

Thomasaria vs. Pyramidalia conundrum in Devonian brachiopod systematics solved: An argument to formalize epitypification under the ICZN

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Pyramidalia is a brachiopod genus with Spirifera simplex as the type species. Imprecise diagnosis and misidentification of the material studied in the original description resulted in a plethora of interpretations (a valid genus belonging either to the order Spiriferida or to the Spiriferinida; synonym of the spiriferide Thomasaria; synonym of Squamulariina or Cyrtinaella, both spiriferinides). To address this problem we designated the specimen GSM 6915 from Wolborough quarry near Newton Abbot (Devon, England; Givetian) as the lectotype of Spirifera simplex. We examined microstructure and internal characters of a topotypic specimen and found out that Spirifera simplex has an impunctate shell and is thus a spiriferide, not a spiriferinide. No significant differences in morphology or internal characters of Thomasaria and Pyramidalia can be found, so the latter is interpreted as a junior subjective synonym of the former. The procedure used in the present analysis is equivalent to the epitypification provided for in the ICN; formalisation of a similar procedure under the ICZN is recommended.

Key words: Brachiopoda, *Pyramidalia*, *Thomasaria*, epitypification, ICZN, Devonian, UK, England.

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