

be admitted that the perfect cirri of sexually mature individuals of the same species may vary in size from eighteen to forty-five joints, and in length from 10 to 60 mm., the characters of the cirri become altogether valueless for systematic purposes, and Bell's formulæ for expressing them briefly are of no use whatever, while the various schemes of classification of the different specific groups which are given in this Report must be to a large extent rearranged.

Such an extensive range of variation in the characters of the cirri as is demanded by Fischer's theory is one of which I have no experience whatever. *Antedon eschrichti* ranges over nearly forty degrees of latitude; but in the small Atlantic variety, as in the large Arctic one, there are over forty joints in the cirri, which reach in the former to little short of the length that they do in the latter type. The cirri of *Antedon phalangium* have the same number of joints (about forty-five) in the Mediterranean as in the Minch, though the joints are much shorter in the latter locality, so that the total length of the cirri is reduced. Both these species thus resemble *Antedon proluxa* in having over forty cirrus-joints in their southern, as well as in their northern variety; and they thus afford no support whatever to Fischer's theory of the great range of variation in *Antedon tenella*.

If *Antedon tenella* of Scandinavia, the Arctic Ocean, and the Atlantic is merely a dwarf or undeveloped variety of *Antedon proluxa*, young examples of the latter species should present all the characters of *Antedon tenella*; but this is very far from being the case. Two immature individuals of *Antedon proluxa* in different stages of growth were obtained by the "Varna" in the Kara Sea, and others at about the same stage as the larger of these were kindly sent to me by Mr. F. Nansen from the dredgings of the Norwegian North Atlantic Expedition near Spitzbergen. I do not think that any one could possibly refer them to *Antedon tenella*. I have compared the smaller form with an absolutely larger example of *Antedon tenella* which was dredged by the "Willem Barents" in the Barents Sea at no great distance from the locality of the "Tegetthoff's" dredgings. The calyx of the latter is altogether more robust than that of the former, and the first radials are concealed, while both the axillaries and the second brachials have assumed the shape characteristic of the adult condition. The former (*Antedon proluxa*), however, shows its immaturity by the appearance of a considerable portion of the first radials externally, by the shape of the axillaries and of the second brachials, which is not that of these respective joints in the adult, and by the greatly elongated arm-joints. The cirri, on the other hand, are much better developed than those of the more mature and absolutely larger *Antedon tenella*, as seen from the comparison of measurements A in the following table:—

	<i>Antedon proluxa.</i>		<i>Antedon tenella.</i>	
	A.	B.	A.	B.
Length of cirri, . . . . .	14·5 mm.	33·5 mm.	11 mm.	18 mm.
Number of joints, . . . . .	25	34	20	26