

***Dolichodes geniculatus* Motschulsky is a Junior  
Synonym of *Euleptus ooderus* Chaudoir (Coleoptera:  
Carabidae: Platynini)**

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**THE GENUS *SAPROSITELLUS* BALTHASAR, WITH DESCRIPTIONS OF THREE NEW NEOTROPICAL SPECIES (COLEOPTERA: SCARABAEIDAE: ODONTOLOCHINI)**

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**Abstract**

The genus *Saprositellus* Balthasar with type species *S. denticulatus* Balthasar is redefined and transferred from the tribe Eupariini to Odontolochini. Four species are recognized including three new species: *Saprositellus ariquemus* **new species** from Brazil, *S. peruanus* **new species** from Peru and *S. santaritae* **new species** from Panama. All taxa are described and illustrated, a key to the species is provided.

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The present study was prompted, in part, by the discovery of undescribed species of *Saprositellus* in the collections of the Canadian Museum of Nature and the Florida State Collection of Arthropods. This genus, described by Balthasar (1967) for a single Brazilian species *Saprositellus denticulatus* and placed in the tribe Eupariini, superficially appears closely allied to *Odontolochus* Schmidt, and will fall in the tribe Odontolochini (Stebnicka and Howden 1996) as here defined. The tribe is primarily pantropical, representing one of the evolutionary lines close to the Eupariini, namely to the line of *Saprosites*-complex (Stebnicka 2000, 2001). The species are markedly differentiated morphologically, distributed mostly in equatorial Africa and Australia, several species are also known from the oriental and south American tropics. The members of Odontolochini are very scarce in the collections and apparently rarely gained probably due to their restricted and secretive habits. Nothing is known about their biology, however, the morphology of the head and prothorax with ability to pull the appendages into ventral indentations may indicate that the species exploit formicid colonies, probably functioning as nests commensals. *Saprositellus* fits to the general tribal definition as given by Stebnicka and Howden (1996), with the exception of some features of the head, such as multidentate clypeus lacking double edge. The latter character states are similar to those in the euparine genus *Euparixoides* Hinton (Stebnicka 1998), but a combination of the characters in both genera is quite different. A new generic diagnosis is given below, followed by a key and descriptions. Two of the three new species described herein are represented only by the holotypes. Although the description of a taxon from a single specimen is not recommended, the rarity of these beetles is so extreme that omitting the species does not seem logical.

Specimens examined are deposited in the following collections: Canadian Museum of Nature, Aylmer (CMN); Florida State Collection of Arthropods, Gainesville (FSCA); Henry and Anne Howden Collection, Nepean (HAHC); Institute of Systematics and Evolution of Animals PAS, Krakow (ISEA); Balthasar's Collection, National Museum, Prague (BCP).

Genus *Saprositellus* Balthasar

*Saprositellus* Balthasar 1967:138; Dellacasa 1988:271 (catalogued).

**Type Species.** *Saprositellus denticulatus* Balthasar (Designated by Balthasar 1967:138).

**Diagnosis.** Body elongate oval, convex, feebly shining. Head relatively small, deflexed, weakly convex dorsally; clypeus dilated to cover mouthparts with inflexed triangular process medially; lateral clypeal edge on each side with row of denticles. Eye small, concealed under pronotal margin; mouthparts adapted for soft saprophagy. Prothoracic and clypeal indentations together form cavity to receive fore legs. Pronotum narrow, subquadrate, strongly elevated, sides steep, invisible from above; lateral margin with tooth, posterior angles excavate to basal angulation; surface usually with median longitudinal furrow and small fovea laterally. Scutellum small, parallel-sided. Elytra with fine basal bead and with humeral denticles; striae deep, stria punctures coarse, intervals usually narrow. Metathoracic wings functional. Ventral sclerites punctate; posterior prosternal process large, triangular; mesosternum lower than metasternum, widely flattened, punctate; mesocoxae separate; abdominal sternites finely fluted along sutures, punctate, exposed disc of pygidium punctate. Profemur almost circular; meso- and metafemora narrow, posterior edge strongly margined, sinuate; protibia narrow, lateral teeth small; meso- and metatibiae flattened dorsoventrally, apical spurs very fine, located close together below tarsal insertion; tarsi short, segments subquadrate; claws hair-like. Phallobase of male aedeagus without dorsal hump, apical portion of internal sac narrow with minute spicules.

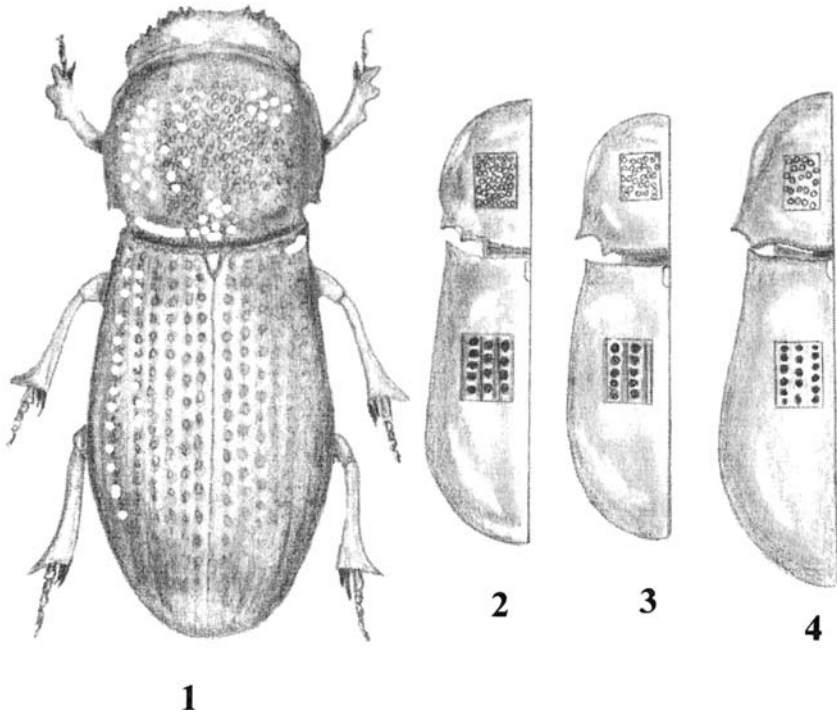
**Affinity.** The closest relatives of *Saprositellus* known from South America belong to the genus *Odontolochus* Schmidt (Stebnicka and Howden 1996). Members of *Odontolochus* differ from those of *Saprositellus* by having the significantly broader head, the clypeal edge rounded without denticles and the pronotal anterior disc strongly tumid.

*Saprositellus denticulatus* Balthasar

(Figs. 1, 5)

*Saprositellus denticulatus* Balthasar 1967:138–139, fig. 16; Dellacasa 1988:271 (catalogued).

**Description.** Length 2.8–3.0 mm, greatest width 1.0 mm. Body (Fig. 1) elongate oval, widest at apical third of elytra; color piceus, surface microreticulate, legs dark brown. Clypeus shallowly emarginate, lateral edge with 6–7 fine denticles on each side of emargination, surface just above shining and here minutely transversely granulate; remaining surface of head with fine punctures separated by less than one diameter, punctures near eyes forming short longitudinal lines; frontal suture marked by slightly impressed line; gena small, rounded. Pronotum convex, slightly converging posteriorly, side straight, finely margined, lateral tooth small, acutely prominent; base straight, finely crenate without marginal line; pronotal disc with shallow longitudinal furrow and small fovea laterally, surface punctures everywhere close, on disc separated by about one diameter, fine punctures along anterior margin increase in size toward base, those on sides medium-sized, closer. Elytra distinctly arcuate, base as wide as pronotal base, humeral denticles small; striae deep, slightly narrower than intervals with coarse punctures crenating inner margins of intervals, punctures separate each other by about 1/3 of their diameter; intervals subcarinate, microreticulate, minute punctures scattered. Ventral sclerites alutaceous; mesosternal surface and lateral area of metasternum distinctly punctate, punctures same size as those on pronotal disc; metasternal midline shallow, discal punctures finer than those on sides, lateral metasternal triangle marked by very shallow concavity; abdominal sternites finely fluted along sutures, punctate from side to side, punctures separated by about one diameter, finer and closer on penultimate sternite and pygidium. Profemur wide, perimarginal groove deep, surface punctures same size as those of penultimate sternite; meso- and metafemora slender, posterior femoral lines complete, posterior edge slightly lobed medially (Fig. 5); meso- and metatibiae as long as femora, slightly sinuate, minutely and scarcely setigerous; metatibia with fine external spine and very thin apical spurs, tarsus short, segments quadrate; basal tarsomere of metatarsus markedly shorter than upper tibial spur and shorter than following two tarsomeres together.



**Figs. 1–4.** 1) *Saprositellus denticulatus* Balthasar, habitus; 2–4) left half of body; 2) *S. ariquemus* n. sp.; 3) *S. santaritae* n. sp. 4) *S. peruanus* n. sp.

**Affinity.** The species is most similar to *Saprositellus ariquemus* n. sp. (see Affinity under that species).

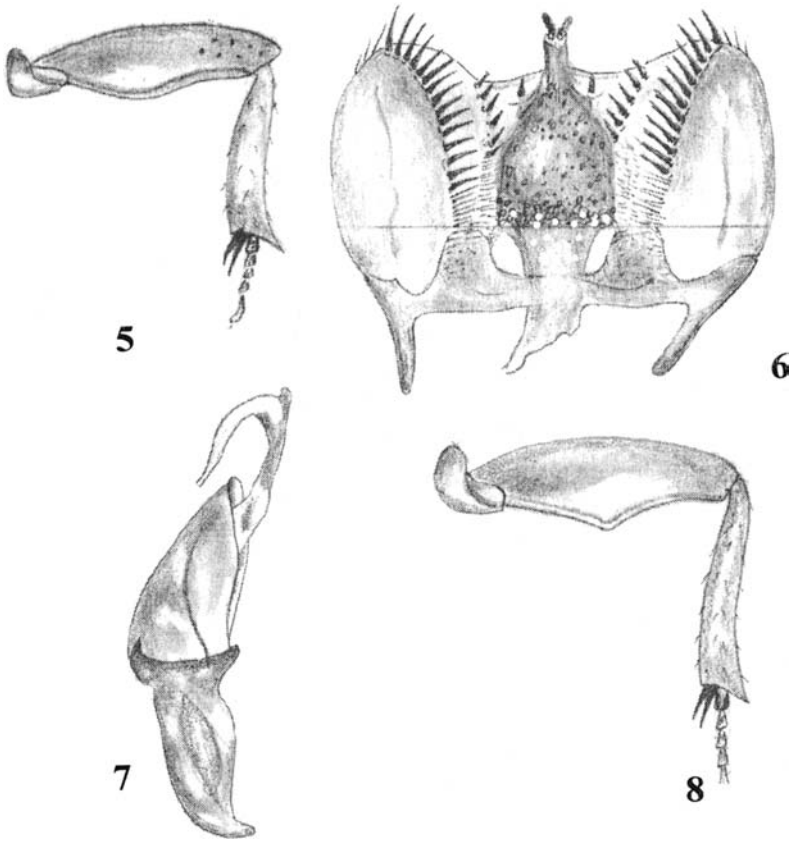
**Type Data.** Holotype (sex not determined), labelled “Brasilien, Amazonas,” “*Saprositellus denticulatus* m. Dr V. Balthasar,” in BCP.

**Material Examined.** Holotype (seen in 1973) and one specimen, labelled: PERU, Prov. Loreto, 160 km NE Iquitos, Explornapo Camp, 2 km from Rio Napo on Rio Sucusari, 27–31.VIII.1992, black light trap, P. Skelley (FSCA).

*Saprositellus ariquemus* Stebnicka, **new species**

(Figs. 2, 6–7)

**Description.** Length 2.6–2.8 mm, greatest width 1.0 mm. Form (Fig. 2) elongate oval, widest at apical third of elytra; color dark brown, legs reddish brown, surface microreticulate. Clypeus truncate anteriorly, edge on each side with 6–7 denticles, surface just above shining and here minutely transversely granulate; remaining surface of head with fine, very close, nearly contiguous punctures; frontal suture marked by slightly thickened line; gena small rounded. Pronotum strongly convex, side slightly arcuate, finely margined, lateral tooth acutely prominent, posterior angle excised, base sinuate, finely crenate with fine marginal line; pronotal disc with shallow longitudinal furrow and small fovea laterally, surface punctures everywhere very close, almost contiguous, rugose. Elytra distinctly arcuate, apex with minute setae visible under high magnification; base as wide as pronotal base, humeral denticle strong, directed upward; striae deep, slightly wider than intervals with deep, coarse punctures crenating inner margins of intervals, punctures separate each other by about 1/3 of their diameter; intervals carinate, microreticulate.



**Figs. 5–8.** *Saprositellus denticulatus* Balthasar, right posterior leg; **6–7)** *S. ariqueмес* n. sp.; **6)** epipharynx; **7)** male genitalia in lateral view; **8)** *S. peruanus* n. sp., right posterior leg.

Ventral sclerites alutaceous, surface punctate, punctures gradually decreasing in size from mesosternum to penultimate sternite, generally separated by about one diameter; prosternal process widely triangular, punctate; mesosternum lower than metasternum, mestasternal midline shallow, lateral metasternal triangle marked by very shallow concavity; abdominal sternites finely fluted along sutures, punctate from side to side; disc of pygidium with fine punctures same size as those on penultimate sternite. Profemur wide, perimarginal groove deep, surface punctures same size as those of penultimate sternite; meso- and metafemora narrow, slender, posterior femoral lines strong, complete, posterior edge slightly sinuate; meso- and metatibiae as long as femora, slightly sinuate, minutely and scarcely setigerous; metatibia with fine external spine and seta-like apical spurs, tarsus short, segments subquadrate; basal tarsomere of metatarsus two times shorter than upper tibial spur and equal in length to second tarsomere. Epipharyngeal structures as in Figure 6.

In the male, the penultimate abdominal sternite is shorter than in the female, and the disc of pygidium longer; genitalia as in Figure 7.

**Affinity.** The new species is most similar to *Saprositellus denticulatus*, but differs from that species by having the pronotal punctures denser and pronotal base margined, the elytral humeral denticles significantly larger and the elytral striae wider, with coarser punctures.

**Type Material.** Holotype male (FSCA), “Brazil, Rondonia, 62 km SW Ariquemes nr Fzda Rancho Grande, 8–20.XI.1994, black light, J. Eger & C. O’Brien. Paratype female, same data as holotype” (FSCA). Paratype male “Bolivia, Santa Cruz, Buena Vista 380 m elev., 7.27S, 63.39W, 20.II.1998, light trap, L. Stange” (ISEA).

**Etymology.** Derived from the name of type locality “Ariquemes.”

*Saprositellus peruanus* Stebnicka, **new species**

(Figs. 4, 8)

**Description of Male.** Length 3.2 mm, greatest width 1.2 mm. Form (Fig. 4) elongate oval, distinctly widened at apical third of elytra; color piceous black, legs dark brown, surface microreticulate. Clypeus very shallowly emarginate anteriorly, edge on each side with 5–7 denticles; clypeal surface just above emargination shining and here minutely transversely granulate, punctures above wrinkles up to frontal suture very fine and shallow, slightly elongate, separated by about one diameter; vertex with band of round, close punctures separated by less than one diameter; frontal suture marked by slightly thickened line; gena small rounded. Pronotum strongly convex, diverging posteriorly, side straight toward acutely prominent lateral tooth, posterior angle excised, base margined, sinuate and lobed medially, edge finely crenate; pronotal surface with small fovea laterally, without longitudinal furrow, punctures rather shallow, everywhere close, separated by less than one diameter, fine punctures along anterior margin increase in size toward base, those on sides medium-sized, closer. Elytra distinctly arcuate, apex with minute setae visible under high magnification; base as wide as pronotal base, humeral denticle small, acute; striae moderately deep with moderate punctures crenating inner margins of intervals, punctures separate each other by about  $\frac{1}{2}$  diameter; intervals twice as wide as striae, flat on disc, convex laterally and apically, surface microreticulate, minute punctures scattered. Ventral sclerites alutaceous, surface punctate; punctures of mesosternum and metasternum same size as those of pronotal disc, separated by one diameter; disc of metasternum concave in posterior half, midline slightly impressed, lateral metasternal triangle marked by very shallow concavity; abdominal sternites arcuate, very finely fluted along sutures, punctate from side to side, punctures two times smaller than those on mesosternum, disc of pygidium with fine punctures same size as those on penultimate sternite. Profemur wide, perimarginal groove deep, surface shagreened, punctures same size as those of abdominal sternites but denser; meso- and metafemora slender, posterior femoral lines complete, posterior edge lobed at middle (Fig. 8); meso- and metatibiae as long as femora, slightly sinuate, punctate and minutely, scarcely setigerous; metatibia with fine external spine and seta-like apical spurs, tarsus short, segments subquadrate; basal tarsomere of metatarsus only slightly shorter than upper tibial spur and longer than second tarsonere. Female unknown.

**Affinity.** The species is very distinct and may be easily distinguished from all other species in the genus by its size, trapezoid pronotum and wide, flattened elytral intervals.

**Type Material.** Holotype male (CMN): “Peru, Madre de Dios, Rio Tambopata Res. 30 mi SW Pto Maldonado, 290 m, 2–5.XI.1979, subtropical moist forest, J.B. Heppner.”

**Etymology.** Derived from the name of terra typica.

*Saprositellus santaritae* Stebnicka, **new species**

(Fig. 3)

**Description of Male.** Length 2.9 mm, greatest width 1.0 mm. Form (Fig. 3) elongate, almost parallel-sided; color dark brown, legs reddish brown, surface microreticulate. Clypeus slightly emarginate anteriorly, edge on each side of emargination with 6–7 denticles; surface just above emargination shining and here minutely transversely granulate, punctures above granulate area up to frontal suture very fine and shallow, separated by about one diameter, vertex with band of round, rugose punctures; frontal suture marked by slightly thickened line; gena small rounded. Pronotum strongly convex, side slightly arcuate, finely margined, lateral tooth acutely prominent, posterior angle excised, base straight, finely crenate with distinct marginal line; pronotal disc with

shallow longitudinal furrow and small fovea laterally, surface punctures everywhere very close, almost contiguous, rugose. Elytra parallel-sided, apex with minute setae visible under high magnification; base as wide as pronotal base, humeral denticle small, acute; striae deep, slightly wider than intervals with deep coarse punctures crenating inner margins of intervals, punctures separate each other by about 1/3 of their diameter; intervals carinate, microreliculate. Ventral sclerites alutaceous, surface punctate; punctures of mesosternum and metasternum equal in size, smaller than those of pronotal disc, generally separated by about one diameter; prosternal process widely triangular, punctate; mestasternal midline shallow, lateral metasternal triangle marked by very shallow concavity; abdominal sternites arcuate, minutely fluted along sutures, punctate from side to side, punctures two times smaller than those on mesosternum, disc of pygidium with fine punctures same size as those on penultimate sternite. Profemur wide, perimarginal groove deep, surface punctures same size as those of penultimate sternite; meso- and metafemora slender, posterior femoral lines strong, complete, posterior edge straight, unlobed; meso- and metatibiae as long as femora, slightly sinuate, minutely and scarcely setigerous; metatibia with fine external spine and seta-like apical spurs, tarsus very short, segments subquadrate; basal tarsomere of metatarsus slightly shorter than upper tibial spur and longer than second tarsomere.

Female unknown.

**Affinity.** *Saprositellus santaritae* is most closely related to *S. ariquemus* n. sp. sharing with that species a similar sculpture of the pronotum and elytra. It differs from *ariquemus* by having the less arcuate elytra with distinctly finer humeral denticle.

**Type Material.** Holotype male (HAHC): "Panama, Colón Prov., Santa Rita Ridge, 250 m, 9.23N, 79.45W, 10.VI.1977, H. Stockwell."

**Etymology.** Derived from the name of type locality "Santa Rita."

#### Key to the Species of *Saprositellus*

- 1 Pronotum trapezoid; elytra strongly widened in apical third, strial punctures moderate in size, intervals twice as wide as striae; posterior edge of meso- and metafemora strongly lobed at middle; Peru ..... *S. peruanus* n. sp.
- 1' Pronotum subquadrate; elytra slightly widened in apical third or parallel-sided, strial punctures coarse, intervals slightly wider than striae or narrower; posterior edge of meso- and metafemora slightly lobed medially or unlobed ..... 2
- 2 Pronotal punctures on disc separated by about one diameter, base lacking marginal line; elytral intervals slightly wider than striae, convex; posterior edge of meso- and metafemora slightly lobed medially; Brazil, Peru ..... *S. denticulatus* Balthasar
- 2' Pronotal punctures on disc separated by less than one diameter, base with marginal line; elytral intervals narrower than striae, carinate; posterior edge of meso- and metafemora unlobed ..... 3
- 3 Elytral humeral denticles large; basal tarsomere of metatarsus equal in length to second tarsomere; Brazil, Bolivia ..... *S. ariquemus* n. sp.
- 3' Elytral humeral denticles small; basal tarsomere of metatarsus longer than second tarsomere; Panama ..... *S. santaritae* n. sp.

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#### Literature Cited

**Balthasar, V. 1967.** Neue Arten der Familie Aphodiidae (Coleoptera). 128. Beitrag zur Kenntnis der Scarabaeoidea. Acta Entomologica Bohemoslovaca 64:122–139.

- Dellacasa, M. 1988.** Contribution to a world-wide catalogue of Aegialiidae, Aphodiidae, Aulonocnemidae, Termitotrogidae (Coleoptera, Scarabaeoidea). *Memorie della Societa Entomologica Italiana* 67:3–455.
- Stebnicka, Z. T. 1998.** A second species of *Euparixoides* Hinton from Brazil (Coleoptera: Scarabaeoidea: Eupariini). *Acta Zoologica Cracoviensia* 41:195–197.
- Stebnicka, Z. T. 2000.** The genus *Passaliolla* Balthasar, 1945 in Central and South America (Coleoptera: Scarabaeidae: Aphodiinae: Eupariini). *Acta Zoologica Cracoviensia* 43: 233–239.
- Stebnicka, Z. T. 2001.** A revision of the Neotropical species of *Saprosites* Redtenbacher, 1858 (Insecta: Coleoptera: Scarabaeidae: Aphodiinae: Eupariini). *Entomologische Abhandlungen, Staatliches Museum für Tierkunde Dresden* 59:221–242.
- Stebnicka, Z. T., and H. F. Howden. 1996.** Revision of Australian Genera in the Tribes Odontolochini, Psammodiini, Rhyparini, Stereomerini and Part of the Eupariini (Coleoptera: Scarabaeoidea: Aphodiinae). *Invertebrate Taxonomy* 10:97–170.

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## SCIENTIFIC NOTE

### *Dolichodes geniculatus* Motschulsky is a Junior Synonym of *Euleptus ooderus* Chaudoir (Coleoptera: Carabidae: Platynini)

Motschulsky (1865) described the genus *Dolichodes*, diagnosing it from other genera of platynine Carabidae in his key by the more or less depressed body form, rounded pronotal hind angles, and dorsal body surface with opaque, granulate microsculpture. He designated *D. geniculatus* as the type species, which he described as new in the same work, recording its provenance as Brazil. *Dolichodes* was listed as a junior synonym of *Agonum* Bonelli, 1810 in Gemminger and Harold (1868), and has remained a junior generic synonym to the present.

Recent taxonomic studies on *Agonum* showed that many South American species formerly attributed this genus are, in fact, better classified in an endemic South American genus, *Incagonum* (Liebherr 1994). Removal of species to *Incagonum* from *Agonum* leaves five names of South American taxa still combined with *Agonum*, *A. geniculatum* (Motschulsky) being one.

Comparison of the single known female syntype of *Dolichodes geniculatus* (Keleinikova 1976) with specimens of *Euleptus ooderus* Chaudoir, 1850 (J. Schmidt Collection), establishes *D. geniculatus* as a junior subjective synonym of *E. ooderus*, thereby making *Dolichodes* Motschulsky, 1865, a junior generic synonym of *Euleptus* Klug, 1833. *Euleptus ooderus* is known from the Himalaya, and the other described species of the genus reside in Africa and Madagascar. Therefore Motschulsky's type locality of Brazil for *D. geniculatus* is certainly in error. The type locality is hereby corrected to NEPAL: Karnali Province, Gothichaur Valley, 2,800 m elev., 29°12.1'N 82°18.5'E, to reflect the locality of compared specimens in the Schmidt collection.

Besides the microsculptural and habitus characters alluded to by Motschulsky in his diagnostic generic key, *E. ooderus* is characterized by the absence of a median mentum tooth (a character shared by all *Euleptus* spp.), and basally rufotestaceous femora distinctly contrasted with the infuscated femoral apex and tibiae.

Taxonomic changes brought about by these findings are summarized as:

*Euleptus* Klug, 1833, *Abhandlungen der Königlichen Akademie der Wissenschaften zu Berlin*, p. 131.

*Dolichodes* Motschulsky, 1865("1864"), *Bulletin de la Société Impériale des Naturalistes de Moscou* 37(4): 371 (NEW SYNONYMY).

*Euleptus ooderus* Chaudoir, 1850, *Bulletin de la Société Impériale des Naturalistes de Moscou* 23(2): 365.

*Dolichodes geniculatus* Motschulsky, 1865("1864"): 321 (NEW SYNONYMY). Corrected type locality: Nepal, Karnali Province, Gothichaur Valley, 2,800 m elev.

*Dolichodes geiculatus* Motschulsky, 1865("1864"): 317 (unavailable incorrect original spelling).



For *D. geniculatus*, lectotype hereby designated (in order to fix the identity of this species should additional specimens reflecting a mixed type series be discovered): Female specimen glued on white card, specimen extensively covered with fungal growth, labeled: [green paper isosceles triangle with indecipherable legend]/[green label] *Dolichodes geniculatus* Brazil Motsch./[square red label]/[red label] Lectotype *Dolichodes geniculatus* Motschulsky, det. J. K. Liebherr 2003.

### Literature Cited

- Gemminger, M., and B. de Harold. 1868.** Catalogus Coleopterorum hucusque descriptorum synonymicus et systematicus. 1. Cicindelidae—Carabidae, 424 pp. + 8 pp. index. E. Deyrolle fils, Paris.
- Keleinkova, S. I. 1976.** V. I. Motschulsky's types of Coleoptera in the collection of the Zoological Museum MGU. 1. Carabidae. Archives of Zoological Museum Moscow State University 15:183–224.
- Liebherr, J. K. 1994.** Identification of New World *Agonum*, review of the Mexican fauna, and description of *Incagonum*, new genus, from South America (Coleoptera: Carabidae: Platynini). Journal of the New York Entomological Society 102:1–55.
- Motschulsky, V. 1865("1864").** numÉration des nouvelles espÈces de ColÉoptères rapports de ses voyages, 4-Ème article (suite) (Voy. Bullet. No. 3. 1864). Bulletin de la SociÉtÉ ImpÉriale des Naturalistes de Moscou 37(4):297–355.
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