

On an invalid record of *Pachycheles chacei* Haig, 1956, from the southwestern Atlantic (Decapoda: Anomura: Porcellanidae)

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Abstract

It is shown herein that all southwestern Atlantic specimens traditionally attributed to *Pachycheles chacei* Haig, 1956, actually belong to *Pachycheles greeleyi* (Rathbun, 1900), a Brazilian endemic species. The geographic distribution of *Pachycheles chacei* is restricted to the Atlantic coasts of Panama, Colombia and Venezuela, and to the Pacific coasts of Guatemala, El Salvador, Costa Rica, Panama, Colombia, and Ecuador.

Key words: biodiversity, taxonomy, porcelain crab, Crustacea, western Atlantic.

Introduction

Pachycheles chacei Haig, 1956, was originally described from Caledonia Bay, on the Atlantic coast of Panama (Haig, 1956). Subsequently, *P. chacei* has been recorded from additional localities in the western Atlantic (Colombia and Venezuela; Hernández and Bolaños, 1995; Werding, 1977; 1982) and from the Pacific coast of Colombia and Ecuador (Gore and Abele, 1976; Haig, 1960). More recently, Silva and Calado (1998) mentioned *P. chacei* for the first time from the southwestern Atlantic (Alagoas, Brazil). All additional records of *Pachycheles chacei* from Brazil (Lira *et al.*, 2007; Melo, 1999; Rodríguez *et al.*, 2005) actually refer to the specimens of Silva & Calado (1998). Re-examination of the 109 males and 127 females mentioned by Silva and Calado (1998) revealed that all these specimens actually belong to *Pachycheles greeleyi* (Rathbun, 1900), a Brazilian endemic species (Velooso and Melo, 1993). The geographic distribution of *Pachycheles chacei* is restricted to the Atlantic coast of Panama (Bocas del Toro and Golfo de Darién), Colombia (Santa Marta, Providencia and Rosario Islands), and Venezuela (Margarita Island), and to the Pacific coast of Guatemala (San José), El Salvador (Acajutla), Costa Rica (Gulf of Nicoya), Panama (Isla Verde and Piñas Bay), Colombia (Humboldt Bay), and Ecuador (La Libertad and Santa Helena Bay).

Abbreviations used include: LabMar (Laboratórios Integrados de Ciências do Mar, Alagoas);

MZUSP (Museu de Zoologia da Universidade de São Paulo); P1, cheliped; cl, carapace length; cw, carapace width.

Pachycheles greeleyi (Rathbun, 1900)

Pachycheles chacei – Silva and Calado, 1998: 81; Melo, 1999: 230, figs. 151, 152; Rodríguez *et al.*, 2005: 555, pl. 1, fig. d; Lira *et al.*, 2007: 42. [Not *Pachycheles chacei* Haig, 1956]

Material examined: Brazil, Alagoas, Passo de Camaragibe, 19.viii.1997: 2 males and 2 females (MZUSP 21232). Passo de Camaragibe, 15.ix.1997: 1 male and 2 females, one ovigerous (MZUSP 21284). Passo de Camaragibe, 12.xii.1997: 1 male and 2 females, one ovigerous (MZUSP 21285). Passo de Camaragibe, 22.iv.1997: 7 males and 5 females, 2 ovigerous (LabMar 605). Passo de Camaragibe, 21.v.1997: 1 male (LabMar 669). Passo de Camaragibe, 19.viii.1997: 41 males and 39 females (LabMar 886). Passo de Camaragibe, 15.ix.1997: 7 males and 12 females (LabMar 954). Passo de Camaragibe, 17.x.1997: 4 males and 10 females (LabMar 1021). Passo de Camaragibe, 12.xii.1997: 11 males and 14 females (LabMar 1185). Passo de Camaragibe, 14.xi.1997: 2 males and 2 females (LabMar 1208). Passo de Camaragibe, 13.i.1998: 13 males and 14 females (LabMar 1266). Passo de Camaragibe, 27.ii.1998: 14 males and 17 females

(LabMar 1306). Passo de Camaragibe, 14.ix.2004: 1 male (LabMar 5123). Paripueira, 30.viii.1996: 1 ovigerous female (LabMar 172). Paripueira, 24.x.1996: 1 male and 1 female (LabMar 314). Paripueira, 19.xi.1998: 1 male and 1 ovigerous female (LabMar 1741). Ponta Verde, 31.viii.1996: 1 female (LabMar 185). Ponta Verde, 13.xii.1997: 1 ovigerous female (LabMar 1203). Jarapatinga, 12.xi.1997: 1 male and 1 female (LabMar 1108).

Comparative material: *Pachycheles greeleyi* (Rathbun, 1900): Brazil, Rio Grande do Norte, Baía Formosa, Cabo do Baco-Pari, Christoffersen, M. coll., 18.viii.1982: 2 males (MZUSP

7190); 2 males and 2 ovigerous females (MZUSP 7286). Ponta do Cibaúna, Christoffersen, M. coll., 19.viii.1982: 2 males (MZUSP 7285). Pernambuco, 1 male (MZUSP 9493). Alagoas, Passo de Camaragibe, Santana, W. and Pinheiro, A. coll., 18.x.2009: 1 male and 1 ovigerous female (MZUSP 20594). Bahia, Ilhéus, Coroa Vermelha, 31.v.1994: 1 ovigerous female (MZUSP 19531).

Distribution: Restricted to the coast of Brazil (from Pará to Espírito Santo, and Paraná), from the intertidal zone down to 5 meters depth.

Remarks: *Pachycheles chacei* and *P. greeleyi* do resemble each other in the granulation of the che-



Figure 1. *Pachycheles chacei* Haig, 1956, dorsal view, male cl 6,8 mm, cw 7,0 mm (MZUSP 21232). Scale bar: 5 mm.

lipeds and in the dentition of the flexor margin of the carpus of P1. However, *P. chacei* differs from *P. greeleyi* in having a more coarsely granulated carapace and more rugose and pubescent ambulatory legs. Additionally, the male of *P. chacei* has 5-7 telson plates and no pleopods, whereas the male of *P. greeleyi* has the first two pairs of pleopods and always 7 telson plates.

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