

the sides grow darker. For a time the colours are nondescript, but before the first skin is cast they have become definite and the design is declared. Dorsum rich brown, threaded by a faint lighter medio-dorsal line; on either side a moderately broad creamy-white stripe, extending from the second thoracic to the eighth abdominal segment, of about equal width to the fifth abdominal segment, tapering gradually and approaching each other posteriorly. These stripes include the latero-dorsal hairs, and are not interrupted by the incisures. Lateral areas brown, limited below by a narrower cream-coloured line along the top of the substigmatal fold, beginning at the second thoracic and continuous around the last abdominal segment. Ventral surface light green. Length awaiting first moult, 2.65 mm.; breadth at fourth abdominal segment, 1.01 mm. Duration of first stage five to seven days.

*Second Stage.*—At first not differing from preceding. After a day or two a change is observable in the shape of the larva, the segments which since birth have been nearly rounded above (the foveæ represented only as slight indentations) assume the complex fold, common in varying degrees to all *Lycænid* larvæ. A little later a very faint, lighter brown spiracular line appears, extending from the third thoracic to the sixth abdominal segment, and interrupted by the incisures. Underneath the substigmatal fold the green is of a lighter tint at the base of each proleg. Length at rest for second moult, 6.1 mm. Duration of this stage six to eight days.

*Third Stage.*—No noticeable change, except in size, for several days. (Plate 9, fig 1, larva  $\times 8$ .) Then the brown, which up to this time has been of the same shade in all the larvæ, begins to show some slight variations. Some individuals grow paler, the brown showing traces of yellow, others become darker, and in one case the brown assumed for about 24 hours a decidedly reddish cast. These alterations in the colour are preliminary to a much more striking change, and due probably to the decomposition of a pigment, which at this period in the life of the caterpillar is no longer of any use. At any rate, the brown weakens just as though a pigment were being removed by metabolic processes, and in a surprisingly short time it has quite disappeared, leaving the areas, which were formerly brown, deep pine-needle green. Concomitantly the creamy stripes become pure white, and the medio-dorsal and spiracular markings grow larger and better defined. Length when up for third moult, 9 mm. Duration of the stage five to seven days.

*Fourth Stage.*—During this instar the segments again fill out, reducing the folds and foveæ considerably, though they can still be made