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Redescription and taxonomic status of *Paguristes weddellii* (H. Milne Edwards) (Crustacea: Anomura: Paguroidea: Diogenidae) from the eastern Pacific

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Abstract

The type and additional material of *Paguristes weddellii* (H. Milne Edwards, 1848) were examined. The species is redescribed and illustrated in details. Comparison of *P. weddellii* with the monotypic genus *Tetralobistes* Ayón-Parente & Hendrickx, 2010b, shows many similarities, principally in the armature of the distal margin of the male first pleopod and the shape of the telson, which in both cases feature a tetralobular posterior margin, a character considered unique among the Diogenidae. Consequently, *Pagurus weddellii* is transferred to the genus *Tetralobistes*. *Paguristes hirtus* Dana, 1851, a subjective junior synonym of *Pagurus weddellii* is removed from the synonymy based on lack of direct evidences.

Key words: Crustacea, Diogenidae, *Paguristes*, *Tetralobistes*, new combination, eastern Pacific

Introduction

While examining several species of hermit crabs assigned to *Paguristes* in the collection of the Muséum national d'Histoire naturelle in Paris, Rahayu (2005) discovered species showing tendency of reduction of the gill formula. Consequently, she restricted species with 13 pairs of gills to *Paguristes*, and reinstated *Stratiotes* Thomson, 1899 for species with 12 pairs of gills. Indeed, the type species of *Stratiotes*, *P. setosus* Filhol, 1885 [subjective junior synonym (as in the Abstract) of *Paguristes setosus* (H. Milne Edwards, 1848)], has 12 pairs of gills. At the same time, Rahayu (2005) examined some species with a most advanced gill reduction (8 pairs), and transferred these to *Pseudopaguristes* McLaughlin, 2002. Revision of the genus *Paguristes* has been still ongoing (McLaughlin & Rahayu 2005; Rahayu & McLaughlin 2006; Rahayu 2007; Rahayu & Forest 2009; McLaughlin 2008; Komai 2009, 2010).

Areopaguristes was designated as a generic replacement name for *Stratiotes* Thomson, 1899, a substitute name for the preoccupied senior homonym *Stratiotes* Putzeys, 1846 (Rahayu & McLaughlin 2010). While studying members of the family Diogenidae from the Mexican Pacific coast, Ayón-Parente & Hendrickx (2010b) described a new genus, *Tetralobistes*, to accommodate a new species, *T. bicentenarius* Ayón-Parente & Hendrickx, 2010b, very similar to *Paguristes* species (sensu Rahayu 2005) but clearly distinct by the shape of its telson (posterior margin typically divided into four lobes) and other characters.

Paguristes weddellii (H. Milne Edwards, 1848) was described from Peru based on a single specimen. The original description is short and without illustrations. The species was figured by Rathbun (1910) and later by Retamal (1981). While consulting these two contributions, our attention was called on the close similarity between *P. weddellii* and both *Areopaguristes mclaughlinae* (Ayón-Parente & Hendrickx, 2006) and *Tetralobistes bicentenarius* from the tropical eastern Pacific. These similarities include the shape of the shield, of the ocular and antennal acicles, and of the antennal flagella. To complete the comparison, a male and a female of *P. weddellii* collected in Valdivia, Chile, were obtained on loan, examined in detail, and a redescription and illustrations are presented herein.