

**ON *XENOTARSOSAURUS BONAPARTEI* MARTÍNEZ, GIMÉNEZ,  
RODRÍGUEZ, and BOCHATEY, 1986; A PROBLEMATIC  
NEOCERATOSAURIA (NOVAS, 1989) FROM THE CRETACEOUS OF  
CHUBUT**

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In 1986, Martinez et al., recognized the species *Xenotarsosaurus bonapartei*, based on appendicular and vertebral remains of a medium sized theropod, coming from the Bajo Barreal Formation (Senonian pre-Maastrichtian). These authors assigned it to the Family Abelisauridae due to similarities that it presented with *Carnotaurus*. Later, Novas (1989), although maintaining the family assignment, and diagnosing the species based on autapomorphies, recognized that the relationships of *Xenotarsosaurus* with the remaining Abelisauridae (*Abelisaurus* and *Carnotaurus*) are problematic. It proposed then, as a possible synapomorphy of *Carnotaurus* and *Xenotarsosaurus*, the presence of a relatively deep prespinal basin (1), although maintaining the possibility that this character is in fact a synapomorphy of *Noasaurus* + Abelisauridae.

The discovery of a theropod in Neuquén, identified as PVPH-35, communicated in previous contributions (Coria *et al.*, 1991) and that represents the sister group of *Noasaurus* + Abelisauridae (redefined in consequence to the Neoceratosauria (= *Ceratosaurus* + [*Noasaurus* + Abelisauridae]; *sensu* Novas 1989, 1992): a) confirms in part the hypothesis of Novas, since the character (1) is not exclusive to Abelisauridae but a synapomorphy of the group (PVPH-35 + [*Noasaurus* + Abelisauridae]); and b) it weakens the assignment of *Xenotarsosaurus* to Abelisauridae.

It is proposed to preliminarily consider *Xenotarsosaurus bonapartei* as Neoceratosauria *incertae sedis*, until new materials are known in order to establish with more precision its affinities within the clade.

The family Abelisauridae is in this way composed by *Abelisaurus comahuensis* and *Carnotaurus sastrei*, a group whose monophyly is strongly supported by characters, at the moment, exclusively cranial not present in PVPH-35 and unknown in *Xenotarsosaurus*.

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