Poulomega, Co. Clare, Eire

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(Map ref. I.O.S. 6 in. to 1 mile, Clare Sheet 4, E. 19·2 in., N. 6·5 in.)

SUMMARY

Poulomega is on the south-west side of Knockauns in the townland of Ballynahown. It was discovered and named by the caving section of the R.M.A. Sandhurst Mountaineering and Exploration Club in 1957. The University of Bristol Spelæological Society explored and surveyed it in 1961 and 1962. The stream passage is 912 ft. long and descends to a depth of about 230 ft. The sump in which it ends lies 624 ft. from the entrance on a bearing of 218°. There is no known resurgence.

HISTORY AND DESCRIPTION

(*Fig.* 10)

The depression at the cave entrance and the nearby stream with its swallet had been noted by this Society and designated "A 4". This was marked on the regional map (Ollier and Tratman, 1956) slightly south of its true position. The discovery of the cave was made by cadets from the R.M.A. Sandhurst in August, 1957, and reported the next year (Wilson, 1958). They called it "Poulomega". The cave is narrow, wet and tortuous and the cadets found it very difficult. They are believed to have chosen this name because they thought it "the end". They explored it fully in August, 1958. This Society explored and surveyed it in 1961 and 1962.

The cave entrance is in a depression near the shale-limestone boundary at the south-west corner of Knockauns. It is 150 ft. east of the road and 600 ft. north of O'Brien's Farm. The entrance is dry and rather tight. It is best to go in feet first. Just inside the cave, and for the next 44 ft., the passage is 5 ft. wide and up to 8 ft. high. The stream, which feeds the cave, sinks a few yards from the entrance at the shale-limestone boundary, and appears in the cave through a low bedding-plane at the point marked in the plan. The rest of the main stream passage as far as the First Ladder Pitch is narrow and has tight meanders. It measures 817 ft. and is so difficult to pass that one searches almost in vain for landmarks by which one may know what progress is being made. The landmarks are these. About one-quarter of the way the character of the cave passage changes (between sections C – C′ and D – D′). From having to crawl, sometimes flat-out,

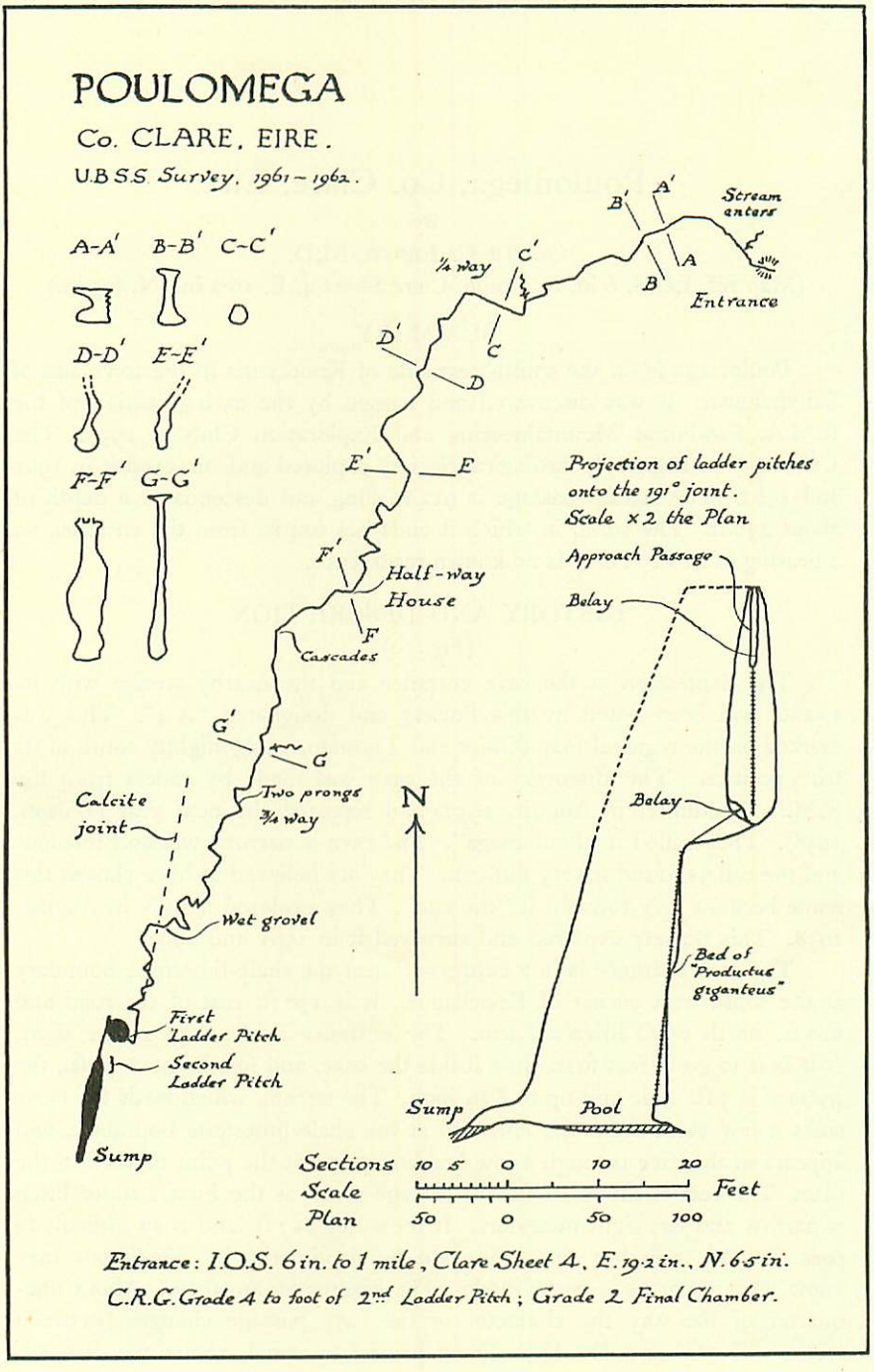
POULOMEGA
Co. CLARE, EIRE.
U.B.S.S. Survey, 1961–1962.
A-A'
B-B'
C-C'
D-D'
E-E'
F-F'
G-G'
Stream enters
Entrance
¼ way
Projection of ladder pitches onto the 191° joint.
Scale x 2 the Plan
Approach Passage
Belay
Half-way House
Cascades
Calcite joint
Two prongs ¾ way
Wet gravel
First Ladder Pitch
Second Ladder Pitch
Sump
Bed of "Productus giganteus"
Pool
N
Sections 10 5 0 10 20
Scale Feet
Plan 50 0 50 100
Entrance: I.O.S. 6 in. to 1 mile, Clare Sheet 4, E. 19·2 in., N. 6·5 in.
C.R.G. Grade 4 to foot of 2nd Ladder Pitch; Grade 2 Final Chamber.

Fig. 10.

in the streamway over shale boulders, the stream bed becomes solid rock and there is a little more room for about 3 or 4 ft. above it. At the Half-Way House there is a well-marked north–south joint diagonally crossing the passage, which widens to 4 ft. Here one can stand upright (section F – F′). The walls are covered with flowstone and rimstone pools have formed. The second half of the stream passage is almost as difficult as the first, but one is crawling in the water rather less often. Nearly three-quarters of the way from the entrance two well-marked prongs project from the floor. They are the remains of large scallops which have been whittled away by the stream and they point downstream. At the "wet grovel" the upper part of the passage is obstructed by flowstone, leaving only a couple of feet at stream level. Soon after this there is a prominent major joint filled with calcite (marked in the plan) and this is seen crossing the stream passage several times.

The floor of the cave descends only very little in the first half, with one water shute of 3 ft. at section E – E′. In the second half the descent is more rapid, mainly by a series of small water shutes. The estimated descent of the floor from the entrance to the First Ladder Pitch is 100 ft. The roof is very difficult to see, because in most places the cave passage is too narrow for one to turn one's head. About 10 ft. inside the cave the roof drops one bed of 1 ft. It drops another 2·5 ft. at 44 ft. from the entrance. At C – C′, where the cave passes under the road, the roof can only be a few feet from the surface. However, at this point observation of the roof is impossible due to obstruction by flowstone. No further drops were observed as far as the Half-Way House. Here the roof is fissured by the north–south joint already mentioned, and is 15 ft. above the stream. The passage has been keeping fairly close to the road but after the Half-way House it diverges slightly to the west. At the cascades in the second half the roof is formed by a bed only 10 ft. above the stream, but at G – G′ the height of the passage is 18 ft. Presumably there is a high-level ox-bow to account for this. At the First Ladder Pitch the roof bed is from 20 to 25 ft. above the lip, and is calculated as lying between 20 and 30 ft. from the surface. It is probably the same bed as that observed at section G – G′.

Owing to the difficult nature of the passage it takes about an hour to reach the First Ladder Pitch. The rest of the cave is so fine, that it makes all the trouble and discomfort seem worth while.

The First Ladder Pitch is 43 ft. There is no natural belay point, but suitable cracks in the right-hand wall are available for driving in pitons, about 5 ft. from the lip. At this lip the cave opens out into a beautiful cone about 12 ft. wide at its base. There is a shallow pool (8 ft. wide by 12 ft. long) at the foot of the ladder. The stream then cascades down into a tall rift (about 73 ft. high) formed along a strongly developed joint along a bearing of 191°. The rest of the cave is determined by this joint. The

stream descends 10 ft. over a distance of about 20 ft. through this rift, which is rather narrow (down to 1 ft. wide), to the lip of the Second Ladder Pitch. There is no natural belay for the ladder on this pitch, so our party drilled a hole in the rock (*see Fig.* 10, Projection) for a ½-in. eyed Rawlbolt. This bolt was removed at the end of the exploration. A belay of 20 ft. is required and a ladder of 75 ft. The Second Ladder Pitch is a fine one and, like the First, easy to climb. It descends 71·5 ft. onto a ledge 6 ft. above a pool; 35 ft. from this ledge the roof of the rift descends to 4 ft. and at 50 ft. there is a sump. There are no side passages. About half-way down the Second Ladder Pitch a bed containing many examples of the fossil *Productus giganteus* (*Gigantella*) was noted. These fossils are very conspicuous and have been found in many parts of Poulnagollum and Poulelva (Collingridge *et al.*, 1962), and about half-way down Poulnagree (Collingridge and Witts, 1958, *Plate* 10A, at about section D). They are also found at the sea-coast south-west of Poulomega. The end of the cave is about 100 ft. west of the road and 350 ft. south-west of O'Brien's Farm.

The resurgence of Poulomega water is not known. The only rising in the neighbourhood is that noted by Collingridge and Witts (1958), when they gave reasons for believing that it is not the resurgence of Poulnagree. It is a spring at the foot of a cliff about a quarter of a mile west of the entrance to Poulomega (I.O.S. 6 in. to 1 mile, Clare Sheet 4, E. 17·9 in., N. 6·5 in.). It never runs dry, it is nearly always crystal clear and it is situated almost exactly on the 600 ft. contour. Since Poulomega descends to about 470 ft. I.O.D., this cannot possibly be its resurgence. It probably rises in the sea.

THE DANGER OF FLOOD

The scallop markings in the main stream passage indicate* that a normal flood level is about 2 ft. above the stream bed. This is quite enough to keep out cavers. Flood debris in the form of hay sticking to stalactites was found 7 ft. above the stream bed about three-quarters of the way down the cave. This shows that the water will back up to a considerable height due to the small area of cross-section of the passage in some places, for example that marked "wet gravel" in the plan. Captain Wilson wrote (1958) that after heavy rainfall his party was unable to penetrate beyond the first few feet of the cave. A local farmer has said that during the unusually severe floods of July, 1961, water was to be seen standing in the cave entrance. Our own experience in 1962 was a little alarming. We went down the cave under unusually dry conditions and, while the survey of the Second Ladder Pitch

* The scallop marks are of two sorts, large coarse ones formed by the stream and small fine ones formed by water trickling down the walls. The latter are superimposed on the former above the level to which the water commonly rises, but below this (about 2 ft. from the floor) only the coarse, clean-cut scallops are found.

was being made, the man stationed at the head of the First reported that a flood was approaching. There had been a heavy storm on the surface. Knockauns was so dry that most of the rain falling on it was absorbed and the stream sinking near the cave entrance was but little augmented. The roadway, however, which was impervious, became a running river. It is likely that the flood we observed in Poulomega came from the road, but subsequent search failed to reveal any sink by which it might have reached one of the tributaries. On the arrival of the flood we withdrew our party and made for the surface. The stream-water stopped rising and we had no real difficulty. The storm had been a short one.

SURVEY TECHNIQUE

The survey was made with a metal-reinforced linen tape and a hand-bearing prismatic compass. A clinometer was used only on the First Ladder Pitch. The height of the Second Ladder Pitch was measured, but for the rest of that chamber an accuracy of only C.R.G. Grade 2 is claimed. The descent of the main stream passage was estimated. The actual distances measured were assumed to be horizontal equivalents. The error introduced in this way is 0·7 per cent. The survey was plotted onto squared paper using a rule and protractor. The plotting error is less than 1 per cent.

REFERENCES

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