

There are five pairs of pleopoda: four consist of small and slender biramose appendages, which support the ova in the female; the fifth is strong, stiff, and sharp-pointed, and helps to form the rhipidura.

Observations.—The object of the peculiar formation of the first pair of pereopoda is very difficult to discover, except it be that of forming an operculum, so as to protect the entrance, should the animal reside in a shell or enclosure of any kind; the arms are incapable of being directed in an extended position, and therefore cannot be advanced to grasp any object beyond the extremity of the antennæ. The two succeeding pairs are long and slender, but the last two—the penultimate and ultimate pairs of pereopoda—possess the Anomurous character of being very much shorter, and have the dactylos in the penultimate almost rudimentary in size. In the ultimate pair the propodos is paved over with a number of closely-packed spiculiform points of nearly equal size, which increase somewhat toward the extremity—among which it is difficult to determine the dactylos. These features in the pereopoda are strongly suggestive of an approximation to the Anomurous form; but an examination of the branchial appendages reveals a character that approximates to the Macrura, more especially to those belonging to the family of the Thalassinidæ. In *Birgus*, *Pagurus*, *Cenobita*, &c., to which *Cheiroplatea* approximates most nearly in form, the respiratory organs are phyllobranchiate in character; in this genus they are trichobranchiate, the filaments being cylindrical and arranged in two longitudinal rows, bearing a resemblance to those of the Astacidea, from which they differ in the absence of the podobranchial and mastigobranchial series of the appendages, which form important features in the respiratory organs of the latter. As a whole the arrangement of the several branchial plumes corresponds more nearly with those species that are generally grouped with the family Thalassinidæ than with those that belong to the Astacidæ.

The mastigobranchia is absent from all the pereopoda and from both the gnathopoda, and so are the podobranchiæ. Two arthrobranchial plumes are present on each of the pereopoda and one on each of the gnathopoda; and the pleurobranchiæ exist in connection with the three posterior somites of the pereion, as shown in the following table:—

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

The plumes are generally small, and increase in size posteriorly. Of the three pleurobranchiæ, the last is the only plume attached to the posterior somite; whereas the penultimate and ultimate somites, besides a pleurobranchia, carry an anterior and posterior anthrobranchial plume. But the somites which support the anterior two pairs