

## First post-Cambrian records of the reticulosan sponges *Valospongia* and *Hintzespongia* from the late Tremadocian of North Wales

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A new sponge fauna has been discovered in silty mudstone of the early Migneintian (late Tremadocian, Ordovician) of North Wales. The assemblage is dominated by reticulosan hexactinellids, including several species bearing parietal gaps; this feature is common among Cambrian hexactinellids, but is rare in Ordovician faunas. Of particular significance is *Valospongia bufo* sp. nov., representing the first record of the genus outside the Middle Cambrian of Utah, USA. A single specimen assigned to *Hintzespongia?* sp. is also described, and also represents the first occurrence outside the Laurentian Burgess Shale-type faunas. This fauna indicates that deeper-water hexactinellids from the Burgess Shale-type faunas survived in places into at least the Early Ordovician, in addition to the Cambrian-type protomonaxonid assemblage seen in the Fezouata Biota.

**Key words:** Reticulosa, Porifera, Silicea, exceptional preservation, Gwynedd, Migneintian, Tremadoc, Cambrian, North Wales, UK.

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