

pupation the larva becomes of a rather dirty greenish-white colour, very plump, especially about the middle. The larva, when contracted for pupation, lies curved on its back among the grass without any attempt at spinning' silk, just as Edwards figures it. First one pupated 15th Aug., the second on the 17th, the third on the 18th, the fourth failed to pupate and died, the fifth pupated on 29th.

The fourth stage was thus from thirteen to sixteen days.

Pupa, when first formed, is of a creamy colour, very similar to that of the grub of a *Tachina* fly when it has just emerged from the body of its victim before it contracts and hardens into the puparium. The brown markings appear in the course of an hour or two, and the description is then as follows :—

Pupa.—Length, 11.7 mm. Pale horn colour, streaked and spotted with dark brown; cylindrical; abdomen stout, conical, with a slightly curved, pointed tip. The abdominal segments are margined with brown, especially at the sides, and are also spotted with brown. The spiracles are orange. There are brown stripes in the interspaces of the wings, and the antennæ, tongue and feet-cases are also marked with brown.

The first pupa was seen to be black, and the wing markings showing on 27th Aug., and it emerged early on the 28th, and was a ♀; the one that pupated on 17th gave the imago, a ♀, on 29th; the one which pupated on 18th gave the imago on 30th, and the one which pupated on 29th Aug. gave the imago on 9th Sept.

The pupal period thus varied from thirteen to eleven days.

The average of the first three gives a period from oviposition to imago of from sixty-eight to seventy days.

The points in which my observations chiefly differ from those of Mr. Edwards are :—

First : As to the egg which Mr. Edwards describes as having thirty-five ribs, while my count gave in one case twenty-two and in another twenty-four, it was impossible for me to get all the eggs which I had into a position where the ribs could be counted, but I thought that two out of about a dozen should yield a fair average. It is true that there is variation in the number of ribs in the same species and even in the same individual, but the difference between twenty-four and thirty-five seems hard to account for.

Second : Edwards describes four moults, the larva hibernating after either second or third moult.