Locality.—Station 214, February 10, 1875; off the Meangis Islands; lat. 4° 33′ N., long. 127° 6′ E.; 500 fathoms; blue mud; bottom temperature, 41° 8 F. Several specimens, some with cysts of Myzostoma tenuispinum.

Remarks.—This species is readily distinguished from all the other tridistichate forms of Antedon, with the exception of Antedon inequalis (Pl. LI. fig. 2), with which it has many characters in common. It does not reach the size of that species, however, and differs in various respects from its younger stages, as will be explained further on.

The cirri have rather elongated joints, which are unusually smooth, hardly any trace of an opposing spine appearing on the penultimate. The centro-dorsal is much flattened at the dorsal pole and has more or less distinct indications of interradial ridges on its sides, which are produced upwards into rather prominent processes at the angles (Pl. II. fig. 4a). It is considerably wider than the radial pentagon (Pl. II. fig. 4d), so that the first radials are entirely concealed by it, with portions of the second as well. Both edges of these latter joints are thus strongly curved in the adult calyx, the proximal edges occupying the hollows between the interradial processes of the centro-dorsal, while the distal edges are incised to receive the strong backward processes of the axillaries (Pl. L. fig. 1). The first two distichals, or in their absence the first two brachials, have a similarly tubercular junction.

Antedon angusticalyx is a species of considerable interest from its presenting several of the characters which are distinctive of three, species of Antedon that were found associated in the South Pacific, near the Kermadec and the Fiji Islands respectively (Stations 170A and 174). Two of these, with only ten arms (Antedon basicurva and Antedon incisa), are characterised by having less than thirty smooth cirrus-joints, and some of the lower joints of the genital pinnules expanded on the outer side so as to form a protection for the genital glands, which are also covered by a strong anambulacral plating (Pl. XXI. figs. 2a, 2b). Antedon inequalis (Pl. LI. fig. 2), which also occurred at both Stations (Nos. 170A, 174), is a tridistichate species possessing these same peculiarities; while Antedon angusticalyx, which closely resembles it in the characters of the arm-divisions and genital pinnules (Pl. L. figs. 1, 2), represents the tridistichate type in the North Pacific. But the sides of its rays are less distinctly flattened than in the three species from the South Pacific; while those of the ten-armed species (Antedon acæla), which is associated with it, have no flattening at all (Pl. XVI. fig. 1), though the cirri and genital pinnules have much resemblance to the corresponding parts of Antedon basicurva and Antedon incisa.

Some of the characters of Antedon angusticalyx and Antedon inequalis appear in Antedon granulifera of the Caribbean Sea. But this type usually has two post-radial axillaries, i.e., distichals and palmars, and the rays are less closely in contact than is the case in the Pacific species.