

THE LARVA.

Stage I. Length after emerging 1.7 mm. Head .24 mm. wide, shiny black. Mouthparts light brown. General body colour pale yellow to lemon yellow. Prothoracic shield slightly darker in colour, shiny. Tubercles raised, also pale yellow, each bearing a short yellow seta. Thoracic feet, prolegs and anal plate concolourous with body.

Stage II. Length soon after moulting 2.6 mm. Head .34 mm. wide, light olive-green, shiny; ocelli black. Prothoracic shield also light olive green, somewhat darker on posterior third. General body colour dark to dirty yellow. Tubercles now more distinct, being still concolourous with body but more prominent, each furnished with a single hair. Anal plate, thoracic feet and prolegs all concolourous with body.

Stage III. Length 4.0 mm. Head .43 mm. wide, light brown in colour, shiny; ocelli black. Prothoracic shield slightly lighter in colour. General body colour dark yellow, the intestine showing through as a darker band. Tubercles more distinct, raised above and concolourous with the surrounding surface. Each tubercle tipped with brown and bearing a short seta. True legs black, prolegs dark yellow. Anal plate shield-shaped, concolourous with general body colour. Hibernation takes place in this stage.

Stage IV. Length 6.5 mm. Head .57 mm. wide, jet black or brown, shiny; mouthparts prominent, greyish, tipped with black. Prothoracic shield piceous or brown, bearing an anterior yellow band varying in width. General body colour yellowish-green. Tubercles darker, tipped with black, each bearing a silky hair. Spiracles raised, surrounded by a dark ring. Thoracic legs black, prolegs concolourous with body. Anal plate comparatively small, shield-shaped, very light brown in colour and furnished with long hairs.

Stage V. Length 8.5 mm. Head .95 mm. wide, piceous or brown. Mouthparts varying in colour, in part light yellow tipped with black, the remainder wholly black. Prothoracic shield concolourous with head. General body colour a shade darker than in previous stage. Tubercles tipped with black, each bearing a moderately long silky hair. Spiracles raised, circular, with dark rim. Prolegs concolourous with venter, each bearing two dark bands situated on their outer lateral surfaces. True legs piceous. Anal plate darker green than general body colour.

Stage VI. Length 15 mm. Head 1.75 mm. wide, shiny black or occasionally brown. Mouthparts very light brown. Prothoracic shield concolourous with head, divided by a medio-dorsal green line. Dorsum dark velvety green, with a narrow darker green, dorsal line extending along its entire length. Venter much paler green. Tubercles lighter green than dorsum. Spiracles round, ringed with black. True legs black, prolegs concolourous with venter. Anal plate large, shield-shaped, a shade lighter in colour than dorsum.

All the larvæ reared with the exception of one, pupated in this instar. A single individual moulted a sixth time, and did not pupate until the seventh stage was reached when the body measured 18-19 mm. long and the head 2.2 mm. wide.

THE PUPA.

Length 13 mm. Width where widest 3.2 mm. General body colour rich brown, darker on dorsal than on ventral side. Wing covers slightly wrinkled, more markedly so on posterior third. Abdominal segments finely pitted on anterior half, coarsely so on posterior. Dorsal segments bearing two rows of blunt spines. Spiracles oval, raised, darker brown than general body colour. Abdominal segments bearing many yellow silky hairs. Cremaster black, much wrinkled, bearing light out-curving hooks, four of which are situated at the apex in a cluster, and the remaining four are borne in pairs a third of the way down, on opposite sides of the cremaster.