

relatively much larger than in that type (Pl. I. figs. 6*d*, 8*d*), so as to reveal a large number of the internal ridges which separate the inner openings of the cirrus-canals. Five of these, interradial in position, are much more prominent than the rest, as is well seen in the figure (Pl. I. fig. 6*d*). The basal grooves on the ventral surface of the centro-dorsal are scarcely more distinct than they are in *Antedon eschrichti* (Pl. I. fig. 8*d*). But on the other hand the dorsal surface of the radial pentagon bears a very well-defined basal star, of which there is rarely any trace in that species (Pl. I. figs. 6*c*, 8*c*). The rosette lies deeper than it does in *Antedon eschrichti*, and the basal rays connected with it are unusually stout. This is most noticeable in their isolated condition (Pl. I. figs. 7, *a*, *b*; compare Pl. III. fig. 2, and Pl. IV. figs. 4–6, all equally magnified). In some cases their distal ends appear on the exterior of the calyx, as seen in Pl. I. fig. 6*a*. This figure too shows the difference between the articular faces of the radials in *Antedon eschrichti* and *Antedon antarctica* respectively. Their slope is more uniform in the latter species, as there is much less of an angle between the upper and lower parts of each face than in *Antedon eschrichti* (Pl. I. fig. 8*a*), and the consequence is that more of the large muscular fossæ is visible in the ventral aspect of the calyx (Pl. I. figs. 6*b*, 8*b*). The ridges which separate them from the lower pair of fossæ are much more horizontal than in *Antedon eschrichti*, so that the two pairs of fossæ are of very unequal size (Pl. I. fig. 6*a*, 8*a*).

A detailed comparison of the two outer radials and of the lower brachials in the two species respectively reveals a number of similar points of difference between them; and though they are so very closely similar in habit and in general appearance, as also in the conditions of their existence, there can, I think, be no question that they are distinct.

3. *Antedon australis*, n. sp. (Pl. XXVI. figs. 4, 5; Pl. XXVII. figs. 14–20).

*Specific formula*— $A. \frac{c}{b}$ .

Centro-dorsal hemispherical, thickly covered with about fifty cirri. These have twenty-five to thirty joints, nearly all of which are longer than wide. The later joints are laterally compressed, and their dorsal edges project considerably beyond the bases of their successors, thus giving rise to a strong spine in the last few joints. The young cirri round the dorsal pole resemble the mature form, but have fewer joints; those round the margin may have thirty smooth and elongated joints which only develop spines quite late.

First radials just visible; the second short and nearly oblong, but little incised for the axillaries, which are broadly pentagonal or triangular with a slight backward projection in the middle of the base.

Ten arms, of somewhat overlapping joints, but not tubercular at the base. The arm-joints after the second syzygy are shortly triangular, gradually becoming quadrate, but