

## MOSASAURS FROM THE JAMES ROSS BASIN, ANTARCTICA

Fernández, M.<sup>1</sup>, Martin, J.E.<sup>2</sup>, Talevi, M.<sup>3</sup> and Reguero, M.<sup>1</sup>

<sup>1</sup>División Paleontología Vertebrados. Museo de La Plata. Paseo del Bosque s/n. B1900FWA  
La Plata. Argentina.

<sup>2</sup>Museum of Geology, South Dakota School of Mines and Technology, Rapid City, SD 57701,  
USA

<sup>3</sup>Museo de Geología y Paleontología de la Universidad Nacional del Comahue, Buenos Aires  
1400, (8300) Neuquén, Argentina.

**[martafer@fcnym.unlp.edu.ar](mailto:martafer@fcnym.unlp.edu.ar)**

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Mosasaurs were diverse and specialized Cretaceous squamate reptiles adapted to marine life. Although mosasaur record is diverse and abundant worldwide, and the knowledge of the group improved during the last years, there are certain geographic areas and stratigraphic horizons in which the records are still scarce. Many years of cooperative explorations and researches of the División Paleontología Vertebrados (Museo de La Plata, Argentina) and the Instituto Antártico Argentino (IAA), Argentina, result in a collection of mosasaur materials from James Ross Basin (NE of the Antarctic Peninsula) that it is of special interest. Campanian and Maastrichtian mosasaurs have been recovered from Santa Marta Formation on James Ross Island, and from López de Bertodano Formation on Vega and Seymour Islands. Systematic analysis on these materials demonstrated the presence of tylosaurine mosasaurs in the Campanian, and the co-occurrence of mosasaurines, tylosaurines, and plioplatecarpines in the Maastrichtian of James Ross Basin. Of special interest is the closely phylogenetic relationship of the tylosaurine *Taniwhasaurus antarcticus*, from the Late Campanian of James Ross Island, with tylosaurines from the middle Campanian of New Zealand. Analyses of bone microstructure permit to explore interesting aspects of mosasaur ecology. Mosasaurs exhumed from the Fm. López de Bertodano on Seymour Island exhibit two different bone microstructures. This fact suggests that Antarctic mosasaurs could have partitioned the water column.