

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

NIKOLAY SIMOV<sup>1</sup>, TEODORA IVANOVA<sup>1</sup>, ISABEL SCHUNGER<sup>2</sup>

<sup>1</sup> National Museum of Natural History, 1 Tzar Osvoboditel blvd., 1000 Sofia, Bulgaria

<sup>2</sup> 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%