

cylindrical filaments; *Phyllobranchiata* are those that have the plumes formed by a series of foliaceous plates; *Abranchiata* are those that have no such branchial plumes attached to the pereion.

As most of the genera that belong to this last division possess branchiæ attached to some part or other, the term appears to be misleading.

The Galatheidæ and allied families that author separates from the rest of the Trichobranchiata, and ranges under the head *Anomomorpha*, which, except for the exclusion of the Paguridæ and the Porcellanidæ, neither of which are trichobranchiate, coincides with the *Anomaux* of Latreille and the *Anomala* of De Haan.

The Penæidæ, through the Stenopidæ, are supposed to lead from the trichobranchiate form to the phyllobranchiate.

Observation on the structure of the branchiæ of the Penæidæ, however evolved, demonstrates the character of a plume that belongs to a group in which the development is essentially distinct. Although I think we shall be able to show that the branchiæ of the Penæidea as well as those of the phyllobranchiate division have their origin in the trichobranchiate form, I shall, for the convenience of a general classification, range in a separate division those Crustacea in which the branches of the various plumes divide and subdivide in an aborescent manner; the more so as those Macrura that possess this kind of structure form a well-marked natural group.

In this Report I therefore follow Dana in placing the Penæidea in a separate division, as they do not belong either to the Phyllobranchiata or to the Trichobranchiata. I therefore classify them under the head of *Dendrobranchiata*, which corresponds closely with the Penæidea of Dana; while the Squillidæ, Mysidæ, &c., that is, the Schizopoda originally, and later the Stomapoda of Latreille, Edwards, and De Haan, will be arranged under the head of *Anomobranchiata*, which term was first used by Dana, and afterwards by Heller. It has, therefore, priority of date, and is less liable to misconception than the term *Abranchiata*.

The following classification of the Macrura—for much of the arrangement of which I am indebted to the experience of all previous carcinologists, and which is based to a large extent on the development and external evidence of the internal structure—will, I think, be found to approximate the conditions required for a natural classification:—

Suborder **MACRURA.**

TRICHOBRANCHIATA.

DENDROBRANCHIATA.

PHYLLOBRANCHIATA.

ANOMOBRANCHIATA.