

The Silurian retiolitid graptolite *Plectograptus*: New observations and new species

Denis E.B. Bates, Anna Kozłowska, Jörg Maletz, Nancy H. Kirk, and Alfred Lenz


Acta Palaeontologica Polonica 51 (3), 2006: 525-540

The Ludlow genus *Plectograptus*, with the type species *Retiolites macilentus* Törnquist, 1887, collected from Thuringia (Germany), has been a widely-identified, monospecific, but poorly understood taxon for almost one hundred years. This was due to poor and incomplete preservation of the type material, and misidentification by subsequent authors up to 1995. The original, and only, type specimen of *P. macilentus* collected by Törnquist being lost, a neotype is herein selected from a small collection of Thuringian material. The genus has now been redefined and based on this, and SEM studies of isolated material, the defining characteristics of the genus are (i) the possession of a simple ancora umbrella with five radial lists with an incompletely developed rim; (ii) an ancora umbrella separated from lateral ancora sleeve walls by exceptionally large lateral orifices; (iii) the possession of mid-ventral lists; (iv) simple, orderly zigzag lateral wall ancora sleeve lists. Recently, two additional species, *P. robustus* and *P. wimani*, previously placed in different genera, were assigned to *Plectograptus*. This study recognizes three new species: *P. mobergi*, *P. toernquisti*, and *P. trijunctus*, bringing the total number of species to six. Species are distinguished by the presence or absence of genicular processes, inclination of the thecal ventral walls and mid-ventral lists, presence or absence of reticular lists, and three-way or four-way sleeve/lateral rod/apertural lip junctions.

Key words: Graptoloidea, Retiolitidae, *Plectograptus*, rhabdosome, Silurian, Ludlow.

Denis E.B. Bates deb@aber.ac.uk, Nancy H. Kirk (deceased), Institute of Geography and Earth Sciences, University of Wales, Aberystwyth Ceredigion SY23 3DB, UK; Anna Kozłowska akd@twarda.pan.pl, Instytut Paleobiologii PAN, ul. Twarda 51/55, PL-00-818 Warszawa, Poland; Alfred C. Lenz aclenz@uwo.ca, Department of Earth Sciences, University of Western Ontario, London, Ontario N6A 5B7, Canada; Jörg Maletz, jorgm@buffalo.edu, Department of Geology, State University of New York at Buffalo, 772 Natural Sciences and Mathematics Complex, Buffalo, New York 14260-3050, USA.

Attribution License (for details please see creativecommons.org), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

 [Full text \(1,892.9 kB\)](#)