A review of the genus Speocarcinus Stimpson, 1859 (Crustacea: Brachyura: Xanthidae), with a key to its species and the description of one new species

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Abstract

Speocarcinus dentatus n. sp. is described from the southwestern Atlantic. The new species can be easily separated from its congeners by a suite of carapace and appendage characters. Speocarcinus Stimpson, 1859, now includes eight extant species, all from the Atlantic or Pacific coasts of the Americas. Additional characters to further differentiate between S. carolinensis Stimpson, 1859, and S. lobatus Guinot, 1969, and between S. granulimanus Rathbun, 1894, and S. spinicarpus Guinot, 1969 are documented. The lectotype of S. granulimanus is first described and a key to the species of Speocarcinus is provided.

Key words: biodiversity, taxonomy, new species, Eubrachyura, western Atlantic, eastern Pacific

Introduction

Stimpson (1859) established Speocarcinus for a species from South Carolina (USA), S. carolinensis. Since then ten more species have been added to the genus, of which only five still remain: S. granulimanus Rathbun, 1894, S. lobatus Guinot, 1969, S. spinicarpus Guinot, 1969, S. monotuberculatus Felder & Rabalais, 1986, and S. amazonicus Brandão, Tavares & Coelho-Filho, 2010, all from either the Atlantic or Pacific coasts of the Americas. Five other species previously included in Speocarcinus have been removed from the genus: Eucrate californiensis Lockington, 1877, first transferred to Speocarcinus by Rathbun (1901) and later to the monotypic genus Malacoplax Guinot, 1969; Speocarcinus ostrearcicolus Rathbun, 1910, synonymized with Prionoplax ciliata Smith, 1870 by Guinot (1969); S. celebensis Tesch, 1918 [from Sulawesi, Indonesia; currently ?Viaderiana celebensis (Tesch, 1918)]; S. luteus McNeill, 1929 [from Australia; currently Ceratoplax lutea (McNeill, 1929)]; and S. laevimarginatus Yokoya, 1933 [from Japan; currently Ceratoplax laevimarginata (Yokoya, 1933)] (Serène 1964; Ng 1987; Ng et al. 2008).

It was ultimately recognized that different species were actually being mistakenly identified with S. carolinensis. For 108 years the type material of the species was considered to have been lost in the Great Chicago fire, until Evans (1967) found one syntype from the Charleston harbor in the collections of the Natural History Museum, London. Furthermore, adult and young individuals of S. carolinensis look very different from each other and for many years the best available illustrations of the species were only those of an adult male, first provided by Rathbun (1918: 39, pl. 159, fig. 6) and much later by Williams (1965: 203, fig. 186). As a result three western Atlantic species, S. lobatus, S. monotuberculatus and S. amazonicus, all resembling small and medium size S. carolinensis, were only recognized as separate species much later (Guinot, 1969; Felder & Rabalais, 1986; Brandão et al., 2010, respectively).