

The second distichals, first palmars (when present), and first brachials bear long tapering pinnules; the first one reaching 18 mm., while the others are rather smaller. That of the third brachial is considerably so, and the next three pinnules are of decreasing size. The lowest pinnules have a well-marked comb, which may extend out to the twentieth or twenty-fifth brachial. The basal joints of the lower pinnules may be somewhat carinate, and in the following pinnules the edges of the joints project laterally.

Mouth radial; disk naked, or with scattered calcareous nodules.

Colour in spirit,—blackish-brown; the disk sometimes mottled with white.

Disk 19 mm.; spread reaching 25 cm.

Locality.—Station 186, September 8, 1884; Prince of Wales Channel; lat. 10° 30' N., long. 142° 18' E.; 8 fathoms; coral mud. One specimen.

Other Localities.—Indian Seas (Linnæus); Australian Seas (Péron and Lesueur); Sumatra; Bohol; China Sea; Kagoshima Bay, Japan.

Remarks.—The type of this species is a dry and somewhat mutilated *Actinometra* in the Retzian collection at Lund, on which Linnæus seems to have based his brief description of *Asterias multiradiata*.¹ He also referred to it the *Caput-Medusæ cinereum* and the *Caput-Medusæ brunnum* of Linck; but the exact specific relations of these two forms must remain uncertain, as Linck's figures are not sufficiently clear for the characters of their arm-divisions to be made out.

Retzius gave a more detailed description of the original type of *Asterias multiradiata* in 1783,² stating the number of arms as thirty to forty, and that of the cirrus-joints as twenty-three. He noticed it again in 1805;³ while in 1816 Lamarck established the species *Comatula multiradiata*,⁴ under which he placed *Asterias multiradiata*, Linn., with a (?) appended. He described it as having fifty to sixty, or even more arms, and referred to the Indian seas as its locality. Some years later Goldfuss⁵ applied the name *Comatula multiradiata*, Lamarck, to a many-armed specimen, the distichal and palmar series of which each consisted of three joints, with the axillary a syzygy. Müller,⁶ regarding this form as "die zuerst genau beschriebene," proposed in 1841 to retain the specific name *multiradiata* for it alone, and on the basis of Troschel's examination of the Paris collection, he published a description of *Comatula multiradiata*, Lamarck, under the name of *Alecto multifida*. He distinguished this type from that of Goldfuss by its palmar and post-palmar series each consisting of but two joints, with the axillary not a syzygy. He went to Sweden, however, in the

¹ *Systema Naturæ*, ed. 10, Holmiæ, 1758, t. ii. p. 663.

² *K. Svensk. Vetensk. Akad. Handl.*, År 1783, t. iv. p. 241.

³ *Dissertatio, sistens species cognitæ Asteriarum*, Lundæ, 1805, p. 35.

⁴ *Hist. Nat. des Anim. sans vertèbres*, Paris, 1816, t. ii. p. 533.

⁵ *Petrefacta Germaniæ*, t. i. p. 202, pl. lxi. fig. 2.

⁶ *Monatsber. d. k. preuss. Akad. d. Wiss. Berlin*, 1841, p. 188.