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## Three new species and new distributional records of *Oecetis* McLachlan 1877 (Trichoptera: Leptoceridae: Leptocerinae) from Brazil

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### Abstract

The genus *Oecetis* is widespread over the world, being most diverse in tropical areas, especially in the Australian Region. Of about 400 described species, only 34 occur in the Neotropical Region. Herein, we describe and illustrate three new species of *Oecetis* from Brazil: *Oecetis angelae* sp. nov., *O. danielae* sp. nov. and *O. iara* sp. nov. Furthermore, *O. doesburgi*, *O. dominguezi*, and *O. knutsoni* are recorded for the first time in Brazil. Also, we provide new state records for 7 species: *O. amazonica*, *O. connata*, *O. excisa*, *O. fibra*, *O. iguazu*, *O. inconspicua*, and *O. paranensis*.

**Key words:** Amazon basin, Atlantic Forest, Pantanal floodplains, Neotropical Region, *Oecetis danielae*, *Oecetis angelae*, *Oecetis iara*, taxonomy

### Introduction

The long-horned caddisfly family Leptoceridae, with approximately 1,800 species described worldwide, is the 2<sup>nd</sup> largest within Trichoptera and the most diverse of the suborder Integripalpia (Holzenthal *et al.* 2007). With 46 extant genera, the family is currently divided into four subfamilies: Grumichellinae Morse 1981 and Triplectidinae Ulmer 1906, both occurring mainly in the Australian and Neotropical regions; Leptocerinae Leach 1815, being cosmopolitan in distribution; and Leptorussinae Morse 1981, with the single genus *Leptorussa* Mosely 1953 (in Mosely & Kimmins 1953), being endemic in Australia (Calor & Holzenthal 2008; Malm & Johanson 2011).

The Leptocerinae genus *Oecetis* McLachlan 1877, with about 400 described species, is widespread and diverse in all continents (Holzenthal *et al.* 2007). In the Neotropical Region, 34 species occur throughout the Brazilian subregion, but it has not been recorded from the Chilean subregion (Flint *et al.* 1999; Rueda Martín *et al.* 2011). Wells (2000, 2004, 2006) provided comprehensive studies of the Australian *Oecetis* species. More recently, Rueda Martín *et al.* (2011) reviewed the *Oecetis* fauna of Bolivia and northwestern Argentina and included an identification key for Neotropical species. However, many undescribed species probably still occur in South America, mainly in the Amazon basin (Flint *et al.* 1999).

Adults of *Oecetis* are small, with body length of 6 to 12 mm. The specimens are usually drab, generally pale yellow to dark brown in color. Wing color pattern is an important diagnostic character, especially the spots at vein forks and the apices of the veins on the forewing margin. Although the species are very similar in general appearance, they can be differentiated by their wide variation in male genitalic morphology. According to Rueda Martín *et al.* (2011) the genus *Oecetis* can be separated into two groups: one with phallus elongate and curved, and the other with the phallus spherical and posteroventrally produced. Larvae of *Oecetis* usually inhabit the bottom of lakes and rivers, preying on small invertebrates (Flint *et al.* 1999).

The Brazilian fauna of *Oecetis* is underexplored and poorly known, indicating that it is probably much more diverse than is presently apparent. Only 10 species of the genus are recorded from the country until now: *O. amazonica* (Banks 1924), *O. avara* (Banks 1895), *O. connata* Flint 1974, *O. excisa* Ulmer 1907, *O. fibra* Chen & Morse 2012 (in Quinteiro & Calor 2012), *O. inconspicua* (Walker 1852), *O. iguazu* Flint 1983, *O. paranensis* Flint

### ***Oecetis inconspicua* (Walker 1852)**

This species is widely distributed in the New World, being recorded from Canada through northern portions of South America (Bahamas, Canada, Colombia, Costa Rica, Cuba, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Peru, Puerto Rico, United States, and Venezuela). In Brazil, it was recorded for the first time by Paprocki *et al.* (2004), from Minas Gerais and Paraná states, in southeastern and southern regions, respectively. Herein, we report the occurrence of *O. inconspicua* in Amazonas state, northern Brazil.

**Material examined. BRAZIL: Amazonas:** Ipixuna, Rio Gregório, Comunidade Lago Grande at Seringal do Recreio, 07°10'06.00"S, 70°49'06.00"W, 145 m, 17–21.v.2011, light trap, R.R. Cavichioli, C.C. Gonçalves, J.A. Rafael & D.M. Takiya *leg.*, 5 males (DZRJ 3581).

### ***Oecetis knutsoni* Flint 1981**

*Oecetis knutsoni* was previously reported from northwestern Argentina, Bolivia, Colombia, Guadeloupe, Peru, and Venezuela. The species was collected in Amazonas state, north Brazil, which is the first record of this species for Brazil.

**Material examined. BRAZIL: Amazonas:** Presidente Figueiredo, Santuário, 13.vii.2009, D.M. Takiya *leg.*, 1 male (DZRJ 3580).

### ***Oecetis paranensis* Flint 1982**

This species is well distributed in South America, being recorded from Argentina, Brazil, Paraguay and, Peru. In Brazil, it is recorded from Amazonas and Minas Gerais states. Herein, we expand the distribution of *O. paranaensis* to Mato Grosso do Sul state, in the central-western Brazilian region.

**Material examined. BRAZIL: Mato Grosso do Sul:** Ladário, Pantanal, Rio Paraguai floodplain, lake near Pousada Porto Vitória Régia, 19°01'10.00"S, 57°33'02.10"W, 91 m, 17.ix.2008, light trap, A.M. Sanseverino *leg.*, 1 male (DZRJ 3757).

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