the lowest of which are stouter than in the first pair. The following pinnules similar in character and of gradually increasing length, with fusiform genital glands. The basal joints of the distal pinnules are quite short, with their apposed edges incurved, and the following joints are greatly elongated. Disk naked; the brachial ambulacra sometimes provided with delicate calcareous rods, which alternate with the numerous sacculi.

Colour in spirit,—white.

Disk reaching 7 mm.; spread may be 8 cm.

Localities.—H.M.S. "Porcupine," 1869, Station 51; lat. 60° 6′ N., long. 8° 14′ W.; 440 fathoms; bottom temperature, 42° F. One specimen.

Station 54; lat. 59° 56' N., long. 6° 27' W.; 363 fathoms; bottom temperature, 31°.4 F. One specimen.

Station 55; lat. 60° 4′ N., long. 6° 19′ W.; 605 fathoms; bottom temperature, 29°8 F. Two specimens.

Station 74; lat. 60° 39′ N., long. 3° 9′ W.; 203 fathoms; bottom temperature, 47°.6 F. Three specimens.

Cruise of 1870, Station 17A; lat 39° 39′ N., long. 9° 39′ W.; 740 fathoms; bottom temperature, 49°·3 F. One specimen.

H.M.S. "Triton," 1882; Station 2; lat. 59° 37′ 30″ N., long. 6° 19′ W.; 530 fathoms; mud; bottom temperature, 46° 2 F. Five mutilated specimens.

Station 5; lat. 60° 11′ 45″ N. and 60° 20′ 15″ N., long. 8° 15′ W. and 8° 8′ W.; 433 to 285 fathoms; hard ground, stones; bottom temperature, 43° 5 to 40° 8 F. Two specimens, with Myzostoma carpenteri.

Other Localities.—The Shetlands; Scandinavia; Kara Sea; Barents Sea; West Atlantic, off the American coast from Nova Scotia to New Jersey.

History.—This species was separated by Retzius in 1783 from the Asterias pectinata of Linnaeus, the type of which was an Actinometra from the Indian Ocean, but Linnaeus also referred to it the Δεκάκνημος rosacea and Δεκάκνημος barbata of Linck. These seem to be the British and Mediterranean varieties respectively of the somewhat protean type which is now known as Antedon rosacea. In fact Linnaeus's description of Asterias pectinata would apply equally well to almost every ten-armed Comatula; and it was remarked by Retzius that "the definition of the species is such that it includes two species, namely, pectinata and tenella." He described the latter form as being more delicate than Asterias pectinata, and as having the "bases brachiorum duplicatorum multo longiores." This is a distinction of almost generic value between Antedon and Actinometra, in which latter genus the relative length of the radials is quite small; and Retzius pointed out further differences in the shape of the arm-joints between

<sup>&</sup>lt;sup>1</sup> Anmarkningar vid Asteriæ Genus, K. Svensk. Vetensk. Akad. Handl., 1783, t. iv. p. 241.

<sup>&</sup>lt;sup>2</sup> Dissertatio, sistens Species Cognitas Asteriarum, Lundæ, 1805, p. 33.