

sharpened and form a keel. The third brachial has a similar but smaller pinnule with flattened outer side. The next two pairs of pinnules have broad and carinate lower joints, and the later pinnules are more styliform, with the two basal joints expanded and trapezoidal, and the following ones elongated. Disk thickly covered with plates which extend out on to the arms at the sides of the ambulacra, and also over the genital glands. Pinnule-ambulacra have well defined side plates and covering plates. Sacculi very rare.

Colour in spirit,—light whitish-brown.

Disk 11 mm.; spread probably 20 cm.

*Locality*.—Station 214, February 10, 1875; off the Meangis Islands; lat. 4° 33' N., long. 127° 6' E.; 500 fathoms; blue mud; bottom temperature, 41°·8 F. Two mutilated individuals, and one younger.

*Remarks*.—The very stout cirri of this fine species are as long as those of *Antedon longicirra*, though consisting of fewer joints. This is owing to the greater length of the first twenty joints in those of *Antedon valida*, as will be evident from a comparison of the figures on Pls. XV. and XVII. The two species also resemble one another in the almost entire absence of sacculi. Although I have examined many pinnules of *Antedon valida*, there is only one in which I have been able to distinguish the sacculi at all clearly; and even in this there are not more than about a dozen on the whole pinnule. They are sufficient, however, to show that sacculi may be present in *Antedon longicirra*, *Antedon acutiradia*, and other species, although I have not been able to find them on those pinnules which I have examined for the purpose.

*Antedon valida* and *Antedon longicirra* are, however, very distinctly separated by the characters of the pinnules borne on the second brachials. In the latter species this pinnule is comparatively inconspicuous and smaller than its successor; but in *Antedon valida*, as in *Antedon incerta*, it consists of short and wide joints, the lowest of which are flattened on the outer side, where they meet those of adjacent rays, and cut away on the inner, so as to give a very singular appearance to the basal part of the pinnule, which it is not easy to describe. It is well shown, however, on Pl. XV. figs. 5, 6, and Pl. XVIII. fig. 5, and it reappears in a modified form in *Antedon lusitanica* (Pl. XXXIX. fig. 2). This flattening on the outer side of the first pinnule is much better marked in *Antedon valida* than in *Antedon incerta*. But in both species alike the second brachial itself is not much flattened on its small outer face (Pl. XV. fig. 6), though its inner side and that of the hypozygal of the third brachial are distinctly flattened (Pl. XV. fig. 5; Pl. XVIII. fig. 5), while the outer face of the hypozygal is in no way specially marked. The distal pinnules of *Antedon valida* are remarkable for the expanded and trapezoidal shape of their two basal joints (Pl. XV. figs. 7, 8), a feature which scarcely appears at all in *Antedon incerta*, though it is characteristic of the group of European and Circumpolar species of which *Antedon eschrichti* is the type (Pl. XXIV. fig. 13).