

Neocucullograptinae n. subfam. (Graptolithina) - their evolutionary and stratigraphic bearing

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A description of the morphology and evolution of a group of Upper Silurian monograptids, suggested to constitute Neocucullograptinae n. subfam., and including *Bohemograptus* Prib., *Neolobograptus* n. gen. and *Neocucullograptus* n. gen. is given. Studies were based on material etched from the core of Mielnik on the Bug (Eastern Poland) deep boring, and partly on erratic boulders of Baltic origin. In Lower Ludlovian Neocucullograptinae n. subfam. were represented by *Bohemograptus*, which on the boundary with Upper Ludlovian acquired the capability to produce microfusellar tissue. Further evolution of Neocucullograptinae n. subfam. marked by appearance of specialized representatives of Upper Ludlovian *Bohemograptus*, *Neolobograptus* n. gen. and *Neocucullograptus* n. gen., was closely connected with the utilisation of this peridermal fabric. Last named forms constitute characteristic elements of graptolite fauna in the Siedlce Beds of the Polish Platformian Silurian, which enable subdivision of their lower member into 5 new graptolite zones. Occurrence of this fauna on other areas of Eastern and Central Europe is indicated. Nature of changes in graptolite fauna on the boundary of Lower and Upper Ludlovian is discussed, and the probable role of biotic factors in extinction of Graptoloidea is emphasized. Origin and tentative phylogeny of Neocucullograptinae n. subfam. are discussed and probable biological interpretation of observed changes suggested. Quantitative analysis of long-lasting *Bohemograptus bohemicus* (Barr.) lineage has been given, and on the base of available evidence, a discrimination of two temporal subspecies is substantiated. Eight representatives (species and subspecies) of the Neocucullograptinae n. subfam. are described in systematic part. Three species and one subspecies are new. Moreover, appendix comprises description of two new aberrant species of "*Monograptus*".

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