

Hippopodina adunca new species
Plate 54C-D

Hippopodina feegeensis: Philipps, 1899: 446, pl. 63, fig. 7; Ristedt & Hillmer, 1985: 137, pl. 2, fig. 12; Hayward, 1988: 319; Ryland & Hayward, 1992 (part): 256, fig. 17a; Seo, 1992: 150, pl.1, figs 6,7; Tilbrook, 1999 (part): 451; Tilbrook, Hayward & Gordon, 2001: 88, fig. 18A.

Type material Holotype: NHM 2000.4.11.856, Deuba Reef, Viti Levu, Fiji.
Paratypes: NHM 2000.4.11.750,751,777,845,853,861,1075, (as Holotype); NHM 1997.10.6.36-42, (as Holotype).

Other material examined SBMNH 365695-698, **515-87**; SBMNH 365699-706, **501-87**; SBMNH 365707, **409-84**; SBMNH 365708-709, **408-84**; SBMNH 365710-713, **401-84**; SBMNH 365714-716, **407-84**; NHM 1997.10.6.43, Joske's Reef, Suva, Fiji; NHM 1997.10.6.44, Suva Point, Suva Barrier Reef, Fiji; NHM 1997.10.6.45, Great Astrolabe Reef, Fiji; NHM 1985.9.6.15, Lifu, Loyalty Islands; NHM 2001.8.31.10-12, Lifu, Loyalty Islands; NHM 1999.8.16.1, Lifu, Loyalty Islands; NHM 1998.8.4.10, Port Vila Harbour, Efate, Vanuatu; NHM 1997.10.6.46-48, Low Isles, Great Barrier Reef, Australia; NHM 1997.10.6.50-55, Low Isles, Great Barrier Reef, Australia; NHM 2000.4.11.91,92,94,100,308,623, Low Isles Great Barrier Reef, Australia; NHM 1993.7.26.42,43, Heron Island, Station 24, Australia; NHM 1993.7.26.44-45, Heron Island, Station 11, Australia; NHM 1993.7.26.77-81, Heron Island, Station 25, Australia; NHM 1993.7.26.101-103, Heron Island, Station 21, Australia; NHM 1899.5.1.829, Singapore or Philippines; NHM 2001.8.31.9, Pulo Senang, Singapore, 18 m; NHM 1962.2.20.29,30, Formosa Strait, China Sea, 23° 32'N, 119° 35'E, Ma Coll.; NHM 1931.12.0.89, "Albatross" Station 5148, off Sirun Island, Tawi-tawi Islands, Philippines, 31 m; NHM 1992.1.24.26-29,35, Tamarin, Mauritius, 5 m; NHM 1882.10.18.100-104, Seychelles.

Description Autozooids rectangular or irregularly polygonal, separated by shallow grooves (0.90–1.10 x 0.60–0.80 mm). Frontal shield convex, evenly perforated by more than 100 small frontal pores. Primary orifice hoof-shaped, longer than wide (ca 0.20 x 0.19 mm), rounded distally, poster same width as anter, proximal margin straight or slightly convex, with very small lateral indentations, condyles small, triangular, conspicuous. Adventitious avicularia paired, of uneven lengths, originating distolateral to orifice, orientated distomedially, rostrum raised on inflated cystid, straight, though often curving slightly around distal border of orifice, mandible elongate, setiform, with hooked tip, crossbar complete. Ovicells large, rounded, evenly perforate, immersed in concavity in frontal wall of distal zooid, orifice dimorphic, wider than long (ca 0.23 x 0.21 mm), operculum closes orifice. Ovicellate zooids with small avicularia lateral to ovicell, distally directed. Colony origin from a triad ancestrular complex.

Etymology From *aduncus*, L. bent. Named for the hooked tip of the setiform avicularian mandible.

Remarks *Hippopodina adunca* is characterised by its primary orifice, with medium-sized lateral indentations, a poster the same width as the anter, with a straight proximal border, and the large, setiform, distolateral avicularia with hooked mandibles that often appear to curve slightly around the distal border of the orifice. The large avicularian cystids give the autozooids their rectangular shape.

Hippopodina adunca has been mistakenly assigned to *H. feegeensis* on several occasions previously, but it differs from that species in a number of ways: primary orifice with larger lateral indentations, poster same width as anter, and straight proximal border; avicularia that are large, setiform, with a hooked mandible, and curving slightly around distal border of orifice; and triad ancestrular complex.

Hippopodina adunca forms broad encrusting sheets. Hayward (1988) and Ryland & Hayward (1992) found it to be one of the most abundant bryozoans on the coral rubble they found, concluding that it was one of the primary colonising species. The production of expansive sheets is unique to *H. adunca* amongst *Hippopodina* species, with ovicells not developing until colonies are over several square centimetres in area. This is not the case with the other *Hippopodina* species, especially *H. iririkiensis*, which produce ovicells at a far smaller colony size. Notwithstanding, only fragmentary specimens of *H. adunca* were described from Vanuatu (Tilbrook *et al.* 2001), despite its abundance and size of colonies on the Great Barrier Reef and Fiji.

Distribution *Hippopodina adunca*, mistakenly assigned to *H. feegeensis* previously, has a tropical distribution in the warm shallow waters of the Indo-Pacific, from Mauritius in the west, to the Seychelles, Singapore, Philippines, the Great Barrier Reef, and throughout the Coral Sea, to Fiji in the east. In the Solomon Islands this species was found encrusting various substrata, including shell and coral debris, at Mbokona Bay, Honiara, Guadalcanal; Gibson Island, Hamilton Passage, and Taora Passage between Choiseul and Vealaviru; Yandina, Mabanika Island, Russell Islands; Anuha Reefs, Anuha Island, and Utuha, Mboli Passage, between Nggela Sule and Nggela Pile, Florida Islands.

