

## Two new species of *Odontotrypes* FAIRMAIRE from Northern Myanmar (Coleoptera: Geotrupidae)

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Abstract. *Odontotrypes maedai*, new species, and *Odontotrypes arnaudi*, new species, both from northeastern Myanmar, are described, figured and compared to related species.

Key words: Geotrupidae, *Odontotrypes*, new species, Myanmar.

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In 2001 KRÁL, MALÝ and SCHNEIDER revised the genera *Odontotrypes* FAIRMAIRE and *Phelotrupes* JEKEL. Their generic classification of *Odontotrypes* is used here and the format of their species descriptions is generally followed. In their revision they recognized 50 species in the genus; 44 of these are restricted to China, two restricted to north India, two to Bhutan and one, *O. taurus* (BOUCOMONT), to China and, possibly, Myanmar. According to KRÁL et al., a doubtful record of *O. taurus* occurring in Myanmar is listed by MIKŠIĆ (1961) under the name *Geotrupes (Bootrupes) paradoxus* MIKŠIĆ. Only one species, *O. balthasari* (MIKŠIĆ), has a wide range, being recorded from China, Sikkim (India), Nepal and Tibet. The two new species from northern Myanmar are the first species in the genus *Odontotrypes* to be reliably recorded from Myanmar and are apparently endemic to that country.

A c k n o w l e d g e m e n t s. I am indebted to Patrick ARNAUD, Saintry / Seine, France, for the gift of the specimens described in this paper. Henri GOULET and Jennifer READ, Agriculture Canada, Ottawa, took the pictures and made up the plate and Anne HOWDEN suggested changes that greatly improved the manuscript. My thanks to all of the above for their generous and much appreciated help.

### *Odontotrypes maedai*, sp. n.

(Figs 1-4)

H o l o t y p e. Male, length 19.0 mm, greatest width 9.8 mm. Body black, dorsally (Fig. 1) with bright green reflections on vertex, marginal groove and punctures of pronotum and punctures and depressions on elytra; ventrally meso- and meta-femora with slight coppery reflections. Labrum anteriorly truncate, edge slightly irregular, lateral angles on each side rounded, thickened,

slightly elevated; surface of labrum finely granular with four punctures along anterior edge. Clypeus (Fig. 2 ) anteriorly ogival, apex rounded and slightly reflexed, sides divergent, almost straight on each side to obtuse angle above antennal insertion, then curved inward to vertex; clypeal surface closely punctate-rugose, slightly elevated in median posterior half. Clypeo-frontal junction depressed, T- shaped junction distinct, median portion extending posteriorly to near end of vertex; triangular horn above each eye approximately 0.5 mm high. Gena almost completely dividing eye, outer margin curved, slightly reflexed, surface punctate along outer margin, otherwise irregularly rugose.

Pronotum (Fig. 1 ) widest just posterior to middle, marginal bead complete; anterior bead thickened behind head, anterior edge about 1.0 mm wide (anteriorly-posteriorly); anterior angle on each side broadly, slightly irregularly rounded, each side posterior to angle almost straight to median bend, narrow marginal bead before bend shallowly crenulate. Pronotal disc just posterior to head with large transverse concavity, widest medially, narrower and slightly deeper on each side; disc posteriorly convex, midline impressed on posterior half, punctate; disc on each side with scattered punctures, these more numerous laterally; microsculpture absent.

Scutellum wider than long; sides in apical two-thirds almost straight to slightly obtuse, sharp apex; surface irregular, depressed medially.

Elytron (Fig. 1) in basal half with five conspicuous striae; intervals convex, second and fourth intervals almost twice width of adjacent intervals, each with longitudinal irregular row of deep, often convergent, punctures, elytron there appearing to have seven slightly crenulate striae basally; striae becoming obsolete on declivity, no striae reaching apex of elytron; intervals, except for second and fourth, not interrupted by transverse rugosities. Humeral umbone distinct, probably indicating well-developed wings.

Meso- and meta-femora each with row of setose punctures across anterior and posterior ventral surface, surface between lacking microsculpture. Protibia with three distinct ventral denticles, largest near middle of tibia, others more basal and decreasing in size; other minute denticles also present.

Abdomen with basal sternites finely scabrous, two apical sternites shiny, not scabrous. Male genitalia as in figs. 3, 4.

Female. Unknown.

**M a t e r i a l e x a m i n e d.** Holotype, male, Myanmar, N. E. Kachin, Chudo Rozi, Aug. 2005 (Howden collection in Canadian Museum of Nature).

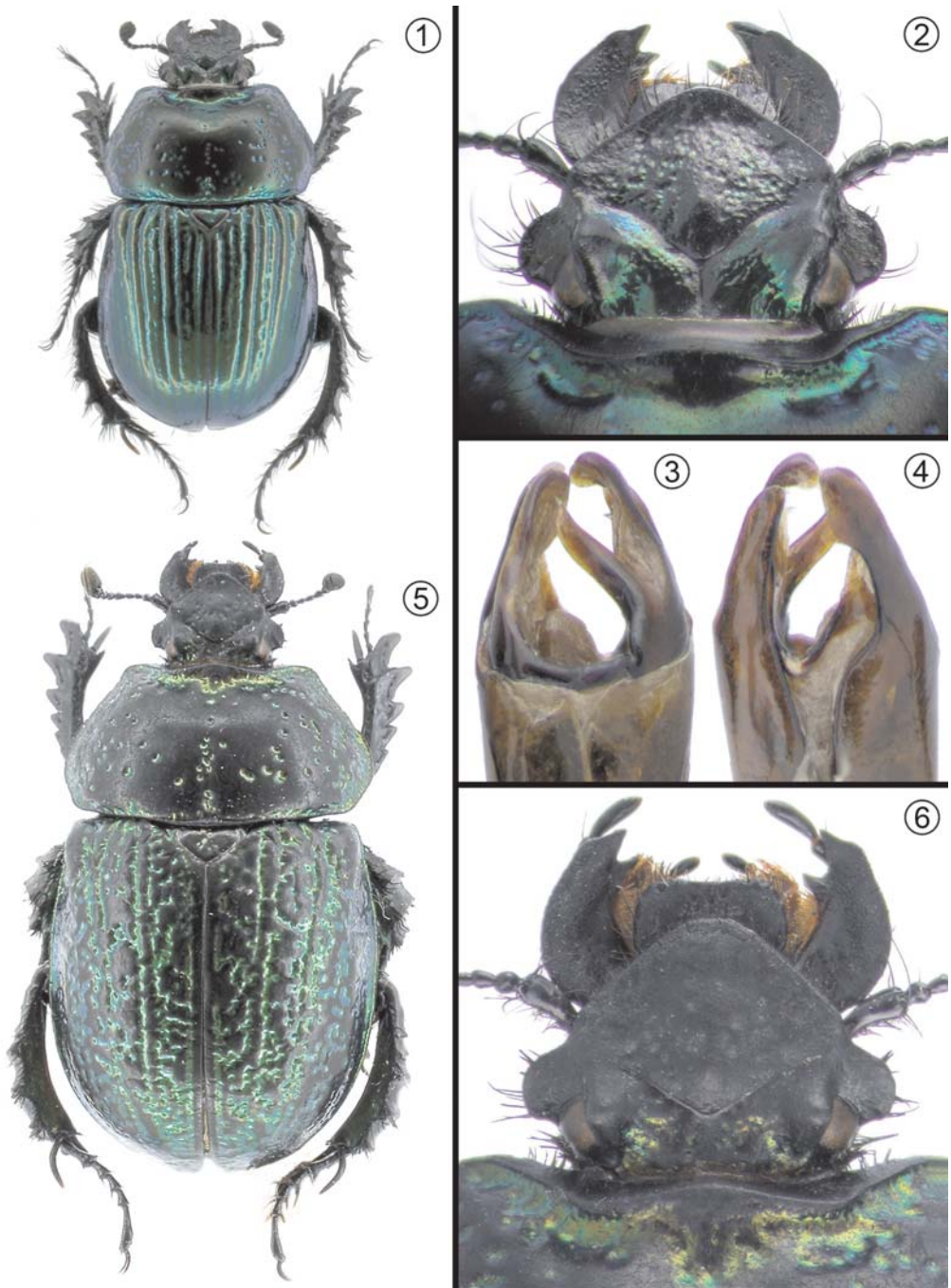
**R e m a r k s.** This species is close to the apparently widespread *O. balthasari* (MIKŠIĆ). In the key to the species in the genus *Odontotrypes* by KRÁL, et al. (2001), *O. meadai* will key to *O. balthasari* with some difficulty because of its regular elytral striae. It shares with *O. balthasari* the clypeal and pronotal characters, most ventral characters including those of the fore tibia, and the male genitalic characters of some males. However, *O. balthasari* exhibits considerable variation over its range in the shape of the parameres of the male genitalia, as well as in the sculpture of the elytra. *Odontotrypes meadai* differs not only from *O. balthasari* but from the other described species in the genus in its bright green reflections over the dorsum, by even, deep elytral striae on the disc, small differences in the labrum and a disjunct range shared by only one other species, which is described below.

**E t y m o l o g y.** The specimen described herein was presented to Patrick ARNAUD by his friend Takeshi MAEDA, Tokyo, Japan, then presented to me by ARNAUD with the request that it be named after his friend. I am glad to do so.

***Odontotrypes arnaudi*, sp. n.**

(Figs 5, 6)

**H o l o t y p e.** Female, length 24.0 mm, greatest width 13.2 mm. Body black, dorsally (Fig. 5) with punctures and elytral depressions bright green; sternites green, femora cupreous. Labrum an-



Figs 1-6. Figs 1-4. *Odontotrypes maedai*, n. sp.: 1 – Dorsum, male; 2 – Head, dorsal view; 3 – Male genitalia, dorsal view; 4 – Male genitalia, ventral view. Figs 5, 6. *Odontotrypes arnaudi*, n. sp.: 5 – Dorsum, female; 6 – Head, dorsal view.

teriorly truncate, edge slightly reflexed, surface with several punctures and scattered small tubercles. Clypeus (Fig. 6) anteriorly abruptly rounded, slightly reflexed, sides divergent, nearly straight to angle above antennal insertion; clypeal surface dull, anteriorly impunctate, basally with scattered, large, shallow punctures. Clypeo-frontal junction depressed, suture distinct; median suture on vertex indistinct, area depressed, surface on either side irregular, not rugose; triangular horn above each eye approximately 0.5 mm high. Gena almost completely dividing eye, posterior gap about 0.1 mm; outer margin of gena arcuate, not reflexed; surface of gena dull, slightly rugose, with slightly raised, elongate tubercles.

Pronotum (Fig. 5) widest behind middle; marginal bead obsolete on each side before middle and posteriorly in front of humeral umbone; bead posterior to head elevated, thickened, highest medially, lacking tubercle or angulation. Pronotum just posterior to anterior bead shallowly, transversely concave to anterior angle on each side; angle slightly raised, abruptly rounded; side posterior to angle slightly sinuate, irregularly crenulate. Pronotal disc with scattered large punctures concentrated along midline, in anterior transverse depression and along lateral thirds; disc between punctures smooth, dull, very finely alutaceous.

Scutellum wider than long, with shallow depressions near middle, apex obtuse, abruptly rounded, sides slightly to distinctly arcuate.

Elytron (Fig. 5) with distinct humeral umbone, indicating fully developed wings; five irregular striae present between suture and humeral umbone, striae shallow, closely, irregularly punctate; intervals interrupted by irregular transverse grooves with smooth areas between; width of intervals varying.

Meso- and meta-femora each with transverse row of setose punctures across anterior and posterior ventral surface, surface between lacking microsculpture. Protibia with four small denticles on ventral surface in basal half.

Abdominal sternites closely, finely punctate, apical segments medially with distinctly separate, small, setose punctures.

Male unknown.

**M a t e r i a l e x a m i n e d.** Holotype, female, North Burma [Myanmar], Kachin Prov., VIII.1996 (Howden collection in Canadian Museum of Nature).

**R e m a r k s.** *Odontotrypes arnaudi* will key to *O. taurus* (BOUCOMONT) in KRÁL, *et al* (2001). It is easily separated from that species by the green dorsal reflections, the lack of a median tubercle on the anterior marginal bead and by the transverse, not V-shaped, pronotal depression. Of the described species of *Odontotrypes*, only a few examples of *O. taurus* approach *O. arnaudi* in size (24 mm). Of the other described species in the genus, *O. emei* KRÁL, MALÝ and SCHNEIDER, seems to come closest in general appearance to *O. arnaudi*, being dorsally green and with rugose elytra; *O. emei* differs in being smaller, with a much more heavily punctate pronotum and more closely rugose elytra.

Additional specimens of *O. arnaudi*, as well as *O. maedai*, are needed to properly place the species, but the difficulty of access to northern Myanmar has, so far, prevented obtaining additional material from this isolated region.

**E t y m o l o g y.** *Odontotrypes arnaudi* is named for my friend Patrick ARNAUD, who has given me not only the species described above, but many other geotrupines from southeast Asia.

## REFERENCES

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