

Station 302, south-east of Valparaiso, December 28, 1875; lat. 42° 43' S., long. 82° 11' W.; depth, 1450 fathoms; bottom temperature, 35°·6 F.; Globigerina ooze.

Family ARCTURIDÆ.

Arcturus, Latreille.

Arcturus, Latreille, Le Règne Animal, 1829, t. iv. p. 139.

It appears to me to be quite necessary to separate *Arcturus* and *Astacilla*. It is true that the very remarkable elongation of the fourth segment of the thorax in *Astacilla* is an adult condition not met with in the young, as the Rev. T. R. R. Stebbing has pointed out. This is no reason, however, for uniting together the two genera, which differ also in other characters, particularly in the brood cavity which is formed by four pairs of lamellæ in *Arcturus*, and by only one pair developed upon the fourth segment of the body in *Astacilla*. I may also point out another difference, and that is in the hinder thoracic limbs, which are biunguiculate in *Astacilla* and uniunguiculate in *Arcturus*; as this character is evidently of importance in discriminating the genera of Asellidæ it probably should not be ignored in the present case.

The genus *Arcturus* as thus limited is known by only four species exclusive of those to be described in the present Report; these are *Arcturus baffini*, *Arcturus hystrix* and *Arcturus tuberosus*, from the Arctic region, and *Arcturus coppingeri* from Patagonia. To these I am able to add ten new species, most of which are from deep water. Three of the above mentioned species, viz., *Arcturus hystrix*, *Arctura tuberosus*, and *Arcturus baffini*, range into deep water, and the genus so far as it is known at present is characteristically a deep-sea genus.

Arcturus furcatus, Studer (Pl. XXV. figs. 6, 7).

Arcturus furcatus, Studer, Sitzungsab. d. Ges. Naturf. Freunde, Berlin, 1882, p. 57.

The present species has been fully described and figured¹ by Professor Studer, from examples obtained at Kerguelen by the German steam ship "Gazelle." The Challenger acquired a very large number of specimens from shallow water up to 120 fathoms at various localities at Kerguelen, and also further to the south, off Heard Island. In addition to these specimens from shallow water a single specimen was dredged from deep water (1675 fathoms), at the southernmost station, Station 158, close to the Antarctic ice barrier, and this appears to be identical with *Arcturus furcatus*. The occurrence of the same species in deep and in shallow water is most unusual (see p. 158).

Although Professor Studer has defined the characters of this species with great accuracy, I think it worth while to give a short recapitulation in order to compare it with other species.

¹ Isopoden gesammelt während der Reise S.M.S. "Gazelle," &c., *Abhandl. d. k. Akad. d. Wiss. Berlin*, 1885, p. 12 (of Memoir), pl. i. fig. 3.