

distinction, and brings this genus in its branchial arrangement near to *Spongicola* and *Stenopus*, which it also approaches in the absence of the small basal branch of the second pair of gnathopoda, which is rudimentary in these genera.

The general resemblance of some species to each other is very close, while others are easily distinguishable.

This genus very much resembles *Solenocera*, Lucas, from which in external structure it differs in having the flagella of the first pair of antennæ cylindrical, instead of one being grooved to receive the other.

I have not had an opportunity of examining the branchial arrangement of any species of *Solenocera*, and therefore cannot compare it with that genus.

It may from the description be mistaken for *Penæopsis*, A. Milne-Edwards, from which it can readily be distinguished by the form of the carapace, by the presence of post-orbital and postantennal teeth on it, and by the length of the peduncle of the first pair of antennæ.

It differs from the typical *Penæus* in having two arthrobranchiæ attached to the membranous articulation of the penultimate pair of pereopoda, and in all the mastigobranchiæ being remarkable for a knee-like bend, by which the basal portion lies at right angles to the terminal half, which is placed between and separates the branchial plumes, and is liable to vary in form in different species.

*Geographical Distribution.*—Species of this genus have been found in the Sea of Banda, off the Kermadec Islands, among the Celebes Islands, off the Ki Islands, and in the Arafura Sea.

*Penæus siphonoceros*, Philippi and Heller, is undoubtedly synonymous with *Penæus membranaceus* of Milne-Edwards, and belongs to this genus, but not with *Penæus membranaceus* of Risso, from which it differs in the flagella of the first pair of antennæ not being distally truncated, nor in having the upper ramus longitudinally enclosed within a groove in the lower.

*Penæus crassicornis*, Milne-Edwards, also belongs to this genus, and is recorded by him as inhabiting the coasts of India. Sir Walter Elliot, S.I., F.R.S., procured numerous specimens at Waltair on the coast of Madras.

*Philonicus mülleri*, n. sp. (Pl. XXXIX.).

Carapace dorsally furnished with a small carina that commences at the posterior margin and continues anteriorly to the rostrum, which is armed on the upper margin with eight teeth in the female and with nine or ten in the male; the lower margin is smooth, slightly curving upwards to the extremity, and fringed with a row of hairs. The anterior margin of the carapace has an orbital and a first-antennal tooth, behind which are a postantennal and a hepatic tooth.