It is curious that these protecting anambulacral plates on the genital pinnules of *Antedon acoela* should be so largely developed,[1] while those which cover the interpalmar areas of the disk are comparatively small and irregular in character (Pl. LV. fig. 5).

In many Comatulæ, however, the disk is very closely plated, both in the ambulacral and in the interambulacral areas. The plates of the latter are mostly small, and rarely pierced by more than one water-pore; while the ambulacra are generally marked by an irregular double row of transversely oblong plates, as in *Antedon angusticalyx* (Pl. LV. fig. 6). But these are sometimes barely distinguishable from the anambulacral plates, and the whole set encroach very much upon the peristome, so that it is scarcely visible in the dry state, as shown in *Antedon basicurva*[2] (Pl. LV. fig. 7). This is still more marked in *Antedon acoela* (Pl. LV. fig. 5). Both the ambulacral and the anambulacral plates are palisade-like in form, as the former are in *Pentacrinus decorus* (Pl. XXXIV. fig. 2); and they are very much crowded, so that the course of the food-grooves can only be made out with difficulty even in spirit specimens, while the peristome is frequently entirely invisible.

The disks of the three *Antedon* species just mentioned are very much incised between the ambulacra, so that they are markedly stellate in form. The arrangement of the coiled digestive tube is consequently much less complex than in large disks like those of *Antedon eschrichti* or of *Pentacrinus*, which have the rays united by perisome so as to increase the capacity of the cup; while the interradial spaces are filled up with connective tissue which supports extensions of the digestive tube.

In some species of *Antedon* with an incised disk the anambulacral plates are somewhat squamous, with a tendency to overlap one another. This is the case, for example, on the disks represented on Pl. LV. figs. 3, 4. They probably belong to *Antedon multiradiata*,[3] having been dredged at Cape York in an isolated condition, together with entire individuals of this species. The edges of the interpalmar areas rise rather sharply towards the ambulacra, which are marked by strong ridges with indications of a median groove visible upon their upper surface. The food-groove beneath is really comparatively deep, with its edges plated somewhat regularly and turned in towards one another. This is very marked in the immediate neighbourhood of the peristome, which is thus completely closed.

[1] The position of the plates which protect the genital glands as regards the pinnule-joints, and the very regular appearance which they frequently present, have led me to think that the so-called "rudimentary pinnules" of *Cyathocrinus longimanus*, Angelin, may possibly be of the same character, and not ambulacral side plates more largely developed than usual (see chap. iv. pp. 62–66). A comparison of Angelin's figures of these structures as seen from the side and from above (Tab. xxvi. figs. 4*b*, 4*c*), with the corresponding views of the protecting plates in *Antedon acoela* (Pl. LIV. figs. 2, 3), shows a remarkable similarity in their number and general arrangement. In the recent form, however, these plates are on the pinnules, while those which they appear to resemble in the Palæozoic *Cyathocrinus* are on the arms. But as these bear no pinnules, and must therefore have themselves contained the genital glands, the difference between the two structures is not so great as it would seem to be at first sight.

[2] The specific formula of this type is—A. 10. $\frac{a}{a}$.

[3] The specific formula of this type is—A. R. 3. 3. $\frac{ab}{c}$.