

A mastigobranchia is attached to the coxa of every appendage from the posterior pair of siagnopoda, where it is very broad and short, to the fourth pair of pereiopoda, where it is long and narrow. It is slender and membranous for the distal half, the margins of which are fringed with short stiff hooks, shortest towards the apex, and gradually lengthening towards the base, where it becomes firm and rigid, and has the margins fringed with hairs.

A podobranchial plume in a rudimentary condition is attached to the base of all the mastigobranchiæ, except that of the first gnathopoda and the penultimate pereiopoda; on those belonging to the second and third pairs of pereiopoda there are a few branchial filaments attached to the base of the stem, but fewer in the third than in the second, and these gradually diminish in importance towards the distal extremity, where they exist only in the form of papilliform protuberances some distance within the extremity, which is sparsely fringed with small hooks, as shown in the annexed woodcut.

These are mostly small, and so are the arthrobranchial plumes belonging to the third and fourth pairs of pereiopoda.

The branchial filaments are attached to the margins, and form the rudiment of a double row such as exists in the arthrobranchiæ, and even these latter diminish in importance and become papilliform towards the apex.



FIG. 4.—Podobranchia of *Eiconaxius acutifrons*.

The following table shows the general arrangement of the branchia in this species :—

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

Eiconaxius kermadeci, n. sp. (Pl. V. fig. 3).

Palm and propodos of the larger chela strongly denticulated, and having a hollow space between them and the dactylos.

Length, 37 mm. (1½ inch).

Habitat.—Station 171, north of the Kermadec Islands, July 15, 1874; lat. 28° 33' S., long. 177° 50' W.; depth, 600 fathoms; bottom, hard ground; bottom temperature, 39°·5.

This species much resembles *Eiconaxius acutifrons*, and were they found associated, would probably be mistaken for it. The rostrum is a little longer and less acutely pointed, and the margins are minutely serrate. The gastric region is more distinctly defined by a ridge from the frontal; but a more noticeable distinction exists in the form