

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

SYNOPSIS OF THE AMERICAN SESARMAE, WITH
DESCRIPTION OF A NEW SPECIES.¹

BY MARY J. RATHBUN.

The American species of *Sesarma* are in much confusion, owing partly to incomplete descriptions and to the study of isolated specimens. The following is a key to all the species known to occur in America, with their principal synonyms, based on a study of types. One new species is described from the Museum at Copenhagen by permission of Dr. F. Meinert.

Sesarma Say.

SYNOPSIS OF AMERICAN SPECIES.

- A. Carapace with a tooth behind the outer orbital tooth.
 B. Manus with two or more pectinated ridges on the upper surface.
 Subgenus *Perisesarma* de Man. *africana*² * Milne Edwards.
 B'. Manus without pectinated ridges on the upper surface.
 Subgenus *Sesarma* = *Episesarma* de Man.
 C. Front less than half the greatest width of the carapace.
 bidentata * Benedict.
 C'. Front more than half the greatest width of the carapace.
 D. Upper surface smooth.
 E. Eyes reaching the outer angle of the orbit.
 caracaoensis de Man.
 E'. Eyes not reaching the outer angle of the orbit.
 *reticulata*³ Say.

¹ Published with the permission of the Secretary of the Smithsonian Institution.

² Occurs at Barbados.

³ Type species of the genus.

* Type examined by the writer.

- D'. Upper surface rugose.
 E. Hand very broad. *subcata* Smith.
 E'. Hand elongate. *crassipes*† Cano.
- A'. Carapace without a tooth behind the outer orbital tooth.
 B. Manus with two or more pectinated ridges on the upper surface. ¶
 Subgenus *Parasesarma*¹ de Man.
 B'. Manus without two or more pectinated ridges on the upper surface.
 Subgenus *Holomctopus* Milne Edwards = subgenus
Sesarma de Man.
- C. Sides of carapace converging rapidly posteriorly.
rubripes Rathbun, new name = *mülleri* Miers.*²
- C'. Sides of carapace not converging rapidly posteriorly.
 D. Protogastric or supra-frontal lobes tuberculate or granulate.
 E. Movable finger extraordinarily enlarged along its proximal half. *benedicti* Rathbun, new name = *recta* de Man.³
 E'. Movable finger not extraordinarily enlarged along its proximal half.
 F. Outer surface of hand densely hairy at base of fingers.
barbinana † Cano.
 F'. Outer surface of hand not densely hairy at base of fingers.
 G. Meri of ambulatory legs less than twice as long as broad.
*recta** Randall = *mullerii** A. Milne Edwards.
 G'. Meri of ambulatory legs more than twice as long as broad.
 H. Front widening considerably toward the lower margin.
*miersii*⁴ Rathbun, new name = "*angustipes*?" Miers,*
 1881 = *stimpsonii* Miers, 1886,* not 1881.
 H'. Front not widening considerably toward the lower margin.
 J. Protogastric or supra-frontal lobes faintly granulate.
cinerea Bose.
 J'. Protogastric or supra-frontal lobes rough with rugæ or lines of granulations.
 K. Front not more than 3½ times as wide as high.
*occidentalis** Smith.
 K'. Front more than 3½ times as wide as high.
 L. Margins of meri of ambulatory legs subparallel for their distal half.
*roberti** Milne Edwards = *americana**
 Pocock = *bromeliarum** Rathbun.

¹ Not represented in America.

² Challenger Report, Zool. XVII, 270, pl. xxi, f. 3, 1886, Bahia.

³ Notes Leyden Mus., XIV, 249, pl. X, f. 4, 1892, Surinam.

⁴ This species has not been sufficiently characterized and is described below.

* Type examined by the writer.

† Not seen by the writer.

L'. Margins of meri of ambulatory legs converging from the middle towards the carpal joints.

M. Front deeply concave; protogastric lobes strongly projecting. *angusta** Smith.

M'. Front slightly concave; protogastric lobes slightly projecting.

angustipes Dana = *americana** Saussure.

D'. Protogastric or supra-frontal lobes smooth or nearly so.

E. Front less than 4 times as wide as high.

*ricordi** Milne Edwards = *guerini** Milne Edwards = *minuta** Saussure = *angustipes* Stimpson (in part,* at least) = *angustipes* Smith* = *stimpsonii* Miers,* 1881, not 1886, = *cinerea* Heilprin,* 1888, = *cinerea* Ives,* 1891.

E'. Front more than 4 times as wide as high.

hausei Rathbun, new species.

Sesarma (Holometopus) miersii Rathbun, new name.

Sesarma angustipes? Miers, Proc. Zool. Soc. London, 1881, 70, Rat Island, Monte Video.

Sesarma stimpsonii Miers, Challenger Rept., Zool., XVII, 270, 1886; not *S. stimpsonii* Miers, 1881.

Carapace broader than long, of equal width anteriorly and posteriorly, surface more convex than in *S. cinerea*, regions deeply marked. Carapace, as in *S. roberti*, punctate, the punctæ crowded in places and tending to coalesce; anterior portion rough with tubercles. Except for its width, the carapace has great resemblance to that of *S. roberti*.

Front less than four times as wide as high. Superior lobes less prominent than in *S. roberti*. The middle sinus of the lower margin when viewed from above is much shallower and less rounding than in that species. Viewed from in front the lower margin forms an almost unbroken convex line. The side margins of the front diverge below as in *S. ricordi*.

The lateral margins of the third abdominal segment of the male are arcuate, the abdomen being widest posterior to the distal end of that segment. The terminal segment is as wide as it is long. The appendages terminate in an oblique sinuous margin fringed with hair.

The chelipeds resemble pretty closely those of *S. roberti*. The meri of the ambulatory legs are shorter than in that species, being less than $2\frac{1}{2}$ times as long as wide in the first, third, and fourth pairs, and a little more than $2\frac{1}{2}$ times the width in the second pair. Propodi of first and second pairs hairy above and below; those of the third and fourth pairs hairy only on the distal portion.

Dimensions.—♂, Abaco, Bahamas, U. S. Nat. Mus., No. 11372: Length, 19.3 mm.; width, anterior and posterior, 21.1; superior frontal width, 11; inferior, 11.6; depth of front, 3; length of merus of third ambulatory leg, 15.3; width of same, 6.3. In some specimens the posterior width is

*Type examined by the writer.

greater than the anterior; the width of the ambulatory legs is also variable, but as a rule the meri are shorter than in *S. roberti*.

Distribution.—Abaco and San Salvador, Bahamas; Swan Island, Caribbean Sea (U. S. Nat. Mus.). Destero, Brazil (Paris Mus.). Rio de Janeiro; Rat Island, Monte Video, type locality (Brit. Mus.)

***Sesarma (Holometopus) hanseni* Rathbun, new species.**

Carapace much broader than long, broader anteriorly than posteriorly. Regions well marked; mesogastric very wide behind, and with a curved sulcus parallel to its posterior margin. Surface smooth and punctate and without granulations. Superior margin of front uneven, the inner lobes sloping backward from the middle. Front more than 4 times as wide as high; margin projecting, thin, arcuate in a front view, slightly sinuous in a dorsal view. Terminal segment of abdomen broader than long. Appendages narrow and with slender curved tips.

Merus and carpus of chelipeds with outer surface covered with broken rugose lines; margins denticulate. Hand deep, covered with depressed tubercles; superior margin with a thin denticulate crest. Fingers irregularly toothed; the largest tooth of the dactylus is midway of its length, and fits between the two largest teeth of the pollex. The meri of the ambulatory legs are less than $2\frac{1}{2}$ times their width.

Dimensions.—♂: Length, 13.5 mm.; exorbital width, 16.6; posterior width, 15.5; superior frontal width, 9.5; depth of front, 2; length of merus of fourth ambulatory leg, 8; width, 3.7.

Type locality.—West Indies, one ♂ (Copenhagen Mus.).

Dedicated to Dr. H. F. Hansen.