

in addition another longer anterior spine directed forwards, and almost at right angles to the posterior spine.

Of the three free abdominal segments the middle one is rather the largest, the first is separated by a complete and distinct suture from the second; the second is separated from the third by a suture which is incomplete dorsally, though present at the sides; the third segment is practically fused with the caudal shield. Each segment has a long lateral spine curved somewhat backwards, and corresponding exactly in position with those upon the posterior thoracic segments; that of the third segment is the longest; continuous with this is a row of one or two sharpened tubercles extending nearly across the segment, the median dorsal region being flattened and smooth; the first abdominal segment, although perhaps rather narrower dorsally than the second segment, has a ventral area which is considerably longer; on this are borne two pairs of spines in addition to the lateral spines; the most anterior pair are close to the median ventral line and to the anterior margin of the segment; the posterior pair are very much longer and placed further from the median line and just at the posterior boundary of the segment. The caudal shield is distinctly keeled and terminates in a sharp upturned point; on either side of this is a single row of curved hook-like spines; the lateral margins of the caudal shield are flattened, serrated posteriorly, and end in a sharp spine.

The *antennules* (fig. 8) extend a little way along the third joint of the antennæ.

The two last joints of the *antennæ* are extremely long, the first measuring 20 mm., the second 22 mm.; the second joint has a short spine on the dorsal surface (fig. 9) and a long spine ventrally; the flagellum is nearly as long as the last joint.

The anterior *ambulatory limbs* (fig. 12) have longish spines upon the proximal joints; there are no such spines upon the posterior limbs (fig. 11). The second, third and fourth ambulatory limbs have a long spine upon the second and third joints close to the articulation with the succeeding joints; the two last of these appendages have also a pair of longish spines upon the proximal joint which appear to be wanting in the second ambulatory appendage.

The *uropoda* have two long curved median spines exactly equivalent in position to the posterior pair of ventral spines upon the first abdominal segment; behind are a row of similar but smaller spines, and outside these a row of smaller spines still.

Station 214, off Samboangan, February 10, 1875; lat. 4° 33' N., long. 127° 6' E.; depth, 500 fathoms; bottom temperature, 41°·8 F.; blue mud.

*Arcturus spinifrons*, Beddard (Pl. XXV. figs. 9–12).

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

Two examples of this small species were dredged a little to the south of the Fiji Islands from a depth of 600 fathoms.