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## Description of *Lacomimus* gen. n. and eleven new species from the Neotropical region (Coleoptera, Dytiscidae, Laccophilinae)

MARIO TOLEDO<sup>1</sup> & MARIANO C. MICHAT<sup>2</sup>

<sup>1</sup>Museo di Storia Naturale, Università di Parma, via Farini 90, 43100 Parma, Italy. E-mail: [toledo.pinguicula.mario3@gmail.com](mailto:toledo.pinguicula.mario3@gmail.com)

<sup>2</sup>IBBEA, CONICET-UBA. Laboratory of Entomology, DBBE-FCEN, University of Buenos Aires, Argentina.

E-mail: [marianoide@gmail.com](mailto:marianoide@gmail.com)

(work in memory of Frank N. Young and Paul J. Spangler)

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### Abstract

A new genus of laccophiline diving beetles, *Lacomimus* gen. n., is here described on the basis of a large number of specimens from various collections formerly misidentified as members of the Neotropical genus *Laccodytes* Régimbart, 1895. Except for similar size, however, the new genus is not closely related to *Laccodytes*. Instead, it seems to be sister to the Oriental genus *Laccosternus* Brancucci, 1983, both sharing a similar body size and shape, characters of the female genital structures, and shape of the prosternal process. Twelve species are recognised within *Lacomimus*, all new to science except *Lacomimus pumilio* (LeConte, 1878) comb. n., the type species. The new species are: *Lacomimus alvarengi* sp. n., *L. amazonas* sp. n., *L. bolivari* sp. n., *L. bordoni* sp. n., *L. distinctus* sp. n., *L. improvidus* sp. n., *L. malkini* sp. n., *L. spangleri* sp. n., *L. spinosus* sp. n., *L. variegatus* sp. n., *L. youngi* sp. n. The distribution of the new genus includes most of the Neotropics, with one species, *L. pumilio*, reaching Florida, USA. Each taxon is described and illustrated and a key for their identification is provided. *Lacomimus* is a widespread and relatively common genus in tropical America, the

species of which have a wide distributional range, except for a few confined to more restricted areas. In spite of this, *Laccommimus* is a very uniform genus in body shape, size and colouration, and in most cases identification of the species is possible only after examination of the male genitalia. A key to distinguish genera of the tribe Laccophilini is also presented.

**Key words:** Coleoptera, Dytiscidae, Laccophilinae, *Laccodytes*, *Laccommimus* gen. n., taxonomy, new genus, new species, Neotropic, Nearctic

## Introduction

Three genera of Laccophilinae were formerly known from the Americas: the large, world-wide genus *Laccophilus* Leach, 1815, the strictly Neotropical *Laccodytes* Régimbart, 1895 and the monotypic *Napodytes* Steiner, 1981. Young (1954) assigned the species *Laccophilus pumilio* LeConte, 1878, described from Florida, to the genus *Laccodytes*, essentially based on its small size and simple (not bifid) metatibial spurs, and this combination has been usually followed until now (e.g. Nilsson 2001). In a recent revision of *Laccodytes* (Toledo *et al.* 2010), however, this species was confirmed to belong to another genus, yet to be described. Many other specimens close to *L. pumilio* have been collected in most of Central and South America. These were often labelled as *Laccodytes* but could not be identified to species based on the old concept of *Laccodytes* before its revision. The idea of a new genus grouping *L. pumilio* and related species was advanced by Frank N. Young and Paul J. Spangler. In a letter dated 1973 and addressed to Spangler (kindly made available to us), Young gave a first, quite detailed diagnosis of the new genus, naming it *Laccommimus*, with *L. pumilio* as type species, and comparing it with *Laccophilus* and *Laccodytes*. In the same manuscript he included also the description of one of the new species, plus the description of a larva. Together with the type species, Young wrote, without further explanation, that the genus is comprised of six species, and that with some probability the following taxa should also be moved to *Laccommimus*: *Laccophilus perparvulus* Régimbart, 1895, *Laccodytes americanus* Peschet, 1919 and *Laccodytes apalodes* Guignot, 1955. At present, the taxonomic position of the former (found in a consignment of tobacco presumably from Mexico or, after Young (1954), from Cuba) is still obscure, although its original description indeed matches that of *Laccommimus*. The last two species, however, have been recently confirmed to belong to *Laccodytes* (Toledo *et al.* 2010). In addition to their incomplete manuscript, evidence of Young and Spangler's work is provided by the large amount of material reposed in the Smithsonian Institution (Washington). In fact, several names given to the new taxa here described were coined by them *in litteris*, as handwritten labels pinned under the specimens (see below). In the last years of their lives, they did not continue their work on *Laccommimus* and their deaths (Young in 1998; Spangler in 2011) prevented the formal description of these beetles. On the occasion of the revision of *Laccodytes* (Toledo *et al.*, 2010) the decision to complete their opus took form, based mostly on the specimens in the Smithsonian, together with additional material from other museums and collections. Another important source of material has been recently collected during the Venezuela Aquatic Insect Project (VAIP) expeditions since 2008, and by the junior author in several collecting trips to Argentina and Paraguay.

In light of the material studied, *Laccommimus* is a widespread, common and somewhat speciose genus in tropical Americas, apparently much easier to collect than *Laccodytes*, the distribution of which is much more restricted. Surprisingly, in spite of this, *Laccodytes* was discovered and described more than a hundred years before, and past authors described several *Laccodytes* species compared to only one currently placed in *Laccommimus*.

Although not formally erected, the name *Laccommimus* appears in a catalogue of Nicaraguan terrestrial Arthropods (Maes 1998), with the combination "*Laccommimus perparvulus*" (*sic!* without author name of both genus and species), and "Subfamilia no ubicada" (= subfamily unknown) within the chapter on Dytiscoidea. In spite of this, *Laccommimus* remains unavailable since the author did not provide a description or definition (Article 13.1.1 of the International Code of Zoological Nomenclature). The source of this citation was an identification made by Young of a specimen held in the Entomological Museum of León (Nicaragua), collected in 1990 in Nicaragua (Jean-Michel Maes, 2014, personal communication).