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SUPPLEMENT TO ECHINODERMATA.

By HEDLEY L. COLEMAN.

CADET.

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(Plate lxxxiii., and figs. 123-125.)

In the Report on the "Thetis" Echinoderms Prof. H. L. Clark referred two specimens of a fine large Asteroid to Nectria occilifera, Lamk. Subsequent to the publication of his paper, he found that a mistake had been made. He therefore wrote to the Curator of this Museum pointing out that the specimens in question really constituted a new species of the genus Asterodiscus, Gray.; at the same time suggesting that I should describe it. For this compliment I wish to tender my grateful acknowledgment.

ASTERODISCUS TRUNCATUS, sp. nov.

(Plate lxxxiii. and figs. 123-125.)

Nectria ocellifera, H. L. Clark, Mem. Austr. Mus., iv., 1909,

p. 529 (non Lamk.)

Rays 5. R=103 mm.; r=51 mm. R=2r. Breadth of ray at base 50 mm. Disc large and inflated. Rays broad, fairly long, tapering to a blunt extremity; slightly unequal as to length and breadth. Interbrachial arcs widely rounded. Side of body fairly high, well rounded. Abactinal surface covered with

numerous tubercles, having the form of inverted, truncated cones, which are slightly convex at the surface (fig. 123). median radial line, and an adradial series distinguishable, beyond these the tubercles irregular. Each tubercle stands on a prominence of the test, and the larger ones are confined to the disc and bases of the rays. Scattered among the tubercles are large spherical granules, which vary slightly in size. Marginal plates not con-

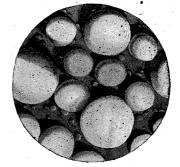


Fig. 123.

spicuous. Corresponding to supermarginals are three ossicles (from interradial line) omitting large plate at extremity of ray.

¹Austr. Mus. Mem. iv., 1909, p.529.

The innermost ossicle is near the interradial line, about 5 mm. from its fellow of the adjacent ray. Second ossicle 12.20 mm. from the first, and about same distance from the third. The third ossicle about 30 mm. from the large plate at tip. Each ossicle is circular, and convex, the first and second about 4 mm. in diameter, the third about 3 mm. Each is encircled by a row of bead-like granules. Large plate at end of ray nearly circular (8 mm. across) tumid, and encircled by a ring of small oblong Infermarginal plates 9 to 10; separated (at base of ray) from supermarginals by about 8 mm. of test, covered with tubercles, and granules. The five innermost ossicles generally bear a large tubercle on their upper edge, while the eighth to the tenth bear on the lower surface a conical ossicle. Each inferomarginal ossicle is encircled by a row of small, irregular granules. The last three plates are wedged in between the large terminal supermarginal and adambulacral plates. Actinal area paved with fairly regular rows of rounded, acorn-shaped tubercles. Each tubercle surrounded by a row of large, irregular granules. Adambulacral armature composed of: (1) a furrow series of four (towards extremity of ray three) subcylindrical, blunt-pointed, spines, subequal except the adoral, which is smaller. (2) On the actinal surface of the plate a transverse series of two (towards extremity of ray one) stout, four-sided spines. The outer spine smaller, and often three-sided. On inner side of each armature

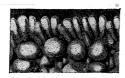


Fig. 124.

are three or four irregular granules (fig. 124). Mouth plates with a furrow series of seven or eight spines, similar to those of the adambulacrals, except the inner one, which is stouter. A row of four large, blunt spines on the actinal surface, parallel with the furrow series, the adoral one smaller. Pincer-shaped pedicellariæ (fig. 125) occur on both series of

marginal plates, and are plentiful on the actinal interradial areas. One is rarely found on the adoral side of an adambulacral plate, between the two spines. They are also not uncommon on the dorsal surface. Madreporite conspicuous, situated about one-third distance from centre to the margin, on the interradial line. Striations convoluted. Anus subcentral, surrounded by seven large, pear-shaped granules. Colour in alcohol, light chocolate.



Fig. 125.

Obs. A larger specimen (R=130 mm.), collected by the Fisheries Investigation Vessel "Endeavor," has the larger tubercles of the dorsal surface flat-topped. Also six of the super-

marginal plates bear a small tubercle on the lower side. This is the specimen figured.

This species may be distinguished from A. tuberculosus, Fisher², by the form of the dorsal tubercles, which are broad at the distal extremity and but slightly convex, while in Fisher's species they are pointed. The spines of the adambulacral armature are in series of 4, 1, and 1., as compared with 6, 2, and 1, in A. tuberculosus. It also differs in several important features from A. elegans, Gray³. The rays are much longer in proportion to the size of the disc, and the tubercles of under surface are not larger and more crowded towards the mouth. The spines of the adambulacral armature are in series of 4, 1, and 1., as compared with 5, 2, and 1., in Gray's species.

Localities.—Off Botany Bay, 79-80 fms.; sand and stones ("Thetis"). South Australia, 15 miles south of St. Francis Is., 30 fms.; Off East Coast of Victoria ("Endeavor").

²Fisher—Bull. U.S. Fish. Comm., xxiii., pt. iii., 1903, p. 1075.

³Gray-Proc. Zool. Soc., xv., 1847, p. 75.

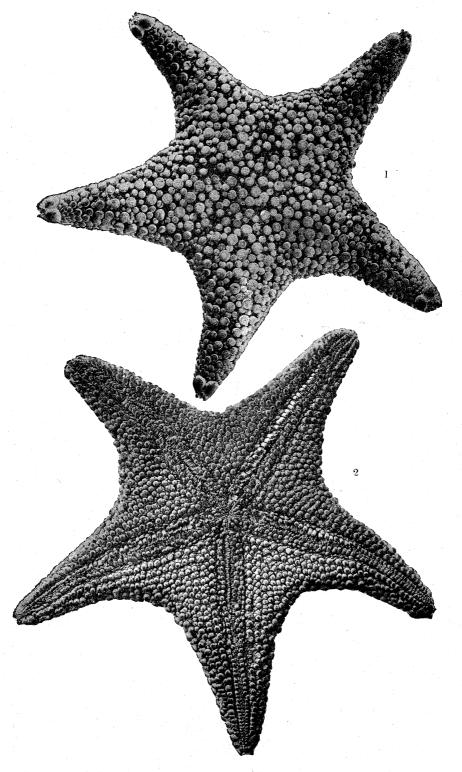
EXPLANATION OF PLATE LXXXIII.

ASTEROIDEA.

Asterodiscus truncatus, Coleman.

Fig. 1.—Dorsal surface of adult.

Fig. 2.—Ventral surface of the same.



H. BARNES, JUNE., Photo. Austr. Mus.