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Cladocerans of genus *Alona* Baird, 1843 (Cladocera: Anomopoda: Chydoridae) and related genera from Aguascalientes State, Mexico

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Abstract

Eight cladoceran species of *Alona* s. lato and related genera were found in Aguascalientes state, Mexico, after extensive sampling efforts. Two of them are new for science. Both new species belong to the *pulchella*-group of *Alona* and share distinctive features of the group. *Alona aguascalientensis* **sp. nov.** differs from the other species of the group by the presence of denticles on posteroventral corner of valves, by a moderately elongated narrow postabdomen with weakly protruding distal angle and postanal marginal denticles of the same size, and by the morphology of major head pores, with connection between central and posterior pores always absent, while connection between anterior and central pores present or interrupted. *A. anamariae* **sp. nov.** differs from the other species of the group by the long last seta in the anterior group of setae of the ventral margin of valves, by short, relatively wide, evenly narrowing distally postabdomen, and by the small size (it is the smallest species of the group). Both new species seems to be endemic of Central Mexican Plateau. Other species found are *A. glabra* Sars, 1901, *A.* cf. *guttata* Sars, 1862, *A. ossiani* Sinev, 1908, *A. setigera* Megard, 1967, *Coronatella circumfimbriata* (Megard, 1967) and *Leberis davidi* (Richard, 1895).

Key words: *Alona,* Aguascalientes State, Cladocera, endemics, Mexico, morphology, new species, taxonomy

Introduction

Biodiversity of the cladocerans (Crustacea: Cladocera) in Mexico has been intensively investigated during last decades (Ciros-Pérez & Elías-Gutiérrez 1997; Elías-Gutiérrez *et al.* 1997, 1999, 2001, 2006, 2008ab; Kotov & Elías-Gutiérrez 2002, 2004; Kotov *et al.* 2003; Elías-Gutiérrez & Valdez-Moreno 2008). Still, it is not yet fully completed, and new taxa of the cladocerans are expected to be found here.

Among intensively revised groups of Cladocera, there are some members of the subfamily Aloninae formerly assigned to the artificial lump genus *Alona* Baird, 1843 (Anomopoda: Chydoridae). Members of *Alona* s. lato have convergently similar general morphology, but differ greatly in many significant features, especially in morphology of thoracic limbs (Van Damme & Dumont 2008a–b; Van Damme *et al.* 2010). Revision of this assemblage is far from complete, and most of the species historically included in *Alona* are still listed as members of this genus. Recent revisions of several compact species-groups within *Alona* s. lato lead to description of new genera (Dumont & Silva-Briano 2000; Sinev 2004; Sinev & Shiel 2008; Van Damme & Dumont 2008a, 2009; Van Damme *et al.* 2008, 2011; Van Damme & Sinev 2011). Detailed studies of local faunas recently revealed numerous new species of *Alona* s. lato and related genera in the tropical regions, such as East and South Africa (Sinev, 2006, 2008, 2009a; Van Damme & Dumont 2008a; Van Damme & Eggermonth 2011), Indochina (Sinev & Sanoamuang 2007; Sinev & Kotov 2012), South America (Sinev & Coronel 2006; Sinev & Elmoor-Loureiro 2010; Kotov *et al.* 2010; Van Damme *et al.* 2011) and Mexico (Elías-Gutiérrez & Suares-Morales 1999; Dumont & Silva-Briano 2000; Elías-Gutiérrez & Valdes-Moreno 2008).

The aim of the present study is to investigate diversity of *Alona s. lato* of the Aguascalientes State of Mexico.

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