

If then there really were syzygial unions between the two outer radials and the first two distichals and brachials respectively of *Solanocrinus imperialis* and *Solanocrinus gracilis*, these two species would represent a type which is not as yet known to occur in the recent *Antedon* at all, but only in *Actinometra paucicirra* and its allies; while the ten-armed *Antedon costatus* is represented at the present time by the various species belonging to the type of *Actinometra solaris* (Pl. LIII. figs. 2, 15).

The three species of *Antedon* belonging to this first series which were dredged by the Challenger, may be classified as follows:—

Antedon, Series I.

The two outer radials united by syzygy.

A. Three distichals, the axillary a syzygy.

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| I. Subsequent divisions of two articulated joints, | 1. <i>fluctuans</i> , n. sp. |
| II. Subsequent divisions like the distichals. | |
| a. Three axillaries above the radials, | 2. <i>multiradiata</i> , n. sp. |
| b. Four axillaries above the radials, | 3. <i>microdiscus</i> , Bell. |

1. *Antedon fluctuans*, n. sp. (Pl. VIII.).

Specific formula, A.R.3.2.(2). $\frac{b}{c}$.

Centro-dorsal a thick disk, bearing about twenty-five marginal cirri. These have thirty to thirty-five joints, of which the fifth to eighth are much longer than broad. The following ones diminish in length and gradually develop a sharp forward projecting spine which decreases slightly in the short terminal joints, but increases again on the penultimate as the opposing spine to a strong recurved claw.

Three radials visible, the second free laterally, but united to the third by syzygy. The rays are quite free and may divide four times. Three distichals, the axillary with a syzygy. Palmars and post-palmars (when present) usually of two articulated joints. Arms from twenty-six to nearly forty in number, and composed of short, smooth, and obliquely quadrate joints. A syzygy in the third brachial; the next anywhere between the twelfth and the sixtieth, with others at intervals of six to twenty joints.

The second distichal bears a long, tapering pinnule of about forty joints, the basal ones tolerably stout and the terminal ones small. The second, and sometimes also the third brachials have similar but smaller pinnules, and the following ones decrease slowly in size, becoming long and slender again towards the arm-ends.

Disk much incised, and the interradiial regions more or less covered with rather large plates. The ambulacra as far as the last axillary are raised and strongly plated ridges. But those of the arms and pinnules, including even that on the second distichal, are unprotected.