



Preliminary study of an astropectinid (*Asteroidea*, *Echinodermata*) from the Lower Cretaceous (Mulichinco Formation) of the Neuquén Basin, Argentina

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Body fossils of any group of starfish are rarely preserved; mostly they comprise dissociated ossicles only. Astropectinids in particular have a limited fossil record, although they are environmentally broad ranging and numerically important in recent settings. The Mulichinco Formation (Early Valanginian, Mendoza Group) is a clastic, mainly marine and marginal-marine succession, exposed in the Neuquén Province. The sample was recovered from the lowermost levels of this Formation, in the outcrops located along the National Road 40 at the Pampa Tril area (37°15'S, 69°47'W). The sandstone containing the specimen represents the top of one of several coarsening upward successions interpreted as shoreface deposits. The sample is a very well-preserved starfish in oral view. The central area (disk) and the five rays can be identified (two of them are complete, one is almost complete, and two are fractured showing less than a third of their original length). The ambulacral grooves, the inframarginal plates and some of the adambulacral plates corresponding to each of the rays are also observable. The members of the Astropectinidae family exhibit a rather small disc, long and normally straight-sided arms, and contact facets between marginals smaller than the sides of these ossicles. All of these features can be observed in the studied sample. The first records of the Astropectinidae come from Jurassic deposits. The only Mesozoic records of this family come from Europe and North America. This specimen represents, therefore, the first evidence of the existence of this group of starfish in the Cretaceous of South America.

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