

*Asterias pectinata* by Linnæus, and the essential characters of the latter species were described by both Retzius and Müller before the latter author visited Paris and saw the Lamarckian types for himself, so that his diagnosis of them did not appear till six years after he had properly described *Asterias pectinata*.<sup>1</sup>

Dujardin and Hupé deserve the credit of having definitely restored *Asterias pectinata*, Retzius, to specific rank on the basis of Müller's description of it, though they erroneously state that it corresponds to *Comatula pectinata* and *Comatula barbata* of other authors.<sup>2</sup> Both these names were given to varieties of the European *Antedon rosacea*, which are altogether different from the type of *Asterias pectinata* from the Indian seas in the Retzian collection at Lund.

*Remarks.*—Little need be said about this species, as its essential characters have been fully discussed already. The centro-dorsal rarely conceals the first radials entirely (Pl. LIII. fig. 15), and it is sometimes relatively smaller than in any other *Comatula*; while each of the radial areas on its surface has a deep marginal hollow which corresponds to one on the surface of the radial above it.<sup>3</sup> It thus shows an approximation towards the characters of *Actinometra typica* and the other species which have more or less definite openings around the margin of the centro-dorsal (Pl. LVII. fig. 1; Pl. LXIII. fig. 6; Pl. LXV. figs. 1–6; Pl. LXVII. fig. 1). The three Challenger specimens are remarkable for having an interrarial mouth, as it is radial in most examples of the type that I have seen, just as in *Actinometra solaris*.

The Copenhagen Museum contains a specimen from Java which bears the MS. name *Actinometra affinis*, Lütken. I was at first inclined to regard it as distinct from *Actinometra pectinata*; but since examining the "Alert" collection I have no doubt that the two forms are identical. The Java specimen is remarkable for the carination of the lower joints of the first pinnule, as in some individuals from Bohol in Semper's collection; while it has eleven arms, owing to one of the normal second brachials being replaced by an axillary, *i.e.*, there are two distichals united by syzygy, just as in *Actinometra paucicirra* (Pl. LIV. figs. 1, 2).

This, of course, is what might naturally be expected from the characters of the type.

<sup>1</sup> Troschel's description of *Alecto solaris* in 1843 omits all mention of the syzygies in the radials and lower brachials, and so is useless for the recognition of the species; while it appears two pages later than Müller's more detailed description of *Asterias pectinata*, which noticed this point and also the presence of the keel on the second pinnule, of which Troschel said nothing.

<sup>2</sup> *Op. cit.*, p. 209.

<sup>3</sup> See *Trans. Linn. Soc. Lond. (Zool.)*, ser. 2, 1879, pp. 67, 89–91, pl. v. figs. 6–9; pl. viii. figs. 5–8.