

form a ridge like the brim of a hat; on either side are two long curved spines situated at equidistant intervals, and corresponding in position to the lateral spines on the last abdominal segment; the lateral ridge does not terminate in a flattened spine on either side as in so many other species.

The appendages in many cases bear long spines like those upon the body; the *antennæ*, which are very long, have a pair of spines upon the distal extremity of each of the joints; the *anterior thoracic appendages* (fig. 7) are furnished with a number of stout spines upon the proximal joints; the *posterior thoracic appendages* (fig. 8) are smooth and devoid of any such spines.

The *uropoda* are covered with numerous minute granulations but bear no spines.

Station 23, March 15, 1873, off Sombrero Island; lat. 18° 24' N., long. 63° 28' W.; depth, 450 fathoms; Pteropod ooze.

*Arcturus brunneus*, F. E. Beddard (Pl. XXII. figs. 1-4).

*Arcturus brunneus*, F. E. Beddard, Proc. Zool. Soc. Lond., 1886, pt. i. p. 108.

This species, like so many other of the deep-sea forms, is extremely spiny; on this account it presents a very strong general resemblance to *Arcturus spinosus* and to *Arcturus purpureus*, but is evidently to be regarded as a distinct species.

The specific name was suggested by the fact that many of the spines, and in one individual the entire body also, were of a dark brown almost black colour.

Four individuals, two males and two females, were dredged near to Kerguelen in 1600 fathoms of water.

The species is small, the largest specimen measuring only 19 mm.

The *antennæ* are of about the same length as the body.

The head is furnished with two long spines between the eyes and a pair of shorter spines behind them; in the female the posterior pair of spines are distinctly longer than in the male.

The first four segments of the thorax are subequal in length, the fourth being perhaps a trifle the longest. The thoracic segments are raised into a ridge which dorsally only occupies the posterior region of the segment, but laterally becomes much wider and occupies the whole of the sides; on the ridge are planted a number of long straight spines.

On the first segment in the male there are four of these, equidistant from each other, and a minute lateral spine at the extreme lateral margin; in the female (fig. 1) the lateral spines are longer, and there is a small spine between the lateral and dorso-lateral spine behind them; on the second segment in the male the same spines are developed, but the lateral spine, which is placed upon the epimeron, is longer, and there is a minute tubercle between it and the lateral tergal spine; in the female the arrangement of spines is the same,