

posterior pair of pleopoda has the outer branch much larger than the inner, and both have the inner margin fringed with ciliated hairs, and the extremity furnished with hairs and spines.

The mastigobranchial plates and podobranchial plumes are entirely wanting, and so also are the pleurobranchiæ, and in this respect the character of the organs is consonant with those of *Callianassa*, inasmuch as the only plumes that are present are the arthrobranchial, which, however, appear to vary as to number, as shown in the following formula:—

Pleurobranchiæ,	.	.	.	.	...	...	...	...	...	...	...
Arthrobranchiæ,	.	.	.	.	...	...	2	2	2	1	...
Podobranchiæ,	.	.	.	.	...	...	...	...	...	...	...
Mastigobranchiæ,	.	.	.	.	...	...	...	...	...	...	...
					h	i	k	l	m	n	o

A variation exists not only in the number, but also in the form of the structure, more especially in that of the anterior plumes; the tendency being to form large and broad foliaceous plates at the base of the stem, changing in some cases rather suddenly into slender cylindrical processes, that gradually shorten toward the apex of the plume.

Unfortunately there was but a single specimen taken of this interesting little species, and that in a very damaged condition.

Comparing it with the species that we have just described as being taken at the entrance of Torres Straits, in only 28 fathoms of water,—a locality that is almost the antipodes of the other; the one in lat. 19° N. and long. 63° W., while the other was taken in long. 10° S. and 142° E.,—the similarity of the two is very remarkable. The only distinctions by which I could positively determine the one from the other are in the form of the rostrum, branchiæ, and telson, and perhaps of the lateral caudal pleopoda. In *Cheramus orientalis* the telson has the posterior margin fringed with long ciliated hairs, and in the median line there is a very rudimentary point at the bottom of a slight depression. In *Cheramus occidentalis* this depression exists, while in the median line there is a well-defined straight tooth.

The lateral caudal pleopoda have their armature, although strongly spinous, yet scarcely as hooked in form as in *Cheramus orientalis*.

On the inner branch of the third pair of pleopoda is a small stylamblys, rather more pointed than in *Cheramus orientalis*, and fringed with small cincinnuli or hooklets.

With this species was taken an anterior right or large cheliped (Pl. II. fig. 2*k*). It appears to be rather too large to belong to the individual I have described, but it may belong to another specimen of the species (see p. 29).

The branchial plumes of the two species of this genus, which come from such distant localities, are very instructive in their character. In *Cheramus orientalis*, the arthrobranchia attached to the second pair of gnathopoda is very short, and carries a