

NEW RODENT FAUNAS SPANNING SEVERAL SALMAS FROM THE LAGUNA DEL LAJA REGION, ANDEAN MAIN RANGE, CENTRAL CHILE

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Most South American Land Mammal “Ages” (SALMAs) are based on well-sampled but geographically restricted faunas from the high latitudes, or less well known temporal “snapshot” localities from elsewhere on the continent. Abundant fossils have recently been recovered from a previously unsampled region, the primarily volcanic and volcanoclastic Cura-Mallín Formation (CMF) near Laguna del Laja (LdL) in the Andean Main Range of central Chile. Preliminary $^{40}\text{Ar}/^{39}\text{Ar}$ dates spanning the unit’s entire thickness at LdL and the base of the overlying Trapa-Trapa Formation (TTF) indicate ages ranging from ~21-9 Ma, potentially spanning five SALMAs. LdL thus represents one of very few examples of superposed mammal faunas in South America.

The extra-Patagonian location of LdL is reflected in the strong dissimilarity of the rodents to all known coeval species, with the exception of those from the geographically near Cañadon del Tordillo (CdT) fauna of Neuquén, Argentina (middle Miocene Colloncuran SALMA). Although some LdL rodents exhibit generic affinities to Patagonian taxa, most are new at the species level, and several likely represent new genera. The degree of distinctiveness of the LdL rodents relative to Patagonian contemporaries is notable given the proximity of LdL to the northern edge of Patagonia, undoubtedly reflecting differences in age, habitat, topographic isolation, paleoenvironment, and depositional setting. In contrast, the similarities between the LdL and CdT rodents demonstrate the strong effect of geography, potentially even stronger than age, on taxonomic composition and morphology.

The broad temporal range of the LdL deposits is reflected in associated changes in composition of the rodent fauna. Forms closely related to taxa typical of at least four different SALMAs appear sequentially; a Colhuehuapian aff. *Neoreomys* n.sp. is overlain by taxa of Santacrucian aspect (*Steiromys*, cf. *Acarechimys*, aff. *Stichomys* n. sp., cf. *Scleromys*, aff. *Eocardia* n. sp.) Taxa typical of the Colloncuran (e.g. *Prolagostomus*, *Maruchito*) occur highest in the CMF and a remarkably high-crowned *Alloiomys* has been recovered from the overlying TTF.