

NOTES ON THE LIFE HISTORY OF MORPHO PELEIDES INSULARIS FRUHSTORFER*

BY C. REX STOLLMAYER

A female was captured at Curucaye, in the Santa Cruz valley, Trinidad, B. W. I., on March 26, 1929. An egg was obtained at 4:15 p. m. by pressing the abdomen. The egg measured 2 millimeters in diameter and was hemispherical in shape. The color was uniformly light emerald green.

March 27: Brown ring appears about half way on the egg; perfect circle in form but having breaks at regular intervals. Color of egg remains light emerald green.

March 28: Ring darker and breaks show very clearly.

March 29: No apparent change.

March 30: Top of egg appears somewhat dark as though the formation of the head of the caterpillar was taking place.

March 31: Light emerald green color disappearing and bottom of the egg getting whiter.

April 1: Very much paler in color and light brown spot forming close to and above a break in the circle.

April 2: Distinct dark brown mark showing near to and above ring which appears to be the head.

April 3: Egg very dark in places; towards evening outlines of caterpillar easily discernible.

April 4: Top of egg almost black and form of insect very apparent. Caterpillar emerged about 9:45 p. m. Length one-fourth inch; dark brown head with black hairs coming over the top from behind; body dark brown with three rectangular yellow markings on the back; a line of dark along either side of the body just above the legs.

April 5: The food plant is probably *Tanaecium crucigerum*, belonging to the family Bignoniaceæ. Very sluggish all day; took a very small section, not larger than the top of a large pin, out of the leaf.

* Mr. W. J. Kaye has given a brief life history, from notes obtained from Mr. T. Potter of Trinidad, in *Memoirs of The Department of Agriculture, Trinidad and Tobago*, 1921, No. 2, pp. 47 and 48.

- April 6:* Seemed to have more life and ate more; rests under the leaf and remains in one place for hours at a time without moving.
- April 7:* Growing fairly fast and eating well. Moves only when ready to eat.
- April 8:* Measured one-half inch today.
- April 9:* Took photograph No. 1, 15 days from time of taking the egg, and five days after emerging from egg.*
- April 10-12:* No apparent change.
- April 13:* About to make first moult and remained in same position all day. During the evening the head capsule began to come off.
- April 14:* First moult completed. Insect now has larger head with many more hairs behind the head, red in thickest part and a single row of white behind. Length one-half inch. White hairs come from both sides of the body with odd ones covering the entire insect on top and sides; color deep red directly behind the head followed by yellow then red again forming a large spot on the back about the center from which come two tufts of red hair pointing towards the tail at an angle of about 45 degrees. Very intricate markings and lines all over body in yellows, reds, browns. Ate nothing all day.
- April 15:* Found a good part eaten out of the leaf (about one-fourth inch square) in the morning and more eaten in the late evening. The food plant does not last for any length of time and it has to be replenished at least every two days. As soon as the water becomes stale the leaves dry up and turn black. They bruise very easily turning black wherever creased or crushed.
- April 16:* Insect measures nearly three-fourths inch in size now.
- April 17:* Eats well now and still remains under the leaf, occasionally on the top, for long periods of time without moving.
- April 18-20:* No apparent change.
- April 21:* Insect shows signs of second moult.
- April 22:* Second moult started; head capsule coming off.

* Photographs numbers 1, 2, and 3 show two larvae. The records here given are of the smaller.

April 23: Moulded for second time. Length one inch. Head has long fine white hairs coming over from behind—not very thick—front of head has deep coloured claret hairs as also on top. There are two markings of yellow on the back; the first pear shaped with two tufts of red hairs leaning towards the tail at the bottom of the “pear.” Then follow thin lines of red and yellow curving in, then out, to form another yellow mark in the shape of an oblong. This second yellow marking has two tufts of red hairs leaning towards the tail similar to those of the first mark. Near the tail and about a quarter of the distance from the first tuft and second tuft there is another pair of red tufts of hair. Near the end of the insect there are many red and white hairs mixed together on either side of four parallel pairs of straight lines. Hairs (white) line both sides of the body above the legs. In front of head there is an inverted “Y” in yellow, the remainder being deep claret.

April 24: Seemed to have grown considerably overnight; it is now almost one and one-fourth inches.

April 25: Took picture No. 2, 31 days after getting egg, and 21 days after emerging from egg.

April 26: Insect eating well and remaining under leaf most of the time.

April 27–May 2: No apparent change.

May 3: About to moult for the third time.

May 4: Still in process of moulting; head capsule coming off.

May 5: Moulded for third time. Insect nearly two inches long and very fine looking.

May 6–11: No apparent change.

May 12: Took photograph No. 3 of both larvae. The record is of the smaller larva, which is now 38 days old.

May 13–16: No apparent change.

May 17: About to moult for fourth time. Very sluggish; moves very little and eating at long intervals only.

May 18: Still moulting; head capsule slowly coming off, and insect seems to shrink.

May 19: Still moulting; head capsule nearly off.

May 20: Moulded for fourth time. Over two inches, about two and one-fourth inches in length; and very beautiful in appearance. Hairs, deep claret and white cover the body, which is yellow and deep red. A distinct "Y" in yellow marks the front of the head, from which small coarse bristles protrude. Two sets of tufts of hair (deep red) come from each third of the way down the body.

May 21: Eating well.

May 22-June 3: No apparent change.

June 4: Nearly two and three-fourths inches in length and one-half inch in width.

June 5-7: No apparent change.

June 8: Becoming very sluggish and losing much of its brilliant coloring.

June 9: Still sluggish but eating well.

June 10-12: No apparent change.

June 13: Color very dull and insect not eating much; moving very little.

June 14: Body appears to be shorter and thicker; dull brown in color with shades of pale green and olive.

June 15: Found the larva suspended from a leaf this morning and ready to pupate. Emerald green in color with hairs covering body like bristles. About one and one-half inches in length with head and front segments curving upward.

June 16: Took photograph No. 4.

June 17: Much thicker and greener.

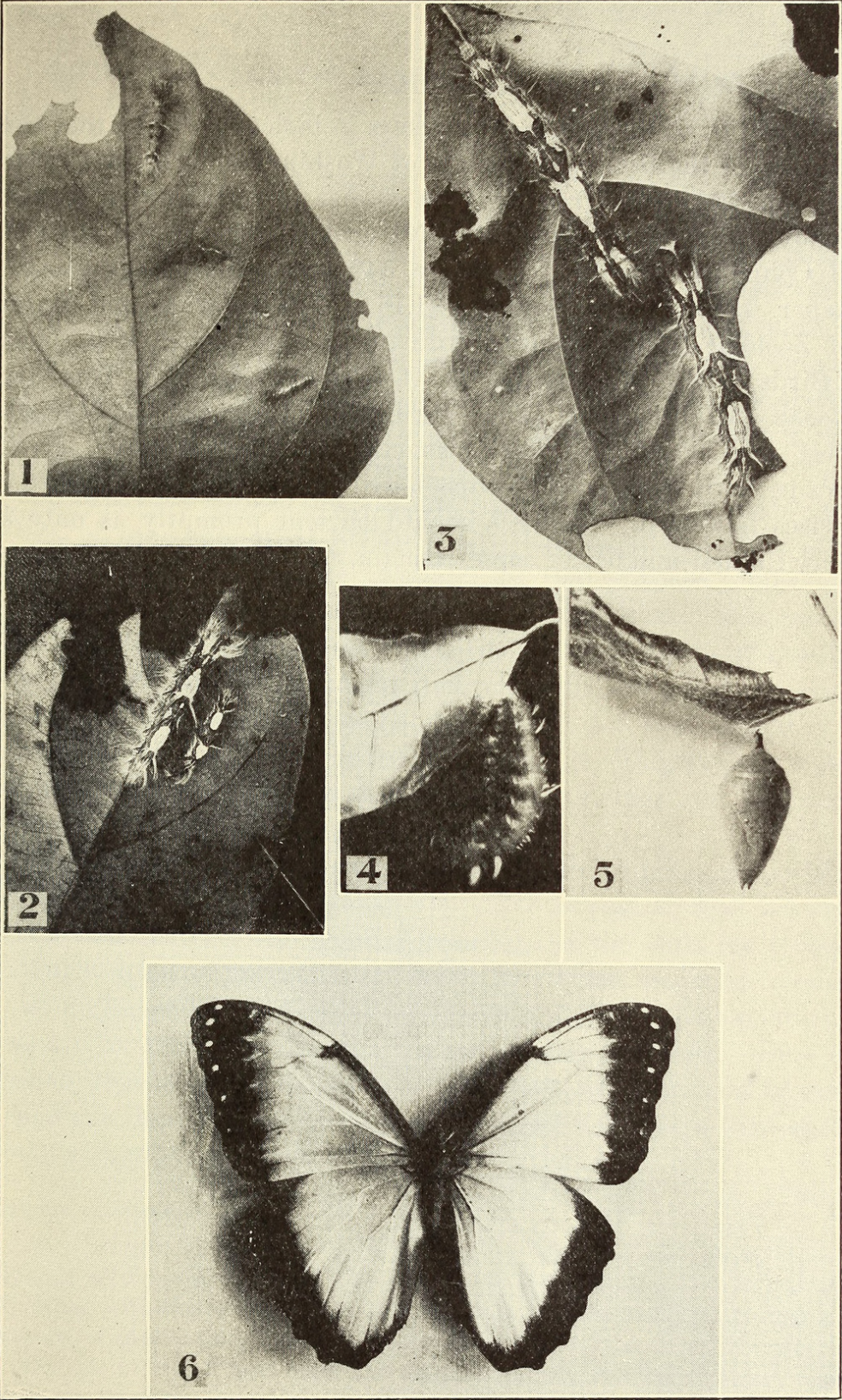
June 18: Pupated early this morning; rich emerald green in color.

June 19-29: No apparent change.

June 30: Took photograph No. 5, of the chrysalis. Insect should emerge tomorrow as the formation of the wings is very evident through the thin filament covering. Largely black with spots of blue.

July 1: Wings, head and antennae of insect show plainly now; upper part of chrysalis olive green and below black with white spots.

July 2: Perfect male insect emerged this morning at 10:15 taking exactly 99 days from the day the egg was taken to the day the butterfly emerged. Photograph No. 6.



MORPHO PELEIDES INSULARIS



Stollmeyer, C Rex. 1932. "Notes on the Life History of *Morpho peleides insularis* Fruhstorfer." *Journal of the New York Entomological Society* 40, 523–527.

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