

mastigobranchia, one arthrobranchial and one pleurobranchial plume, but no basecephysis. The penultimate pair carries the rudiment of an arthrobranchial plume in the form of a small papilla, and one well developed pleurobranchia. The posterior pair is stout, short, and carries no mastigobranchia, plume, nor basecephysis. On the ventral surface, between the fourth pair, a large sharp tooth, flat and broad at the base, lies directed anteriorly and reaches as far as the second pair, and between the fifth or posterior pair in the male the foramen for the passage of the vas deferens, instead of being situated on the coxa, is placed on the ventral portion of the last somite of the pereion.

The pleopoda are all single-branched and very short; the anterior pair in the male is furnished with a petasma that is cincinnulated in the median line.

The second pair has the inner branch developed in the form of a petasma of a somewhat less pronounced condition than that of the first pair. The other pairs are simple, and the posterior forms the lateral plates of the rhipidura.

The branchial arrangement is shown in the following table:—

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

This genus was described by Milne-Edwards in 1830, and embraced three species, *Sicyonia sculpta*, Milne-Edwards, from the Mediterranean, *Sicyonia carinata* (Olivier), from Rio Janeiro, and *Sicyonia lancifer* (Olivier). He describes the genus as being very near to *Penæus*, which it resembles in the compressed form of the body, in the termination of the first pair of antennæ, in the didactylous hands possessed by the first three pairs of legs, in the conformation of the pleopoda and in other details. But it differs most essentially in the structural character of the branchiæ, in the absence of any traces of pleurobranchiæ, in the reduction of the arthrobranchial plumes, and in the presence of one podobranchial plume attached to the first pair of gnathopoda; the branchiæ divide as in *Penæus*, but instead of being filamentous they are foliaceous in structure, and thus approximate to the condition seen in *Gennadas* and *Sergestes*.

Geographical Distribution.—In the Challenger collection there are four species; one from the West Indies, which I take to be closely allied to *Sicyonia carinata*, from which it differs in what may be only sexual features; one from Torres Strait, that closely resembles the figure of *Hippolyte cristatus*, de Haan, from the Japanese Seas, and coincides with the description of *Sicyonia lancifer* (Olivier), the habitat of which is stated to be the Indian Ocean; and the third is from the north side of New Guinea. This, together with the type, *Sicyonia sculpta*, that was taken in the Bay of Naples, and one described by Stimpson from the Chinese seas under the specific name of *Sicyonia ocellata*, gives the geographical distribution of this genus exceptional interest.