

Gigantopora birostris new species
Plate 53A-B

Type material Holotype: SBMNH 365686, 412-84.

Description Colony encrusting unilaminar. Autozooids relatively small (0.45–0.55 x 0.35–0.45 mm), rectangular, hexagonal or irregularly polygonal, convex, separated by deep grooves. Frontal shield with numerous, very small pores, between numerous raised, pointed frontal processes, some of which bifurcate. Primary orifice one and a half times as long as wide, poster one quarter length of anter, condyles robust, triangular, medially directed, obscured by tall, thin peristome. Avicularia paired, distolateral to orifice, rostrum raised, elongate triangular, hooked distally, crossbar complete, facing distolaterally, directed frontomedially, their tips almost touching. Peristomial bridge over spiramen imperforate, becoming wider with ontogeny, spiramen becoming smaller, changing from circular, similar in size to secondary orifice, to transversely oval, twice as wide as long. Ovicells large, hyperstomial, globular, wider than long, evenly perforated apart from imperforate area frontally, adjacent to distal peristomial rim, otherwise calcification as frontal shield.

Etymology From *bi-*, L. two; *rostrum*, L. beak. Named for the paired distolateral-oral avicularia.

Remarks *Gigantopora birostris* is characterised by its small size, its minutely porous frontal shield, its often-bifurcating frontal processes and by its large ovicells, imperforate frontally.

Gigantopora birostris differs from several other species of *Gigantopora* recorded from the Indo-Malaysian area most particularly in the number and size of its frontal pores and by the size of its ovicell. *G. pupa* (Jullien, 1903) material from the Torres Strait and Great Barrier Reef (illustrated by Hayward & Ryland, 1995a) has far fewer and larger frontal pores, the tubercles between are rounded, not pointed, and the ovicells are far smaller and completely perforated. The same species illustrated by Gordon (1984) from the Kermadec Ridge has far more frontal pores than the Australian material, but the tubercles are very small and the ovicell is again small, as long as wide. It is apparent that *G. pupa* is in need of a review to ascertain its correct morphology and geographical distribution.

This appears to be the case for many of the *Gigantopora* species from the area. For instance, the validity of two species, *G. spiculifera* Canu & Bassler, 1927a, from the Hawaiian Islands, and *G. unirostris* Canu & Bassler, 1929, from the Philippines, has been questioned previously. As explained by Harmer (1957), the latter specific epithet was a manuscript name used by the authors, without description, in 1927a when *G. spiculifera* was described. *G. unirostris* was formally described two years later. However, Harmer was reticent about the characters used to differentiate the two species (autozooid size and spiramen shape and positioning) stating them as “too slight and too variable to establish a specific difference”, expressing the opinion that *G. unirostris* was a junior synonym of *G. spiculifera*. Both species share the character of having minute frontal tubercles that divide at their ends, as described for *G. birostris* above. Comparison of material assigned to *G. unirostris* (NHM 1931.12.30.96 - Philippines) with that of *G. birostris* shows that the former has fewer, larger frontal pores than *G. birostris* and a single peristomial avicularium. An unnamed specimen of *Gigantopora* from Green Island, Great Barrier Reef (NHM 2000.4.11.8) is ostensibly similar to the *G. unirostris* specimen in the number of pores and single avicularium, however, the primary orifices of the two species are very different. The quandary

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over the true identity of these *Gigantopora* species can only be addressed by reviewing available type specimens and using the less variable characters, such as the shape of the primary orifice, number and size of frontal pores and the shape and size of the ovicell, for comparison.

Distribution *Gigantopora birostris* has only been found from the Solomon Islands. A single colony was dredged from 100m off Yandina, Mbanika Island.

