

Ecological and biogeographical inferences on two sympatric and enigmatic Andean cat species using genetic identification of faecal samples

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The carnivore community of the altiplano ecosystem of the high Andes, including the Andean mountain cat (*Leopardus jacobita*) and pampas cat (*Leopardus colocolo*), is one of the least studied in the world. We determined the origin of 186 carnivore samples (184 faeces and two skulls) collected above 3000 m above sea level in northern Chile, including 33 from the Andean mountain cat and 75 from the pampas cat using diagnostic molecular genetic sequence variation. We determined for the first time food habits, habitat and physiographic associations, and general patterns of molecular genetic variation of the Andean mountain cat and the pampas cat in Chile. Both species had narrow dietary niches dominated by small rodents and there was a wide overlap in diet composition (0.82), suggesting low levels of prey partitioning between species. The mountain viscacha (*Lagidium viscacia*) made up a large proportion of the biomass of the diet of both species, especially for the Andean mountain cat (93.9%).