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A new species of freshwater crab of the genus *Microthelphusa* Pretzmann, 1968 (Crustacea: Brachyura: Pseudothelphusidae) from the Amazon region of Guyana

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Abstract

A new species of freshwater crab, *Microthelphusa furcifer*, is described and illustrated from the Potaro-Siparuni Kuribrong River in the Guyana Shield (Amazon region of Guyana). The new species can be easily separated from its congeners by the morphology of the first gonopod. The first gonopod of *Microthelphusa meansi* Cumberlidge, 2007, is illustrated to clarify some aspects of its morphology.

Key words: *Tepui*, Neotropical region, Amazon, biodiversity, freshwater crabs, Pseudothelphusidae, Kingsleyini

Introduction

An ongoing study on the phylogenetic relationships among the freshwater crabs of the tribe Kingsleyini Bott, 1970, included a study of the morphology of the genus *Microthelphusa* Pretzmann, 1968. Among the material housed in the collections of the Museum of Zoology in São Paulo were three adult males of *Microthelphusa* from the Guyana Shield (Amazon region of Guyana) that proved to represent a new species, which is herein described and illustrated, *Microthelphusa furcifer* n. sp. The first gonopod of *Microthelphusa meansi* Cumberlidge, 2007, is illustrated to clarify some aspects of its morphology.

The terminology for describing the gonopod morphology is adapted from Smalley (1964) and Magalhães (2010). The computerized photographs of the first gonopod were taken using a stereomicroscope Zeiss Discovery V12 (Automontage® system). Abbreviations used include: INPA (Instituto Nacional de Pesquisas da Amazônia); IVIC (Instituto Venezolano de Investigaciones Científicas); MHNLS (Museo de Historia Natural de La Salle); MZUSP (Museum of Zoology of the University of São Paulo); USNM (National Museum of Natural History, Smithsonian Institution, Washington, D.C.); carapace length (cl), taken from the front to the posterior margin of the carapace; carapace width (cw), taken at the level of its widest point; G1 and G2, first and second gonopods, respectively; mxp3, third maxilliped; P1 cheliped; P2–P5, pereopods 2 to 5.

Taxonomy

Family Pseudothelphusidae Ortmann, 1893

Tribe Kingsleyini Bott, 1970a

***Microthelphusa* Pretzmann, 1968**

Included species. The genera of the original combination are indicated within brackets. *Microthelphusa barinensis*

outgrowth present in *M. barinensis*, *M. bolivari*, *M. lipkei*, *M. sommani*, and *M. wymani*); (6) the G1 apical plate and mesial process nearly equal in size (Figs. 2A, C; 3A, D) (distinctly unequal in size in *M. barinensis*, *M. forcarti*, *M. ginesi*, *M. lipkei*, *M. meansi*, *M. odaelkae*, *M. racenisi*, *M. sucrensis*, *M. turumikiri*, and *M. viloriai*). *Microthelphusa furcifer* n. sp. and *M. meansi* occur both in the Potaro-Siparuni Region (Guyana Shield), although separated by very different altitudes (440 m and 1219 m, respectively). The species of *Microthelphusa* are usually highly endemic, restricted to highlands and with remarkably narrow geographic and altitudinal ranges (Magalhães 2010; Suárez 2006, table 1); the geographic and altitudinal distribution of *Microthelphusa furcifer* n. sp. and all previously known species of *Microthelphusa* are so far consistent with these patterns (Table 1).

TABLE 1. Geographic and altitudinal distributions for the species of *Microthelphusa*. Bra, Brazil; Guy, Guyana; Sur, Surinam; Tri, Trinidad; Ven, Venezuela.

| Species | Locality | Altitude (m) |
|---------------------------|--------------------------------|--------------|
| <i>M. recenisi</i> | Aragua state (Ven) | 1400–2000 |
| <i>M. forcarti</i> | Mérida state (Ven) | 1603–1800 |
| <i>M. sucrensis</i> | Monagas and Sucre states (Ven) | 1500 |
| <i>M. turumikiri</i> | Sucre state (Ven) | 1500 |
| <i>M. viloriai</i> | Trujillo state (Ven) | 1500 |
| <i>M. ginesi</i> | Distrito Federal (Ven) | 1400 |
| <i>M. meansi</i> | Potaro-Siparuni region (Guy) | 1219 |
| <i>M. lipkei</i> | Amazonas state (Bra) | 1133 |
| <i>M. bolivari</i> | Bolívar state (Ven) | 1000 |
| <i>M. wymani</i> | Paramaribo (Sur) | 880 |
| <i>M. odaelkae</i> | Trinidad (Tri) | 600–800 |
| <i>M. barinensis</i> | Barinas state (Ven) | 530–570 |
| <i>M. furcifer</i> n. sp. | Potaro-Siparuni region (Guy) | 440 |
| <i>M. rodriguezi</i> | Esequive (Guy) | ? |
| <i>M. sommani</i> | Amazonas state (Bra) | ? |

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