DESCRIPTIONS OF SOME NEW SPECIES AND GENERA OF LEPIDOPTERA FROM MEXICO.

By Harrison G. Dyar,

Custodian of Lepidoptera, U. S. National Museum.

Among the undescribed forms of Lepidoptera that have accumulated in the collections of the U.S. National Museum, the following have been received from the Republic of Mexico, and are accordingly characterized in one paper.

Family SYNTOMIDÆ.

Genus PSEUDOSPHEX Hübner.

PSEUDOSPHEX MELANOGEN, new variety.

As in Pseudosphex polistes Hübner, but the abdomen black. Head black, the face and occiput yellow; antennæ blackish brown; thorax black, the tegulæ bordered before and behind with yellow, the patagia yellow in the center and on both margins; a yellow mark on the disk behind. Abdomen black above, the segments with distinct posterior yellow borders. Wings hyaline, the fore wing yellowish in the cell with a broad smoky brown band beyond the end of the cell to the apex.

Santa Rosa, State of Vera Cruz, Mexico, August, 1906 (W. Schaus). Type.—Cat. No. 12936, U.S.N.M.

Another specimen from the same locality has a typical brown abdomen, while a third has the black partly replaced by brown, showing the form to be a variety of *Pseudosphex polistes*.

Genus SPHECOSOMA Butler.

SPHECOSOMA NIGRIFER, new variety.

As in Sphecosoma angustatum Möschler (=gracilis Klages), but the abdomen black with broad apical segmental yellowish bands. The antennæ are black on the shaft and the legs are without any red tint.

Santa Rosa, State of Vera Cruz, Mexico, August, 1906 (W. Schaus). Type.—Cat. No. 12937, U.S.N.M. Ten examples are before me from Santa Rosa, and another from Ecuador. I consider the form to be a variety of *Sphecosoma* angustatum.

Genus EPISCEPSIS Butler.

EPISCEPSIS DODABA, new species.

Head and thorax blackish brown, two crimson spots on the back of the head; tegulæ with small crimson spot laterally; fore coxæ crimson. Fore wing uniformly brown-black, slightly bronzy, the veins concolorous. Hind wing black, semihyaline whitish in the cell and below. Abdomen shining blue above, black at the base, the three basal segments white-marked beneath in the male, entirely black beneath in the female. Expanse, 32 to 34 mm.

Santa Rosa, State of Vera Cruz, Mexico, August, 1906 (W. Schaus); Orizaba, Mexico, September, 1906 (R. Müller).

Type.—Cat. No. 12938, U.S.N.M.

Fifty-six examples are before me, including also the localities Cordoba, Jalapa, and Coatepec, Mexico, and Aroa and Merida, Venezuela. The species differs from *Episcepsis inornata* Walker in the presence of a small crimson spot on the tegula. This spot varies in size, and it is possible that the forms intergrade.

EPISCEPSIS FRANCES, new species.

Black-brown, the occiput with two crimson spots; a crimson mark on the pleura below the tegulæ; fore coxæ crimson. Fore wing uniform brown-black, the veins concolorous; hind wing semihyaline in and below cell. Abdomen bright blue above, with black hair at the base, black below, the three basal segments white-marked. Expanse, 27 mm.

Santa Rosa, State of Vera Cruz, Mexico, August, 1906 (W. Schaus). Tupe.—Cat. No. 12939, U.S.N.M.

Four males, all from Santa Rosa. On the hind wings beneath there is only a slight semihyaline area below the cell.

Genus TRICHODESMA Hampson.

TRICHODESMA OCEOLA, new species.

Head and thorax brown-black, a diffuse yellow line running along the inner edge of the patagia across the tegula to the base of antenna. Abdomen bluish-black above, gray-black below. Fore wing brown-black, the veins toward the base lined in yellowish, an oblique other yellow band from costa beyond middle to inner angle. Hind wing bluish-black, grayish on the margin beneath. Expanse, 38 mm.

Orizaba, Mexico, May, 1908 (R. Müller).

Type.—Cat. No. 12940, U.S.N.M.

Three other specimens from Cordoba, Mexico (W. Schaus, F. Knab), and one from Aroa, Venezuela. The species has the appearance of *Trichodesma ursula* Stoll, but the abdomen is black below. Moreover, the rough scales on the hind wing of the male beneath are confined to a narrow marginal band in *occola* instead of extending over most of the wing as in *ursula*.

Genus DELPHYRE Walker.

DELPHYRE MONOTONA, new species.

Front gray-brown, vertex of head, anterior edge of tegulæ, base of palpi, fore coxæ, and venter of abdomen except last segment, other yellow with slight orange tint; otherwise gray-brown. Fore wing with the veins slightly relieved, a whitish shade beneath the cell and a faint transverse band from outer third of costa to above anal angle, the markings distinct and white beneath and cut by the veins. Hind wing with the cell and beneath whitish semihyaline, the margin broadly and the veins black. Expanse, 37 mm.

Santa Rosa, State of Vera Cruz, Mexico, August, 1906 (W. Schaus). Type.—Cat. No. 12941, U.S.N.M.

Nine specimens, all from Santa Rosa. The species resembles Delphyre flaviceps Druce from Venezuela, but the markings are much less distinct and the dark border of the hind wings narrower.

Genus EUCEREON Hübner.

EUCEREON ROSADORA, new species.

Head and thorax dark brown, occiput orange, neck crimson; abdomen crimson above except the basal segment, pinkish ocherous below. Legs brown, the tarsi ringed with yellowish white at their bases. Fore wing lilacine brown, the veins finely brownish ocher; a rounded darker mark in the cell and one on the cross vein; a subbasal faint yellowish line; an outer more distinct line, excurved beyond the cell, irregularly crenulate; a submarginal line which reaches the margin at the tornus, crenulate and produced along all the veins to the margin. Hind wing grayish black. Beneath grayish black, the fore wing with a pale mark in and beyond cell and the submarginal line irregularly repeated. Expanse, 27 mm.

Santa Rosa, State of Vera Cruz, Mexico, August, 1906 (W. Schaus). Type.—Cat. No. 12942, U.S.N.M.

One hundred and seventy-five specimens from Santa Rosa and two from Cuernavaca, Mexico.

The species is allied to *Euccreon rosa* Walker, but smaller, darker, and with the markings less distinct.

EUCEREON BALERIS, new species.

Head and thorax blackish brown, a little pale crimson in the neck. Abdomen crimson above, a large triangular basal patch, the last segment, a row of dorsal dots and a lateral band black; venter salmon pink except the last segment. Legs brown with pinkish rings at the joints, the femora pinkish beneath and above. Fore wing dark brown with numerous irregular yellowish brown markings; four blackish spots along the costal edge; a round orbicular spot in the cell, divided by a pale streak; a large spot at the end of the cell, divided by the veins; a large spot at the base of vein 3; the other spots of the usual transverse bands are narrow, elongate, and separated by the paler veins and by cusp-shaped and lenticular yellowish markings, of which the most conspicuous is a zigzag subterminal line cutting off a series of elongate marginal dots between the veins. Hind wing whitish semihyaline in the disk, the veins, apex, and anal angle broadly brown-black. Expanse, 41 mm.

Santa Rosa, State of Vera Cruz, Mexico, August, 1906 (W. Schaus).

Type.—Cat. No. 12943, U.S.N.M.

Fifteen specimens from Santa Rosa. The species is nearest to Eucercon latifascia Walker, which also occurs at Santa Rosa, but the dark markings are enlarged so as to almost solidly fill the wing with only linear pale spaces between them.

EUCEREON ERYTHROLEPSIS, new species.

Head and thorax brownish gray, vertex and tegulæ with black dashes, patagia lined with black; abdomen crimson dorsally, a triangular patch at the base, the terminal segment and lateral line gray-black; venter centrally on head, thorax and abdomen pale salmon pink, except the last two abdominal segments. Fore wing pale brown-gray, the veins lined with darker gray; a series of narrow elongate black marks between the veins; four marks on the costa, the basal one narrow and oblique; four marks in the upper part of the cell and a dash in the lower part; five narrow dashes along submedian fold; five dashes on vein 1; a long thick dash above inner margin, narrowing to the base, and one before tornus; above vein 2 are three rows of dashes, continued between the veins to the costa, the terminal and subterminal rows being somewhat rounded and faintly ringed by the pale ground color. Hind wing semihyaline on the disk, the veins, apex, and anal angle black. Expanse, 36 mm.

Cordoba, Mexico, May, 1906 (W. Schaus).

Type.—Cat. No. 12944, U.S.N.M.

Other specimens from Jalapa (Schaus collection) and Orizaba (F. Knab), five in all. Allied to Euccreon pilati Walker, but paler, the

lining of the veins grayer, all the marks narrower, more linear, especially noticeable in the spot at base of vein 3, while the abdomen has no dorsal dots.

EUCEREON XANTHODORA, new variety.

A variety of *Eucereon rosadora*, described above, in which the abdomen and other parts which in *rosadora* are crimson are here orange yellow. Of the long series before me of *rosadora*, only nine belong to this variety. They are all alike, and there are no specimens intermediate in color.

Santa Rosa, State of Vera Cruz, Mexico, August, 1906 (W. Schaus). Type.—Cat. No. 12945, U.S.N.M.

The form comes close to *Eucereon lutetia* Druce, but in that three basal segments of the abdomen are dark above instead of one, while the whole ventral surface is black instead of pale yellow.

Family LITHOSHDÆ.

Genus GNAMPTONYCHIA Hampson.

GNAMPTONYCHIA ORSOLA, new species.

Head, collar, whole ventral surface and anal tuft of male other yellow; thorax and fore wings dark slate gray; abdomen and hind wings dull black; antennæ, tongue, and most of the tibiæ and tarsi black. Expanse, 38 mm.

Mexico City, Mexico, May, 1909 (R. Müller).

Type.—Cat. No. 12946, U.S.N.M.

Two others from Mexico City (A. Dugès) and one from Popocate-petl Park, June, 1906 (W. Schaus). The species resembles *Inopsis catoxantha* Felder except for the yellow anal tuft, but it does not belong to that genus.

Genus CLEMENSIA Packard.

CLEMENSIA LEISOVA, new species.

Fore wing soiled white with irregular black and brown markings. The markings form principally a transverse, broken, inner band, discal mark and spottings above the inner margin; a narrow irregular brown mesial line. Hind wing with the apex squarely pointed, whitish, dusky shaded outwardly, the cell clothed with dense appressed pale yellow scales, a fuscous spot near the middle of outer margin. On the fore wings beneath a long tuft of brown hair, followed by a patch of brown mealy scales. Expanse, 22 mm.

Jalapa, Mexico (Schaus collection).

Type.—Cat. No. 12947, U.S.N.M.

One male is before me. The species closely resembles Clemensia albata Packard in markings, though the specimens are lighter and more broken than usual in that species, but the secondary sexual characters of the male differ. The tuft on the fore wing below is larger than in albata and darker and is followed by a patch of modified scales, while the hind wing has a patch of modified scales covering the cell above.

CLEMENSIA ALEMBIS, new species.

Fore wing grayish white, densely irrorated with brown; a broad inner black curved band, preceded by a clear whitish space; a rounded black discal spot; a subterminal dentate line of the ground color; terminal space of the ground color, with terminal row of black dots. Hind wing with smooth pale yellow scales over the cell, the costal area pale, the rest of the wing smoky blackish. On the fore wing below is a large tuft of hairs and a patch of modified scales in the area below the median vein, which is expanded at the expense of the cell, the latter being crowded costally; costa folded over at the base with a tuft at the end of the fold. Expanse, 21 mm.

Cordoba, Mexico, January 28, 1908 (F. Knab).

Type.—Cat. No. 12948, U.S.N.M.

Another specimen is before me, collected January 15, and a third taken in the same place, May, 1906 (W. Schaus). This species is distinguished from the others in the group by the heavy black band on fore wing and the great development of the secondary sexual scale characters.

Family ARCTHDÆ.

Genus HALESIDOTA Hübner.

HALESIDOTA LUA, new species.

Head and thorax straw color, shaded with sordid brownish; abdomen brownish, the tip straw color. Fore wing straw color, with concolorous, brown-ringed spots very faintly indicated, traversing the wing in rows parallel to the outer margin. The lower half of the median space is shaded with brown and there is a brown line along the inner margin and on the fringe. Hind wing broadly smoky brown on the margin with a faint large discal cloud, the markings illy defined from the lighter basal part of the wing. Beneath the shadings are repeated, browner and better defined. Expanse, 38 mm.

One male, Zacualpan, Mexico, July, 1909 (R. Müller).

Type.—Cat. No. 12829, U.S.N.M.

The species falls in Hampson's tables next to Halesidota sthenia.a

HALESIDOTA VANGETTA, new species.

Head and collar ocherous brown, the patagia lighter toward the tips, with two black spots on each; abdomen ocherous brown above, lighter beneath. Fore wing rather thickly irrorated with brown; an indistinct clouded brown line from apex to lower end of cell, cut into by crescentic marks of the ground color, which are parts of the usual spots, elsewhere nearly obsolete. A large triangular area on the middle of the inner margin and the base of the wing are less heavily irrorated with brown and appear lighter than the rest. Hind wing suffused with brown below the median vein, a dark brown discal mark and two spots at the apex. Expanse, 47 mm.

One male, Misantla, Mexico, January, 1909 (R. Müller).

Type.—Cat. No. 12830, U.S.N.M.

The species falls next to *Halesidota pulverea* and *H. coniota* in Hampson's tables.^a

Genus HYPOMOLIS Hampson.

HYPOMOLIS LITHOSIAPHILA, new species.

Black, the fore wings with a bluish luster; a large orange yellow spot at the base, not attaining costa or inner margin, its outer edge oblique. Hind wing with an elliptical patch on basal half of costa. Beneath the markings repeated. Expanse, 26 mm.

One female, Tehuacan, Mexico, July, 1909 (R. Müller). Type.—Cat. No. 12831, U.S.N.M.

ZAMOLIS, new genus.

Fore wing with vein 2 toward middle of cell, 3 from before angle, 4 and 5 separated, 6 from upper angle of cell, 7 and 8 stalked, 9 and 10 stalked, no accessory cell, 11 from the cell; hind wing with vein 4 absent, 3 and 5 separate at origin, 6 and 7 stalked, 8 joined to cell for basal third. Palpi short, porrect; tongue small; front with a rounded conical projection. Hind tibiæ with four small spurs. The occlli are large and distinct.

Type of the genus.—Zamolis noctella, new species.

ZAMOLIS NOCTELLA, new species.

Black, unmarked, the fore wing with a brownish metallic luster, the hind wing with a blue luster, changing to green on the inner margin. Beneath fore wing black, hind wing with greenish luster. Expanse, 26 mm.

One male, Cuernavaca, Mexico, July, 1909 (R. Müller). Type.—Cat. No. 12832, U.S.N.M.

^a Cat. Lep. Phal. Brit. Mus., vol. 3, 1901, p. 164.

Genus IDALUS Walker.

IDALUS AGRICUS, new species.

Head and thorax white, collar tipped behind with crimson; patagia with an other mark, a few other and crimson hairs on disk of thorax. Abdomen crimson above, the tip white, all white below. Fore wing pale other yellow, the costa white; basal space pale gray, cut into bars by the whitish veins, narrow on costa, a crimson mark on inner margin at base; an upright pale gray band across end of cell, expanded on costa and below vein 2, cut into bars by white veins and edged on both sides by white below vein 2; a crimson mark on vein 1 at anal angle; a round gray spot between veins 5 and 6 outwardly. Hind wing white, a little crimson at the base. Expanse, 28 mm.

One male, Misantla, Mexico, May, 1909 (R. Müller).

Type.—Cat. No. 12949, U.S.N.M.

Allied to *Idalus admirabilis* Cramer and *I. agastus* Dyar (= pichesensis Hampson, not Dyar). It differs from the former in the presence of a crimson mark on vein 1 outwardly and from the latter in the shortness of this mark and in the shape of the gray band. In agastus this band is strongly cut by the pale veins and is produced outward below nearly to the anal angle, while in agricus it is only faintly cut by the veins and is but slightly produced, terminating roundedly between the veins.

Family NOCTUIDÆ.

Genus EUXOA Hübner.

EUXOA CATACLIVIS, new species.

Thorax with black and brown scales intermixed, without lines; abdomen dark. Fore wing blackish gray over the lower half, the costa dark, a light clay-colored shade over the cell; lines nearly obsolete, the inner faintly indicated below the cell, the outer traceable throughout its course, single, dentate, and dotted on the veins; orbicular small, round, black; reniform pale-filled, doubly ringed with black; oribicular much elongate, lanceolate, joining the reinform and running nearly to the base of the wing, with a central black dash; outer part of the cell and beyond black-filled, the veins beyond black-lined, the inner spaces clay colored with central dark dashes; fringe dark with light points at the bases of the veins. Hind wings whitish, shaded with fuscous, especially along the margin. Expanse, 33 mm.

One male, Orizaba, Mexico, September, 1901 (R. Müller).

Type. - Cat. No. 12950, U.S.N.M.

Nearly allied to Euxoa proclivis Smith (=oaxacana Schaus); distinguished by the light-colored cell and peculiar orbicular.

EUXOA ARABELLA, new species.

Head and thorax purplish gray, the tegulæ with a black band across the middle; patagia with black inner edging; abdomen dark gray, the anal tuft of the male lighter. Fore wing purplish gray, lighter below the cell; costa broadly pale clay color to the end of the cell; space below cell to inner line with a deep black shade; cell filled in with black around the ordinary spots to outer line; a black shade along middle of outer margin; lines faint, single, crenulate, blackish, the inner with a small black spot in place of the claviform; orbicular minute, rounded, pale clay color; reniform large, pale clay color, contrasted, with an inner concentric brown ring; a terminal black line, dentated between the veins; fringe pale clay color, interlined with brown; a brownish shade along the costal edge. Hind wing whitish, without shadings, a fine dusky terminal line. Expanse, 37 mm.

One male, Cuernavaca, State of Morelos, Mexico, August, 1906 (W. Schaus).

Type.—Cat. No. 12953, U.S.N.M.

Allied to Euxoa albicosta Smith (= mancthusa Druce), but distinctly broader-winged, the costal shade broader, less firmly limited and not lined; reniform also much larger. The frontal structure also differs; in albicosta the front is roundedly protuberant, irregularly roughened with a transverse line below; in arabella the central raised area is crossed by irregular transverse ridges forming a distinct central elliptical area.

Genus AGROTIS Ochsenheimer.

AGROTIS INCUMBENS, new species.

Head ferruginous red; tegulæ black behind, clay colored in front with a white line separating the colors; thorax red-brown; abdomen gray-brown. Fore wing red-brown powdered with ocherous outwardly, the costa broadly clayey yellow, becoming diffused beyond the middle; a large black mark at the base below median vein; a black dash in the upper part of cell before orbicular; inner line faint, blackish, narrow, single, running outward along vein 1, then curving to inner margin almost at the middle; claviform absent; orbicular a large, round, ocherous ring; reniform large, diffused, blackish, partly bordered with ocherous irroration; outer line straight, curved a little toward costa, diffused, composed of ocherous irrorations with a little black shading within; subterminal line composed of two wavy lines of ocherous irroration, inclosing an area of the red ground; fringe red, lighter and more orange tinted than the rest of the wing. Hind wings fuscous shaded, the veins darker; fringe pale clay color. Expanse, 52 mm.

One female, Zacualpan, State of Vera Cruz, Mexico, June, 1909 (R. Müller).

Type.—Cat. No. 12951, U.S.N.M.

Also four females from Cuernavaca, State of Morelos, Mexico, June and July, 1096 (W. Schaus). The species is allied to Agrotis mizteca Schaus (=mysteca Hampson), but is much larger, the costal shade diffused outwardly, the cell not black filled, and the lines different.

AGROTIS AGIS, new species.

Head and thorax dark brown without markings; abdomen ocherous brown, overlaid with blackish dorsally, dark red-brown on the sides and beneath. Legs dark red-brown, blackish on the tarsi, the fore tibiæ and tarsi light ocher-brown in front, fore wing ocherous brown in subbasal space and terminally, violaceous brown in the small basal space and median space; lines violet brown, not strongly contrasted, geminate, the subbasal line bounding the basal space, inner line strongly angled outward in the cell, elsewhere coarsely crenulate; outer line parallel to outer margin in its course except near the costa where it bends in slightly, finely crenulate on the veins; orbicular a large narrow brown ring, open above; reniform very large, outlined in brown, with a blackish cloud in its lower half; claviform obsolete; subterminal line red-brown, crenulate, diffused inwardly, forming a slightly dislocated blotch on the costa; a row of terminal black dots between the yeins; fringe concolorous with the terminal space. Hind wing fuscous, the veins darker, the fringe clay colored, touched with brown at the ends of the veins. Expanse, 49 mm.

One female, Zacualpan, State of Vera Cruz, Mexico, September, 1909 (R. Müller).

Type.—Cat. No. 12952, U.S.N.M.

Not closely allied to any Mexican Agrotis known to me.

Genus EUCOPTOCNEMIS Grote.

EUCOPTOCNEMIS APHRONUS, new species.

Head and tegulæ ocher gray, thorax gray, without markings. Fore wing rather light gray, powdered with darker, the dark scales predominating in the terminal space; a small black mark close to the base below median vein; inner line of the ground color, relieved by an inward dark shade, slightly irregular, produced outward below vein 1; cell between the inner line and orbicular and again between orbicular and reniform filled in with black; a small oblique black dash on submedian fold below orbicular; orbicular and reniform large, concolorous, outlined in clay color, the orbicular with a small point toward the reniform, its upper inner angle open; outer line of the ground color, limited within by a narrow dark line, without by the powdering of the subterminal space; subterminal line, pale, of

the ground color, a dark shade on the costa within its inception; a black line at base of fringe; fringe narrowly light at the base, dark outwardly. Hind wing gray, the fringe pale, whitish. Expanse, 48 mm.

One female, Cuernavaca, Mexico, June, 1906 (W. Schaus). Type.—Cat. No. 12954, U.S.N.M.

Genus LYCOPHOTIA Hübner.

LYCOPHOTIA ESPŒTIA, new species.

Head and thorax lilacine gray, the tegulæ crossed by a black band. Abdomen yellowish gray, darker shaded on the dorsum, the anal tuft of the male somewhat ocherous. Fore wing lilacine gray, the markings distinct, blackish brown; subbasal line from costa to submedian fold; inner line marked on the costa, somewhat irregular, sharply produced inward on vein 1; claviform and orbicular absent; reniform an upright black bar joined to the median line and forming more or less of a blotch with it; median line marked on costa, oblique to reniform, then straight to inner margin; outer line marked on costa, slender, crenulate, irregularly parallel to outer margin; subterminal line pale, diffused and pulverulent, situated in a dark shading, which obtains to the termen; a row of obscure dark terminal dots; fringe dark. Hind wing whitish, slightly shaded, the veins a little darker and the margin narrowly dark; fringe pale. Expanse, 37 mm.

One male, Las Vegas, State of Vera Cruz, Mexico (Schaus collection). Type.—Cat. No. 12955, U.S.N.M.

Allied to *Lycophotia lubricans* Guenée, but not particularly allied to the form *beata* Grote, which is found in New Mexico. The present form is large and distinctly marked, and, though allied to *lubricans*, is, I think, a distinct species and not a local race of it.

LYCOPHOTIA PELLUCIDALIS Grote.

This species has not heretofore been reported from Mexico, but seems to be rather widely spread in the country. I have a specimen from Mexico City, May, 1908 (R. Müller); Cuernavaca, State of Morelos, Mexico, July, 1906 (W. Schaus); Las Vegas, State of Vera Cruz, Mexico (Schaus collection), included with *Lycophotia infecta* Ochsenheimer (=incivis Guenée) by error, and a fourth specimen from Mr. Müller without exact locality.

Genus TRICHESTRA Hampson.

TRICHESTRA STIGMATOSA, new species.

Head and thorax with the long scales intermixed olive green and black, the posterior tuft ocher brown; abdomen blackish, the tip pale reddish. Fore wing olive green (discolored to yellowish in the speci-

men), the subbasal space shaded with blackish; reniform and orbicular joined to form a thick, conspicuous, white, bilobed marking, beyond which black powdering fills in to the faintly indicated outer line; subterminal line white, dentate, visible near costa only, lost below in a black shade; three white spots close to the margin centrally; a black cloud at the anal angle; a terminal broken black line; fringe black and white. Hind wing blackish, the fringe irregularly black and white. Expanse, 25 mm. Beneath the fore wing is blackish with an outer black line; reniform and terminal space whitish. Hind wing irrorated with black, the apex broadly ocherous; discal dot and outer line black.

One male, Zacualpan, State of Vera Cruz, Mexico, August, 1909 (R. Müller).

Type.—Cat. No. 12956, U.S.N.M.

Genus HYSSIA Guenée.

HYSSIA PRODENIFORMIS Smith.

This species occurs in Mexico, though not hitherto recorded. Hampson treats it under *Polia*, but he had no specimens before him, which accounts for the error and also for the extremely poor figure, which not only gives no idea of the insect, but is entirely misleading, not only the markings but the shape of the wing being wrongly represented. I have a specimen from Mexico City, Mexico, September, 1909 (R. Müller).

Genus POLIA Ochsenheimer.

POLIA NAIDA, new species.

Head and thorax gray intermixed with black, without markings. Fore wing smooth uniform dark slaty gray; basal dash black, long; lines slender, crenulate, illy defined, approximate toward inner margin, joined by a black mark at claviform; reniform and orbicular slightly paler, rounded, black-ringed, the reniform with a dark red crescentic center; subterminal line pale, illy defined, waved; a black dash on vein 2 at margin; fringe black spotted. Hind wing whitish. Expanse, 25 mm.

Two males, one female, Mexico City, Mexico (R. Müller), one specimen taken in August, 1909.

Type.—Cat. No. 12957, U.S.N.M.

Allied to *Polia seminaria* Schaus, but without the diversified ground color of that species.

POLIA EUCYRIA, new species.

Antenna of male ciliated; prothorax with divided crest. Fore wing dark brown from the base to the outer line, leaving a sub-

^a Cat. Lep. Phal. Brit. Mus., vol. 5, pl. 81, fig. 18.

quadrate pale carneous area on the costa at base; a long slender black dash in submedian interspace; inner line, claviform, and orbicular black, slender, the claviform somewhat relieved by a reddish shade beneath the cell; reniform elliptical, oblique, filled with a thick gray ringlet, finely circled with black, its inner segment of the periphery black, the outer segment white; outer line angled on vein 5, whitish, faintly edged within by black, a reddish shade in the angle next to the reniform; subterminal space carneous gray, terminal space blackish shaded, the subterminal line lost, indicated by slight pale powderings; fringe dark, interlined with pale at the ends of the veins. Hind wing whitish in the male, pale fuscous in the female, fringe fuscous. Expanse, 27 mm.

One male, one female, Cuernavaca, State of Morelos, Mexico, June and August, 1906 (W. Schaus).

Type.—Cat. No. 12978, U.S.N.M.

POLIA PHAULOCYRIA, new species.

Dark gray. Fore wing soft, shining, lilacine gray, the median space darkened by a blackish shading below the cell; at base of costa a large, subquadrate, pale, somewhat carneous patch, resting upon the slender black line on submedian fold; inner line geminate, blackish, wayy, obscure; claviform angular, black; orbicular an elliptical ringlet in the dark gray ground; median shade line broad, running close to the outer line below and just within the reniform; reniform black ringed, filled by a broad gray elliptical area, the outer segment of the periphery nearly white; outer line angled on vein 5, pale, not waved, edged within by a black line, a reddish shading between the angle and reniform; subterminal and terminal spaces of the dark ground color alike, a little darker clouded centrally along the margin; subterminal line indicated by a whitish powdering, unusually near the margin; a black line at base of fringe. Hind wing dark fuscous, the fringe pale. Expanse, 25 mm.

One female, Zacualpan, Mexico, August, 1909 (R. Müller); another female, Cuernavaca, Mexico, June, 1906 (W. Schaus).

Type.—Cat. No. 12979, U.S.N.M.

The coloration is much as in *Polia rodora* Dyar (described below), but the pattern of markings is more as in *Polia eucyria* Dyar, the preceding species.

POLIA JOCOSA Schaus.

This species has been made a synonym of *Polia psittacus* Herrich-Schaeffer, but it is abundantly distinct. The dark color on the disk of fore wing is continuous and not broken up by patches of the ground color, while two curved dashes of the green ground color nearly separate a triangular black patch near anal angle. There is no such marking in *psittacus*.

POLIA RODORA, new species.

Soft lilacine gray, shaded with brown through the center of the wing; basal dash slender, dark, obscure; lines geminate, slender, black, scarcely crenulate, illy defined; claviform outlined by brown above; orbicular concolorous, obsolete; reniform outlined in pale yellowish, the line defining it very fine within, thickest without in the emargination; subterminal line flexuous, pale, running into a lilacine subapical cloud; fringe dark and spotted with blackish. Hind wing whitish toward the base, dark fuscous outwardly, the veins dark; fringe pale. Expanse, 28 mm.

One female, Mexico City, Mexico, August, 1909 (R. Müller).

Type. Cat. No. 12958, U.S.N.M.

The species has the general coloration of *Polia pensilis* Grote. It is smaller, the lines well separated, not united by the claviform as in that species.

POLIA SURGENS, new species.

Fore wing gray, shaded with brown in the median and subterminal spaces; lines geminate, powdery, black, the subbasal from costa to submedian fold, followed by a black cloud on inner margin; inner and outer lines slightly crenulate, approaching each other toward inner margin, the outer crossing a large ovate pale yellowish patch above tornus; a blackish shade in place of the claviform; orbicular and reniform moderate, filled with pale or yellowish brown, ringed in pale; subterminal line slender, white, forming two arcs, then ending abruptly above the mark at tornus, followed outwardly by black in its incision and inwardly below by three black wedge-shaped marks; terminal space gray-shaded; fringe dark, spotted with blackish. Hind wing whitish on the disk in the male, the margin fuscous; veins dark; fringe pale, interlined with fuscous; in the female darker, largely fuscous. Expanse, 30 mm.

One male, two females, Mexico City, Mexico, August, 1909, September, 1909, October, 1908 (R. Müller).

Type.—Cat. No. 12959, U.S.N.M.

Allied to *Polia olivacea* Morrison, but easily distinguished by the form of the subterminal line.

Genus HYDRŒCIODES Hampson.

HYDRŒCIODES ALALA Druce.

This species was described from Mexico City from one male specimen. I have a female from that locality, taken by Mr. Müller. This species inhabits the high table-land; the form mentioned by Sir George F. Hampson as a subspecies, occurring in the low country is, I think, a distinct species, probably the same as the following.

HYDRŒCIODES ANASTAGIA, new species.

Antennæ of the male ciliate. Head and thorax brown, the patagia largely yellow and rufous intermixed. Abdomen brown above, more ocherous below. Fore wing yellow, densely irrorate with rufous; subbasal and inner lines of the ground color, edged with rufous; a straight brown line from near base on vein 1 outward to inner line at middle of cell; orbicular and claviform outlined in brown, the median space beyond these marks densely shaded with brown; mesial line brown, angled outward to lower angle of cell; reniform rounded, of the ground color, irrorate with rufous with three small white spots on its lower edge; outer line of the ground, edged with brown, crenulate on the veins; subterminal space light; terminal space darkly shaded, the subterminal line clearly shown by the separation of the colors, but not appearing as a line; veins narrowly dark lined; fringe dark. Hind wing fuscous shaded, the veins darker, the margin tinged with rufous. Expanse, 28 mm.

One male, Orizaba, State of Vera Cruz, Mexico (Schaus collection). Type.—Cat. No. 12960, U.S.N.M.

HYDRŒCIODES MENDICOSA, new species.

Male antennæ bipectinate with long branches. Pale clayey yellow, the markings rather light brown; subbasal line obsolete; inner line upright, crenulate, single, most strongly indented on vein 1; orbicular of the ground color, scarcely defined; median shade upright, bent outward narrowly centrally to the lower angle of the cell, this bend scarcely noticeable in the male specimen before me, but distinct in the female. Reniform rather more distinctly defined than the orbicular with small yellowish white dots on its edge below and outwardly; outer line with its outer edge obsolete, a series of little bars on the veins forming projections on the inner edge; subterminal space light; terminal space darkly shaded, the limiting line twice inflexed; fringe dark, somewhat checkered. Hind wing pale with dark terminal line. Expanse, 27 to 33 mm.

One male, one female, Mexico City, Mexico (R. Müller), one specimen taken September, 1906.

Type.—Cat. No. 12961, U.S.N.M.

HYDRŒCIODES FELOVA, new species.

Antennæ of male bipectinate with short branches, about as long as the diameter of the shaft or longer. Yellow, densely irrorated with rufous, the outer half of the wing shaded with umber brown; lines brown, single, crenulate on the veins; orbicular and claviform of the ground color, neatly outlined in brown; median shade line distinct, angled on lower edge of median vein; reniform of the ground color with white specks about the margin, especially at the angles; terminal

area darkly shaded, the subterminal line appearing as yellow patches below the apex. Hind wing fuscous. Expanse, 32 mm.

One male, Jalapa, State of Vera Cruz, Mexico (Schaus collection). Tupe.—Cat. No. 12962, U.S.N.M.

HYDRŒCIODES DANASTIA, new species.

Antennæ of the male with short pectinations, shorter than the width of the shaft. Fore wing yellow irrorated with rufous, strongly shaded throughout with purplish brown; the ground color appears narrowly basally, in the stigmata and subterminal line; lines as usual, nearly lost in the general shading; median shade line angled on the lower corner of cell; orbicular and reniform with white dots and streaks around their margins; fringe solidly dark. Hind wing fuscous brown, the fringe a little lighter. Expanse, 30 mm.

One male, Jalapa, State of Vera Cruz, Mexico (Schaus collection). Tupe.—Cat. No. 12963 U.S.N.M.

HYDRŒCIODES ZINDA, new species.

Antennæ of male serrate and fasciculate. Thorax ochraceous yellow and rufous brown. Fore wing yellow, irrorate with rufous; lines fine, slender, single, crenulate on the veins; mesial shade line strongly angled at end of cell, forming a right angle; claviform and orbicular outlined in dark rufous; reniform round, of the ground color in a dark rufous shade that extends to the costa subapically, with three small white dots on its lower border; terminal space solidly filled in with dark rufous, pointed inward at vein 5; veins dark lined. Hind wing dark fuscous, the margin tinged with rufous. Expanse, 33 mm.

One male, Zacualpan, State of Vera Cruz ^a Mexico, August, 1909 (R. Müller).

Type.—Cat. No. 12964, U.S.N.M.

Genus ERIOPYGA Guenée.

ERIOPYGA PSEUDOSTIGMA, new variety.

As in *Eriopyga rubripuncta* Schaus, but the upper part of the reniform occupied by a round, pure white spot. The markings on the wings are entirely as in *rubripuncta*, and I consider this form as a variety of that species.

One male, Zacualpan, Mexico, September, 1909 (R. Müller). Type.—Cat. No. 12965, U.S.N.M.

^a The State is not given upon the original label. I presume it to be the Zacualpan in the State of Vera Cruz, although there is another place of the same name in the State of Mexico.

ERIOPYGA SUBLECTA, new species.

Head and thorax dark brown, abdomen blackish, neck and anal tuft ocherous. Fore wing dark red-brown, base and subterminal spaces shaded with blackish; inner line geminate, curved, blackish; orbicular and reniform of the ground color, unrelieved; median shade line blackish, gently curved; outer line geminate, its outer part punctate, excurved at end of cell; terminal space partly blackish shaded, the subterminal line indicated by the separation of colors of terminal and subterminal spaces. Hind wing dark fuscous, fringe paler. Expanse, 27 mm.

One male, Zacualpan, Mexico, August, 1909 (R. Müller).

Type.—Cat. No. 12966, U.S.N.M.

Allied to Eriopyga mesostrigata Hampson, but smaller, redder, and without the light color and streaks in the costal part of median space.

ERIOPYGA PANTOSTIGMA, new species.

Antennæ of male ciliate, the abdomen normal, the fore wing with long, very sparse curved hairs on the under side of the cell. Head and thorax dark brown, mixed with blackish; abdomen blackish, the tips of the segments pale. Fore wing light brown, tinged with rufous somewhat irregularly; a black shading in basal space below cell; lines geminate, blackish, very indistinct, the outer segment of the outer line punctate, the line excurved over the cell; median shade line nearly erect, a little curved in the cell; orbicular and reniform filled in with black, not outlined, distinct, conspicuous; subterminal line black, waved, arising in a black costal cloud, followed by a narrow space of the ground color, beyond which the terminal space is shaded with black to the margin. Hind wing fuscous, the fringe lighter and rufous tinted. Expanse, 28 mm.

One male, Zacualpan, Mexico, July, 1909 (R. Müller).

Type.—Cat. No. 12967, U.S.N.M.

ERIOPYGA STRIGIFACTA, new species.

With the structure of the preceding. Thorax dark brown, intermixed with light scales, base and tip of tegulæ ocherous; abdomen dull ocherous. Fore wing gray brown, intermixed irregularly with ocherous and with dark red-brown, the latter especially in subbasal space and before subterminal line; subbasal line indicated by ocherous filling, edged with red brown; inner line geminate, irregularly angled, obscure; costa darkly shaded, the mesial line narrow, red brown; orbicular obsolete, marked only by a black point close to the costal shade; reniform indicated by a black lumule at base of vein 3; outer line very obscure, excurved over cell, with a row of white venular points on its outer edge; veins dark lined; terminal space darkly

shaded, the subterminal line, powdery, broken, yellowish, with a similar yellowish mark between veins 2, 3, and 4. Hind wing yellowish, fuscous tinted outwardly; fringe pale. Expanse, 25 mm.

One male, Zacualpan, Mexico, August, 1909 (R. Müller).

Type.—Cat. No. 12968, U.S.N.M.

ERIOPYGA ANGUSTIMARGO, new species.

With the structure of the preceding. Fore wing ocherous brown, largely shaded with fuscous; ordinary spots obsolete, only the reniform visible, defined as a space of the ground color in a fuscous cloud; inner line curved, blackish, illy defined; outer line crenulate, forming points on the veins; subterminal line dark, distinct, submaculate; fringe dark with light points at the base. Hind wing fuscous shaded especially outwardly; a discal clouded mark. Expanse, 23 mm.

Two males, Mexico City, Mexico, September, 1909, October, 1908

(R. Müller).

Type.—Cat. No. 12969, U.S.N.M.

ERIOPYGA RHIMLA, new species.

Fore wing yellowish brown in ground color, but heavily darkened by shadings; median and terminal spaces filled with blackish shading; inner line blackish, crenulate; claviform rounded, outlined in black; orbicular of the ground color with a dark central dot; reniform obscured by black shading except its oblique outer border, which is white; outer line produced into a point at vein 5, elsewhere straight, black, edged with the ground color, inclosing a light space between the point and edge of reniform; subterminal space with irregular dark reddish shadings; a black terminal line; fringe dark, with light points at the base. Hind wing shaded with blackish, the fringe pale. Expanse, 28 mm.

One female, Mexico City, Mexico, September, 1909 (R. Müller).

Type.—Cat. No. 12970, U.S.N.M.

Apparently allied to Eriopyga contrahens Walker.

ERIOPYGA CONDENSA, new species.

Male antennæ very shortly pectinate, the branches not longer than the width of the shaft. Brownish clay color; Jines gray brown; subbasal line geminate; inner line geminate, pointed on the subcosta, twice roundedly outcurved below; median shade line brown, distinct, angled at the lower end of the reniform, which it touches; orbicular a point; reniform solidly black, constricted into two lunules, stained with red at the constriction; outer line pale, of the ground color, even, followed at some distance by a row of pale and dark dots; subterminal and terminal spaces dark brown shaded, cut by the light subterminal line, which has a row of black dots within; fringe

dark brown with a wavy pale line. Hind wing fuscous, lighter between the veins, the fringe rufous tinted. Expanse, 33 mm.

One male, Zacualpan, Mexico, August, 1909 (R. Müller).

Type.—Cat. No. 12971, U.S.N.M.

No. 1742.

ERIOPYGA INFELIX, new species.

Male antennæ shortly bipectinate. Ocherous brown, more or less darkly shaded; subbasal line invisible; inner line single, strongly crenulate, the flexures pointed on lower half of wing; orbicular a pale ringlet; median shade line indistinct; reniform outlined in pale, clouded with black in its lower half; outer line crenulate, slightly curved at costa, outwardly dotted on the veins; subterminal line pale, powdery, preceded by faint indications of dark dashes; terminal space dark; a light line at base of fringe. Hind wing pale, the veins and outer margin shaded with fuscous. Expanse, 28 mm.

Two males, Mexico City, Mexico, September, 1909 (R. Müller).

Type.—Cat. No. 12972, U.S.N.M.

Allied to *Eriopyga incincta* Morrison, but a slenderer, narrower-winged species, the subterminal line broken and powdery, the terminal space dark.

Genus ERIOPYGODES Hampson.

ERIOPYGODES GRAMMADORA, new species.

Clayey ocherous, the head and tegulæ tinted with brown. Fore wing with the veins broadly lined with blackish, the submedian fold narrowly so; fringe rufous tinted. Hind wing black with pale rufous tinted fringe. Abdomen black above, rufous below, the anal tuft ocherous. Beneath fore wing largely shaded with black; hind wing pale, streaked with black on the median venules. Expanse, 33 mm.

One male, Popocatepetl Park, Mexico, 13,000 feet altitude (W. Schaus).

Type.—Cat. No. 12980, U.S.N.M.

Genus MELIANA Curtis.

MELIANA PERSTRIGATA, new species.

Fore wing light clay color, a little irrorated with black on outer half of costa and apex; a blackish shading beneath median vein, continued to the margin between veins 4 and 5, with a lighter or whitish edging above in the cell, which on veins 3 and 4 cuts the dark shade; a blackish mark between vein 1 and inner margin; fringe shaded with blackish. Hind wing whitish. Expanse, 33 mm.

One female, Mexico City, Mexico, May, 1908 (R. Müller); a second female from the same place, April, 1909, is a little smaller with the

markings paler, but otherwise the same, except that the front is smooth. This second specimen, therefore, would fall in the genus Cirphis.

Type.—Cat. No. 12981, U.S.N.M.

The type with the roughened front belongs to the genus *Meliana*, but if this prove to be an abnormality and the species belongs to *Cirphis*, then it will fall near *Cirphis multilinea* Walker.

Genus HOMONCOCNEMIS Hampson.

HOMONCOCNEMIS POLIAFASCIES, new species.

Bluish gray, collar, patagia, and end of thorax touched with rust yellow. Fore wing bluish gray, powdered with black and shaded in lower half of median space and beyond reniform; lines single, dentate on the veins, black, the outer line with white points at the ends of the dentations; claviform small, orbicular elliptical, reniform compressed, but with deep emargination, the spots filled in largely with rust-yellow scales; these scales also edge the inner line within, fill in the lunules of the outer lines below and stain the subterminal line, especially at anal angle; costa with small black marks and four white points before apex; outer line near the margin, whitish, wavy, powdery and clouded, but well contrasted. Hind wing black, the interspaces below the cell whitish, the fringe pale with black central line. Expanse, 35 mm.

One female, Zacualpan, Mexico, September, 1909 (R. Müller). Type.—Cat. No. 12982, U.S.N.M.

Genus CROPIA Walker.

CROPIA EUROPS, new species.

Head and thorax dark brown, shading to black; abdomen brown, the dorsal tufts darker. Fore wing dark brown, shaded with black and blue basally and broadly along submedian space to outer margin, again in a dash between veins 4 and 5; subbasal line geminate, crenulate, black; inner line similar, both obscure; claviform large, elliptical; orbicular similar; reniform very large, a black line, filled with the brown ground color, a pale brownish lunule near its center; median line oblique from costa to reniform, lost below; outer line black, faintly doubled, wavy, roundedly produced outward at vein 4; an irregular clear brownish ocherous space centrally subterminally, forming an expansion of the subterminal line, which is of this color, powdery, broken, waved, situated near the margin; irregular black saggitate marks are enclosed in the light subterminal area; fringe stained with reddish brown. Hind wing brown, with an outer fine wavy black line; a series of illy defined ocherous spottings subterminally; fringe as on fore wing. Expanse, 55 mm.

One male, Zacualpan, Mexico, August, 1909 (R. Müller); one female, Guadalajara, Mexico (Schaus collection).

Type.—Cat. No. 12983, U.S.N.M.

The antennæ of the male are pectinate, with short lamellate branches.

CROPIA ISIDORA, new species.

Head brownish black; thorax clothed with dense silver-graytipped scales. Abdomen with large black dorsal tufts on the third and fourth segments. Fore wing dark lilacine brown, more blackish within the outer line; lines black, distinct; subbasal line single; some silvery whitish scales on inner margin; inner line irregularly wayy, joined by a bar on submedian fold to the outer line, which is outcurved in the middle and incurved on vein 1; an erect black bar from the connecting dash to orbicular; orbicular and reniform brokenly outlined in black, powdered and irregularly centered with white scales; outer line irregularly bluntly dentate, excurved above, incurved below vein 2; terminal space with a black bar on submedian space and on vein 5; subterminal line blackish, waved, faint, and preceded by blackish spots above vein 5; below this point the lines are composed of a series of ocherous white spots, two of which are inclosed by the black bars; between the lower segment of subterminal line and outer line is much white powdering, which indicates a faint outer duplication of the outer line; a black line at base of the concolorous fringe. Hind wing brown with a mesial shaded black line; outer margin powdered with ocherous white, most broadly so at anal angle. Expanse, 42 mm.

One male, Orizaba, Mexico, November, 1909 (R. Müller).

Type. - Cat. No. 12989, U.S.N.M.

The antennæ of the male are simple. The species seems allied to Cropia hadenoides Walker, which is not before me.

CROPIA CONSONENS, new name.

In referring to Cropia hadenoides Walker, it should be noted that Walker also described Homoptera hadenoides, which is a Cropia as seen by specimens which Mr. Schaus has compared with the type in the Oxford Museum. I therefore propose the above name on account of the preoccupation of the specific name in the genus. Three females are before me. The species seems most nearly allied to Cropia templada Schaus, but is larger, without the subapical white shade and with a large brown-black patch in the lower third of the median space between the lines. The specimens are from Venezuela and French Guiana, and are referred to in this paper only for the purpose of straightening out the names in the genus.

CROPIA RUTHÆA, new species.

Antennæ of the male with rather long pectinations, decreasing to serrations at the tip. Fore wing dark brown, lighter, ocherous tinted in basal and subterminal spaces; a white point at base; subbasal line black; an obscure black line above vein 1; inner line black, dislocated on subcosta, angled outward on submedian fold and on vein 1; a black streak from the angle along submedian fold to outer line; elaviform illy defined, black; orbicular and reniform narrowly black-ringed, large, the blackish shades within concentrically arranged; three black lines on costa, from the outer of which the outer line starts, angled outward along subcostal vein, angled on vein 5, very faintly doubled and followed by a paler ocherous shade; subterminal line pale otherous, angled, broken, forming spots below; a black line on vein 5 from outer line to margin, broken by the subterminal line, a short black streak above it and two streaks on the margin above anal angle; fringe dark. Hind wing dark brown, with traces of an outer dark line; fringe irregularly ocherous spotted with a dark line at its base. Expanse, 35 mm.

Cuernavaea, Mexico, July, 1906 (W. Schaus); also specimens from Guadalajara and Jalapa (Schaus collection), in all three males and three females.

Type.—Cat. No. 12993, U.S.N.M.

This species was confused in the collection with *Cropia connecta* Smith, but it differs obviously therefrom in the smaller size, broader wings, and the shape of the inner line of fore wings.

CROPIA MINTHE Druce.

This species is before me from Venezuela and French Guiana, and also a specimen from Misantla, State of Vera Cruz, Mexico, the latter sent by Mr. Müller. The male of this species has the antennæ tufted-ciliate, but without any trace of pectinations. Both wings beneath are washed with a peculiar bright brassy metallic shading, which is entirely absent in the female. It is allied to Cropia infusa Walker. I can not detect any difference in the shape of the inner line in these two species such as indicated in Hampson's table.^a

This is the first record of this species from Mexico.

CROPIA PERFUSA, new species.

Male antennæ tufted-ciliate, the segments somewhat lamellate beneath, but without pectinations. Lines geminate, black, the inner nearly straight, excurved only below vein 1; basal and terminal spaces of the brown ground color; median space entirely filled with black, obscuring all the markings, except a small, pale erescent representing the reniform; outer line pale-filled, minutely wavy, most prominently exserted at vein 5, beyond which is a rounded black spot next subterminal line; a gray-white powdering in the subterminal space near costa; subterminal line pale, powdery and broken; fringe with a wavy black line at the base. Hind wing brown, with pale otherous spottings near the margin. Beneath pale otherous, the hind wing with two brown lines and a discal mark. Expanse, 38 mm.

One male, Jalapa, Mexico (Schaus collection).

Type.—Cat. No. 12994, U.S.N.M.

The specimen was in the collection under Cropia infusa Walker, but, though allied thereto, it differs by the solidly black median space. Cropia infusa is known only from Jamaica and Santa Lucia; it is a smaller species, the male antennæ with short pectinations, according to Hampson's account. I possess only females of infusa.

ZAZUNGA, new genus.

Antennæ of both sexes thickened, flattened, the segments doubly impressed on both sides, but otherwise smooth and without any cilia. Fore wing with vein 5 arising close to 4, accessory cell present, vein 7 from near its end, 8 and 9 stalked from its end, 10 from near its end, 11 from the cell. Hind wing with veins 3 and 4 shortly stalked, 5 from the cross vein near to 4, 6, and 7 stalked. Legs unarmed, clothed with long hair; front smooth; palpi moderate, obliquely upturned, the third joint moderate; vestiture of long hair-like scales; abdomen without dorsal tufts.

Type of the genus.—Zazunga opinor, new species.

ZAZUNGA OPINOR, new species.

Bluish gray; head and collar a little lighter, the tegulæ with a blackish line before the tip. Fore wing with the lines blackish, illy defined; subbasal line straight, angled inward subcostally; inner line straight from costa to median vein, thence waved to inner margin; claviform indicated by a bent-line; orbicular outlined in black, with a round black center, leaving a whitish ring; a small similarly pupilled spot immediately below it; median shade dark, diffused, bent outward to touch the reniform; reniform large, outlined in black, filled with the ground color and with a narrow whitish lunule in the center; outer line indicated by a whitish shade, excurved over cell with obscure black points on the veins, edged within by a blackish line below, which forms a reentrant angle below vein 2; subterminal line whitish with venular dots, forming a black streak at costa and a longer one near anal angle; a narrow black line at base of fringe. Hind wing white. Abdomen pale grav. Antennæ ocherous. Expanse, 35 to 38 mm.

One male, Zacualpan, Mexico, September, 1909 (R. Müller); one male, Orizaba, Mexico (Schaus collection).

Type.—Cat. No. 12995, U.S.N.M.

ZAZUNGA ZETACELIS, new species.

Light gray, thinly scaled, the veins darker; a darker shade on lower half of wing, especially in the median space; lines faint, dark, the subbasal bent in to base at median vein; inner line straight across cell, waved below; orbicular a black ring with a patch of pale yellow scales below it in which there is a black dot on median vein; reniform large, filled with pale yellow and containing a central zigzag line; outer line indicated by a pale shade and black dots on the veins; subterminal line similarly indicated, forming a black streak on the costa; a wavy terminal black line. Hind wing subtranslucent and grayish, the fringe dark brown. Expanse, 38 mm.

One female, Jalapa, Mexico (Schaus collection).

Type.—Cat. No. 12996, U.S.N.M.

Genus ISCADIA Walker.

ISCADIA PURISSIMA, new species.

Head and thorax white, sprinkled with a few black scales; tegulæ brown; abdomen gray, the basal tuft white and brown. Fore wing white, the scales irregularly roughened; a black patch at base on costa, covering inner line; a patch of yellow-green scales below it; a black mark above inner margin across the inner line with a smaller duplication above vein 1, marked with green scales within; inner line narrow, single, black, bent inward toward base below vein 1; median line represented by two gray marks on costa; orbicular a black dot; reniform brokenly outlined in black; outer line thick and oblique from costa to vein 5, sending a bar to outer margin, thence slender, running inward along vein 3, then sharply angled and arcuate to inner margin; beyond the line are a series of patches of green and yellow scales arranged upon a gray strongly waved line, which continues above the oblique black bar to costa; a wavy brown shade in the terminal space; a terminal black line forming dentations of the veins; fringe spotted with blackish. Hind wing pale brown, broadly blackish along the margin, the termen powdered with gray; a black line edged with white powdering starts from near anal angle, but is lost beyond. Expanse, 68 mm.

One female, Misantla, State of Vera Cruz, Mexico, November, 1908 (R. Müller); another female, in poor condition, Rinconada, State of Vera Cruz, Mexico (Schaus collection).

Type. = Cat. No. 12997, U.S.N.M.

Allied to Iscadia similis Druce (Gadirtha similis Druce), a but the median area entirely white.

ISCADIA DÆMONASSA, new species.

Fore wing brown-black, shading to mottled brown on the inner margin, the apex gray-white; lines slender, black, single; subbasal line waved, a very fine line along submedian fold; inner line straight to subcosta, a sharp outward tooth below, then roundedly and strongly arcuate to vein 1, where is a sharp inward tooth, then rounded to inner margin; a line along submedian fold joining the outer line; stigmata absent; outer line starting on costa near middle of wing, running along subcosta to outer fourth, then roundedly arcuate to an inward tooth on submedian fold where it joins the longitudinal line, thence to inner margin with an angle on vein 1; long black streaks on the discal venules cross the outer line; outer margin strongly wayy, the fringe concolorous with the markings. Hind wing white, the apex fuscous shaded, especially on the veins. Head, tegulæ and patagia nearly black, disk of thorax brown. Abdomen gray. Beneath the wings are white, suffused and dusted with gray on the costal region. Expanse, 53 mm.

One female, Guerrero, Mexico (J. Doll); another female, Jalapa,

Mexico (Schaus collection).

Type.—Cat. No. 12998, U.S.N.M.

This species is not an *Iscadia*, as the last joint of the palpi is short, and is only temporarily placed in the genus.

Genus MELIPOTIS Hübner.

MELIPOTIS MOSCA, new species.

Thorax dark brown or reddish brown; abdomen light gray. Fore wing dark brown with a purplish tint, the wing narrow and trigonate in both sexes; subbasal line indicated by black spots; a rather broad pale brown oblique shade runs from the basal third of costa to the middle of inner margin; from this a similarly colored area runs below the cell, and curves up beyond it, forming a point on vein 6 and reaching close to the costa; this area is shaded around with black and narrowly edged by a black line except on the side where it borders the cell; the inner black border is edged basally by the narrow black inner line, which is oblique and parallel to the pale area and forms an inward tooth on subcosta and submedian; orbicular a small pale yellowish point; reniform a small pale yellowish dash in the cell and another at its end, the two converging somewhat costally; subterminal line, narrow, pale, edged within by a row of black cuspshaped shadings, with a narrow outer brown edge that widens as it touches the costa, reaching the apex; terminal space almost as light as the mesial marking; a fine, wavy, terminal black line. Hind wing white at the base, the outer half shaded with black, the fringe pale. Expanse, 34 mm.

Four females and one male, Mexico City, Mexico, September, October, and November, 1909 (R. Müller).

Type.—Cat. No. 12999, U.S.N.M.

The sexes are essentially alike, the male having the mesial pale area a little narrower and straighter than in the female and more distinctly marked with dark shade lines.

Family LASIOCAMPIDÆ.

Genus METANASTRIA Hübner.

METANASTRIA GUSTANDA, new species.

Reddish gray, the terminal space more gray, with a gray streak from the base through the cell, indistinctly joining the terminal grayish area; four straight lines across the wing, the first two erect, the outer two more oblique, the first, second, and fourth edged outwardly with brown, the third inwardly so edged; a white discal point; subterminal line irregular, composed of pale oblique streaks between the veins. Hind wing dark red. Abdomen red above and below, the sides and tip brown. Expanse, 73 mm.

One male, Zacualpan, Mexico, August, 1909 (R. Müller).

Type.—Cat. No. 13000, U.S.N.M.

Allied to Metanastria championi Druce, but with narrower wings and differently colored.

Genus TOLYPE Hübner.

TOLYPE CELESTE, new species.

White, the thorax marked with gray, the abdomen ringed with gray. Fore wing with a grayish overcast, and crossed by wavy dark gray lines; three lines on the basal part of the wing, separated by two linear lines of the ground color; median space wide above, including a black sublunate discal mark, narrow below and cut off by the approximating lines into a round space below vein 2; four lines beyond, the first two separated by a linear white line, the others waved, confused, subconfluent, limited by a white subterminal line that is dislocated on all the veins below vein 5 and forms a patch between 5 and 6; terminal space filled in with gray; fringe spotted with gray. Hind wing white, a gray mark at anal angle. Expanse 43 num.

One female, Misantla, Mexico, November, 1909. (R. Müller).

Type.—Cat. No. 13001, U.S.N.M.

Allied to Tolype infernalis Schaus, but the hind wings are white instead of dark gray.

TOLYPE ADOLLA, new species.

White. Fore wing with broad pale gray subbasal line; two median lines, well separated, nearly straight, cut by the white veins; a subterminal broad diffused gray line. Expanse, 25 mm.

One male, Misantla, Mexico, May, 1909 (R. Müller).

Type.—Cat. No. 13002, U.S.N.M.

Allied to *Tolype albula* Druce, but the median lines are straighter, darker, and farther apart.

TOLYPE MOTA, new species.

One male, Coatepec, Mexico (Schaus collection).

Type.—Cat. No. 13004, U.S.N.M.

Allied to *Tolype albula* Druce, but with more robust body and longer abdomen; the lines of the fore wing are essentially as in *albula*, but darker, especially on the coastal third, the median lines somewhat more separated. Expanse, 26 mm.

TOLYPE DOLLIA, new species.

White. Fore wing with two or three little black specks on the costa of which one situated subapically is rather large; from it a row of minute black specks on the veins crosses the wing; a little black speck at base of vein 2. Expanse, 32 mm.

One male, Colima, Mexico (J. Doll).

Type.—Cat. No. 13003, U.S.N.M.

The woolly white body and wings almost unmarked make the species look like a Carama.

Genus CLISIOCAMPA Curtis.

CLISIOCAMPA ONISSA, new species.

Fore wing ocherous, thickly powdered with brown; lines brown, a little lighter edged away from the median space. Hind wing brown, with traces of an outer darker line. Thorax and abdomen brownish shaded on ocherous. Expanse, 30 mm.

Five males, Zacualpan, Mexico, April and August, 1909 (R. Müller).

Type.—Cat. No. 13005, U.S.N.M.

This is the first Clisiocampa from the region below the Mexican table-land. Mexico City, on the table-land, has two species, C. azteca Neumoegen and C. luteimargo Dyar, which are varieties or derivative species of C. fragilis Stretch, which is well distributed through the arid regions of the United States and has many forms and variations. The genus comes from the north, from a former circumpolar fauna, a number of species being known in Europe and Asia.

Genus CLAPHE Walker.

CLAPHE CONSOLABILIS, new species.

Thorax and abdomen dark brown, the edges of tegulæ and patagia overhanging the wings lined with pale; abdomen reddish at the sides. Fore wing with the basal space other, blotched with brown on the costa and limited outwardly by a double dark-brown line; rest of the wing pale gray, the veins narrowly lined with brown, a double row of dark dots in the position of the outer line and a faint wavy, linear submarginal line. Hind wing with the inner area broady brown, the basal space above this shade dark brown, limited by a blackish line, the rest pale gray with double clouded darker line. Expanse, 32 mm.

Four males, Misantla, Orizaba and Coatepec, Mexico, May and September, 1909, and September, 1908 (R. Müller).

Type.—Cat. No. 13006, U.S.N.M.

Allied to Claphe albidifascia Walker, but the outer area paler gray and the base not overlaid with dark brown. At first sight the species looks more like Claphe gera Schaus a and C. limba Druce, b but it is really not so closely allied to these in spite of the similar coloration of the base of the wing.

CLAPHE CACOPASA, new species.

Dark brown, the face gray, the front of the thorax lighter than the posterior part. Fore wing much elongated, dark brown, a little variegated with black near the base but without distinct lines; a broad pale ray from end of cell to outer margin; a narrow submarginal line, black, slightly wavy, near to and parallel with the margin. Hind wing much produced toward the anal angle, dark brown, with a double, pale shaded line on the upper half outwardly; a pale wavy line very close to the margin on the upper half only. Expanse, 28 mm.

One male, Misantla, Mexico, April, 1909 (R. Müller).

Type.—Cat. No. 13007, U.S.N.M.

Family NOTODONTIDÆ.

Genus HETEROCAMPA Doubleday.

HETEROCAMPA ANDRODORA, new species.

One female, Misantla, Mexico, September, 1909 (R. Müller); also another female from the same place, October, 1909 (R. Müller), and four females, Cuernavaca, Cordoba, and Salina Cruz, May, August, and September, 1906 (W. Schaus).

Type.-Cat. No. 13008, U.S.N.M.

a Proc. U. S. Nat. Mus., vol. 29, 1905, p. 313.

b Biol. Centr.-Amer., Lep. Het., vol. 2, 1887, p. 206.

This form so closely resembles Heterocampa cubana Grote that I am unable to make a differential description and refer to Grote's comparisons and figure.^a It is possibly the same species. Other Cuban species are known from Mexico; but I prefer to keep it distinct for the present. A single male specimen from Orizaba, which was in the collection as the male of Heterocampa gelduba Schaus, undoubtedly belongs here. It is not in perfect condition, but appears to have the slencer angled line that runs up beyond the discal mark less dark and sharply defined than in cubana. The same difference appears in the females also. Also very closely allied to these species is Heterocampa aroënsis Schaus from Venezuela and British Guiana, which resembles more cubana in the character of the line mentioned. I presume that these three forms are really only local races of one species.

HETEROCAMPA GELDUBA Schaus.

This species was described from Mexico, and seems to be not uncommon. I have above taken away the only male specimen, but am able to supply another, which I believe is the true male. The specimen comes from Mr. Müller, and was taken in Orizaba in June, 1908. It is easily distinguished from the foregoing by the wingshape. Both sexes have shorter, squarer wings than in androdora, cubana, or aroënsis.

Genus NAGIDUSA Walker.

NAGIDUSA SUAVIS, new species.

Body dark gray. Fore wing bluish gray with slight violaceous tint, the costa shaded with ocherous and brown; base shaded with dark gray and brown, a narrow black line at base on submedian fold; inner line showing traces in brown; discal mark a brown curved line surrounded by ocherous shading; outer line indicated by brown dots on the veins, doubled, filled with ocherous, inclosed in an ocherous and brown shading on the costa; veins with short black dashes in the subterminal space, followed by dots. Hind wing whitish, the fringe gray brown; veins 6 and 7 marked in brown and crossed by a faint white shade outwardly. Expanse, 40 mm.

One male, Zacualpan, Mexico, August, 1909 (R. Müller)

Type.—Cat. No. 13009, U.S.N.M.

Genus NAPREPA Walker.

NAPREPA HOULA, new species.

Head and thorax dark brown, the tuftings tipped with light scales.

Abdomen light brown, becoming dark and tufted at the tip. Fore

wing brown; inner line dark brown, strongly waved, produced into six finger-shaped processes, the one in the lower part of the cell the longest, the two lower ones with sharp tips; a brown curved shade beyond the middle, from beyond middle of costa to tooth on inner margin; outer line dark brown, with white tuftings on the veins, the portion above vein 4 strongly produced inward between the veins in four finger-shaped processes that reach to the cell; an especially distinct white tufting on vein 1; a dark shade between veins 3 and 4; subterminal line indicated, black, narrow, waved; a black line at base of fringe, broken into a series of cusps. Hind wing light brown with a slightly wavy extra-mesial line, pale, dark-edged within, forming above the anal angle a black blotch succeeded by white scales, the whole marking powdery. Expanse, 83 mm.; female, 110 mm.

One male, two females, Coatepec, Mexico (Schaus collection); Jalapa, Mexico (Schaus collection); Mirador,^a Mexico, May, 1908 (R. Müller).

Type.—Cat. No. 13010, U.S.N.M.

Allied to Naprepa cyllota Druce, but without the black and white rings on the abdomen.

Genus PSEUDHAPIGIA Schaus.

PSEUDHAPIGIA MISERICORDIA, new species.

Thorax dark brown; abdomen gray, lighter at base and tip. Fore wing dark brown, somewhat bronzy, irregularly shaded or almost mottled with blackish, which terminates with a wavy outline in the middle of the subterminal space; inner line oblique from basal fourth of costa to middle of inner margin, single, blackish, indistinct; discal marks an orbicular in upper part of cell and larger reniform in lower angle, filled with dark red-brown without metallic scales, the two in an oblique line which would run from inception of inner line on costa to termination of vein 3 on outer margin; outer line straight from outer fourth of costa to inner margin beyond the tooth, bent a little on vein 1 only, blackish without, pale within; subterminal line black, slender, produced between the veins into a series of loops; marked with silvery scales subapically; terminal space darkly shaded near apex. Hind wing brown, unmarked, the veins a little darker. Expanse, 60 mm.

One male, Santa Rosa, Mexico, August, 1906 (W. Schaus); also three males and four females, Cuernavaca, Mexico, July and August, 1906 (W. Schaus).

Type.—Cat. No. 13011, U.S.N.M.

a The locality is so given on the specimen, but the location is unknown to me.

Allied to *Pseudhapigia xolotl* Schaus, but larger, darker and without silvery scales on the discal marks, which are also further apart and more obliquely placed. The antennæ of the female have shorter pectinations than in *xolotl*.

I place this species in *Pseudhapigia*, although it might perhaps be better placed in the next genus. The antenna are pectinated within a few joints of the tip, while veins 3 and 4 of hind wing are approximate at origin or only slightly separated.

HAPIGIODES, new genus.

Near Pseudhapigia Schaus, but veins 3 and 4 of hind wings apart and the antennæ pectinated on the basal two-thirds only. The genus falls in Schaus's table with Colax Hübner, from which it is readily separated by the prominent tooth on the inner margin of fore wing.

Type of the genus.— Hapigia xolotl Schaus.

HAPIGIODES XOLOTL Schaus.

Hapigia xolotl Schaus, Proc. Zool. Soc. Lond., 1892, p. 339.

Pseudhapigia xolotl Schaus, Trans. Ent. Soc. Lond., 1901, p. 343.

This species has hitherto been known only from females. The type was a female from Coatepec, Mexico, and there are before me three other females from Paso San Juan, State of Vera Cruz. Lately, however, a male has been obtained by Mr. Schaus on the Sixola River in Costa Rica.

HAPIGIODES FREDERICA, new species.

Head and thorax rusty brown; abdomen blackish gray. Fore wing rusty brown at the base to beyond the tooth on inner margin, lilacine shaded beyond; subbasal line erect on inner margin, black, slender, pale-edged within; inner line similar, forming arcs on the veins, the points inward, pale-edged without; discal marks, orbicular and reniform, approximate, oblique, dark brown; outer line straight, narrow, dark without, pale within, bent on vein 1; subterminal line blackish, forming a series of loops between the veins, marked with silvery scales at apex. Hind wing whitish, a little soiled with fuscous. Expanse, 54 mm.

One male, Cordoba, Mexico, February 17, 1908 (F. Knab).

Type.—Cat. No. 13012, U.S.N.M.

Easily distinguished from its allies by the wing shape, the outer margin being prominent at veins 5 and 6, straight or slightly concave below, the tooth on inner margin very large, very much as in *Hapigia accipiter* Schaus, though the species is smaller.

Family GEOMETRID.E.

Genus OENOTRUS Druce.

OENOTRUS PHANERISCHYNE, new species.

Black; collar, edge of patagia, and front other yellow; fore coxæ, pleura, and sides of abdomen washed with crimson. Wings black, the fore wings with a large basal area, occupying three-fourths of the length of the wing crimson, the inner margin narrowly black; hind wing with a crimson patch on costa. Beneath this area is repeated on fore wing and runs to apex; beyond it the wing is black without markings; hind wings without markings. Expanse, 28 mm.

One male, Zacualpan, Mexico, June, 1909 (R. Müller); another male,

Guadalajara, Mexico (Schaus collection).

Type.—Cat. No. 13013, U.S.N.M.

Allied to Oenotrus dispar Walker but the under side of the wings without yellow lines and the hind wing marked with red above.

Genus HETERUSIA Geyer.

HETERUSIA SUBSTRIATA, new species.

Black; collar, edges of patagia, abdominal rings, palpi, and fore coxe yellow; tarsi ringed with white. Wings black, the fore wing with a large oblique medial orange yellow patch, separated from costa by a black line and reaching down to submedian fold; an oblique orange dash before apex. Hind wing with the discal area yellow, dentate on its outer edge and with a black dash at base. Beneath the yellow area of fore wing is repeated, the costa buff from thence to the base, interlined with red; a pale buff band across the apex, lined with red on each side. Hind wing with the costa and the whole inner area pale buff, lined with red; the inner area extends to the base of the fringe and is bordered with red and lined with it between the veins below vein 3 and in the cell; the outer edge is narrowly buff and there is inclosed in the red area two small confluent black spots. Expanse, 25 mm.

One male, Zacualpan, Mexico, July, 1909 (R. Müller); twenty specimens, Popocatepetl Park, Mexico, 8,000 feet, June, 1906 (W. Schaus); one male, Iguala, State of Guerrero, Mexico, June, 1906 (W. Schaus); one male, Morelos, Mexico, 7,000 feet, June, 1906 (W. Schaus).

Type.—Cat. No. 13014, U.S.N.M.

Nearest to *Trochiodes cydonia* Druce, figured in the Biologia Centrali-Americana, pl. 58, figs. 16, 17.

Genus COENOCALPE Hübner.

COENOCALPE PENGUINIFERA, new species.

Body dark ocher, face and spots on vertex white, edges of collar and patagia pale yellow. Wings above ocher yellow, shining, the fore wing stained with brown at apex; fringe white, stained with brown at the ends of the veins. Under side of fore wing yellow, the apex brown, containing a dislocated, submaculate, silvery band and a whitish costal dash within; hind wing pale brown with silvery white markings; a curved subbasal band, reaching costa and running broadly to base; a spot on inner margin; a curved median band, crossed in the middle by a broad stripe which expands in the cell into a capitate mark with a point toward costa and close to outer margin is trilobate; a blotch at apex and a bar from tornus showing two teeth outwardly on the veins. Fringe as above. Expanse, 28 mm.

One male, Zacualpan, Mexico, September, 1909 (R. Müller); one male, Cuernavaca, Mexico, June, 1906 (W. Schaus).

Type.—Cat. No. 13015, U.S.N.M.

Genus DICHORDA Warren.

DICHORDA APLAGARIA, new species.

Wings green, the costa mottled with dark red; lines straight, white, rather broad, the inner nearly perpendicular to inner margin, the outer parallel to outer margin; hind wing with the line straight from costa to above anal angle; discal dots of both wings small, black. Expanse, 22 mm.

One male, one female, Guadalajara, Mexico (Schaus collection); another male, Mexico City, Mexico, August, 1909 (R. Müller).

Type.—Cat. No. 13016, U.S.N.M.

Near to *Dichorda consequaria* Hy. Edwards, but smaller, the lines less rigid, the outer one subparallel to outer margin, arising on the costa far from the apex; the lines also have scarcely any olivaceous edging, and the veins outwardly are not washed with white.

Genus OXYDIA Guenée.

OXYDIA SCHEMATICA, new variety.

Three males, Orizaba, Mexico (R. Müller; Schaus collection); also one male, Misantla, Mexico, November, 1908 (R. Müller).

Type.—Cat. No. 13017, U.S.N.M.

A variety, or local race of Oxydia crocallinaria Oberthur, smaller, without the otherous shading, paler. The markings are essentially the same, though the submarginal black shade is generally reduced or absent.

Genus POLLA Herrich-Schaeffer.

POLLA HEMERARIA, new species.

Tawny brown, collar and costa at base shaded with creamy white; lines on fore wing narrow, powdery white, partly dark edged; inner line straight, crossing the wing before origin of vein 2; outer line curved from close to apex to inner margin at outer third; a white shading at outer fourth of costa, running onto the adjoining veins; wing sparsely irrorate with black, with black discal dot and subterminal spots on veins 2, 3, and 4. Hind wing with discal dot and traces of mesial line and subterminal spottings. Fringe narrowly white tipped. Expanse, 35 mm.

One male, Misantla, Mexico, September, 1909 (R. Müller).

Type.—Cat. No. 13018, U.S.N.M.

Allied to *Polla prælataria* Herrich-Schaeffer, but with the lines well apart, the inner one erect and not angled outward to the discal dot. This may be *Polla celeraria* Walker. Walker's description apparently agrees, but I have no specimen that has been directly compared with Walker's type.^a His locality is Villa Nova [Brazil], which would indicate a wide distribution if the species are the same.

Genus PYRINIA Hübner.

PYRINIA MINSERA, new species.

Rusty brown, the area before the outer line on both wings a little lighter, showing a yellowish ground, heavily overlaid with rusty mottlings; indications of a discal dot; outer line on both wings straight, dark, with a leaden shade, on fore wing at outer third and parallel to outer margin, on hind wing near the middle. Beneath yellow, overlaid with rusty brown mottlings, the basal and terminal spaces of fore wing nearly filled by them, the hind wing showing a mesial line and heavy mottlings at base and terminally. Expanse, 25 mm.

One male, Zacualpan, Mexico, August, 1909 (R. Müller).

Type.—Cat. No. 13019, U.S.N.M.

Allied to *Pyrinia castana* Dognin from Ecuador and Bolivia, but the fore wing with the outer margin less straight and oblique and the markings on the under side of the wings heavier, especially basally.

Genus BASSANIA Walker.

BASSANIA UMBRIMARGO, new species.

Dull clay-color; fore wing a little brownish shaded at base, the margins of both wings broadly shaded with dark gray, limited by a narrow purplish black line; on the fore wing the limiting line arises

on the outer third of inner margin and runs parallel to outer margin, then curves and reaches costa at apex; on the hind wing the line runs straight across at the outer third; discal dots minute, black. Expanse, 41 mm.

One male. Zacualpan, Mexico, August, 1909 (R. Müller).

Type.—Cat. No. 13020, U.S.N.M.

Allied to Bassania neropia Druce, but the course of the outer line is different.

Genus STENASPILATES Packard.

STENASPILATES RECTISSIMA, new species.

Fore wing dark reddish brown, minutely speckled with black atoms, the costa broadly and diffusedly pale; lines straight, approximately parallel, diverging a little toward costa, whitish, powdery, edged with black toward the median space; discal dot small, black, near to the costa. Hind wing brownish ocherous, shading to dark brown toward the anal angle; a straight blackish line across the wing beyond the middle, edged outwardly with pale toward the inner margin; discal dot small, black. Expanse, 32 mm.

One female, Orizaba, Mexico, July, 1909 (R. Müller).

Type.—Cat. No. 13021, U.S.N.M.

Allied to Stenaspilates apapinaria Dyar from southern California, but the lines all much straighter, while the color is darker.

Genus ENDROPIA Guenée.

ENDROPIA UNDULARIA, new species.

Clay color, irrorated with dark brown; lines of fore wing wavy, the outer followed by a purplish shade, that largely fills in the subterminal space below; subterminal line wavy, similar to the others, followed by a brown cloud below the middle of the inner margin; discal dot small, black. Hind wing with the mesial line distinct, wavy, the submarginal line more strongly waved and narrower. Expanse, 40 mm.

One male, Zacualpan, Mexico, April, 1909 (R. Müller).

Type.—Cat. No. 13023, U.S.N.M.

Much resembles the female of *Endropia mattearia* Schaus, except for the wavy lines. Both these species are allied to the North American *Metanema quercivoraria* Guenée.

Genus SELENIA Hübner.

SELENIA VEDA, new species.

Fore wing shaded with reddish brown or dark brown, except the costa and terminal space, which are lighter: the dark shade reappears more or less distinctly on the margin; outer line distinct, incurved at vein 2, white, narrow, relieved by an intensification of the dark shading

within it; an oblique dark band on the middle of the costa is sharply angled opposite the cell and proceeds to inner margin close to outer line, but the part below the angle is often lost in the general dark shading; a similar angled subbasal line shows in some of the specimens, but it is generally still fainter than the mesial one; an illy defined dark discal mark. Hind wing pale clayey or whitish, sparsely irrorate with brown; an outer straight dark line and obscure discal dot; the shading is darker at the anal angle. Expanse, 32 to 37 mm.

Four males, two females, Mexico City, Mexico, February, April, June, 1909, October, December, 1908 (R. Müller).

Type.—Cat. No. 13024, U.S.N.M.

Allied to Selenia belisama Druce, but with a differently shaped outer line.

Genus TORNOS Morrison.

TORNOS UMBROSARIUS, new species.

Thorax clay color; abdomén dull black. Fore wing clay color, the outer third of the wing overlaid with black except costally, a streak running into the rounded discal dot, and another along submedian fold; lines obsolete, the outer indicated by dots. Hind wing overspread with dull black, a faint, curved, wavy, mesial line alone visible, pale without, dark-edged within. Expanse, 34 mm. One female, Orizaba, Mexico, January, 1909 (R. Müller); also four

females from Orizaba (Schaus collection).

Type.—Cat. No. 13025, U.S.N.M.

The specimens from the Schaus collection were considered by Mr. Warren to be Tornos scolopacinarius Guenée; but I have seen no specimens of this well-known North American species which at all approach the Mexican form. Hulst described Tornos abjectarius from Arizona, a type of which is before me, but it is only the dark form, robiginosus Morrison, which I can easily match in my Texan material. Hulst also described Tornos cinctarius as a variety of scolopacinarius. I have no type of this before me, but from the description it seems much the same as Tornos quadripunctata Warren, a distinct species. No locality is given for cinctarius; but Pearsall has supplied Florida and Georgia. Quadripunctata I have from Guadalajara, Jalapa, and Orizaba, Mexico. A comparison of types will have to be made, though it is unlikely that the species are really the same.

Genus CŒNOCHARIS Hulst.

CŒNOCHARIS FŒMINARIA, new species.

Fore wing gray, powdery, sprinkled with light and dark scales; inner line black, wavy, bent on median vein; discal mark indicated by a slightly darker cloud; outer line black, wayy, nearly even in its course, from outer fourth of costa to middle of inner margin. Hind

wing pale gray, darker on the margin, the inner margin powdery gray; traces of a pale mesial line. Expanse, 35 mm.

One female, Tehuacan, Mexico, September, 1909 (R. Müller).

Type.—Cat. No. 13026, U.S.N.M.

Allied to Canocharis elongata Hulst from Texas, but larger, powdery gray, not uniform lilaceous gray, and the lines farther apart.

Genus MERIS Hulst.

MERIS MEXICOLA, new species.

Dark gray, powdery, intermixed with olivaceous; inner line black, diffused, curved; a large clouded discal spot; outer line broad, black, narrowly excurved at vein 4, inwardly dentate on the veins, roundedly curved outwardly, the points of the dentations filled in with white dots; traces of a submarginal black line; a row of black points between the veins at the base of the fringe. Hind wing pale at the base, outwardly shaded with gray and olivaceous; a rounded dark discal mark; traces of an outer dark line, showing only on the inner margin. Expanse, 35 mm.

Two males, Mexico City, Mexico, December, 1909 (R. Müller).

Type.—Cat. No. 13027, U.S.N.M.

Allied to Meris alticola Hulst from New Mexico, but the wings are greener and marked with distinct lines; the pectinations of the antennæ äre much shorter.

Family MEGALOPYGIDÆ.

Genus MEGALOPYGE Hübner.

MEGALOPYGE LAMPRA, new species.

Dark purplish brown, head, tegulæ and patagia with large vellowish white spots, abdomen indistinctly ringed with white. Fore wing dark brown on the basal half, the veins in and above the cell and an ellipse below the median vein outlined in white; the dark space is sharply limited at the end of the cell, thence incurved and outward to tornus; outer area with white lines on the veins and in the interspaces, forming a continuous white line next to the dark area, narrowing outwardly, the margin again brown; a dark spot above vein 6. Hind wing whitish, the veins narrowly brown; outer margin narrowly and inner margin broadly brown. Expanse, 30 mm.

One male, Misantla, Mexico, March, 1909 (R. Müller); one male, Santa Cruz, Mexico (H. Schwarz).

Type.—Cat. No. 13027, U.S.N.M.

This appears to be the species figured in the Biologia Centrali-Americana (pl. 86, fig. 6) as Megalopyge radiata Schaus. However, radiata is quite another species, having no white spots on the collar.

It is known to me by the single female type from Brazil. *M. lampra* is allied to *M. superba* Hy. Edwards, but differs in the markings on the outer part of the wing.

MEGALOPYGE CYRTOTA, new species.

White, the long hairs tipped with brown. Fore wing white, shaded with brown, the white showing most distinctly on the long curled hairs of subterminal area; a rounded triangular dark patch on basla half of inner margin, composed of brown and purplish black scales; a black spot at end of cell and another between it and the margin. Hind wing creamy white. Expanse, 32 mm.

One female, Mexico City, Mexico, June, 1909 (R. Müller.)

Type. Cat. No. 13028, U.S.N.M.

The pattern of coloration is as in Megalopyge lapara Schaus. The present species is small and slender, the fore wings considerably elongated.

MEGALOPYGE TRUJILLINA, new species.

Seven females, Cuernavaca, Mexico, July, 1906 (W. Schaus.) Type.—Cat. No. 13029, U.S.N.M.

Closely allied to Megalopyge trujillo Schaus, and possibly not specifically distinct therefrom. The specimens are somewhat smaller and show a yellowish olivaceous tint on the outer part of the wing, which is not nearly so distinct in trujillo. The whitish submarginal line on the wing is more or less well indicated, in the series considerably more distinct than in trujillo, while the whitish patch at the base of the wing is less distinct and contrasted, due largely to the general paler tint of the coloration.

MEGALOPYGE CODIOPTERIS, new species.

Five males, ten females, Cordoba, Jalapa, and Cuernavaca, Mexico (W. Schaus).

Type. - Cat. No. 13030, U.S.N.M.

Again allied to Megalopyge trujillo Schaus and to the preceding, but more divergent. The yellow color is still more intensified, forming the ground color, though still overwashed with brownish to the margin. The form is nearest to trujillina, being the same but lighter and more yellow, nearly intermediate between trujillina and Megalopyge defoliata Walker. One of the specimens is in fact labeled "defoliata," but I take that species to be the still lighter form in which the margin of the wing is clear yellow, the brown shading having wholly or largely retreated therefrom. In defoliata, too, the basal shadings are darker, having more of a blackish than purplish tint.

MEGALOPYGE BISSESA, new species.

Head and thorax orange yellow, more or less intermixed with brown. Fore wing yellow, the basal two-thirds overspread with brown, mottled with purplish, especially costally, with a brown semidetached spot at the fork of veins 7 and 8. Hind wing with light-brown shading on the basal half. Expanse, male, 30 mm.; female, 45 mm.

Ten males, two females, Cuernavaca, Mexico, August, 1906 (W. Schaus); Santa Rosa, Mexico, July, 1906 (W. Schaus); also one male, southern Arizona (E. J. Oslar), and one female, Oracle, Arizona, July 22 (H. G. Hubbard).

Type. Cat. No. 13031, U.S.N.M.

Allied to Megalopyge ornata Druce and M. opercularis Smith and Abbot, but distinguished from both by the clear yellow margin of fore wing, which is not encroached upon by brown shadings.

MEGALOPYGE LANATA Stoll.

This species is subject to rather marked local variations. The Mexican form is small and dark, the black marginal shadings not separated, but joined to the submarginal intervenular black streaks. The hind wings are dark, in the female sometimes solidly blackish. Stoll's original figure of the female may be recognized, although I have never seen a specimen in which the median markings were so reduced as there represented. The figure of the male is wholly unrecognizable. Phalaena citri Sepp is clearly the same species with the median markings well developed but not strongly joined to the basal ones. I am unable, however, to accept the reference of Phalaena Bombyx tharops Stoll to this species, as I can not reconcile any male specimen before me with Stoll's figure. It probably represents some species at present unrecognized.

MEGALOPYGE SUPERBA Edwards.

This species is recorded in the Biologia Centrali-Americana as Gasina albicollis Walker. It is, no doubt, only a race of Megalopyge albicollis Walker, but the wings have very considerably less of white, and I think the name superba may be retained for the Mexican form. I have this same form from British Honduras and Costa Rica.

Genus PODALIA Walker.

PODALIA MISANTLA, new variety.

Two males, Jalapa, Mexico (Schaus collection); Misantla, Mexico, March, 1909 (R. Müller).

Type.—Cat. No. 13032, U.S.N.M.

This is the Mexican form of *Podalia orsilochus* Cramer. The true orsilochus from the Guianas is very dark, the markings on the fore

wing being dark gray-brown, the hind wing of the male solidly black. Specimens from Rio Janeiro, Brazil, are essentially the same, but have a little white on the edge of the hind wing, cutting off a row of marginal dots (form vesta Walker female = dorsimacula Walker male). In the Mexican specimens the markings, while essentially the same, are lighter and more gravish, only the spot at base of costa and the subbasal spots in the submedian space appearing dark. The hind wings are white in the cell and beyond, brown shaded below, the veins darker, with a diffused white submarginal shade, cutting off a row of marginal gray spots. The form is allied to Podalia major Schaus, but this is marked with a still paler gray, while the hind wings are largely white, only brown-shaded below the cell to anal Misantla is the most divergent form, as the markings are more separated and tend to be broken up into spots. In both orsilochus and major there is a continuous broad median shade curving outward in the cell to costa; in misantla it is broken up into separate markings and does not give the appearance of a continuous shade. Orsilochus has the hind wings very dark, major has them very pale, while misantla is intermediate in this repect.

Family DALCERID.E.

Genus ANACRAGA Dyar.

ANACRAGA SOFIA, new species.

Fore wing pale cream color; a brown cloud subbasally in submedian fold; a faint brown clouding across the middle of the wing and subterminally; discal dot round, dark brown. Hind wing whitish, shading to cream color along the inner margin. Expanse, 20 mm.

One female, Cuernavaca, Mexico, August, 1906 (W. Schaus). Tupe.—Cat. No. 13036, U.S.N.M.

Genus ACRAGA Walker.

ACRAGA CARETTA, new species.

White; fore wing with a chocolate-brown shaded submarginal band, staining the anal angle and becoming faint and finally lost above; discal cross-veins and origins of veins 2 and 3 finely marked in brown. Expanse, male, 18 mm.; female, 27 mm.

One female, Misantla, Mexico, June, 1909 (R. Müller); one male, Chiriquicito, Panama (W. Schaus).

Type.—Cat. No. 13037, U.S.N.M.

Family CASTNIIDÆ.

Genus CASTNIA Fabricius.

CASTNIA HECHTIÆ, new species.

Gray, the fore wing shaded with black at base below cell and in an angular mark at end of cell; a white band, starting near base, runs along above median vein to origin of vein 2, thence fills the interspace 2 and 3 and runs obliquely upward toward costa just beyond the cell, terminating at vein 7. Hind wing orange-red, darker shaded in cell and submarginally; a strongly bent black band at end of cell, a submarginal row of pear-shaped spots and the margin narrowly black, the black running inward a little on the veins. Expanse, 65 mm.

One male, Tehuacan, Mexican, June, 1909, "on Hechtia" (R. Müller).

Type.—Cat. No. 13038, U.S.N.M.

Family COSSID.E.

Genus XYLEUTES Hübner.

XYLEUTES STRIGIFER, new species.

White; fore wing densely covered with erect black strigge about as long as the interspaces between the veins, the dots larger and heavier along the costal edge; an agglomeration of black scales on the discal cross vein. Hind wing more faintly and sparsely strigose, but similar. Expanse, 33 to 42 mm.

Four males, Orizaba, Mexico, June, 1909 (R. Müller); Santa Cruz, Mexico (H. Schwarz).

Type.—Cat. No. 13039, U.S.N.M.

The specimens resemble Herrich-Schaeffer's figure of Zeuzera canadensis without the dark shadings and with the discal mark added. The hind wings also are more strigose.

Genus ZEUZERA Latreille.

ZEUZERA RAMUSCULA Dvar.

Zeuzera ramuscula Dyar, Sci. Bull., Brooklyn Inst., vol. 1, pt. 8, 1906, p. 8.

A large specimen is before me, the markings smooth and powdery, but the same species, I believe. Iguala, State of Guerrero, Mexico, June, 1906 (W. Schaus). The species was described from Brownsville, Texas.

Genus MIACORA Dyar.

MIACORA DIFFIDENS, new species.

Head and thorax soiled rusty white, abdomen blackish gray. Fore wing whitish gray in ground, overlaid with drak gray except below median vein and beyond end of cell; a red-brown shade in submedian space across vein 2; strigæ black, rather dense, but obscured by the dark ground, a conspicuous streak from near anal angle up perpendicularly to costa and another submarginal one running down from near the apex. Hind wing brownish black. Expanse, 52 mm.

One male, Zacualpan, Mexico, August, 1909 (R. Müller).

Type.—Cat. No. 13040, U.S.N.M.

Allied to Miacora tropicalis Schaus, but smaller and darker.

Genus GIVIRA Walker.

GIVIRA FLAVESCENS Dognin.

Eugivira flavescens Dognin, Ann. Ent. Soc. Belgique, vol. 48, 1904, p. 122.

A specimen from Santa Rosa, State of Vera Cruz, Mexico (W. Schaus), agrees well with a specimen from San Salvador labeled by Mr. Dognin.

Genus HYPOPTA Hübner.

HYPOPTA SALOME, new species.

Light gray, the abdomen dark. Fore wing mottled with white on the gray ground, especially at end of cell, below median vein and in a double series of submarginal spots; no strigæ; a rounded triangular brown-black spot in submedian space below center of vein 2. Hind wing powdered with dark gray, lighter between the veins. A row of terminal black dots on both wings. Expanse, 33 mm.

One male, Misantla, Mexico, May, 1909 (R. Müller).

Type.—Cat. No. 13042, U.S.N.M.

Allied to Hypopta pulverosa Hampson from Santa Lucia, West Indies, but without the coarse strigæ. The antennæ in both species are very shortly pectinated.

HYPOPTA CHILODORA, new species.

Dark gray. Fore wing gray, powdery, the costa strongly dusted with white; two lines across the wing of raised scales, white within, blackish without; inner line slightly oblique, crossing the end of the cell, where it is somewhat bent; outer line a little more oblique, situated submarginally. Hind wing a little lighter gray, unmarked. Expanse, 31 mm.

Five males, two females, Mexico City, Mexico, February, March,

and November, 1908, and February, 1909 (R. Müller).

Type.—Cat. No. 13043, U.S.N.M.

The antennæ of the male have long pectinations.

Genus TRIGENA Dyar.

TRIGENA AMAROSA, new species.

Dark gray, base of thorax and base of abdomen with tufts of broadly spatulate brown scales. Fore wing gray, paler and more whitish through the middle of the wing, tinged with rusty brown in the apical region; an inner curved black line, nearer the base on inner margin than on costa, edged on both sides with rusty brown; the wing is dusted with rusty brown and with faint gray strigæ, the latter becoming blackish and distinct subterminally, forming an irregular line, which broadens into a reticulated area near the costa; a distinct but irregular median line below the cell, edged with rusty brown. Hind wing white, translucent, not reticulate, but dusted with gray broadly on inner margin. Expanse, 37 mm.

One male, Cuernavaca, Mexico, November, 1906 (W. Schaus).

Type.—Cat. No. 13044, U.S.N.M.

Similar in pattern of markings to *Trigena parilis* Schaus from Brazil, but of a very different color.

Genus ARBELA Moore.a

ARBELA NAIS Druce.

Arbela nais Druce, Biol. Centr.-Amer., Lep. Het., vol. 2, 1898, p. 450.

Described from Costa Rica. I have a specimen from Cuernavaca, Mexico, July, 1906 (W. Schaus).

Family PYRALID.E.

Genus STENOPHYES Lederer.

STENOPHYES DISPARILIS, new species.

White, translucent; fore wing of the male greatly elongated, of the female much less so, but with pointed apex. Fore wing with four dark brown bands, the first three near together on the basal half of the wing, first and third broad, second narrow and oblique in reverse direction; outer line oblique from outer fourth of costa toward anal angle, which it does not reach, but is reflected to discal mark and from there to inner margin at middle; discal mark large, quadrate, filled in with rusty brown; a marginal brown band which sends in a spur to outer line at interspace 5 and 6 and at anal angle. Hind wing with two straight broad brown bands and the margin brown, the edges of these markings a little irregular. Expanse, male, 27 mm.; female, 22 mm.

^aArbela Moore, 1879, is preoccupied by Arbela Stål, 1865. Likewise Hollandia Karsch, 1896, is preoccupied by Hollandia Butler, 1892. Some other name may be available, so I do not propose a substitute at present.

One male, Cuernavaca, Mexico, June, 1909 (R. Müller); two females, Guadalajara and Oaxaca, Mexico (Schaus collection).

Type.—Cat. No. 13046, U.S.N.M.

This species is listed in the Biologia as Samea zinghalis Walker. This was described from Venezuela, and while I have no specimens from that country, I have a series from Brazil, the Guianas, and the Lesser Antilles, which show a form clearly specifically distinct. The North American huronalis Guenée (=serinalis Walker) is still another species. The three, huronalis, disparilis, and zinghalis are easily distinguished by the markings of the hind wings.

Genus PACHYZANCLA Meyrick.

PACHYZANCLA JUNCTALIS, new species.

Gray, the wings semitransparent. Fore wing yellowish along the costa, especially at the outer third; lines gray, darker than the wing; inner line narrow, curved, without wavings; two blackish discal dots, orbicular and reniform, with a pale yellow bar between in the cell; outer line curved from costa to vein 2, slightly flexuous, thence inward along vein 2 and thence straight to inner margin at its outer third. Hind wing of the same color as fore wing, the costa and cell pale yellow with a gray mark in the cell; outer line as on the fore wing, curved to vein 2, thence inward and straight to above anal angle. Expanse, 32 mm.

One male, Orizaba, Mexico, January, 1908 (R. Müller).

Type.—Cat. No. 13407, U.S.N.M.

Allied to *Pachyzancla acyptera* Hampson from the same locality, but larger and with the pale patches in the cells of both wings.

CIRAPHORUS, new genus.

Palpi porrect, rather short and with long scales, the third joint nude; fore wing with veins 8 and 9 stalked; hind wing with veins 4 and 5 stalked, separate on fore wing; antennæ with the shaft annulate, longer than fore wing, the legs very long and slender, the wings narrow and pointed; front prominent, smoothly rounded, and without a prominence.

Type of the genus.—Ciraphorus cloodes Dyar.

Allied to Stenoptycha Zeller and Lineodes Guenée.

CIRAPHORUS ELCODES, new species.

Creamy gray. Fore wing cream color at base, brownish beyond the middle, shading to gray at anal angle; an oblique gray band from near middle of inner margin to cell; beyond it a hyaline patch, pointed outwardly and bordered not quite immediately by a black line; a similar angular mark above it in the end of the cell with a little hyaline marking just beyond the cell; a fine black outer line running close along the curved tip of the costa to a point at apex, thence curved inward and outward again, running below close to outer margin to anal angle; the terminal space thus limited is filled with cream color and marked with black dashes just below the point in the line; a broken black terminal line, edged within by pale. Hind wing hyaline whitish, with the apex smoky gray; a broken terminal black line. Expanse, 27 mm.

One male, Tehuacan, Mexico, September, 1908 (R. Müller); two males, Jalapa, Mexico (Schaus collection).

Type.—Cat. No. 13050, U.S.N.M.

Genus EROMENE Hübner.

EROMENE DIATRÆALIS, new species.

Male with the fore wing brown, tinged with other, a blackish bar across end of cell interrupted by some whitish scales; small black points indicated at the ends of the veins. Hind wing whitish, shaded with brownish at tip. Expanse, 32 mm.

Female larger, the fore wing largely ocher yellow, a little irrorate with gray, especially along submedian fold. Hind wing pure white. Expanse, 43 mm.

One male, one female, Mexico City, Mexico, May, 1908, and October, 1909 (R. Müller).

Type.—Cat. No. 13051, U.S.N.M.

Proc. N. M. vol. 38-10-18