

general rule, in the animal kingdom, that the larvæ or young of related species are less divergent than the mature animals. Even if we were able to rear the larvæ of the Stomatopods, and thus to use the evidence which they supply, this rule would not apply in this case. The larval life is so long, and forms such a considerable part of the total life of each individual, and the larvæ are so perfectly developed, and their relations to their environment so complex, that there are about as many species of larva as of adults, and the specific differences between them are fully as pronounced; while the differences between different genera of larvæ are often greater than those between the genera of adults. The fully grown larvæ are in no sense embryonic or generalised; they have no reproductive organs, but in all other particulars they are just as highly organised as the mature animals, and if the animals were to become sexually mature while retaining the organisation which fits them for their pelagic life, and if the final sedentary stage were then dropped, we should then have an order of pelagic Crustacea of as high organisation, and with as many well-defined genera and species, as the order Stomatopoda.

The larvæ may thus be treated exactly as if they were adults, and a natural or phylogenetic classification of them established by the comparative study of their organisation exactly as we have done for the adults.

As each larva is only an immature adult, or each adult only a fully grown larva, the genetic history of each specific adult must be identical with that of some specific larva, namely, its own larva.

If, then, comparative anatomy enables us to trace from the study of the adults of an order or family or genus, their natural or genealogical classification, it must of course be possible to do the same thing with the larvæ, and if the classification which is established is natural, there must be a discoverable relation between the one derived from the larvæ and the one derived from the adults.

In most cases this is unnecessary, as we are able to trace the young to its adult form, and to use the whole life history as a basis for classification, and in most cases it would also be extremely difficult, on account of the embryonic or generalized character of young animals, and the absence of conspicuous specific differences, but it fortunately happens that in the Stomatopoda, where we are compelled to resort to this or some other indirect method for discovering what larva pertains to what adult, it is also much more easy than usual, owing to the high specialisation and great diversity of the larvæ.

We cannot expect absolute agreement between the two classifications, for the sources of our evidence can never be complete. We knew nothing of the larval types which may have existed in the past, and next to nothing of the fossil adults, and it is very probable that some of the larvæ belong to unknown adults, and also that the larvæ of some of the known adults are as yet undiscovered, and it is very probable that two allied adults may have remained alike, while their larvæ have been modified in two divergent directions,