

accordingly as *Antedon fluctuans*. It is curious, however, that while the two most dissimilar forms were dredged at the same Station in the Arafura Sea, the intermediate one was obtained at a much less depth in Torres Strait, and that no others have been met with at any intervening locality. When examining the "Alert" specimen I found a small *Myzostoma* upon it, which Professor von Graff has named *Myzostoma quadricaudatum*.

Antedon fluctuans is a type of considerable interest from a systematic point of view. For the syzygial union of the two outer radials is in no case accompanied by a similar union of the first two joints after each subsequent axillary. Whether there be three distichals, as is normally the case, or two only, as in some exceptional rays, there is always the bifascial articulation between the first two joints above the radials and above every successive axillary, just as in the ordinary many-armed *Antedons*. In the case of *Antedon fluctuans*, the palmar and post-palmar series (when present) normally consist of two joints only, and this character distinguishes the type from *Antedon multiradiata* and *Antedon microdiscus*, in which there are three joints between the successive arm-divisions (Pl. IX.; Pl. XXXVII. fig. 3). I know of no other described species but these with which *Antedon fluctuans* is likely to be confounded, provided, of course, that the syzygial union of the radials be properly recognised.

2. *Antedon multiradiata*, n. sp. (Pl. IX.; Part I. pl. lv. figs. 3, 4).

Specific formula, A. R. 3.3.3. $\frac{b}{c}$.

Centro-dorsal a thick, slightly convex disk, bearing from twenty to twenty-five marginal cirri. These are rather long, consisting of forty or fifty, or occasionally more joints, few or none of which are longer than wide. The last half have a small blunt spine projecting slightly forwards, which forms a strong and sharp opposing spine on the penultimate.

Three radials visible, the second short and free laterally, but united to the third by syzygy. The rays are quite free and may divide four times, each series of three joints with the axillary a syzygy. About forty arms of smooth and short triangular joints, which become blunter and more square towards the ends. A syzygy in the third brachial, the next anywhere between the sixteenth and forty-fifth joints, with others at intervals of seven to nineteen joints.

The distichal pinnules of moderate length, consisting of about twenty-five stout joints; the size gradually decreases to that on the second brachial, and the next pair are considerably smaller, the following ones increasing slowly in size, but never becoming very large.

Disk much incised and paved with large plates between the ambulacra, which are elevated ridges with plated walls, but the plating scarcely extends beyond the level of the last axillary.