

potentially equal; and yet the anterior, A, is six times shorter and as much narrower and lower than the following. It would not, therefore, be far out of the way to say, in mathematical language, that the functional importance of the two parts varies inversely as the cubic contents of the parts.

We pass now to the degradations from this, the highest type.

These degradations are seen—

*First*, in a widening of the space between the antennæ.

*Second*, in a slight enlargement of the outer maxillipeds, so that they do not fit snugly over the buccal area.

*Third*, in an elongation of the antennæ.

These are all evidences of a slight relaxing of the concentrating element. The *first*, marks the transition of the Maia group to the Parthenopidæ, and thence to the Cancridæ. The *second*, carries the grade a step lower, to species of the old genus Cancer, also to the swimming crabs and the Corystoids; and the *third*, marks off the Corystoids as the lowest of the true Brachyura.

While there are such marks of degradation exhibited through the growth or elongation of parts, there is also a mark, equally significant, in the obsolescence of the posterior thoracic legs, a peculiarity of many Grapsoids. In the Maioids, the species are well balanced; the type is perfect in its development: the sustaining of the central functions allows of the full and complete growth of all the other parts. But the diminution of force may not only be attended with a loosening of the cephalic hold on the remoter of the cephalic organs, but also, in a failure in the production of the posterior organs of the body, or those on the outer limits of the system: and this is what happens in many Grapsoids. The swimming form of the legs in Lupa and allied species is a similar mark of inferiority.

Besides the above evidences of degradation, there are still others in the Brachyural structure, which act conjointly with the preceding, producing lower grades of species. They are all marks of a relaxation of the centralization.

*Fourth*. An enlargement or widening of the sternum and abdomen.

*Fifth*. The abdomen becoming somewhat relaxed from the venter instead of remaining close-appressed to it.

*Sixth*. The vulvæ becoming more remote from one another, being situated in the bases of the third pair of legs, instead of the sternum.