Zoology Part LII: Report on the CRUSTACEA MACRURA. By C. Spence Bate. Bound in Volume 24,1888.

The first pair of antennæ stands on a movable somite and has the first joint dorsally excavated to receive the ophthalmopod; it carries a long and pointed stylocerite on the outer margin, and the rudiment of a prosartema, in the form of a tubercle tufted with long hairs, on the inner side; the third joint terminates in two unequal flagella situated remotely from each other, the upper one, arising from the base, is half the length of the peduncle, whereas the lower, which is more slender, is probably as long as the animal, or longer.

The second pair of antennæ carries a broad scaphocerite, as long as the peduncle of the first pair, strengthened by a pointed tooth on the outer margin, and by one on the second joint of the peduncle.

The mandible has a lunate psalisiform margin and a broad molar tubercle, and carries a two-jointed synaphipod, the terminal joint of which is laterally excavate.

The third pair of siagnopoda is four-branched; the inner branch is broad, foliaceous and hirsute, the second is three-jointed; the next is foliaceous, narrow, and terminates in a slender point, while the outer is a bifid membranous plate.

The branchiæ are arranged as in the following table :—

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

The rostrum in the single Challenger specimen is broken off, but I am inclined to believe that it corresponds in form to that in *Aristeus*. The outer antennal tooth is larger than in that genus, and there is also a hepatic tooth, which the species of *Aristeus* do not possess.

The ophthalmopod corresponds in form more to that in the genus *Benthesicymus* than in *Aristeus*, whereas the antennæ correspond rather to those of the latter genus.

The mandibles differ in having a larger molar tubercle, and in having the incisive margin simply curved, with a sharp tooth at either extremity, while in *Aristeus* there is a strong tooth in the centre also.

The first pair of oral appendages has the outer branch thin, foliaceous, and produced to a slender point, and in this it corresponds with *Benthesicymus* and differs from *Aristeus*.

The branchiæ differ from both genera in the number of the plumes; in ultimate structure they correspond with those in *Hemipenæus tomentosus* more than with those in either *Aristeus armatus* or *Benthesicymus crenatus*, the types of their respective genera.

http://19thcenturyscience.org/HMSC/HMSC-Reports/Zool-52/README.htm