

peduncle of the first pair, but not quite to the extremity of the rostrum, and terminates in a flagellum about once and a half as long as the animal.

The dactyli of the anterior three pairs of pereopoda are long and slender.

The pleopoda are moderately slender and elongated.

*Habitat*.—Station 170, July 14, 1874; lat. 29° 55' S., long. 178° 14' W.; near the Kermadec Islands; depth, 520 fathoms; bottom, volcanic mud; bottom temperature, 43°·0. Three specimens.

Length, largest female 107 mm. (4·25 in.), smallest male 51 mm. (2 in.). Trawled.

Station 171, July 15, 1874; lat. 28° 33' S., long. 177° 50' W.; north of the Kermadec Islands; depth 600 fathoms; bottom, hard ground; bottom temperature, 39°·5. One specimen; female. Length 150 mm. (6 in.). Trawled.

Station 194, September 29, 1874; lat. 4° 34' S., long. 129° 57' 30" E.; off Banda Island; depth, 200 fathoms; bottom, volcanic mud. One specimen; female. Length, 55 mm. (2 in.).

This species corresponds so closely in general appearance with Duvernoy's figure<sup>1</sup> of *Aristeus antennatus*, Risso, that it was only proved not to be a variety by comparing it with Risso's figure,<sup>2</sup> and by careful consideration of the details of the specimens in this collection. In Risso's figure it is without eyes, but at page 97 he says that "Les yeux sont gros, noirs, placés sur les courts pédicules;" he also says that "les antennes supérieures, ingalement bifides," and figures them subequal, slender, and not longer than the rostrum, and has the dorsal surface of the pleon smooth, "dont les deux (segmeros) derniers sont carénés." Duvernoy represents the eyes as standing on a long peduncle, but smaller in proportion to the diameter of the stalk than is the case in our specimens. He also figures the larger flagellum of the first pair of antennæ as being longer than that of the second, but this is probably an error in drawing. He also represents the dorsal surface of the pleon as being smooth, and the posterior margins of the fourth and fifth somites as produced in the median line to a point, whereas in the Challenger specimen the two somites are not so produced, but elevated into a small and distinct carina that terminates in a small point on the fifth and sixth somites, and in some specimens on the fourth also.

This species differs from *Aristeus armatus*, which it much resembles, in having the rostrum proportionally shorter, the teeth on the crest rather smaller, and none on the third somite of the pleon, where in *Aristeus armatus* it is very large, as are also those on the fourth and fifth somites, whereas in *Hemipenæus semidentatus* there is only a small carina which terminates almost abruptly.

The branchiæ in the Challenger specimens correspond with those of the other species

<sup>1</sup> *Ann. d. Sci. Nat.*, t. xv., 1841.

<sup>2</sup> *Hist. Nat. Crust. des Environs de Nice*, p. 96, pl. ii. fig. 6.