

15. *Antedon tuberosa*, n. sp. (Pl. XIV. fig. 9; Pl. XXIII. fig. 2).

Specific formula— $A. \frac{b}{a}$.

Centro-dorsal a thick disk with a rough dorsal surface. Fifteen to twenty cirri of thirteen to fifteen joints, of which the fifth is longest. The following ones gradually acquire a dorsal keel which passes into the opposing spine of the penultimate.

First radials concealed; second and third both short and wide, the former closely united laterally and the latter pentagonal with very open angles. The radials and the first three brachials are straight-edged and wall-sided, and more or less carinate in the middle line. Ten arms, of nearly one hundred and fifty joints; small blunt tubercles on the surface of the radials and arm-bases. First brachials oblong and closely united, the second more wedge-shaped; the third to the tenth brachials saucer-shaped, their distal edges being more or less raised and crenulated. This feature disappears in the following joints, which are more triangular, and elongate considerably towards the end of the arm. The lowest joints, especially in the younger arms, have a marked dorsal keel, which gradually dies away in the middle third, the terminal joints being quite smooth.

A syzygy in the third brachial; the next between the tenth and twenty-sixth brachials, and others at intervals of four to twelve, usually six to eight joints.

The first pair of pinnules tolerably equal, consisting of twenty to twenty-five joints, the lowest of which are broad and slightly keeled. The next pinnules slowly increase in length and in size, the third and following joints being expanded to receive the genital glands, which are protected by strong plates. The fourth and fifth are larger than the rest, but not markedly so. This ceases rather beyond the first third of the arm, and the pinnules then become more slender, with the basal joints square or longer than wide. Disk much incised and paved with small plates; the arms moderately so, and the pinnule-ambulacra have distinct side plates with intervening sacculi, which are also abundant in the plating over the genital glands.

Colour in spirit,—the young arms nearly white, the older ones a dark brownish-grey.

Disk 5 mm.; spread 25 cm.

Locality.—Station 210, January 25, 1875; off the Panglao and Siquijor Islands; lat. 9° 26' N., long. 123° 45' E.; 375 fathoms; blue mud; bottom temperature, 54°·1 F. One entire specimen and another much broken.

Remarks.—The absence of the first radials externally and the roughness of the arm-bases give this type a certain amount of superficial resemblance to *Antedon basicurva* (Pl. XXII. fig. 3). But it differs altogether from that species and from *Antedon incisa* in the characters of the pinnules, though the genital glands are protected by strong anambulacral plates, as in both these types. In these again the third and fourth joints of the genital pinnules are specially distinguished from the rest by the great breadth of their