

***Wondersella athersuchi* Banner & Strank: a corrective note on its systematic position**

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ABSTRACT—The wall of *Wondersella athersuchi* is shown to be microperforate as well as smooth, so that this taxon is to be referred to the Praehedbergellidae rather than to the Hedbergellidae. This agrees with its proposed phylogenetic origin and its known biostratigraphical position.

OBSERVATIONS AND CONCLUSIONS

In the type-description of this monotypic genus (Banner & Strank, 1987, p. 44) it was stated that the wall of *W. athersuchi* "is . . . finely perforate (diameter about 5 μm ; i.e., of hedbergellid rather than globuligerinid dimensions . . .)".

A continuation of research into the nature, morphology, affinities and phylogeny of Early Cretaceous Globigerinina caused us to doubt the accuracy of this numerical value. Banner & Desai (1989) have systematically revised the Early Cretaceous Globigerinacea and have assigned *Wondersella athersuchi* to the Praehedbergellidae, finding the origin of that species in *Blefuscuiana gorbachikae* (Longoria). Both *Blefuscuiana* and the Praehedbergellidae are characterised by smooth, non-muricate walls which are microperforate – i.e. with perforations of diameters 1.7 μm or less, being irregularly spaced at distances of several perforation diameters. *W. athersuchi* should have a similar wall if Banner & Desai (*op. cit.*) are correct in assigning it to the Praehedbergellidae.

The original attempts to measure the perforation diameters of *W. athersuchi* were made using areas of the wall which had been cut perpendicularly to their surfaces. This method is prone to error in such small specimens, as the thickness of the section may be greater than the diameters of the perforations. Re-examination of the specimens revealed some in which the wall had been cut tangentially: an example is the holotype itself (Banner & Strank, 1987, Pl. 1, fig. 9), where a tangential section of the curved wall cuts the

perforations both obliquely and (at the peak of curvature) horizontally. In these sections, the perforation diameters may be measured to be about 1.5 μm , and it may be seen that they are irregularly spaced at distances of 3 to 6 perforation-diameters (i.e. 4 μm to 10 μm). This is typical for the Praehedbergellidae and is commonplace in species of the ancestral genus *Blefuscuiana*. Comparable members of the Hedbergellidae would have perforation-diameters of the order of 10 μm , and these macroperforations would be regularly spaced at distances comparable to the diameters of the perforations (i.e. they would be about 20 μm apart).

Although we naturally regret the error in the original description of the new taxon, it is gratifying to see how re-assessment of the phylogeny and systematic taxonomy of a group can identify such errors and indicate the need for their correction.

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