

Comparison of the amplexial morphology of two Argentine populations of *Artemia* (Crustacea, Anostraca, Artemiidae): a reliable taxonomical tool

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Abstract

In order to facilitate the identification of *Artemia* sibling species, the morphology of the male and female structures involved in the pre-copulatory embrace (amplexus) of Argentine populations of *A. franciscana* and *A. persimilis* was compared. Differences between the species in the female cuticular projections and the frontal knobs of the male second antenna result in differences in the form of the amplexus and in the degree of pressure on the female during amplexus. These characters are helpful tools in the specific identification of live and preserved adults. The usefulness of the shape of the male's second antenna as morphological and morphometrical characters in *Artemia* taxonomy at the species level is discussed.

Key words: *Artemia*; amplexus; male frontal knob; female cuticular projections

Introduction

The anostracan genus *Artemia* includes several bisexual sibling species distributed all over the world and a number of parthenogenetic strains of diverse ploidy levels controversially included under the binomen *A. parthenogenetica* (Vanhaecke *et al.*, 1987; Triantaphyllidis *et al.*, 1998; Brtek and Mura, 2000; Van Stappen, 2002). These crustaceans are typical inhabitants of diverse saline and hypersaline environments: inland or coastal lakes or lagoons and saltworks. In Argentina, two bisexual species have been recorded: *A. persimilis* Piccinelli & Prosdocimi, 1968 (Rodríguez Gil *et al.*, 1998; Cohen *et al.*, 1999a) and *A. franciscana* Kellogg, 1906 (Papeschi *et al.*, 2000; Amat *et al.*, 2004).

Sexual characters are generally considered useful, reliable, and conservative in the