

19. *Antedon denticulata*, n. sp. (Pl. XXII. figs. 1, 2).

Specific formula— $A. \frac{b}{b}$.

Description of an Individual.—Centro-dorsal hemispherical, with a denticulate rim. Twenty to twenty-five rather slender cirri, of twenty-five to thirty smooth joints, nearly all of which are longer than wide, the fifth and sixth longest.

First radials not visible; second short and rather convex in the centre; axillaries short and widely pentagonal with slight backward projections. Both the radials and the first two brachials are wall-sided, with straight edges and the margins of the dorsal surface flattened.

Ten arms; the lower joints nearly oblong and the following ones smooth, short, and bluntly wedge-shaped, gradually becoming more oblong about the middle of the arm. Syzygies in the third and twelfth or thirteenth brachials; others at intervals of four to six joints.

The pinnule on the second brachial is rather longer than that on the third, and the length increases to the third pair (on sixth and seventh brachials). These consist of about a dozen joints, the lowest of which are broad and slightly carinate. The next pair are smaller with relatively longer joints and the following ones increase slowly in length.

Pinnule-ambulacra not plated; sacculi apparently absent.

Colour in spirit,—very light brown.

Spread, perhaps 14 cm.

Locality.—Station 190, September 12, 1874; lat. 8° 56' N., long. 136° 5' E.; 49 fathoms; green mud. One specimen.

Remarks.—This species and the following one are readily distinguished from all those previously described with wall-sided arm-bases by the entire absence of any ambulacral skeleton on the pinnules; but they differ altogether from one another, especially in the characters of the pinnules and of the arm-joints. *Antedon denticulata* has quite short arm-joints, the lower ones obliquely quadrate and their successors more nearly oblong, but always much wider than long (Pl. XXII. fig. 1), and the third pinnule is the largest. But in *Antedon pusilla* the arm-joints are as long or longer than wide (Pl. XXIII. fig. 1), and the first pinnule is the largest.

There appear to be no sacculi in *Antedon denticulata*, or at any rate I have been unable to find them. Their absence is remarkable in a form with unplated ambulacra, especially as they are abundant in four individuals of *Antedon fluctuans*, which were dredged at the same station.