

furnished with a short, obtusely pointed stylocerite (the rest of the appendage is destroyed).

Second pair of antennæ carries a large scaphocerite but no ancecerite (the flagellum is lost).

The epistoma is thin, membranous and lunate.

The cheiloglossa is large, curved and wide.

The mandibles are deeply placed within the oral aperture, and have the psalistoma smooth and continuous with the molar process, at the base of which a long, two-jointed synaphipod exists.

The first pair of siagnopoda is three-branched, the second four-branched, and carries a mastigobranchial plate, the third is three-branched, the inner branch being broad, foliaceous and biarticulate, and fringed with hairs upon the inner side, the second or middle branch long, slender and triarticulate, and the third or outer long, slender, tapering, and free from hairs.

All the other appendages except the pleopoda are too much broken to allow their form to be determined.

The telson, which is perfect, is long, slender and tapering, but not so long as the lateral plates of the rhipidura, which are broken off in all our specimens.

Geographical Distribution.—Only one species of this genus is known, and that was taken in two localities, one near Marion Island and the other south of Australia.

The great distinction between this genus and *Sergestes* exists in the form, character, and arrangement of the branchial plumes, which consist of a series of plates and cylindrical filaments situated side by side in a series of rows at right angles to the stalk. There is but one plume to each of the five anterior somites of the pereion, the posterior two somites having none; between some of the somites is a large foliaceous plate. The arrangement may be tabulated thus:—

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

Petalidium foliaceum, Spence Bate (Pl. LX.).

Petalidium foliaceum, Sp. B., *loc. cit.*, p. 194.

Anterior margin dorsally elevated to a small, laterally compressed crest, produced in front to a very small point; body generally smooth. Ophthalmopod subcylindrical, long; ophthalmus not broader than the diameter of the stalk, furnished on the inner side with a small tubercle, close to the dark pigment. Dark brown hairs on the oral