

*prolixa* and of *Antedon tenella* in various stages of growth, and the largest cirri that I have met with in the most robust examples of *Antedon tenella* from the American coast are little more than half as long as those of the "Tegetthoff" specimens of the same size; while the measurements of these last correspond very well with those of the young *Antedon prolixa* from the Kara Sea and Spitzbergen.<sup>1</sup> Apart from this possibility, however, it appears to me that Fischer attributes to *Antedon tenella* a much greater variability in the size of the cirri than is justified by our knowledge of other Comatulæ. He asserts that the small Scandinavian form with cirri 10 mm. long, and consisting of eighteen or twenty joints, which he thinks he got at Jan Mayen,<sup>2</sup> is identical with Sladen's *Antedon prolixa* which reaches more than twice its size, and has cirri of forty to forty-five joints which reach 60 mm. long. The Scandinavian form is sexually mature and presents all the characters of an adult *Comatula*; and if it is only a dwarf variety there must be some reason for its existence. But Fischer believes it to occur at Jan Mayen, side by side with the large form which belongs to the type of *Antedon prolixa*. This fact, if true, would seem of itself to indicate that the two forms are different; for if the dwarfing conditions were in operation at Jan Mayen, the large *prolixa*-type would not exist there.

Even if we suppose that the "Tegetthoff" specimens really are a local variety of *Antedon tenella* with unusually developed cirri, 37 mm. long, of thirty-three joints,<sup>3</sup> there is a great difference between these cirri and those of the mature *Antedon prolixa*, which may have forty to forty-five joints, and reach 60 mm. in length; and the difference is still greater if we remember the average size of the cirri in the Scandinavian type. If it

<sup>1</sup> Since the above remarks were printed, Dr. von Marenzeller has been good enough to send me the two "Tegetthoff" specimens for re-examination; and I have no doubt whatever that they are immature forms of *Antedon prolixa*, for they agree with this type in all the characters of the cirri, calyx, arms, and pinnules, much better than with either the American or the European variety of *Antedon tenella*. They were dredged by the "Tegetthoff" in 1873, two years before Sladen's types were obtained by the "Alert," and are therefore the earliest discovered examples of the species.

<sup>2</sup> I have left this discussion almost exactly as it was written originally; but Dr. von Marenzeller's kindness has recently enabled me to examine the two small specimens from Jan Mayen which Fischer identified with the Scandinavian *Antedon sarsii* (*tenella*); and I can state without hesitation that they do not belong to this species. It is no doubt the case, as remarked by Fischer, that "Diese zwei exemplaren tragen sämtliche von Düben & Koren und den späteren Autoren für *Antedon Sarsii* angegebenen charakteristischen Merkmale." But Düben and Koren's description of the type is over forty years old; and subsequent writers have added little of importance to it. Fischer does not seem to have made a direct comparison of his two small specimens from Jan Mayen with actual examples of the Scandinavian *Antedon sarsii*, though this would have been by far the most satisfactory way of determining their real nature. Their cirri are considerably larger than those of a Scandinavian form of equal size which has well-developed genital glands and all the other characters of maturity. Its first radials are almost entirely concealed, while in Fischer's specimens a considerable portion of them is visible, very much as in the young *Antedon phalangium* shown on Pl. XXVIII. fig. 3. Similar differences appear in the characters of the lower arm-joints of the two forms. In those from Jan Mayen the joints are longer than wide, with incompletely developed pinnules; while in a Scandinavian *Antedon sarsii* (*tenella*) of equal size, these joints are as wide or wider than long, and present the shape characteristic of the adult individual (Pl. XXXI. fig. 1). The difference is so marked that Fischer can hardly have overlooked it if he really did compare the two types. But the shape of the arm-joints is not a character to which previous authors have paid much attention; and if Fischer simply attempted to identify *Antedon sarsii* from the published descriptions of it, his reference of the two small forms from Jan Mayen to this type may be readily understood.

<sup>3</sup> See note 1.