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A new species of *Exochomoscirtes* Pic from Thailand (Coleoptera: Scirtidae)

RAFAL RUTA

Department of Biodiversity and Evolutionary Taxonomy, Zoological Institute, University of Wrocław,
Przybyszewskiego 63/77, 51-148 Wrocław, e-mail: scirtes@biol.uni.wroc.pl

ABSTRACT. *Exochomoscirtes chiangmaiensis* n. sp. from Thailand is described and figured. Additional data on a female specimen from Taiwan, probably belonging to a related species is presented.

Key words: entomology, taxonomy, Coleoptera, Scirtidae, *Exochomoscirtes*, new species, Thailand, Taiwan.

INTRODUCTION

A recent revision of *Exochomoscirtes* (RUTA & YOSHITOMI 2010) includes 35 species, widely distributed in SE Asia, with a single species ranging till New Guinea and Australia. KLAUSNITZER (2010a, 2010b) described five additional species from Java, Laos, Nepal and North India. In a recent study based on the material borrowed from Naturhistorisches Museum, Basel, an undescribed species collected in Chiang Mai (Thailand) was found. It externally resembles a female specimen collected in Taiwan and species described recently from Laos and North India (*Exochomoscirtes heinrichdathei* KLAUSNITZER, 2010b & *E. holgerdathei* KLAUSNITZER, 2010b). The Taiwanese specimen may represent a distinct species, as it shows several morphological differences described below.

METHODS

Methods and conventions are identical as in the revision of *Exochomoscirtes* (RUTA & YOSHITOMI 2010).

Measurements are given in millimetres. The following abbreviations were used in the text: EL – maximum elytral length, EW – maximum elytral width, PL – maximum pronotal length, PW – maximum pronotal width, TL – total length (measured from anterior margin of the pronotum to the elytral apex).

Depositories:

NHMB – Naturhistorisches Museum, Basel, Switzerland

DBET – Department of Biodiversity and Evolutionary Taxonomy, University of Wrocław, Poland

SYSTEMATIC PART

Exochomosirtes chiangmaiensis n. sp.

(Figs. 1, 3-7)

TYPE MATERIAL

Holotype (male): “THAI, Chiang Mai prov., / 18°49’N 98°54’E, 1600m / DOI PUI Mt. 2. - 6. v. / Vit Kubáň leg. 1996” [printed label]; “HOLOTYPUS / *Exochomosirtes* / *chiangmaiensis* sp. nov. / des. Rafał Ruta 2010” [red label]. Deposited in NHMB.

DIAGNOSIS

Coloration of body similar like in *Exochomosirtes heinrichdathei* KLAUSNITZER, 2010b and *E. holgerdathei* KLAUSNITZER, 2010b. Very narrow parameres differ *E. chiangmaiensis* from both species described by KLAUSNITZER: parameres of *E. heinrichdathei* are widened at apices, parameres of *E. holgerdathei* are hooked apically, but hooks are larger, and parameres are wider than in *E. chiangmaiensis*. Male genitalia similar to those of *E. decemguttatus* (CHAMPION) and *E. thailandicus* RUTA et YOSHITOMI, although both species have a very different coloration of dorsum. Apices of parameres are more acute in *E. chiangmaiensis* than in *E. thailandicus*, mesal process of tegmen is distinctly longer in *E. chiangmaiensis* than in both *E. decemguttatus* and *E. chiangmaiensis*. Basal portion of tegmen is distinctly narrower in *E. chiangmaiensis* than in *E. decemguttatus*.

DESCRIPTION

Holotype, male. Body oval, TL/EW 1.3, convex, covered with semierect yellowish setae. Head and pronotum testaceous, elytra with yellowish basal 1/3 and suture, remaining portion of elytra brownish, scutellum yellowish. Antennomeres 1-4, mouthparts, and legs yellowish, antennomeres 5-7 and metafemora darkened, brownish. Ventral portion brownish.

Head with distinct punctation, punctures separated by ca. 1.5 diameter. Eyes large, protuberant; head 1.6 X wider than interocular space. Antennae filiform, antennomeres 8-11 absent in the holotype. Antennomere 1 cylindrical, with a trace of anterior longitudinal ridge, 2 short, cylindrical, 3 minute, narrow and slightly shorter than anten-

nomere 2, antennomeres 4-7 elongate, 1.5 X longer than antennomere 3. Palpomeres of maxillary palpi only slightly widened.

Pronotum slightly convex, covered with distinct punctation, similar like on head, separated by ca. 1.5 diameter, anterolateral corners obtuse, slightly projecting anteriorly; lateral margins slightly rounded; posterolateral corners acute; base of pronotum bisinuate, with complete margination along basal margin; PW/PL 3.0. Scutellum punctured as on pronotum, equilaterally triangular. Angle between pronotum and elytra not marked in dorsal outline.

Elytra oval, without longitudinal ridges, lateral margins not explanate, widest in the middle of its length, punctation much stronger than on pronotum, punctures separated by ca. 1.0 diameter; humeri well marked; EL/EW 1.2, EL/PL 5.4, EW/PW 1.5.

Legs moderately long. Hind tibial spurs well developed, dorsal one almost straight, unmodified, as long as tarsomere 1, and almost 2 X longer than ventral one; ventral spur almost straight.

Longitudinal ridge of ventrite 1 present in its basal 1/3, apex of tergite 7 unmodified, apex of ventrite 5 regularly rounded.

Sternite 9 (L 0.44, W 0.21) elongated, consisting of two hemisternites, with relatively long setae on apical margin. Tergite 8 (L 0.54, W 0.47) well sclerotized, apical portion subtrapezoidal, apical margin emarginated in central portion, bearing sparse, but distinct setae on apical margin, apodemes short, slightly diverging basally; tergite 9 (L 0.53, W 0.36) small, moderately sclerotized, with narrow apical portion and long setae at apex, with a pair of moderately long apodemes, strongly diverging basally, fused in anterior portion, forming bidentate structure in the fusion area. Tegmen (L 0.65,



1-2. Habitus. 1 – *Exochomoscirtes chiangmaiensis* n. sp., holotype; 2 – *Exochomoscirtes* cf. *chiangmaiensis*, female. Scale bar = 0.5 mm

W 0.27) large, well sclerotized, parameres sinuate, narrow, apices abruptly hooked, spear-shaped, mesal process narrow, long, exceeding 3/4 of the length of parameres. Penis (L 0.48, W 0.11) small, pala elongate, parameroids short, mesal process slightly longer than pala.

Female unknown (see below).

Measurements. Male (n = 1): TL 2.71, PL 0.45, PW 1.35, EL 2.43, EW 2.05.

DISTRIBUTION

Known only from the locus typicus in Thailand.

ETYMOLOGY

Locotypically, after Chiang Mai, in vicinity of which the holotype was collected.



3-8. Male genitalia of *Exochomoscirtes chiangmaiensis* n. sp. 3 – sternite 9; 4 – tergite 8; 5 – tergite 9; 6 – tegmen; 7 – tegmen, apical portion: *E. chiangmaiensis* (left) and *E. thailandicus* (right); 8 – penis. Scale bar (3-6, 8) = 0.5 mm

Exochomoscirtes cf. *chiangmaiensis*, female

(Figs. 2, 8-12)

STUDIED MATERIAL

1 female: “TAIWAN / 23-25.VI.2008 / Shanping Area / Kaoschung Count. / leg. J. Borowski”. Deposited in DBET.

MORPHOLOGICAL NOTES

Resembling *Exochomoscirtes chiangmaiensis* n. sp., but distinctly larger, head and pronotum darker, brownish-black. Sternite 7 with lightened longitudinal area in apical portion.

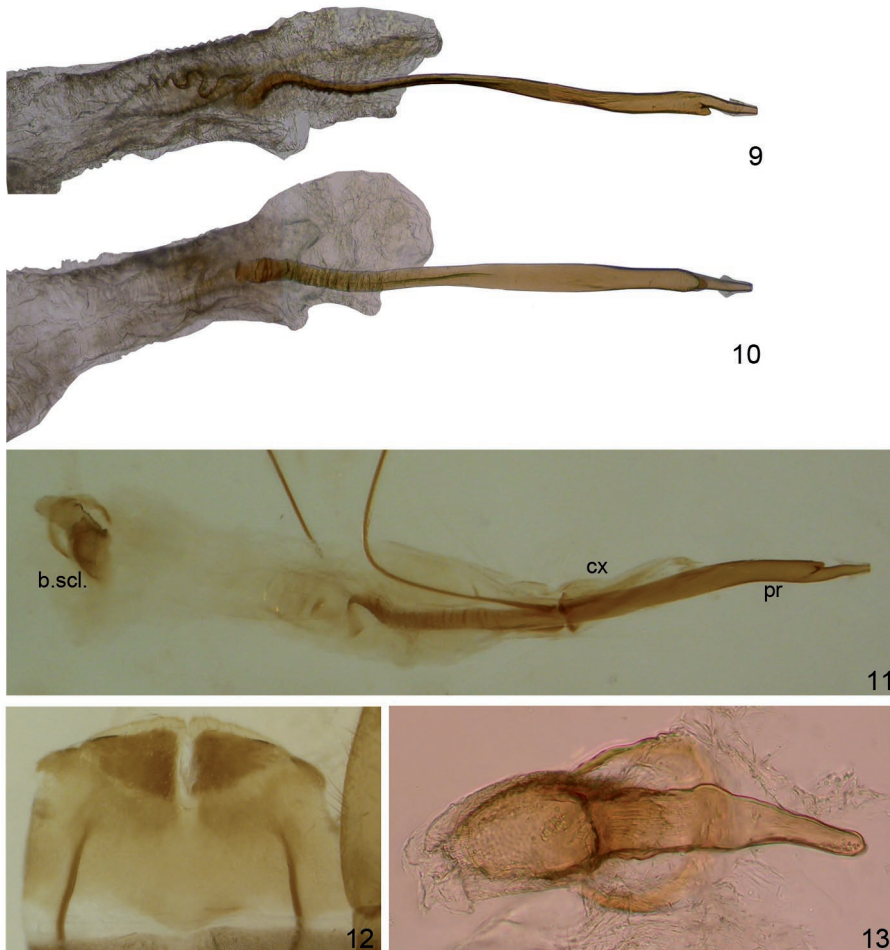
Genitalia. Ovipositor long (L 2.50), prehensor (L 1.23) long, tubular, with transverse wrinkles in basal portion, and small tubercle near the apex, bursal sclerite small (L 0.37, W 0.15), elongate with ring-shaped sclerite. It is interesting that the prehensor was everted in the studied specimen, whilst apical portions (= coxites) of ovipositor still remained in the abdomen (Figs. 2, 10). It is plausible that prehensor is

penetrating male genitalia during copulation, like in common Palearctic *Cyphon padi* (NYHOLM 1969).

Measurements and ratios. Female (n = 1): TL 3.42, PL 0.62, PW 1.88, EL 3.05, EW 2.60; TL/EW 1.3, PW/PL 3.0, EL/EW 1.2, EL/PL 4.9, EW/PW 1.4.

REMARKS

Species with elytral pattern similar like in *E. heinrichdathei* and related species (“*E. heinrichdathei*-like elytral pattern”) do not seem to be closely related. *E. heinrichdathei* has genitalia very different from any other similarly colored species, but closely resembling those of *E. discoidalis* (Pic), and genitalia of *E. Chiangmaiensis* only subtly differs from those of *E. thailandicus*.



9-13. Female genitalia of *Exochomoscirtes* cf. *Chiangmaiensis*. 9 – prehensor, lateral view; 10 – prehensor, dorsal view; 11 – female terminalia photographed as found in the specimen, b. scl. – bursal sclerite, cx – coxites, pr – prehensor; 12 – sternite 7; 13 – bursal sclerite. Not to the same scale

Holotype and paratype of *E. holgerdathei* KLAUSNITZER may represent two distinct species, as it was already noted by KLAUSNITZER (2010b). More specimens are needed to verify this hypothesis.

A key to the identification of males of *Exochomoscirtes* PIC with *E. heinrichdathei*-like elytral pattern (elytra black with basal 1/4-1/3 and suture yellowish):

1. Parameres widening apically, distinctly wider in apical than in basal portion, apices not hooked *E. heinrichdathei* KLAUSNITZER
- Parameres narrowing apically, hooked at apices, tegmen lyre-shaped 2.
2. Parameres very narrow, their width in the middle of length similar like in apical portion, apical hook very small, length ratio of hooked portion of paramere to the total length of paramere = 0.07, apical portion of elytra brown. TL = 2.71 *E. chiangmaiensis* n. sp.
- Parameres wider, gradually narrowing towards apices, apical hook larger, length ratio of hooked portion of paramere to the total length of paramere > 0.12, apical portion of elytra yellowish. TL = 3.22-3.57 3.
3. Parameres narrower, length ratio of hooked portion of paramere to the total length of paramere = 0.15, hooks wider, basal portion of tegmen wider, basal portions of parameres with large subtriangular opening, head and pronotum brownish-black, body smaller (TL 3.22) *E. holgerdathei* KLAUSNITZER*
- Parameres wider, length ratio of hooked portion of paramere to the total length of paramere = 0.12, hooks narrower, basal portion of tegmen narrower, basal portions of parameres with small, oval opening, head and pronotum reddish-brown, body larger (TL 3.57) *E. prope holgerdathei*? (represented by the paratype of *E. holgerdathei* KLAUSNITZER)

*[p. 286: Figs. 5 & 6-12 are holotype, only Fig. 6 is the paratype (B. KLAUSNITZER, personal information)]

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