

THE OCCURRENCE OF *CALLINECTES ARCUATUS* ORDWAY, 1863
(CRUSTACEA, DECAPODA, PORTUNIDAE) IN BAHIA, BRAZIL

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ABSTRACT

During the study of the Carcinofauna of the Bahian Coast, some *Brachyura Portunidae* were found. Some of these animals were *Callinectes arcuatus* Ordway, 1863 which has its distribution restricted to the Pacific Ocean, from California to Peru and the Galapagos Islands.

This is the first occurrence of this species reported from the Atlantic Ocean and the Brazilian Coast (Bahia, 38° 50' W and 12° 50' S).

RESUMO

Durante o estudo da carcinofauna do litoral baiano, muitos *Braquiuros Portunidae* foram encontrados. Alguns destes animais foram *Callinectes arcuatus* Ordway, 1863 que possuía sua distribuição restrita da Califórnia ao Peru e Ilhas Galápagos, no Oceano Pacífico.

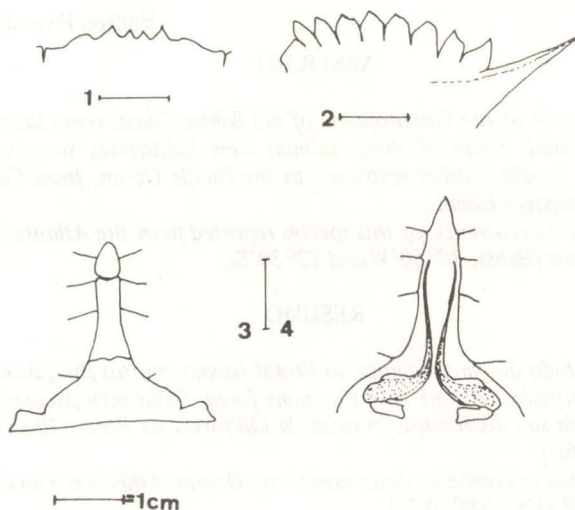
Esta é a primeira ocorrência desta espécie no Oceano Atlântico e na Costa Brasileira. (Bahia, 12° 50' S e 38° 50' W).

Callinectes arcuatus Ordway, 1863 is a crustacean of the Pacific Ocean, reported from California to Peru (Rathbun, 1930), having in *C. danae* Smith, 1869 the analogue species on the opposite side of the continent. According to Garth (1948-49), the Chilean occurrence of *C. arcuatus* requires confirmation because some authors considered it to resemble the specimens of *C. nitidus* of Guatemala. In their study of the *Brachyura* of the Pacific Coast of America, Garth & Stepheson (1966) summarized the habitat of this animal as sand or mud bottom, oyster beds, lagoons, estuaries, channels among mangroves or river mouths. Similar habitat was reported by Estévez (1972) in Colombia, occurring in sand or sand-mud bottom, preferentially between 10 or 20m deep and in salinities of 22‰ or higher. He does not disagree with its limited distribution on the Pacific coast, a distribution which is also given by Milne Edwards (1879), Rathbun (1895) and Williams (1974), who examined material collected from Baja California to Peru and suggested that the questionable listing of *C. arcuatus* from the Caribbean side of Colombia, must be an erroneous locality for the collection of the Colombian Museum of Zoology.

No other work about the Carcinofauna of the Americas and the Atlantic Ocean, especially of the South American Shore, like those of Williams (1965-66), Chace & Hobbs (1969), Coelho & Ramos (1972) including Gouvêa (1986) report the occurrence of *C. arcuatus* Ordway, 1863 on the Atlantic Ocean.

The carapace of the animals was very convex, finely granulate, granules very numerous in the median region. The front of the males with four stout triangular blunt

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Callinectes arcuatus Ordway. 1 – Frontal teeth; 2 – antero-lateral margin and lateral spine; 3 – abdomen of male; 4 – abdominal appendages of male.

teeth with concave sides, the middle pair about one third the size of the outer pair. Antero-lateral margin very arcuate; teeth large, well separated, their posterior margins longer than their anterior margins, the first four or five teeth with more or less convex margins and subacute tips. Lateral spine about two and a half to three times length of adjoining tooth. Penultimate segment of male abdomen broad at base, but for the greater part of their length the margins are subparallel. The appendages of the first segment reach or nearly reach the last segment and are slightly curved at the tip in adult.

Their new occurrence in “Salinas das Margaridas”, Bahia, Brazil, ($38^{\circ} 50' C$ and $12^{\circ} 50' S$) in habitat very similar to that of Pacific shore (Garth & Stepheson, 1966) where this species is found, especially because of the high salinity according to Estévez (1972), suggests that *C. arcuatus* Ordway 1863, in spite of its origin in the Pacific Ocean as many other Branchyura Portunidae of the Indo-Pacific (Melo, 1983) has its occurrence possible in the Atlantic Ocean because of the reduction or absence of zoogeographic barriers with the exchange of merchant ships on the hulls of which live some species of seaweed, providing protection for some larval stages of decapods and several other smaller crustaceans, which find favorable conditions for their adaptation and survival. The questionable occurrence of *C. arcuatus* on the Caribbean side of Colombia today is quite possible, primarily because of the Panama Canal. Previously this “questionable” occurrence was because of the lack of detailed studies comparing the morphology of the species occurring there.



Plate 2, Distribution of *Callinectes arcuatus* Ordway, 1863 and its new occurrence.

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