherever possible.

The original survey, which is available in the society's library, was drawn out at a scale of 50 ft. to one inch. It has been reduced photographically for publication.

Flood Risk. The exploration of the cave was carried out under extremely dry conditions and it was difficult to assess what either the normal or the flood level of the stream would be. The catchment area of the area of the swallet is much smaller than that of Poulomega, a cave which is prone to severe flooding. Poll Ballynahown does not flood to the roof but progress on a return journey against the force of the stream would probably be impossible in wet weather.

DISCUSSION

The relationship of this cave to its neighbours and to the surface topography is shown in Fig. 19. Choir Chamber is 1,025 ft. from the entrance on a bearing of 209°.

Poll Ballynahown is similar in many ways to its southern and shorter neighbour Poulomega (Lloyd, 1963). The last part of that cave (which consists of two pitches of 43 ft. and 75 ft.), is only 200 ft. south of Choir Chamber and formed along the same $196-16^{\circ}$ joint. The caves run very close to each other but do not join in the explorable parts, an arrangement that is known to occur with other caves. Development along the N-S joints is common in the Clare Caves (Ollier & Tratman, 1956, p. 140) but strict adherence to a single joint for such a length as Choir Chamber—The Rift and the 75 ft. Pitch is exceptional. The Rift is particularly interesting in that it represents a reversal of direction of the cave by 180° , but the cause of this reversal is not obvious. Eventually the stream will probably find its way into The Rift where the passages cross.

The Geological Survey map shows horizontal bedding in the area of the cave, whilst further west there is a dip of 2° to the south. The cave follows a very slight dip to the south but must cut down through the bedding as it has an overall gradient of about 3.5° . The Rift, on the other hand, goes against the dip and its roof seems to be formed by a single bed. It is likely that it remained phreatic for a long time with a hydrostatic head to force the water along the line of weakness, that is the $196-16^{\circ}$ joint.

The discovery of the cave nicely fills a gap in the underground drainage system of the west side of Knockauns between the southern end of Poulmagree and Poulomega (*Fig. 19*). The place of resurgence of the water from Poll Ballynahown has not yet been established. It seems likely that the substantial rising in the Td. Oughtdarra at *c.* 170 ft. O.D. (Clare 4, E. 13.7 in., N. 4.4 in.) may prove to be the place. The rising is a complex one with at least two streams meeting. The water sinks again and is claimed locally to reappear close to, but not at, Pollsallagh.

REFERENCES

Proc. = *Proceedings of the University of Bristol Speleological Society*

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| LLOYD, O. C. | 1963 | Poulomega, Co. Clare, Eire. <i>Proc.</i> 10 (1), 65-69. |
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