

stouter, reaching 11 mm., with about eighteen smooth joints, most of them longer than wide, and the lower ones carinate. The next pair are generally smaller again. But in arms borne on the radial axillary the sixth, and occasionally the seventh, brachials may have large pinnules like those of the two preceding joints.

Disk naked and much incised ; sacculi abundant.

Colour in spirit,—the skeleton brownish-white and the perisome darker.

Disk 7 mm.; spread 16 cm.

*Locality*.—Station 212, January 30, 1875 ; lat. 6° 54' N., long. 122° 18' E.; 10 fathoms ; sand. One specimen and one fragment.

*Remarks*.—I have had some doubts as to the propriety of separating this species from *Antedon anceps* (Pl. XXXV. figs. 1-3), which occurred at the same station. The general characters of the cirri, calyx, and the large lower pinnules are the same in both types. One individual of *Antedon anceps* has only ten arms ; but another has three, and a third four distichal series. The outer parts of the arms are rather serrate and the distichal pinnule is distinctly smaller than that on the second brachial above it ; on the other hand the two forms which I refer to *Antedon quinduplicava* each have palmar series, nearly smooth arms, containing longer syzygial intervals, and a distichal pinnule of about the same size as that on the second brachial.

Considering the remarkable series of variations in the characters of *Antedon variipinna*, I think it quite possible that we are here dealing with another case of the same kind ; but in the absence of the necessary intermediate links I prefer to keep *Antedon quinduplicava* separate from *Antedon anceps* for the present. The only species that approaches them at all closely is *Antedon savignyi*, in which, curiously enough, palmars may or may not be present. But its more numerous and spiny cirri readily distinguish it from them both.

One of the two individuals of *Antedon quinduplicava* which was dredged by the Challenger was a mere fragment which had lost its cirri, disk, and most of its arms. As it was practically useless in this condition, I made a preparation of its calyx, with a somewhat surprising result. Each of the radial areas on the ventral surface of the centro-dorsal is marked at its proximal end by a large bilobate pit (Pl. IV. fig. 1*d*), so that every two pits are separated by an interradian ridge as seen in fig. 1*a*. These pits seem to be nothing but an unusual development of the radial pits which occur round the lip of the centro-dorsal in so many Comatulæ, as seen in Pl. IV. fig. 2*d*, and receive the lower ends of the axial radial canals ; and so in fact they are. But their capacity is increased by the presence of corresponding pits on the under surface of the radial pentagon (Pl. IV. fig. 1*c*) into which the axial canals, contained between the inner faces of the radials and the spouts of the rosette, open directly. A possible explanation of this arrangement has already been discussed on pp. 8, 9. The only *Comatula* in which I have found any