

STUDIES ON INDIAN CORALS—4

REDESCRIPTION OF *CLADANGIA EXUSTA* LÜTKEN (SCLERACTINIA, RHIZANGIIDAE)*

By C. S. GOPINADHA PILLAI

Central Marine Fisheries Research Institute, Mandapam Camp

THE genus *Cladangia* Milne Edwards and Haime, 1851 is having a stratigraphic distribution from Tertiary to Recent, both in Europe and Asia (Wells, 1956). The genus was known only as fossils until 1873, when Lütken described an extant species of the genus under the specific name *exusta*. The exact locality of the type of *C. exusta* is doubtful and according to Lütken it can probably be India. Recently the present author obtained a few fragments of this species collected, off Cochin, from a submerged metal piece. As this appears to be the first record of this species, ever since it was described by Lütken, a description of the species based on the present material is given below.

Superfamily Faviicae Gregory, 1900

Family Rhizangiidae d'Orbigny, 1851

Genus *Cladangia* Milne Edwards and Haime, 1851

Cladangia Milne Edwards and Haime. Duncan, 1885, p. 69.

Wells, 1956, p. 409.

Squires, 1962, p. 139.

Generic characters : Colonial, incrusting, massive or sub-ramose, corallites horizontal and circular, united by a striated or spinose coenosteum. Columella papillary.

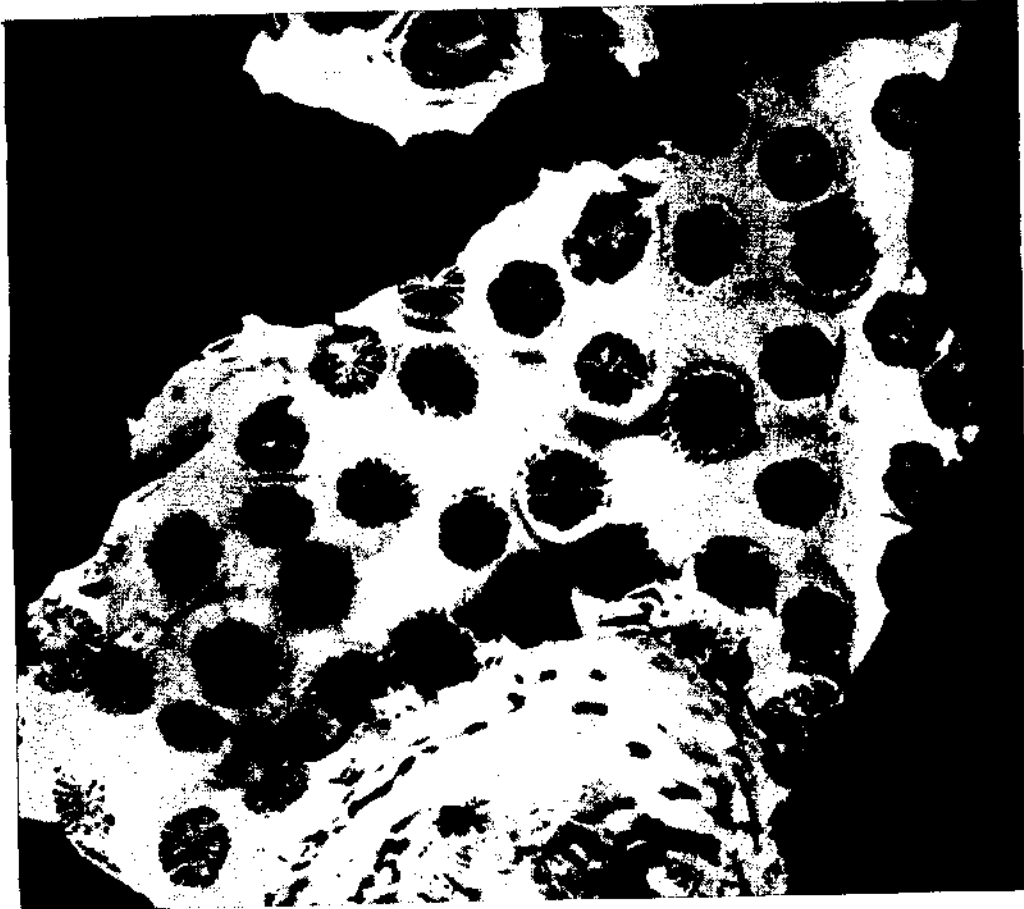
Cladangia exusta Lütken, 1873

(Pl. I.)

Cladangia exusta Lütken, 1873, pp. 65-68, Pl. 2 (5 figures).

Description : Corallum encrusting, edges thin, thickened upto 5 mm. coenosteum dense. Corallites projecting to a maximum of 2 mm., generally about 1 mm. An epitheca absent. Distance between adjacent corallites 2 to 5 mm. Calices rounded, rarely slightly oval, 3 to 3.5 mm. in diameter rarely upto 5 mm. in diameter, very shallow, the top of the columella being only less than a mm. below the level of the thecal rim or generally level.

* Published with the kind permission of the Director, C.M.F.R.I.



Cladangia exusta from Cochin $\times 3.5$

Septa in three complete cycles (one giant calyx with 36 septa) ; higher and lower cycles not prominently distinct, but in a few calices the primaries a bit more thickened. Septa very thin, interseptal loculii about twice the thickness of the septa. Septa not exsert, but beginning from the top of the wall ; faces of septa with well developed granulations. Primary septa with 3 to 4 teeth towards their lower part, higher cycles with lesser numbers. First two cycles of septa directly extend to the columella, the members of the third fuse to the sides of the second cycle just before the latter reach the columella. Columella prominent, essentially trabecular with 9 or 10 papillary projections which merges with the septal dentition. Costae correspond to septa, extend to the base of the corallites ; low but round topped, thicker than intercostal spaces. Often they extend further over the intercorallite area but become faint and obsolete towards the centre, generally not showing any actual fusion among themselves.

Colour : In washed and dried coral the interior of the calyx, the septa and columella appear chocolate brown. Coenosteum and outer wall of the theca dull grey.

Locality : Off Cochin (Kerala). The depth at which the specimen is collected is not known. Four small fragments from a fair sized colony were examined.

Remarks : The present specimen agrees in all the characters to Lütken's original description of the species. Lütken states that the young specimens are attached to the shells of the bivalves *Dosinia* and *Placunomia* both of which are common in the littoral waters of the Indian seas, hence logically the coral may be a littoral form.

SUMMARY

Cladangia exusta Lütken a Rhizangiid coral is collected for the first time since its original description. A detailed description of the species based on the present material is given.

ACKNOWLEDGMENTS

I am grateful to Dr. S. Jones, Director, Central Marine Fisheries Research Institute, Mandapam Camp for his guidance. My thanks are due to Mr. A. Ravindranatha Menon for kindly sending me the specimens and to Prof. J. W. Wells of the Cornell University, Ithaca, for his kind help in identification of the species.

REFERENCES

- DUNCAN, P. M. 1885. A revision of the Families and Genera of Sclerodermic Zooantheria or Madreporaria. *J. Linn. Soc. (zool.)*, 18 : 1-204.
- LÜTKEN, C. F. 1873. En art. fra. Nutiden af den miocene koralslaegt *Cladangia*, *C. exusta* (Stp.) *Vidensk. Meddr dansk. Natur. Foren.*, 65-68.
- SQUIRES, F. D. 1962. Additional Cretaceous and Tertiary Corals from New Zealand. *Trans. R. Soc. N.Z.*, 1(9) : 133-150.
- WELLS, S. W. 1956. Scleractinia. In 'Treatise on invertebrate Paleontology' Pt. F., Geological society of America and University of Kansas Press : 328-443.