

New insights into the early diversification of the Ostracoda: Tremadocian ostracods from the Cordillera Oriental, Argentina

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Acta Palaeontologica Polonica 57 (1), 2012: 175-190 doi: <http://dx.doi.org/10.4202/app.2009.1110>

New species of ostracods from the Tremadocian in the northwest region of Argentina are described. These are among the earliest well-documented records of ostracods, which shed new light onto the early diversification of the group. The described fauna consists of seven species, five of which are new: *Saltite uchuy* sp. nov., *Saltite kuraq* sp. nov., *Conchoprimitia? iglesiassi* sp. nov., *Orechina violetae* sp. nov., and *Orechina catalinae* sp. nov. The fauna consists primarily of soanellids, a non-dimorphic family of palaeocopids, and of binodicopids. One factor leading to diversification of the group in this region may have been the complex configuration of the northwest basin, which had a restricted pattern of circulation. The distribution of the first ostracods is largely restricted to Gondwana and peri-Gondwana regions. Accordingly, it is possible to envision that the origin or at least an important radiation of the group was centred in this region. Both the Soanellidae and the genus *Orechina* would have originated in Gondwana and would have become widespread later during the Middle Ordovician. The Tremadocian fauna located in Argentina show significant affinities with fauna located in the warm-water setting of the east Gondwana, mainly in Australia and China.

Key words: Ostracoda, early diversification, Tremadocian, Andes, Argentina.

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