

lateral flattening of the lower brachials is scarcely more distinct than in *Antedon flagellata* or *Antedon brevicuneata*; but the first pinnule has prismatic lower joints, and the ambulacra of the disk, arms, and pinnules are well plated, though the interpalmar areas of the disk are comparatively bare. The genital pinnules are not specially distinguished, however, except by their shortness, and their glands are not protected by any special pavement of plates as in *Antedon flexilis* and *Antedon patula*, though there is an ambulacral skeleton above them which is less completely differentiated than in the slender later pinnules.

The presence of blunt spines on the later cirrus-joints also distinguishes this species from the three just described, all of which have very smooth cirri (Pls. XLII., XLIII.; Pl. XLIV. fig. 1), and are altogether of a more robust nature.

The two individuals which the Challenger collected at Station 192 are essentially similar in all their characters; but a younger specimen from Station 201 has much smoother joints at the bases of the arms, their distal edges being but little raised; while in some fragments of a larger form obtained at the same locality there is a tendency to expansion in the third and fourth joints of some of the genital pinnules, which recalls their condition in *Antedon flexilis* (Pl. XLII.). The interpalmar areas of the disk are also more plated than in the examples from Station 192.

### 7. The *Palmata*-group.

Bidistichate species with an unplated disk and no definite ambulacral skeleton. The sides of the lower brachials are scarcely, if at all, flattened. The first pinnule smaller than its successors.

*Remarks.*—This group is not only extremely well-defined as regards its general characters, but it is also distinctly limited in its distribution, both bathymetrical and geographical.

The disk is either naked or bears but a few isolated plates, and there is no definite ambulacral skeleton. The ambulacra may be supported by isolated rods and networks of limestone, but they never form distinct covering plates like those of the *Basicurva*- and *Spinifera*-groups. In a few species like *Antedon flagellata* and *Antedon similis* (Pl. XLVII. fig. 1), which have the rays closely approximated, the lower brachials of their outer arms are somewhat flattened laterally. But this condition is not a constant one, and it does not affect the lower pinnules; so that it is altogether different from the flattening of the arm-bases in *Antedon basicurva*, *Antedon valida*, or *Antedon robusta* (fig. 3 on p. 122; Pl. XV. fig. 6; Pl. XLIV. fig. 1).

We have seen that the *Spinifera*-group among the bidistichate species corresponds to the *Basicurva*-group of the ten-armed type; and in like manner the ten-armed *Milberti*-group is represented in the bidistichate series by the *Palmata*-group, all the