

*Mucropetraliella capricornensis* Tilbrook, Hayward & Gordon, 2001, p.84, fig.16F.

*MUCROPETRALIELLA CAPRICORNENSIS* SP. NOV.

(Fig. 16F)

*Material*

Holotype: NHM 1998.8.4.244, Erakor Island reef flat, Efate, Vanuatu.

Paratype: NHM 1997.10.6.64, collection data as for holotype.

*Description*

Colony developing loosely encrusting, unilaminar sheets, deep brown in colour when dried. Autozooids rectangular to irregularly polygonal, convex, distinct, showing obvious lateral walls. Frontal shield thickly calcified, densely perforated by large, round pores. Primary orifice wider than long, subquadrate, with a wide shallow lyrula and bluntly triangular lateral condyle-like denticulations. A suboral mucro present, with a single avicularium, laterally facing and frontally orientated; rostrum oval, mandible elongate, semi-elliptical. Often a short spinose process is produced on the mucro, on the opposite side to the avicularium. Two pairs of oral spines are seen in younger zooids, a pair at each distolateral corner. A low peristome may surround the distal and lateral borders of the orifice, incorporating a pair of small lateral-oral avicularia, similar in shape to that found on the mucro, located nearer to the proximal than the distal border, laterally directed. Further avicularia may be produced distally, similar to those already described, as the peristome is established and encompasses the spines. Later in ontogeny, adventitious avicularia, similar to those described above, may be produced anywhere on the frontal shield, but more generally around the margins of the zooids, variably orientated. Ovicell globular, as wide as long, recumbent on distal zooids; endooecium very finely perforate, appearing dimpled; ectooecium not apparent.

*Measurements*

Holotype, means and standard deviations, mm ( $n = 15$ ).

Autozooid length  $1.11 \pm 0.09$ ; width  $0.65 \pm 0.06$ .

*Etymology*

Named for the proximity of the type locality to the Tropic of Capricorn.

*Remarks*

*Mucropetraliella capricornensis* is characterized by the wide, shallow lyrula, bluntly triangular lateral denticulations, and two pairs of distal oral spines. The lateral denticulations, although incorporated into the orificial rim, do not appear to function as condyles, i.e. function to articulate the operculum; in dried material of this and other *Mucropetraliella* species, the operculum always sits below the lateral denticles.

Gordon & d'Hondt (1997) described a species from New Caledonia that they attributed to *Mucropetraliella philippinensis* (Canu & Bassler, 1929), noting the presence of four oral spines, not described in Canu & Bassler's (1929) original description. Having

examined cotype material of both *M. philippinensis* and *M. falcifera* (Canu & Bassler, 1929) (and found them to be the same species) it is apparent that Gordon & d'Hondt (1997) were mistaken in their assignation as Canu & Bassler's (1929) species is devoid of spines.

*Mucropetraliella oculifera* Harmer, 1957 differs from *M. capricornensis* in having four equally spaced oral spines, sharp processes on the lateral corners of the wide shallow lyrula, and sharply triangular proximally pointing lateral denticles. *Mucropetraliella oculifera* is also characterized by the presence of occlusor laminae in the primary orifice, not seen in *M. capricornensis*. *Mucropetraliella bennetti* (Livingstone, 1926) and *M. serrata* (Livingstone, 1926), both from the Great Barrier Reef, differ from *M. capricornensis* in having six or more oral spines, a smaller lyrula with sharp processes, and sharply triangular lateral denticles. *Mucropetraliella magnifica* (Busk, 1884) from Hawaii has four oral spines, but these are equidistant and the lyrula is far narrower than in *M. capricornensis*.

*Distribution*

Only two colonies of *Mucropetraliella capricornensis* were found; a small, infertile, colony fragment and a larger fertile colony. Both were found encrusting small pieces of coral rubble at Erakor Island.

