

the axillary. This is also the case in some of the Tunis specimens; but in others the first brachials are quite free laterally, as in those figured by Marion, and in the "Porcupine" examples from off Cape Mondego and from the Minch. A considerable amount of local variation in the shape of the outer arm-joints is also to be noticed. The triangular joints beyond the second syzygy are distinctly longer in the Mediterranean forms than in those from the Seine Bank and from the Minch; and this is still more marked in the outer part of the arm where the joints become quadrate (Pl. XXVII. figs. 28, 29).

The length of the lower pinnules is usually somewhat greater in the Mediterranean variety than in the Scotch one. Marion gives an average length of 12 to 17 mm. for the four lowest pinnules (on the second to fifth brachials). They reach 15 mm. in the largest examples from the Seine Bank. I have never, however, seen any Scotch specimens in which either of the four lower pinnules was more than 13 mm. long. The next two pairs are usually distinctly smaller, though I have occasionally found the pinnule on the sixth brachial to be almost as large as that on the preceding joint. Beyond the first four pinnules their component joints diminish considerably in number, but the basal ones increase in length, so that the inequality in the length of the pinnules is less marked than it would otherwise be. On the whole the disparity between the first four pinnules and their successors is somewhat greater in the Scotch specimens.

The peculiar modification of the two basal joints of the outer pinnules, which reaches its maximum in *Antedon eschrichti*, is also, as might be expected, more distinct in the northern than in the southern variety of *Antedon phalangium*. The shape of the first joint is much the same in both forms; but as a rule the second is relatively narrower in the Mediterranean variety (Pl. XXVII. fig. 27), so that the distinction between it and its successors is less marked than in the northern form (Pl. XXVII. fig. 26). There is, however, a considerable amount of variation in this respect, even in individual arms.

The "Porcupine" dredging in 220 fathoms off Cape Mondego in 1870 yielded a single larva of this species, in which the radial plates have not yet made their appearance (Pl. XIV. fig. 1). It does not differ in any important respect from the corresponding stage in the larva of *Antedon rosacea*. But the stem is a trifle less robust, as compared with the size of the head, and the five sacculi which are so constant in the *rosacea*-larva, one between the bases of every two oral plates, do not appear to be present at all.

Fig. 3 on Pl. XXVIII. represents the youngest condition of the free stage of *Antedon phalangium* that I have met with. It was obtained on the Seine Bank, by the "Dacia," together with others somewhat older. The first radials are more exposed than in the adult, and the pinnule of the third brachial is much smaller than that on the preceding joint, the next two pinnules being smaller still, while some of the following brachials are altogether without pinnules. A considerable number of cirri are developed, however,