

The ophthalmopoda are short and stout, placed at the extremity of slender attachments which are not enclosed in a calcareous somite, but continue exposed in the median line.

The first pair of antennæ has the first joint long, the second short, and the third about half the length of the first; the flagella are subequal in length, the inner being rather the longer and more slender, while the outer, slender towards the extremity, becomes bulbous towards the base.

The second antennæ are very long and rigid organs, the peduncular portion being especially rigid, and the articulation between the third and fourth joints being oblique by two-thirds the length of the fourth joint; the first and second joints are fused together and support a phymacerite that is covered by the extremity of the second pair of gnathopoda.

The mandible carries a small slender two-jointed synaphipod, the basal joint of which is long, the distal one short and pointed.

The first pair of gnathopoda is short, and carries a basephysis that reaches considerably beyond the extremity of the dactylos.

The second pair of gnathopoda is long, slender, and serrate on the inner and lower margins, and carries a basephysis, the basal joint of which reaches to the extremity of the ischium, and the terminal flagellum to the extremity of the carpos.

The pereopoda are in our unique specimen all lost, having been broken off at the basi-coxal articulation, excepting the last pair, which is long and slender, the meros being strong and distally armed with a strong tooth on the inner angle; the carpos is long and continuous with the propodos, which is nearly three times as long and terminates in a straight and pointed dactylos.

On the under or ventral surface, the posterior somite of the pereion is armed with a sharp tooth in the median line. The first somite of the pleon is transversely armed with four teeth; the second, third, fourth, and fifth, with two each, all on their posterior margins; the sixth has two on the anterior margin, six (three on each side, of the median line) near the centre, and four on the posterior margin.

The pleopoda are small, but not more so than usual in the male, as is this specimen; although the animal is very small, it appears to have arrived at its mature form.

*Panulirus penicillatus* (Olivier) (Pl. XII. fig. 2).

*Astacus penicillatus*, Olivier, *Encycl.*, t. vi. p. 343.

*Palinurus penicillatus*, Milne-Edwards, *Hist. des Crust.*, t. ii. p. 299; Olivier, *Encycl.*, t. viii. p. 174.

*Habitat.*—Our specimen was purchased in the market at Papiete, Tahiti. Specimens in the British Museum are recorded from the Fiji Islands and the New Hebrides, where the native name is "Trichivaing." H. Milne-Edwards gives the Indian Ocean for its locality; and Professor A. Milne-Edwards says that it has been taken at the Mauritius.