A new species of spine-headed katydid *Mesagraecia* Ingrisch, 1998 (Conocephalinae: Agraeciini), with key to species

MING KAI TAN¹, SIGFRID INGRISCH² & KHAIRUL NIZAM KAMARUDDIN³

¹Department of Biological Sciences, National University of Singapore, 14 Science Drive 4, Singapore 117543, Republic of Singapore. E-mail: orthoptera.mingkai@gmail.com

²Zoological Research Museum Alexander Koenig, Adenauerallee 160, D-53113 Bonn, Germany. E-mail: s.ingrisch@zfmk.de

³Ex-situ Conservation Division, Department of Wildlife and National Parks, KM10, Jalan Cheras, 56100 Kuala Lumpur, Peninsular Malaysia. E-mail: knizam@wildlife.gov.my

**Abstract**

The taxonomy of poorly known *Mesagraecia* Ingrisch, 1998 is reviewed. A new species of *Mesagraecia* spine-headed katydid (Conocephalinae: Agraeciini) is described from Bukit Larut, Perak, Peninsular Malaysia: *Mesagraecia larutensis* sp. n. A key to species is also presented.

**Key words:** Orthoptera, *Mesagraecia*, new species, key, Bukit Larut, Southeast Asia

**Introduction**

Documentation of the diversity of orthopterans in Southeast Asia has a long history but remains incomplete. This can be reasoned by the fragmented sampling in a biodiversity rich region (Ingrisch, 1998). As such, new species are still continuously discovered with more intensive sampling. This holds true for the spine-headed katydids (Conocephalinae: Agraeciini). A comprehensive treatment of the taxonomy of this tribe revealed as many as 160 species from Southeast Asia (Ingrisch, 1998). Since then numerous new discoveries have been made (Gorochov, 2008; Gorochov, 2011; Ingrisch & Tan, 2012; Tan & Ingrisch, 2014; Gorochov, 2015).

The genus *Mesagraecia* was described by Ingrisch (1998). Since then, there were very few reports or findings regarding this cryptic genus which is known only from Thailand, Vietnam and Peninsular Malaysia (Kim & Pham, 2014). During a recent survey in Peninsular Malaysia by MKT and KNK, we discovered a new species of *Mesagraecia* that is described here. We also constructed a key to all known species of *Mesagraecia*.

**Material and methods**

Opportunistic collecting and sweep-netting during the day (0830 to 1500 hours) and during night (1930 to 2300 hours) were carried out by MKT and KNK in Bukit Larut from 17th to 21st June 2015. Bukit Larut, previously known as Maxwell Hill, is a hill station in Peninsular Malaysia. Located in the state of Perak, Bukit Larut is at the southern tip of the Bintang Range and reaches an elevation of about 1250 m above sea level. The specimen was preserved by storing in absolute analytic-grade ethanol before being pinned and dry-preserved. Photographic images were performed with a digital SLR camera with compact-macro lens or using the Visionary Digital System, then edited using Adobe Photoshop. Scales are provided with the images. Measurements of the dried-pinned specimen were made from these images. In the measurements, the following terms are used: BL = body length; BWL = body with wing length; PL = pronotum length; PW = pronotum width; TL = tegmen length; HWL = hind wing length; HFL = hind femur length; HTL = hind tibia length. The specimen will be deposited in the Zoological Reference Collection (ZRC), Lee Kong Chian Natural History Museum (former Raffles Museum of Biodiversity Research).