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## A new species of mole cricket (Orthoptera: Gryllotalpidae: Gryllotalpinae) from Bukit Fraser, Malay Peninsula, with taxa notes on another similar mole cricket

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### Abstract

One new species of *Gryllotalpa* from Bukit Fraser, Pahang of Malay Peninsula is described: *Gryllotalpa fraser* **sp. n.** Photographs of *Gryllotalpa hirsuta* Burmeister, 1838 were examined and some remarks are made here, including a comparison with *Gryllotalpa fraser* **sp. n.** and *Gryllotalpa nymphicus* Tan, 2012.

**Key words:** Gryllotalpidae, *Gryllotalpa*, new species, Bukit Fraser, Malay Peninsula

### Introduction

In December 2012 and May 2013, orthopteran surveys were conducted in Bukit Fraser, Pahang of Malay Peninsula. Bukit Fraser is part of the Titiwangsa Range and is covered mainly by tropical lower montane forest. During the taxonomic collection, a new species of *Gryllotalpa* was discovered and described here: *Gryllotalpa fraser* **sp. n.** The habitus of this mole cricket is very similar to that of two other species found in the region: *Gryllotalpa hirsuta* Burmeister, 1838 and *Gryllotalpa nymphicus* Tan, 2012. Examination was made using photographs from DORSA and type specimens. A table of comparison is provided here.

### Material and methods

Materials examined were based mainly from night collections in Bukit Fraser, Pahang, Malay Peninsula in December 2012 and May 2013. Genitalia preparation utilised the method described by Townsend (1983). Terminology for male genitalia is according to Ingrisch (2006) and Tan (2012). The male genitalia were preserved in glycerine. Terminology of male tegminal venation is according to Ingrisch (2006), Béthoux (2012) and Tan (2012). Measurements of dry pinned specimens were done using a vernier caliper with 0.05 mm precision. Drawings were made using a stereozoom microscope with a camera lucida. Habitus images of freshly euthanized specimens were taken using a digital SLR camera with compact-macro lens. Macro-images were taken using digital camera attached to a stereozoom microscope. Scales given with the images are approximates as the images taken with different equipment had to be adapted in size. Acoustic recordings of calling songs were carried out using a digital sound recorder with an external microphone and analysed using the PC software SoundRuler. The songs were described and visualised as oscillograms, spectrogram and amplitude spectrum at different time scales.

Abbreviations of terms used in measurements: BL = body length; PL = pronotum length; PW = pronotum width; RTL = right tegmen length; RTW = right tegmen width (lateral and dorsal fields at maximal width); HFL = hind femur length; HTL = hind tibia length; SFL = stridulatory file length of right tegmen; NST = number of stridulatory teeth of right tegmen.

Abbreviations of terms used for male tegminal venation: RA = anterior Radius; RP = posterior Radius; MA = anterior Media; MP = posterior Media; CuA = anterior Cubitus; CuP = posterior Cubitus; CuPa = anterior branch