



Conference Abstract

Survey on the singing cicadas (Auchenorrhyncha: Cicadoidea) of Bulgaria, including bioacoustics

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Abstract

The singing cicadas (Auchenorrhyncha: Cicadoidea) of Bulgaria remain poorly known. There are published records for 14 species (Arabadzhiev 1963, Barjamova 1976, Barjamova 1978, Barjamova 1990, Dirimanov and Harizanov 1965, Dlabola 1955, Gogala et al. 2005, Háva 2016, Janković 1971, Nast 1972, Nast 1987, Nedyalkov 1908, Pelov 1968, Yoakimov 1909): *Lyristes plebejus*, *Cicada orni*, *Cicadatra atra*, *C. hyalina*, *C. persica*, *Cicadetta montana*, *C. mediterranea*, *Oligoglana tibialis*, *Tympanistalna gastrica*, *Pagiphora annulata*, *Dimissalna dimissa*, *Saticula coriaria*, *Tibicina haematodes* and *T. steveni*. Two species from this list should be excluded from the list of Bulgarian cicadas, since *T. gastrica* is distributed in central and southern Portugal (Sueur et al. 2004) and *S. coriaria* is a north African species (Boulard 1981).

We checked three major institutional collections housed in Sofia, Bulgaria: the National Museum of Natural History (NMNHS), Institute of Zoology (ZISB) and Biology Faculty of Sofia University "St. Kliment Ohridski" (BFUS). We confirmed 11 of the species mentioned in the literature, except *C. mediterranea*, and found 2 additional species: *C. brevipennis* and *C. macedonica*.

Based on this knowledge, we further investigated the singing cicadas of Bulgaria with the use of classical and bioacoustic methods in the years 2008, 2009, 2010, 2012, 2016, 2018 and 2019. We were not able to confirm the presence of *C. persica* and *C. mediterranea*,

but found three additional species: *Cicadatra platyptera*, *Cicadetta cantilatrix* and *Tettigettula pygmaea*. Using the bioacoustic methods we also detected 3 to 4 additional taxa, which need to be described.

Thus, the Bulgarian fauna of singing cicadas at the moment consists of 17+ species.

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