



***Temnocephala pignalberiae* Dioni, 1967 (Platyhelminthes, Temnocephalida)
from two allopatric populations of *Dilocarcinus pagei* Stimpson, 1861
(Crustacea, Decapoda) — first record for Brazil**

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Abstract

The presence of adult specimens and eggs of *Temnocephala pignalberiae* Dioni, 1967 in *Dilocarcinus pagei* Stimpson, 1861, at Poconé, Brazilian ‘Pantanal’, State of Mato Grosso, together with abundant material also collected from *D. pagei* at Bebedouro, State of São Paulo, are reported. These two records allowed the extension of the known geographical distribution of *T. pignalberiae* from Argentina to Central Brazil, and the comparison of the temnocephalan infrapopulations from two allopatric crab populations, living approximately 1,300 km apart from each other. The entire sample from Poconé and part of the sample from Bebedouro were fixed according to our protocols. Juvenile and adult temnocephalans were whitish to light pink and presented the typical red-eye pigmentation. The worms were living in the branchial chambers, where they deposited their eggs, over the tissue covering the inner upper part of the carapace. These eggs were thin-shelled and the most delicate, so far recorded, for any temnocephalan species our group has studied. The most distinctive features of the temnocephalan specimens from the two localities representing different watersheds were the: 1. cirrus with unarmed introvert; 2. prostatic bulb thick-walled; 3. body ellipsoid, with small and more separate tentacles; 4. syncytial plates elongated and with similar shape; and 5. excretory pores in the same position inside the each syncytial plate. Differing minimally by the: 1. contrasting shaft bases – specimens from Poconé, with rims of the shaft base directed inward, while specimens from Bebedouro, with straight and more open shaft base rims, similar to the shaft bases drawn based on specimens found in Argentina; and 2. ratio between cirrus length and prostatic bulb length, resulting in longer prostatic bulbs in the specimens from Bebedouro. Statistical analysis of measurements taken from flattened adult specimens from the infrapopulations of the two localities showed only minimal differences in the length and width of some organs. This is expected to occur when the same species is collected from populations of the same host species living far from each other and representing separate watersheds.

Key words: Geographical distribution, Neotropic Region, State of Mato Grosso, State of São Paulo, taxonomy, temnocephalans

Introduction

Crabs of the genus *Dilocarcinus* H. Milne-Edwards, 1853 (*Dilocarcinini* Pretzman, 1978) are present in all South American lowlands, from Guyana to Argentina; those of the genus *Sylviocarcinus* H. Milne-Edwards, 1853 (*Valdiviinae* Pretzman, 1978) are present in all larger river drainage systems of South America, usually associated with floating meadows, from Venezuela to Argentina (Magalhães, 2003; Magalhães, 2005; Magalhães & Turkay, 1996). These crabs were first reported to have temnocephalans as ectocommensals by Pignalberi (1962), in Argentina, the southernmost area of their known distribution. Dioni (1967) described the species *Temnocephala pignalberiae* from *Trichodactylus orbicularis* Meuschen, 1781 (= *Dilocarcinus pagei* Stimpson, 1861), collected from Río Salado, and Laguna de Los Espejos, Santo Tomé, Province of Santa Fe,