A small, new gerbil-mouse Eligmodontia (Rodentia: Cricetidae) from dunes at the coasts and deserts of north-central Chile: Molecular, chromosomic, and morphological analyses

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A small, new species of gerbil rodents of the genus Eligmodontia from the southwestern dunes of the Atacama Desert in northern Chile is described; the genus had not been reported for this western lowland region. Our description is based on cytogenetic and molecular data, as well as cranial and external morphology. In order to support this hypothesis, we studied 27 specimens captured in Playa Los Choros (Coquimbo) and Copiapo (Atacama), comparing them with samples of all the extant species of the genus. Nineteen individuals consistently showed 2N=50, FN=48, with telocentric chromosomes and G-bands identical to those of the geographically northeastern E. hirtipes; these two groups were geographically separated by E. puerulus (2N=34, FN=48). The phylogenetic analysis of 56 Eligmodontia cytochrome-6 gene sequences yielded a maximum-likelihood phylogenetic tree where the new species formed a divergent and well-supported clade within the genus, which was also confirmed by unweighted parsimon