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## An annotated checklist of the Cladocera (Crustacea: Branchiopoda) of Colombia

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### Abstract

Based on the revision of available literature on the Colombian Cladocera (Crustacea: Branchiopoda), we present an annotated checklist, with taxonomical comments for all taxa recorded since the start of research on this group in the country in 1913. We have listed 101 valid taxa, of which most records belong to the Caribbean region of Colombia. The situation in Colombian Cladocera taxonomy is, at present, unfavorable for any realistic conclusions on biodiversity, ecology and biogeography.

**Key words:** Cladocera, taxonomy, the Neotropics, checklist, Colombia

### Introduction

Argentina, Chile, Brazil, Venezuela, Cuba, México, U.S.A. and Canada represent the American countries with existing annotated checklists of the Cladocera (Olivier 1962; Elmoor-Loureiro 1997, 1998; Elías-Gutiérrez *et al.* 2008a; Zoppi de Roa & López 2008; Elías-Gutiérrez & Varela 2009; Dodson *et al.* 2010; De los Ríos Escalante & Kotov 2015). The knowledge on the diversity and distribution of this group is still lagging in another large South American country, Colombia. Paradoxically, 19 of 31 departments of Colombia do not have any single report on the Cladocera. The first taxonomic studies on Colombian Cladocera were carried out at the beginning of the 20th century: Stingelin (1913) reported 34 species from the Andean region and Pearse (1916) recorded five species from Santa Marta area. Since that time, the entomostracan crustaceans have been documented from scattered localities in different parts of this country, for example Brehm (1956) recorded nine species from Barranquilla Atlántico.

In the last decades, the taxonomic researches in Colombia were intensified, and a significant progress was achieved for some cladoceran taxa (Gaviria 2001; Monroy *et al.* 2004; Barón-Rodríguez & Gavilán-Díaz 2007; Aranguren-Riaño *et al.* 2010; Bekker *et al.* 2010; Fuentes-Reinés & Elmoor-Loureiro 2011; Fuentes-Reinés *et al.* 2012; Fuentes-Reinés & Zoppi de Roa 2013; Kotov & Fuentes-Reinés 2014; Fuentes-Reinés 2014a; Fuentes-Reinés 2014b; Fuentes-Reinés 2014c; Kotov & Fuentes-Reinés 2015). Also many papers on some ecological aspects of the Cladoceran studies appeared: Camargo-Fajardo (1994); Roldan & Ruiz (2001); Jaramillo & Gaviria (2003); Barón-Rodríguez *et al.* (2006); Gallo-Sánchez *et al.* (2009); Guevara *et al.* (2009); Álvarez (2010); Jaramillo & Pinto (2010); Rivera *et al.* (2010); Villabona-González *et al.* (2011); Aranguren-Riaño *et al.* (2011); Aranguren-Riaño & Monroy-González (2014). However, the quality of the latter papers in the identifications of the cladoceran species was usually low, and misinterpretations of the taxonomic nomenclature took place. Such records need to be revised.

The present paper aims at compiling a formal checklist of the Colombian Cladocera, evaluating the status of all taxa found, and discussing some taxonomic problems concerning them.