

A NEW HEGETOTHERIID FROM THE MIDDLE MIOCENE OF QUEBRADA HONDA, BOLIVIA AND A PHYLOGENY OF THE HEGETOTHERIIDAE (MAMMALIA: NOTOUNGULATA: TYPOTHERIA)

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Bolivia preserves a rich record of middle to late Cenozoic mammal evolution. Despite the abundance of fossil mammal faunas, most have not been extensively collected nor adequately described. The middle Miocene Quebrada Honda locality of southern Bolivia (12-13 Ma; Laventan South American Land Mammal “Age”) represents one such fauna; of the two dozen species that have been reported from this site, only five have been discussed in the literature. Preliminary measures of faunal resemblance suggest that Quebrada Honda is slightly more similar to asynchronous high latitude “Friasian” (s.l.) faunas than to the contemporaneous low latitude La Venta Fauna of Colombia, though these values will likely change as Quebrada Honda (and other middle Miocene faunas) are studied in greater detail. Additional data from this intermediate latitude fauna should provide valuable insights into the development of latitudinal provinciality within South America.

The present study was undertaken to characterize a common yet undescribed hegetotheriid notoungulate from Quebrada Honda. This hegetotheriid has been listed as *Hegetotherium* (subfamily Hegetotheriinae) in published faunal lists, but differs from this taxon (and all other members of the subfamily) in possessing a sharply trilobed  $m3$  – a feature generally regarded as a synapomorphy of the Pachyrukhinae. A preliminary phylogenetic analysis of the Hegetotheriidae was undertaken to determine the affinities of this new hegetotheriid and to test the monophyly of the two subfamilies. The analysis used 26 characters and nine ingroup taxa. A single most-parsimonious tree resulted, with an ingroup topology of (Prohegetotherium (Hegetotherium ((Hemihegetotherium, Quebrada Honda taxon) ((Prosotherium, Propachyrucos) (Pachyrukhos (Paedotherium, Tremacyllus)))))). Although the cladogram is well-resolved, several long ghost lineages are implied and certain character state transformations seem unlikely. Increasing the number of non-dental characters and improving geographic sampling of hegetotheriids may help resolve these issues in future analyses.