XXVI ON A SMALL COLLECTION OF RECENT CRINOIDS FROM THE INDIAN OCEAN

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Some time after the completion of my report[1] upon the Crinoids collected by the "Investigator" I received a few additional specimens which had escaped notice when that collection was sent to me.

In order that the published records of the large and important collection belonging to the Indian Museum may be complete these specimens are listed here.

One of the items of interest brought to light by the study of this material is the discovery of a new species of *Oligometra* allied to the Australian *O. adeonæ*, in the Andaman Islands. Up to a few weeks ago *O. adeonæ* in North Australia and the Aru Islands and *O. thetidis* in New South Wales were supposed to represent a somewhat anomalous type of the genus peculiar to Australia; but very recently a related species, *O. marginata*, has been described from Solor Strait in the Lesser Sunda Islands, where it was dredged by the Dutch steamship "Siboga." Not only does this new species greatly increase the known geographical range of this curious group, but it possesses an additional interest in being intermediate in its characters between this group within the genus *Oligometra* and the species of the genus *Prometra*, furnishing new evidence of the very close inter-relationships between all of the genera comprised within the family Colobometridæ.

Almost equally interesting is the new species of *Zygometra* herein described. Although not greatly different from *Z. comata*, which occurs from the Mergui Archipelago to the Philippine Islands, it appears to be quite distinct, and it appears to occupy a habitat considerably to the westward of that of any other species of the family.

Family COMASTERIDÆ.

Subfamily *CAPILLASTERINÆ.*

CAPILLASTER SENTOSA (P. H. Carpenter).

8° 51′ 30″ *N. lat.*, 81° 11′ 52″ *E. long.*; 28 *fathoms.*—One small broken specimen.

[1] Echinoderma of the Indian Museum, Part VII, Crinoidea. Calcutta, 1912.

Family ZYGOMETRIDÆ.

ZYGOMETRA ANDROMEDA, sp. nov.

The centrodorsal is thin discoidal, the bare dorsal pole large, slightly concave, finely granular, 2·5 mm. in diameter.

The cirri are XXI, 27-30 (usually the latter), 13 mm. to 15 mm. long; the longest segments are about one-third broader than long; dorsal spines, which are long and sharp, are developed from the eighth or ninth segment onward.

The arms are about twenty-five in number, 50 mm. to 55 mm. long; the division series and arms resemble those of *Z. comata*, but the distal edges of the radials and the proximal and distal edges of the ossicles of the division series and, to a lesser extent, of the first two brachials, are thickened and everted, this eversion being finely scalloped or tuberculated so that the edges of the ossicles appear beaded; the summit of the eversion may be smooth, but is usually very finely spinous; the flattened lateral edges of the ossicles of the division series and the first two brachials are very finely spinous, the dorsal surface is unmodified; the distal edge of the first syzygial pair bears a row of small rounded obscure tubercles, and there is usually a similar, but less evident row at the syzygial line. Beyond the fourth brachial the arms are smooth, resembling those of *Z. comata.*

P_1 is composed of twenty-four segments and is 9·5 mm. long.

Locality.—India.

EUDIOCRINUS MINOR, A. H. Clark.

Andaman Islands.—One specimen, with arms 35 mm. long.

Family HIMEROMETRIDÆ.

HETEROMETRA REYNAUDII (J Müller).

India.—Two specimens; one of these has twenty arms about 65 mm. long; one IIBr 2, and nine IIBr 4 (3+4) series are present; the other has twelve arms 25 mm. long; there are 15—18 cirrus segments of which the fifth or sixth and following bear dorsal spines.

? *India.*—Two very small specimens; one of these has ten arms 15 mm. long; the cirri are XI·, the longest with 17 segments of which the ninth and following bear dorsal spines, the shorter with 12 segments, none of which bear dorsal spines; the other individual is also ten armed; the longest cirri are 10 mm. long with 22 segments, dorsal spines being developed from the seventh onward; the smallest cirri are 2·5 mm. long with 9 segments, quite without dorsal spines, and exactly resembling the cirri of young examples of *Antedon bifida.*

HETEROMETRA PULCHRA, A H. Clark.

Arrakan Coast. - Two small broken specimens.

Family STEPHANOMETRIDÆ.

STEPHANOMETRA INDICA (E. A. Smith).

8° 51′ 30″ *N lat.*, 81° 11′ 52″ *E. long.*; 28 *fathoms.*—Two specimens; P_1 has fifteen segments.

Family MARIAMETRIDÆ.

DICHROMETRA PROTECTUS (Lütken).

India.—One specimen with thirty arms.

Family COLOBOMETRIDÆ.

DECAMETRA MOEBIUSI, A. H. Clark.

? *India.*—One specimen.

COLOBOMETRA DISCOLOR, A. H. Clark.

Off Table Island, Andamans; 15-35 *fathoms.*—One specimen.

PROMETRA BREVICIRRA, A. H. Clark.

? *India.*—One specimen.

OLIGOMETRA INTERMEDIA, sp. nov.

The centrodorsal is small, discoidal, the dorsal pole flat, papillose, 0·8 mm. in diameter.

The cirri are very short, very stout, and strongly curved, IX, 10-11, 2·5 mm. long; the earlier segments are broader than long, but the sixth and following are about as broad as long; the second segment has the distal dorsal edge produced and finely spinous, this becoming on the fourth a median transverse ridge with prominent lateral angles which project slightly beyond the lateral profile of the segment and encroach slightly on the lateral surface; on the outer segments this transverse ridge becomes narrower and partially resolves itself into paired transversely elongate spines, at the same time moving to a position proximal to median; here there may be an eversion of the median part of the distal dorsal edge of the segments so that the segments may present more or less of the "bidentate" appearance characteristic of *O. adeonæ* and *O. marginata.*

The ten arms are about 18 mm. long; the division series and arms in general resemble those of *O. serripinna*, but the ossicles of the IBr series and the first brachials have broad and prominent ventrolateral processes as in the species of *Stephanometra.*

P_a is absent; P_1 is 2·5 mm. long with eight segments, and is the longest and stiffest pinnule on the arm, though it is not especially stout; the first segment is half again as broad as long, the second is about as long as broad, the third is twice as long as broad, the fourth and fifth are between two and one half and three times as long as broad; the following rapidly decrease in size; the third and following bear long and prominent spines at the prismatic angles which after the fourth are very conspicuous; P_2 is 2 mm. long with eight segments, exactly resembling P_1; P_3 is small and slender, about 1 mm. long with about eight segments; the following pinnules are weak and delicate, not tapering so rapidly as P_3.

Locality.—Andaman Islands.

OLIGOMETRA SERRIPINNA (P. H. Carpenter).

"Investigator" Station No. 95; 15-25 *fathoms.*—One specimen; the synarthrial tubercles and the processes on the lower pinnules are strongly marked.

Arrakan Coast.—One small and immature specimen.

Family TROPIOMETRIDÆ.

TROPIOMETRA ENCRINUS, A. H. Clark.

Sadras.—One specimen.

Family ANTEDONIDÆ.

Subfamily *ZENOMETRINÆ.*

PSATHYROMETRA MAJOR, A. H. Clark.

"Investigator" Station No. 115; 188-220 *fathoms.*—One small specimen; there are four or five cirrus sockets in the outer columns.

PSATHYROMETRA MIRA, A. H. Clark.

West of Alleppey, Travancore (9° 34′ 57″ *N lat.*, 75° 36′ 30″ *E. long*); 406 *fathoms.*—One specimen, not quite mature, and one typical specimen.

Thirteen miles south by west from North Sentinel Island, Andamans; 130-250 *fathoms.*—One small specimen.

Seven miles south-east by south from Ross Island; 265 *fathoms.*—One small specimen.

PSATHYROMETRA INUSITATA, A. H. Clark.

Seven miles south-east by south from Ross Island; 265 *fathoms.*—One small specimen.

Family PENTAMETROCRINIDÆ.

PENTAMETROCRINUS VARIANS (P. H. Carpenter).

"*Investigator*" *Station No.* 114; 922 *fathoms.*—One small specimen.