

## First phylogenetic analysis of the Miocene armadillo *Vetelia* reveals novel affinities with Tolypeutinae

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*Vetelia* is a Miocene genus of armadillos from Argentina and Chile, traditionally included within the subfamily Euphractinae (Chlamyphoridae, Cingulata, Xenarthra). It includes the species *Vetelia puncta* (early–middle Miocene), *Vetelia perforata* (middle–late Miocene), and *Vetelia gandhii* (late Miocene), mostly known by isolated osteoderms. In this contribution, we provide the first description of the skull for this genus, based on new materials (PVSJ-289 and PVSJ-154) here assigned to *V. gandhii*. A detailed characterization allows us to amend the diagnosis of the three known species, and to include, for the first time, the genus *Vetelia* into a morphological phylogenetic analysis. Phylogenetic results reveal a closer affinity to the Tolypeutinae, including the extant genera *Priodontes* (giant armadillos), *Cabassous* (naked-tailed armadillos), and *Tolypeutes* (three banded armadillos), and the fossil genera *Pedrolypeutes* and *Kuntinaru*, than to the Euphractinae. More specifically, *Vetelia* is included within the Priodontini, as sister group of the clade composed by *Cabassous* + *Priodontes*. Taking into account the scarce record of fossil Tolypeutinae, this new proposal fills an important temporal gap in the evolutionary history of this lineage. Finally, we also provide new information on the diagnostic morphological characters of the Priodontini and Tolypeutini.

**Key words:** Mammalia, Euphractinae, Tolypeutinae, phylogeny, Neogene, South America.

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