



The population of *Ctenomys* from the Ñacuñán Biosphere Reserve (Mendoza, Argentina) belongs to *Ctenomys mendocinus* Philippi, 1869 (Rodentia: Ctenomyidae): molecular and karyotypic evidence

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Abstract

Subterranean tuco-tucos of the genus *Ctenomys* are caviomorph rodents comprising a complex of over 50 nominal species found in the southern half of South America. The validity of several nominal forms awaits a proper assessment. The population of *Ctenomys* from Ñacuñán Biosphere Reserve (Mendoza, Argentina) has been classically considered to represent a distinct species and has been commonly referred as *Ctenomys* “*eremofilus*”. Based on molecular and cytogenetic analysis we assessed the taxonomic status of the *Ctenomys* population of Ñacuñán. Specimens analyzed showed two very similar chromosome complements (2n=48 and 2n=50), the latter being widely distributed in populations of *C. mendocinus*. Similarly, haplotypes recovered from Ñacuñán specimens are very similar and sister to those recovered from specimens of *C. mendocinus*. Considering this evidence we conclude that the individuals of *Ctenomys* from Ñacuñán population should be assignable to *C. mendocinus*.

Key words: Caviomorpha, Karyotype, Monte desert, Ñacuñán Reserve, species limits, taxonomy, Tuco-tucos

Introduction

Subterranean tuco-tucos of the genus *Ctenomys* Blainville, 1826 are caviomorph rodents with an impressive chromosomal diversity, with diploid numbers ranging from 10 to 70 and fundamental numbers from 16 to 84 (Reig *et al.* 1990). The extensive chromosomal diversity is not only at interspecific level, but also intraspecific variability occurs in many species of the genus (e.g., Freitas, 2007). Tuco-tucos are a complex of over 50 nominal species found in the southern half of South America. This is one of the most explosively speciating genus of mammals and chromosomal rearrangements may have played a key role in its diversification (Reig 1989; but see D’Anatro & D’Elía 2011). In spite of several molecular phylogenies which shed light on the main pattern of tuco-tuco diversification (see Parada *et al.* 2011 and references therein) much taxonomic work is needed in order to assess the status of several nominal forms, including several currently considered synonyms, with the final goal of clarify the number of living species.

A good example of this confuse taxonomic scenario is that of the *Ctenomys* population from Ñacuñán Biosphere Reserve (Mendoza, Argentina; hereafter Ñacuñán), nominated in a meeting abstract as *C. “eremofilus”* by Contreras and Roig (1975). Later the same population has been referred as to *C. “eremicus”* (Contreras 1979) and *C. “eremophilus”* (Contreras 1981); both names were again proposed without a formal description. Technically, *C. “eremofilus”* is not a *nomen nudum* (i.e., naked name) given that, although very poorly, Contreras and Roig (1975) intended to describe the putative new form. But certainly, *C. “eremophilus”* is not available, because its proposition constitutes an invalid nomenclatural act given that, as made, it contravenes some of the