



## A taxonomic review of *Longchuanacris* Zheng et Fu (Orthoptera: Acrididae: Catantopinae), with descriptions of two new species from Yunnan, China

BEN-YONG MAO<sup>1,2\*</sup>, GUO-DONG REN<sup>1\*\*</sup> & XIAO-HONG OU<sup>3</sup>

<sup>1</sup> College of Life Sciences, Hebei University, Baoding 071002, China;

<sup>2</sup> College of Life Sciences and Chemistry, Dali University, Dali 671000, China;

<sup>3</sup> Faculty of Conservation Biology, Southwest Forestry College, Kunming 650224, China.

\*maobenyong@yahoo.cn.com, \*\*gdren@mail.hbu.edu.cn (Corresponding author)

### Abstract

The taxonomy of five species of the genus *Longchuanacris* Zheng et Fu, 1989 is revised. *L. bilobatus*, **sp. nov.** and *L. curvifurculus*, **sp. nov.** are described as new species. *Caryanda bidentata* Zheng et Liang, 1985 and *C. macrofurcula* Mao et Ou, 2000 are transferred to *Longchuanacris* as new combination, and the male of the former is newly described. The specific name *C. macrofurcula* Mao et Ou, 2000 is replaced with *L. viridus* Mao et Ou, **nomen nov.** A revised generic diagnosis and a key to the male of known species are given. All five species, including type species *L. macrofurculus* Zheng et Fu, 1989, are distributed in southwestern Yunnan, China. All specimens are deposited in the College of Life Sciences and Chemistry, Dali University (CLDU), Yunnan Province, China.

**Key words:** Orthoptera, Acrididae, *Longchuanacris*, generic diagnosis, new species, new combination, new name

### Introduction

The genus *Longchuanacris* Zheng et Fu, 1989 was proposed with the type species *L. macrofurculus* Zheng et Fu, 1989 and listed under the Catantopinae (Otte et al., 2006). During our research on the grasshoppers from Yunnan, China, we found two new *Longchuanacris* species (*L. bilobatus*, **sp. nov.** and *L. curvifurculus*, **sp. nov.**) and the male of *Caryanda bidentata* Zheng et Liang, 1985. After carefully studying their male genitalia and the phallic complex of *Caryanda macrofurcula* Mao et Ou, 2000, we found that the male genitalia of the four species at hand are very similar to that of the type species, differing only in secondary characters. They are thus surely congeneric. *C. macrofurcula* Mao et Ou, 2000 is replaced with *L. viridus* Mao et Ou, **nomen nova** to avoid a junior homonym of type species *L. macrofurculus* Zheng et Fu, 1989. So far five known species usually have a limited range of distribution in southwestern Yunnan. Deforestation and planting agricultural crops might destroy their natural habitats. In this paper, we follow the methods used by Ingrisch (1989) and the main terminology utilized by Dirsh (1975). The explanation of symbols used in the figures is given as follows: an = anchora; ap = apical penis valves; apd = apodeme; bp = basal penis valves; cv = valves of cingulum; ecto = ectophallus; ems = ectophallic membrane sclerite; ilo = inner lophus; lo = lophus; olo = outer lophus; pp = posterior projection; rm = rami of cingulum; zy = zygoma.