

and terminating in a brush of ciliated hairs. The second pair of pereopoda is longer and more slender than the first, the carpos being narrow and cylindrical, while the propodos and dactylos resemble those of the first pair. The posterior three pairs are slender and nearly of the same length and proportion.

The pleon resembles that of *Palæmon*.

*Observations.*—There is but one specimen of this genus in the Challenger collection, and since it was preserved in the same bottle with *Atya sulcatipes* and two specimens of *Atya serrata*, it seems almost certain that all these specimens were taken from the same river in the Cape Verde Islands, for I assume from the known carefulness of the collectors that they would have otherwise been separated and labelled accordingly. My first opinion was that the three were successive stages in the growth of one species. But in the examination of a large number of specimens from Honolulu of the closely allied form *Atya* (*Atyoida*) *bisulcata* I found a few with ova, and in some of these the embryo so far advanced that by extracting it from the egg I was enabled to determine that the brephalos is a Zoea (p. 692).

This at all events settles that the *Atyoida* form could not be a stage in the growth of *Atya*, and the fact that several species of *Caridina* have been found in various localities, in few of which *Atya* has been recorded, makes one hesitate with our present experience to determine the true relationship, although it is clear that *Atya* must pass through some such form as *Caridina* before it can attain its full development.

The form which Milne-Edwards, under the name of *Caridina typus*, has described as a genus distinct from *Atya*, chiefly differs both from that genus and from *Atyoida*, according to its author, in the third pair of pereopoda being slender and the second pair having the carpos of the ordinary form.

The portion of a specimen figured on Pl. CXIX. fig. 3, appears to me to belong to the same species as that which Milne-Edwards has figured and described under the above name, and it is not improbable that Milne-Edwards' specimen may have come from the same locality.

The fragment consists of the pereion with its appendages, and those that belong to the mouth. It is part of an animal still young, but approaching the adult condition, a circumstance that inclined me to believe it to be an immature stage in the development of *Atya*, with which it was found associated. Milne-Edwards' specimen is only ten lines long, and this is probably about the length of the animal to which our fragment belonged.

The difficulty depends on the singular variation between the form of the carpos in the first two pairs of pereopoda. In the adult *Atya* the carpos of both pairs is short, robust and lunate, but in *Caridina* the carpos in the first pair corresponds with that of the adult *Atya*, while in the second pair it is long, slender and cylindrical.