

DESCRIPTIONS OF THE LARVÆ OF SOME LEPIDOPTERA
FROM MEXICO.

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The following larvæ have been obtained by the Bureau of Entomology from Mr. W. Gugelmann, bred by him at Misantla, State of Vera Cruz, Mexico.

PAPILIONIDÆ.

Papilio belesis Bates.

Larva.—Head rounded, slightly bilobed, shining black, with pale secondary hairs on the lower parts of the sides. Body subcylindrical, uniform; a subdorsal row of short papillæ. Black; a large white dorsal saddle on joints 8 and 9, incised before, the points running down to the spiracle on joint 8; two rows of round red spots, stigmataly and subventrally.

Food plant: *Anona*.

NYMPHALIDÆ.

Gynæcia dirce Linnæus.

Larva.—Head strongly bilobed, each lobe with a long apical horn with short, irregular branches; head shining black, with several small inconspicuous horns especially laterally, all these as well as the large apical horn, pale yellow. Body cylindrical, tapering only slightly at the ends; rows of spinose processes, each process with a straight shaft and three or four branches, collected into a subapical crown; joints 2 has only a small subdorsal process; on joints 3 and 4 are two rows, subdorsal and lateral; on 5 to 12, three rows; on joint 13, a subdorsal pair only; all the processes paired. Body black, the processes contrasting light yellow; laterally on each segment anteriorly an oval pale yellow patch, small on joints 2 to 4, large on 5 to 12, none on joint 13.

Eunica modesta Bates.

Larva.—Head angularly bilobed, roughened with conical secondary tubercles bearing pale setæ; pale orange color, a broad black band across the mouth, with irregular upper border, reaching nearly to the apex of clypeus. Body cylindrical, slender, a little enlarged at joint 12 and the sides of joints 3; at the enlargements are low, degenerate processes, a dorsal cone with short branches and a subdorsal pair on joint 12, a collection of lateral tubercles on joint 3, these colored black. Elsewhere no processes are developed, but the body is roughened with scattered black secondary tubercles, bearing rather long dark setæ, and arranged in transverse lines. General color dull or-

ange with a lateral black band, which widens into a patch covering the spiracle; a large cone laterally in this patch. Feet and leg-shields black.

Food plant: Zanthoxylum pentamon.

HESPERIIDÆ.

Thymele fulgurator Watch.

Larva.—Head large, roundly flattened before, with a slight vertical notch; densely covered with fine secondary hairs, which become long on the vertex; dark brown, the clypeus black, the lobes with vertical pale streaks, somewhat divergent above and confluent towards the clypeal sutures. Neck very small; joint 2 small, with a shining black dorsal shield; body enlarged posteriorly, subcylindrical, stout, tapering a little at the anal end. The skin is covered with rather long white secondary hairs, somewhat sparsely placed. Color black above, with large yellow spots, two on a segment, the anterior one very large, the posterior one small, transverse and paler yellow. The spots begin on joint 3, but are small; large and of nearly equal size on the abdomen; only one on joint 13, rather small. Area below the spiracles crimson, darker on the abdominal feet. Thoracic feet black.

SATURNIIDÆ.

Automeris leucane Hübner.

Larva.—Head larger than joint 2, flat before, rounded above, not bilobed; shining black, shagreened, with a few short, inconspicuous secondary setæ. Body cylindrical, tapering before and abruptly behind; coal-black, a little wrinkly-shagreened and with a few sparse pale secondary hairs; spines light yellow. The spines are in four rows on joints 2 to 5; five rows on joint 6; three rows on joints 7 to 10; four rows on joint 12; a single dorsal and three other rows on joints 13 and 14. The spines are rather short, each with several long branches, tipped with small black points; the two upper rows of joints 2 and 3 are rather longer than the others, as are also the dorsal ones of 13 and 14; the subventral ones are small. Feet and leg-shields shining black.

Food plant: Troena.

ARCTIIDÆ.

Arachnis aulea Geyer.

Larva.—Head rounded, flat before, slightly bilobed, shining black with long black primary setæ; median suture, epistoma and bases of antennæ pale. Body cylindrical, tapering slightly anteriorly, purplish black, darker in the centers of the segments. Warts large, normal, equal, dull red, but not contrasting, bearing dense, short, stiff, spiny black hairs. Feet black; leg-shields deep brown.

HYPSIDÆ (PERICOPIDÆ).

Pericopis lycaste Klug.

Larva.—Head larger than joint 2, rounded, scarcely bilobed, a little wider than high, with primary setæ; shining brown, a blackish shade on each lobe below next to the clypeus; median suture, epistoma, and bases of antennæ pale. Body cylindrical, the feet large. Warts large, iv rather smaller than the others, but i about as large as ii; one large wart only on joints 3 and 4 above the stigmatal wart. Hairs dense, fine, silky brown, rather long and longer at the extremities. Dull brown, shaded with blackish, especially in obscure dorsal, lateral, and stigmatal lines, this marking largely an effect of the darker spaces between the dull pale reddish warts. Joint 4 is lighter throughout. joints 5 and 11 are dark, their warts largely black; joint 12 is a little light also, while 3, 6, and 13 are somewhat darkened, giving the dark and light banded effect usual in the pericopid larvæ, although here the contrast is not marked. Feet and leg-shields dark brown.

NOCTUIDÆ.

Bolina comprehendens Walker.

Larva.—Head smaller than joint 2, rounded, scarcely bilobed, the clypeus rather high; whitish with numerous small black spots; primary hairs rather long, pale. Body cylindrical, long and slender, looped up a little at joints 5 to 7, the feet of joint 7 small, unused; tubercles and setæ reduced, invisible. Coloration a general bark-like effect; dull whitish gray with a reddish brown tint, especially through the dorsum; a subdorsal black line, waved, being bent inward at the segmental incisures, somewhat broken posteriorly, forming a dot on joint 12. A geminate powdery and broken lateral band; a red-filled substigmatal band; bases of the feet mottled with white and with white patches around the spiracle of joint 12. Between these markings the skin is dotted with black and red. Feet concolorous in general effect, dotted and with a red line anteriorly.

EUPTEROTIDÆ.

Zanola verago Cramer.

Larva.—Head rounded, flat before, the clypeal sutures impressed; covered with rather long black secondary hair; gray-black, dull, the clypeus shining, its sutures pale; a broad pale band covering the median suture. Body cylindrical, uniform; subdorsal and lateral narrow yellow lines infiltrated with red; an irregular double wavy dorsal line; skin covered with secondary hairs, about half as long as the diameter of the body, dark colored, but not black; tufts of long black hairs subdorsally on joints 3, 4, and 12, the longest of them with their tips widened into flat triangular scales with serrated tips; other black hairs, not form-

ing tufts, along the body from the larger of the primary warts; warts low, concealed and confused in the secondary hair. Thoracic feet light red-brown; abdominal ones dull vinous.

The larva has the structure of the genus *Apatelodes* Packard, which has been placed in the Eupterotidæ. The group is also related to the Notodontidæ, and has been more generally included in that family.

LIPARIDÆ.

Turena dirphioides Walker.

Larva.—Head large, rounded, slightly bilobed; clypeus small; whitish brown, scarcely mottled, more white shaded over the clypeus; white secondary hairs are numerous on the lower part of the side. Body somewhat flattened, uniform, the feet slender and rather long; lateral wart of joint 2 large; three small warts above the stigmatal wart on joints 3 and 4; on the abdomen warts i and ii equal, rather small, tending to lie in line, iii and iv closely approximating, functionally one large wart, v and vi also somewhat approximated and nearly in line, appearing as one, leg shields densely hairy. Small whitish retractile tubercles dorsally on joints 10 and 11. Coloration whitish brown; a black line on the large wart on joint 2; a square black dorsal patch between 3 and 4; an oblique subdorsal bar on 8, somewhat powdery and broken; an oblique lateral line on 11–12; ordinary markings obsolete, the skin a little mottled and a narrow geminate blackish dorsal line. Hairs abundant, from the warts only, whitish, short dorsally, much longer laterally. Feet all pale.

The larva is flattened and with long lateral hairs and bark-like coloration, superficially much resembling a lasiocampid like *Tolype*. The structure, however, is normal for the Liparidæ.

Food plant: Psidium.

LASIOCAMPIDÆ.

Tachyptera psidii Sallé.

Larva.—Head large, rounded, flattened before, slightly bilobed; black, brownish at the sides, the clypeus and paraclypeus as well as median suture narrowly pale; numerous dark secondary hairs throughout. Body cylindrical, tapering a little posteriorly; black, without markings; hair all secondary, dense but short, foxy red, arranged in little patches; dorsal hair mostly directed upward and slightly keeled along the dorsal line; lateral hair projecting outward or downward. Warts all obsolete, only a trace of a lateral projection on joint 2.

Food plant: Psidium.

Claphe maria Schaus.

Larva.—Head moderate, round, scarcely bilobed, black with gray pruinosity; a yellowish white line across from bases of antennæ; labrum yellowish white; median suture narrowly pale; densely covered with white secondary hairs. Body cylindrical, uniform; dorsum black; a lateral yellow line, from which transverse yellow bands traverse the dorsum, one on each segment behind the middle, some broad and distinct, some narrow or obsolete; the one on joint 7 is the most distinct; those on 3, 4, and 9 are next, the others being quite narrow or even obsolete. Lateral region dark gray, with a pale diffused sub-stigmatal line. Warts obsolete dorsally, only the subventral lappet-warts visible, fairly prominent, two warts present on joint 2. Secondary hairs fine, short, white, with longer white ones from the lappet-warts and in small groups subdorsally; dorsal patches of short crimson hairs in which the white subdorsal clusters arise. Thoracic feet yellow-white; outer sides of the abdominal feet also of this color.

The cocoon is white, and the short crimson hairs are thrust through it in irregular patches.

Food plant: Persa gratissima.

MEGALOPYGIDÆ.

Megalopyge albicollis superba Hy. Edwards.

Larva.—Head rounded, retracted in joint 2, which in turn is within joint 3, except for its hairy front margin. Body elliptical, somewhat flattened on the ventral part; of a dull reddish color, entirely covered by the long dense hairs; hairs foxy red, curving smoothly backward, a little keeled on the dorsal line; no special tufts or curls. Feet normal, the thoracic feet small; an extra pair of poorly developed feet on joints 6 and 11.

Before the last stage, the larva has fine white hair, higher and crested on joints 4-5 and projecting backward in a loose tuft behind; some feathered curling black hairs in little tufts subdorsally, embellishing the bases of the anterior and posterior tufts.