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## New apterous Carventinae from Sri Lanka and Southern India (Hemiptera: Heteroptera: Aradidae)

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### Abstract

Two new species of apterous Carventinae are described in this paper. One belongs to the endemic monotypic genus *Singhalaptera* Heiss 2001 from Sri Lanka (*Singhalaptera secunda* **n.sp.**), and the other to the monotypic genus *Signocoris* Hoberlandt 1958 from Madras (*Signocoris nilgircus* **n.sp.**). All four known species of both genera are illustrated and compared.

**Key words:** Hemiptera, Heteroptera, Aradidae, Carventinae, apterous, new species, *Singhalaptera*, *Signocoris*, Sri Lanka, India

### Introduction

Recently borrowed material from the Muséum d'histoire naturelle de la Ville de Genève contained two new species of curious apterous Carventinae. Both species—although belonging to different monotypic genera—show similar characteristic humps and elevations on the thorax and abdomen, and represent endemic taxa from the area from which they were recorded. Such bulbous elevated structures are also observed in other apterous Oriental Aradidae, e.g., *Vietnamaptera* Zhang *et al.* 2010, *Papuaaptera* Heiss 1997, *Riedelaptera* Heiss 1997, and *Biroana* Kormilev 1957. However, the elevated structures have not yet been investigated, and we do not understand why these structures develop when wings are lost and which advantages they might bring to the insect. The new species are described and figured below as *Singhalaptera secunda* **n. sp.** and *Signocoris nilgircus* **n.sp.**

### Material and methods

The specimens in this study are based and preserved in the Muséum d'Histoire naturelle de Geneve (MHNG). For the study of body structures the mostly incrustate specimens were cleaned. Figures 5–6, 9–10 were taken through a Leica MSV266 camera and figures 11–12 through an Olympus SZX 10 binocular microscope with Olympus E 3 digital camera and processed with Helicon Focus 4.3 software and using Adobe Photoshop and Lightroom 2.3.

Measurements were taken with a micrometer eyepiece, 40 units = 1 mm.

When citing the text on the labels of a pin attached to the specimens / separates the lines and // different labels. Abbreviations used: deltg = dorsal external laterotergite (connexivum), mtg = mediotergite, vltg = ventral laterotergite.