Petraliella dentilabris (Ortmann, 1892)

Figs 5A–C

Lepralia dentilabris Ortmann, 1892: 670, text fig. [no number]

Petraliella dentilabris: Harmer, 1957: 705.

Petralia chuakensis Waters, 1913: 518, pl. 70, figs 10–14.

Petralia chuakensis: Livingstone, 1926: 99; Hastings, 1932: 436.

Hippopetraliella (*Serripetraliella*) *chuakensis hastingsae* Stach, 1936: 371, figs 6A, 12A, B.

Petraliella chuakensis: Harmer, 1957: 698, pl. 44, figs 11, 13; Ryland, 1974: 342; Winston & Heimberg, 1986: 16, figs 31, 32.

Material examined

BMNH 1915.10.20.9, Chuaka, Zanzibar, Crossland Coll. (Syntype of *Petralia chuakensis* Waters, 1913); BMNH 1932.4.20.56,123, Low Island, off Port Douglas, Queensland, Hastings; BMNH 2000.4.11.15,30, Green Island, Queensland, 02.07.72; BMNH 2000.4.11.16,29, Cairncross Island, Great Barrier Reef, 15.06.72; BMNH 2000.4.11.17,28, Suva Barrier Reef (east), Fiji, 29.03.79; BMNH 1963.9.8.51,52, 'Siboga' Stn 89, Kanuingen, Ketjil, East Borneo, 0–11 m; BMNH 1999.3.9.4, 'Siboga' Stn 89, Kanuingen, Ketjil, East Borneo, 0–11 m; BMNH 2000.4.11.22,23, Papua New Guinea; BMNH 2000.4.11.24, Palau.

Description

Colonies encrusting to semi-encrusting. Autozooids in longitudinal rows, rectangular or polygonal, separated by a shallow groove (*c*. 0.90 × 0.70 mm); frontal shield uniformly perforate with large pores; marginal pores and lateral walls becoming indistinct with ontogeny. Primary orifice as wide as long, with 5–6 proximal denticles, separated by small sinuses, along the otherwise almost straight proximal border. Condyles not observed. Frontally pointing lappets may form either side of the orifice accompanied by slight lateral indentations. Oral avicularia single or paired, lateral, elongated, distally directed, the distal end of the curved rostrum raised from the frontal shield; mandibles strongly curved, almost S-shaped; complete, delicate crossbar. No frontal or sutural avicularia observed. Ovicells prominent, uniformly perforate, with numerous small pores, and finely tuberculate, an imperforate border around the aperture and distinct, raised marginal rim. Basal radicular chambers, median and distal, may be very large.

Remarks

Petraliella dentilabris is characterised by the denticulate proximal border to its primary orifice and by the elongate, curved lateral oral avicularia. It differs from *P. buski* in having multiple proximal denticles (Fig. 5A), rather than two lateral denticles and an anvil-shaped median denticle. The lateral oral avicularia are distally directed and curved, not proximolaterally directed and straight as are the distal oral avicularia common in *P. buski*. *Petraliella dentilabris* differs from *P. concinna* which only has a single median proximal oral sinus and small, oval avicularia that are laterally directed. *P. dentilabris* differs from *P. dorsiporosa*, *P. magna* and *P. crassocirca* in having a denticulate proximal orificial margin, the latter three species have a smooth margin.

Ortmann (1892) introduced *Lepralia dentilabris* for a species found off Dar es Salaam, Tanzania. Apart from Harmer's (1957) brief mention of the species it appears to have been forgotten until this day. Ortmann's material is unavailable for examination but his description and figure, although crude, is easily identifiable as the species later described by Waters (1913) as *Petralia chuakensis* from Zanzibar, the large island off the coast of Tanzania and opposite Dar es Salaam. We feel justified in regarding *Petraliella dentilabris* (Ortmann, 1892) as the senior synonym of *Petraliella chuakensis* (Waters, 1913) as the two species appear identical from their descriptions and illustrations and the two type localities are very close.

Stach (1936) introduced the subgenus *Serripetraliella* for *Petraliella chuakensis*, and regarded Hastings' (1932) undescribed material from the Great Barrier Reef as a variety, on the basis of differences in its lateral and basal septular pores. Stach's figure 12A also appears to show an avicularium with far less curvature than that depicted by other authors. The avicularia appear to increase in length and curvature with astogeny. The Low Island material has smaller radicular chambers than the East African material, often supplemented by several very small chambers. One specimen (BMNH 1932.4.20.56) also lacks the characteristic lateral oral avicularia; however, the primary orifice is identical to Water's (1913) species, including the presence of lateral oral lappets. Harmer (1957) did not regard Stach's *Serripetraliella chuakensis hastingsae* as either generically different from *Petraliella* or separable from *P. chuakensis* (i.e. *P. dentilabris*).

Stach's (1936) concept of *Serripetraliella* included a somewhat heterogeneous group of species. Harmer (1957) noted that *Hippopetraliella marginata* (Canu & Bassler, 1928) (see Figs 1C,D), from the Gulf of Mexico, which was included by Stach (1936) in *Serripetraliella*, had large articulatory condyles, and that the proximal orificial serrations were not always present (Cheetham & Sandberg, 1964). Canu & Bassler's species is here included in the genus *Petraliella*.

The measurements given by Winston & Heimberg (1986) for *Petraliella dentilabris* (as *P. chuakensis*) in their figs. 31 and 32 are not consistent with the scale provided, or with those of other specimens.

Petraliella dentilabris has an extensive distribution, from the East African coast, through the East Indies to northern Queensland and Fiji.

Petraliella dentilabris (Ortmann, 1892). Tilbrook & Cook, 2004, p. 326

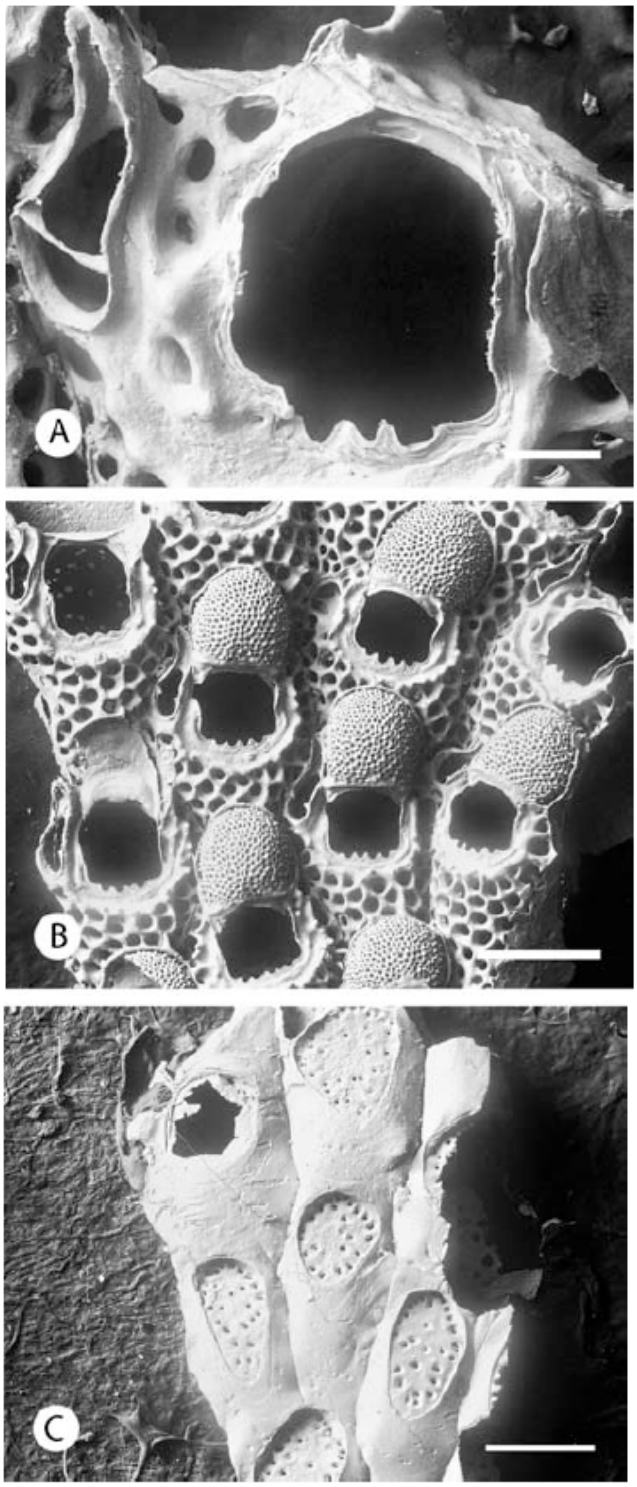

Figure 5 A–C, *Petraliella dentilabris* (Ortmann, 1892), BMNH 1915.10.20.9, Chuaka, Zanzibar. A, primary orifice, with associated distally directed lateral oral avicularium. B, group of ovicellate zooids, note the strongly curved avicularian rostra and abundant proximal denticles in the primary orifices. C, basal surface showing large radicular chambers. A, scale bar 100 μm; B, C, scale bar 500 μm.