

This group may be separated into two divisions,—first, in which the animal is dorso-ventrally compressed; second, in which the animal is laterally compressed.

The first division corresponds only with the tribe Galatheides of Milne-Edwards's Division, *Macrura Cuirassés*, and part of the *Loricata* of Heller.

The second division corresponds with the tribe *Macrura Fouissures* or *Thalassiens* of Milne-Edwards, *Thalassinidea* of Dana, and *Thalassinidæ* of Heller, and contains several families, which, while they have a character that is common to all, yet possess features that are extremely at variance with one another in very closely affiliated forms.

Their structural relations assimilate them to the *Anomura*, and where they depart from that resemblance, they do so by approaching the condition of immature forms. The genus *Pomatocheles*, like the *Paguridæ*, inhabits molluscous shells, and possesses all the external characters of an Anomurous Crustacean, and *Pylocheles* was taken dwelling in the hollow of a mass of indurated sand. These facts induce the belief that *Cheiroplatea* may also reside in some dwelling-place of its own selection. In this latter genus we see a close resemblance in the cephalic appendages to those of the Anomurous form in the genus *Cenobita*, whereas the rest of the animal approximates to the character of the immature stage of *Pagurus* described by Milne-Edwards under the name of *Glaucothoë*, with the exception that, while *Glaucothoë* exhibits evidence of a tendency to bilateral variation, *Cheiroplatea*, *Pylocheles*, and *Pomatocheles* are perfectly symmetrical. The same remarks may also be applied with perhaps less force to the genus *Thalassina*, which approximates to *Pagurus*, as the previous genera resemble *Cenobita*. The branchiæ are variable in this group, but with a tendency, more or less complete, to the trichobranchiate condition; in some genera, as in *Thalassina*, they are both foliaceous and filamentous; in some filamentous and cylindrical, as in *Cheiroplatea*; in others filamentous and compressed, or flattened, as in *Eiconaxius*, with a tendency, where the pressure is less complete, to return to the cylindrical condition.

*Callianassa* retains all the external features of an Anomurous Crustacean, but is modified from the younger form which approaches the *Macrurous* type; this is most constantly exhibited in the tendency of the posterior two pairs of periopoda to undergo a variation from the original simplicity and normal use.

All carcinologists following Milne-Edwards classify the genus *Callianidea* not only in a separate family but also in a distinct group, forming the tribe of the *Gastriobranchides* of Milne-Edwards, the legion *Thalassinidea anomobranchiata* of Dana. It has been established on the strength of Milne-Edwards's description of *Callianidea*, and Guérin's description of *Isæa* (*Callianisea*, Milne-Edwards; *Callisea*, Dana), but which (from an examination of specimens lent to me by Dr. Carte of the Dublin Museum) I am inclined to place in the same family as *Callianassa*. The two genera resemble each other very closely in all points except the formation of the pleopoda. Those of the second pair in *Callianassa* are biramose; the inner branch slender, the outer of extreme