

Reprinted from: CRUSTACEANA, Vol. 28, Part 1, 1975



LEIDEN
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THE IDENTITY OF *SESARMA HANSENI* RATHBUN, 1897,
A SUPPOSEDLY WEST INDIAN SPECIES, WITH *S. DEHAANI*
H. MILNE EDWARDS, 1853, FROM THE WEST PACIFIC
(DECAPODA, GRAPSIDAE)

BY

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INTRODUCTION

The status of several species of *Sesarma* from the western Atlantic has recently been reviewed. Chace & Hobbs (1969) presented diagnoses and illustrations of the West Indian species and showed that *Sesarma americanum* De Saussure, 1853 is a senior synonym of *S. tampicense* Rathbun, 1914, rather than a junior synonym of *S. angustipes* Dana, 1852 as suggested by Rathbun (1918). Abele (1972) reviewed the status of five nominal species of Sesarminae from the western Atlantic. He concluded that *S. angustipes* Dana, 1852 is a senior synonym of *S. miersii iberingi* Rathbun, 1918, rather than a senior synonym of *S. roberti* H. Milne Edwards, 1853 as suggested by Hartnoll (1965). The present report examines the status of *Sesarma hanseni* Rathbun, 1897.

Rathbun (1897) described the new species *S. hanseni* based on a single male specimen in the Copenhagen Museum. The only data accompanying the specimen indicate it came from "Vestindien". Additional material of the species has never been taken in the West Indies, although several authors dealing with that fauna have listed the name. Through the courtesy of Dr. Torben Wolff, Copenhagen Museum, I was able to examine the unique holotype of *S. hanseni*. Study of the specimen and comparisons with other species revealed that it is conspecific with a very common West Pacific species, *S. dehaani* H. Milne Edwards, 1853. The holotype of *S. hanseni* is, in all probability, mislabeled and should not be considered a part of the West Indian fauna.

The holotype of *S. hanseni* is illustrated and some descriptive notes are presented.

***Sesarma* (*Holometopus*) *dehaani* H. Milne Edwards, 1853 (figs. 1, 2)**

- Grapsus* (*Pachysoma*) *quadratus* - De Haan, 1835: 62, pl. 8 fig. 3 [not *Cancer quadratus* Fabricius].
Sesarma dehaani H. Milne Edwards, 1853: 184; Stimpson, 1858: 106; Heller, 1865: 62; Kingsley, 1880: 214; De Man, 1887: 642; Bürger, 1893, 615; Ortmann, 1894: 718; Stimpson, 1907: 134; Kemp, 1918: 235; Parisi, 1918: 111.
Sesarma (*Holometopus*) *dehaani* - Tesch, 1917: 143; Balss, 1922: 154; Urita, 1926: 19; Shen, 1932: 195, text-figs. 121-123, pl. 9 fig. 1; Sakai, 1934: 324; Sakai, 1936: 234, pl. 65 fig. 1; Sakai, 1939: 681-682, pl. 77 fig. 1; Sakai, 1965: 202, pl. 97 fig. 2.
Sesarma neglecta De Man, 1887: 643, 661; Tesch, 1917: 178.
Sesarma hanseni Rathbun, 1897: 92.

Sesarma (Holometopus) hanseni. Rathbun, 1918: 315, text-fig. 152, pl. 87 fig. 1; Chace & Hobbs, 1969: 179.

Material examined. — Holotype of *S. hanseni*; male, cb (carapace breadth) 16.5 mm; "Vestindien"; Copenhagen Museum.

4 males, cb 16.6 to 21 mm; Pacific Ocean, Formosa, Miao, Li Hsien; USNM (National Museum of Natural History) 123498.

Description of the holotype of *Sesarma hanseni*. — The carapace breadth is about 1.27 times its length. The frontal region is deflexed; it does not widen distally and is about 0.55 of the carapace breadth. A shallow median sinus is present. The interorbital area is divided into four distinct lobes. The outer orbital tooth is acute. There is a minute indentation posterior to the outer orbital tooth.

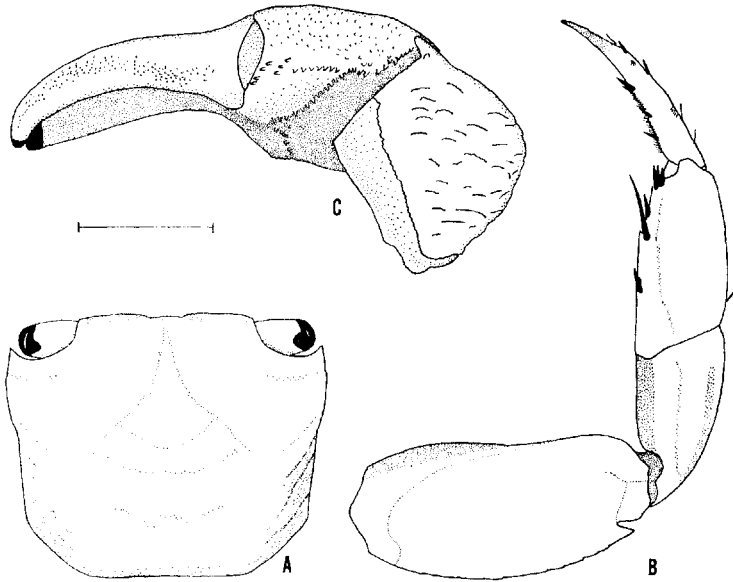


Fig. 1. Holotype of *Sesarma hanseni* Rathbun, 1897. A, dorsal view of carapace; B, fifth pereiopod; C, dorsal view of right chela. Scale = 5 mm for A, 10 mm for B, C.

The posterior portion of the carapace narrows distinctly slightly anterior to the midline. There are four oblique rows of granules on each side of the postero-lateral portions of the carapace. The gastric and cardiac regions are distinct. The carapace is naked and sparsely punctate.

The eyes are well developed and the cornea is pigmented. The third maxillipeds gape widely and have an oblique, hairy ridge on the merus.

The chelipeds are subequal and robust. The merus has the margins granulate, almost serrate; the lateral surface is covered with short rows of granules; there is no distal inferior tooth. The carpus has two granular ridges present; one on the medial margin and the other on the dorsal surface. Short rows of granules are present lateral to the ridge on the dorsal surface. An elongate lobe is present at the lateral angle. The dorsal surface of the palm has a raised, granulate ridge

which is bifurcate in the distal half and extends as a poorly defined ridge onto the medial surface of the palm. A few large granules are present at the distal margin of the palm. The lateral surface of the palm is covered with low, depressed granules. The dorsal surface of the movable finger is covered with many small granules. The fingers are slightly spooned at the dark colored tips. Each finger is armed with about six unequal teeth.

There is only a single complete walking leg with the specimen. It is the last (fifth pereopod); the merus is longer than the other segments, its length is about 2.3 times its width. The carpus is a little shorter than the propodus and is unarmed. The propodus is armed with about eight black spines on the ventral surface. The dactylus is shorter than the propodus and is armed with about two small, black spines dorsally and about four ventrally.

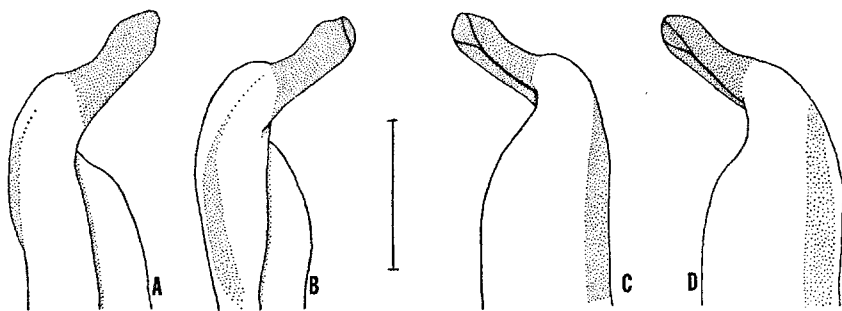


Fig. 2. Apex of male gonopods of *Sesarma dehaani* H. Milne Edwards, 1853. A, D lateral and medial views of male from Formosa, USNM 123498. B, C lateral and medial views of holotype of *S. hanseni*. Scale = 1 mm.

The abdomen is damaged but it has been figured by Rathbun (1918: 316, text-fig. 152a).

The gonopod is simple, the apex is extended and curved laterally. There is a small expansion proximal to the distal portion of the dark colored endpiece.

Distribution. — China: Liaoting Peninsula (east), Kiangsu (Woosung, Shanghai), Fukien (Foochow, Amoy), Kwangtung (Whampoa). Hong Kong. Formosa (Taiwan). Japan: Bosco Province to Kyusyu and Okinawa. Korea. (Shen, 1932; Sakai, 1965).

Habitat. — The species occurs along the banks of muddy streams growing with grasses some distance from brackish water. It also occurs in rice fields where its burrows cause some damage (Shen, 1932; Sakai, 1939).

Color. — Color notes are given by Stimpson (1907), and Shen (1932) and a color plate is given by Sakai (1965, pl. 97 fig. 2).

Remarks. — The holotype of *S. hanseni* is slightly smaller than the available specimens of *S. dehaani* but there is little doubt that the specimens are conspecific. Dr. Lipke B. Holthuis, of the Leiden Museum, kindly compared the illustrations of the gonopods of *S. hanseni* with those of the lectotype of *S. dehaani* (a male specimen, cl 37 mm, cb 40 mm, from Japan, leg. P. F. von Siebold, 1823-1830;

RMNH no. Crust. D 157) in the Rijksmuseum van Natuurlijke Historie, Leiden, and confirmed the synonymy.

Shen (1932) discussed variation in *S. debaani*, especially regarding the number of teeth on the anterolateral margins. The majority of specimens have a slight emargination or tooth posterior to the outer orbital angle, while other specimens have none, two or three (Shen, 1932: 198, text-fig. 123). The tooth of *S. debaani* is almost as well developed as that of *S. reticulatum* (Say, 1817) (see Williams, 1965: 221, fig. 205), the type species of the genus *Sesarma*. Two of the subgenera of *Sesarma*, *Sesarma* (type *S. reticulatum*) and *Holometopus* (type *S. haematocheir*), are differentiated by the presence (*Sesarma*) or absence (*Holometopus*) of a tooth posterior to the outer orbital tooth. The distinction, however, appears to be more a matter of convenience. *Sesarma debaani* and *S. benedicti* Rathbun, 1897, for example, both have a slight emargination or tooth posterior to the outer orbital tooth yet both are included in the subgenus *Holometopus*. Among the American species of *Sesarma*, *S. cinereum* (Bosc, 1801-1802), *S. miersii* Rathbun, 1897, *S. angustipes* Dana, 1852, *S. biolleyi* Rathbun, 1906, *S. magdalenense* Rathbun, 1918 and *S. occidentale* Smith, 1870 form a very closely related group of species in the subgenus *Holometopus* while *S. benedicti* is just as closely related to *S. reticulatum* as to any of the above species. Serène & Soh (1970) recently split the genus *Sesarma* into about 19 genera, several of which are based on the presence or absence of teeth posterior to the outer orbital angle. It would seem, as the above authors noted, that additional characters are needed before this designation can be fully justified.

ACKNOWLEDGEMENTS

I thank Dr. Torben Wolff, Copenhagen Museum, for allowing me to examine the holotype of *S. hanseni* and Dr. R. Serène, National Museum of Singapore, for his comments on the manuscript. Dr. Serène kindly supplied photographs of *S. debaani* from the Indo-Pacific for comparison and verified that the gonopods of *S. hanseni* and *S. debaani* are identical. I thank also Dr. Lipke B. Holthuis, Leiden Museum, for his comments and for confirming the synonymy of *S. debaani* and *S. hanseni* through examination of the type of the former species in the Leiden Museum. Messrs. C. Alan Child and Henry Roberts were most helpful during my visit to the National Museum of Natural History, Washington, D. C. A portion of this work was supported by the Department of Invertebrate Zoology, Smithsonian Institution. Dr. Robert H. Gore, Smithsonian Institution, kindly supplied several references which were unavailable to me.

RÉSUMÉ

Le réexamen de l'holotype de *Sesarma hanseni* Rathbun, 1897, décrit des Antilles, a révélé qu'il appartenait à l'espèce *Sesarma debaani* H. Milne Edwards, 1853, du Pacifique occidental. *Sesarma hanseni* est par conséquent un synonyme subjectif de *Sesarma debaani*. L'holotype de *S. hanseni* est, selon toute probabilité, mal étiqueté et ne devrait pas être considéré comme appartenant à la faune des Antilles.

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Received for publication 22 January 1973.