

same year, and examined at Lund the original of *Asterias multiradiata*, Linn. This he found to have a pinnule on the first and a syzygy in the second joint above the distichal and palmar axillaries, i.e., there are two palmars, with the axillary a syzygy. He gave a careful description of this form,¹ to which, after his visit to Paris he added some details derived from his personal examination of some examples collected by Péron and Lesueur and by Quoy and Gaimard. His final diagnosis was headed *Comatula (Alecto) multiradiata*, Nobis;² though, as we have already seen, he had referred the Retzian specimen to the type of his new genus *Actinometra*. Dujardin and Hupé described it under the latter name,³ entirely on the basis of Müller's diagnosis of it; but they made no mention of the specimens obtained by Péron and Lesueur and by Quoy and Gaimard, which resemble the Retzian individual in having syzygies in all the axillaries.

I have already separated off one of these forms as *Actinometra peroni*,⁴ owing to its palmar series consisting of three joints, instead of only two as in the Retzian type, which has no post-palmars and not more than twenty-five cirrus-joints. One of Péron's specimens presents the same characters as *Asterias multiradiata*, and I have since met with a considerable number of similar individuals. But the spirit-specimen brought from the Moluccas by Quoy and Gaimard, which was referred by Müller and afterwards by myself⁵ to *Actinometra multiradiata*, must, I think, be separated from this species on account of its larger number of cirrus-joints, and more numerous arms, owing to the presence of post-palmar series.

Two examples of it were obtained by the Challenger at Banda, and will be described immediately as *Actinometra sentosa* (Pl. LXVI. fig. 4).

I have had some doubts as to the propriety of separating *Actinometra coppingeri* from *Actinometra multiradiata*, the chief difference between the two being the absence of palmars in the former and their presence in the latter. The character seems to be a fairly constant one, however, as the two forms have not hitherto been found associated together in one locality. *Actinometra coppingeri* is known from East Australia, Singapore, Amboina, Banda, the China Sea, and Samboangan; while palmars occur in three examples of *Actinometra multiradiata* from Bohol, another Philippine locality, in two from Japan, in one from Sumatra, and in one from Torres Strait. It is a generally more robust form than *Actinometra coppingeri*, with the lower brachials relatively shorter and more overlapping; while the spines on the cirri are of a much more definite character than in that species. The second syzygy also is much further from the calyx than in *Actinometra coppingeri*, especially in the Philippine examples of *Actinometra multiradiata* and in the Retzian type, in which last it may not occur till the thirty-ninth brachial.

¹ *Archiv f. Naturgesch.*, 1843, Jahrg. ix. Bd. i. p. 133.

² *Op. cit.*, p. 210.

³ *Journ. Linn. Soc. Lond. (Zool.)*, 1882, vol. xvi. p. 523.

⁴ *Abhandl. d. k. Akad. d. Wiss. Berlin*, 1847 [1849], p. 261.

⁵ *Notes from the Leyden Museum*, 1881, vol. iii. p. 214.