

The passage meanders for about 200 yards in a southerly direction, and then the stream disappears through a small opening at floor level on the left. The continuing dry passage is mud floored and soon becomes impassable.

To follow the stream 10 ft. of ladder has to be lowered through the small opening. There is a belay point round a rock spur. The climb leads to a small pool and the stream runs off down another vertical of 25 ft. A 20-ft.-high canyon passage runs across the bottom of the second vertical in a north-south direction and, under the exceptionally dry conditions of 1955, carried only a very small stream, the main surface swallet being almost dry. The passage runs downstream in a southerly direction, as does the cave above the verticals, and presumably connects upstream with the swallet by the road. Progress in both directions was soon halted by the narrowness of the passage. No suggestions as to the possible resurgence of the cave waters can be made because of the short length of passage that can be followed.

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*Cullaun Zero and Zero I.*—Since Acke (1953) gave his account of these caves, further examination has been made of the surface features in the area. From Zero running approximately north is a line of shakeholes inside the shale boundary. These are interrupted by a col, which carries the road (Acke, 1954, *Fig. 1*). Beyond the col lies the depression with Zero I. Further north still is another col, with a blind valley beyond, in which are numerous small shakeholes, and finally two small surface streams on the shale at the extreme north end of the shale on Poulacapple ridge.

The general direction of the whole series is along the 196° dominant joint direction (Ollier and Tratman, p. 151), as with the other caves of the Cullaun series. It is reasonable to conclude that the northern extension, Cullaun Zero I and Zero are all parts of the same cave, which would account for the presence of the stream heard in Zero with no obvious surface feeder nearby.

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*Cullaun V Upper Direct and Loop Ways.*—The published survey of Cullaun V (Jenkins, 1955) stops at the Vb entrance. The survey has now been continued north, and the passages are shown in *Plate 6, A*. The Direct Way is the main stream route and runs approximately from north to south from north of entrance Vc, past V (known locally as Pollycoe), by the roadside to Vb. An approximately parallel passage, the Loop Way, runs to the east from a point about 150 yards north of entrance V and enters the Direct Way again about 50 yards north of Vb.

The stream passing Vc is the combined waters of Cullaun IV and a surface tributary. Most of the water flows down the Direct Way but when the stream is high enough, as it usually is, some of the water flows down the Loop Way. This accounts for the colouring of the water noted in both passages recorded by Jenkins when fluorescein was put in Cullaun IV. The streams reunite at the junction and the water disappears down a low bedding plane passage a few yards short of Vb entrance and flows to the Stream Passage further east.

The Direct Way from Vc down to V is a T-shaped meandering passage about 2 ft. wide and 4 ft. high. At V entrance the passage contracts and the explorer has to crawl. The floor soon drops first one bed and then another and the passage is once more a T-shaped canyon 2 ft. wide and 5 ft. high, with the usual meanders. There is considerable variation in the proportion of the horizontal component of the T to the vertical. The Loop Way starts as a crawl and continues so till about level with the first step down in the Direct Way. Thereafter the characters of the two