

While I have been able to show, from the study of the Challenger specimens, that many of Claus's conclusions are incorrect, and that he referred some of the most familiar larval types to the wrong adult genera, I feel that I could not have accomplished this alone, and that, while my results are in many cases directly opposite to his conclusions, my ability to reach and to prove them is due, in a very great degree, to the study of his memoir. The labour of tracing the history of the larvæ has been so simplified through the accurate illustrations and ample and minute descriptions which he has furnished, that the investigator who follows him in this field has much of the difficulty removed, and, while I feel that I leave the subject in a much more satisfactory condition than that in which I found it, I also feel that I could not have made the same progress without the aid of his memoir.

The beautiful transparent, glass-like pelagic larvæ of the Stomatopoda are familiar to all naturalists who have had an opportunity to study pelagic life, and none of the animals which are captured at the surface in the tow-net exceed them in interest to the student, or in beauty and grace. Their perfect transparency, which allows the whole of their complicated structure to be studied in the living animal, their great size and rapacity, the graceful beauty of their constant and rapid movements, and the profundity of the morphological problems which they present for solution, cannot fail to fascinate the naturalist. Unfortunately they are as difficult to study as they are beautiful and interesting, and, notwithstanding their great abundance and variety, only two or three of them have been traced to their adult form.

Unlike most Malacostraca, the Stomatopods, instead of carrying their developing eggs about with them, deposit them in their deep and inaccessible burrows under the water, where they are aerated by the currents of water produced by the abdominal feet of the parent, which are so shaped as to form valves or paddles which exactly conform to the outline of the cylindrical hole. The eggs quickly perish when deprived of this constant current, and as it is very difficult to procure them at all, I know of no young Stomatopod which has been reared from an egg outside the burrow or in an aquarium. The older larvæ are hardy, and they thrive in small aquaria and moult into the adult form, but they are seldom found near the shore, and microscopic research is so difficult in mid ocean that almost nothing has been accomplished in this way. The younger larvæ are common near the shore, but they seldom pass through a moult in confinement, and the only way to trace the life-history of the Stomatopoda is therefore by the comparison of the series of larvæ which are collected in the ocean, and this is attended with peculiar difficulties, for the number of larval forms which have been described is much greater than the number of adults which are known, and many of them unquestionably belong to unknown species, and possibly to unknown genera.

The growth of the larvæ is very slow, and the larval life long, and as they are as independent and as much exposed to changes in their environment, and to the struggle