CONOPEUM PAPILLORUM SP. NOV.
(Fig. 2F)

Material

Holotype: NHM 1998.8.4.262, Vila Waterfront, Efate, Vanuatu.

Description

Colony encrusting, unilaminar. Autozooids elongate-oval, rectangular or polygonal, distinct, separated by deep grooves, frontal surface largely membranous; opesia oval, occupying majority of frontal area. Cryptocyst tuberculate, narrow, surrounding whole opesia, widening very little proximally, many small spinules around the inner edge, orientated towards the interior of the opesia; gymnocyst smooth, well developed, surrounding entire cryptocyst, deepest proximally where generally two conical bud-like processes are produced. Three or four pairs of lateral marginal spines, short, stout, pointed, incurved over the opesia. Space-filling kenozooids present, small, with a circular opesia surrounded by cryptocyst similar to autozooids but with cryptocystal spinules on the inner rim; no spines.

Measurements

Holotype: means and standard deviations, mm ($n=30$).

Autozooid length 0.41 ± 0.08; width 0.29 ± 0.03.

Etymology

From *papilla*, L.—buds. Named for the two bud-like processes on the proximal gymnocyst of each autozooid.

Remarks

Conopeum papillorum is characterized by the proximal gymnocystal processes, marginal spines and cryptocystal spinules.

This species is very similar to *Electra angulata* Levinsen, 1909, originally described from Koh Samet, Thailand, and subsequently recorded by Harmer (1926) from North Sumbawa, Malaysia. Although *E. angulata* has a well-developed proximal gymnocyst and two bud-like processes, these are very small and thin; there are also six to eight pairs of marginal spines, as well as a single proximomedial spine near the edge of the gymnocyst/cryptocyst boundary, unlike the rest of the spines which are at the junction, though originating on the gymnocyst.

Mawatari (1974) synonymized *Electra angulata* Levinsen with *Membranipora tenella* Hincks (as *Electra tenella*), but with some reservations. Mawatari's (1974) text-figures and plates are far more reminiscent of *E. angulata* as described and illustrated both by Levinsen (1909) and Harmer (1926) than of the type specimen of Hincks' *M. tenella* (see discussion of *Jellyella tuberculata* above) for several reasons. Firstly, *M. tenella sensu stricto* bears no marginal spines and, in particular, no single proximomedial spine (as described above), but also the gymnocystal processes are far more robust and knob-like, occupying a greater area of gymnocyst, than in either *E. angulata* or *C. papillorum*. *Membranipora tenella* and *E. angulata* are clearly separate species; the latter is the species recorded by Mawatari (1974) and whilst the two species each bear a superficial resemblance to *C. papillorum* it is distinct from both.

Conopeum papillorum differs greatly from the two species of *Conopeum* described by Harmer (1926) from Malaysia—*C. eriophorum* (Lamouroux, 1816) and *C. reticulum* (Linnaeus, 1767). Having examined Harmer's material of each (*C. eriophorum* NHM 1928.3.6.21, New Guinea; *C. reticulum* NHM 1928.3.6.19, Kei Islands), it is obvious that they are conspecific, although the actual species identity remains uncertain: there is no visible gymnocyst, therefore no gymnocystal processes or marginal spines, and they may represent an undescribed species.

Distribution

A single colony of *Conopeum papillorum* was found encrusting a shell from Vila Waterfront, Efate, itself having been grown over by a colony of *Watersipora subovoidea sensu* Harmer, 1957.