Remarks.—This is a peculiar species for many reasons. In its general characters it has many points of resemblance with Antedon basicurva, Antedon incisa, and Antedon tuberosa; but the sides of the basals and lower radials are not in close apposition and flattened laterally against each other as in those types, for they fall away very rapidly from the dorsal towards the ventral surface, so that there is a considerable space between every two rays, especially at the level of the articulations (Pl. XVI. fig. 1).

This is smaller on the surface than it is deeper down, for the lateral edges of the joints are produced outwards like the projecting eaves of a roof. This condition is extremely marked in the case of the second radials, which have the proximal edge similarly produced so as to overlap the minute portion of the first radials which appears externally. The relative shapes of the two outer radials vary extremely. Their usual appearance is represented in Pl. XVI. fig. 1; but in some individuals the second radials are rather more oblong and show hardly any indication of an incised distal edge, while the axillaries are widely pentagonal. On the other hand the axillaries sometimes project far backwards into the second radials, which thus have a deeply incised distal edge, while the proximal edge is also much curved.

In young specimens, such as that shown in Pl. XVI. fig. 2, a considerable portion of the first radials is visible, but the projection of the edges of the next following joints is almost as marked as it is in the mature individual. In the youngest specimen, with a spread of about 80 mm., the external surface of the first radials is rather less wide than that of the second, and a trifle more than half its length. It does not, however, increase in size along with the corresponding parts of the two outer radials, but remains undeveloped and is sometimes marked by small tubercular elevations like those on the centro-dorsal, from which it is with difficulty distinguishable. These are situated in the gap between the ventral edge of the centro-dorsal and the proximal edges of the second radials, which project backwards so as to overlap and conceal them.

The most striking character of Antedon acæla, and the one which allies it most closely to the Basicurva-group, is the great size, both of the pinnule-joints and of the protecting plates on the genital pinnules. Even the second pair of pinnules are enlarged for the reception of the genital glands, three of their middle joints being expanded; and a little further from the disk the fifth and the four or five following joints are flattened and produced laterally, as shown in Pl. XVI. fig. 2, the proximal joint being often much enlarged at the same time. This expansion is not almost entirely limited to the outer side only as in Antedon incisa (Pl. XXI. fig. 2), but it is equal on both sides of the medio-dorsal line; and the ventral portion of these expanded joints is covered by an arched pavement of strong plates, few in number but of large size, and often very regularly arranged, as seen in figs. 1-3 of pl. liv. in Part I. These protecting plates are much larger and better developed than in either Antedon incisa or Antedon tuberosa,