

## A new species of the genus *Paradidactylia* (Balthasar, 1937) (Scarabaeidae: Aphodiini) from Nepal

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**Abstract.** A new species of the genus *Paradidactylia* (Balthasar, 1937) is described: *Paradidactylia klasinskii* sp. nov., from Nepal. Photographs of habitus and epipharynx of new species are presented.

### INTRODUCTION

In the course of an examination of material in the collection of the Institute of Systematics and Evolution of Animals in Kraków, I found an undescribed species of the genus *Paradidactylia* (Balthasar, 1937). This genus can be easily distinguished from other Aphodiina by features given in key to genera presented in Dellacasa G., Bordat and Dellacasa M. (2001), and its feebly or very feebly marked transverse carinae on the outer face of the middle and hind tibiae. However, determination of many species is not possible with the key to genera in mentioned manuscript, due to differences in the border of the pronotal margin, or in the shape of scutellum. Determination of a new species in the genus can be problematic in point 61 - the new species has an elongate, triangular scutellum with narrowly ogival sides. A description of the new species is presented below.

### MATERIAL AND METHODS

The specimen was observed by using an MBS-10 stereoscopic microscope. The photos published here were taken using a Meopta laboratory microscope and CMOS5 digital camera with the Helicon Focus programme.

The epipharynx was treated by boiling with a 10% sodium hydroxide solution.

The specimen and its epipharynx are glued with polyvinyl acid on the same card.

For morphological terms used in the description of epipharyngeal structures I follow the work by Dellacasa G., Bordat, Dellacasa M. (2001).

The holotype of the new species is indicated by a red, printed label added on the same pin and bearing the status (i.e. holotype), sex, its name, name of the author, month and year of the designation. Additionally the holotype is provided with a pale green label related to a photo-documentation system of Ladislav Mencl.

The holotype is deposited in the collection of the Institute of Systematics and Evolution of Animals in Kraków, Poland.

Addenda and remarks are found in brackets, separate label lines are indicated by slash (/), separate labels by double slash (/ /).

## RESULTS

### *Paradidactylia klasinskii* sp. nov.

(Figs. 1-5)

**Type locality.** Nepal, Chitwan district, Royal Chitwan National Park.

**Type material** (1 specimen). Holotype (♀): Nepal: Chitwan distr. / Royal Chitwan Nat. P. / Island Jungle Resort. / 29 - 30.x.1995 / leg. L. Peregovits [white printed label] // 2108 / Dok. L. Mencl, 2015 [light green label] // HOLOTYPE (♀) / *Paradidactylia* / *klasinskii* sp. nov. / det. Ł. Minkina (08.2015) [red printed label].

**Description of holotype (♀).** Dorsum (Fig. 3) Total body length 3.3 mm. Body oblong - ovate, moderately convex, glabrous; head and pronotum shiny, elytra dull. Whole body, except lateral dirty yellowish-brown parts, blackish.

Head (Fig. 2) moderately wide, quite shiny, with double punctation, larger punctures less dense, irregular, about 2,5-5 times larger than the smaller ones, these rather dense and rather regular; punctures coarser on epistome; epistome very slightly gibbous; clypeus truncate anteriorly, rounded on sides, very thinly bordered, border gently, regularly rounded, bearing very small bristles, genae small, rounded, slightly more protruding than eyes, clearly bordered, not bristled; frontal suture distinctly impressed, not tuberculate; eyes moderately large; microreticulation quite strong in anterior part, moderate in posterior part.

Pronotum transverse, moderately convex, shiny, with double punctation, larger punctures about 7-10 times larger than the smaller ones, irregular, denser on sides, but only few of them are present near the lateral border, smaller punctures rather regular; sides bordered, very slightly rounded, nearly straight, clearly sinuate before hind angles; anterior angles rounded, front margin gently rounded, not bordered; basal margin slightly stretched toward elytra, especially in the middle, not bordered, crenulate with a belt of contiguous large punctures; without microreticulation.

Scutellum elongate, triangular, with narrowly ogival sides; without punctation; almost dull; moderately microreticulate.

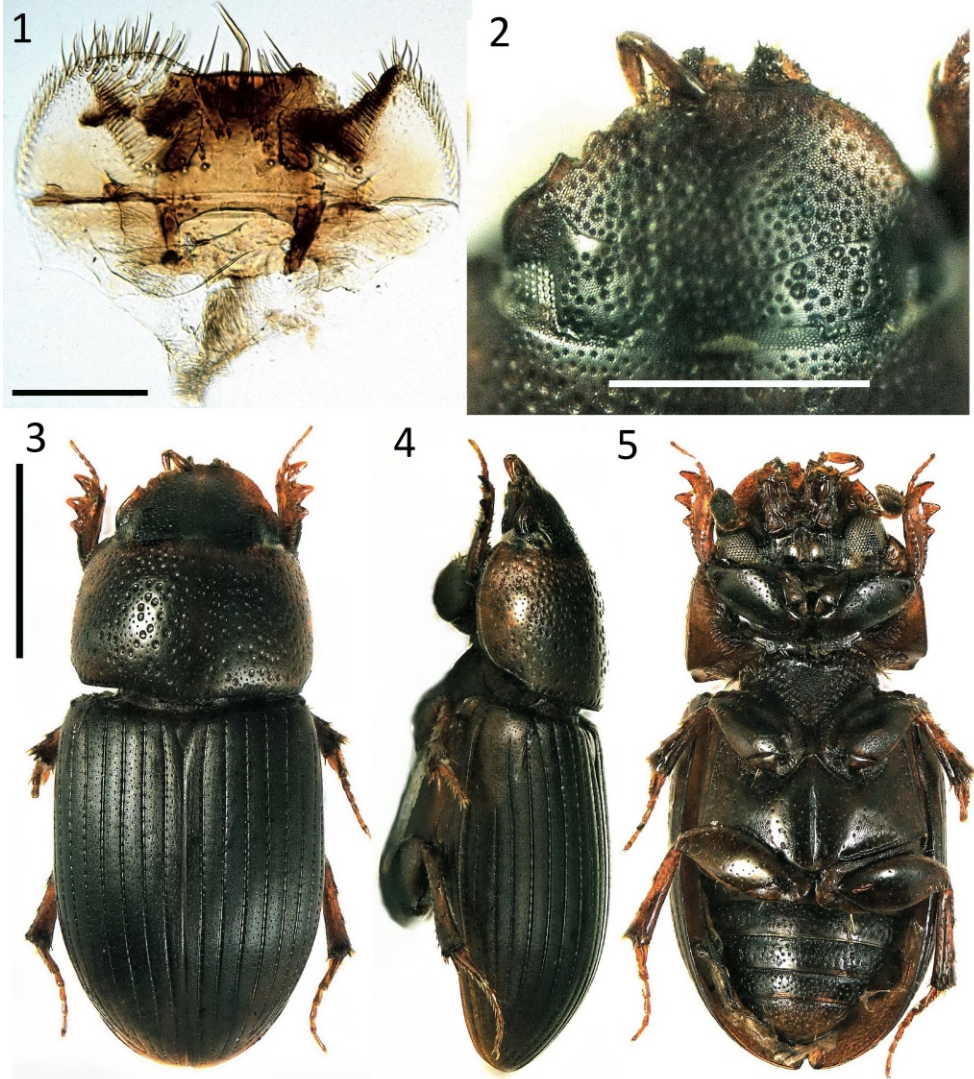
Elytra oval, distinctly denticulate at shoulders, moderately convex, dull, glabrous; striae fine, indistinctly punctured, feebly crenulate; striae: 1<sup>st</sup> and 10<sup>th</sup> joined before apex, as are the 4<sup>th</sup> and 7<sup>th</sup>, and the 5<sup>th</sup> and 6<sup>th</sup>; striae 5, 6, 8 and 9 slightly shortened before apex; striae 7, 8 and 9 shortened in basal part, 7<sup>th</sup> only slightly; interstices flat, finely and densely punctured; clearly microreticulate. Femora shiny, with rather irregular, sparse punctation, punctures on external side of femora with few yellowish setae, hind femora additionally with a row of pubescent punctures nearby inner margin; only anterior femora slightly microreticulate. Fore tibiae distinctly tridentate and proximally faintly serrulate at outer margin, their upper side sparsely punctured, with clearly visible row of stout setae; apical spur straight, slightly bent downward. Middle and hind tibiae moderately widened apically, middle tibiae with feeble transverse carinae on outer face, hind tibiae with very feeble transverse carinae on outer face; middle and hind tibiae apically fimbriate with spinules of unequal length. Hind tibia superior apical spur shorter than first tarsal segment, later approximately as long as following three combined. Claws fine, regularly arcuate.

Macropterous.

Venter (Fig. 5). Metasternal plate shiny in the middle to dull on the edges, with indistinct median impression; with rather thick, quite deep longitudinal groove in the middle, with a trace of microreticulation in the middle to very strong microreticulation on the edges, with sparse, irregular punctation. Sternites with dense, coarse and irregular punctation, most of punctures with setae;

moderately microreticulate.

Pygidium rather dull, with rather irregular very dense, fine and very shallow punctures; most of punctures with thick, rather short yellowish setae; with microreticulation; additionally with four thick, very long apical setae.



Figs. 1-5. *Paradidactylia klasinskii* sp. nov., ♀, holotype: 1- epipharynx, 2- head, 3- dorsal view, 4- lateral view, 5- ventral view. Fig. 1: scale line: 0.1 mm; Fig. 2: scale line: 0.5 mm; Figs. 3-5: scale line: 1.0 mm.

Epipharynx (Fig. 1) transverse, widely rounded at sides, widely sinuate in the middle of front margin. Corypha with two longitudinal, bent in the vicinity of half the length, spinules. Prophobae and apophobae with dense, rather thick macrosetation.

**Sexual dimorphism.** Unknown.

**Variability.** Unknown.

**Distribution.** Nepal: Chitwan district.

**Name derivation.** The species is dedicated to my long-time cordial college Jarosław Kłasiński.

## DISCUSSION

The new species is closely related to *Paradidactylia ovatula* (Harold, 1861) known from India, Sri Lanka, Java and also from Nepal. The new species and *P. ovatula* (Harold, 1861) are similar because they are only two Asian species of the genus *Paradidactylia* (Balthasar, 1937) with oblong-ovate body, and basal margin of pronotum not bordered, crenulate with a belt of contiguous large punctures, but the new species can be easily distinguished by: dull elytra with distinct microreticulation (*P. ovatula* (Harold, 1861) has shiny elytra without microreticulation), flat interstices with dense punctation (versus very slightly convex interstices with sparse punctation), clypeus truncate anteriorly (versus slightly sinuate at middle), bigger difference between larger and smaller punctures on pronotum, denticles at shoulders relatively bigger. Of the Asian species only *Paradidactylia haafi* (Petrovitz, 1961) has an unbordered basal margin of pronotum, but this species lacks the belt of contiguous larger punctures. Additionally, the body of *P. haafi* (Petrovitz, 1961) is elongate, distinctly shiny, with smaller disparity between the smaller and larger punctures of the pronotum.

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