



New species in the family Ctenidae Keyserling, 1877 from high altitude habitats in Myanmar, with the first case of penetration of the female's cuticle by a male in the RTA-clade (Arachnida: Araneae: Ctenidae)

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Abstract

Specimens of the spider genera *Ctenus* Walckenaer, 1805 and *Anahita* Karsch, 1879 from Myanmar were investigated. Three species are described as new to science: *Anahita popa* **spec. nov.** (female; Mt Popa), *Ctenus natmataung* **spec. nov.** (male, female; Mt Victoria) and *C. pingu* **spec. nov.** (male, female; Mt Victoria). The female of *C. cladarus* Jäger, 2012 is described for the first time. Males of *C. natmataung* **spec. nov.** possess an easily breakable tip of their RTA. Two cases are reported where this part was clinging to the epigyne and a pointed appendix had penetrated the female's cuticle. This is the first such case reported within the RTA-clade. All three *Ctenus* spp. have very similar copulatory organs and are interpreted as a product of relatively recent speciation events. According to their elevational zonation, the driving factor for this speciation could be different climatic conditions at different elevations.

Key words: taxonomy, systematics, *Ctenus*, *Anahita*, copulatory organs

Introduction

The spider family Ctenidae Keyserling, 1877 in Southeast Asia is poorly investigated (World Spider Catalog 2015). Jäger (2012) revised the genera *Anahita* Karsch, 1879, *Ctenus* Walckenaer, 1805 and *Amauropelma* Raven, Stumkat & Gray, 2001, described 13 new species, treated and partly redescribed additional 13 species and gave an overview on the history of Asian Ctenidae. This paper continues the alpha-taxonomic revision of the family in this region. Material collected in Myanmar at Mt Victoria as well as material deposited in scientific collections has been revised. Three species were recognised as new to science and the female of another species is described for the first time. Three species of the genus *Ctenus* belong to a species group characterised by an easily breakable tip of the RTA. In one species this structure was observed clinging on the female epigyne. Moreover, one pointed part of this structure penetrated the cuticle of the female. This is the first case of such a behaviour reported from the RTA-clade.

Material and methods

Material is preserved in 70% denatured ethanol. Size classes are used according to Jäger (2001: 14; for Sparassidae), since Ctenidae have a similar range of total lengths: small (< 10 mm), medium (10–20 mm), large (20–30 mm), very large (> 30 mm). Colour is described from preserved specimens in ethanol. Female copulatory organs were dissected with setae removed, and were examined and illustrated in 96% lactic acid. A schematic course of the internal duct system is given with the following symbols: open circle—copulatory orifice, arrow—fertilization duct in direction of the uterus externus, “T”—glandular appendage [=spermathecal head]). Arising points of embolus, median apophysis and conductor in male palps are given as clock-positions of the left palp in a