

## PREPARATORY STAGES OF CATOCAIA STRETCHII, BEHR.

BY G. H. FRENCH, CARBONDALE, ILL.

*Egg*.—Diameter, .04 inch, about .03 of an inch high; roundish conoidal, base broad but rounded, striated from base to micropyle, thirty-two striæ on the broadest part, sixteen of which reach the micropyle but a few are emitted just as they reach the circle; with very shallow cross striæ. Colour of micropyle whitish, a broad zone below this of purplish-red, next a narrow whitish zone about half the width of the red zone, then another red zone below the whitish, the last a little less than half the height of the egg. Duration of this period 157 days.

*Young larva*.—Length, .22 inch; cylindrical, slender, head flattened, the first and second pairs of prolegs atrophid. Colour after feeding, pale green, the head pale reddish-brown, three narrow, faint, dark lines on each side that are apparently purplish-brown, a spot or patch of the same on the centre of each joint ventrally; piliferous-spots very small; hairs short, dark. Before eating the colour is dull smoky with a greenish tinge. Duration of this period four days.

*After first moult*.—Length, .30 inch; shape as before. Pale whitish-green, each side with three pale reddish-purple stripes, separated by stripes of the ground colour, a broken stripe of the purple along the lateral folds; head brown; piliferous spots as before; also the ventral spots. Duration of this period five days.

*After second moult*.—Length, .40 inch. Colour in stripes; the dorsal pale and with two pale stripes on each side, the lower substigmatal; the pale stripes having a pale outer part with darker centres, the dark slightly ellipsoidal on each joint; the dark stripes with dark edges and slightly paler centres but the contrast not so great as in the pale stripes. The dark part is pale red of a slight purplish-brown shade, the light part slightly creamy white with also a tinge of yellowish in the incisures of the joints. The dark centres of the pale stripes not quite so dark as the dark part of the dark stripes. Over joints 9, 10 and 11 the dorsal stripe is more distinctly white with little of the dark centre, the sides of the posterior part of joint 9 and the anterior part of joint 10 obliquely black shaded; also a little of this on joints 10 and 11; slight traces of this between joints 5 and 6, 6 and 7, and 7 and 8, seen more in intensifying the dark colours at these points. Piliferous spots inconspicuous, hairs jet black; no trace of lateral fringe; venter with dark spots on all the joints except thoracic. Head obscurely striped with the body colours.