

Ordovician rafinesquinine brachiopods from peri-Gondwana

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The study of the strophomenide brachiopods of the subfamily Rafinesquininae present in the main Upper Ordovician sections, representing the Mediterranean margin of Gondwana, has revealed an increase in diversity of the group at the region during that time. The studied collections are from the Moroccan Anti-Atlas, the Iberian and the Armorican massifs, the Iberian Chains, Pyrenees, Montagne Noire, Sardinia, and Bohemia. Two genera of the subfamily Rafinesquininae have been recorded. Of them, the cosmopolitan *Rafinesquina* is the only one previously reported from the region and *Kjaerina* is found for the first time outside Avalonia, Baltica, and Laurentia. Additionally, two new subgenera have been described, *Kjaerina* (*Villasina*) and *Rafinesquina* (*Mesogeina*). Furthermore, the new species *Rafinesquina* (*Mesogeina*) *gabianensis*, *Rafinesquina* (*Mesogeina*) *loredensis*, *Kjaerina* (*Kjaerina*) *gondwanensis*, *Kjaerina* (*Villasina*) *pedronaensis*, *Kjaerina* (*Villasina*) *pyrenaica*, and *Kjaerina* (*Villasina*) *meloui* have been described. In addition, other species of these genera previously known from isolated localities in the region, such as *Rafinesquina pseudoloricata*, *Rafinesquina pomoides*, and *Hedstroemina almadenensis* are revised and their geographic range expanded. The adaptive radiation experienced by the rafinesquinines at the Mediterranean region during middle to late Katian, was probably related to changes in the regime of sedimentation and water temperature caused by the global warming Boda event.

Key words: Strophomenoidea, palaeobiogeography, adaptive radiation, Ordovician, Katian, Boda event, Gondwana, Mediterranean region.

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