

## PSYCHE.

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### CURIOUS PUPA OF PIERIS.

Some time ago I found a pupa-skin of *Pieris rapae* in the cell of a deserted nest of the common paper-wasp (*Polistes*). It was fastened into the cell by the end, in the usual way, but I cannot be certain about the girdle; if there was any I failed to see it. This is the only instance in which I know of this species seeking such a place of concealment.

C: W: Woodworth.

### PARASITES STINGING PUPAE OF PIERIS RAPAE.

In looking over the *American entomologist* for 1880, I came upon the following statement, on page 126,—

“CABBAGE-WORM PARASITE.—We notice that correspondents of the agricultural and horticultural press when referring to the *Pteromalus puparum*, or imported cabbage-worm parasite, generally state that the female fly deposits her eggs in the pupa or chrysalis. This, however, is incorrect, as any one can discover by gathering some of the infested full-grown caterpillars and placing them in a close box to undergo their transformation.”

Unless the “Imported cabbage-worm” has more than one parasite this is an incorrect correction! In the summer of 1883 great numbers of *Pieris rapae* laid their eggs on nasturtium (*Tropaeolum*) leaves by the side

of our house. I watched the young larvae through all their changes, noted the great number of tiny parasitic flies, and watched the egg-laying of the latter. Many laid their eggs in half-grown or fully grown larvae. Many also punctured larvae which had suspended for pupation, and as many laid their eggs in the very fresh pupae, stinging them usually between the abdominal segments. I saw no parasite sting a pupa which was more than an hour old, but that may have been because it had been stung either as fresh pupa or larva.

Out of forty pupae which I watched, and took down after they were a day old, I got not one imago of *Pieris rapae*, but plenty of small flies. I am not sure of the name of these flies, for I was not interested in the parasites then, and took no pains to identify them.

That pupae are never stung by parasites does not seem to be proved by the fact that parasites will emerge from “infested full-grown caterpillars” which are taken and put in a close box to undergo their transformation.” Like so many disputed questions both side are true, I did not know there was any question about it until, in looking for something else, I came upon this statement.

Caroline G. Soule.

### EGG-LAYING OF LIMENITIS DISIPPUS.

Miss Soule's note (PSYCHE v. 5, p. 14), interested me very much. Riley records an instance of three eggs laid on a single leaf, but I have never seen so extreme a case, and with hardly an exception have found the eggs laid singly. Is Miss Soule confident that the several eggs on a given leaf were all laid by the same butterfly? Was there any disparity in the time of their hatching? It would be interesting to know what difference there might be. In one instance where I saw two eggs laid within five minutes of each other, one hatched from eighteen to twenty hours after the other.

Samuel H. Scudder.

