

During the winter of 1875-76 circumstances enabled me to examine the numerous Comatulæ which had been collected by Professor Semper among the Philippine Islands some years before. Among them were a dozen examples of one common species, together with several other well-defined types; and I was soon led to conclude, as Lütken had previously done, though unknown to me, that the essential difference between *Antedon* and *Actinometra* depends upon the position of the mouth and not upon the number of ambulacra reaching the peristome. In reply to the inquiries which I addressed to him upon the subject, Dr. Lütken was good enough to communicate to me his own observations, and also his discovery of the constant presence of a terminal comb on the lower pinnules of exocyclic Comatulæ. A few months later, by the kindness of Professor Perrier, I was enabled to verify Lütken's conclusion for myself on the fine collection of Comatulæ in the Paris Museum; while at the same time I succeeded in making out various other points of difference between *Antedon* and *Actinometra*, and referred seventeen of the *Comatula*-species then known to the latter genus.¹

A subsequent study of the large collections obtained by the Challenger, the "Alert," and the "Blake," and also of the Comatulæ in the principal museums of the continent, has afforded ample verification of the earlier conclusions which had been reached by Dr. Lütken and myself; and it has likewise enabled me to make out some other distinctive characters both of *Antedon* and of *Actinometra*.

The genus *Phanogenia* was established by Lovén² in 1866, for a remarkable *Comatula* from Singapore which has a stellate centro-dorsal bearing but slight traces of cirri, a nearly central mouth, and a terminal comb on the lower pinnules. Several examples of *Actinometra* of different species, with a centro-dorsal like that of *Phanogenia*, were dredged by the Challenger (Pl. LVII. fig. 1; Pl. LXIII. fig. 6; Pl. LXV. figs. 1-6; Pl. LXVII. fig. 1); and I have seen others in different museums, many of them with the mouth unusually near the centre of the disk, and the ambulacra almost as uniformly distributed as in *Antedon*; but the interpalmar area containing the anal tube is always considerably larger than its fellows. This is also the case in Lovén's original specimens of *Phanogenia*, which I therefore referred to *Actinometra* in 1882,³ for it became no longer possible to distinguish *Phanogenia* as a separate genus by the characters of its centro-dorsal only, as I have pointed out on pp. 13-16.

Remarks.—In by far the greater number of individuals which belong to the genus *Actinometra* the mouth is situated at some distance from the centre of the disk, which is occupied by the anal tube, and it is occasionally very close to the margin (Pl. LVII. fig. 3; Pl. LXII. fig. 4; Pl. LXIV. fig. 2; Pl. LXVIII. fig. 1; see also Part I., pl. lv. fig. 2; pl. lvi. figs. 7, 8). The peristome is usually fairly open and somewhat elongated

¹ *Trans. Linn. Soc. Lond. (Zool.)*, ser. 2, 1879, vol. ii. p. 27.

² *Öfversigt k. Vetensk. Akad. Förhandl.*, 1866, No. 9, p. 231.

³ *Notes from the Leyden Museum*, 1882, vol. iii. p. 195.