

First report of *Ilyocryptus paranaensis inarmatus* Kotov, Elías-Gutiérrez & Gutiérrez-Aguirre, 2001 (Cladocera, Anomopoda, Ilyocryptidae) in South America

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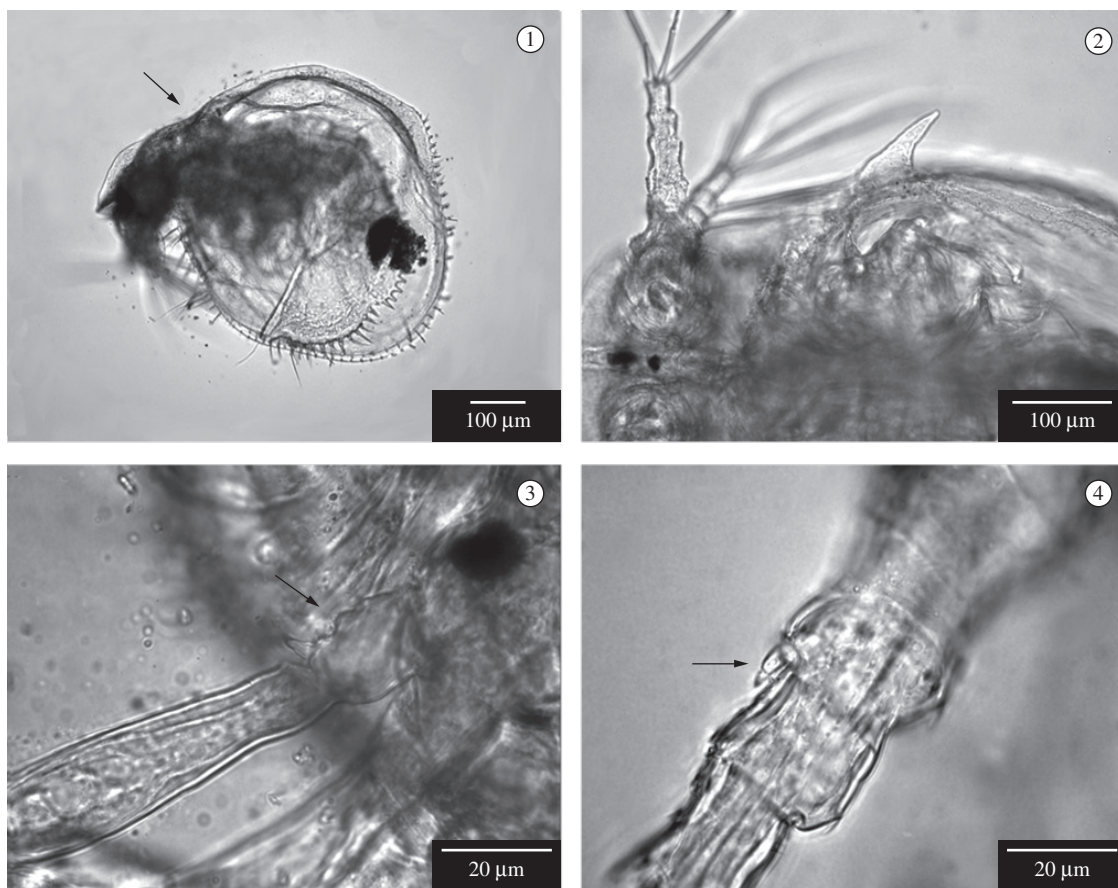
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(With 4 figures)

Ilyocryptus paranaensis Paggi 1989 was described initially from the Paraná River basin, Argentina (Paggi, 1989) and is distinguished from other neotropical Ilyocryptids by complete molting and the presence of a horn-like protuberance on each valve. This taxon is composed of two subspecies: *Ilyocryptus paranaensis paranaensis* Paggi 1989 and *Ilyocryptus paranaensis inarmatus* Kotov, Elías-Gutiérrez & Gutiérrez-Aguirre, 2001 the latter reported only for the basin of the Usumacinta River, Mexico (Kotov and Stifter, 2006).

Until now, *I. paranaensis paranaensis* has been considered the only species occurring in South America, with reports from Argentina (Paggi, 1989; Frutos and Carnevali, 2008) and Brazil (Kotov and Elmoor-Loureiro, 2008).

During an inventory of cladocerans in streams of the Brazilian Cerrado (Project to Reestablish Ecological Integrity and Eco-management of the São Francisco and Paranoá River Basins - Reestabelecimento da Integridade Ecológica e Eco-gestão das Bacias do Rio São Francisco e Paranoá, FNMA), we observed the occurrence of



Figures 1-4. *Ilyocryptus paranaensis inarmatus*, parthenogenetic female from Federal District, Brazil. 1) Lateral view, arrow = depression between head and valves; 2) Protuberance horn-like on right valve; 3) Antennule, arrow = system of hillocks; 4) Antenna, arrow = spine bisegmented on second segment of exopod.

Ilyocryptus paranaensis inarmatus, representing the first record for South America.

A single specimen of *I. paranaensis inarmatus* was found in a sample taken with a plankton net (100 mm mesh) among submerged macrophytes and fixed with 4% formalin, during the dry season (August/2009) in Mestre D'Armas stream (15° 39' 40,4" S and 47° 40' 38,1" W), in the Federal District, Brazil (0.37 m deep, pH 6.2, electric conductivity 134.9 mS/cm, dissolved oxygen 2.27 mg/L, current velocity 0.5 m/s). The voucher specimen is deposited in the Zoology Laboratory at the Universidade Católica de Brasília.

The observed specimen, a 722 mm long parthenogenetic female, presented diagnostic features of *I. paranaensis inarmatus*: complete molting, well-defined depression between head and valves (Figure 1), presence of horn-like protuberance on valves (Figure 2), antennules with well developed system of hillocks (Figure 3), antennas with spine second segment exopod bisegmented (Figure 4), and absence of spinules on the inner margin valves. Nevertheless, four denticles were observed at the base of the postabdomen, contrasting with the typical population, in which these denticles are absent, or reduced (Kotov and Stifter 2006).

The present record expands the occurrence of *I. paranaensis inarmatus*, which was originally thought to be restricted (Kotov et al., 2001). Furthermore, the difference observed in the number of basal denticles

on the postabdomen suggests that studies on intra- and interpopulational variability are necessary in order to achieve a better understanding of the *I. paranaensis* subspecies.

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