

5. *Antedon tuberculata*, n. sp. (Pl. XLV. figs. 2, 3).

Specific formula—A.2.2. $\frac{c}{5}$.

Description of an Individual.—Centro-dorsal saucer-shaped, bearing about forty rather stout cirri, of twenty to twenty-five tolerably uniform joints, few of which are longer than wide; a small spine on the penultimate.

Only two radials visible; the second short and rather convex, not united laterally; axillaries more than twice their length and widely pentagonal, the junction of the two joints rather tubercular. The rays are well separated and may divide three times; the distichal and palmar series each of two joints, with a tubercular junction, and the axillary not a syzygy. The palmar axillary is usually only developed on the outer pair of every four secondary arms, giving six arms to the ray, viz., 2,1,1,2. The outer edges of all the pieces at the sides of the rays from the radial to the palmar axillaries are marked by small tubercles, which project somewhat towards the ventral side. Thirty-one arms of one hundred and twenty or more joints, the first eight or ten of which are thick disks, and the following ones shortly triangular, gradually becoming more discoidal again. A syzygy in the third brachial, and the next between the seventh and twenty-first, generally about the twelfth or fourteenth; others at intervals of five to ten, usually seven joints.

The first pair of pinnules are about 9 mm. long, and consist of some twenty-five longish joints; the next pair much stouter and very stiff and tapering, reaching 15 mm., and composed of about a dozen joints, all of which, except those at the two ends, are much longer than wide. The succeeding pair are of the same character, but rather shorter than the second pair; and the fourth pair are much smaller and less stiff.

Disk lost; sacculi abundant on the ambulacra of both arms and pinnules.

Colour in spirit,—the skeleton purplish-white, with occasional dark purple bands; the perisome greenish-grey.

Disk probably about 12 mm.; spread about 180 mm.

Locality.—Station 174¹ (B, C, or D), August 3, 1874; near Kandavu, Fiji; lat. (about) 19° 6' S., long. (about) 178° 18' E.; 255, 610, or 210 fathoms; Coral mud; bottom temperature (at 610 fathoms), 39° F. One specimen.

Remarks.—This species, as well as *Antedon spicata* and *Antedon indica*, are distinguished by the characters of the second pair of pinnules, which are well shown in Smith's figure² of the last mentioned type. They are considerably longer than the first pair, though composed of a smaller number of joints. But these joints are of very large size, some of them reaching 1.5 mm. in length. They decrease gradually in diameter

¹ The exact locality, and consequently the exact depth, is not recorded.

² Zoology of Rodriguez, Echinodermata, *Phil. Trans.*, 1879, vol. clxviii. pl. li. fig. 3b.