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Classification, natural history, and evolution of the subfamily Peloniinae Opitz (Coleoptera: Cleroidea: Cleridae). Part VI. New taxonomic placement for *Pelonium sexpunctatum* Kirsch

Weston Opitz
Florida State Collection of Arthropods
Florida Department of Agriculture and Consumer Services
P.O. Box 147100
Gainesville, Florida 32614-7100, USA

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Weston Opitz
Florida State Collection of Arthropods
Florida Department of Agriculture and Consumer Services
P.O. Box 147100
Gainesville, Florida 32614-7100, USA
opitz@kwu.edu

Abstract. *Pelonium sexpunctatum* Kirsch (Coleoptera: Cleroidea: Cleridae) is transferred to *Diutius* Opitz where it is closely allied to *Diutius gallerucoides* Spinola.

Key words. Taxonomy, species, nomenclatural changes.

Resumen. *Pelonium sexpunctatum* Kirsch (Coleoptera: Cleroidea: Cleridae) es transferido al género *Diutius* Opitz dónde es cecado a *Diutius gallerucoides* Spinola.

Palabras clave. Taxonomía, especies, cambios de nomenclatura.

Introduction

During a revision of *Pelonium* Spinola (Opitz, in preparation), I received the primary type of *Pelonium sexpunctatum* Kirsch. A "?" placed behind the genus name *Pelonium* by Kirsch (1874: 398) suggests that he had some doubts about the appropriate generic placement of this species. Indeed, the presence of a tibial spur formula of 0-2-2 clearly places *Pelonium sexpunctatum* Kirsch in the genus *Diutius* Opitz. I follow the higher classification proposal for the Cleridae as outlined by Opitz (2010: 56).

Materials and methods

This study is based mostly on two specimens. The primary type of *Pelonium sexpunctatum* Kirsch was received from Olaf Jaeger, Museum of Zoology, Senkenberg Natural History Collections, Dresden, Coleoptera Collection, Königsbruecker Landstrasse 159, D-01109, Dresden Germany (SMTD). The second specimen, a non-type, comes from Antoine Mantilleri, Museum d'Histoire Naturelle, Entomologie, 45 bis, Rue de Buffon, Paris (Ve), France (MNHN). Methods involving measurements and morphological terminology follow those described in Opitz (2010). Abbreviations used in this work are defined as follows: EW/FW= eye width (frontal view)/frons width (frontal view); PW/PL= pronotal width (from apex of one tubercle to apex of the other) /pronotal length (from midline anterior margin to posterior margin); EL/EW= elytral length (from humeral angle to apex)/elytral width (greatest dorsal width of one elytron). Measurements were made at 250X. Microscopic observations were made with a M5 Wild stereoscopic microscope with camera lucida attachment (Leica, Wetzlar, Germany). Habitus photographs were taken with a Leica Z 16 APO microscope equipped with JVC KY-F75U-CCD camera and controlled by Syncroscopy Auto Montage software (Cambridge, United Kingdom).

Taxonomy

Diutius sexpunctatus (Kirsch)

Figures 1, 2, 4, 5.

Pelonium?sexpunctatum Kirsch, 1874: 398. Lectotype. Female. PERU, Pozuzu, M. Kirsch (SMTD). Corporaal 1950: 290 (*Corinthiscus*). Kirsch did not specify as to the number of specimens that were

involved in his description. Therefore, I invoke Recommendation 73F of the ICZN (1999) and designate a lectotype for this nominal species.

Diagnosis. Specimens of this species resemble superficially those of *Diutius gallerucoides* (Spinola, 1844: 372), but in *Diutius sexpunctatus* (Kirsch) specimens the elytral disc shows 6 maculae (Fig. 5) not 8 (Fig. 6) as is the case in its congener.

Redescription. *Size:* Length 10.0 mm; width 3.2 mm. *Form:* Oblong, short, rectangular (Fig. 5). *Color:* Mouthparts testaceous, except mandibles brown; antenna mostly testaceous, posterior margin of capitulum brown; thorax, legs, and abdomen testaceous; elytra mostly testaceous, with 6 brown maculae. *Head:* Funicular antennomeres progressively shorter, capitulum longer than combined length of funicular antennomeres, capitular antennomeres very long (Fig. 1); eyes coarsely facetted and bulgy, frons slightly narrower than width of eye (EW/FW 22/20). *Thorax:* Pronotum (Fig. 2) slightly transverse (PW/PL 72/70), side margin with shallow tubercle, disc finely sparsely punctate; elytral without asetiferous punctation (EL/EW 240/60). *Abdomen:* Pygidium scutiform.

Variation. Size: Length 9.0-10.0 mm; width 3.0- 3.2 mm. Other than body size, the available specimens are quite homogeneous.

Distribution. In addition to the lectotype, I examined one specimen from: **Peru:** Tarapoto, Mai a Aut, 1886, M de Mathan. Specimens are deposited in MNHN and SMTD.

Discussion

Heretofore, the genus *Diutius* was comprised of two species: *Diutius gallerucoides* (Fig. 6) and *D. pallidus* (Fig. 7, 8) (Opitz, 2014: 426). The additional species, *Diutius sexpunctatus* (Fig. 5), may be conveniently included in a key (key to *Akonesis, Antennosus, Crusbatus, Diutius*, and their species) provided by Opitz (2014: 412). To incorporate *Diutius sexpunctatus* into this key, the key should be modified as follows:

3(1). Tibial spur formula 1-2-2 (genus *Akonesis*) **4**
— Tibial spur formula 0-2-2 (genus *Diutius*) **5**

4(3). Elytral disc with brown vitta; humeral margin not infuscated (Bolivia to Brazil) ..... ***Akonesis vittatis* (Spinola)**
— Elytral disc without brown vitta, humeral margin with black streak, disc with small black markings (Brazil) ..... ***Akonesis pictipennis* (Gorham)**

5(3). Elytral disc unicolorous, light brown, without brown maculae (Bolivia) ..... ***Diutius pallidus* Opitz**
— Elytral disc bicolorous, disc with light brown maculations **6**

6(5). Elytral disc with 6 maculations (Peru) (Fig. 5) ..... ***Diutius sexpunctatus* (Kirsch)**
— Elytral disc with 8 maculations (Guyana, French Guiana, Ecuador, Brazil) (Fig. 6) ..... ***Diutius gallerucoides* (Spinola)**

The possession of elytral disc maculae is interpreted herein as a synapotypic characteristic, which unites *Diutius sexpunctatus* (Kirsch) and *D. gallerucoides* (Spinola) into a sister-group relationship. Together, these two species and *Diutius pallidus* Opitz form a monophyletic group based on the synapotypic characteristic, tibial spur formula 0-2-2.

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Literature Cited

Corporaal, J. B. 1950. Cleridae. *In*: W.D. Hinks (ed). Coleopterorum catalogus supplementa, Pars 23 (editio secunda). W. Junk; The Hague. Netherlands. 373 p.

(ICZN) International Code of Zoological Nomenclature. 1999. 4th Edition. Adopted by the International Union of Biological Sciences. The International Trust for Zoological Nomenclature, London, UK., 306 p.

Kirsch, T. F. W. 1874. Beiträge zur Kentniss der Peruanischen Käferfauna auf Dr. Abendroth's Sammlungen basirt. Berliner Entomologische Zeitschrift 17: 338–418.

Opitz, W. 2010. Classification, natural history, phylogeny, and subfamily composition of the Cleridae and generic content of the subfamilies (Coleoptera: Cleroidea). Entomologica Basilensia et Collectionis Frey 32: 31–128.

Opitz, W. 2014. Taxonomy of the New World checkered beetle genera *Akonesis* Opitz, new genus, *Antennosus* Opitz, new genus, *Crusbatus* Opitz, new genus, and *Diutius* Opitz, new genus (Coleoptera: Cleridae: Peloniinae). The Coleopterists Bulletin. 68(3): 411–428.

Spinola, M. 1844. Essai monographique sur les Clérites: insectes Coléoptéres. Tome 1, Impremerie des frères Ponthenier, Gênes, Italy.

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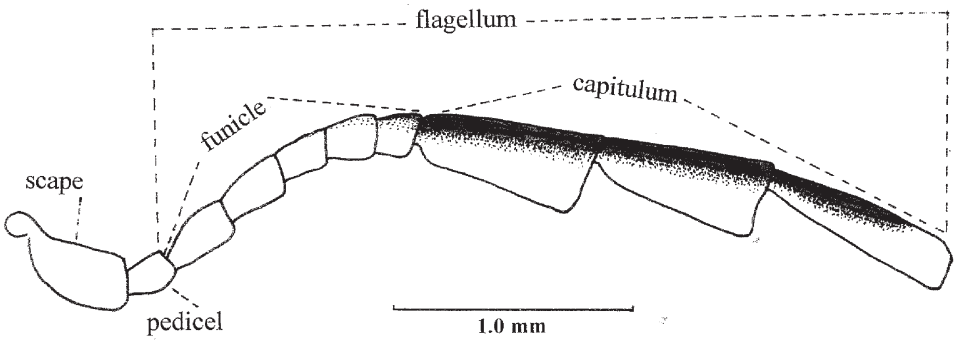

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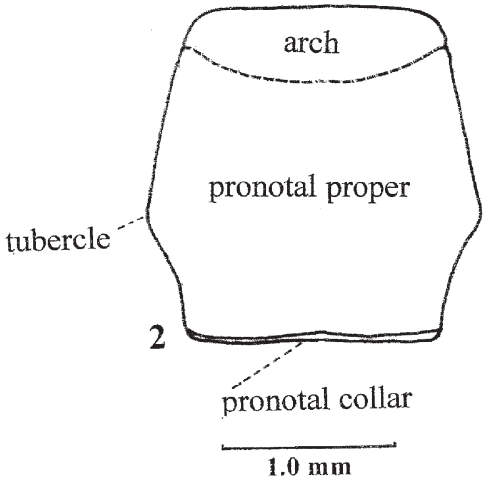

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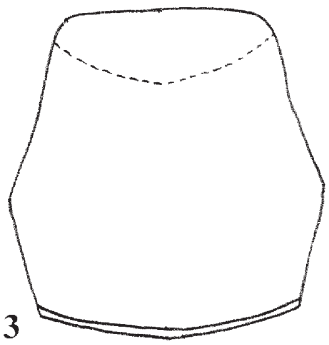

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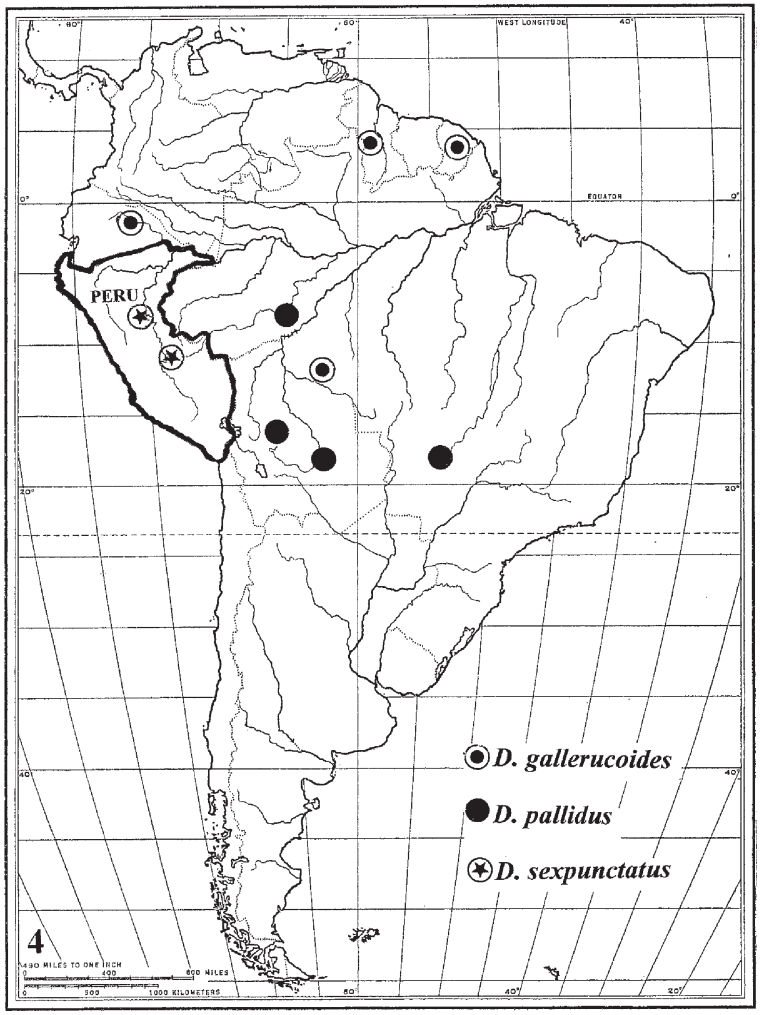

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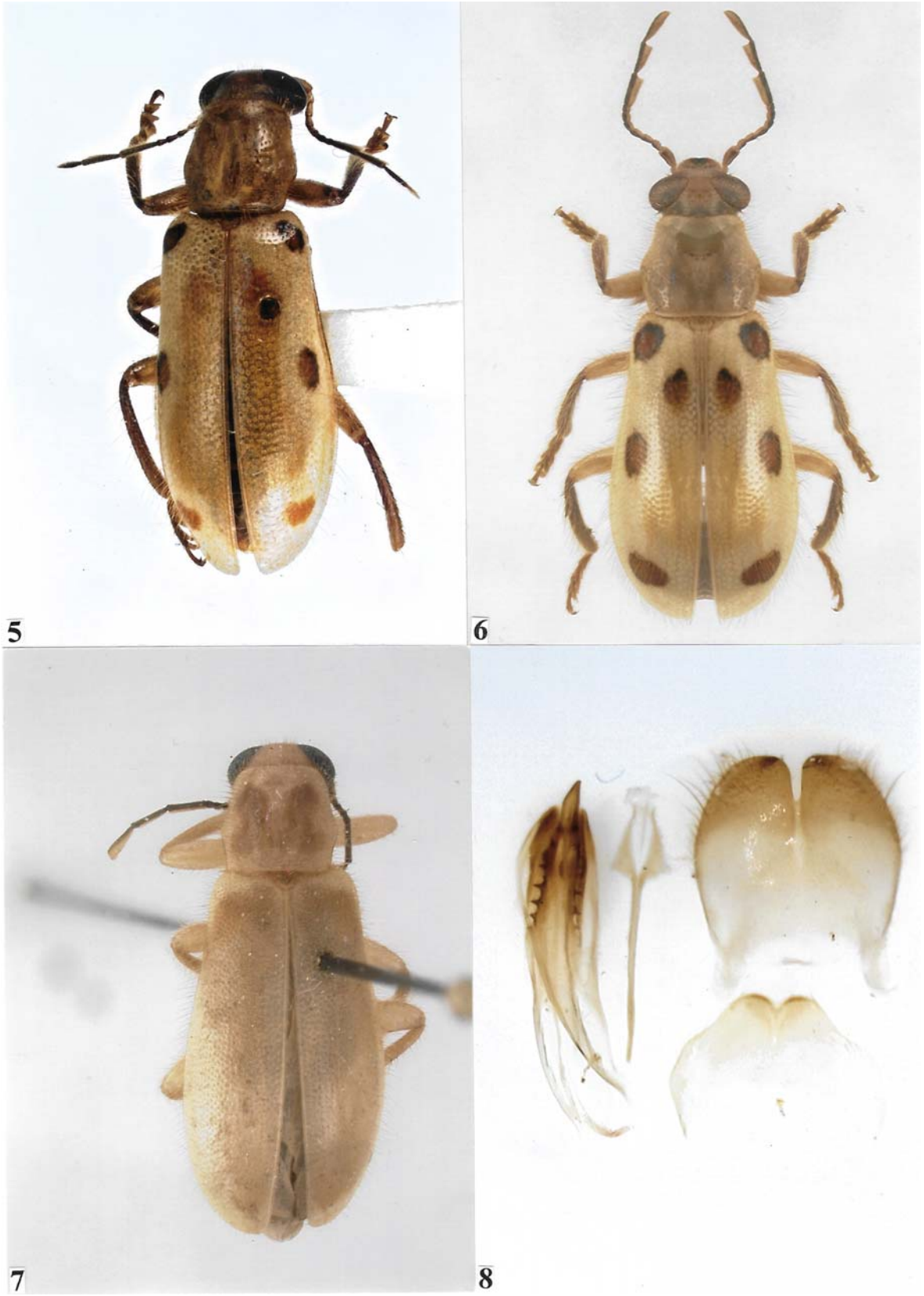
Figures 1-4. Structures and map of *Diutius* species. **1)** Antenna of *D. sexpunctatus*. **2)** Pronotum of *D. sexpunctatus*. **3)** Pronotum of *D. gallerucoides*. **4)** Geographic distribution of *Diutius* species as noted.



Figures 5-8. Habitus and male genitalia. **5)** Habitus of *D. sexpunctatus*. **6)** Habitus of *D. gallerucoides*. **7)** Habitus of *D. pallidus*. **8)** Male genitalia of *D. pallidus*.