



Description of a new subspecies of the crayfish *Parastacus brasiliensis* (Von Martens, 1869) from São Francisco de Paula, RS, Brazil (Decapoda, Parastacidae)

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Abstract

Parastacus brasiliensis promatensis **subsp. n.** is described from São Francisco de Paula, Rio Grande do Sul, Brazil. The animals were collected at an elevation of 850 m, representing the first record of Parastacidae at high altitude in Brazil. Subspecies recognition was performed through the analysis of morphometrical characters. Discriminant analysis was applied to compare *P. brasiliensis promatensis* **subsp. n.** with the known populations of *P. brasiliensis* (Von Martens, 1869) using residuals from 23 morphometric regressions (Canonical Correlation = 0.948). All variance was explained by function 1 ($P < 0.001$), with perfect (100%) membership identification (*P. brasiliensis promatensis* centroid equal to 3.04; *P. brasiliensis* centroid equal to -2.78).

Key words: *Parastacus*, Parastacidae, Crustacea, Neotropical

Introduction

According to Crandall *et al.* (2000), the Parastacidae from South America are represented only by the genera *Parastacus* Huxley, 1879; *Samastacus* Riek, 1971 and *Virilastacus* Hobbs, 1991. There is a clear geographic segregation of the genera: *Parastacus* is found in southern Brazil, Uruguay, northern Argentina and Chile (two species), whereas *Samastacus* and *Virilastacus* are only found in Chile, in the western drainage of the Andes. The Brazilian species are *P. pilimanus* (Von Martens, 1869); *P. brasiliensis* (Von Martens, 1869); *P. varicosus* Faxon, 1898; *P. saffordi* Faxon, 1898; *P. defossus* Faxon, 1898 and *P. laevigatus* Buckup and Rossi, 1980 (Buckup, 1999).

Parastacus brasiliensis is a very common species described for the basins forming the Central Depression of Rio Grande do Sul, including tributaries of the Guaíba lake (Buckup, 1999). The present study aims to describe a subspecies of *P. brasiliensis*, captured at high altitudes and for a different basin system.

Material and methods

Parastacus brasiliensis promatensis **subsp. n.** was collected using baited fish traps in a creek (29°29.371' S; 50°13.800' W) located inside the Nature Research and Conservation Center of Pró-Mata, a private reserve (4.500 ha), established by PUCRS (Pontifícia Universidade Católica do Rio Grande do Sul) in 1993 (São Francisco de Paula County, Rio Grande do Sul, Brazil).

Specimens of *P. brasiliensis* used for comparison were obtained from the Museum of Science and Technology of PUCRS (MCT) as follows: 1 specimen, Triunfo, RS, 1984 (MCT, 1041). 1 specimen, Sítio Bela