

Remarks.—This fine species is sufficiently distinguished by the great size of its cirri, which are considerably longer than those of any other *Antedon* that I have seen with the exception of *Antedon valida* (Pl. XV. fig. 5). The appearance of the tertiary basals and of all three radials on the exterior of the calyx, together with the small size of its lower pinnules, separate it very clearly from the two species which come nearest to it in the characters of the cirri, viz., *Antedon valida* and *Antedon incerta* (Pl. XV. fig. 5; Pl. XVIII. fig. 4). Both of these show little or nothing of the first radials externally, and have large and peculiarly modified lower pinnules.

Antedon longicirra is one of the few species of the genus which appear to be unprovided with sacculi. The careful examination of several pinnules (both decalcified and otherwise) has altogether failed to reveal their presence except in one doubtful case; though from my experience with *Antedon valida* it is not improbable that they may occur on other pinnules which I have not examined. But there are no notches for their reception in the imperfectly differentiated side plates. In fact the ambulacra of this species are more like those of the Pentacrinidæ than is the case in any *Antedon* I know. For there are no definite side plates, the covering plates resting on a continuous limestone band which ceases some little way from the end of the pinnule, so that the last few joints have no ambulacral skeleton at all, as in so many Pentacrinidæ (see Part I. p. 55; pl. xv. fig. 7).

2. *Antedon valida*, n. sp. (Pl. XV. figs. 5–8).

Specific formula— $A. \frac{b}{c}$.

Centro-dorsal large and conical with the ventral angles produced, and bearing about fifteen cirri. These may reach 80 mm. in length and consist of about sixty-five joints, of which the seventh to the twelfth are considerably longer than wide. From the twenty-fifth onwards the joints are short and wide, with a strong dorsal spine.

The first radials just visible; second and third strongly convex in the middle of their line of junction. The borders of all three radials and of the lowest brachials are fringed with strong spines. The axillaries and first brachials have straight edges and flattened sides. Second brachial and hypozygal of the third flattened on the inner side only. The junction line of the first two brachials somewhat tubercular.

Ten arms, of triangular, slightly overlapping joints, the later ones somewhat compressed laterally. Syzygies in the third and about the twelfth brachials, and others at intervals of four to fifteen joints.

The second brachials have large stout pinnules, the first eight joints of which have broad and flattened outer sides. The third, fourth, and fifth joints have their inner edges bent upwards and somewhat thickened, but in the next following joints these are