

they are almost perfectly horizontal (Pl. I. fig. 6*a*), and so give the calyx a very different appearance from that of the closely allied Arctic species *Antedon eschrichti* (Pl. I. fig. 8*a*); though *Promachocrinus kerguelensis*, another southern form, resembles *Antedon eschrichti* in this respect (Pl. I. fig. 1*a*), and the same may be said of *Eudiocrinus semperi* (Pl. III. fig. 7*a*). In some forms of *Antedon incisa* the ridges do not, as is usually the case, start from the rim of the central canal, but curve upwards slightly from the median vertical ridge of the articular face, and the upper pair of fossæ are therefore somewhat restricted (Pl. II. fig. 1*a*). In *Antedon disciformis* (Pl. IV. fig. 2*a*) the ridges run upwards from the central canal for some little distance and then curve outwards, leaving a sort of furrow between them, the bottom of which is sometimes slightly raised.¹ But in most species of *Antedon* there is a strong median ridge running down from the ventral edge of the articular face towards the opening of the central canal (Pl. I. figs. 6*a*, 8*a*; Pl. II. figs. 1-5, *a*; Pl. III. figs. 4*b*, 5*a*, 6*d*). This is hardly traceable in *Antedon carinata* (Pl. III. fig. 1*a*), which rather resembles *Antedon disciformis* in having a tendency to the intermuscular furrow that is so characteristic of *Actinometra* (Pl. V. figs. 1-5, *b*); while in *Antedon macronema* the muscular fossæ are so very slight, that the notch between them reaches down to the upper margin of the raised rim of the central canal (Pl. IV. figs. 3*a*, *b*), a character which rarely occurs in *Actinometra*.

Thus then the radials of *Antedon carinata* and *Antedon macronema* differ from those of other species of *Antedon* and approach those of *Actinometra*. There is much less difference than usual between the widths of the upper and lower ends of the distal faces, which are comparatively low, so that their long axes are horizontal and not vertical as is usually the case (Pl. I. figs. 6*a*, 8*a*). The centre of the upper surface is consequently occupied by a wide funnel, the walls of which are formed by the ventral surfaces of the radials (Pl. III. fig. 1*d*; Pl. IV. fig. 3*b*). *Antedon carinata* has fairly large muscle-plates; but they are quite small in *Antedon macronema*, and the ridges separating the muscle- and ligament-fossæ are so slightly oblique as to be almost horizontal, though their origin from the prominent and large rim of the central canal is very marked. In each case, however, the general appearance of the calyx is much more that of the *Antedon* than of the *Actinometra* type. The calyx of *Antedon macronema* further presents many resemblances to that of *Pentacrinus*, especially in the small size of the articular faces and in the large portions of the radials which appear externally (Pl. IV. fig. 3*a*). Of all recent Comatulæ it is the one which most closely approaches the general type of the Jurassic forms of *Antedon*; and as it is only known to occur on the Australian Coast, this is a point of considerable interest.

The radials of *Actinometra* differ very largely from those of the typical *Antedon*. Their distal faces are relatively low, and lie nearly or quite parallel to the vertical axis of the calyx, while there is but little difference in width between their upper and their lower

¹This is less distinctly seen in an interradial view of the calyx than in a face view of a single radial.