

RESUMENES DE TESIS

SYSTEMATIC RELATIONSHIPS OF THE TRIBE PHYLLOTINI (MURIDAE: SIGMODONTINAE) OF SOUTH AMERICA

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The tribe Phyllotini (leaf-eared mice) is one of seven tribes of South American rodents in the subfamily Sigmodontinae. The tribe is comprised of 15 genera (9 monotypic, 6 polytypic) and approximately 40 species. Included are the genera *Pseudoryzomys*, *Reithrodon*, *Euneomys*, *Punomys*, and *Neotomys* that have, at one time or another, been associated with the tribe. Phenetic and phylogenetic relationships among all genera and most of the species of the phyllotines were examined using numerical phenetic and Wagner-parsimony methods. Clustering and ordination techniques were employed to analyze the discrete-state morphological data from external, cranial, and dental character sets. Distance and correlation phenograms and three-dimensional models were generated from the analyses. The currently recognized genera were shown to be phenetically distinct and well-defined. The phenetic relationships of some genera reflect previously hypothesized relationships; the phenetic associations of others do not. The monotypic genera (*Andinomys*, *Chinchillula*, *Euneomys*, *Galenomys*, *Irenomys*, *Neotomys*, *Punomys*, and *Reithrodon*) form loose clusters that are distinct from each other and the polytypic phyllotines. There is little phenetic support for a *Reithrodon*-group containing *Reithrodon*, *Neotomys*, and *Euneomys*. *Auliscomys micropus* and *A. boliviensis* do not form a close association with the other species of *Auliscomys*. *Pseudoryzomys* has a loose phenetic association with the polytypic phyl-

lotine taxa (*Calomys*, *Eligmodontia*, *Graomys*, *Phyllotis*, *Andalgalomys*). In most analyses, *Calomys* and *Eligmodontia* form a mutually close pair. Species of *Graomys* are clustered with *Andalgalomys* in correlation phenograms, but with *Phyllotis* in the distance phenograms. A minimum-spanning network connects all three genera; on this network, *Graomys* is closest to *Phyllotis*. Two species of *Phyllotis*, *P. amicus* and *P. gerbillus*, are distinct from the other species of *Phyllotis*, indicating that separate taxonomic status may be warranted. A most-parsimonious phylogenetic tree was constructed from the stable components of seven separate analyses of the data. The cladogram depicts *Pseudoryzomys* as the sister taxon to the rest of the phyllotines. Lineages composed of species of *Calomys* and *Eligmodontia*, respectively, are found on the basal portion of the cladogram. Two species of *Phyllotis* diverge next. The cladogram then branches into two distinct lineages. One consists of *Graomys* and *Andalgalomys*, whereas the other includes remaining species of *Phyllotis*, *Auliscomys*, and the remainder of the monotypic genera. All recognized genera except *Phyllotis* and *Auliscomys* are monophyletic. *Phyllotis amicus* and *P. gerbillus* are distinct from the remainder of the *Phyllotis* species and are referred to the genus *Paralomys*. *Auliscomys* is notably unstable. *Auliscomys micropus* is separate from the other species of *Auliscomys*. I recognize it as *Loxodontomys micropus*. *Auliscomys boliviensis* is the sister taxon to *Galenomys*, indicating that generic status also is warranted for the latter. The genus *Maresomys* is proposed. The monotypic genera appear to be highly derived forms, suggesting a recent evolution in Andean grassland ecosystems. An area cladogram, based on the phylogenetic relationships of the phyllotines, indicates that initial diversification occurred in what is now the dry lowland areas of southern South America, with rapid speciation occurring later in the altiplano of southern Peru, Bolivia, Chile, and Argentina.