Bat-parasitic Cimex species (Hemiptera: Cimicidae) on the Balkan Peninsula, with zoogeographical remarks on Cimex lectularius Linnaeus

NIKOLAY SIMOV¹, TEODORA IVANOVA¹, ISABEL SCHUNGER²
¹ National Museum of Natural History, 1 Tzar Osoboditel blvd., 1000 Sofia, Bulgaria
² Animal Physiology, Zoological Institute, Tübingen University, 72076 Tübingen, Germany

Abstract

The description of a new Cimex species, C. emarginatus, and first records of bat-parasitic Cimex species on the Balkan Peninsula, are presented. The rarity of the findings and possible reasons for the absence of Cimex lectularius on bats in the Mediterranean area are discussed.

Key words: Cimex emarginatus nov. sp., C. lectularius, C. dissimilis, Cimicidae, bat parasites, Balkan Peninsula

Introduction

Eight of the nine Palearctic species of the genus Cimex are parasitic on bats; six of them are obligatory bat parasites (Usinger 1966; Péricart 1996; Vinokurov & Kanyukova 1995). Up to now no Cimex bat parasites have been recorded from the Balkan Peninsula, despite intense investigations on bats and their parasites in southeastern Europe (Benda & Horáček 1998; Hanák et al. 2001; Benda et al. 2003; Decu et al. 2003).

Material and methods

Since 1997 we have undertaken a systematic assessment of the bat faunas of Bulgaria and adjacent areas in Romania and Greece. Bats captured by a variety of methods were searched for bat parasites; more than 20,000 individuals of 30 bat species were inspected for heteropteran parasites of the genus Cimex. Furthermore, bat roosts in caves, buildings, and hollow trees were surveyed and searched for parasites. Collected bugs were stored dry or in 70% ethanol. For karyological studies specimens were fixed in a 3:1 mixture of 95%