

The branchiæ in this species are of the normal character, but there is no evidence of even a rudimentary mastigobranchial lash attached to the first pair of gnathopoda, as we see in *Pentacheles euthrix*; in the second pair it is in a more rudimentary condition than in that species. The mastigobranchiæ attached to the several pairs of pereopoda are of great tenuity, and shorter than the podobranchiæ.

*Polycheles helleri*, Spence Bate (Pl. XIV. fig. 2; Pl. XV. fig. 1).

*Polycheles helleri*, Sp. B., Ann. and Mag. Nat. Hist., ser. 5, vol. ii. p. 276, 1878.

*Pentacheles helleri*, on pl. xv.

Carapace not broader than the first and second somites of the pleon, lateral margins subparallel, anterior division armed with seven teeth, median with four, and posterior with four or five well-developed teeth near the anterior extremity, from which they gradually decrease in size posteriorly; dorsal central ridge armed with two rostral teeth directed upwards on the anterior margin, which, with the series in the median line, may for convenience be formulated, commencing anteriorly, as 2-1-1-2-1, fossa 2-2-2.

The pleon (Pl. XIV. fig. 2P) is carinated on the five anterior somites, the anterior margin of the crest of each somite culminating in an anteriorly-directed point.

*Habitat*.—Station 170, near the Kermadec Islands, north of New Zealand, July 14, 1874; lat. 29° 55' S., long. 178° 14' W.; depth, 520 fathoms; bottom, volcanic mud; bottom temperature, 43°. One specimen.

Length, about 36 mm. (1.5 in.).

Station 218, north of New Guinea, March 1, 1875; lat. 2° 33' S., long. 144° 4' E.; depth, 1070 fathoms; bottom, blue mud; bottom temperature, 36°.4. One specimen.

Length, 50 mm. (2 in.).

This species is rather more slender than *Polycheles baccata*, and is readily distinguishable in having a double rostral tooth arising from the anterior margin of the carapace, and none from the metope between the first pair of antennæ; the anterior margin of the carapace is smooth and recedes gradually to the orbit, which forms a rather large notch in the dorsal surface of the carapace, and thence it advances obliquely outwards to a sharp tooth that forms the latero-anterior angle of the carapace. The lateral margin is furnished with six teeth on one side, and seven on the other in the anterior division; three on the median; on the posterior, or that portion of the margin of the carapace that lies behind the cervical fissure, there are two or three tolerably conspicuous teeth situated anteriorly, and so also near the posterior margin, but in the space between these two points, the teeth are only represented by small notches or are entirely wanting.

The median line of the carapace is armed with a series of distal teeth, on the anterior margin are two rostral teeth that stand obliquely upwards and forwards, behind which in