

STUDIES ON THE FAUNA OF CURAÇAO AND OTHER
CARIBBEAN ISLANDS: No. 99.

ON THE RADULAE AND SPINES OF SOME
POLYPLACOPHORA AND ARCHAEOGASTROPODA
FROM CURAÇAO

by

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During her stay at Curaçao from December 1965 to March 1966 Prof. Dr. DIVA DINIZ CORRÊA collected several groups of marine invertebrates. I should like to thank her for having entrusted me with the Polyplacophora and Archaeogastropoda for further study of radulae and spines.

POLYPLACOPHORA

ISCHNOCHITONIDAE

Ischnochiton striolatus (Gray, 1828)

See RIGHI 1966, p. 86.

CURAÇAO: Piscadera outer bay, near Carmabi, I-II. 1966 (33 specimens).

CHITONIDAE

Chiton tuberculatus Linnaeus, 1758

(Fig. 71)

Chiton tuberculatus LINNAEUS 1758, p. 667; PILSBRY 1893, p. 153; CROZIER & AREY 1919, p. 496; REHDER 1962, p. 118. – *Chiton squamosus* REEVE 1847, pl. 3 fig. 16; HADDON 1886, p. 20 (non Linnaeus 1764). – *Chiton assimilis* REEVE 1847, pl. 14 fig. 77. – *Chiton tuberculatus assimilis* PILSBRY 1893, p. 155.

CURAÇAO: Piscadera outer bay, near Carmabi, I-II. 1966 (3 spec.). Further distribution: Florida, Texas, and Antilles.

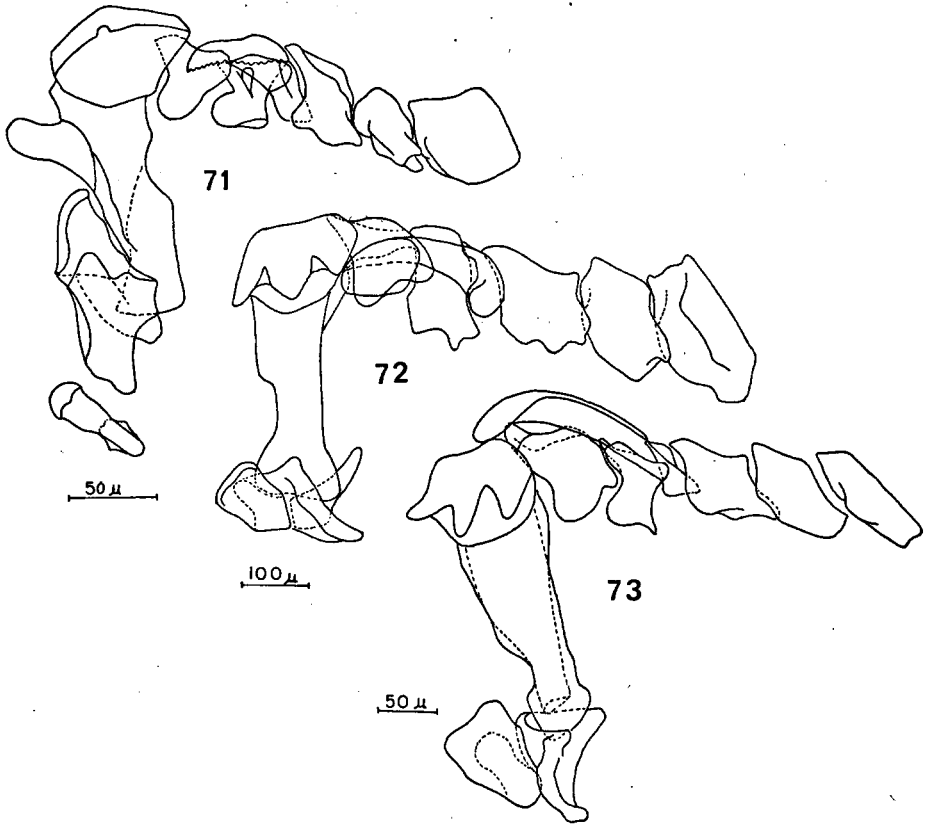


Fig. 71. *Chiton tuberculatus*: radula. - Fig. 72. *Acanthochitona spiculosa*: radula. -
Fig. 73. *Acanthochitona hemphili*: radula.

ACANTHOCHITONIDAE

Acanthochitona spiculosa (Reeve, 1847)

(Figs. 72, 83-92)

LELOUP 1941, p. 9. [*Acanthochiton spiculosus* and *A. spiculosus astriger* united.]

CURAÇAO: Piscadera outer bay, near Carmabi, I-II. 1966 (4 spec.).

Further distribution: Florida Keys, Tortugas, Cuba, St. Thomas, Guadeloupe, Barbados, Brazil (Fernando de Noronha).

Small differences in the elements of the perinotum between LÉLOUP's figures and my material, which belongs to the light-coloured form (*astriger*) are to be noticed.

The 9 pairs of dorsal tufts are constituted by long, slender and slightly curved spines (Fig. 83) intermingled with other shorter ones, thick and sculptured with longitudinal and circular lines (Fig. 84) and a third still shorter type (Fig. 85). Probably the two last types are stages of growth of the first. The remaining dorsal surface of the perinotum is covered with very short and more or less curved spines (Figs. 86–87), which increase in size and become straight towards the margin (Fig. 88).

The margin is bristled with long and slightly curved spines, sculptured with longitudinal and circular lines (Fig. 89).

The ventral surface of the perinotum is covered with short spines, with the tip directed to the margin (Figs. 90–92).

The radula (Fig. 72) differs from that of *A. hemphili* by the basal plate of the first lateral tooth which is prolonged into a wing.

***Acanthochitona hemphili* (Pilsbry, 1893)**

(Figs. 73–82)

WARMKE & ABBOTT 1961, p. 216.

CURAÇAO: Awa di Oostpunt, I–II. 1966 (3 spec.).

Further distribution: Florida (Key West), and Lesser Antilles.

On the dorsal surface of the perinotum the 9 pairs of tufts are constituted by long and a little curved spines, which are weakly sculptured by concentric lines and surrounded by smaller ones (Fig. 74). All the remaining surface is coated with very small spines of 5 types (Figs. 75–79). The rarest is that of Fig. 79; those of Fig. 75–76 are translucent and the others brownish. The combination of these elements results in a reddish-brown colour near to no. 893 of HICKETHIER (1952), leaving a clear ring around the tufts and the shells.

On the edge of the perinotum there is a brownish spinulous fringe, constituted by spines which are shorter and more curved than those of the tufts; they are sculptured and show concentric and longitudinal lines (Fig. 80). Below this fringe there is another row of translucent and much shorter broad spines (Fig. 82).

The ventral surface of the perinotum is brown, near to no. 844 of Hickethier; it is covered with irregularly distributed short spines, in part straight and in part a little recurved (Fig. 81).

Though the genus *Acanthochitona* comprises more than 60 species, which are widely distributed in all warm seas, the radula is known only by the incomplete figures of DALL (1879, pl. 4 figs. 38–39) and THIELE (1909, pl. 6 fig. 29), excluding that of WISSEL (1904) which was in part corrected by THIELE. In the radulae of *A. spiculosa* (Fig. 72) and *A. hemphili* (Fig. 73) the first lateral tooth has no lamina and involves the base of the second lateral tooth which has 3 cusps.

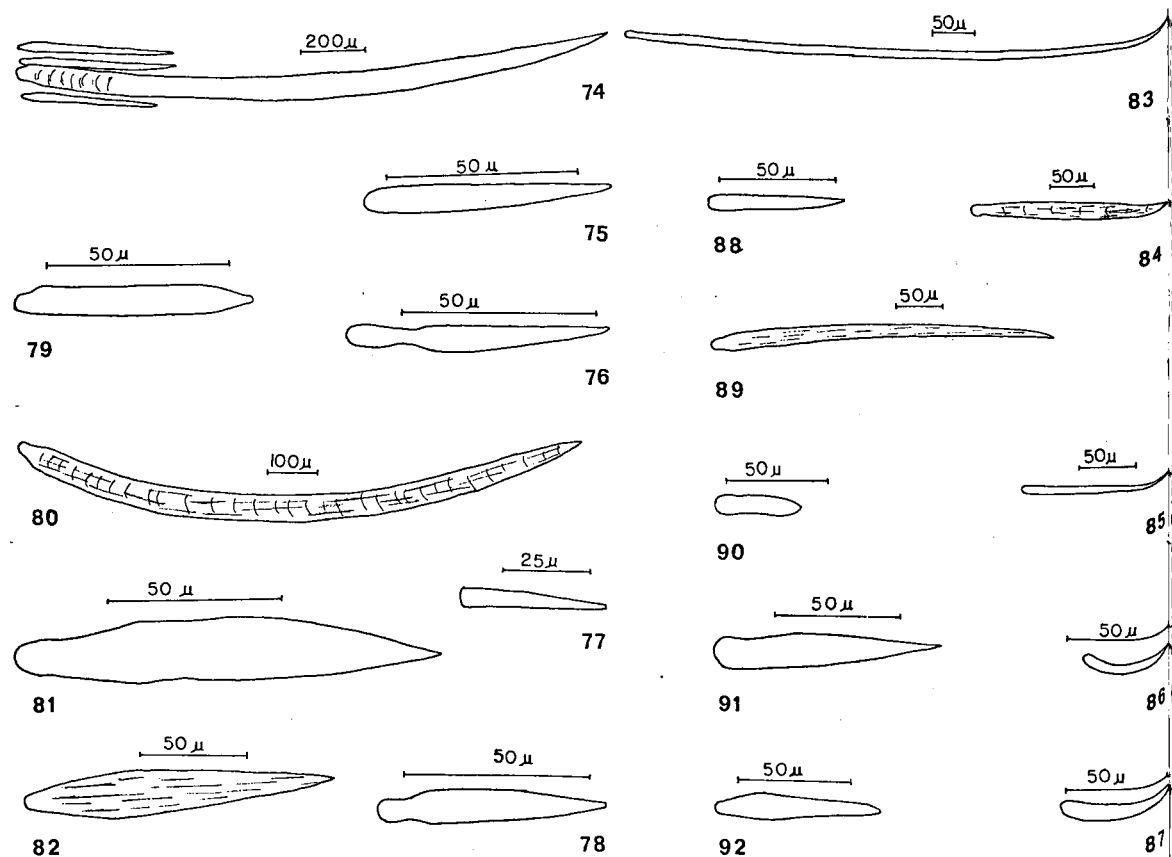


Fig. 74-82. *Acanthochitona hemphili*: 74. Spines of the sutural tufts. - 75-79. Spines of the dorsal surface of the perinotum. - 80. Marginal dorsal spine. - 81. Spine of the ventral surface of the perinotum. - 82. Marginal ventral spine.

Fig. 83-92. *Acanthochitona spiculosa*: 83-85. Spines of the sutural tufts. - 86-88. Spines of the dorsal surface of the perinotum. - 89. Marginal spine. - 90-92. Spines of the ventral surface of the perinotum.

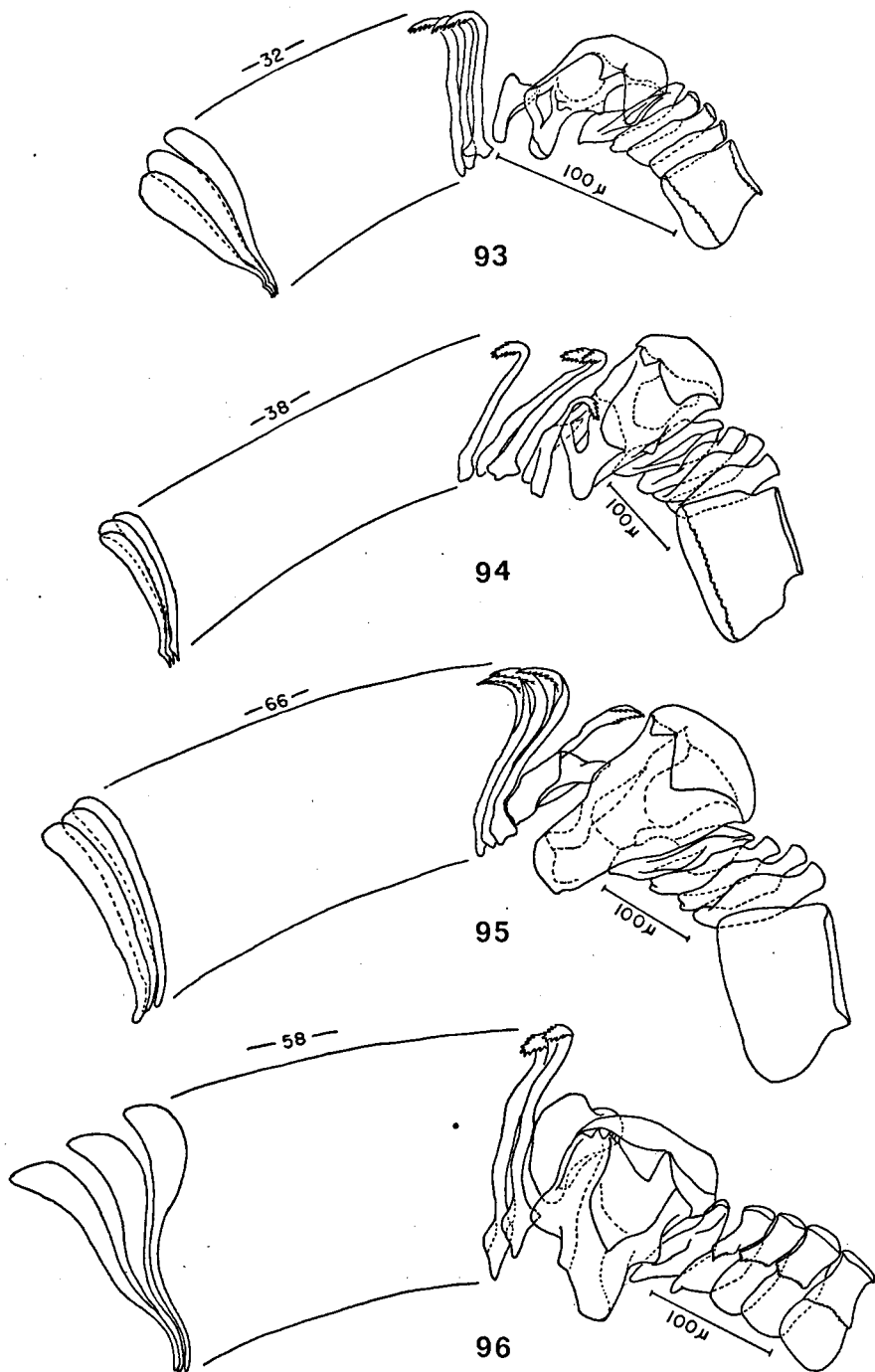


Fig. 93. *Diodora variegata*: radula. — Fig. 94. *Diodora dysoni*: radula. —
 Fig. 95. *Diodora listeri*: radula. — Fig. 96. *Hemitona octoradiata*: radula.

GASTROPODA

ARCHAEOGASTROPODA. – See BENTHEM JUTTING (1927), FARFANTE (1943) and COOMANS (1958). – Only references not mentioned by those authors are included here, while drawings are given of not yet known radulae.

FISSURELLIDAE

Hemitona octoradiata (Gmelin, 1791)

(Fig. 96)

CURAÇAO: Piscadera outer bay, near Carmabi, I–II. 1966 (1 spec.).
Further distribution: Florida, Antilles and south to Brazil (Bahia).

Diodora dysoni (Reeve, 1850)

(Fig. 94)

CURAÇAO: Piscadera outer bay, near Carmabi, I–II. 1966 (3 spec.).
Further distribution: Bermuda, Florida, Antilles, Brazil (Cabo de São Roque).

Diodora listeri (Orbigny, 1853)

(Fig. 95)

CURAÇAO: Piscadera outer bay, near Carmabi, I–II. 1966 (10 spec.).
Further distribution: Bermuda, Florida, Antilles, Guiana.

Diodora variegata (Sowerby, 1862)

(Fig. 93)

CURAÇAO: Piscadera outer bay, near Carmabi, I–II. 1966 (3 spec.).
Further distribution: Florida, Bahamas, Lesser Antilles.

Lucapina sowerbii (Sowerby, 1835)

(Fig. 97)

CURAÇAO: Piscadera outer bay, near Carmabi, I–II. 1966 (10 spec.).
Further distribution: Florida, Antilles, Brazil (Bahia).

Data on distribution in southern Brazil ought to be excluded, because that material, which has been identified before as *Lucapina sowerbii* (RIGHI 1965, p. 539), really belongs to *Lucapina meta* Ihering, 1927.

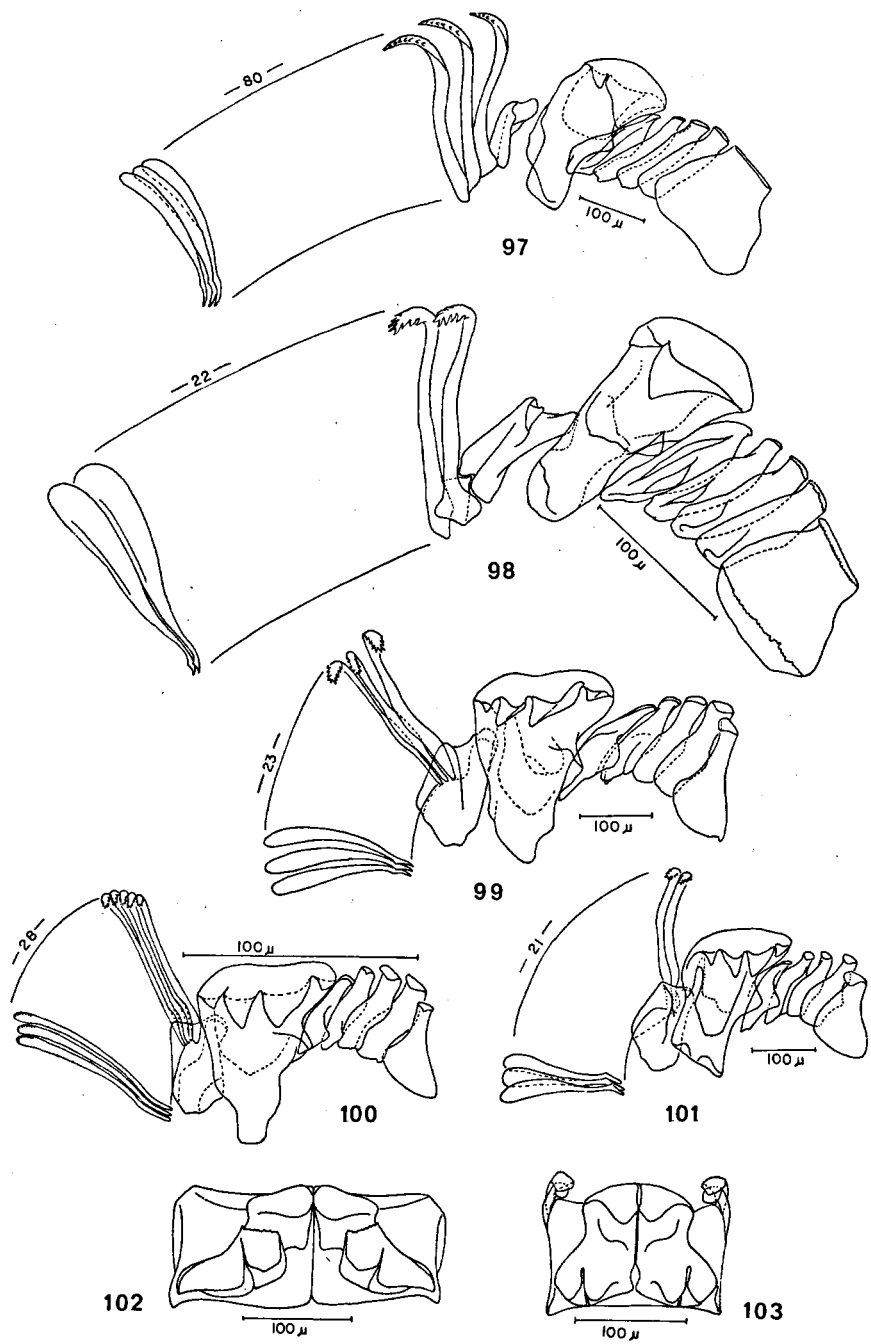


Fig. 97. *Lucapina sowerbii*: radula. - Fig. 98. *Lucapina philippiana*: radula. -
 Fig. 99. *Fissurella angusta*: radula. - Fig. 100. *Fissurella barbadensis*: radula. -
 Fig. 101. *Fissurella punctata*: radula. - Fig. 102. *Acmaea jamaicensis*: radula. -
 Fig. 103. *Acmaea pustulata*: radula.

Lucapina philippiana (Finlay, 1930)

(Fig. 98)

CURAÇAO: Piscadera outer bay, near Carmabi, I-II. 1966 (1 spec.).
Further distribution: Florida, Bahamas, Hispaniola, Virgin Islands.

Fissurella (Cremides) barbadensis (Gmelin, 1791)

(Fig. 100)

CURAÇAO: Piscadera outer bay, near Carmabi, I-II. 1966 (19 spec.).
Further distribution: Bermuda, Florida, Antilles, México to Guiana.

Fissurella (Cremides) angusta Gmelin, 1791

(Fig. 99)

CURAÇAO: Piscadera outer bay, near Carmabi, I-II. 1966 (2 spec.).
Further distribution: Florida Keys, Antilles, Guiana.

Fissurella (Clypidella) punctata Fischer, 1857

(Fig. 101)

CURAÇAO: Piscadera outer bay, near Carmabi, I-II. 1966 (1 spec.).
Further distribution: North Carolina, Bahamas, Antilles.

ACMAEIDAE

Acmaea (Patelloida) pustulata (Hebling, 1779)

(Fig. 103)

CURAÇAO: Piscadera outer bay, near Carmabi, I-II. 1966 (4 spec.).
Further distribution: Bermuda, Florida, Antilles.

Acmaea (Acmaea) jamaicensis (Gmelin, 1791)

(Fig. 102)

CURAÇAO: Piscadera outer bay, near Carmabi, I-II. 1966 (20 spec.).
Further distribution: West Indies.

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