



## **Microfossil analysis of cave sediments: Corbridge Cave, Berry Head, Devon.**

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The importance of the South Devon caves has been recognized since the early nineteenth century. Investigation of their archaeology and palaeontology was placed on a scientific footing by William Pengelly (1812–1894). He developed sophisticated recording techniques at his excavations in Kent's Cavern, notably the adoption of a three dimensional grid system of recording. Continued excavations in the South Devon Caves to the present day have shown that Quaternary deposits spanning at least the last 500,000 years exist in the region's caves. Long sediment records extending well back into the Middle Pleistocene preserve evidence of regional climate change at Kent's Cavern and sea level change at Berry Head. In the Berry Head Limestone Member of Berry Head (Torbay), there are a number of solution caves, of which Corbridge Cave is the largest known. Nearly twenty years' ago, Corbridge Cave and its cave sediments were described by Proctor and Smart (1991), and this included a series of comments on the foraminifera provided by the late Professor Brian Funnell (University of East Anglia). All of our current suite of samples, collected in 2018, contain foraminifera, thin-valved ostracods and macrofaunal debris (e.g., echinoderm spines). The majority of the diverse assemblages of foraminifera are of small size (maximum 150–250  $\mu\text{m}$ ) and this suggests that they may have been transported into the cave system by storm or wave action. All of the recorded species are well-known in Tor Bay, including the sea grass meadows, a large area of which is known from near the Brixham Breakwater. With few evolutionary changes during the late Pleistocene, the foraminifera can only provide limited stratigraphical information, except by using stable isotopes derived from a suite of closely-spaced samples. The present suite of samples may not be able to provide this degree of resolution but still provide useful palaeoclimatological information.

Proctor, C.J. and Smart, P.L. 1991. *Journal of Quaternary Science*, 6(3), 233–244.