

Myopsolenites altus (Geyer & Vincent 2015) (TH110a)

Myopsolenites → Redlichiida → Redlichiina → Redlichioidea → Metadoxidae

Provenance : Morocco; Tinejdad

Formation : (most probably Jbel Wawrmast Fm)

Age : Middle Cambrian

Details : Complete specimen. Tinejdad in this case is more probably not the site where it was found, but where it was sold in a store.

Bought on : 07/12/2014

Bought at : Harelbeke, Cultureel Centrum Het Spoor

Event : Lithos 2014



(A bit of theory, from Trilobites.info) The Bathynotidae is a small trilobite family known from late Lower Cambrian & earliest Middle Cambrian sites in North America and Eurasia. This is a time in early Paleozoic history when the orders of trilobites were restricted to the Redlichiida, Ptychpariida, and Corynexochida (also Agnostida, which according to Ardrain 2011 should be regarded as a non-trilobite arthropod).

The 1959 Treatise placed the family in a suborder of the Redlichiida (Bathynotina). The 1977 Treatise treats the

Bathynotidae as a family of “uncertain order”. What is it about the Bathynotidae that leads to this uncertain status?
Given what we know about the characters of the orders, why is it that the Bathynotidae confound ordinal placement?

Redlichiine dorsal characters? Based on dorsal morphology alone, the family share many characteristics with members of the Order Redlichiida, Suborder Redliciina, Superfamily Redlichioidea. The glabella is simple and tapering forward, eyes long and crescentic, long genal spines, thoracic axis wide, with 13 spinose thoracic segments, 11th segment macrospinose.

“Unique” ventral morphology. While the dorsal morphology is not hard to ally with that of Redlichioidea, the ventral morphology of the Bathynotidae, as seen in *Bathynotus holopygus*, is a different matter entirely. It is apparently unique among trilobites (see trilobites.info for further details).

Ptychopariida connections? If *Bathynotus* resembles some advanced Redlichioids, it has also been compared to some of the Ptychopariida, such as *Irvingella*. Comparing the spine patterns, facial sutures, glabellar structure, and pygidial structure of the latter (and other Elviniidae/ Komaspidae) to *Bathynotus* is very easy to do, and it's been argued that the Bathynotidae are the ancestors of the Komaspidae.