New crickets of the subfamilies Phaloriinae and Pteroplistinae (Orthoptera: Gryllidae) from Singapore

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Abstract

Three new species of Phaloriinae [Trellius (Protrellius) neesoon sp. n., Tremellia timah sp. n., Phaloria? jerelynae sp. n.] and a new genus with a new species of Pteroplistinae [Singapuriola separata gen. et sp. n.] are described from Singapore. So, the southern part of Malacca is here indicated as a most western locality for the genus Tremellia Stål and possibly for the genus Phaloria Stål (except the widely distributed Phaloria insularis Bolivar).

Key words: Phaloriinae, Pteroplistinae, Gryllidae, Orthoptera, new species, new genus, Singapore

Introduction

Since 2010, attempts were made to revise the inventory of the Orthoptera fauna in and around Bukit Timah Nature Reserve (BTNR) and Central Catchment Nature Reserve (CCNR) of Singapore. As the Orthoptera of Singapore is poorly known and understudied, previously undescribed species were expected. This study revealed four new species of forest cricket from Singapore: Trellius (Protrellius) neesoon sp. n., Tremellia timah sp. n., Phaloria? jerelynae sp. n. and Singapuriola separata gen. et sp. n. These species are from the small subfamilies Phaloriinae and Pteroplistinae belonging to the Phalangopsinae subfamily group of the family Gryllidae (Gorochov, 2001).

Material and methods

Opportunistic collections of specimens were carried out mainly in the night in different trails within and around BTNR and CCNR of Singapore. Specimens were preserved by drying and pinning. Photographs of habitus and larger details were taken using a digital SLR camera with compact-macro lens. Photographs of smaller details were taken using a digital camera attached to a stereozoom microscope. Scales given with the images are approximate as the images taken with different equipment had to be adapted in size. Measurements of dried specimens were made using a Vernier calliper with precision of 0.05 mm.

In the descriptions, the following terms are used: M = Media vein; R = Radius; Sc = Subcosta veins. In the tables of measurements, the following terms are used: BL = body length; BWL = body with wings length; PL = pronotum length; PW = pronotum width; TL = tegmen length; TW = dorsal tegminal field width; FL = hind femur length; HTL = hind tibia length; OL = ovipositor length.

All the specimens studied are deposited in the Zoological Reference Collection, Raffles Museum of Biodiversity Research, National University of Singapore (ZRC).