become divergently modified, or that two adults might diverge from each other while the larvæ remain alike, yet we should expect a natural or phylogenetic classification of the larvæ to stand in some definite and recognisable relation to the natural classification of the adults.

My attempt to discover a relation of this sort at once brought me face to face with a serious difficulty. In most of the published descriptions little attention is given to any points which are not regarded as diagnostic, and the resemblances, which are of even greater scientific interest than the differences, are often completely neglected; and careful study of the published figures soon showed that they are untrustworthy so far as relates to points which did not seem significant to the writers. Brevity and exactness of diagnosis is of course desirable and essential to the ready identification of species, but the description and identification of species is only a means for a more important end, the ultimate discovery of the laws of life, and it is therefore desirable that every specific description should consist of two parts, a brief diagnosis for purposes of identification, and a complete description, or brief monograph, giving all the characteristics; the points of resemblance to allied forms, as well as the distinctive peculiarities.

The absence of this information renders the establishment of phylogenetic relationships very difficult, and I soon found that the characteristics which are most significant and of most scientific importance are by no means the ones which have been selected for diagnosis. The analytical key which Miers[1] gives is probably the best which could be devised for ease of identification, and it expresses the general relationship between the genera with sufficient accuracy for the purposes of the systematist; but while most of the genera which are usually recognised are natural ones, the points which are of the greatest value in tracing the relation between the larvæ and the adults are entirely ignored in most of the published diagnoses.

While there can be no doubt that the many differences between the Stomatopoda and the other Malacostraca are of ordinal importance, all the species are included in a single family, the Squillidæ, and the differences between the genera are slight. Excluding the genus *Leptosquilla*, Miers, which is very slightly known, and not represented in the Challenger collection, six genera are usually recognised, *Squilla*, *Chloridella*, *Lysiosquilla*, *Coronis*, *Pseudosquilla*, and *Gonodactylus*.

The study of the Challenger specimens shows the necessity for redistributing the species which have been associated under the generic name *Gonodactylus*, and the establishment in its place of three genera, *Gonodactylus* (*sensu stricto*), *Protosquilla* n. gen., and *Coronida* n. gen., and also that it is impossible to draw any natural line between *Coronis* and *Lysiosquilla*, or between *Chloridella* and *Squilla*, and I therefore recognise seven genera, *Protosquilla*, *Gonodactylus*, *Pseudosquilla*, *Coronida*, *Lysiosquilla* (including *Coronis*), and *Squilla* (including *Chloridella*). My comparison of the

[1] On the Squillidæ, *Ann. and Mag. Nat. Hist.*, ser. 5, vol. v. p. 2, 1880.