

New evidence on the taphonomic context of the Ediacaran Pteridinium

David A. Elliott, Patricia Vickers-Rich, Peter Trusler, and Mike Hall *Acta Palaeontologica Polonica* 56 (3), 2011: 641-650 doi: http://dx.doi.org/10.4202/app.2010.0060

New material collected from the Kliphoek Member of the Nama Group (Kuibis Subgroup, Dabis Formation) on Farm Aar, southern Namibia, offers insights concerning the morphology of the Ediacaran organism *Pteridinium. Pteridinium* fossils previously described as being preserved in situ have been discovered in association with scour–and–fill structures indicative of transport. Additionally, two *Pteridinium* fossils have been found within sedimentary dish structures in the Kliphoek Member. A form of organic surface with a discrete membrane–like habit has also been recovered from Farm Aar, and specimens exist with both *Pteridinium* and membrane–like structures superimposed. The association between *Pteridinium* fossils and membrane–like structures suggests several possibilities. *Pteridinium* individuals may have been transported before burial along with fragments of microbial mat; alternately they may have been enclosed by an external membranous structure during life.

Key words: *Pteridinium*, Petalonamae, Vendobionta, taphonomy, palaeoecology, Kliphoek Member, Nama Group, Ediacaran.

David A. Elliott [<u>david.alexanderus@gmail.com</u>], Patricia Vickers-Rich [<u>Pat.Rich@monash.edu.au</u>], Peter Trusler [<u>peter@petertrusler.com.au</u>], and Mike Hall [<u>Mike.Hall@monash.edu.au</u>], School of Geosciences, Monash University, Victoria, Australia 3800.

This is an open-access article distributed under the terms of the Creative Commons Attribution License (for details please see <u>creativecommons.org</u>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

