

OCCURRENCE OF A CORAL BORING BIVALVE *GREGARIELLA COARCTATA*
(CARPENTER) (BIVALVIA : MYTILIDAE) IN THE INDIAN WATERS

N. V. SUBBA RAO AND K. V. SURYA RAO
Zoological Survey of India, Calcutta.

ABSTRACT

Hitherto 11 genera and 22 species of Coral boring bivalves were reported from Indian coasts. A further addition is made to the list. *Gregariella coarctata* (Carpenter) is reported for the first time from the Indian Ocean.

During the course of our studies on the molluscs of Gujarat Coast, we came across with a few boring bivalves collected from corals in the Gulf of Kutch.

Report on coral boring molluscs from the Indian Waters was first made by Gardiner (1903) from Maldiva and Laccadive Archipelagos. Recently Appukuttan (1974) reviewed the literature on boring bivalves occurring in the Indian waters. He listed 11 genera and 22 species of coral boring bivalves. The present record is an addition to the list and the genus with its species is reported for the first time from Indian waters.

The genus *Gregariella* Monterosato, 1833 includes 6 species. Soot-Ryen (1955, 1969) dealt with the genus and mentioned its range of distribution as "Mediterranean, North America, and Australia". The occurrence of this genus in Indian waters is interesting and extends its range of distribution.

Class — BIVALVIA

Order — MYTILOIDA Fer'ussac, 1822

Family — MYTILIDAE Rafinesque, 1815

Subfamily—CRENELLINAE Adams & Adams

Genus *Gregariella* Monterosato 1833

Gregariella Monterosato, 1833, *Natural. Sicil.*, 3 : 90 ; Soot-Ryen, 1955, *Allan Hancock Pac. Found.*, 20 (1) : 76 ; Soot-Ryen, 1969, in Moore, ed. *Treatise on Invertebrate Palaeontology*, Part N, Vol. I, Moll. 6 : N 275 ; Macpherson & Gabriel 1962, *Marine Molluscs of Victoria* : 291.

Type species : *Modiolus sulcatus* Risso 1826 (Non Lamarck, 1805).

Distinguishing features : Shell mytiliform, beaks incurved, umbonal keel angulated, radially striated anteriorly and posteriorly, median part smooth and concentrically striated, periostracum hairy with long hairs, hinge with rudimentary oblique teeth, margins crenulated.

Gregariella coarctata (Carpenter, 1856)

Crenella coarctata Carpenter 1856, Catalogue of the Reigen collection of Mazatlan Mollusca, pp. 123-124., Type locality : Mazatlan, Mexico (Designated). *Gregariella coarctata*, Soot-Ryen, 1955. *Allan Hancock Pac. Foundation*, 20 (1) : 77, pl. 9, fig. 48, text-fig. 64.

Material : 5 exs. from coral beds at Pirotan island between light house and Beacon Point, Gulf of Kutch, date 20. 4. 1977 ; coll. K. N. Reddy & Party ; Z. S. I. Regd. No. M 21104/4.

2 exs. from coral at Azad island, Gulf of Kutch ; date 17. 2. 1979 ; coll. M. I. Patel. Z. S. I. Regd. No. M 21105/4,

Measurements

(in mm) :	Maximum (from Azad island)	Minimum (from Pirotan Is.)	Average
Length	15.70	7.95	9.40
Height	6.75	3.90	4.65
Thickness	5.75	3.75	4.20
Length of the keel	14.10	7.60	8.45

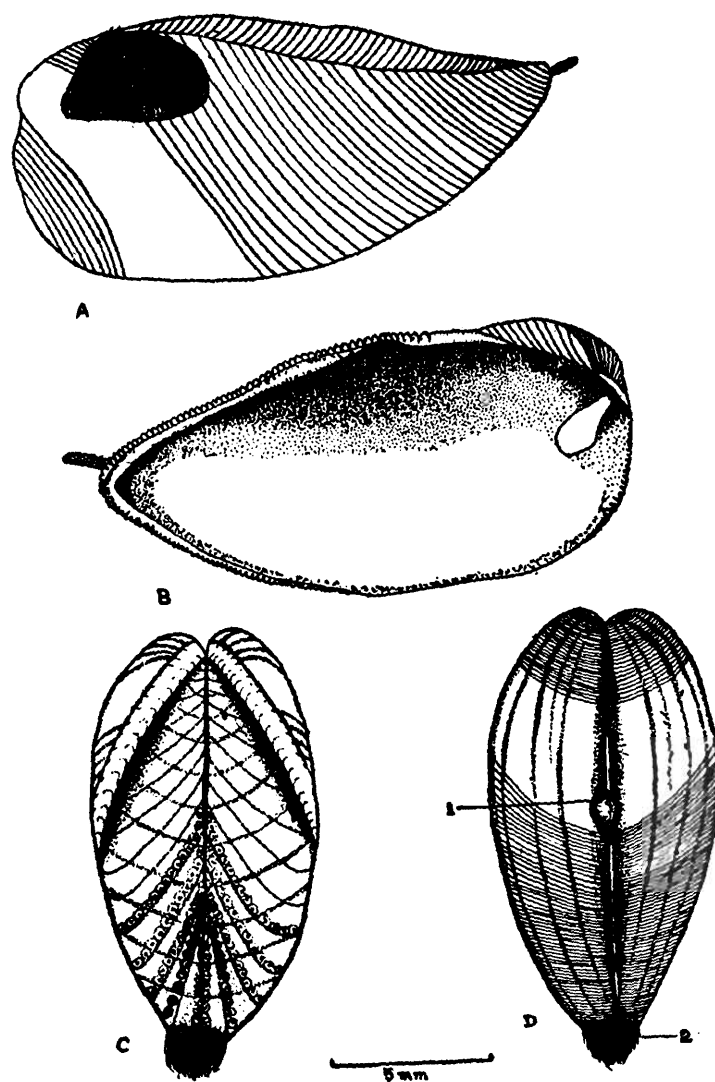


Fig. 1. A. Outer view, B. Inner view, C. Dorsal view D. Ventral view :
1. Byssus, 2. Cluster of longitudinal hairs.

Remarks : Shell small, light yellowish with greenish tinge, shining at the anterior region. Anterior (2.8 mm) and posterior (5.3 mm) portions are radially striated, median part (2.8 mm) smooth with concentric lines. Keel well angulated with divaricating radial ribs

(Fig. C). The posterior margin of the keel thickly coated with fine, long and unbranched hairs. In the present material, the hairs dried up and formed a cluster. Inner side of the valve white in colour, shining. Dorsal and ventral margins crenulated except the hinge

area and the ventral margin of the median smooth area (Fig. D). Impression of the radial striae seen faintly on the inner side of the valve.

In one of the specimen, antero-dorsal portion of the left valve had an oval depression (Fig. A). Another specimen had a serpulid worm attached on its antero-dorsal side.

Carpenter reported that these animals were found burrowing into the shells of *Spondylus calcifer* and *Murex regius* at a depth between 2 to 9 fathoms. The present specimens were collected from an unidentified coral.

Distribution : India : Pirotan island, Azad island, in the Gulf of Kutch. *Elsewhere* : Laguna de scammon, Baja California to Isla Taboga, Panama : the Galapagos islands.

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