

Chromosomal forms of the Mole Rat, *Nannospalax nehringi* (Satunin, 1898), from the Van Lake Basin in Eastern Turkey

(Mammalia: Rodentia)

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Abstract. Two different chromosomal forms of the Mole Rat, *Nannospalax nehringi* (Satunin, 1898), have been found in the Van Basin, Eastern Turkey: a population around the city of Van with $2n=48$, $NF=72$ and $NFa=68$, and a population around the city of Bitlis with $2n=54$, $NF=74$ and $NFa=70$. Both populations are confined to well-defined distribution areas. While both populations are separated in the south by Mt Süphan, an extinct volcano over 4000 m high, there is no geographic barrier between both populations in the north, and there seems to be a secondary contact zone. The Van population constitutes a new chromosomal form of Mole Rat in Turkey, and could be regarded as a sibling species. However, no taxonomic decision is taken until more evidence on the evolution of these forms has become available.

Key words: Rodentia, Spalacidae, *Nannospalax nehringi*, karyotype, Turkey.

Introduction

Mole rats of the genus *Nannospalax* have been widely studied in recent years to clarify species boundaries and phylogenetic relationships. Approximately 30 karyotypes of *Nannospalax* have been reported from Turkey so far. The diploid number ($2n$) of chromosomes ranges from 38 to 62 (see e.g. GÜLKAÇ & YÜKSEL 1989, IVANITSKAYA et al. 1997, TEZ et al. 2002), and the fundamental number of chromosomal arms (NF) varies between 66 and 92, while the fundamental number of autosomal arms (NFa) ranges from 62 to 88 (COŞKUN 2004a, b, c, SÖZEN et al. 2000, SÖZEN 2004, COŞKUN et al. 2006, and references therein). Unfortunately, karyological studies of the *Nannospalax* populations within the territory of Turkey are, on the whole, far from satisfactory for clarifying the distribution pattern and evolution of these chromosomal forms.

The range of *Nannospalax nehringi* (Satunin, 1898), first described as *Spalax nehringi*, is confined to the Caucasus and Eastern Turkey (TOPACHEVSKII 1969). It has been regarded as conspecific with *Spalax leucodon* Nordmann, 1840 (ELLERMAN & MORRISON-SCOTT 1951), but, following GROMOV & BARANOVA (1981) who differentiated *Nannospalax* from *Spalax* based on morphological characters, we consider this taxon to be a distinct species.

The first studies on the karyological peculiarities of *N. nehringi* were carried out by MATHEY (1959), who recorded $2n=48$ in samples from the Caucasus. Later, NEVO et al. (1995) reported the diploid number of chromosomes of specimens from Erzurum and Kars (Sarıkamış) as $2n=50$. SÖZEN et al. (2000) found $2n=50$ and $NF=72$ in the populations from Kars (Susuz), Erzurum and Ardahan, COŞKUN (2003) $2n=48$, $NF=68$ and $NFa=64$ from Ağrı and