



## **The genus *Steinmanella* Crickmay (*Bivalvia*, *Trigonioidea*) in the Early Valanginian of the Neuquén Basin, Argentina: notes on taxonomy and stratigraphy**

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*Steinmanella* Crickmay (*Bivalvia*, *Trigonioidea*) is an abundantly recorded genus from the Tithonian-Barremian of the Neuquén Basin, Argentina. A number of species have been described from different localities and units, but a precise stratigraphic chart at the species level is still wanting. Here we report three coeval species from the top Vaca Muerta Formation in central and northern Neuquén Province from the ammonoid zones *Neocomites wichmanni* and *Lissonia riveroi* of Early Valanginian age. Material was collected, from north to south, in the following sections: Pampa Tril, Puerta Curaco and Cerrito de la Ventana, comprising specimens of *Steinmanella curacoensis* (Weaver), *S. neuquensis* (Burckhardt) and *S. quintucoensis* (Weaver). *S. quintucoensis* has a rectangular outline, a wide antecarinal furrow and prominent tubercles in the flank ribs. *S. neuquensis* presents a quadrangular outline, a straight dorsal margin in a 90° angle to the anterior margin and well-defined carinae. *S. curacoensis* has an oval outline, an inflated shell, poorly marked carinae and numerous flank ribs. *S. quintucoensis* was recorded in all the studied localities and is dominant at Cerrito de la Ventana. *S. neuquensis* and *S. curacoensis* were found only in Cerrito de la Ventana and Puerta Curaco. In the latter, *S. curacoensis* dominates the assemblage, while *S. neuquensis* is in both localities represented by a few specimens. All species are commonly found in black shales as well as in calcareous shales, along with other bivalves and ammonoids, and preservation is quite variable, some specimens being highly weathered (particularly in Puerta Curaco) while others remain almost pristine. Some were collected from thin storm-deposited packstones in Cerrito de la Ventana. The studied association represents a stratigraphic link between the Tithonian records of *Steinmanella* from the Picún Leufú Formation and the Late Valanginian to Hauterivian records from the Agrio Formation.

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