

larval life, during which they swim at the surface and are swept to great distances by the oceanic currents.

There are, however, many species which are known from only a single restricted locality, and almost one-fourth of the species which have been described are represented by solitary specimens, and there is therefore every reason to believe that many species, and possibly many genera, are still unknown, and that our knowledge of the group is very incomplete. They are extremely active in their movements and retiring in their habits, and they may remain undiscovered in a locality where they are abundant. A few species are recorded as dwelling in crevices in coral reefs, but most of them are burrowing animals. The living animals which form their prey are captured in the long raptorial claws, and some species, like *Squilla empusa*, often venture to a great distance from their burrows in their pursuit of prey, and are frequently captured in nets and trawls, although others, such as *Lysiosquilla excavatrix*, are the Myrmeleons of the ocean, lying in wait for their prey, covered with sand, with only the tips of their eyes exposed, at the mouths of their very deep burrows, to the bottoms of which they dart at the least alarm. At Beaufort, N.C., *Lysiosquilla excavatrix* is so abundant that the mouths of several burrows may often be found in shallow water in a square yard of the bottom, yet during the six summers I have passed there, I have obtained only one adult specimen which was captured outside its burrow, and only one which was obtained by digging. It was not until I devised the plan of holding near the mouth of the burrow with one hand a piece of bait, such as a small fish or a crushed crab, while the other hand was held ready with a trowel to cut off the retreat to the bottom of the burrow, that I was able to procure them in abundance, and the movements of this species are so very rapid that most of the specimens were so near escaping that they were cut in two when the trowel was plunged into the ground.

The Challenger collection of adults is a very small one, consisting of only fifteen species, but eight of them are new, while two of the others, *Squilla fasciata* and *Proto-squilla (Gonodactylus) guerinii*, have been very inadequately described from single specimens. The importance of the collection must not, however, be estimated by its size, for it throws light upon many interesting problems, and furnishes the material for a more exhaustive and satisfactory discussion of the phylogenetic relationship and the natural classification of the various genera and species than has been possible hitherto.

The collection of pelagic Stomatopod larvæ is very rich, and it has yielded the material for tracing the history of several of the larval types, and also for establishing, in every genus except one, the connection between the adults and their larval types.

The larval history of the Stomatopoda is one of the most puzzling problems in morphology, and most of our knowledge of the subject is derived from Claus's well-known memoir.¹

¹ Die Metamorphose der Squilliden, *Abhandl. d. k. Gesellsch. d. Wiss. Göttingen*, Bd. xvi. pp. 1-55, pls. i.-viii., 1871.