



First description of the female *Elimaea melanocantha* (Walker, 1869) (Orthoptera: Tettigoniidae: Phaneropterinae) from India

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The genus *Elimaea* Stal, 1874 was established for the type species *Phaneroptera subcarinata* Stal 1861 (Hongkong), the type genus of the Phaneropterinae. These insects are poorly known from India. Relevant important work on the taxonomy and distribution of Tettigoniidae of northeastern India include those of Barman & Srivastava (1976), Shishodia (2000), Shishodia & Tandon (2000), Barman (2003), Shishodia *et al.* (2003 & 2010) and, recently, Nagar *et al.* (2014, 2015a-b) have reported new and additional species of Phaneropterinae from India. The tribe Elimaeini Yakobson, 1905 (group *Elimaeae* Brunner, 1878) is known to comprise three Oriental genera, *Elimaea* Stal, 1874; *Hemielimaea* Brunner, 1878; and *Ectadia* Brunner, 1878. Karny (1926) divided the genus into three subgenera: *Orthelimaea*, *Rhaebelimaea* and *Elimaea* s. str., based on the shape of the anterior femora and the branching in the radius sector of the tegmen. Of these, *Elimaea* is most speciose and quite widespread in the Indian sub-continent. Gorochoy (2013) reported two species, *Elimaea melanocantha* (Walker, 1869) and *Elimaea nigrosignata* Bolivar, 1900 in the group *Neoelimaea*. The terminology used is that of Ingrisch (1998) and Rentz and Colless (1990).

Material and methods

The specimens studied were field collected during survey trip to the western ghats in South India under the ICAR Network Project on Insect Biosystematics, Department of Entomology, Rajasthan College of Agriculture, Maharana Pratap University of Agriculture and Technology, Udaipur, Rajasthan. The collections were made during the day from undisturbed areas adjacent to the crop fields. The female of the species described was collected from the state of Kerala, Elappara, Vagamon Heights (Idukki) during December, 2015. Digital photographs of specimens and their body parts were taken with the help of Stemi 2000 C Stereozoom Binoculars (Carl Zeiss). The software used for linear measurements was Axio Vision L.E. 4.8.

The following criteria were adopted for linear measurements of the specimens: Body length—the distance from apex of fastigium of vertex to posterior margin of genitalia; pronotum—the distance from anterior margin to posterior margin; all legs—trochanter base to tip of tarsus; all femora—the distance from base of post femur to apex of genicular lobe; ovipositor—the distance from base of subgenital plate to apex of ovipositor.

Diagnosis of the tribe Elimaeini: Fastigium verticis forming a right angle with fastigium frontis; pronotum with a distinct humeral sinus; anterior coxa without spine, though in some species a minute spinule may be present; anterior femur on ventral side furrowed, provided with small spines; anterior tibia dorsally furrowed with dorso-apical spurs; tibial tympana covered with conchate fold with wider anterior slit on both sides or on the internal side only; tegmina fully developed, hind wings surpassing tegmina in both sexes; male subgenital plate without styli; ovipositor usually falcate, rarely sabre shaped, little longer than pronotum.

Diagnosis of the genus *Elimaea*: Fastigium verticis narrow, deeply furrowed, apex sub-acute; declined step-like to fastigium frontis. Pronotum with a distinct humeral sinus; anterior coxa without spine, though in some species a minute spinule may be present; genicular lobes bi-spinose in all legs. Anterior femur curved; on ventral side furrowed, provided with small spines; anterior tibia dorsally furrowed with spines and dorso-apical spurs; tibial tympana covered with conchate fold with wider anterior slit on both sides or on the internal side only; tegmina fully developed, hind wings surpassing tegmina in both sexes; male subgenital plate without styli.