

case of insects was shown privately before the trial, made mistakes in some instances in endeavoring to tell which were bees and which flies.

—Dr. Dyar presented the following paper :

ADDITIONS TO THE LIST OF NORTH AMERICAN LEPIDOPTERA, No. 2.

By HARRISON G. DYAR.

Family RIODINIDÆ.

Apodemia hepburni Godman and Salvin.

Mr. Oslar sent me a pair which he took in the Patagonia Mountains, Arizona. The male agrees with the description in the *Biologia Centrali-Americana*, but is rather smaller than the figure. The female has more white spots than the male. The form comes extremely close to *palmerii* Edw., which I at first thought it to be, till Mr. Oslar called my attention to the difference.

Family NOCTUIDÆ.

Hadena multicolor, n. sp.

Thorax blackish brown, lighter centrally, collar whitish in front; abdomen brownish gray. Fore wings variegated in ochraceous, red brown, blackish brown and white. The ground is ochraceous, appearing irregularly at base, in the elongate orbicular, in the t.-p. line opposite the cell and at apex, elsewhere obscured by dark red brown shades. Lines blackish, clouded, t.-a. outwardly oblique, t.-p. bent over cell with minute light points on the veins. Reniform ringed in white, showing a distinct spot at the outer side of the constriction; claviform black outlined, obscured in a blackish shade which irregularly fills the median space. Subterminal line pale, waved, obscure, terminal space shaded in black and running inward to t.-p. line opposite cell and on submedian fold. Hind wing nearly entirely blackish shaded over pale ochraceous. Expanse 43 mm.

One specimen, Victoria, B. C. (E. M. Anderson).

Type.—No. 7831, U. S. National Museum.

Allied to *vultuosa* Grote, but overspread with dark shadings while the reniform is contrasting white as in *apamiformis* Grote.

Hadena geminimacula, n. sp.

Lustrous blackish brown, brown or reddish, the markings all present and arranged as in *pluviosa* Walker, but not contrasted, something as in *ethnica* Sm., though less extreme. Lines geminate, crenulate, pale filled; subterminal broken into a series of pale dots, edged with black cusps within, its course straighter than in *pluviosa*. Ordinary spots outlined

in black, the reniform without any white except two little specks at its lower extremity between veins 3 to 5, but these specks are bright and contrasting. Hind wing blackish outwardly, pale at base. Expanse 47 mm.

Five specimens, Pecos, New Mexico, August 9 and 14 (T. D. A. Cockerell), Garfield Co., Colorado (D. Bruce).

Type.—No. 7832, U. S. National Museum.

The species is near *pluviosa*, distinguished therefrom by the smoother colors and the restriction of the white marking of the reniform. The two specimens from Mr. Cockerell are nearly black; two from Mr. Bruce are more brownish, possibly due to the specimens being older; the third specimen from Mr. Bruce is reddish brown. The three specimens from Mr. Bruce have been in the National Museum collection ever since Dr. J. B. Smith arranged it, the brown ones under the label *pluviosa* Walker, the red one under *lateritia* Hübner.

Tæniocampa terminatissima, n. sp.

Grayish clay color, shining; terminal space contrasting, ashen, separated by a light subterminal line which is distinct and perfectly straight from just below apex to before anal angle. Wing otherwise a little shaded, darkened before the subterminal line, lighter near the costa, but the extreme costal edge dark. Lines fine, linear, obliterate, dark, crenulate, the t.-p. with minute points on the veins. Orbicular represented by a black point; reniform large, illy defined, stained with rusty brown, with a black mark filling its lower third. Median shade line indicated; a terminal row of black points. Hind wing dark gray. Expanse 30 mm. The vestiture is hairy.

Described from one ♀, Las Vegas, New Mexico (C. P. Gillette.)

Type.—No. 7833, U. S. National Museum.

Amiana, n. gen.

Head subprominent, eyes large round, naked, front strongly conically produced, smooth; tongue distinct, palpi short, but exceeding front, scaled, third joint small; antennæ simple in both sexes. Legs moderate, normal, tibiæ unarmed, unmodified; vestiture scaly, without tufts. Wings rather wide, accessory cell present on fore wings; vein 5 of hind wings distinct, remote from 4, arising from the cross-vein half way between center and lower angle of cell.

Type: *A. niama*.

Judging from the figures in the *Biologia Centrali-Americana* *Miana pulchra* Druce and *M. zonella* Druce belong to this genus.

Amiana niama, n. sp.

Deep grayish brown; fore wings relieved by an ochereous reddish shade in basal space and before anal angle, the latter sometimes forming a distinct but diffuse spot. Basal and t.-a. lines black, single, wavy; a black median shade line; t.-p. line whitish, black edged, wavy, excurved gently over reniform and inward on submedian fold; subterminal line a black shade, limited by whitish without, produced at veins 1, 3, 4, and 6; a row of terminal black dashes; claviform an ochereous point; orbicular black ringed, pale filled, small; reniform distinct, constricted, white and black ringed, concolorously filled; costa with white dots subapically. Fringe and hind wings blackish-brown. Below dark, the hind wings with three faintly darker lines. Expanse 24-25 mm.

Eight specimens, Huachuca Mountains and Nogales, Arizona (E. J. Oslar).

Type.—No. 7834, U. S. National Museum.

Bomolocha chicagonis, n. sp.

Brownish gray; t.-a. line obsolete, the wing obscured with dark brown up to the straight, slightly curving, oblique t.-p. line. Beyond lighter, lightest just next the t.-p. line; subterminal line subpunctiform, whitish, defined by a dark shade within. Ordinary spots wanting. Hind wing pale, grayish shaded. Expanse 28 mm.

One ♀, Chicago, Ill. (A. Kwiat).

Type.—No. 7835, U. S. National Museum.

Near *umbralis* Smith, but lighter, the t.-p. line more oblique, subterminal more remote from the edge and fused with its accompanying shade, no black dots on the ordinary spots.

A second specimen from Turtle Mountains, N. Dak. (A. H. Verrill), is the same but much paler, being pallid whitish ochraceous. I call it variety *perpallida*.

Type.—No. 7836, U. S. National Museum.

Family GEOMETRIDÆ.

Sciagraphia gilletteata, n. sp.

Warm reddish gray; t.-a. and t.-p. lines broad, thick, upright from the internal margin, not reaching costa, light orange brown with pale edges. Discal dot dark; terminal space shaded in dark brown, darkest next the t.-p. line and separated therefrom by a black line. Hind wing with a faint discal dot and trace of an orange band above anal angle. Below washed with vermilion on costa and veins. Expanse 27 mm.

One ♂, Colorado (C. P. Gillette).

Type.—No. 7776, U. S. National Museum.

Resembles *continuata* Walk., and *snoviata* Pack., but the two thick, upright bands are orange brown, not black.

Tracheops bolteri Hulst.

I have received this species from Las Vegas (C. P. Gillette) and Mesilla Park, New Mexico (T. D. A. Cockerell), the specimens being, respectively, a ♀ and a ♂. Hulst described the form from a single ♂ from Mr. Bolter's collection and, in placing the genus in his synopsis, he made some of his characteristic assumptions, viz, that the female had simple antennæ and no fovea on fore wings below, when he had never seen a female. In this case he is proven to have been right. I do not detect the fovea and the antennæ are not pectinated, yet they are peculiar in that they are strongly serrate on the central part of the shaft. In coloration the ♀ resembles the ♂, but the hind wings have more pronounced markings, forming a rather definite scalloped mesial line. Fresh specimens are obviously pale olivaceous green, as this color is largely present in the ♀ specimen, though lost in the less well preserved ♂.

Family SESIIDÆ.

Parharmonia piceæ, n. sp.

Shining blue black; wings hyaline, colorless, fore wing with black costal edge, discal spot and outer margin, broad at apex. Antennæ black. Inner edge of patagia red; palpi at base within, fore coxæ without and irregular markings on inner sides of all tibiæ also red; fore tarsi reddish, middle tarsi reddish within, hind tarsi black. Abdomen with scattered red scales on the under surface, forming a defined double patch on the third segment, uniform black above. Expanse about 25 mm.

Three specimens, Hoquiam, Wash. (H. E. Burke), bred on *Picea sitchensis*; Keyport, Wash. (C. V. Piper).

Type.—No. 7837, U. S. National Museum.

This species may be referable to the genus *Sesia*, as the character of the anal tuft in the two sexes is the only diagnostic character that I can gather from Beutenmüller's tables to separate *Parharmonia* and *Sesia*. In either case it does not seem to coincide with any described species.

Family PYRALIDÆ.

Ulophora brunneella, n. sp.

Fore wings with 11 veins, 4 and 5 closely approximated at base, but separate, 6 from end of cell, curving downward, 7 and 8 long stalked, 10 close to the stalk but separate. Hind wings with 8 veins, 3 approximated to, but separate from the long stalk of 4 and 5; cell about one-fourth the length of wing. Labial palpi upturned far above vertex, third joint small; maxillary palpi small, filiform; ♂ antennæ simple, thickened; tongue strong; ocelli present; fore wings with a basal scale ridge.

Body dark purplish gray; fore wing long, squarish, purple gray, rather light, somewhat reddish in the lower part of median space. Basal space reddish below, costal part shaded in black. Scale ridge oblique, black, followed by a broad black space to the narrow, parallel, black inner line which is edged with paler without. Median space above clouded with black; discal dot diffused. Outer line strongly bent outward at veins 4-5, pale, narrowly black edged. Veins of terminal space black lined, the apex with a small dark shade; terminal line black; fringe plumbeous, shining, not metallic. Hind wing fuscous, subpellucid, fringe nearly concolorous. Expanse 24 mm.

One ♂, Tryon, North Carolina, May 25, 1903 (W. F. Fiske).
Type.—No. 7838, U. S. National Museum.

The species resembles *Pinipestis zimmermanni* Grote, but is smaller and the inner line of fore wing is much more oblique.

Ulophora tephrosiella, n. sp.

Rather dark purplish gray. End of patagia and a streak in basal space rusty red. Scale ridge dark purplish, preceded by a lighter tint and followed by a rusty red shade. Inner line at about the middle of the wing, wavy, followed by a dark shade. Discal dots dark; outer line gently out-curved, pale, preceded and followed by a broad dark shade; terminal line dark; hind wings fuscous, lighter in the ♂; fringe pale. Expanse 13-14 mm.

Three specimens, Washington, D. C., August 27, 1894; bred from larvæ on *Tephrosia virginiana*. Department of Agriculture, Insectary No. 6323.

Type.—No. 7839, U. S. National Museum.

Ortholepis gillettella, n. sp.

Fore wings with 11 veins, 4 and 5 separate, 10 separate; hind wings with 8 veins, 4 and 5 long stalked, cell moderate, counting to the origin of vein 3 fully half the length of the wing, to the center of cross vein over one-third. Labial palpi upturned, exceeding the vertex, third joint slender, half as long as second; maxillary palpi smoothly scaled; ♂ antennæ bent above base with a tuft of large scales in the bend; an erect ridge of scales preceding the transverse anterior line of fore wings. Dark blackish cinereous, shining. Lines a shade paler, distinct, the inner oblique, wavy, the outer bent at cell and submedian fold, slightly crenulate, both edged with darker; a faint blackish line runs from inception of outer line on costa to median space on inner margin. Scale ridge black; the discal dots form a narrow black bar of raised scales; terminal edge black. Hind wings brown black. Below immaculate blackish. Abdominal segments above faintly whitish ringed at tips. Expanse 25 mm.

Described from one ♂, Colorado, probably from Fort Collins (C. P. Gillette).

Type.—No. 7840, U. S. National Museum.

Ambesa busckella, n. sp.

Fore wing with 11 veins, hind wing with 8; labial palpi erect, maxillary palpi small, filiform; ♂ antennæ slightly bent above base with a row of small brown teeth nearly hidden by scales in a groove within the bend. Head, palpi, thorax and base of fore wings pale whitish gray, tinged with ochraceous on the base of the wings. Following this is a broad black space, in the outer edge of which is the inner line, fine, white, zigzag angled; a diffused whitish spot on the inner margin just beyond. Outer part of wing pale gray, middle field faintly ochraceous tinged below. Discal spot large, black. Outer line white, sharply black edged, obscurely crenulate, bent in a little at end of cell; an abbreviated, oblique, wavy blackish line from the bend to below discal dot. Terminal line dotted, black. Hind wings pale fuscous. Expanse 20 mm.

One ♂, one ♀, Plummer's Island, Maryland, May 16, August 24 (Aug. Busck).

Type.—No. 7841, U. S. National Museum.

Meroptera liquidambarella, n. sp.

Fore wings with 11 veins, 4 and 5 short stalked, 10 short stalked with 8 and 9; ♂ antennæ with bend at base and small scale tuft; maxillary palpi with a large yellow tuft, concealed within the labial palpi. Head and thorax blackish gray; forewings with light gray ground of the color of *pravella* Grote, but this color appears not only on the inner line, but in the median space as well. Base reddish, dark, obscure; t.-a. line oblique, straight, of the ground color, followed by a broad black band and this by a narrow, slightly irregular one, which is shaded to the broad band on the costa. Discal dots more or less completely joined; a broken band beyond them and a clouded dot below, both in the light gray median space. T.-p. line narrow, pale, preceded and followed by a black shade, bent out in the middle but scarcely crenulate. A terminal row of nearly joined black dashes. Hind wings gray as in *pravella*. Expanse 16-18 mm.

Washington, D. C. Described from sixty-one specimens bred from sweet gum at the insectary of the Department of Agriculture, August, 1881 (no number) and May, 1893 (No. 5491).

Type.—No. 7842, U. S. National Museum.

A specimen was sent to the late Dr. Hulst several years ago and was determined by him as "*Salebria nubiferella* Rag. (??)." The specimen was not in good condition, being an undersized female, somewhat rubbed, so that the determination was not made at the best advantage. The species is not referable to *Salebria* on account of the venation; but, even so, it does not agree with the description of any of the species of that genus. In Ragonot's figure of *nubiferella*, the base is not red, and the course of the inner line is interrupted and different from the specimens before me.

Salebria triplagiella, n. sp.

Gray; fore wings rather dark, appearing granular from the pale scales mixed with darker; no reddish shades. Inner line whitish, oblique, irregularly dentate, a black border outwardly on costal half, inwardly on lower half; a small white shade nearly touching the line on the inner margin, followed by a diffuse black spot. Discal dots joined, large, black. Outer line rather coarsely crenulate, very slightly more incised at cell and submedian fold; a row of terminal dots. Hind wing fuscous, subpellucid, the edge darker, fringe whitish. Expanse 25 mm.

Described from one ♂, Winnipeg, Manitoba (A. W. Hanham).
Type.—No. 7843, U. S. National Museum.

The form comes near *annulosella* Ragonot, but the wings are more elongate, the markings less definite and rougher, while the outer line is scarcely incised at all on the submedian fold.

Pyla hanhamella, n. sp.

Palpi porrect, greenish metallic, white scaled below narrowly. Head and thorax black, slightly metallic; ♂ antennæ bent at base with very small scale tuft in the bend, of ♀ simple. Fore wings brownish black, the basal space only with a slight metallic reflection; median space washed with white scales. Lines gray white, rather broad, diffused, the inner oblique, slightly waved, the outer indented at cell and submedian fold. The grayish scaling in the median space is clustered over the cell and defines distinctly a large dark discal dot. Hind wings light brownish, darker on the edge, the fringe pale, almost whitish. Below pale sordid whitish, yellowish tinged, unmarked except for a trace of the outer line on the costa. Abdomen dark, ringed in pale at the ends of the segments and lighter towards tip. Expanse 22-24 mm.

Described from 3 ♂♂ and 1 ♀, Winnipeg, Manitoba, one dated June 27, 1900 (A. W. Hanham).

Type.—No. 7844, U. S. National Museum.

Pyla rainierella, n. sp.

Black; fore wings with scattered greenish metallic scales. Lines and discal dot without these scales, black, diffused, rather broad and near together. Inner line straight, nearly perpendicular; outer line bent outward in the middle. Hind wings and underside black. Expanse 16-17 mm.

Two ♂♂, Mt. Rainier, Washington (C. V. Piper).

Type.—No. 7845, U. S. National Museum.

The species of *Pyla* may be separated by the following table:

Fore wings without cross lines.

Wings long, size large (32 mm.).....*metallicella* Hulst

Wings less elongate, size smaller (25 mm.).

Iridescence coppery *scintillans* Grote

Iridescence bronzy green.....*æneoviridella* Ragonot

Iridescence greenish yellow, sexes unlike.....*æneella* Hulst

Fore wings with transverse lines.

These lines pale,

Lines white; wings with metallic lustre.....*bistriatella* Hulst

Lines grayish; wings without metallic lustre.

Dark fuscous beneath.....*incorruscella* Hulst

Light yellowish fuscous beneath*hanhamella* Dyar

These lines black.....*rainierella* Dyar

Megasis caudellella, n. sp.

♂ gray, pulverulent, lines whitish, straight, the inner line very slightly bent subcostally, the outer almost perfectly straight, both faintly blackish edged toward the median field. Discal spot black, more or less distinct; terminal line shaded black. Hind wings subpellucid pale gray, termen blackish narrowly, fringe pale. Expanse 30-32 mm.

♀ much smaller and more distinctly marked. Lines whitish, diffuse, nearly straight with broad distinct blackish borders within; discal dots separated by a whitish point. Hind wings as in the male. Expanse 20-22 mm.

Two ♂♂, two ♀♀, foothills above Golden, Colorado, May 13, 1901 (Dyar and Caudell).

Type.—No. 7846, U. S. National Museum.

Differs from the other species of *Megasis* of similar size in the straightness of the lines.

Megasis piperella, n. sp.

Fore wings with 11 veins, hind wings with 8, 4 and 5 long stalked; labial palpi moderate, drooping; maxillary, small, filiform. Male antenna simple; no lateral tuft on thorax. Fore wings elongate, narrow, apex depressed; light ashy gray; a diffuse ochraceous ray through the cell. Costa white on basal third, running to over half subcostally but not pure white being mixed with scattered cinereous scales. Discal dots black, separated by the end of the ochraceous ray. Veins slightly powdered in darker; lines absent. Hind wings moderately ample, subpellucid, pale fuscous tinted. Below like hind wings above. Expanse 32 mm.

One ♂, Pullman, Washington, May 15, 1898 (C. V. Piper). Washington Experiment Station No. 233.

Type.—No. 7847, U. S. National Museum.

This may be *Epischnia granitella* Rag., but I place it in *Megasis* in an effort to interpret Hulst's tables literally.

The species of *Megasis* may be separated as follows:

Fore wings elongate triangular, broad; hind wings very full and ample; ♀ markedly smaller than ♂.

Outer line irregular and indistinct or wanting, at least in the ♂.

♂ with numerous dots on the veins; ♀ with inner line waved.....*edwardsialis* Hulst

♂ without dots, a yellowish ray in submedian fold; ♀ with inner line straight, whitish.....*excantalis* Hulst

Outer line well formed, fairly distinct.

Outer line bent; palpi hairy.....*atrella* Hulst

Outer line straight; palpi normal.....*caudellella* Dyar

Without these characters.

Large species (33 mm.); cross lines obsolete.....*piperella* Dyar

Small species (15 mm.); cross lines present.....*cinctella* Hulst

Zophodia orobanchella, n. sp.

Wings trigonate, rounded, rather less elongate than usual. Gray, white and black scales rather evenly mixed. Inner line lost; outer black, broad on the costa, twice angled below becoming narrow and obsolete. Discal spot large, black, rounded. A fine black line runs through the middle of the cell from the discal dot, edged with white, most distinctly so below. The white and black scales costally are arranged indistinctly in lines. Termen nearly white, the terminal line diffusely dotted black. Hind wings pale fuscous, dark on the margin. Expanse 18-20 mm.

Three specimens, Wawawai, Washington, August, 1898 (C. V. Piper), reared from larvæ in the flowers of *Orobanche ludoviciana*, Washington Experiment Station No. 051.

Type.—No. 7848, U. S. National Museum.

Staudingeria olivacella, n. sp.

Fore wings narrow but triangularly widened; obscure sordid olivaceous, the costal edge diffusely white. Lines nearly obsolete, shadowy, dark gray, the inner line not definite, the outer retracted nearly to touch the small, obscure discal dots. Hind wings lightly gray shaded; fringe pale. Expanse 24 mm.

One ♂, Pullman, Washington, August 12, 1898 (C. V. Piper), Washington Experiment Station, No. 539.

Type.—No. 7849, U. S. National Museum.

Staudingeria perluteella, n. sp.

Fore wings with 11 veins, hind wings with 7 veins, antennæ simple, labial palpi obliquely ascending, long, third joint very small, deflexed, maxillary palpi with a long bunch of hairs at the tip, tongue distinct. Fore wings narrow, well angled and rather pointed, uniform pale luteous ochraceous, the lines and discal dot only indicated by faint shadows, not definite enough to describe. Hind wings, broad, rounded, fuscous gray, a little translucent, dark at the extreme margin, the fringe long and pale. Expanse 25 mm.

One specimen, Fort Collins, Colorado (C. P. Gillette).

Type.—No. 7850, U. S. National Museum.

Homæosoma reliquellum, n. sp.

Smooth, obscure cinereous, thickly dusted with white on costal half. Lines obsolete, the inner represented by three black dots, the upper and lower of which are very small, the middle one more outwardly placed; outer line indicated by an outward blackish shade, curved, regular and even. Discal dots black, joined into a large spot in the male, narrowly separated in the female. Hind wings whitish, gray tinted along costa and outer edge. Expanse 15-16 mm.

One ♂, one ♀, Center Harbor, New Hampshire, July 19, 1902 (H. G. Dyar).

Type.—No. 7851, U. S. National Museum.

Nearly allied to *Homæosoma mucidellum* Rag. but smaller, smoother cinereous, the outer line very vague and slightly curved, discal dots approximated or fused. I have *mucidellum* from Texas, Colorado (G. P. Gillette), Kaslo, British Columbia (Dyar and Caudell), Pullman, Washington (C. V. Piper), and Los Angeles, California (A. Koebele). The specimens vary much in size, but not in the characteristic markings.

Tacoma Hulst.

In his original description, Hulst says, "♂ antennæ simple," but changes this later, giving the ♂ a tuft of scales in the bend of antennæ. The genus would, therefore, fall as a synonym of *Nephoptyx* Hübner, as Ragonot shrewdly suspected;* but I think the section of *Nephoptyx*, with veins 4 and 5 of fore wings actually stalked (not approximate only), may properly be recognized as of generic value, under the name *Tacoma*. It will contain, of North American species, *feriella* Hulst, *subtinctella* Rag., and the following:

Tacoma nyssæcolella, n. sp.

Dark lilaceous gray; inner line rather oblique, pale gray, angled slightly centrally, preceded on inner margin by a subquadrate brown-black patch, followed outwardly by a triangular black patch on costa, joined to a narrow black line below. Discal dots joined, black; a large, diffuse, brown-black spot below, touching inner margin and outer line. Outer line pale, slightly excurved in the middle, very obscurely dentate, edged faintly and narrowly with black. Terminal line black; fringe gray. Hind wings pale fuscous. Expanse 16 mm.

One ♂, bred from *Nyssa multiflora*, issued August 14, 1894. "Collected near Bladensburg Road, D. C., in a tightly folded leaf.

* Mon. Phycit. et Gall., p. 205, 1893.

The larva was black, five-eighths of an inch long, the head yellow, retractile; thinly covered with short white hairs. The leaf was folded lengthwise and upwards, the edges tightly fastened together, giving the fold a very sharp edge, the entire leaf looking like a pod. Within the fold there is a web which holds the excrement suspended." (Chambliss.)

Type.—No. 7928, U. S. National Museum.

Ephestia nonparilella, n. sp.

Head round, eyes large; labial palpi upturned weakly, second and third joints nearly equal, not reaching vertex; maxillary palpi filiform; tongue moderate; ♂ antennæ simple. Fore wing with 9 veins, all free; hind wing with 6 veins, 5 and 8 wanting, 3 and 4 separate, but approximate at base.

Fore wing long and narrow; pale gray, irrorate with black scales; lines black, distinct, contrasted, parallel, the inner at the middle of the wing, the outer at the outer fourth. Both are slightly oblique, parallel to the outer margin, straight, the inner edged within with white, the outer edged without and more distinctly so. Discal spots joined, black, touching a black cloud on costa. Hind wings whitish, subpellucid. Expanse 18 mm.

One ♂, Santa Rita Mountains, Arizona, June 7 (E. A. Schwarz).

Type.—No. 7929, U. S. National Museum.

Psorosina, n. gen.

Fore wings with 11 veins, 4 and 5 separate, 8 and 9 stalked; hind wings with 7 veins, 2 at the angle of the cell, 3 and 4 stalked. ♂ antennæ bent above base with a tuft of scales in the bend; tongue moderate; labial palpi erect, recurved to vertex; maxillary palpi small, filiform.

Under this I place *hammondi* Riley and the following new species. Hulst puts *hammondi* in *Canarsia*, of which he says: "Close to *Psorosa* Zell., differing principally in the stemming of veins 4 and 5." But *Psorosa* has long wings with a scale ridge, while the palpi are long and porrect (European *dahliella* Tr.). In *ulmiarrosorella* Clem., veins 4 and 5 of fore wings are stalked and *Canarsia* must be restricted to this, including perhaps *graciella* Hulst, which I do not know.

Psorosina angulella, n. sp.

Shining dark brownish gray; inner line broad, whitish, obscurely geminate, rather diffuse, the costal half oblique, the inner half straight. Discal dots black, joined in an oblique white cloud; outer line near margin, faint, pale, straight. Hind wing pale fuscous. Expanse 14 mm.

One ♂, Iowa (C. P. Gillette). Very close to *hammondi*, but the inner line is strongly angled. It may prove a variety of *hammondi*.

Type.—No. 7930, U. S. National Museum.

Passadena Hulst.

The type of this genus, *constantella* Hulst, is obviously synonymous with *Getulia flavidorsella* Rag. Ragonot defined *Getulia* from an African species, a ♀ only, and later referred to it his *flavidorsella*, first described under *Anoristia* from ♀♀ only. Whether the African species has the same ♂ characters as the American one is purely a matter of surmise at present and I therefore retain Hulst's generic term and remove *Getulia* from the North American list.

Passadena flavidorsella Ragonot.

I have the species from Los Angeles, Cal., May (D. W. Coquillett), Argus Mountains, Cal., May, 1891 (A. Koebele), Tucson, Ariz., March 13, 1898 (E. A. Schwarz), Catalina Springs, Ariz., April 10, 1898 (E. A. Schwarz), Oracle, Ariz., July 15 (E. A. Schwarz), Colora'o, New Mex., July 10, at light (T. D. A. Cockerell).

The maxillary palpi in the ♂ are pencil tufted and the species falls near *Etiella* Zell., but is distinguished therefrom by the shorter labial palpi.

Myelois fragilella, n. sp.

Fore wings with 11 veins, 4 and 5 stalked, 8 and 9 stalked; hind wings with 8 veins, 2 long before the angle of the cell, 4 and 5 stalked, cell long; tongue strong; labial palpi upturned, maxillary palpi filiform; ♂ antennæ simple.

Fragile and slender. Fore wings light gray, white mixed with cinereous and black; lines not contrasted, narrow, white, their blackish edges more conspicuous than the lines. Inner oblique, distinctly and strongly produced outward on submedian fold, blackish edged within. Discal dots elongate, well separated, blackish. Outer line minutely angled on discal and submedian folds, dark edged within. Terminal line of scattered dark scales. Hind wing translucent, pale fuscous outwardly. Expanse 21 mm.

One ♂, Pecos, New Mexico, at light June 21 (T. D. A. Cockerell).

Type.—No. 7931, U. S. National Museum.

Varneria, n. gen.

Fore wings with 9 veins, 3 and 4 stalked, 5 and 8 absent, 10 from the cell; hind wings with 6 veins, 2 near the angle of the cell, 3 and 4 stalked, 5 and 8 absent. Tongue distinct, scaled, but very short, about equalling the length of the head. Palpi upturned above vertex, second joint reaching vertex, third half as long as second or over.

Varneria postremella, n. sp.

Head, thorax and fore wings dark vinous red, the head, thorax and basal half of costa overspread with blackish. A blackish line follows the discal fold and spreads diffusely on the discal nervules. Terminal edge and fringe blackish. Hind wing dark fuscous, blackish on margin. Expanse 10.5 mm.

Three ♀♀, Kentucky, August (Aug. Busck), Plummer's Island, Maryland, July 1903 (Aug. Busck).

Type.—No. 7932, U. S. National Museum.

Peoria discostrigella, n. sp.

Fore wings with 11 veins or 10, 3 and 4 separate, 4 and 5 very long stemmed or coincident, 8 and 9 stemmed, 10 and 11 from the cell; hind wings with 7 veins, 2 before the angle of the cell, 3 and 4 very shortly stalked or separate, 8 distinct, the cell moderate, nearly half the length of wing. Tongue rudimentary; palpi very long, porrect; clypeus smooth.

Head, palpi and thorax whitish ocherous; fore wings pale ocherous, showing in a broad stripe from base to margin along submedian fold, elsewhere longitudinally lined with gray on the veins; a broad costal white stripe to apex; a long lanceolate white stripe along median vein from near base to near margin. Hind wings white, subpellucid, yellowish tinted. Expanse 28 mm.

Three ♀♀, Roswell, New Mexico, August 22 (T. D. A. Cockrell), Tucson, Arizona, July 21 (E. A. Schwarz).

Type.—No. 7933, U. S. National Museum.

Perhaps more properly referable to *Aurora* Rag. The venation seems unusually unstable.

Tolima cincaidella, n. sp.

Fore wings with 11 veins, 2 well before angle of cell, 3 before angle, 4 and 5 very shortly stalked, 8 and 9 stalked, 10 connate with the base of the stalk, 11 from the cell. Hind wings with 7 veins, 2 from the angle of the cell, 3 and 4 long stalked, 5 absent, 8 distinct. Tongue moderate, apparently about twice the length of the head; palpi very long, porrect and drooping; antennæ simple, lengthily ciliate.

Pale ocherous whitish, lines paler, obscure, defined by dusky edgings toward the median space. Inner line produced a little on costa, preceded by a very faint, russet patch on the inner margin. Discal dots blackish, separate. Outer line drawn inward subcostally, else even, a slight dentation indicated in the dusky border. The wing is all very pallid. Hind wing whitish, translucent. Expanse 27 mm.

Three specimens, all with the abdomens broken, but apparently males, Rock Spring, Wyoming (T. Kincaid).

Type.—No. 7934, U. S. National Museum.

Apparently falls in *Altoona* by Hulst's tables, as veins 4 and 5 are very shortly stalked; but on reading the text, it is seen that *Altoona* is not different from *Volusia*, both of which are regarded by Ragonot as synonyms of *Tolima* and have veins 3 and 4 of the fore wings distinctly stalked. The present species differs also from the generic type in the greater length of tongue.

Atascosa quadricolorella, n. sp.

Fore wings with 11 veins, 4 and 5 stalked, 8 and 9 stalked; hind wings with 7 veins, 2 at the angle of the cell, 3 and 4 long stalked, 8 very short. Tongue small, yet distinct; palpi obliquely ascending, the second joint enlarged at the tip, third about one-fourth the second.

Fore wing gray, powdered with white on costal third. Inner line white, narrow, arcuate, more oblique on costal half, without any indentations. Following it, a band, red-brown on costal half, ocher on inner half and spreading into a large blotch. An illy defined darker shade through the cell, cutting the brown band and touching the partly confluent discal dots. Outer line white, edged by black scales on both sides, a little excurved mesially and obscurely dentate. A terminal blackish diffuse line. Hind wings white, a fuscous line towards apex. Expanse 18 mm.

One ♀, Las Cruces, New Mexico (T. D. A. Cockerell).

Type.—No. 7935, U. S. National Museum.

Caudellia, n. gen.

Fore wings with 9 veins, 5 and 8 wanting, 3 and 4 separate; hind wings with 7 veins, 3 and 4 separate, 8 very short, cell normal, about half of wing. Tongue moderate, distinct; labial palpi obliquely ascending, third joint somewhat deflexed, long, exceeding the front by twice the length of the head. Maxillary palpi very small, filiform. Ocelli present, minute; ♂ antennæ simple, a little irregular and flexuous above base. Fore wing with oblique scale tuft on costa below beyond base.

Allied to *Unadilla* Hulst.

Caudellia apyrella, n. sp.

Dark vinous brown, heavily overlaid with black. Fore wings with the markings obscured, vinous shaded; inner line a vague paler shade; a lighter patch on outer third of costa touching the obscure discal dots; a black shade at apex; terminal line black. Hind wing whitish, subpellucid, fuscous tinted. Fore wing pale ashen below; costal tuft vinous. Expanse 14-15 mm.

Two ♂♂, Plummers Island, Maryland, June and July, 1903 (Aug. Busck).

Type.—No. 7852, U. S. National Museum.

Caudellia albovittella, n. sp.

Fore wings with 9 veins, all separate, 5 and 8 wanting; hind wings with 6 veins, 3 and 4 separate; palpi porrect, the basal joint ascending, the

third moderate, slightly deflexed; costal fold on the under side with a tuft of scales in the male. Head and thorax dark purplish brown; fore wing vinous brown shaded in black. Inner line oblique, straight, white, and well contrasted, widened almost to a blotch subcostally. Outer line whitish, pale, illy defined, rather near the margin; discal dots small, black, succeeded by a few light scales. Hind wings subpellucid, fuscous at the margin. Expanse 13 mm.

One ♂, one ♀, Plummers Island, Maryland, July, 1903 (Aug. Busck).

Type.—No. 7853, U. S. National Museum.

Family COCHLIDIIDÆ.

Slossonella, n. gen.

Allied to *Heterogenea*, but with four spurs on the hind tibiæ. Palpi of ♀ curved, but very short, hardly exceeding the front. Head sunken, form rather slender. Fore wings with veins 8 and 9 stalked, 7 remote, 10 from the base of the stalk. Hind wings with no veins stalked.

Slossonella tenebrosa, n. sp.

Dark rusty brown, nearly chocolate color. Fore wings with two slender black lines the inner nearly straight, at middle of wing, faint, obsolete costally, the outer produced outward over the discal nervures, narrow, flexuous. Hind wings brownish black with light brown fringe. Expanse 21 mm.

One ♀, Jacksonville, Florida (Mrs. A. T. Slosson).

Type.—No. 7941, U. S. National Museum.

Family TORTRICIDÆ.

Eucosma crenana Hübner.

I have collected this European species at Kaslo, British Columbia, and bred the larvæ on willow. The specimens have been shown to Mr. W. D. Kearfott and Dr. C. H. Fernald, who are of the opinion that the species may be distinct from the European one. I cannot, however, see the slightest reason for it.

Eucosma solandriana Linnæus.

I have received this European species from Victoria, British Columbia, from Messrs. A. W. Hanham and E. M. Anderson. Three of the forms of this strikingly variable species are represented, the nearly unicolorous form, the dark one with white dorsal patch and the light one with brown dorsal patch. In Europe the larva is known to feed on willow and birch, and the same will probably be found to be the case in North America.