

SYSTEMATIC ACCOUNTS

Triphyllozoon benemunitum (Busk MS, Hastings) (Fig. 1)

Retepora tubulata Busk, 1884: 121 (part), pl. 28, figs 2–2b.

Retepora monilifera var *benemunita* (Busk): Hastings, 1932: 441, pl.1, fig. E, text figs 16,17.

Triphyllozoon benemunitum: Harmer, 1934: 605, pl. 35, figs 25 & 26; pl. 39, figs 20–26; text fig. 28.

Material

HOLOTYPE: BMNH 1899.7.1.70, Busk Coll.

Other material: BMNH 1862.2.4.9–10, 1866.6.22.10, east coast of Australia, 42 fathoms; 1882.2.23.386–395, Thursday Island, Torres Strait, 3–4 fathoms, HMS *Alert*; 1882.2.23.421–2, Prince of Wales Channel, Torres Strait, 9 fathoms, HMS *Alert*; 1882.2.23.443–7, 492–6, Port Molle, HMS *Alert*; 1963.9.4.9, north-west coast of Australia; unreg., Prince of Wales Channel, Torres Strait, 5–7 fathoms; unreg., Friday Island, Torres Strait.

Colony architecture incompletely known: the holotype specimen is a fragment 2 cm high, with horizontal spread 3 × 3.5 cm, part of an evidently compact structure with regularly anastomosed edges developing tubes ≈ 5 mm diameter. Fenestrulae small, oval, with little variation in size, commonly 0.75 × 0.5 mm; trabeculae consisting of two to four alternating autozooid series. Autozooids at growing edge short and oval, commonly 0.4–0.5 × c. 0.2 mm; frontal shield gently convex, smooth, bordered by narrow, raised sutures, with few, indistinct marginal pores. Primary orifice slightly wider than long, proximal edge straight, with an indistinct notch in one corner, condyles long and narrow. Two short, lateral spines present in early ontogeny, soon obscured by development of a short, flared peristome. Mid-proximally the peristome has a small rounded pore marking the fusion of the two lobes of the peristome; frequently, an adventitious avicularium present on the peristome rim, to one side of the pore, acute to frontal plane and laterally directed; rostrum narrow, 0.08 mm long, tapered distally, the tip up-curved and finely denticulate. Elsewhere, avicularia numerous and polymorphic; most frequent is a narrowly oval type, 0.1 mm long, with rounded, upcurved, finely denticulate tip; distal to many fenestrulae is a large avicularium, with tumid cystid supporting a broadly oval rostrum, 0.15 mm long; larger avicularia present proximally or proximo-laterally within many fenestrulae, the rostrum 0.2–0.25 mm long, distal end broadly spatulate, its rim upturned and produced into two or three sharp cusps. On the abfrontal surfaces avicularia are even more numerous and various, with oval, sharply triangular or elongate, parallel-sided rostra, often bicusped distally. Ovicell longer than broad, aperture with a short, broad labellum, straight-edged and bounded on each side by a shallow notch; median suture as long as, or slightly longer than lateral sutures, which diverge mostly at >90°, occasionally at almost 180°.

Remarks

Hastings (1932), noting that Busk had recognized the distinction between this species and *Triphyllozoon moniliferum* (MacGillivray), published and validated his manuscript name. Both Hastings (1932) and Harmer (1934) noted the extraordinary variety of avicularia present in this species. Busk collection specimens referred to *T. benemunitum* by Harmer (1934) all originate from Torres Strait, although the type specimen selected by Hastings (1932) is unfortunately from an unknown Australian locality. The description given here is founded on the type material.

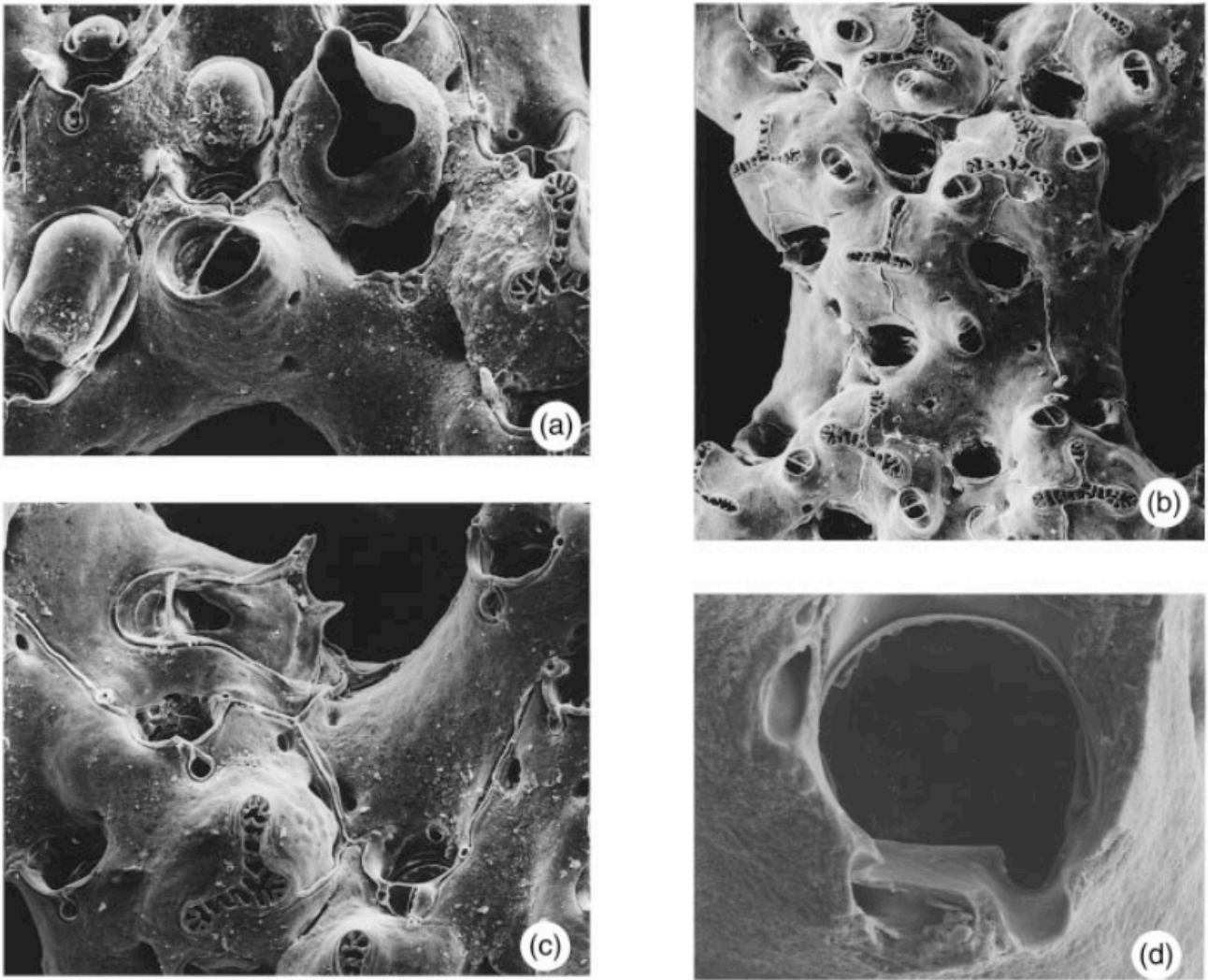


Fig. 1. *Triphyllozoon benemunitum*. (a)–(c), Holotype: (a) enlarged avicularium at distal end of a fenestrula, and developing ovicells, $\times 100$; (b) ovicelled autozooids with additional adventitious avicularia, $\times 60$; (c) vicarious avicularium at the proximal end of a fenestrula, $\times 100$; (d) LC183, Cleveland Bay; the primary orifice, $\times 300$.