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Sergio, A NEW GENUS OF GHOST SHRIMP FROM THE AMERICAS (CRUSTACEA: DECAPODA: CALLIANASSIDAE)

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ABSTRACT

The genus *Sergio* is established for four western Atlantic species of ghost shrimp previously assigned to *Neocallichirus*: *S. guara* (Rodrigues) and *S. mirim* (Rodrigues), from Brazil, *S. guassutinga* (Rodrigues), from Brazil and Florida, and *S. trilobata* (Biffar), from Florida. Species of *Sergio* can be distinguished from those of *Neocallichirus* in that the telson has a posterior margin divided by an armed or unarmed median cleft that forms distinct subtriangular or broadly rounded posterolateral lobes, and in having the uropodal endopod longer than broad rather than broader than long.

Keywords: Callianassidae, ghost shrimp.

INTRODUCTION

Ongoing studies of American callianassid shrimps have revealed the presence of numerous new species (Lemaitre and Rodrigues, 1991; Rodrigues and Manning, 1992; Manning, 1993) and have resulted in the recognition of several new genera (Manning, 1987, 1992; Manning and Felder, 1991, 1992; Rodrigues and Manning, 1992b). In his account of two new species of *Neocallichirus* Sakai, 1988 from the Caribbean, Manning (1992b) pointed out that the western Atlantic species of *Neocallichirus* could be divided into two groups based upon the shape of the telson and the uropodal endopod. We now consider these characters to be sufficiently unique to warrant the recognition of a new genus.

Abbreviations used include: A1, antennule; A2, antenna; cl, postorbital carapace length; Mxp3, third maxilliped; Plp1-5, first to fifth pleopods; USNM, acronym for the National Museum of Natural History, Smithsonian Institution, Washington.

Sergio, new genus

Fig. 1

Diagnosis.--Carapace lacking rostral carina. Cornea dorsal, subterminal, usually hemispherical. A1 peduncle not longer and stouter than A2 peduncle. Mxp3 without exopod, ischium-merus subpediform; merus not projecting beyond articulation with carpus. Chelipeds unequal, major without meral hook. Plp1 slender and uniramous, Plp2 slender and biramous, Plp3-5 foliaceous and biramous in both sexes; appendices internae present on Plp2 in female only, on Plp3-5 in both sexes: finger- like on Plp2, stubby and imbedded in margin of Plp3-5. Telson with posterior margin divided by an armed or an unarmed median cleft into subtriangular or broadly rounded posterolateral lobes. Uropodal endopod slender, distinctly longer than broad, tapering distally.

Type species.--*Callianassa guassutinga* Rodrigues, 1971.

Included species.--Four, all from the western Atlantic: *Sergio guassutinga* (Rodrigues, 1971), new combination, known from Brazil and Florida (Biffar, 1971); *Sergio guara* (Rodrigues, 1971), new combination, from Brazil; *Sergio mirim* (Rodrigues, 1971), new combination, from Brazil; and *Sergio trilobatus* (Biffar, 1971), new combination, from Florida.

Etymology.--Named for our colleague and friend Sergio de Almeida Rodrigues, Brazilian carcinologist, whose studies of Brazilian callianassids have raised our understanding of their biology to unprecedented new levels. The gender is masculine.

Remarks.--The species of *Sergio* differ from members of *Neocallichirus* in that in *Sergio* the posterior margin of the telson is divided by an armed (Fig. 1c) or an unarmed (Fig. 1a,b,d) median cleft and have a uropodal endopod that is distinctly longer than broad, tapering distally. In *Neocallichirus* the posterior margin of the telson is entire, broadly rounded, and the uropodal endopod is distinctly broader than long, widening distally.

Illustrations of the telson and uropod of the two remaining nominal species of *Neocallichirus* from the western Atlantic have been figured, as follows. *Neocallichirus grandimanus* (Gibbes) was figured by Biffar (1971, fig. 6d, as *Callianassa branneri* (Rathbun)) and by Manning (1987, fig. 2g, as *Callianassa grandimana*). *Neocallichirus rathbunae* (Schmitt) was figured by Biffar (1971, fig. 20e, as *Callianassa rathbunae*) and by Manning and Heard (1986, fig. 1d, as *Callianassa rathbunae*). Two newly described species were figured in Manning (1993).

The species of *Sergio* can be distinguished by using the following key.

KEY TO SPECIES OF *Sergio*

1. Telson with median spine posteriorly....*N. mirim* (Rodrigues, 1971); Brazil.

   Telson lacking median spine posteriorly 2

2. Front with 1 projection only (obtuse median projection present, submedians absent) .....*N. guara* (Rodrigues, 1971); Brazil.

   Front with 3 projections 3

3. Frontal projections each armed with spinule. Lateral margin of telson not trilobed ....*N. guassutinga* (Rodrigues, 1971); Florida to Brazil (Biffar, 1971).

   Front with 3 unarmed, obtuse projections. Lateral margins of telson trilobed .....*N. trilobatus* (Biffar, 1970); southern Florida.

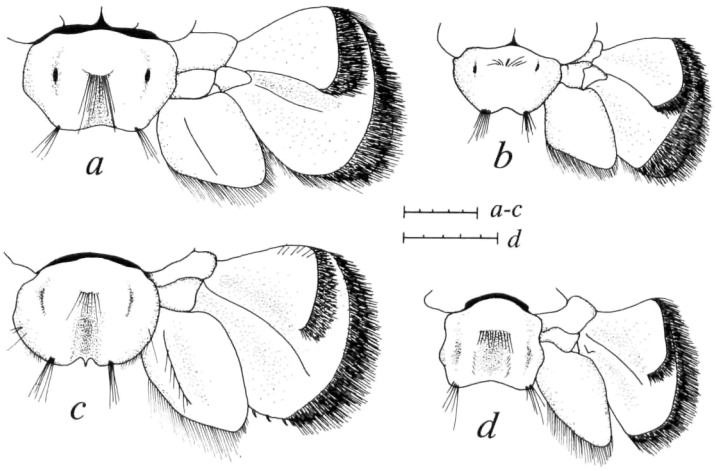

Fig. 1. Telson and right uropod, in dorsal view, of the species of *Sergio*. a, *S. guassutinga* (Rodrigues), USNM 256886, male paratype, cl 25 mm, Praia do Araça, São Sebastião, State of São Paulo, Brazil; b, *S. guara* (Rodrigues), USNM 256885, male paratype, cl 22.1 mm, Praia do Araça, São Sebastião, State of São Paulo, Brazil; c, *S. mirim* (Rodrigues), USNM 221805, ovigerous female, cl. 24.5 mm, Praia Jose Meninos, Santos, State of São Paulo, Brazil; d, *S. trilobatus* (Biffar), USNM 256884, ovigerous female, cl 16.3 mm, Cedar Key, Levy County, west coast of Florida, USA. Scales equal 5 mm.

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