

Tribe Penæidea.

The numerous genera which belong to the several families that form this tribe possess in common certain peculiarities of form and structure that distinguish them essentially from all others.

The earlier writers, including Professor Milne-Edwards, grouped within it all species in which the several legs posterior to the oral appendages carry more or less perfectly developed branches attached to the second or basal joint. This he thought to be so important and distinguishing a feature, that he considered it sufficient to determine the tribe, and recently Professor Sars, in his Report on the Schizopoda of the Challenger collection, considers it as "perhaps the most striking feature distinguishing" the Schizopoda as a distinct suborder. Thus the genus *Oplophorus*, which in most other respects approximates to the Palæmonidæ, was by Milne-Edwards associated with the Penæids, as well as other less known forms, such as *Euphema*, *Ephyra*, *Pasiphæa*, &c., but which de Haan, and following him, Dana, have excluded. Still more recently, Professor Huxley, in his article on the classification and distribution of the Crayfishes,¹ has suggested the elimination of *Stenopus* also, on account of the dissimilarity of the branchial structure; and upon the same evidence the genus *Spongicola* must also be excluded.

Family PENÆIDÆ.

The structure of the Penæidæ offers so many points of interest, that it appears to afford an instructive lesson to compare their several parts with those of the Astacidea and Caridea, so as to recognise the points in which they agree, as well as those in which they differ.

Taking the genera of this family as being the most perfectly developed of the tribe, from which others are but departures to a greater or less degree, we generally find that the animals are laterally compressed, and that this compression increases posteriorly to the last somite of the pleon.

The carapace is well developed, and laterally deeply produced; posteriorly it is carried further back at the sides than in the median dorsal line, and passes under the anterior margin of the coxal plates of the first somite of the pleon.

The dorsal median line is carinated, but in some forms the carina terminates with the posterior extremity of the rostral crest. The rostrum is always laterally compressed, and is generally long and frequently strengthened on the sides by a longitudinal ridge. In some genera, such as *Gennadas* and *Benthesicymus*, the rostrum is short, and

¹ *Proc. Zool. Soc. Lond.*, vol. iv. p. 780, 1878.