

the lower *Lysiosquilla*, in the subgenus *Coronis*, the larva is not an *Alima* but a *Squillerichthus*, and if it be true that *Squilla* and *Lysiosquilla* represent two divergent stems, and that their lower representatives are most closely related, it is not at all probable that any species of *Lysiosquilla* passes through an *Alima* stage, for if it were the case we should be forced to believe that the higher *Lysiosquilla* have independently acquired the same secondary larval form as the higher *Squilla*.

While Claus has given us a very complete history of the *Erichthus* larva his collections did not furnish a connected series of *Alima* larvæ, and although he points out the possibility that the very young larva which had been figured by Fritz Müller,¹ as well as a very similar one from Messina which he himself figures,² are young *Alimæ*, he was unable to obtain any of the intermediate stages, and my paper on the larval stages of *Squilla empusa* is the only one in which a tolerably complete series of *Alima* larvæ are figured. In this paper I showed that the distinctive characteristics of the larva are present at a very early stage of development, and that it is in all essential respects an *Alima* at a time when the last three thoracic somites are not yet marked out, and when there are no appendages between the large raptorial limbs of the second thoracic somite and the first abdominal appendages. I also pointed out the great probability that this larva leaves the egg as an *Alima* rather than as an *Erichthoidina* or an *Erichthus*; a probability which is strengthened by the fact that Fritz Müller has figured an egg containing a larva which is probably in this stage.

Squilla (Alima) gracilis.—The Challenger collection contains a number of larvæ which were collected in the tow-net at St. Vincent, and from these I have been able to select a series of *Alimæ*, which give a much more complete history of the growth and gradual modification of the larva than that which I obtained in 1879.

This series of larvæ, *Alima gracilis* of Milne-Edwards (*Alima angustata*, Dana) is shown in Pl. IV. figs. 4–6, Pl. V. fig. 3, Pl. VI. figs. 3–5, and Pl. VIII. figs. 4–6.

Its distinctive or specific characteristics are as follows:—The body is narrow and greatly elongated, the exposed hind body making about half the total length as measured from the tip of the long slender rostrum. The raptorial claw of the second thoracic appendage (Pl. VIII. fig. 5) is narrow and greatly elongated, and the dactylus is only about half as long as the second joint.

The telson is remarkably long and narrow, and in the older larvæ its length is three times its width. It has six large marginal spines (Pl. VI. fig. 3 and Pl. VIII. fig. 6) with minute spinules between the submedians, and also between the submedian and the intermediate. The lateral edge of the greatly elongated narrow flat carapace is armed with twelve or thirteen small spines and a larger spine projects from the side of the posterolateral spine near its base. There is a small median dorsal spine on the posterior edge of the carapace, which exposes the last three thoracic somites, and is narrowed posteriorly

¹ *Archiv f. Naturgesch.*, Jahrg. xxviii. Taf. xiii. fig. 1.

² *Metamorphose der Squilliden*, fig. 22B.