

Systematic relationships of the blind phacopine trilobite *Trimerocephalus*, with a new species from Causses-et-Veyran, Montagne Noire

Catherine Crônier

Acta Palaeontologica Polonica 48 (1), 2003: 55-70

The paper describes a new species of blind trilobite from the lower Fammenian of Concouers-le-Haut at Causses-et-Veyran, Montagne Noire (France). *Trimerocephalus (Trifoliops) nigrinus* subgen. et sp. nov. is assigned to a new subgenus together with *Tr. (Trif.) trifolius* (Osmólska, 1958). This grouping is supported by the results of phylogenetic analysis of thirteen species attributed to the Fammenian genus *Trimerocephalus* McCoy, 1849; of 16 previously known species attributed to this genus, only 12 were represented by data of quality sufficient to be included in the analysis, using 23 morphological characters. The Frasnian phacopine *Acuticryphops acuticeps* (Kayser, 1889) is used as the outgroup. The three most parsimonious trees have a length of 51 steps and a consistency index of 0.82. The new subgenus *Trifoliops* forms a clade together with *Trimerocephalus? steinachensis* (Richter and Richter, 1926), supported by an exclusive synapomorphy: widening of the cephalic antero-lateral border. *Tr.? steinachensis* seems to be more closely related to *Tr. (Trif.) trifolius* (sharing two synapomorphies) and may represent a more derived taxon (possibly deserving a separate subgeneric status). The remaining *Trimerocephalus* species are not formally assigned to subgeneric taxa, pending further studies (their relationships are shown in cladograms). The results do not confirm the classification suggested by Chlupač (1966) for *Trimerocephalus*.

Key words: Trilobita, Phacopinae, Upper Devonian, Famennian, Montagne Noire, France.

Catherine Crônier [Catherine.cronier@univ-lille1.fr], Université des Sciences et Technologies de Lille: Sciences de la Terre, SN5, Laboratoire de Paléontologie et Paléogéographie du Paléozoïque, UMR 8014 du C.N.R.S., 59655 Villeneuve d'Ascq Cedex, France.

This is an open-access article distributed under the terms of the Creative Commons 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 \(513.9 kB\)](#)