

# Karyology of three bat species of the genus *Myotis* (*M. myotis*, *M. bechsteinii*, *M. brandtii*) (Chiroptera: Vespertilionidae) from Turkey

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**Abstract.** The karyotypes of three vespertilionid bat species from Turkey were examined. The karyotypes of these species were found as  $2n = 44$ ,  $NF = 54$  and  $NFa = 50$  for *Myotis myotis*;  $2n = 42$ ,  $NF = 50$ , and  $NFa = 46$  for *Myotis bechsteinii*;  $2n = 44$ ,  $NF = 54$ , and  $NFa = 50$  for *Myotis brandtii*. The *M. brandtii* karyotype of was studied for the first time for Turkey. Further details on the karyotype of *M. bechsteinii*, which had been described previously, are given.

**Kurzfassung.** Die Karyotypen von drei Fledermausarten aus der Familie der Vespertilionidae werden aus der Türkei beschrieben. Für *Myotis myotis* wurde die Chromosomenzahl zu  $2n = 44$ ,  $NF = 54$  und  $NFa = 50$  ermittelt, für *Myotis bechsteinii*  $2n = 42$ ,  $NF = 50$  und  $NFa = 46$  sowie für *Myotis brandtii*  $2n = 44$ ,  $NF = 54$  und  $NFa = 50$ . Der Karyotyp von *M. brandtii* wurde erstmals für die Türkei untersucht. Zum Karyotyp von *M. bechsteinii*, der zuvor schon beschrieben worden war, werden weitere Einzelheiten mitgeteilt.

**Key words.** *Myotis myotis*, *Myotis bechsteinii*, *Myotis brandtii*, karyology, Chiroptera, Vespertilionidae, Turkey.

## Introduction

The genus *Myotis* is represented with 11 species in Turkey (BENDA & HORÁČEK 1998, BENDA & KARATAŞ 2005). Of these, Brandt's Whiskered Bat, *Myotis brandtii*, is one of the rarest species in Turkey and has been recorded only in two localities in north-eastern and central Anatolia (BENDA & KARATAŞ 2005). Data on its chromosome complements have been reported by several authors previously only from the former Czechoslovakia (ZIMA 1976, 1982, VOLLETH 1987).

*M. myotis* is distributed throughout Turkey (SPITZENBERGER 1996, BENDA & HORÁČEK 1998, KARATAŞ et al. 2004). Its karyology has been studied in Switzerland (BOVEY 1949), Italy (CAPANNA et al. 1968), Spain (VALENCIUC & TEODORESCUS 1972), the former Yugoslavia (BICKHAM & HAFNER 1978), Greece (ILIOPOULOU-GEORGUDAKI & GIAGIA 1984) and Anatolia (KARATAŞ et al. 2004).

On the other hand, there are only a few distribution records for *M. bechsteinii*; it has been recorded only in Antalya, Artvin, İstanbul and Kırklareli provinces (HELVERSEN 1989, BENDA & HORÁČEK 1998). Its karyotype was recorded in the former Czechoslovakia (ZIMA 1978), southern Turkey and Europe (VOLLETH 1987). The karyotype of *M. brandtii* has been recorded in the former Czechoslovakia (ZIMA 1976, 1982).

In addition to traditional taxonomical studies of morphological characteristics, karyologi-