

PREPARATORY STAGES OF CATOCALA PALÆOGAMA, GUEN.

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Egg.—Diameter .04 inch, low conoidal, a prominent bulging ridge round the base of one half of a hundredth of an inch on each side, so that inside of this the egg is .03 inch ; striated with 38 prominent longitudinal striæ, of which 12 reach the small micropyle, shallow transverse striæ ; apex small, not depressed. Color dull, pale, brownish olive. Duration of this period not known, but at least 194 days.

Young Larva.—Length .12 inch, of the usual Catocala shape, loopers on account of the first and second pairs of pro-legs being small ; pale brownish yellow, joints 5 and 6 dark, somewhat blackish, joints 7 and 8 whitish, 9 and 10 blackish again ; a faint fine red line on each side of body, very short hairs from the pelifrous spots. Duration of this period three days.

After 1st Moults.—Length .20 inch. Color reniform pale whitish, slightly brown tinted, head darker, a red line on each side with a broken line above it and another below it, of the same color, on the ventre a round red spot on the middle of each joint. Duration of this period four days.

After 2nd Moults.—Length .28 inch. On the sides are four rather broad, dark reddish purple stripes, alternating with pale greenish ones, these dark stripes approaching on joint 2 so that there is here only a narrow dorsal light line, the upper line indistinct ; from joint 2 the dorsum widens out in pale greenish so that in the middle of the body this color extends to the region of the subdorsum, its outer part containing the upper part of the lateral stripe which is here broken and of a purplish green color. The dorsum from joint 5 to 10 has in its centre a series of very narrow elliptical pale purplish green spots extending from the middle of each joint to the middle of the next one back. Pilifrous spots small and black, head mottled with irregular longitudinal purplish black and pale greenish markings, the purple on joint 2 being of the same color but a little paler on its back part. Ventre with spots of the same dark color in the centres of the joints ; feet pale. Toward the close of this period the larvæ turn darker, many of them being as dark on the whole of the dorsum as on the thoracic segments at the beginning of the period, this color purplish black, with a fine whitish dorsal line ; all of them