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## Redescription of *Alonella lineolata* Sars, 1901 (Crustacea, Cladocera, Chydoridae) and its translocation to the subfamily Aloninae and to the new genus *Bergamina* gen. nov.

LOURDES M. A. ELMOOR-LOUREIRO<sup>1</sup>, MARIA JOSÉ SANTOS-WISNIEWSKI<sup>2</sup> & ODETE ROCHA<sup>3</sup>

<sup>1</sup>Laboratório de Zoologia, Universidade Católica de Brasília, QS 7 lote 1 sala 331, Taguatinga, DF, Brazil. 71766-900.

E-mail: [lourdes.loureiro@catolica.edu.br](mailto:lourdes.loureiro@catolica.edu.br)

<sup>2</sup>Instituto de Ciências da Natureza, Universidade Federal de Alfenas, Rua Gabriel Monteiro da Silva, 714, Centro, Alfenas, MG, Brazil. 37130-000. E-mail: [mjw@unifal-mg.edu.br](mailto:mjw@unifal-mg.edu.br)

<sup>3</sup>Departamento de Ecologia e Biologia Evolutiva, Universidade Federal de São Carlos, Rodovia Washington Luis, km 235, Caixa-Postal: 676. São Carlos, SP, Brazil. 13565-905. E-mail: [doro@power.ufscar.br](mailto:doro@power.ufscar.br)

### Abstract

*Alonella lineolata* Sars 1901 (Anomopoda, Chydoridae) was described from a single female found in an aquarium prepared with dried mud from São Paulo, Brazil, and just recently this taxon has been reported again. The taxonomic status of *A. lineolata* was previously questioned, but re-evaluation was not possible until now due to the lack of specimens. The present paper described parthenogenetic females, based on specimens collected in a small pond at Pradópolis, state of São Paulo, and a specimen was selected as neotype. The head pores, mandibles, and the trunk limb morphology revealed that this species belongs to the subfamily Aloninae, instead of Chydorinae, as presumed by Sars. Despite its *Alona*-like aspect, this species presents a unique combination of characters, leading to its assignment to a new alonine genus, *Bergamina* gen.nov.

**Key words:** Anomopoda, Aloninae systematics, *Bergamina* gen.nov., Brazil

### Introduction

*Alonella lineolata* Sars, 1901 (Anomopoda, Chydoridae) was described from a single female found in aquaria prepared with dried mud from São Paulo, Brazil. Sars stated that this species resembles the European *Alonella nana* (Baird, 1850), but “of considerably larger size, and the striae are much more numerous”. He also pointed out the singular morphology of the postabdomen, which he described as “rather large and oblong, dorsal edge below the anal orifice almost straight, supra-anal projection very slight, lower corner somewhat produced and narrowly rounded, marginal denticles very small and only visible at the lower corner, no lateral denticles present; caudal claws with an extremely small denticle at the base” (Fig. 1A).

The type specimen is not in the Sars collection at the Natural History Museum, University of Oslo (Åse Wilhelmsen, *pers. com.*). It also was not found at the Zoological Museum of São Paulo University, where part of the material studied by Sars is deposited (specimens checked by Elmoor-Loureiro). So, the type material of *A. lineolata* is presumed lost.

The records of *A. lineolata* are rare in the literature. After the original description (Sars 1901), it had not been reported from Brazil until very recently, from São Paulo state (Castilho-Noll *et al.* 2010; Rocha *et al.* 2011) and Minas Gerais state (Maia-Barbosa *et al.* 2008; Santos-Wisniewski *et al.* 2011). Collado *et al.* (1984) indicated its occurrence in El Salvador, Central America. There are no figures of *A. lineolata* in these papers, precluding conclusions on its actual distribution.

Following Sars, Smirnov (1971) considered this species as belonging to genus *Alonella* Sars 1862. Later on, however, in his guide for identification of the Chydorinae (1996), he included this taxon in the *incertae sedis* list. The lack of specimens of *A. lineolata* had not allowed investigation of its taxonomic position until recently, when