

<http://dx.doi.org/10.11646/zootaxa.3900.1.5>
<http://zoobank.org/urn:lsid:zoobank.org:pub:0A830629-F107-466E-AAAE-BFD992D2C0DD>

A Contribution to the Fauna of Raspy Crickets (Orthoptera: Gryllacrididae: Gryllacridinae) in Korea

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Abstract

The little known raspy cricket subfamily Gryllacridinae is reviewed for Korea. Three species are confirmed through material examination and are taxonomically considered as follows: *Eugryllacris japonica* (Matsumura et Shiraki, 1908) comb. nov. is transferred from *Prosopogryllacris japonica* (Matsumura et Shiraki, 1908), *Nippancistroger testaceus* (Matsumura et Shiraki, 1908) has a newly proposed junior synonym *Nippancistroger koreanus* Storozhenko & Paik, 2003 syn. nov., and *Metriogryllacris tigris* sp. nov. is newly described from the far southern Yeoseo-do Island.

Key words: Orthoptera, Gryllacrididae, Gryllacridinae, raspy cricket, taxonomy, Korea

Introduction

Members of the subfamily Gryllacridinae are officially called “raspy crickets” proposed by Rentz (1996) because these crickets produce raspy sounds by rubbing their hind femora on their abdominal sides for defensive purposes. They were also previously known as “leaf-rolling crickets” as many instars and adults spin thread-like silk from their mouthparts to reinforce burrows and tie leaves and detritus together to form a shelter (Ingrisch & Rentz, 2009). Raspy crickets are distributed predominantly in tropical and subtropical regions, and more than 700 species and 90 genera are known worldwide (Otte, 2000).

Brunner von Wattenwyl (1888), Griffini (1911, 1913, 1914), and Karny (1925, 1929ab, 1930, 1935, 1937) were previous pioneers devoted to the world Stenopelmatoidae including the raspy crickets. Rentz & John (1990) reviewed Australian Gryllacrididae; Hale & Rentz (2001) provided an overview of the world fauna of Gryllacrididae; Ichikawa (2001) reviewed Japanese Stenopelmatidae; Gorochov (2002ab, 2003, 2004, 2005, 2007, 2008) described many new species of Gryllacrididae from the Oriental Region; Liu (1999), Guo & Shi (2011, 2012), Shi *et al.* (2012), Bian *et al.* (2013ab), Di *et al.* (2014), and Li *et al.* (2014) have reviewed Chinese Gryllacrididae.

Korean Gryllacridinae species are scarcely known where they reside in the Palearctic temperate region. Walker (1869) was the first to report raspy crickets in Korea, such as *Gryllacris maculicollis* (now synonymized under *Gryllacris signifera*) and *Gryllacris maculipes* (now transferred to *Lyperogryllacris*) both with labels from “Corea”. However, Karny (1937) provided erroneous records in his monograph. In the light of their modern distributional ranges (*Gryllacris signifera*: India, Java, Sumatra, Singapore, Borneo; *Lyperogryllacris maculipes*: Sarawak and Borneo), the earliest records were confused with material from other countries (Kim & Kim, 2002).

Doi (1932) recorded *Gryllacris japonica* (now transferred to *Eugryllacris* from *Prosopogryllacris*) from Mt. Haramsan in North Korea through his insect checklist. Since that record, only one raspy cricket name has referred to Korea. However, the North Korean record seems to be quite doubtful because specimen data examined shows only restricted geographical bias towards southwestern provinces of the Korean peninsula.

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