



Oligocene mammals from the Andes of central Chile

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More than 1400 fossil mammal specimens have been collected over the past 20 years through a series of US-Chilean paleontological expeditions in the central Chilean Andes. These fossils derive from volcanoclastic intervals of the Abanico Formation, mostly between 33.5° and 35.5°S latitude. Mammal assemblages from this formation appear to sample at least six late Eocene to early Miocene South American Land Mammal "Ages", including two from Oligocene, the Tinguirirican (early) and Deseadan (late). The hardness of typical Abanico matrix preserves many specimens in excellent condition, but has limited the number available for taxonomic studies due to the extensive preparation time required. The first -discovered and best-characterized Abanico assemblage is Tinguiririca. Nearly half of the species from Tinguiririca have been described, and studies of two groups are forthcoming: notohippid notoungulates and caviomorph rodents. The notohippids include: two new species of *Eomorphippus* Ameghino; another species, likely new, but poorly represented; and "*E.*" *pascuali* Simpson, a species distinct from others of that genus. The caviomorphs include a new chinchillid and a new dasyproctid. Several other Abanico assemblages may be at least partly contemporaneous with Tinguiririca. One, in the valley of the Río Cachapoal, includes: *Polydolops mckennai* Flynn and Wyss (Polydolopidae); *Johnbell hatcheri* Hitz, Flynn and Wyss (Interatheriidae); *Trachytherus* Ameghino (Mesotheriidae); *Archaeotypotherium* Roth, and *Protarchaeohyrax* Reguero, Croft, Flynn and Wyss ('Archaeohyracidae'); plus several xenarthrans and at least one rodent. Two others, in the Río Maipo drainage, include *Santiagorothia* Hitz, Reguero, Wyss and Flynn (Interatheriidae), *Archaeotypotherium*, a mesotheriid notoungulate, possibly an isotemnid notoungulate, and a rodent. Another locality in the same region appears to be younger, potentially Deseadan in age; rodents are present and abundant, and armadillos, hegetotheriid notoungulates, and interatheriid notoungulates also have been identified.

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