



<http://dx.doi.org/10.11646/zootaxa.3872.1.7>

<http://zoobank.org/urn:lsid:zoobank.org:pub:00000000-0000-0000-0000-000000000000>

## New record of the bush cricket, *Zvenella yunnana* Gorochov (Orthoptera: Gryllidae: Podoscirtinae) from India

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### Abstract

The first record of a known species of bush cricket, *Zvenella yunnana* (Gryllidae: Podoscirtinae), collected from the North-eastern province, Meghalaya (India) is reported. Previously, the species was reported from Thailand and the Indo-China region (Gorochov, 1985, 1988). The other congeneric species reported is *Zvenella geniculata* (Chopard) from Thailand. The morphological characterization of *Z. yunnana* has been presented with suitable illustrations.

**Key words:** India, Gryllidae, Podoscirtinae, Podoscirtini, *Zvenella yunnana*

### Introduction

Crickets of the family Podoscirtinae are often referred to as bush and tree-dwelling crickets. Chopard (1969) described 6 genera (*Calyptotrypus*, *Madasumma*, *Mnesibulus*, *Corixogryllus*, *Aphonoides*, and *Euscyrtus*) of Podoscirtinae; however, some of the genera are now placed in the subfamily Euscyrtinae. A key to Indo-Malayan genera of Podoscirtinae was published by Ingrisch (1997) who included 19 genera. The life history of the common species, *Zvenella yunnana* Gorochov has been dealt with by Gorochov (1985). Descriptions of male genitalia, stridulatory file, metanotal gland are provided here in addition to other morphological features of this species. The specimens were collected from the dense, humid, undisturbed forest areas of Ri-bhoi and Umiam districts of Meghalaya.

### Material and methods

The specimens studied were field collected during survey trips to the state of Meghalaya in North East India under the ICAR Network Project on Insect Biosystematics. The collections were made during the day. Photographs were taken under stereozoom binoculars (Zeiss Stemi 2000 C) for morphological characterization. The genitalia were dissected using the standard procedure advocated by Dirsh (1956) and Rattanlal and Baldev Prasad (1959) for the study of male genitalia. The abdomen was detached with a micro-scissors, the abdomen was transferred to a test tube containing 10 per cent KOH, then slightly heated and later transferred to a glass cavity block with water. The digested soft tissues were removed, followed by repeated washings with water and finally placed in a glass cavity with some glycerine. Subsequently, the muscular tissues were also removed gently and the genitalia examined. The parts dissected out were preserved in a glass vial containing a few drops of glycerin and labeled.

Illustrations of the body parts: head and pronotum, maxillary palpi, tegmen (dorsal and lateral), underside of right forewing to show stridulatory file, metanotal gland, foreleg showing tympanum (inner/outer), and the genitalia (supra-anal plate, sub-genital plate, and spermatophore), were made with the help of a drawing tube attached to the stereozoom binocular (Nikon SMZ 1500).

## Acknowledgements

The authors express their gratitude to Dr. V. V. Ramamurthy, National Coordinator of the ICAR Network Project on Insect Biosystematics, IARI, New Delhi for guidance and financial support and Director Research, MPUAT for the necessary facilities.

## References

- Chopard, L. (1969) Grylloidea. *The fauna of India and adjacent countries. Orthoptera*, 2, 1–421. [Calcutta]
- Dirsh, V.M. (1956) The phallic complex in Acridoidea (Orthoptera) in relation to taxonomy. *Transactions of the Royal Entomological Society of London*, 108 (7), 223–356.  
<http://dx.doi.org/10.1111/j.1365-2311.1956.tb02270.x>
- Gorochov, A.V. (1985) *On the Orthoptera subfamilies Itarinae, Podoscirtinae and Nemobiinae (Orthoptera, Gryllidae) from eastern Indochina*. In: Medvedev, L.N. (Ed.), *Insects of Vietnam*. Academy of Sciences, USSR, Institute of Morphology, Evolution and Ecology, Moscow, Nauka, pp. 17–25.
- Gorochov, A.V. (1988) New and less known crickets of the subfamilies Landrevinae and Podoscirtinae from Vietnam and adjacent areas. In: Medvedev, L.N. & Striganova, B.R. (Eds.), *Fauna and Ecology of Vietnam*. Academy of Sciences, USSR, Institute of Morphology, Evolution and Ecology, Moscow, Nauka, pp. 5–21.
- Gorochov, A.V. (2002) Taxonomy of Podoscirtinae (Orthoptera: Gryllidae). Part 1: the male genitalia and Indo-Malayan Podoscirtini. *Zoosystematica Rossica*, 10, 303–350.
- Ingrisch, S. (1997) Taxonomy, stridulation and development of Podoscirtinae from Thailand (Insecta: Ensifera: Grylloidea: Podoscirtinae). *Senckenbergiana biologica*, 77, 47–75.
- Lai, R. & Prasad, B. (1959) Studies on the male genitalia of some Indian Acridinae (Acrididae: Orthoptera). *Indian Journal of Entomology*, 21, 167–183.