



A new *Compsodactylus* Fuhrmann (Coleoptera: Scarabaeidae: Melolonthinae) from Peru

LUIS FIGUEROA^{1,3} & JHON CÉSAR NEITA-MORENO²

¹Departamento de Entomología, Museo de Historia Natural, Universidad Nacional Mayor de San Marcos, Av. Arenales 1256 Jesús María, Lima 14, Perú.

²Instituto de Investigaciones de Recursos Biológicos Alexander von Humboldt. Claustro de San Agustín, Villa de Leyva, Boyacá, Colombia

³Bosque Llaqta, Av. Confraternidad Internacional Este N° 364, Huaraz, Perú

The tribe Macroductylini (Coleoptera: Scarabaeidae: Melolonthinae) is distributed throughout the world, comprising approximately 1028 species and 80 genera; the majority of genera are found in the Neotropical Region, where 46 genera occur (Katovich 2008; Fuhrmann 2012; Smith & Mondaca 2015; Fuhrmann & Vaz-de-Mello 2017).

The Neotropical genus *Compsodactylus* Fuhrmann, 2012 was established by Fuhrmann (2012) to include three species, two of them formerly placed in the genus *Dicrania* Lapeletier & Audinet-Serville, 1828. *Compsodactylus* is distinguished from other Macroductylini by the mentum being longer than wide, the posterior area of frons and anterior area of pronotum with denticle-like setae, the protibiae bidentate and with a spur, the external and internal margins of elytra beaded, the metacoxae with a short projection over the base of the trochanter, the male metatibia with an internoapical spine and without spurs, and the abdominal spiracular area VII narrowed (Fuhrmann 2012).

Compsodactylus currently includes three species: *C. martinezi* (Frey, 1972) from Peru, *C. parvulus* (Frey, 1970) from Bolivia, and *C. scabrosus* Fuhrmann, 2012 from Argentina. In the survey of Scarabaeoidea of Peru (Ratcliffe *et al.* 2015), *Compsodactylus* and the species *C. martinezi*, which is endemic to the Peruvian departments of Abancay and Cusco, were omitted.

Recently, a series of individuals identified as *Compsodactylus* was collected in the surroundings of a tributary of the Marañón River, in the department of La Libertad, Peru, which corresponds to a species described below.

Compsodactylus vallejoi Figueroa & Neita-Moreno, new species (Figs. 1–2, 4–5, 7–8, 10, 14–19)

Type material. Holotype and allotype labeled: “PERÚ. LL. [La Libertad Departament] Pataz, // Unidad Minera Santa // María. Rio Hualanga // 7°46'37.21"S/77°36'46.3 // 5"W 1785m 07.iii.17[2017] // P. Ancajima” both with red labels. Three male paratypes with same data as the holotype, and one female paratype labeled: “PERÚ. LL. [La Libertad Departament] Pataz, // Unidad Minera Santa // María. Rio Hualanga // 7°45'45.23"S/77°38'30.2// 4"W 1413m 04.iii.17[2017] // P. Ancajima”; paratypes with yellow labels. The holotype, allotype, and two paratypes (both males) are deposited at the Museo de Historia Natural de la Universidad Nacional Mayor de San Marcos (MUSM), Lima, Peru. Two paratypes (male and female) are deposited in the Snow Entomological Collection, University of Kansas (SEMC), Lawrence, Kansas, United States of America.

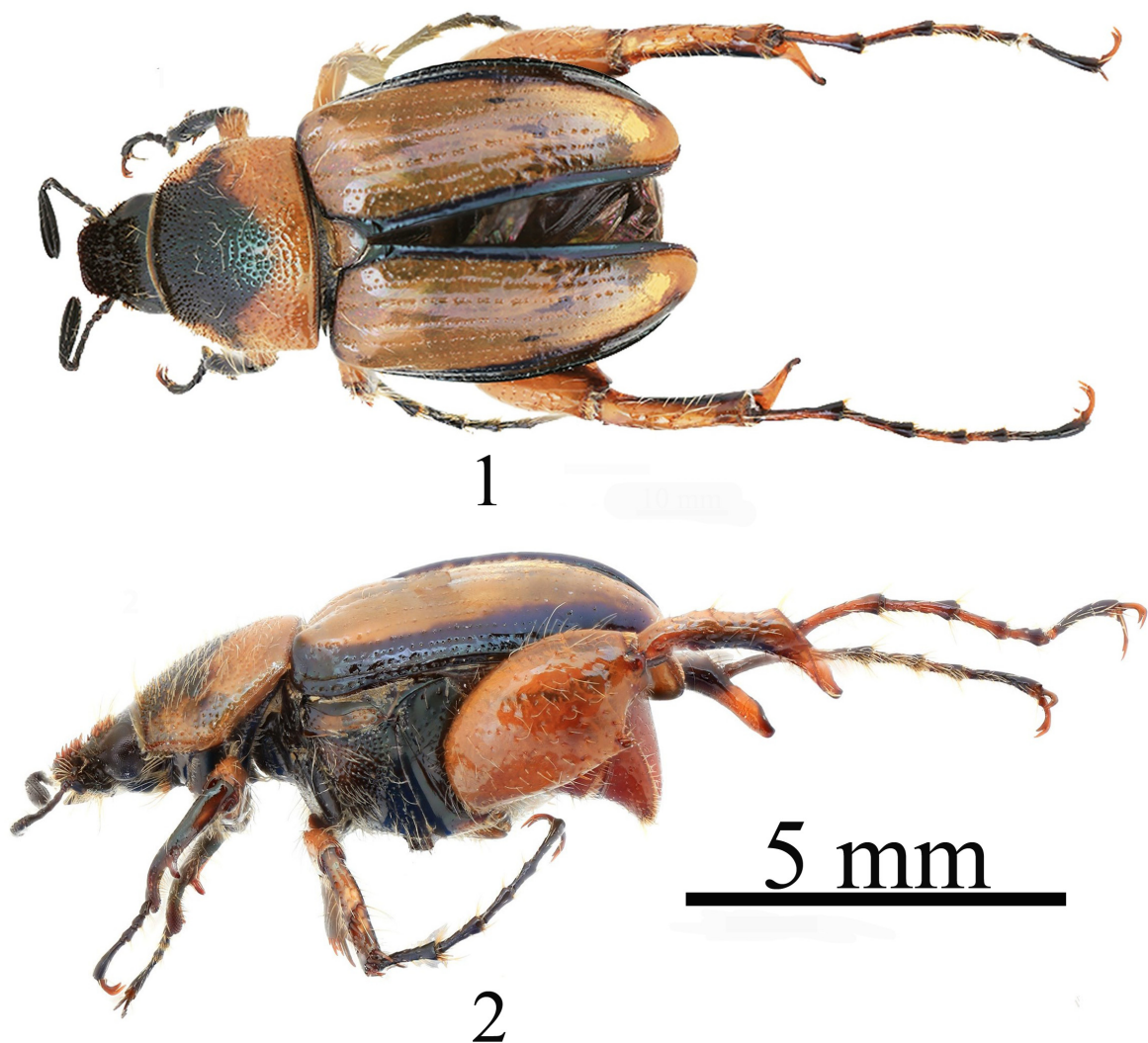
Description. Holotype. Male (Figs. 1–2). Length 6.9 mm, width 3.4 mm at middle of elytra. Head black; pronotum black with lateral margins and posterior third brownish testaceous (Figs. 1–2); elytra testaceous with black margins; scutellum testaceous; femur brownish testaceous; protibia black, laterodistally transitioning to brown; mesotibia brownish black, dorsally transitioning to testaceous; metatibia brownish testaceous with dark maculae. **Head:** frons and clypeus with denticle-like setae, epistomal suture indistinct, interocular distance about 5.7 times as wide as width of eye in dorsal view. **Pronotum:** with long setae (Fig. 1). **Elytra:** anterior margin of scutellum 0.4 times as wide as length of anterior margin of elytra, elytral striae distinctly punctate. **Leg:** protibia bidentate; protarsomere I widened distally (Fig. 7), 2.3 times as long as protarsomere II; protarsal claws with anterior tooth narrower and longer than internal tooth; metafemur enlarged with some long, erecte setae (Fig. 7); metatibial apex enlarged, distally forming an obtuse projection. Pygidium glabrous or sparsely setose, setae short and slender. **Parameres:** simple and enlarged (Figs. 14–16). **Allotype.** Female. Length 6.8 mm, width 3.5 mm at middle of elytra. Coloration similar to holotype, except pronotum

black and with only the posterior margin brownish testaceous; protarsomere 1 thin (Fig. 5), 1.3 times as long as protarsomere 2; metafemur only slightly enlarged without long, erect setae, and without enlarged metatibial apex (Fig. 8).

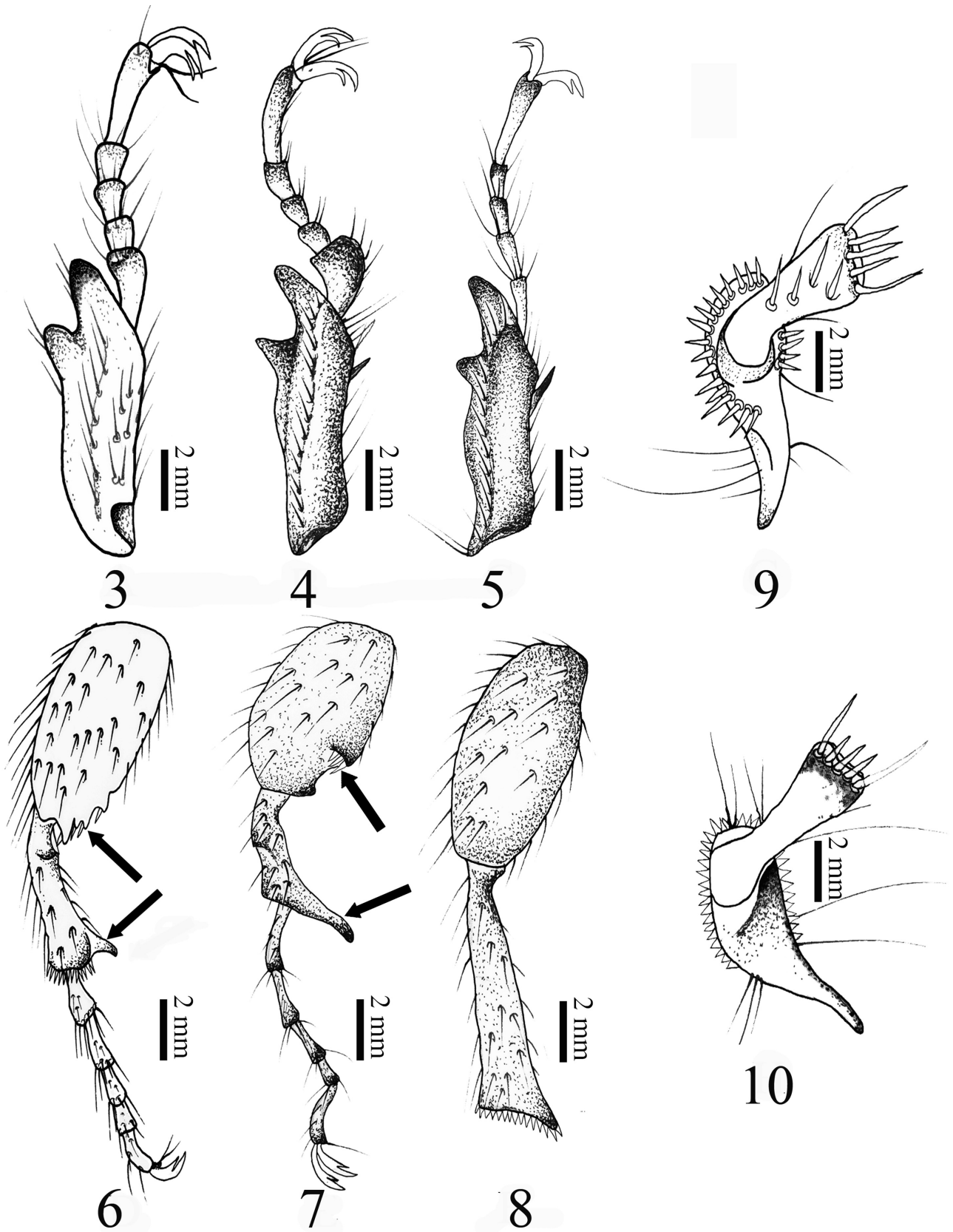
Variation. Males: length 5.8–6.4 mm, width at middle of elytra 3.0–3.3 mm. Females: the paratype is slightly larger than the allotype (length 7.3 mm, width 3.7 mm at middle of elytra) and the pronotum is uniformly black.

Diagnosis. In the Fuhrmann (2012) key to *Compsodactylus* species, *C. vallejo* will key out to couplet 2 based on the character states: body not dorsoventrally flattened, posterior area of clypeus with denticle-like setae, elytral striae strongly punctate with *C. martinezi* and *C. scabrosus*. *Compsodactylus vallejo* differs from the other species in the genus by having protarsomere 1 of males enlarged (Fig. 4). *Compsodactylus vallejo* is similar to *C. martinezi* as both species have the metafemur of both sexes slightly enlarged (Figs. 6–7) and both species with a gonostyle (Figs. 13, 16). *Compsodactylus vallejo* is distinguished by the black head without metallic reflections (*C. martinezi* has a black head with metallic green reflections), the pronotum is black with margins brownish testaceous (*C. martinezi* has a black pronotum with metallic green reflections), and elytra without metallic green reflections (elytra have metallic green reflections in *C. martinezi*). Finally, the metafemur of the male of *C. vallejo* lacks an apical tooth (Fig. 7), which is present in *C. martinezi* (Fig. 6). The male and female genitalia (Figs. 11–16) are diagnostic (see Fuhrmann 2012: Figs. 70–71, 73–75).

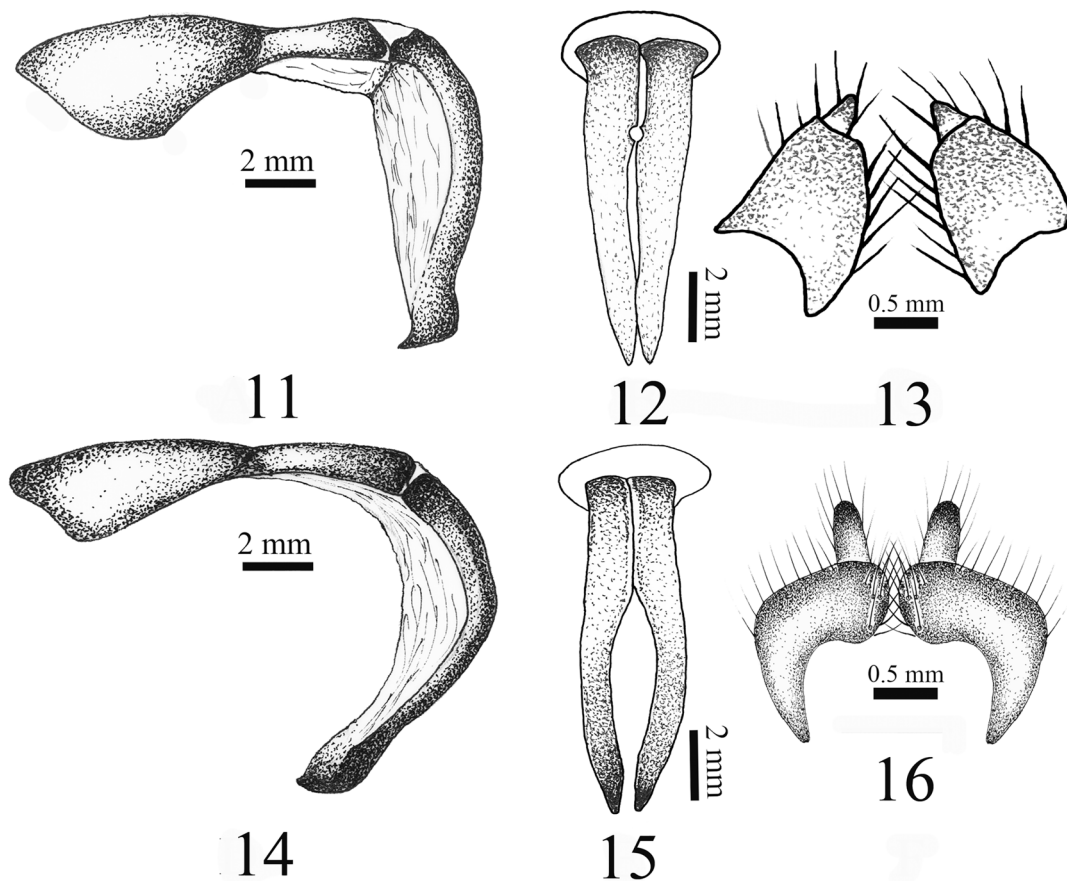
Distribution. Specimens were collected in two locations, at approximately 3 km apart along the Hualanga River, which is a tributary of the Marañón River (Fig. 17–19). It is an area that corresponds to a dry inter-Andean forest, which depends strictly on seasonal rains, as well as moisture from the Hualanga River.



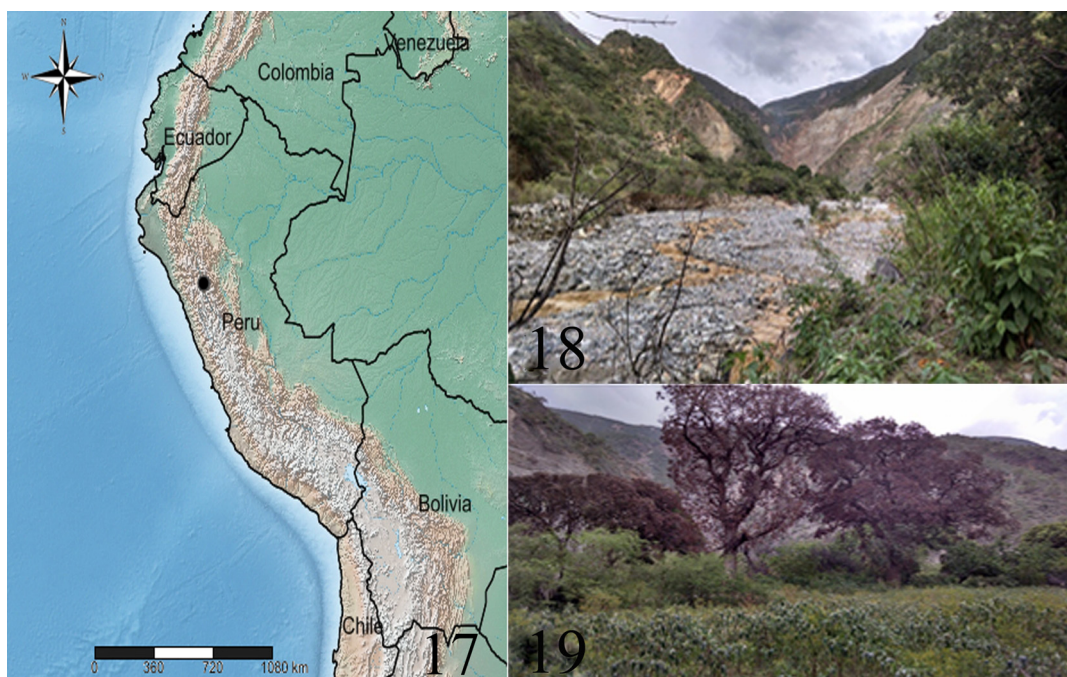
FIGURES 1–2. *Compsodactylus vallejo* holotype. **1**, Dorsal habitus; **2**, lateral habitus.



FIGURES 3–10. *Compsodactylus martinezi* and *C. vallejoi* leg characters. **3**, *Compsodactylus martinezi* prothoracic legs (dorsal); **4**, *C. vallejoi* prothoracic legs (dorsal); **5**, *C. vallejoi* prothoracic legs (dorsal); **6**, *C. martinezi* metafemur (dorsal); **7**, *C. vallejoi* metafemur (dorsal); **8**, *C. vallejoi* metafemur (dorsal); **9**, *C. martinezi* apex of metatibia; **10**, *C. vallejoi* apex of metatibia.



FIGURES 11–16. *Compsodactylus martinezi* and *C. vallejo* genitalic characters. **11**, *Compsodactylus martinezi* phallobase and parameres (lateral); **12**, *C. martinezi* parameres (frontal); **13**, *C. martinezi* female genital plates; **14**, *C. vallejo* phallobase and parameres (lateral); **15**, *C. vallejo* parameres (frontal); **16**, *C. vallejo* female genital plates.



FIGURES 17–19. *Compsodactylus vallejo*. **17**, distribution; **18–19**, habitat.

Etymology. The specific name *vallejo* is in honor of the great poet and writer Cesar Vallejo, born in La Libertad Department.

Acknowledgments

We thank Paola Ancajima for the habitat photographs, the mine company La Poderosa S.A. for providing logistical arrangements, and to the Ministerio de Agricultura y Riego for granting the collection permit RDG number 0019-2015-SERFOR-DGGSPFFS.

References cited

- Fuhrmann, J. (2012) *Compsodactylus*, a new South American genus with one new species and two new combinations (Coleoptera: Scarabaeidae: Melolonthinae). *Zootaxa*, 3577, 43–57.
- Fuhrmann J. & Vaz-de-Mello F.Z. (2017) Macroductylini (Coleoptera, Scarabaeidae, Melolonthinae): primary types of type species and taxonomic changes to the generic classification. *European Journal of Taxonomy*, 350, 1–71.
<https://doi.org/10.5852/ejt.2017.350>
- Katovich, K. (2008) A generic-level phylogenetic review of the Macroductylini (Coleoptera: Scarabaeidae: Melolonthinae). *Insecta Mundi*, 23, 1–28.
- Ratcliffe, B.C., Jameson, M.L., Figueroa, L., Cave, R.D., Paulsen, M.J., Cano, E.B., Beza-Beza, C., Jimenez-Ferbans, L. & Reyes-Castillo, P. (2015) Beetles (Coleoptera) of Peru: a survey of the families. Scarabaeoidea. *Journal of the Kansas Entomological Society*, 88, 186–207.
<https://doi.org/10.2317/kent-88-02-186-207.1>
- Smith, A.B.T. & Mondaca, J. (2015) Review of the southern South American Macroductylini (Coleoptera: Scarabaeidae: Melolonthinae) with descriptions of new genera and species. *Zootaxa*, 4056 (1), 1–65.
<https://doi.org/10.11646/zootaxa.4056.1.1>