

*Stylopoma duboisii* (Audouin, 1826). Tilbrook, 2001, p. 10, fig.2C-F

*STYLOPOMA DUBOISII* (AUDOUGIN, 1826)

(Fig. 2C-F)

*Flustra? duboisii* Audouin, 1826: 239; 1828: 66; Savigny, pl. 8, figs 41, 42.

*Stylopoma parviporosa* Canu & Bassler, 1929: 315, pl. 36, figs 3-6.

*Stylopoma duboisii*: Harmer, 1957 (in part): 1033.

Not *Stylopoma duboisii*: Cook, 1968: 196; Cook, 1973: 69, figs 3, 4; Cook, 1985: 163, pl. 2D, text figs 3k, 17, 18; Hayward, 1988: 317; Ryland & Hayward, 1992: 265, figs 20a,b.

*Stylopoma parviporosum*: Harmer, 1957 (in part): 1035.

?*Stylopoma parviporosa*: Scholz, 1991: 309, pl. 15, figs 1-3.

*Material*

Neotype (here selected): NHM 1899.7.1.2402, Bay of Suez, 7 fathoms. Dr Foster.

Neoparatypes (here selected): NHM 1899.7.1.2192, 2220, 2221, 2395, 2397, 2400, 2406, 2446, Bay of Suez, 7 fathoms. Dr Foster.

Other material examined: NHM 1899.5.1.1363, East Africa. Hincks Coll.; NHM 1999.4.11.62, RRS Makabiss, Stn.23, Red Sea. 95 fms; NHM 1999.4.11.63, Strait of Makassar; NHM 1999.4.11.64, W. of N. end of New Guinea. 32 m; NHM 1931.112.30.110 (*Stylopoma parviporosa* cotype), Alb. Stn. D5142, off Jolo, Jolo Island, Philippines, 21 fms; NHM 1931.112.30.111 (*Stylopoma parviporosa* cotype), Alb. Stn. D5179, Romblon Light, Romblon, Philippines, 37 fms; USNM 8073 (*Stylopoma parviporosa* cotype), Alb. Stn. D5137, Jolo Light, Jolo, Philippines, 20 fms; USNM 8074 (*Stylopoma parviporosa* cotype) Alb. Stn. D4147, off Sulade Island, Sulu Archipelago, Philippines, 21 fms; USNM 8075 (*Stylopoma parviporosa* cotype), Alb. Stn. D5179, Romblon Light, Romblon, Philippines, 37 fms.

*Description*

Colony encrusting, unilaminar to multilaminar. Autozooids irregularly polygonal, slightly convex, separated by distinct sutures. Primary orifice D-shaped, wider than long, proximal border straight; sinus deep narrow, slit-like with parallel sides; condyles rectangular, deep and wide, ridged disto-proximally, slightly denticulate, occupying entire length of proximal border, with rounded median edge. Frontal shield densely perforated by small round pores (70-90) in shallow hollows, and with a series of distinct marginal pores, which may be narrow and slit-like. A single small, adventitious avicularium, proximo-lateral to orifice; rostrum inclined to frontal plane, disto-laterally directed; mandible equilateral triangular. Vicarious avicularia infrequent, as large as autozooids; rostrum spatulate; crossbar complete; typically distally orientated. Ovicells prominent, globular, proximal labellum entire, straight but may be raised medially, external suture obvious, not visible in frontal view; aperture D-shaped. Ovicells are produced when the colony is unilaminar. Ancestrular complex consisting of five zooids.

*Measurements*

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

Autozoid: length,  $0.50 \pm 0.06$ ; width,  $0.35 \pm 0.07$ .

Orifice: length,  $0.09 \pm 0.01$ ; width,  $0.13 \pm 0.00$ .

Sinus length,  $0.04 \pm 0.01$ .

Avicularium: length,  $0.10 \pm 0.01$  ( $n=10$ ); width,  $0.08 \pm 0.01$  ( $n=10$ ).

*Remarks*

*Stylopoma duboisii* is characterized by its D-shaped primary orifice, slit-like sinus and deep, ridged, slightly denticulate condyles. The D-shaped ovicell aperture and entire labellum are also distinct. *S. duboisii* is very similar in appearance to *Stylopoma velatum* sp. nov. (mainly from the Pacific); however, the latter has a more semicircular primary orifice, i.e. much wider than long, shallower, more obviously denticulate condyles, a deeper, narrower proximal sinus and an ovicell with an incomplete labellum.

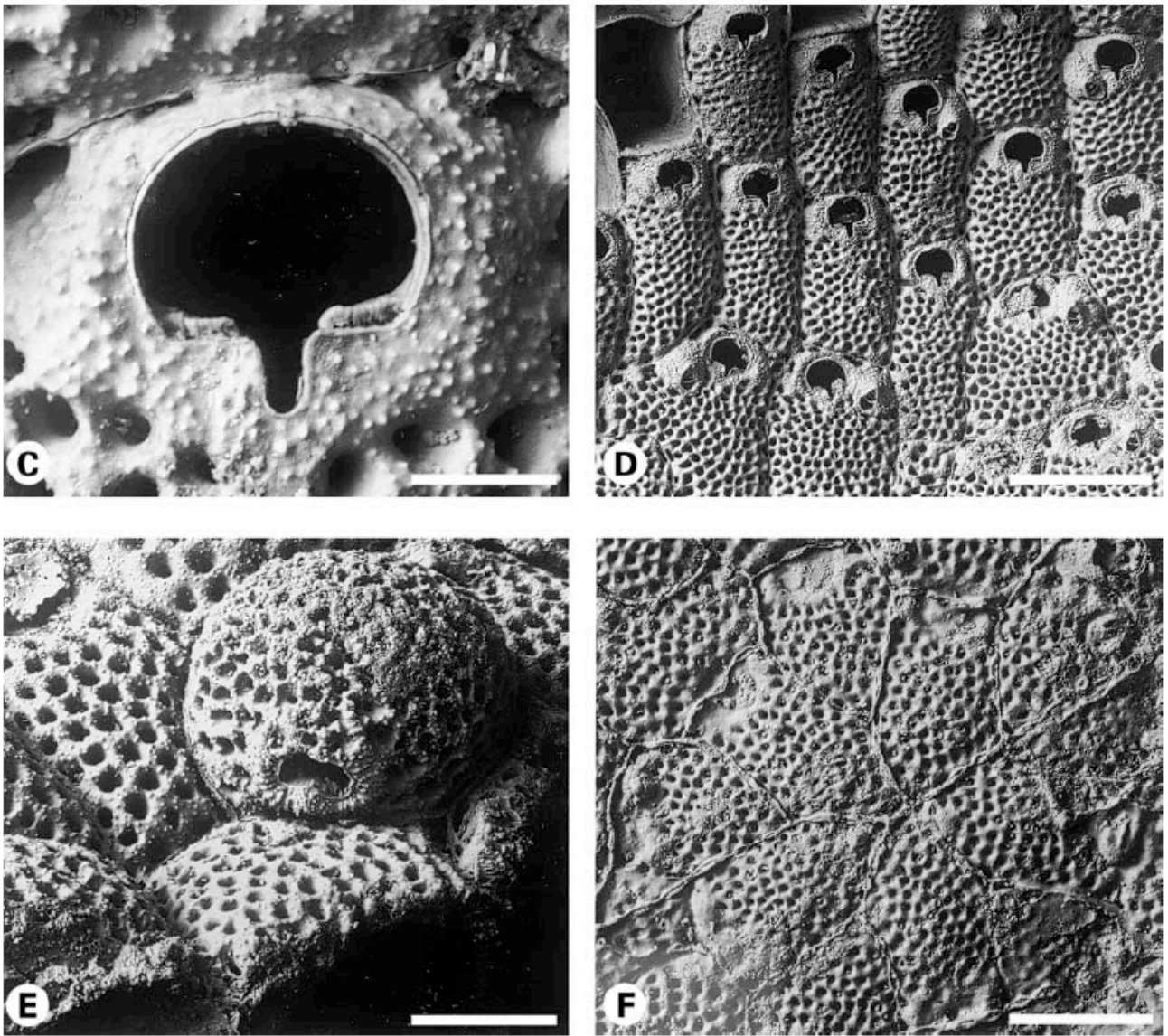
The selection of a neotype specimen is long overdue as Audouin's material has been lost and the illustration by Savigny (Audouin, 1826 [1828]) is most unhelpful. The neotype specimen and a series of neo-paratypes from the Bay of Suez, Red Sea, will stabilize the concept of this species, as well as provide adequate material for future comparisons.

Cook (1985) described *S. duboisii* as a species complex. Having examined her material it is apparent that she was describing two species, neither of which is attributable to *S. duboisii*. Cook (1973, 1985) described settlement, and early ontogeny of a triad ancestrular complex in specimens which are here attributed to *S. spongites*. One of the neo-paratype specimens of *S. duboisii* (NHM 1899.7.1.2192) has a five-zoid ancestrular complex. The five zooids initially take the form of a pentagonal star, the first generation of peri-ancestrular zooids budding between the arms of the star, either one or two zooids between each pair of ancestrular zooids. This is true for all species with a five-zoid ancestrular complex. The primary orifice is present at this early stage in ontogeny as are the adventitious avicularia.

*Distribution*

*Stylopoma duboisii* has been cited as common in shallow waters in the western Atlantic and Indo-West Pacific. However, as several new species have been described from material originally assigned to *S. duboisii* all previous records and material must be looked on with scepticism until checked against the neotype material.

*Stylopoma duboisii sensu stricto* has only been found from the Red Sea and the Western Indian Ocean, Malaysia, New Guinea and the Philippines.



**Figure 2.** A,B, *Stylopoma distorta* Canu & Bassler. A, primary orifice, note U-shaped sinus and lipped articulatory condyles; B, group of autozooids; C–F, neotype *Stylopoma duboisii* (Audouin). C, primary orifice, note deep slit-like sinus and rectangular condyles; D, group of autozooids; E, ovicell, showing oval aperture and entire proximal labellum with a distinct suture; F, five-zooid ancestrula complex. Scale bars: A=0.07 mm; B=0.40 mm; C=0.06 mm; D=0.40 mm; E=0.16 mm; F=0.33 mm.