

for existence as the adults, they have undergone countless secondary modifications which have no reference to the life of the adult, and are therefore unrepresented in the adult organism; and a comparison of the various larvæ which are here figured and described will show that they differ among themselves more than the adults, thus reversing the general rule that larvæ are less specialised and exhibit clearer evidence of genetic relationship than mature animals. The problem which they present is very similar to, but more difficult than, that presented by the Hydro-medusæ, for young Medusæ can be reared from the hydroids in aquaria without difficulty, and it is also easy to rear young hydroids from the eggs of Medusæ, but the life-history of the Stomatopoda must be traced from the internal and indirect evidence furnished by comparison.

The Stomatopod larvæ present differences among themselves, and they may be arranged in genera and species, but unfortunately their generic characteristics are quite different from those upon which the adult genera are based, and this is true in a still greater degree of their specific characteristics. As the larvæ undergo great changes during their growth, different stages have been described as distinct species or even genera, and it is not easy to select from the rich gatherings which are brought home by collectors, the successive stages in the history of a single species. Like the adults, they are widely distributed, and a gap in a series from the North Atlantic may be filled by a specimen from the coast of Australia or the Sandwich Islands, and the collection from a single locality may contain the larvæ of several widely separated species of adults in all stages of growth.

The attempt to unravel the tangled thread of the larval history of the Stomatopoda is therefore attended with very exceptional difficulties, and the earlier writers were content to rest after the bestowal of generic and specific names upon the larvæ, and the first writer to approach the subject in a scientific spirit was Claus, whose classical monograph not only abounds in fundamental generalisations of the greatest interest and value, but also contains nearly all that we know regarding the relationship between the larvæ and their adults; but the Challenger collections, especially the rich collections of *Alima* larvæ, a group in which Claus's collections were very deficient, furnish the material for revision of the subject, and enable us to determine, with much greater certainty than before, the larval type which pertains to nearly every one of the genera of adult Stomatopoda, and also to give a pretty complete picture of the developmental history of each larval type. As the specific differences between the adults are very slight, the specific identity of each larva can be determined only by rearing the adult from the larvæ, but this fact renders it the more important that the series collected by the Challenger should be figured and described, as later investigators will thus be enabled to complete the history by keeping the final stage in each series alive in an aquarium until it assumes the characteristic of the adult. This can be done without difficulty, as the older larvæ are hardy, while the fact that the younger larvæ will not live in captivity