

Certain observations provide additional evidence for the postulated sequence of events which formed the surface snakehole. The phreatic development of the rift passages above the streamway indicates that the local water table was originally 100 to 120 feet higher than the present stream level, conditions which would be essential if the mode of formation were to be as proposed. The water level does still occasionally back up to 70 ft. above stream level, as evidenced by the grass debris left in these rifts, and the varves on the floor though exceptionally heavy rainfall would probably be required for this. However frequent flooding to a height of 30 ft. seems certain from the deposits on walls and the mud stalagmites seen.

Phreatic pendants in the streamway show that this also developed under water; vadose entrenching is now taking over for the majority of the time. Some shelving, a vadose feature, is seen at the end of the canal.

The altitude of the streamway at the terminal choke is 290 ft. OD; it is therefore likely that a considerable length of passage remains to be discovered downstream of the explored part.

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A. G. WILKINS.

The Resurgence of the Coolagh River, Co. Clare

Clare 6 in. to 1 mile, sheet 4;
E: 7.3 in. N: 2.4 in.
Td: Ballyryan. Altitude: zero.

The resurgence of the Coolagh River has been a subject for speculation for the past twenty years. The consensus of opinion was that the water resurged on the coast, though below sea-level. Various theories have proposed that the underground system continued the present trend of the Coolagh River Cave south-west, past Poll Cloghaun (Williams, 1969), and the Cregg Lodge swallets (Collingridge, 1969), to eventually resurge in the sea at or near the small bay in Td. Glasha More (Tratman, 1969). The only clue that it did not resurge there at all, but turned back north-west, was a report by Mr. J. Kelleher of Oughtdarra at Easter 1969. He related to members of the UBSS that "when flood water was flowing on the surface past Ballynalackan Castle, peaty brown water came up through boulders on the coast just south of Pollsallagh bay, forming a mushroom several feet high."

No record of the exact spot was available, and although several parties searched intensively, no trace of any resurgence was found in 1969. It is perhaps of interest that "Pollsallagh" means "Dirty Water Hole."

Dye tests in July 1968 and at Easter 1970 had meanwhile traced the water from Poulmagree via a series of risings and sinks, a long way towards Pollsallagh (p. 300). This, and Mr. Kelleher's evidence, suggested that Pollsallagh would be the site of resurgence of the Poulmagree water; it was considered possible, but not very likely, that the Coolagh River also came up in the same area.

The discovery on July 14th, 1970 of a cave passage associated with the B11 shakehole (p. 295) suggested to the authors that there might be north-west flow of water beyond B11 along the underground route or routes to the sea. This prompted a re-examination of the stretch of coast-line around Pollsallagh. The resurgence was discovered on July 15th, partly by chance. When passing a small bay, a distinct peaty coloration of the sea-water was observed. However there had been little rain previous to the occasion, and it was only when the spot was revisited several hours later when the tide had dropped, that a steady flow of peaty-brown, fresh water was observed bubbling up through boulders close to the sea-line. It immediately became clear why the site had been missed so many times before: at high tide the resurgence is completely submerged by foaming sea-water; at low tide the higher levels of the resurgence dry up, the water presumably percolating up through gravel on the sea-bed a short distance off-shore, there being insufficient head to force it out of the upper openings. Under low flow conditions, the resurgence is only clearly visible for two hours between tides. It has since (Sept., 1970) been noticed that water pours out at the highest level at all states of the tide after heavy rain. (*pl.* 24A)

The site is marked by a tiny, 40 by 40 ft. bay in the eroded limestone platform below the massive storm beach boulders which form a prominent feature in the vicinity. The bay may be recognised by the small boulders it contains; these are the only boulders found at sea-level for some distance. It has been numbered S3 in accordance with the

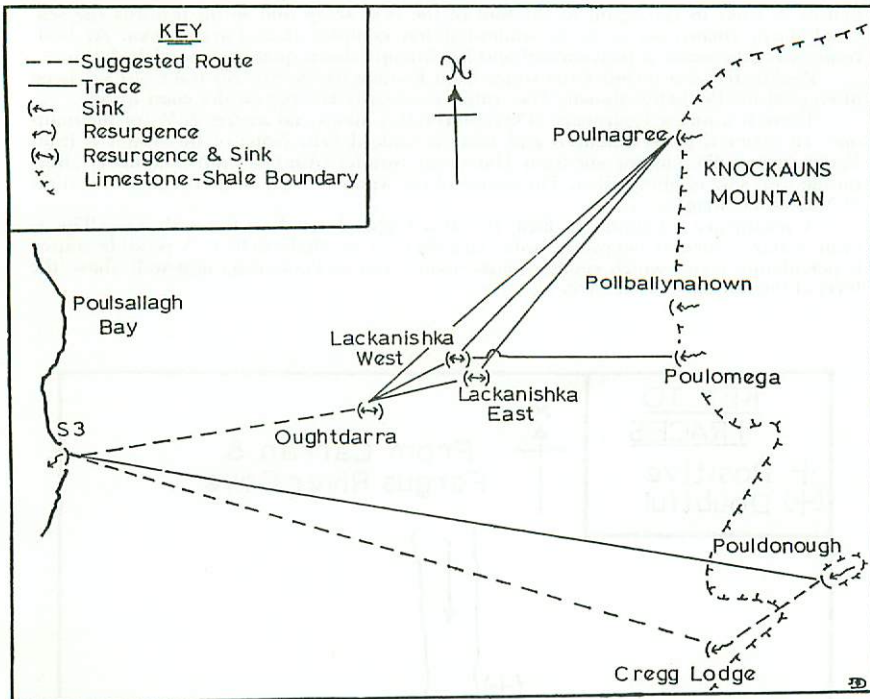


Fig. 53

system adopted in "Caves of North-west Clare." Fresh water can also be found at the bottom of a deep grike about 100 yards inland from S3, the level here also fluctuating with the tide.

On July 15th 1970, charcoal bags placed in S3 rising during the simultaneous attempts at tracing Polldonough (Coolagh River Cave) to B11 pot-hole, and tracing Poulomega to the Oughtdarra risings, became positive after three days. The ambiguity of this finding necessitated separate tracing tests: Polldonough was dyed again on Aug. 14th 1970, and S3 was found positive within two days. This test coincided with heavy rain, hence the shorter run-through time. Dye put into the Poulmagree water, which is eventually joined by the Poulomega stream, late on Sept. 29th, was also detected at S3 after three days. Hence S3 serves as a common resurgence for the Coolagh River, and the combined Poulomega and Poulmagree streams.

A. G. WILKINS.
J. D. WALFORD.

Underground Water Tracing, N. W. Clare

Considerable progress has been made during the last two years. Assistance in this matter has been given by staff and students of the Gography Department of the University of Bristol. The following is a brief note on the results.

West side of Knockauns Mountain

The initial information about the resurgences at Lackanishka and Oughtdarra was obtained from Mr. Johnny Kelleher of Oughtdarra. The diagram (fig. 53) illustrates the results obtained using pyranine conc as the tracing dye and activated granular charcoal as the detector. Lackanishka is a complex resurgence in classical karst form. The water comes up at the foot of a limestone scarp, runs on the surface on the platform at the