

Electrophoretic comparison of blood-serum proteins of *Spermophilus citellus* and *Spermophilus xanthoprimum* (Mammalia: Rodentia) in Turkey

by Reyhan Çolak and Sakir Özkurt

Abstract. Globulin and albumin blood-serum proteins of 22 specimens of *Spermophilus* collected from Anatolia and Thrace were examined using the SDS-PAGE technique. The globulin region of specimens from Thrace consisted of 8 electrophoretic bands, but of 9-10 bands in specimens from Anatolia. This slight difference does not allow these two groups to be separated at the species level, although the Thracian specimens had been attributed to *S. citellus* and the Anatolian population to *S. xanthoprimum*.

Kurzfassung. Die Serum-Proteine (Globuline und Albumine) von 22 Exemplaren von *Spermophilus*, die in Anatolien und Thrakien gesammelt wurden, wurden elektrophoretisch mit Hilfe der SDS-PAGE-Technik untersucht. Die Globulin-Region der Exemplare aus Thrakien besteht aus 8 Banden, die jener Tiere aus Anatolien aus 9–10 Banden. Dieser Unterschied erlaubt keine Trennung der beiden Gruppen auf Artniveau, obwohl die thrakischen *Spermophilus* zu *S. citellus* und die anatolischen zu *S. xanthoprimum* gestellt werden.

Key words. Postalbumin, globulin, prealbumin, taxonomy, systematics, Middle East.

Introduction

Spermophilus xanthoprimum was first described from the vicinity of Erzurum, Turkey, by BENNET (1835), and, following a suggestion by OGNEV (1948), all ground squirrels of northern Anatolia were subsequently attributed to this species (cf. also KUMERLOEVE 1975). WILSON & REEDER (1993) in their overview of the mammal species of the world accepted both *Spermophilus xanthoprimum* (Bennet, 1835) and *S. citellus* (Linnaeus, 1766) as valid taxa. DOĞRAMACI et al. (1994) compared ground squirrels from Anatolia and Thrace (Turkey-in-Europe) and found different karyotypes, on the basis of which he designed the Central Anatolian population to *S. xanthoprimum*. According to MITCHELL-JONES et al. (1999), the distribution area of *S. citellus* extends over Europe including the Czech Republic, Austria, Hungary, Slovakia, Romania, (former) Yugoslavia, Bulgaria and Thrace. Based on these findings, both *S. citellus* and *S. xanthoprimum* can be assumed to occur in Turkey. In order to obtain further information on the difference between the Thracian and Anatolian ground squirrels and their taxonomic status, the patterns of blood serum proteins of specimens from Thrace and western Anatolia were examined and compared.