

represented by Lovén in his figure of the second radial also appears on an undoubted syzygial face from further out on the ray; and I have no doubt whatever that the union of the two outer radials is really a syzygial one, though the usual radiating ridges and furrows, which are so characteristic of syzygies in *Comatulæ*, are not present on the apposed faces. Traces of them are sometimes visible, however, as a series of little elevations which radiate outwards from the central canal and produce the appearance of a syzygial face with its ridges interrupted at intervals. But in other cases the apposed faces are almost smooth, just as in the syzygies of *Pentacrinus* and *Rhizocrinus*. The syzygies further out on the rays, however, are more normal in character.

There is a considerable amount of variation in the general features of this species. The form which comes nearest to it is *Actinometra novæ-guinææ*; but this is not known to have more than four post-radial axillaries, while *Actinometra typica* may have as many as seven. Furthermore the centro-dorsal of Müller's unique specimen of *Actinometra novæ-guinææ* was described by him as having "15 Ranken und mehr"; though it shows traces of clefts at the sides and approximates therefore towards the condition reached in *Actinometra typica*. Even in this last it may bear a few rudimentary cirri, as in the specimen figured by Lovén;¹ and there is a considerable amount of variation in the extent to which it is sunk within the radial funnel.

As in other species of *Actinometra* the tridistichate series is not unfrequently replaced by a bidistichate one. This occurs on both sides of two rays in the Challenger specimen (Pl. LVII. fig. 1); and the Copenhagen Museum contains one anomalous individual from Fiji in which eight out of the ten distichal series consist of but two joints. I believe them to be articulated, and not united by syzygy, as one would rather expect them to be. But then, it sometimes happens that there are three joints in a palmar or post-palmar series, instead of the normal two; and the first two of these are syzygially united, a condition which is altogether anomalous for a three-jointed series (see Rules 2, 6). On the other hand, however, it seems only natural that the terminal faces of the two joints borne on any axillary should have the same character, so that the normal syzygy of the one is accompanied by the abnormal syzygy of the other.

The range of this species, as at present known, extends from Malacca through the Philippine Group, to Fiji, in all of which localities it belongs to the purely littoral fauna. It was, however, obtained by the Challenger at a depth of over 200 fathoms, viz. 210, 610, or 255 fathoms. I imagine for many reasons that it did not occur at the greatest of these depths, no *Actinometra* having been yet obtained from below 600 fathoms.

¹ *Öfversigt k. Vetensk. Akad. Förhandl.*, 1866, No. 9, p. 230, fig. a.