The middle and outer pinnules of *Antedon eschrichti* exhibit a modification of the first two joints of essentially the same character as that which has already been noticed in *Antedon valida* (Pl. XV. fig. 2). The first joint is irregularly trapezoidal, or in some cases almost crescentic, its distal edge being more or less concave, while the proximal edge of the larger and more trapezoidal second joint is similarly incurved and only meets that of the first near its ventral end, so as to leave a large gap on the dorsal side, which is occupied by ligament (Pl. XXIV. fig. 13). This feature is very characteristic of nearly all the Comatulæ from Arctic and temperate seas, and also of some abyssal forms (Pl. XXVII. figs. 26, 27; Pl. XXVIII. fig. 4; Pl. XXXII. figs. 5, 7), while it likewise presents itself in certain tropical species; but it never appears in *Actinometra*.

The axillaries of *Antedon eschrichti* vary considerably in their shape from triangular to rhombic, according to the extent of their backward projection into the second radials. In a few instances I have found them to be longer than wide; but in most cases the width is equal to or a trifle greater than the length, more than half of which is on the distal side of the line joining the lateral angles. This is chiefly due to the acuteness of the distal angle (Pl. XXIV. figs. 10, 11). The axillaries of *Antedon antarctica* have much the same shape, but they are usually considerably wider than long (Pl. XXV. figs. 8–12).

There is much variation both in the relative and in the absolute size of the flagellate lower pinnules of *Antedon eschrichti*. Those figured on Pl. XXIV. figs. 7–9, are the three first pinnules on the outer side of the arm of a specimen from Station 48, *i.e.*, those borne by the second, fourth, and sixth brachials. The same three pinnules of *Antedon rhomboidea*, *Antedon antarctica*, *Antedon australis*, and *Antedon quadrata* are figured on Pls. XXIV., XXV. and XXVII., and in all but the last (Pl. XXVII. figs. 8–13) the third pinnule is but little smaller than its predecessors. In *Antedon eschrichti* it has fewer joints than the first and second pinnules, but the basal ones are somewhat larger, though still wider than long, and a few of the outer joints become longer than wide, which is not the case in the first two pinnules (Pl. XXIV. figs. 7–9). The third and fourth pinnules are in fact the transitional stages between the flagellate basal pinnules and the larger genital ones which follow them. In *Antedon antarctica*, however, the change is much more sudden (Pl. XXV. figs. 1–3).

Fig. 10 on Pl. XXIV. represents a small but very interesting example of *Antedon eschrichti* which was dredged by the "Triton" in the Færoe Channel. The cirri are small and comparatively delicate, not exceeding 20 mm. in length, and the arm-bases are but slightly tubercular. All the arms have been broken and regenerated either at the second (eighth brachial) or third syzygy (twelfth or thirteenth brachial). In one arm there are two distinct changes of diameter, showing that the first regenerated part had undergone a subsequent fracture which has been again made good. One can therefore study the appearances presented by the new arm-joints in various stages of growth. The lowest