Aptian ammonite biostratigraphy of the Sierra del Patrón section, Durango State, Northeast Mexico

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A standard ammonite zonation for the Central Atlantic Province, i.e., the southern part of North America and Central America (REBOULET et al., 2014), is currently being developed through several contributions focused on the Lower Cretaceous ammonites of Mexico (e.g. MORENO-BEDMAR et al., 2013; MORENO-BEDMAR et al., 2015). The present contribution documents the ammonite record of the La Peña Formation from the la Sierra del Patrón (Durango State, NE Mexico). Twenty four taxa have been recognized among the 268 specimens collected bed-by-bed. The careful biostratigraphic analysis of the ammonite distribution allow us to propose a revised zonation for the Lower–Upper Aptian boundary interval of northeast Mexico, composed of the upper Lower Aptian Dufrenoyia justinae interval Zone (including the Dufrenoyia scotti/Burckhardtites nazasensis concurrent range Subzone at its top) and the lower Upper Aptian Caseyella aquilerae interval Zone (including the Gargasiceras? adkinsi total range Subzone at its base). The latter zone defines the lower part of the Kazanskyella minima interval Superzone which almost spans the complete Upper Aptian. Although based on endemic taxa, the Sierra del Patrón section records a strong ammonite faunal turnover at the generic levels comparable with those of the Euro-Boreal regions (end of Deshayesitidae balanced by the renewal in the douvilleiceratid, desmoceratid and acanthohoplitid stocks). The proposed zonation of the Sierra del Patrón section is an important step forward and also a turning point in the development of the Aptian zonation for the Central Atlantic Province and its correlation with the IUGS standard scheme.

MORENO-BEDMAR, J.A. et al., 2013. J. South Amer. Earth Sci., **42**, 150–158. MORENO-BEDMAR, J.A. et al., 2015. Cretac. Res., **54**, 203–211. REBOULET, S. et al., 2014. Cretac. Res., **50**, 126–137.