

## Rodents at Late-Pleistocene Contexts in Central and Southern Chile

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The rodent record in archaeological contexts has been widely discussed regarding its anthropogenic or natural taphonomic depositional status. This question is particularly significant for late-Pleistocene sites where investigations tend to emphasize the role of large-mammal consumption over smaller mammals such as rodents. Nonetheless, studies of small-mammal utilization suggest that they represent a potential and sometimes abundant food source (Stahl 1982) that is often stable and/or reliable (Hayden 1981). In late-Pleistocene contexts, evidence of large mammals overshadows the presence of small mammals; yet the latter's value as a potential resource of food and skin should not be excluded, for a high density of rodent bones is found at many sites, and both food consumption and skin use are ethnographically recognized (Gusinde 1982).

A preliminary overview of late-Pleistocene sites in southern Chile and observations carried out in the northern semiarid coastal zone identified at least seven rodent species (Table 1). In cave and rockshelter contexts of Chilean Patagonia (Tres Arroyos 1 rockshelter, Fell's Cave, Cueva del Medio, and Cueva Laguna Sofia 1), the anthropogenic origin of rodent-bone assemblages is generally discredited owing to the absence of cut or fire marks that could suggest human consumption. Natural taphonomic factors are most

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**Table 1.** Rodent species at late-Pleistocene sites in Chile.

Site	Genus/species	Reference
Tres Arroyos 1	<i>Ctenomys magallanicus</i> <i>Reithrodon physodes</i> <i>Euneomys chinchilloide</i>	Latorre 1998
Cueva Fell	<i>Ctenomys magallanicus</i>	Saxon 1976
Cueva del Medio	<i>Ctenomys magallanicus</i>	Prieto 1991
Cueva Laguna Sofia 1	<i>Ctenomys magallanicus</i>	Prieto 1991
Taguatagua 1	Octodontidae	Casamiquela 1976
Quereo I y II	Octodontidae <i>Phyllotis</i> sp.	Núñez et al. 1983
El Membrillo	<i>Abrocoma bennetti</i> <i>Octodon</i> sp. <i>Spalacopus cyanus</i> <i>Phyllotis</i> sp.	López 2004

probable depositional agents in these archaeological contexts. In the case of open-air campsites in central Chile (Taguatagua I, Quereo I and II, and El Membrillo), evidence also suggests natural taphonomic factors in rodent incorporation into archaeological sites, such as wind transport in sand dunes or gravitational movement in steep areas.

Research at late-Pleistocene sites in the northern semiarid coastal zone of Chile (Los Vilos) exposed abundant rodent remains, either with or without associated cultural remains (Jackson 2002, Jackson et al. 2005, López et al. 2005). Sampling at the “Valle de los Caballos” locality yielded a natural, non-cultural context mainly with remains of *Octodon* ssp. (NISP 144; NMI 73, 51.05 percent) and *Abrocoma bennetti* (NISP 106; NMI 64; 44.76 percent), well preserved and with high integrity of long bones, suggesting natural taphonomic post-depositional agency in their incorporation. The main identified taphonomic process is strigiform bird (i.e., owl) regurgitation. These birds do not break bones during food ingestion, thus maintaining bone integrity, as opposed to falconiforms and foxes (*Pseudalopex* spp.), which crush their prey (Stahl, 1996). Locally these observations are confirmed by the presence of several rodent remains included in compact calcium carbonate pellets produced by strigiform birds. Throughout, *Spalacopus cyanus* only appears in very low frequencies (NISP 6; NMI 2; 2.79 percent), suggesting lesser capture probability. At El Membrillo, one of the sites yielding cultural remains (Jackson 2002), the complete skull of an *Abrocoma bennetti* was recorded in surface association with *Mylodon*, *Palaolama*, and *Equus* bones. This particular specimen is also considered as part of strigiform bird regurgitation. Of the species recorded in the northern study area, only a high frequency of *Spalacopus cyanus* may eventually be considered of anthropogenic origin. This diurnal species has a very low chance of being captured by strigiform birds, and thus being incorporated as a component of their regurgitation. Though some species are in fact burrowing rodents, the data presented are of discrete accumulations, consistent with regurgitation rather than dispersed natural deaths.

Hypothetically, once archaeological sites were abandoned, especially open-air sites, scavengers should have gathered around carcasses and organic left-

overs, thereby introducing rodent bones as part of their regurgitation into archaeological contexts. The presence of rodents in late-Pleistocene sites should always be considered problematic. Evidence suggests regurgitation by strigiform birds as the main taphonomic post depositional agent, though other, yet unstudied factors could be intervening as well.

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