



## Two new species and new records of *Liocanthyrus* Guignot (Coleoptera, Noteridae) from Brazil

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### Abstract

Two new species of *Liocanthyrus* Guignot, *L. zanclus* **sp. nov.** and *L. mecespilus* **sp. nov.**, are described and illustrated from the Brazilian states of Goiás and Espírito Santo, Minas Gerais and Rio de Janeiro, respectively. New records from Brazil are also provided: *Liocanthyrus clayae* (J. Balfour-Browne) from the state of Pará, *L. bicolor* (J. Balfour-Browne) from the states of Amazonas and Pará and *L. uniformis* (Zimmermann) from the states of Espírito Santo, Maranhão and Pará. The previous key of *Liocanthyrus* is modified to include the new species.

**Key words:** Coleoptera, Noteridae, *Liocanthyrus*, taxonomy, new species, new records, Neotropics

### Introduction

In a recent revision, Baca *et al.* (2014) confirmed the generic status of the burrowing water beetle genus *Liocanthyrus* Guignot, 1957, and declared *Siolius* J. Balfour-Browne, 1969 its junior synonym. Miller (2009) had previously elevated *Liocanthyrus* from the subgenus to genus rank, however Gómez & Miller (2013) state that *Liocanthyrus* sensu Miller (2009) (not *Liocanthyrus* Guignot) was misidentified. Now, *Liocanthyrus* sensu Miller (2009) is in fact a new genus in need of erection (see ‘Taxonomic History’ in Baca *et al.*, 2014).

At present *Liocanthyrus* Guignot is known from South America and consists of seven species, four of which are reported from Brazil: *Liocanthyrus angustus* (Guignot), *L. bicolor* (J. Balfour-Browne), *L. octoguttatus* (Zimmermann) and *L. uniformis* (Zimmermann) (Baca *et al.* 2014, Nilsson 2011). Adults of *Liocanthyrus* are characterized by the combination of the following characters: lateral pronotal bead broad with smooth margins; prosternal process very broad, truncate; anteroapical angle of metafemur with linear series of closely-spaced, long setae; posterior metatibial spur smooth, without serration; female genitalia with short laterotergites that extend beyond bases of gonocoxae posteriorly (Baca *et al.* 2014).

Noteridae can be collected in several types of aquatic environments, but are most commonly found in lentic habitats. However, *Liocanthyrus* seems to be most commonly found in lotic habitats. All the specimens here studied were collected among submerged roots in streams and creeks.

### Material and methods

The descriptions of new species are based on holotypes. Male genitalia are described following Miller & Nilsson (2003). Measurements of each holotype are provided and variation is presented based on paratypes. Measurements include: total length (TL), greatest width (GW), greatest width of head (HW), shortest distance between the eyes (EW), anterior pronotal width across anterolateral angles (PNWant) and posterior pronotal width across posterolateral angles (PNWpost). Male genitalia were dissected, prepared with heated KOH, mounted on a temporary slide for observation and stored in micro vials with glycerin together with the specimens. Specimens were examined using a stereomicroscope (Leica S8AP0) and an optic microscope (Leica 4000). Multilayer

BR174, km 72, Faz. Dimona, Igarapé (R. Cuieiras), capoeira mista, P19, 6.II.2001, barranco/raízes, Nessimian J.L. leg. (1 female ex.; DZRJ Coleoptera 6008); same data, 21.X.2001, Nessimian J.L. leg. (1 male ex.; DZRJ Coleoptera 6009); Presidente Figueiredo Municipality, AM240, ramal do km 18, banho do Sítio do Sr. Clovis, poça de folhicho, 18.X.2008, Ferreira-Jr N. leg. (1 male, 1 female exs; DZRJ Coleoptera 6010); Presidente Figueiredo Municipality, AM240, ramal do km 17, Sítio Pai D'égua, filete d'água correndo em raízes de Pataua, 16.X.2008, Ferreira-Jr N. leg. (11 males, 15 females exs; DZRJ Coleoptera 6011). **Pará State:** Parauapebas Municipality, Flona de Carajás, Serra Norte, Buritizal II, 6°04'13.32"S 49°56'59.63"W, 200m, Igarapezinho, 21.III.2006, Ferreira-Jr N. leg. (6 males, 5 females exs; DZRJ Coleoptera 6012); same data, 24.IX.2007, poça fundo folhicho, Ferreira-Jr N. & Alecrim V.P. leg. (15 males, 13 females exs; DZRJ Coleoptera 6023); same data, 5.III.2008, Ferreira-Jr N. & Santos A.P.M. leg. (1 female ex.; DZRJ Coleoptera 6013); Parauapebas Municipality, Flona de Carajás, Serra Norte, Buritizal I, Parte Baixa (alta), 6°04'57.02"S 50°08'05.26"W, 642m, 6.III.2008, Ferreira-Jr N. & Santos A.P.M. leg. (1 male, 1 female exs; DZRJ Coleoptera 6014).

### *Liocanthyrus uniformis* (Zimmermann)

**Material examined: Espírito Santo State:** Águia Branca Municipality, Sítio Dona Eulália, Córrego do Ouro, ES13, 29.III.2009, Nessimian J.L., Takiya D.M. & Moreira F.F.F. leg. (1 male ex., DZRJ Coleoptera 6015); **Maranhão State:** São Luiz Municipality, Ponto 3, Nascente Igarapé Buenos Aires (AII/AID), 27.VI.2008, Nessimian J.L. leg. (4 males; 4 females exs.; DZRJ Coleoptera 6016); **Pará State:** Canaã dos Carajás Municipality, Flona de Carajás, Serra Sul, córrego leito de pedra I, 29.II.2008, Ferreira-Jr N. & Santos A.P.M. leg. (3 males exs.; DZRJ Coleoptera 6017); same data, 15.IX.2006, Ferreira-Jr N. & Dumas L.L. leg. (25 males; 11 females exs; DZRJ Coleoptera 6018); córrego leito ferro entre S11 CA F S11CB, 1.III.2008, Ferreira-Jr N. & Santos A.P.M. leg. (6 males, 1 female exs; DZRJ Coleoptera 6019); córrego leito de pedra, 27.IX.2007, Ferreira-Jr N. & Alecrim V.P. leg. (46 males, 19 females exs; DZRJ Coleoptera 6024).

### Acknowledgements

We would like to thank the members of the Laboratório de Entomologia (Instituto de Biologia, Universidade Federal do Rio de Janeiro, IB-UFRJ) for their help in sorting out aquatic specimens. We also thank the editor and an anonymous reviewer whose suggestions enriched this article, Stephen M. Baca for English corrections, and N.S. Amparo and S. Jorge for support. Financial support was granted by CAPES, CNPq, FAPEAM, FAPERJ, and INPA.

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