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## New records of *Anthalona acuta* Van Damme, Sinev & Dumont 2011 and *Anthalona brandorffi* (Sinev & Hollwedel, 2002) in Brazil, with description of a new species of the *simplex*-branch (Crustacea: Cladocera: Chydoridae)

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### Abstract

The range of geographical distribution of *Anthalona acuta* Van Damme, Sinev & Dumont 2011 and *Anthalona brandorffi* (Sinev & Hollwedel, 2002) in Brazil has increased by almost 2000 km to the south. New records of *Anthalona verrucosa* (Sars, 1901) were also added. Populations of *Anthalona brandorffi* from Central Brazil showed a peculiar morphological variation, with some individuals having only a single denticle on the labral keel. A new species of the *simplex*-branch, *Anthalona neotropica* **sp. nov.**, was described based on Brazilian material, and this is the first taxon of this branch registered in the Neotropics. It differs from *Anthalona simplex* Van Damme, Sinev & Dumont 2011, a Central African species, in the morphology of underneath sack of the lateral head pores, length of IDL setae and armature of first flaming-torch seta of limb IV. It could be distinguished from *Anthalona sanoamuangae* Sinev & Kotov, 2012 (distributed through the South- East Asia) by the morphology of the main head pores, length of IDL setae and armature of the pecten of post-abdominal claw. *Anthalona neotropica* **sp. nov.** seems to have a benthic/hyporheic habit. All studied species have a wide geographical distribution and could be confused with *Anthalona verrucosa* Sars, 1901, thus at least some if not all previous records of this species on the continent must be revised.

**Key words:** *Anthalona verrucosa*, Anomopoda, geographical distribution, head pores, terminal claw, taxonomy

### Introduction

The taxonomy of genus *Alona* Baird, 1843 has passed through many modifications during the last 25 years (Van Damme *et al.* 2010), especially because of the paraphyletic or even polyphyletic nature of this genus evidenced in molecular and morphological analysis (Sacherová & Hebert 2003; Elmoor-Loureiro 2004; Eliás-Gutiérrez *et al.* 2008; Van Damme 2010). A solid diagnosis of the “true” *Alona* was proposed as an initial step to improve the knowledge of the morphological boundaries and to be used as the reference point for drawing out some natural groups (Van Damme & Dumont 2008a), for example: *Phreatalona*, which corresponds to the *protzi*-complex (Van Damme *et al.* 2009); *Coronatella*, which corresponds to the *rectangula*-complex (Van Damme & Dumont 2008b) and *Brancelia* (Van Damme & Sinev 2011) which corresponds to the *hercegovinae*-complex.

Recent revision of the *verrucosa*-group, previously belonging to the *Alona* *sensu lato*, resulted in the description of the new genus *Anthalona* Van Damme, Sinev & Dumont, 2011 which is supported by: two main