Zootaxa 3814 (3): 392–398
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

http://dx.doi.org/10.11646/zootaxa.3814.3.6
http://zoobank.org/urn:lsid:zoobank.org:pub:AC84A5B7-47E8-4031-B9C3-B19C1266332F

Flea weevils of the genus *Megorchestes* Kojima (Coleoptera, Curculionidae, Curculioninae, Rhamphini), with description of a second species from India

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Abstract

A second species of *Megorchestes* Kojima*, M. deccanensis* **sp. nov.**, is described from India and a key to the two species is provided.

Key words: taxonomy, new taxa, Rhamphini, Lauraceae

Introduction

Flea weevils of the Rhamphina (Curculioninae: Rhamphini) are a peculiar small group, characterized by their hind femora being swollen and modified for jumping. A total of eight genera are known from the Oriental Region (Alonso–Zarazaga & Lyal, 1999; Kojima, 2011), and a cladistic analysis of the genera was conducted by Kojima & Morimoto (1996).

Megorchestes is presently a monotypic genus known only from Laos (Kojima, 2011). *Megorchestes* is quite close to *Synorchestes* Voss and *Morimotonomizo* Kojima as discussed by Kojima (2011). No biological information has been available for *Megorchestes* although Kojima (2011) predicted an association with Lauraceae based upon the plant from which the adult was collected and the phylogenetic position he proposed for *Megorchestes,* which he thought might be related to *Synorchestes*. Kojima (2011) also predicted a unique larval habit for *Sphaerorchestes*, *Synorchestes* and *Megorchestes*, other than leaf–mining, based upon their spherical and/or convex body form. Such a habit was realized to be true when a second species of *Synorchestes* was discovered from India as a gall–maker of stems of *Persea bombycina* (King ex Hook.f) Kosterm. (Lauraceae) by Ayri *et al.* (2012). This was the first substantiated gall–making habit reported in this tribe.

In this paper, we describe a second species of *Megorchestes* from India as the first representative of the genus from the country.

Material and methods

All studied specimens were collected by net sweeping from weeds or at light (Karnataka, Tamil Nadu) in India. Methods and morphological terminology follows Ayri *et al.* (2012). Measurements indicated for antennal segments are relative and given in ocular units. Line diagrams were drawn with a drawing tube attached on a Leica DM 1000, Leica MZ16 A and Nikon Eclipse E200 stereozoom microscope. Photographs were taken with a Leica DFC425 C digital camera attached to a Leica M205 FA stereozoom microscope. Scanning Electron Microscopy (SEM) was done on a Zeiss EVO MA10 and images were taken at 20 kV EHT and 17–31 Pa. The holotype of the new species described herein and paratype are deposited in the National Pusa Collection, Division of Entomology, Indian Agricultural Research Institute, New Delhi, India (NPC). The material of *Megorchestes bolovenensis* Kojima is with Tokyo University of Agriculture, Japan (TUA–J).

 Accepted by R. Anderson: 1 May 2014; published: 10 Jun. 2014

Type series. Holotype, male. India: Karnataka, Bangalore: GKVK (12°58'N, 77°35'E), 18. iv. 2013, Sudha, M. (sweep net), Coll. NPIB (NPC); paratype, female. India: Tamil Nadu, Coimbatore, 21. iv. 2013, S. Murthy (at light) (NPC).

Etymology. This species is named after the Deccan Plateau, a large plateau in India, making up most of the southern part of the country. It extends over eight Indian states and encompasses a wide range of habitats, covering most of central and southern India.

Distribution. India: Karnataka, Tamil Nadu.

Comments. This new species, *M. deccanensis* **sp. nov.,** differs from *M. bolovenensis* in the following features: Elytra clothed predominantly with whitish recumbent hairy scales before postmedian blackish band. Rostrum nearly as long as pronotum (both sexes). Hind femora 2.5x as broad as middle pair. Elytra <4x (3.2-3.5x) as long and <1.7x (1.6-1.7x) as wide as pronotum. Elytral humeri less distinct and size small (length: 4.1–4.3 mm).

Megorchestes bolovenensis Kojima

(Figs. 3–4, 21–22)

Megorchestes bolovenensis Kojima, 2011: 109

Description. See Kojima (2011).

Specimens examined. Holotype, female, 3 km east from Paksong (alt. 1,313 m), Champasak Prov., Laos (N 15º10'/E 106º15'), 13. ii. 2010, H. Kojima; paratype, female, same data as the holotype (TUA–J).

Distribution. Laos.

Female genitalia as illustrated (Figs. 21–22): Spermatheca with ramus (lateral part) distinct and differentiated from nodulus externally; and cornu distinct with pointed apex. Sternite 8 with bladal part 1.5x shorter than apodeme, apodeme with simple deflected apex. Male not known.

Comments. This species is easily separable from the Indian species *M. deccanensis* as noted under comments for that species.

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