

## THE LITTLE NEATH RIVER CAVE

1971-1987

by

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N. G. R. (Flood Entrance) SN 912142

Length: 8.80 km

Depth: 125 m

### ABSTRACT

Since 1971 660 m of the cave, including all the passage beyond Sump 7, has been explored and surveyed bringing the total length to 8.80 km. A revised survey includes this and also corrects some earlier inaccuracies. Details of exploration up to October 1987 are given.

### *Introduction*

The first report on the Little Neath River Cave (Norton, Savage and Standing, 1967) described work carried out up to May 1967 and included a survey of the cave up to Sump 2. The second report (Standing, Newson and Wilkins, 1971) described the system up to Sumps 6 and 6A and included a geomorphological discussion and further survey. That report was reprinted in 1973 with an addendum (Wilkins, 1973) covering further discoveries. However work since 1975 has corrected the erroneous length and depth given there for Sump 8, as detailed below.

In accordance with normal practice, the parts of the cave system are defined as follows: the main stream sumps are numbered consecutively downstream, and the remainder of the system is defined in relation to the sumps. Thus L.N.R.C. 1 is upstream of Sump 1; L.N.R.C. 2 is between Sumps 1 and 2; and so on.

### *Exploration since 1971*

Beyond Sump 4, the New World Aven was climbed with some difficulty using artificial aids, and the Promised Land was entered but the passage there ended after 10 m in a massive boulder choke.

Sump 6 was dived and found to be 160 m long, with a maximum depth of 16 m. Its downstream end, previously reached via Sump Passage, is what used to be known as Sump 6B. The length of sump which enters Sump 7 from the dry Sump 6 bypass, Sump Passage, was originally known as Sump 6A. The passage between Sumps 6 and 6A, L.N.R.C. 7, is a 4 m diameter phreatic tunnel with shallow water flowing over a sharp rock floor. Sump 7, the way on downstream, leaves Sump 6A at its first bend, and leads after 75 m to L.N.R.C. 8, the 176 m long final section of known open passage in the cave. A total drop of 2 m from Sump 7 brings the final water level to that of the resurgence. The passage ends at Sump 8 in the grit/limestone fault almost directly below Pwll y Fford, the deep wooded depression by the roadside.

Sump 8 has been dived for 150 m; progress was halted by a large boulder choke at a depth of 27 m. The presence of Millstone Grit boulders here indicates that the passage may have again encountered the fault.

Contortionist Passage, at the northern end of New World Passage, was pushed for a further 14 m. The end divides into two; the left branch was too tight, the right choked with sand.

The inlet stream immediately upstream of the Bridge in Bridge Cave was followed until the passage closes down after 80 m. The furthest point reached is 15 m beyond the end of the fourth sump in this passage (Farr, 1974; Giles, 1972).

The further reaches of Foot and Mouth Passage were surveyed by members of the Cave Diving Group. The only record is the comment that 'The passage lines up directly with Town Drain' (Giles, 1975). In accordance with this information the alignment of this passage has been altered on the plan published here. No other details of this survey are known.

The Croydon Caving Club have dug into the White Lady Inlet Series from the bank of the river and connected this with Cwm Pwll y Rhyd (Christian, 1987).

### *Discussion*

The additional information provided by the 1971–1987 discoveries does not require any revision of the geomorphological ideas previously put forward. However one point has been clarified: the depth reached at the furthest penetration of Sump 8 places it below the level of the grit/limestone unconformity which indicates that flow from there to the resurgence is more likely to be via deep phreatic routes through the limestone rather than fissure flow through the grit (Standing *et al.*, 1971 p. 314).

### *Notes on the Survey*

The survey has been re-drawn. The method used was to copy the 1971 edition, amend where more accurate data was available, and extend to include new discoveries.

Three amendments have been made: Foot and Mouth Passage has been re-aligned as detailed above, the details of White Lady Inlet Series have been re-drawn on the basis of a grade 5C survey made by Unit Two Cave Research and Exploration Group (Christian, 1987), and the passage spot heights beyond Sump 4 have been re-calculated.

Four additions have been made: the details of the end of Contortionist Passage and the Promised Land both to grade 1 only, the extension to Bridge Cave inlet stream surveyed to grade 3 by members of the Cave Diving Group (Farr, 1974), and the U.B.S.S. grade 5 survey of L.N.R.C. 8. This latter was carried out using Suunto hand compass and clinometer, each read to 1°, and a Fibron tape read to 10 cm. The compass was calibrated on location by taking surface bearings. Because of the difficulty in making an accurate survey through sumps this was fixed in relation to the rest of cave by surface radiolocation of the upstream ends of Sumps 6A and 8.

In all, 660 m of passage has been added to the survey, bringing the total length of the cave to 8.80 km.

### *Acknowledgements*

Thanks are due to Unit Two Cave Research and Exploration Group for permission to use the survey of White Lady Inlet Series; to the Cave Diving Group for use of the Bridge Cave Inlet survey; to Dr Bob Machin, Marco Paganuzzi and Jim Abbott for the survey and radiolocation of L.N.R.C. 8; to Mr G. Davies of Dyffryn Nedd Farm for allowing access to his land; to Dr Adrian Wilkins and Dr Tony Boycott for additional information; and to Linda Wilson for assistance in the drafting of this paper.

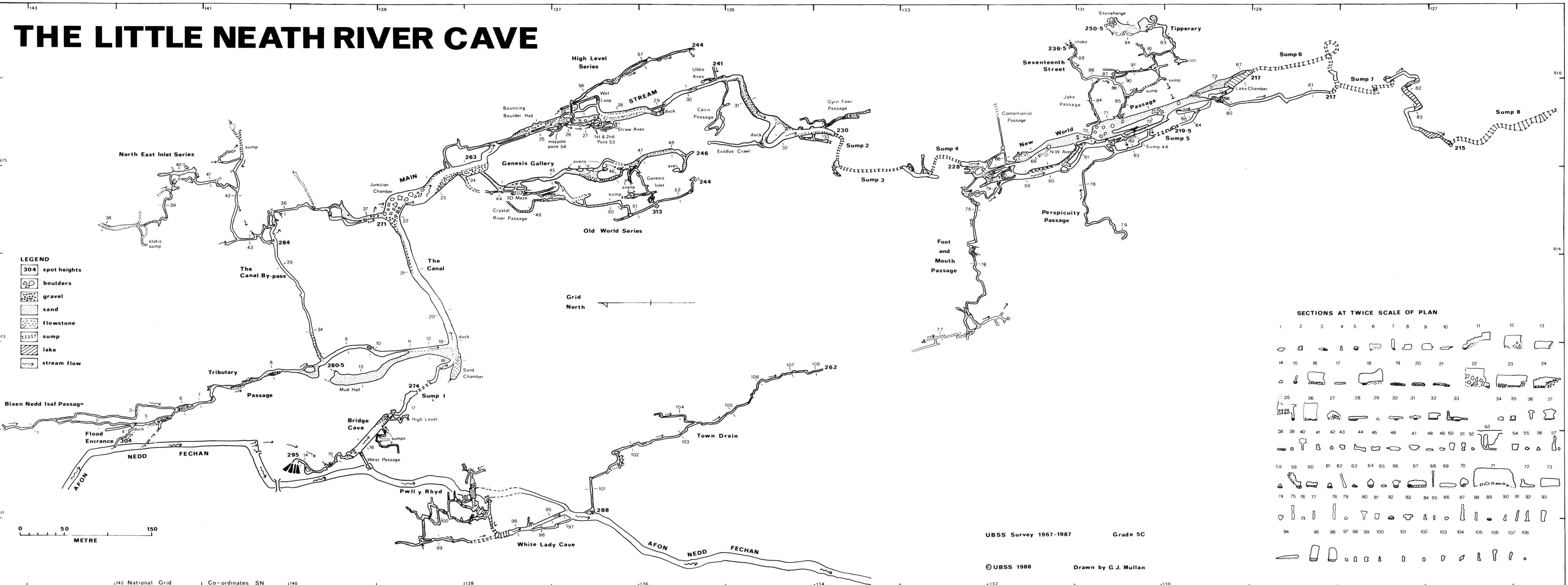
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UBSS Survey 1967-1987 Grade 5C

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