

ambulacral skeleton of the pinnules, though well-developed as compared with that of species which have no covering plates at all, is far less highly differentiated than in *Antedon flexilis* and in *Antedon spinifera* itself, which have more distinct side plates than many species of Pentacrinidæ. It is worth notice that with the single exception of *Antedon denticulata* from 49 fathoms, no member of the *Basicirra*-group was obtained by the Challenger from a less depth than 140 fathoms, while they range as far downwards as 1600 fathoms. The bidistichate species with the same characters of the rays and ambulacra range from 80 to 740 fathoms, so far as is yet known; and the tridistichate species, which also have flattened rays and plated ambulacra, are likewise almost exclusively limited to the continental and abyssal regions. These facts are of interest because the Pentacrinidæ, which also have an ambulacral skeleton on the pinnules, do not occur at depths of less than 70 fathoms and range down into the abyssal fauna; and we may therefore not unreasonably infer that fossil species like *Millericrinus pratti*, which have the ambulacral skeleton still preserved on the pinnules, lived at depths of at least 50 fathoms. The same conclusion may perhaps be drawn for those Comatulæ such as *Solanocrinus costatus*, Goldfuss, in which the axillary radials and the lower brachials are very distinctly flattened and wall-sided.

The following key to the *Spinifera*-group contains the names of four Caribbean species, two of which, *Antedon brevipinna* and *Antedon spinifera*, have been described by Pourtalès and myself respectively.¹ *Antedon duplex* is one of the hosts of the encysting *Myzostoma murrayi*, von Graff, which also occurs on *Antedon breviradia* and *Antedon angustiradia* of the Challenger collection, both species from the Eastern Archipelago. *Antedon pourtalèsi* is a fine species which I have dedicated to the memory of the late Count Pourtalès, and is the host of *Myzostoma brevipes*, von Graff.

6. The *Spinifera*-group.

Bidistichate species with the radial axillaries and some of the following joints more or less wall-sided, and a well-marked ambulacral skeleton on the pinnules:—

A. Over thirty cirrus-joints; the later ones spiny.

I. The first pinnule much smaller than the second. Centro-dorsal a thick disk or low rounded column, bearing two or three tiers of cirrus-sockets usually without definite arrangement; eighty or ninety cirrus-joints. First radials completely visible,

1. *macronema*, Müll., sp.

II. The first pinnule as long as or longer than the second.

a. Centro-dorsal shortly columnar, with five double rows of cirrus-sockets, separated by interradial ridges.

1. Twenty arms of sharply carinate joints; eighty cirrus-joints or more,

2. *quinquecostata*, n. sp.

2. Thirty arms, their joints bearing curved dorsal spines; forty to sixty cirrus-joints,

spinifera, Carpenter.

¹ Bull. Mus. Comp. Zool., 1867, vol. i. No. 6, p. 111; *Ibid.*, 1881, vol. ix. No. 4, p. 8.