AUSTRALIAN MUSEUM SCIENTIFIC PUBLICATIONS

Clark, Austin Hobart, 1912. The Crinoids of the Soloman Islands. *Records of the Australian Museum* 9(1): 81–86. [26 April 1912].

doi:10.3853/j.0067-1975.9.1912.925

ISSN 0067-1975

Published by the Australian Museum, Sydney

The CRINOIDS of the SOLOMON ISLANDS.

By A. H. Clark, U. S. National Museum, Washington.

The first paper in which Crinoids from the Solomon Islands are mentioned was that of Professor F. J. Bell dealing with the Echinoderms brought from Australia to London in connection with the International Fisheries Exhibition in 1883. In it are included notices of two species taken at Ugi, a small island just north of San Christoval or Bauro, the most south-easterly of the group. Only one of these species is identified, this being referred to *Antedon spicata*, Carpenter, described four years previously. This record was accepted by Carpenter and included in the "Challenger" Report in 1888. Since then but a single reference to the Solomon Island fauna has been published, two specimens of *Dichrometra protectus* from Bougainville Island, the most north-westerly of the group, being recorded in the Report, by the present author, on the Crinoids collected by the German steamer "Gazelle."

Subgenus Comanthina, *A. H. Clark.*

Comanthina schlegelii (*P. H. Carpenter*).[1]

At the British Museum I examined a beautiful specimen of this species which was collected by H.M.S. "Penguin" in the Solomon Islands.

---

[1] The synonymy of this species and of the following species for which no synonymy is given will be found in my paper dealing with "The Recent Crinoids of Australia" (Austr. Mus. Mem., iv., 15, 1911); it has not seemed necessary to repeat here the synonymies there given.

Subgenus Comanthus, *A. H. Clark.*

COMANTHUS (BENNETTIA) SAMOANA, *A. H. Clark.*

Comanthus (*Comanthus*) *samoana*, A. H. Clark, Proc. U.S. Nat. Mus., xxxvii., 1909, p. 30 (SAMOA).

There was contained in the collection one specimen from Ugi, with twenty arms 60 mm. long; three of the nine II Br series present are 2 instead of 4 (3 + 4) as usual; on one ray, which bears two II Br series, there is a III Br series, developed externally.

This species has a peculiar roughness to the touch, due to the development of long spines on the outer pinnule segments, which makes it distinguishable by a characteristic harsh and dry feeling from *Comanthus parvicirra*; it has more numerous and stouter cirri than the latter, and the centrodorsal is larger, encroaching further on the I Br series than does that of *C. parvicirra.*

COMANTHUS (VANIA) ANNULATA (*Bell*).

There is a specimen of this species at the British Museum which was collected by H.M.S. "Penguin" at the Solomon Islands.

Genus Stephanometra, *A. H. Clark.*

STEPHANOMETRA OXYACANTHA (*Hartlaub*).

Antedon oxyacantha, Hartlaub, Nachr. Ges. Göttingen, Mai, 1890, p. 178 (AMBOINA); Nova Acta Acad. German., lviii., No. 1, 1891, p. 55, pl. iii., figs. 35, 37.

Stephanometra oxyacantha, A. H. Clark, Proc. Biol. Soc. Washington, xxii., 1909, p. 10.

Description.—Centrodorsal, moderate in size, discoidal, the bare polar area 2·5 mm. in diameter, slightly concave.

Cirri xxxii., 23 to 24, 20 mm. to 25 mm. long; first segment short, the next two about twice as broad as long, the following gradually increasing in length, becoming about as long as broad

on the fifth or sixth; next three or four segments slightly longer than broad, the following very gradually decreasing in length and becoming about half again as broad as long distally. The segments in the proximal half are slightly constricted centrally with somewhat prominent ends, and those in the distal half are slightly compressed laterally, and may be bluntly carinate; opposing spine median to terminal, blunt, triangular, in height equal to one quarter the lateral diameter of the penultimate segment; terminal claw somewhat longer than the penultimate segment, moderately slender, evenly tapering, and moderately curved.

Radials visible only in the angles of the calyx; I Br^1 very short, in contact basally, about four times as broad as long; I Br^2 (axillary) short and broad, almost triangular, twice as broad as long, the lateral edges swollen and produced into rounded lateral processes; II Br^2, the II Br^1 interiorly united for about three-quarters of their length; ossicles of the division series and first brachials with rounded lateral processes; the III Br series are developed on three rays, always exteriorly.

The twenty-four arms are about 120 mm. long; first two brachials short, wedge shaped, twice as broad as long exteriorly, the first inwardly united for most of its length; third and fourth brachials (syzygial pair) half again as broad as long; next three brachials oblong, slightly over twice as broad as long, then becoming wedge shaped and soon almost triangular, twice as broad as long, and distally gradually becoming less and less obliquely wedge-shaped, and in the terminal portion of the arm about as long as broad. Syzygies occur between the third and fourth brachials, again between the tenth and eleventh to fifteenth and sixteenth (usually between the fourteenth and fifteenth or between the fifteenth and sixteenth) and distally at intervals of from seven to ten (usually eight) oblique muscular articulations.

P^1 11·5 mm. long, slender, evenly tapering and becoming very slender distally, with twenty-three segments, the first about half again as broad as long, the following gradually increasing in length, becoming squarish on the third and twice as long as broad, or somewhat longer distally; P^2 much stouter, stiff and spinelike, 15 mm. long, with twelve segments, the first two subequal, about half again as broad as long, the third half again as long as broad, the remainder about two and one half times as long as broad; P^3 12 mm. long, resembling P^2, with about ten segments, of which the distal are much longer than those of the

preceding pinnule; P^4 7 mm. long, resembling P^3 but not quite so stout, with nine segments; P^5 smaller than P^4 basally, becoming very slender distally, 6 mm. long, with thirteen segments; following pinules similar to P^5, but rapidly becoming less stiffened basally; the distal pinules are 9 mm. long.

Loc.—Ugi; one fine specimen was taken at this locality.

STEPHANOMETRA SPICATA (*P. H. Carpenter*)

Antedon spicata, P. H. Carpenter, Notes Leyden Museum, iii., 1881, p. 190 (BANDA SEA); Bell, Proc. Linn. Soc. N. S. Wales, ix., (1884), p. 497 (Ugi); P. H. Carpenter, Chall. Rep. Zool., xxvi., 1888, p. 380 (Ugi).

Stephanometra spicata, A. H. Clark, Proc. Biol. Soc. Washington, xxii., 1909, p. 10.

This species, originally described from the Banda Sea, has been recorded by Professor Bell from Ugi.

Genus Dichrometra, *A. H. Clark.*

DICHROMETRA PROTECTUS (*Lütken*).

Antedon protectus, Lütken, Mus. Godeffroy Cat., v., 1874, p. 190 (*nomen nudum*).; in P. H. Carpenter, Trans. Linn. Soc., Zool., (2), ii., 1879, p. 19 (TONGA).

Dichrometra protectus, A. H. Clark, Zool. Anzeig., xxxiv., 1909, p. 367 (Bougainville Island).

There is in the collection a typical specimen from Ugi, with thirty arms about 70 mm. long, and cirri xxii., 24, 15 mm. long.

The German steamship "Gazelle" secured an example of this species at Bougainville Island.

Genus Colobometra, *A. H. Clark.*

COLOBOMETRA DIADEMA, *A. H. Clark.*

Colobometra diadema, A. H. Clark, Proc. Biol. Soc. Washington, xxiii., 1910, p. 7 (UGI).

Description.—Centrodorsal small, discoidal, the bare dorsal pole 2 mm. in diameter, very slightly concave; cirrus sockets arranged in a single slightly irregular marginal row.

Disc completely covered with large plates.

Cirri xi., 33 to 40, 22 mm. long; first segment short; second nearly or quite as long as broad, the following gradually increasing in length to the fifth, which is slightly (sometimes as much as one-third) longer than broad, then remaining uniform up to the tenth or twelfth, from that point gradually decreasing so that the distal segments are about one-third broader than long; the second and following segments are rather strongly constricted centrally and are provided with strongly produced and overlapping distal ends bordered with prominent spines, both of these characters dying away as the segments become shorter; after about the tenth segment the spinous overlap dorsally resolves itself into prominent paired spines, which at the tip of the cirrus become close together and are replaced by a single median spine on the antepenultimate segment; opposing spine large and prominent, triangular, median, about as long as the diameter of the penultimate segment; terminal claw stout and strongly curved, but little longer than the penultimate segment.

Radials short, but extending well up into the angles of the calyx and entirely separating the bases of the I Br^1; these latter are oblong, slightly over twice as broad as long, with a small spinous tubercle in the middle of the distal edge; I Br^2 broadly pentagonal, half again as broad as long, the lateral edges not quite so long as those of the I Br^1; the inferior inner angle of these ossicles is slightly turned outward and coarsely dentate; the distal edges of the I Br^2 are everted and finely spinous.

The ten arms are about 70 mm. long; first brachial slightly wedge shaped, about twice as broad as the exterior length, the interior sides united for about two-thirds of their length, the distal thirds making approximately a right angle with each other; the distal edge bears a small spinous tubercle in its centre; second brachial slightly larger, more nearly oblong; third and fourth brachials (syzygial pair) collectively slightly longer inwardly than outwardly, about as broad as the outer length; next four brachials oblong, half again as broad as long, then becoming very obliquely wedge-shaped, slightly longer than broad, and somewhat longer in the terminal portion of the arm. The brachials have strongly overlapping and spinous distal edges. Syzygies occur between the third and fourth brachials, again between the ninth and tenth and fourteenth and fifteenth, and distally at intervals of from four to eight (usually five) oblique muscular articulations.

P^a absent; P^1 10 mm. long, stiff and spinelike, with twelve segments, the first two not so long as broad, the third tapering, twice as long as the distal width, the following about four times

as long as broad; the distal edges of the segments from the third, and especially from the fourth, onward are armed with a frill of long spines; P^2 12 mm. long, similar to P^1 but proportionately stouter, with twelve segments; P^3, P^4, and P^5 similar to P^2; P^5 may be 11 mm. long, or there may be no decrease in length in these pinnules; following pinnules shorter, more slender and less stiffened; the outer pinnules have the distal edges of the segments, except the basal, armed with long and prominent spines.

ANTEDON, *sp.*

Antedon, sp., Bell, Proc. Linn. Soc. N. S. Wales, ix., 1885, p. 497 (Ugi).

Of this species Professor Bell says "allied to but not the same as *A. spicata.*"

LITERATURE.

(For the complete references see the bibliography given under the "Crinoids of Australia" Austr. Mus. Mem., iv., 15, 1911, p. 799).

1885. BELL, F. JEFFREY—Notes on a Collection of Echinodermata from Australia (*Solomon Islands Crinoids*, p. 497).

1909. CLARK, AUSTIN HOBART—The Crinoids of the "Gazelle" Expedition (*Solomon Islands Crinoids*, p. 367).

1910. ———————————A New Crinoid from the Solomon Islands. *Proc. Biol. Soc. Washington*, xxiii., p. 7 (*Colobometra diadema*, sp. nov.).