

Tetraplaria ventricosa (Haswell, 1880). Tilbrook, 2006, p.230, pl.51A-C.

Tetraplaria ventricosa (Haswell, 1880)

Plate 51A-C

Onchopora ventricosa Haswell, 1880: 36, pl. 1, fig. 3.

Onchopora granulosa Haswell, 1880: 36.

Tetraplaria ventricosa: Harmer, 1957 (part): 1053, pl. 69, figs 1-4.

?*Tetraplaria ventricosa*: Ryland, 1974: 343; Hayward, 1988: 27.

Not *Tetraplaria ventricosa*: Gordon & d'Hondt, 1997: 27, figs 53, 54.

Pollaploecium gilbertensis Maplestone, 1909: 314, pl. 28, figs 18, 18a.

Material examined SBMNH 365665-666, **501-87**; SBMNH 365667, **506-87**; NHM 1910.6.16.8, Holborn Island, Port Denison, Queensland; NHM 1975.7.28.2,3, Port Denison, Queensland; NHM 1869.12.3.11, Fiji, Godeffroy Museum; MOV F45887 (Holotype of *Pollaploecium gilbertensis*), Gilbert Islands.

Description Colony erect, branching, jointed, from a small encrusting base. Internodes cylindrical, straight, up to 4 mm long, of up to ten pairs of autozooids, set longitudinally, succeeding pairs set at 90° to each other. Internodes linked by brown cuticular nodes, each arising from short calcified basis rami developed terminally by parent internode. Each node and basis rami consists of a double tube. Autozooids longer than wide (0.70–0.80 x 0.45–0.55 mm), hexagonal or rounded diamond-shaped, distinct, separated by deep grooves and obvious lateral wall sutures. Frontal shield convex, with numerous small, flattened tubercles, evenly perforated by numerous small pseudopores, except immediately suborally. Primary orifice longer than wide (ca 0.17 x 0.15 mm), almost bell-shaped, deeply arched, smooth distal portion with slight lateral indentations just distal to straight proximal portion, a bowl-shaped sinus medially, twice as wide as deep, conspicuous lateral condyles, robust, squared, wider than deep, slight lateral point medially directed. No spines. No avicularia. Ovicellate zooids slightly inflated, ovicells obvious, as wide as long, separated by lateral wall sutures, tuberculate and evenly perforated as frontal shield, orifice dimorphic, larger, wider than long (ca 0.18 x 0.17 mm), closed by maternal operculum.

Remarks *Tetraplaria ventricosa* is characterised by its erect habit, its frontal shield morphology and its primary orifice.

Gordon & d'Hondt (1997) noted that a number of *Tetraplaria* species were included in the material cited by Harmer (1957) in his description of *T. ventricosa*. This opinion is upheld following re-examination of some of the material cited by Harmer. Although a complete review of Harmer's cited material has not been entered into, some of his synonymies must be rejected. For instance, a specimen of *T. gryllus* Canu & Bassler, 1929 (NHM 1931.12.30.152, Philippines) shows a species with autozooids far longer (ca 1.20 mm) than those of *T. ventricosa*, mainly due to a long, narrow proximal extension of the zooid. *T. gryllus* also has a more rounded orifice, as wide as long (ca 0.17 x 0.17 mm), with a wider, shallower sinus, smaller condyles, a frontal shield with pseudopores embedded in a raised circle of calcification and lateral wall sutures which are substantially raised above the level of the frontal shield itself. Another specimen cited by Harmer (1957) from Sri Lanka (NHM 1975.7.28.4, Thornely Coll.) of *T. simplex* (Kirkpatrick, 1888) also differs from *T. ventricosa* as described here. Although the autozooids are similar in dimensions to *T. ventricosa*, the frontal shield has pores embedded in ridges of calcification, i.e. not flattened tubercles, the lateral wall sutures are raised, and the primary orifice is more D-shaped, as wide as long, the sinus much wider and the condyles less robust.

Haswell (1880) also described *Tetraplaria granulosa* from the *T. ventricosa* type location. *T. granulosa* is thought to be a junior synonym of *T. ventricosa*. The Solomon Islands material here assigned to *T. ventricosa* is identical to the cotype specimen of *T. granulosa* (NHM 1910.6.16.8).

Haswell (1880) described a third species of *Tetraplaria* from Holborn Island, as *Onchopora immersa* (e.g. NHM 1883.11.29.21). This distinct species has far longer internodes than *T. ventricosa*, the autozooids are of a similar size, but less convex and there are no obvious lateral wall sutures. The frontal wall of this species bears only a few rather large pores deeply embedded in large rings of calcification. The primary orifice is slightly recessed in a small peristome, is almost circular, as wide as long (ca 0.15 x 0.15 mm), with a deep bowl-shaped sinus, very robust condyles and large evaginations of the oral rim into corners proximolaterally. Finally, this species does not produce ovicells in the same way as *T. ventricosa*; instead, brooding zooids appear inflated, raised from the normal cylindrical appearance of the internode, with a dimorphic orifice and two small perforated areas laterally, either side of the orifice.

Two new species of *Tetraplaria* have recently been described from New Caledonia, *T. caledoniensis* d'Hondt, 1986 and *T. orospinea* Gordon & d'Hondt, 1997. These species differ from *T. ventricosa* in a number of ways but most specifically, *T. caledoniensis* has a very narrow proximal orificial sinus and *T. orospinea* bears four to six orificial spines. The possession of oral spines is unique amongst species of this genus, and as such this may be a misassignment.

Other more recent records of *Tetraplaria ventricosa*, as well as the remainder of Harmer's (1957) cited material, should be re-examined to give a truer representation of the distribution of this species. This review is outside the remit of this particular study.

Lu *et al.* in Lu (1991) described a new species of *Tetraplaria* (originally assigned to *Tubucellaria*, a junior synonym of *Margaretta*) from the Nansha Sea. This too should be examined in any future review of this genus.

Distribution

Originally described from Holborn Island, Port Denison, Queensland, *Tetraplaria ventricosa* has been accorded an Indo-Pacific distribution in the past. In light of the above, this distribution appears now to be more limited to the southwest Pacific and Coral Sea in particular. In the Solomon Islands this species records are from Linggatu Cove, Mbanika Island, Russell Islands and Anuha Reefs, Anuha Island, Florida Islands.

