

First ?cimolodontan multituberculate mammal from South America

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We describe a Cretaceous ?cimolodontan multituberculate p4 from South America, for which we erect the new genus and species *Argentodites coloniensis*. This new taxon is represented by an isolated ?left p4 from the Upper Cretaceous (?Campanian or Maastrichtian) La Colonia Formation of Patagonia (Fig. 1). It has a strongly convex anterior margin and prismatic enamel, which attest to its cimolodontan nature, while the previously known p4 (MACN-RN 975) from the Late Cretaceous Los Alamitos Formation is roughly rectangular, suggesting 'plagiaulacidan' affinity. The presence of normal prismatic enamel in *Argentodites* suggests similarities to Ptilodontoidea. However, it differs from the Late Cretaceous and Paleocene Laurasian cimolodontans (including Ptilodontoidea) in having a long, straight posterior margin, a nearly straight dorsal margin, characteristic of some 'Plagiaulacida', and in having the lingual side close to the mirror image of the labial side, the character that poses difficulties in establishing whether it is a right or left tooth. Because of these differences we assign *Argentodites* to ?Cimolodonta, tentatively only, superfamily and family *incertae sedis*.

Key words: Multituberculata, Cimolodonta, Cretaceous, La Colonia Formation, Argentina.

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