

*Asthenosoma varium*, and as Grube said nothing of the lapping of the coronal plates. It was only on seeing the original specimen at Breslau that I recognised the identity of the genera. At that time (1870) Professor Grube was kind enough to give me a few spines of this species, and on comparing them subsequently with those of the species called here *Asthenosoma grubii*, there seemed to exist sufficient differences in them, and more especially in the greater size of the primary tubercles of the actinal surface (of which Professor Grube had sent me a drawing), to warrant me in separating these species for the present. Grube's specimen is much smaller than the specimens collected by the Challenger, so that it may yet turn out that the differences existing between our specimens are merely due to age. The perforation of the tubercles of the abactinal surface is so small that it could not be represented on the natural size drawing of Plate XVII. fig. 2. It was, however, unfortunately omitted on the figure of the actinal side (Pl. XVII. fig. 1). It is shown on the enlarged figures (Pl. XVII. figs. 5, 6). The locality of Grube's specimen was not definitely known; as it came from Salmin, who had at the time of its purchase extensive dealings with the Philippine Islands, it undoubtedly came from the Eastern Seas of China or that neighbourhood. The specimens of the Challenger all coming from such a shallow depth as ten fathoms it is quite possible that this species may be a littoral one, or at any rate that it lives in comparatively shallow water. In the species of *Asthenosoma*, judging from the single smaller specimen of *Asthenosoma grubii* and from those of *Asthenosoma pellucidum*, the changes due to growth do not seem to be as marked as in *Phormosoma*. The smallest specimen of *Asthenosoma grubii* (measuring 115 mm.) already showed the principal specific characters of the adult (183 mm. in diameter), the only important differences being such as are readily accounted for by the size of the specimens. The few spines left on the abactinal surface of this smaller specimen show that the peculiar sheathed spines so characteristic of this species already exist in specimens of a comparatively small size.

Samboangan; 10 fathoms.

\**Asthenosoma pellucidum* (Pl. XVIII. figs. 1-6; Pl. XVIII.<sup>a</sup> figs. 14-17; Pl. XIX. figs. 1-6; Pl. XXXVIII. fig. 6; Pl. XL. figs. 39-42).

*Asthenosoma pellucida*,<sup>1</sup> A. Agassiz, 1879, Proc. Am. Acad., vol. xiv. p. 200.

In this species of *Asthenosoma* the primary tubercles form a prominent vertical row in the interambulacral area adjoining the poriferous zone, the tubercles being largest near the ambitus both above and below the ambitus (Pl. XVIII. figs. 4, 5; Pl. XIX. figs. 4, 5). In the ambulacral areas there are only secondary tubercles, three or four of which on the abactinal side are somewhat larger than the others near the ambitus. From the large primary interambulacral tubercles extends a more or less regular horizontal row

<sup>1</sup> The new species of *Asthenosoma* and of *Phormosoma* were inadvertently published with feminine terminations. This error was not noticed in time to correct the lettering of the plates.