

increased in size and in numbers. The sides of the carapace are folded down over the body more than they are in the younger larvæ, and the median dorsal spine is relatively shorter. The appendages of the third, fourth, and fifth thoracic somites are represented by buds, as well as the fifth abdominal appendages, and the three last thoracic somites are now longer than those in front. While I obtained a number of specimens of this stage I found only one older one, which moulted, before I had an opportunity to draw it, into the young *Lysiosquilla excavatrix*, shown in Pl. X. fig. 13, although I was able to make from the moulted skin the drawings of the carapace and telson which are given in figs. 14, 15, and 16, of Pl. X.

Although this larva, the carapace of which was  $\frac{1}{2}\frac{2}{8}$  inch long on the middle line, including the rostrum, and  $\frac{6}{20}$  inch wide between the bases of the postero-lateral spines, is many stages older than the one last described, the differences are so very great that I at first doubted whether they could belong to the same series, but the consecutive series of stages in the growth of the closely related larva which is described in the next section furnishes satisfactory proof that this is the case. The antero-lateral and dorsal spines are now very short, although the rostrum and postero-laterals are of about the same relative length as before, and none of the marginal spines were visible with the hand-lens under which the drawings were made, except one in front of the base of each postero-lateral and one in front of this by one-third of the distance to the small antero-lateral. The telson (fig. 16) is now nearly rectangular, a little ( $\frac{7}{8}$ ) wider than long, with very long submedian spine, and a nearly transverse but notched posterior border carrying thirty-six small secondary spines with very minute spinules between them. As compared with the submedians the other marginal spines are very small; the laterals are posterior to the middle line and have each a small spinule internal to the base, and one of the three secondary spines which were present in the younger larva has disappeared, while the second is very small, and the third much smaller than the intermediate. The change which takes place between this stage and the next, in the shape of the telson, is fully as great as the difference between the telson at this stage and that of the very young larva, as immediately after the moult the young *Lysiosquilla* has a telson essentially like that of the adult shown in Pl. X. fig. 8, transverse, and about twice as wide as long, with no secondary spines, and with all six marginal spines on the transverse posterior border, and the submedians united in a single median process, as shown in fig. 13.

I am inclined to believe that a small *Erichthoidina* larva, which is occasionally, although very rarely, found on the eastern coast of the United States, is the larva of this species. Faxon has found one of these larvæ at Newport, R.I., and he has figured it in pl. viii. figs. 11 and 12 of his selection from Embryological Monographs.<sup>1</sup> Through the courtesy of Professor Baird I have also had an opportunity to examine a sketch of another specimen which Professor S. J. Smith obtained at the United States Fish Commission

<sup>1</sup> *Bull. Mus. Comp. Zool.*, vol. ix. 1, 1882.