DESCRIPTIONS OF NEW NORTH AMERICAN TINEID MOTHS, WITH A GENERIC TABLE OF THE FAMILY BLASTOBASIDE.

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INTRODUCTION.

Several papers were published under the title "Steps Toward a Revision of Chambers Index; With Notes and Descriptions of New Species" in Insect Life, a journal published by the U. S. Department of Agriculture from 1888 to 1895. The object was the gradual improvement of the catalogue of North American Tineid moths by the publication of descriptions of new species and corrections of the generic locations of old ones. The standard catalogue of North American Tineidæ at the time these papers were begun was published by V. T. Chambers under the title "Index to the Described Tineina of the United States and Canada" in the Bulletin of U. S. Geological and Geographical Survey, IV, No. 1, 1878. During the sixteen years that have elapsed since the last installment of these papers was printed, the journal Insect Life has been suspended, but the series is herewith continued under a more explanatory title.

The material on which these descriptions are based was in part received by the U. S. National Museum from the U. S. Department of Agriculture through the late Dr. C. V. Riley, and in part is contained in the author's collection. Types of the new species are in the collection of the U. S. National Museum in most cases, as indicated by the type numbers, some from the museum material and some donated by the author.

Family GELECHIADÆ.

GELECHIA LAUDATELLA, new species.

Antennæ white, annulated with brownish fuscous, the basal joint having a wider white ring than those beyond it.

Palpi white, both joints brownish fuscous at the base, terminal joint tipped with brownish fuscous.

^a The last paper of this series appeared in Insect Life, III, 1891, p. 389.

Head and thorax white, the latter dusted with brownish fuscous scales.

Forewings white, the base of the costa and the extreme base of the dorsum brownish fuscous; an elongate brownish fuscous spot lies above the middle of the wing between and projecting farther than the brown above and below it; a large brownish fuscous patch begins at the basal fourth of the costa, its inner edge sloping obliquely toward, but not attaining, the middle of the dorsum; beyond its lower point it is indented upward to the middle of the wing and thence continued to the apical fourth, where its straight outer edge is margined by a narrow band of white; the apical portion of the wing, together with the grayish white cilia, is dusted and clouded with brown, and at the base of the cilia, beyond the middle of the dorsum, are a few brownish fuscous scales.

Alar expanse.—10.5 mm.

Hindwings pale gray; cilia faintly tinged with ochreous.

Abdomen grayish ochreous.

Legs, hind tibiæ whitish ochreous, the tarsal joints smeared above. Type.—Female, Cat. No. 10677, U.S.N.M.; No. 142, Riley, 1886; No. 842, Walsingham, 1886.

Habitat.—Folsom, California, July 1, 1885 (A. Koebele, collector).
This species appears to be allied to the group of fraternella Douglass.

GELECHIA SUBTRACTELLA Walker.

Gelechia subtractella Walker, Cat. Lep. Brit. Mus., Pt. 39, p. 592, No. 229, 1864.—Riley in Smith's List Lep. Bor. Am., 1891, p. 102, No. 5487.

Blastobasis subtractella Dyar, Bull. U. S. Nat. Mus., No. 52, 1902, p. 528, No.

5969.

Type.—Female in the British Museum.

Habitat.—Nova Scotia.

An old note of mine, made many years ago, "Blastobasis? Wlsm-MS. 190: 1892," is probably responsible for the removal of this species from Gelechia to Blastobasis in Dyar's Catalogue, but a subsequent note reads as follows: "This is a Gelechiad: a wretched object, unset and much worn. Palpi rather rough beneath, terminal joint a little shorter than median. Neuration and width of wing impossible to arrive at. I should call it an obscurely marked Lita, much mottled with subferruginous spots on middle of fold, at end of cell and near apex, also perhaps at end of fold; but these are scarcely distinguishable from the fuscous sprinkling and shading which covers the apparently paler wing-surface (much worn)." Until further evidence is forthcoming this must remain as an unrecognized Gelechia.

Family (ECOPHORID.E.

Genus ETHMIA Hübner.

ETHMIA ALBITOGATA, new species.

Antennæ fuscous.

Palpi blackish, with a few white scales beneath, at the base and about the apex of the median joint; terminal joint erect, slightly recurved, somewhat shorter than is usual in the genus.

Head and thorax dull fuscous, the ends of the tegulæ whitish.

Forewings elongate, narrow, rounded at the apex, termen oblique, slightly convex; white, densely suffused with brownish fuscous which forms an obtuse angle on the outer half of the fold, receding very obliquely toward the basal and apical portions of the costa; a spot of the same color is conspicuous immediately above the tornus, running obliquely inward, and a smaller spot lies immediately below and adjacent to the fold near the base; the extreme costa is whitish and the darker markings here mentioned are rendered more conspicuous in the paler or less-suffused varieties, while in others they become less noticeable through the more complete shading of the general surface of the wing; cilia whitish, more or less suffused with brownish fuscous, but usually with a small white spot on the upper half of the termen below the apex; underside pale brownish fuscous, the costa and dorsum and the subapical spot in the cilia showing some white scaling.

Alar expanse.—16 mm.

Hindwings white, slightly shining, the apical fourth brownish fuscous; eilia white, with a narrow basal band of brownish fuscous coinciding with the darkened portion of the wing; underside white, with a small fuscous shade at the apex.

Abdomen brownish fuscous.

Legs whitish, much shaded with brownish fuscous; some projecting white hairs from the end of the posterior tibiæ.

Type.—Male, No. 101552, collection Walsingham; paratype male, Cat. No. 10346, U.S.N.M. (Walsingham determined, No. 823, 1906).

Habitat.—California (Zelle: coll., Mus. Walsingham; Beutenmüller coll., U.S.N.M.). Two specimens.

Family BLASTOBASIDÆ.

Blastobasida Meyrick, Trans. Ent. Soc. Lond., 1894, p. 22.

SYNOPTIC TABLE OF GENERA.

1	Hindwings with vein 4 absent	2 11
2	Antennæ with pecten	4

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3	{Forewings: vein 7 to termen. Arctoscelis Meyrick. (Type, epinyctia Meyrick.) {Forewings: 7 to costa Endrosis Hubner. (Type, lactella Schiffermuller.) {Hindwings: vein 5 remote from (3+4) Agnoca Walsingham. (Type,	
4	Hindwings: 5 and (3+4) connate or stalked.	5
5	Antennæ notched in maleBlastobasis Zeller. (Type, phycidella Zeller.) Antennæ not notched	6
6	Antennæ of male bifasciculate 3, attenuate at joint 4Epistetus Walsingham. (Type, divisus Walsingham.) Antennæ simple.	-
7	Forewings: 4 and 5 stalked	7 8
8	Clemens.) [Forewings: 9 out of stalk of 7 and 8Pseudopigritia Dietz. (Type, dorso-maculella Dietz.)	
	Forewings: 9 separate. [Labial palpi minute	9
9	Labial palpi of moderate length; sexually dimorphicPlocophora Dietz. (Type, fidella Dietz.)	
10	Labial palpi very small and indistinct in both sexes Epigritia Dietz. (Type, pallidotinctella Dietz.) Labial palpi very short and rudimentary in male; distinct with terminal joint pointed in female Pigritia Clemens. (Type, laticapitella Clemens.)	
11	{Hindwings: 4 and 5 stalked } Hindwings: 4 and 5 connate, or stalked	12 14
12	Hindwings: 4 and 5 stalked out of 3 Auximobasis Walsingham. (Type, persimilella Walsingham.) Hindwings: 3 separate.	13
	Antennæ notched in male Valentinia Walsingham. (Type, glandulella Riley.)	19
13	Antennæ not notched I onisma, Walsingham. (Type, macrocera Walsingham.)	
14	Hindwings: 5 out of stalk of 3 and 4. Hindwings: 5 separate (from 3 and 4 connate, or stalked).	15 17
15	Antennæ notched in maleHolcocera Clemens. (Type, chalcofrontella Clemens.) Antennæ not notched	16
16	Antennæ of male bifasciculateProsodica Walsingham. (Type, nephalia Walsingham.)	10
2.0	Antennæ not bifasciculate, slightly dentate Catacrypsis Walsingham. (Type, nucella Walsingham.)	
17	Antennæ notched in maleCynotes Walsingham. (Type, iccryaella Riley.) Antennæ not notchedHypatopa Walsingham. (Type, inunctella Zeller.)	

The stigma^a is absent from *Endrosis* and perhaps, also, from *Arctoscelis*, with which I am unacquainted.

Genus VALENTINIA, new genus.

Type of the genus.—Gelechia glandulella Riley.

Antennæ of male notched immediately beyond the basal joint, which is flattened and slightly concave beneath; with a pecten.

Maxillary palpi short, dependent.

Labial palpi smooth, recurved; the terminal joint shorter than the median and scarcely more slender.

Haustellum moderate.

^a Zeller, Hor. Soc. Ent. Ross., XIII, 1877, pp. 429–430.

Head and thorax smooth.

Forewings elongate-lanceolate, with straightened costa and depressed apex.

Neuration 12 veins; 7 and 8 stalked, 7 to costa; rest separate.

Hindwings with flexus well developed, eilia $1\frac{1}{2}$.

Neuration 8 veins; 3 separate, 4 and 5 stalked; 6 and 7 separate. Abdomen somewhat flattened.

Legs, hind tibiæ hairy above.

I have named this genus in honor of my late friend Charles Valentine Riley, who described the type.

VALENTINIA GLANDULELLA Riley.

Gelechia glandulella Riley, Can. Ent., III, 1871, pp. 118-119.

Holcocera glandulella Riley, Rept. Inj. Ins. Mo., IV, 1872, pp. 144–145. figs.66 a-g.—Dyar, Bull. U. S. Nat. Mus., No. 52, 1902, p. 529, No. 5979.

Blastobasis nubilella Zeller, Verh. zool.-bot. Ges. Wien., XXIII, 1873, p. 297, pl. iv, fig. 36.

Holcocera nubilella Dyar, Bull. U. S. Nat. Mus., No. 52, 1902, p. 529, No. 5980.
Holcocera triangularisella Chambers, Cinn. Quart. Journ. Sci., II, 1875, p. 256;
Can. Ent., IX, 1877, p. 72.—Dyar, Bull. U. S. Nat. Mus., No. 52, 1902, p. 529,
No. 5981.

Habitat.—Atlantic States; Texas; Kentucky; Massachusetts, Cambridge (Zeller Coll., Frey Coll.); North Carolina (Morrison, collector, 1883); California, Lake County, Blue Lake, June 15. 1871 (Walsingham).

Chambers a regarded nubilella Zeller, triangularisella Chambers, and sciaphilella Zeller as varieties of gladulella Riley and quotes Riley as having the same opinion. We may therefore accept their opinion that glandulella Riley=triangularisella Chambers. Mr. Busck informs me that "the unique type \Im of nubilella Z. in Cambridge is=glandulella," but that "the unique type \Im of sciaphilella, Z. in Cambridge is a true Blastobasis, Z. with seven veins in hindwing only." Chambers's figure of the neuration of glandulella b is incorrect.

VALENTINIA RETECTELLA Zeller.

Blastobasis retectella Zeller, Verh. zool.-bot. Ges. Wien, XXIII, 1873, p. 297.—Chambers, Bull. U. S. Geol. Surv., IV, 1878, p. 132.—Riley, Smith's list Lep. Bor. Am., 1891, p. 104, No. 5575.

Holeocera rectectella Dyar, Bull. U. S. Nat. Mus., No. 52, 1902, p. 529, No. 5978.

Type.—Female, No. 101611, Mus. Walsingham.

Habitat.—Bosque County, Texas, August 29 (Belfrage, collector).

I have a second specimen (female, No. 33097, Mus. Walsingham), also collected by Belfrage, dated September 2, 1876.

a Can. Ent., IX, 1877, p. 72.

b Trans. Cin. Soc. Nat. His., 11, 1880, p. 203, fig. 24,

VALENTINIA FRACTILINEA Zeller.

Blastobasis fractilinca Zeller, Verh. zool.-bot. Ges. Wien, XXIII, 1873, p. 298, pl. iv, figs. 37 a-b.

Holcocera fractilinea Dyar, Bull. U. S. Nat. Mus., No. 52, 1902, p. 529, No. 5984.

Type.—Male, No. 101612, Mus. Walsingham; paratype, male, No. 101613, Mus. Walsingham.

Habitat.—Bosque County, Texas, August 1–19 (Belfrage, collector).

VALENTINIA NOTHROTES, new species.

Antennæ pale slaty brownish.

Palpi grayish brown, with whitish sprinkling.

Head and thorax whitish, with grayish fuscous speckling, especially in a band across the front of the thorax and another across the posterior half of the tegulæ.

Forewings dirty white, profusely sprinkled with grayish fuscous, of which a transverse fascia crosses the wing at one-third; this is slightly angulated outward in the middle, and partially diffused outward at the middle and about the costa; at the end of the cell a somewhat less defined, straight, transverse fascia occurs, absorbing the two spots which would otherwise appear at the end of the cell, corresponding to a small discal spot at about the middle of the wing; the apical area is thickly bestrewn and mottled with grayish fuscous; cilia brownish gray, sprinkled with whitish and grayish fuscous atoms.

Alar expanse.—12 mm.

Hindwings brownish gray; cilia slightly paler.

Abdomen slaty gray, anal tuft paler.

Legs pale brownish gray.

Type.—Male, No. 35536, Mus. Walsingham.

Habitat.—Arizona, 1883 (Morrison, collector). Unique.

A small and narrow-winged species, somewhat similar in markings to retectella Zeller, with which it agrees in having a strong notch and pecten on the antennæ, and 4 and 5 of the hindwings stalked, but is quite distinct in size and shape.

Genus BLASTOBASIS Zeller.

BLASTOBASIS (?) CITRICOLELLA Chambers.

Blastobasis citricolclla Chambers, Rept. U. S. Dept. Agric., for 1879, 1880, p. 207.— Comstock, Rept. U. S. Dept. Agr., for 1879, 1880, pp. 206-7.—Hy. Edwards, Bull. U. S. Nat. Mus., No. 35, 1889, p. 125.—Riley, Smith's List Lep. Bor. Am., 1891, p. 104, No. 5561.

Blastobasis citriella Chambers, Rept. U. S. Dept. Agr., for 1879, 1880, p. 245.

Antennæ with strong flattened tuft beneath basal joint (not a bristly pecten, but closely packed curved scales as in Auximobasis); whitish cinereous.

Palpi slightly recurved, divergent, reaching well beyond the head; terminal joint more than two-thirds the length of median; whitish, speckled with fawn brown.

Head smooth; white, slightly sprinkled with brownish gray.

Thorax brownish gray above, tegulæ whitish, sprinkled with brownish gray.

Forewings with 12 veins, 7 and 8 stalked; white, suffused and sprinkled with brownish fuscous intermixed with pale fawn brown; the markings, so far as the darker shading of these colors indicates them, tend to be longitudinal and consist of a strong line along the fold from near the base, almost joining a spot in the fold above the middle of the dorsum, below the fold the base is suffused; a shorter line on the disc, above the fold, runs parallel to the upper half of the plical line, and above it, below the costa, as well as beyond it on the outer half of the disc are sundry mottlings of the same mixed color; two spots, obscurely indicated at the upper and lower angles of the cell, the lower one a little beyond the upper; an ill-defined obilque streak at four-fifths precedes a broken antemarginal shade, which, leaving the costa at the commencement of the cilia, strikes outward to the apex and reverts at an angle along the termen, the dorsal space behind its lower extremity being much shaded; cilia whitish, much speekled and shaded with pale brownish fuscous, which has a tendency to form slender parallel lines through them, but fading out towards the tornus.

Alar expanse.—19 mm.

Hindwings (detached) 7 veins, 3 and 4 coincident; 5 closely approximated to (3+4) at origin, 6 and 7 parallel; shining, pale-brownish gray; cilia dull-brownish gray.

Legs (missing).

Type.—Female, Cat. No. 3774 U.S.N.M.; Walsingham determined, No. 3688, 1898.

Habitat.—Jacksonville, Florida. Larva in dry orange infested by beetle (Arxocerus fasciculatus); issued, March 17, 1880. Unique.

The type, a female, consists of thorax and head, left forewing (torn), right hindwing (broken), and left antenna. The palpi are broken and the abdomen is missing as also the right forewing and left hindwing. It is probably a *Blastobasis* Zeller, but this can not be decided from a female.

This species is omitted from Dyar's List of North American Lepidoptera.

BLASTOBASIS?, new species.

Blasiobasis, new species [Riley and Howard], U. S. Dept. Agr. Ent. Bull., Ins. Life, IV (1892), p. 290.

Habitat.—Australia. Larva on Chionaspis on orange (sent to Washington by Koebele).

BLASTOBASIS COCCIVORELLA Chambers.

Blastobasis coccivorella Снамвеrs, Rept. U. S. Dept. Agr., for 1879, 1880, pp. 207, 245.—Сомѕтоск, Rept. U. S. Dept. Agr., for 1879, 1880, p. 244.—Раскаго, U. S. Dept. Agr., 1ntr. Ent. Comm. Bull., No. 7, 1881, p. 54.—Douglass, Ent. Mo. Mag., XXIV, 1888, p. 228.—Hy. Edwards, Bull. U. S. Nat. Mus., No. 35, 1889, p. 125.—Раскаго, U. S. Dept. Agr., Rept. Ent. Comm., V, 1890, p. 219.—Riley, Smith's List Lep. Bor. Am., 1891, p. 104. No. 5562.

Type.—A female.

Habitat.—Cedar Keys, Florida. Larva in Coccid-scales on oak (Kermes, species, near pallidus Réaumur). Collected in March; issued between April 1–10. This species is omitted from Dyar's List. If the type is still extant a there should be no difficulty in placing it in its proper genus. Chambers's reference to the neuration is doubtless incorrect.

Genus HOLCOCERA Clemens.

HOLCOCERA NIGROSTRIATA, new species.

Antennæ yellowish; basal joint considerably widened, with strong pecten, dirty whitish.

Palpi white, sprinkled with blackish scales, very densely on the outer sides.

Head and thorax white, sprinkled with blackish scales.

Forewings white, much sprinkled and striated with blackish scales; an elongate patch of these scales extends from the base along the fold to about one-sixth, and is diffused downward to the flexus; a narrower streak from the base near the costa extends to a little beyond one-third, running parallel with the costa, but not touching it; beyond this, and a little further removed from the costa, a shorter but darker streak follows the upper edge of the cell to its outer extremity; two other streaks, commencing rather nearer to the base, are situated on the cell and on the fold, respectively, while there is an indication of two dark dots at the end of the cell, scarcely more conspicuous than the blackish dusting which is generally distributed around them, and especially along the margins to the apex; cilia pale yellowish brown, speckled with white and fuscous.

Alar expanse.—13 mm.

Hindwings shining, pale brownish gray; cilia yellowish.

Abdomen whitish, with transverse fuscous lines.

Legs whitish.

Type.—Female, No. 35531 Mus. Walsingham; paratype female Cat. No. 10672, U.S.N.M.

Habitat.—Arizona, 1883 (Morrison, collector). Two specimens.

This species can only be compared with gigantella Chambers, from which its much smaller size at once distinguishes it; it also lacks the radiating lines towards the apex of the wing. The male is unknown, but nigrostriata is doubtless more correctly referred to Holcocera than to Catacrypsis.

HOLCOCERA APHIDIELLA, new species.

Blastobasis aphidiella Riley, Ann. Rept. U. S. Dept. Agr. for 1886, 1887, p. 485. Riley's merely logonymic reference to this species is as follows:

"Blastobasis aphidiella, Riley MS., we have reared from larvæ feeding on the contents of Phylloxera hickory galls." a

Antennæ strongly notched beyond the basal joint, the basal extremity of the notch very plainly indicated by a truncate patch of scales from the lower margin of which the slender bent stem continues; beyond this they are biciliate \(\frac{3}{4}\); basal joint with a strong scale-pecten; tawny gray.

Palpi slender, pointed, slightly recurved, reaching beyond the basal joint of the antennæ, the terminal joint nearly as long as the median; brownish cinereous, the median joint darkened externally.

Head and thorax with an iridescent greenish luster; tegulæ tipped with cupreous.

Forewings with 12 veins, 7 and 8 stalked, 7 to costa; tawny reddish gray; a darker discal spot, a little beyond one-third, is succeeded by a larger spot (or confluent pair of spots) at the end of the cell, below which the outer extremity of the fold is also dark-shaded; cilia brownish cinereous; underside not iridescent.

Alar expanse.—17 mm.

Hindwings with 8 veins, 5 out of the stalk of (3+4); rather shining, brownish gray with greenish and cupreous iridescence toward the base; cilia brownish cinereous, with a slight ocherous tinge; underside decidedly iridescent.

Abdomen brownish cinereous.

Legs brownish cinereous.

Type.—Male, Cat. No. 10676, U.S.N.M., Walsingham determined, No. 3689, 1899 ("31. Unique; not named in Europe, 1884, 1886."—Riley).

^a Ann. Rept. U. S. Dept. Agr. for 1886, 1887, p. 485.

Habitat.—United States (probably Washington City). Pupa in gall of *Phylloxera* on *Carya alba*, October, 1882, issued May 12, 1883. Unique. This species is most nearly allied to *quisquiliella* Zeller.

CATACRYPSIS, new genus.

Type of the genus.—Catacrypsis nucella Walsingham.

Antennæ without a notch in the male; basal joint with peeten, slightly dilated and eurved; not ciliate, slightly dentate on the outer half.

Maxillary palpi moderate.

Labial palpi somewhat recurved, reaching above the vertex.

Haustellum clothed.

Head and thorax smooth.

Forewings narrow at the base, widening outward.

Neuration 12 veins; 7 and 8 stalked, 7 to costa; 3 and 4 connate, or closely approximate.

Hindwings rather broadly ovate, at least as broad as the forewings; flexus somewhat angular.

Neuration 8 veins; 3 and 4 stalked, 5 connate, with or out of (3+4); 6 and 7 separate, nearly parallel.

Abdomen somewhat flattened.

Legs, hind tibiæ hairy, tarsi smooth.

Closely allied to *Holcocera* Clemens, but without the notch in the antennæ of the male.

CATACRYPSIS NUCELLA, new species.

Antennæ brownish fuseous; basal joint yellowish brown.

Palpi yellowish brown, shaded with brownish fuscous externally. Head and thorax yellowish brown.

Forewings, male, yellowish brown, more or less suffused with purplish fuscous, especially along the costa and on the outer portion of the wing, an outwardly-bowed transverse shade of the same indicated at one-third from the base; at the end of the cell is a reduplicated fuscous spot; cilia pale yellowish brown; female with the fuscous shading having a purplish tinge, and being very much thicker and more generally distributed than in the male (in some male specimens the suffusion is almost entirely absent), the basal third of the wing and a patch at the lower extremity of the cell alone exhibiting the paler ground color.

Alar expanse.—16-18 mm.

Hindwings pale brownish gray; cilia yellowish brown.

Abdomen and legs pale brownish oehreous.

Type.—Male, No. 30646; female, No. 30647, Mus. Walsingham; paratypes, male and female, Cat. No. 10670, U.S.N.M.

^a From the Greek word κατάκρυψις, signifying occultation.

Habitat.—Colorado, Loveland, 5,000 feet, July, 1891; September,

1891 (W. G. Smith, collector). Thirty specimens.

This species could only be compared with Holcocera purpurocomella Clemens, of which I have only a single female, and if Clemens rightly referred his species to the genus Holcocera they are of course structurally distinct, but apart from this I can not regard them as identical.

CATACRYPSIS STYGNA, new species.

Antennæ pectinate, but not notched; purplish grav.

Palpi purplish gray.

Head and thorax purplish gray, the tegulæ with a distinct coppery tinge.

Forewings tawny vinous gray, a purplish sheen strongly expressed at the base of the costa, the middle and outer half of the costa slightly darker than the remainder of the wing; the commencement of this dark shading extends across the wing to the dorsum, leaving the preceding space outwardly angulate at the middle and of a paler or more gravish shade; a reduplicated shade-spot at the outer end of the cell is very obscurely indicated; cilia brownish gray, with a slight tawny suffusion.

Alar expanse.—18 mm.

Hindwings brownish gray; cilia pale buff-brownish.

Abdomen (missing).

Legs brownish gray, with broad tawny tarsal bands.

Type.—Male, No. 90425, Mus. Walsingham.

Habitat.—Mendocino County, north of Mendocino City, California (close to the town), June 3-5, 1871 (Walsingham, collector). Unique.

Very similar in appearance to Holcocera purpurocomella Clemens, but differing in the absence of the notch in the antennæ.

CATACRYPSIS URSELLA, new species.

Antennæ with pecten, but without notch; pale brownish ochreous. Palpi brownish gray externally, dirty whitish on their inner sides. Head and thorax bone-whitish, the latter tinged with brownish grav anteriorly.

Forewings bone-white, much suffused and sprinkled with brownish gray, overclouding the costa as well as the apical area beyond the cell, but less profusely along the dorsum and scarcely at all along the disc; a faintly indicated narrow brownish gray fascia seems to leave the costa at one-third from the base, and, after interruption on the cell, is bent inward from the fold to the dorsum at one-fourth; this is somewhat accentuated in the fold, where it probably absorbs a small darker spot, corresponding to, but preceding, a larger brownish fuscous discal spot about the middle of the wing; two smaller darker spots are indicated at the end of the cell, and one at the lower edge of

the cell equidistant between the inner and outer discal spots; the apex is slightly mottled, the eilia pale brownish gray.

Alar expanse.—18 mm.

Hindwings pale gray, with a slight brownish tinge; eilia pale brownish ochreous.

Abdomen grayish.

Legs pale brownish ochreous.

Type.—Male, No. 90438, Mus. Walsingham.

Habitat.—Shasta County, Bear Creek, California, July 27–28.

1871 (Walsingham, collector). Unique.

The species is larger than inconspicua and more marked; the general pattern much as usual in this group, but the difference of structure renders it easily distinguishable from Valentinia glandulella Riley, Holcocera chalcofrontella Clemens, or Hypatopa texanella Walsingham.

CATACRYPSIS IRENICA, new species.

Antennæ, female, brownish gray; basal joint with strong pecten, paler.

Palpi grayish white, median joint grayish brown externally nearly to its apex; terminal joint also sprinkled with grayish brown.

Head and thorax whitish, slightly sprinkled with brownish gray.

Forewings grayish white, with brown-gray sprinkling, especially on the outer two-thirds of the costa and on the dorsal and apical portions of the wing; a patch of this at the base of the costa, mixed with some ferruginous scales; a similar patch before the middle of the costa exhibiting more of the ferruginous coloring, which is diffused downward to the fold, touching the inner extremity of an elongate-ovate blackish-brown discal spot, beyond which, at the end of the cell, are two smaller spots of the same color, which is also faintly reproduced in a diffused patch or cloud on the dorsum beneath them and on the costa beyond them; eilia hoary grayish.

Alar expanse.—20 mm.

Hindwings shining, yellowish gray, with pale brownish ocherous cilia.

Abdomen whitish gray.

Legs whitish, shaded with brownish gray on their outer sides.

Type.—Female, No. 90429, Mus. Walsingham.

Habitat.—Mendocino County, mouth of Albion River, California, May 30-31, 1871 (Walsingham, collector); British Columbia, New Westminster, June 13, 1900 (C. W. Durrant, collector). Two specimens.

CATACRYPSIS INCONSPICUA, new species.

Antennæ pale gravish brown.

Palpi gravish brown, darkened externally.

Head and thorax grayish brown.

Forewings grayish brown through a profuse dusting, amounting to an almost entire suffusion of this color upon a pale cinereous ground; the only marking indicated is a slight and obscure transverse shade at two-fifths from the base and a reduplicated brownish fuscous spot at the end of the cell; cilia pale grayish brown.

Alar expanse.—13-14 mm.

Hindwings shining, purplish gray; cilia yellowish brown.

Abdomen shining, brownish gray.

Legs pale yellowish brown.

Type.—Male, No. 90433, Mus. Walsingham; paratype male, Cat. No. 10669 U.S.N.M.

Habitat.—Shasta County (Hatchet Creek), California, July 14–17, 1871 (Walsingham, collector.) Five specimens.

CATACRYPSIS FLUXELLA Zeller.

Blastobasis (?) fluxella Zeller, Verh. zool.-bot. Ges. Wien, XXIII. 1873, pp. 301-302.—Chambers, Bull. U. S. Geol. Surv., IV. 1878, p. 131.—Riley, Smith List Lep. Bor. Am., 1891, p. 104, No. 5565.

Holcocera fluxella Dyar, Bull. U. S. Nat. Mus., No. 52, 1902, p. 529, No. 5971.

Type.—Male, Museum of Comparative Zoology, Cambridge, Massachusetts.

Habitat.—Bosque County, Texas, October 11, 1876 (Belfrage, collector).

Zeller described this species from a single male without notched antennæ, and with broader hindwings and palpi three or four times as long as those of *aufugella* Zeller.

B. (?) fluxella can not therefore be referred to either Holcocera or Pigritia. I have a single male (33096), collected by Belfrage in Texas, which exactly agrees with Zeller's description, and having vein 5 of the hindwings out of the stalk of 3 and 4 proves the species to belong to Catacrypsis.

CATACRYPSIS MORRISONI, new species.

Antenna with moderate pecten; pale brownish ocherous. Palpi brownish ocherous.

Head and thorax gravish brown, with paler speckling.

Forewings rather narrow, elongate, not widening outwardly; bone-white, with grayish brown suffusion, especially around the margins; a brownish shade at the base of the costa, a darker streak in the basal third of the fold, diffused and diluted to the flexus; beneath it a triangular brownish fuscous dorsal patch, arising a little before the middle, directed obliquely outward and ending obtusely on the cell at about half the wing length; beyond it a pair of brownish fuscous spots at the end of the cell and a few ill-defined similar spots around the apex and termen; cilia gravish brown.

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Alar expanse.—17 mm.

Hindwings shining, pale brownish gray; eilia pale brownish ocherous.

Abdomen and legs pale brownish ocherous.

Type.—Male, No. 35527, Mus. Walsingham.

Habitat.—Arizona, 1882 (Morrison, collector). Unique.

A narrow-winged species, differing much in appearance from any already described, and quite unlike such exponents of allied genera as I have before me.

CYNOTES, new genus.

Type of genus.—Blastobasis iceryaeella Riley.

Antennæ not more than \(\frac{2}{3}\); basal joint slightly dilated, curved, hollowed beneath, with a strong pecten consisting of thick scale clothing; a distinct deeply excised notch beyond it; beyond this the antennæ are biciliate, the ciliations diminishing in length outwardly.

Maxillary palpi meeting above the base of the haustellum.

Labial palpi recurved, reaching above the base of the antenne.

Haustellum moderate, clothed.

Head thickly clothed, moderately broad, a fringe of long diverging hair scales beneath the eye.

Thorax smooth.

Forewings elongate, widening outwardly.

Neuration, 12 veins; 7 and 8 stalked, 7 to costa; rest separate.

Hindwings at least as wide toward their base as the outer half of the forewing; flexus angulate; apex obtusely rounded.

Neuration, 8 veins; 3 and 4 connate; 5 separate; 6 and 7 separate. Abdomen rather short, flattened.

Legs stout, hind tibiæ and tarsi clothed with hair-scales, the tarsi less conspicuously.

Allied to *Hypatopa*, from which it differs in the notched antennæ of the male.

CYNOTES ICERYAEELLA Riley.

Blastobasis iceryaeella Riley, Ann. Rept. U. S. Dept. Agr. for 1886, 1887, pp. 484-485, 485-486; same for 1888, 1889, p. 86; Ins. Life, I, 1888, p. 130; Smith's List Lep. Bor. Am., 1891, p. 104, No. 5569.

Holcocera iceryaeella Dyar, Bull. U. S. Nat. Mus., No. 52, 1902, p. 529, No. 5974.

Tupe.—A male and a female, Cat. No. 473, U.S.N.M.

Doctor Dyar evidently regards this species as an importation from Australia, but we still lack exact information, for Doctor Riley omitted to furnish any data when describing the species. Through the kindness of Doctor Howard I received some of Coquillett's specimens labeled "Pupa on orange." These may have been imported, but they can not affect the fact that my collector, the late Thomas Eedle,

while waiting for me to start on my collecting trip in California and Oregon, took a single specimen (No. 90428) at Sacramento between April 24 and May 16, 1871.

Genus HYPATOPA, new name.

Hypatima Herrich-Schaeffer, Syst. Besch. Schmett. Eur., V, 1853, pp. 47, 217,
 pl. XIII, figs. 15-16 (not Hübner).—Staudinger and Rebel, Cat. Lep. Eur.,
 Pt. 2, 1901, p. 164, No. 353.—Dyar, Bull. U. S. Nat. Mus., No. 52, 1902,
 p. 528.

Type of genus.—Oecophora inunctella Zeller.

A. HINDWINGS WITH VEINS 3 AND 4 STALKED.

HYPATOPA TEXANELLA, new species.

Antennæ, male, with conspicuous pecten, but without notch; pale brownish gray.

Palpi brownish gray, slightly darker on their outer side.

Head brownish cinereous.

Thorax cinereous, shaded with brownish gray.

Forewings hoary whitish cinereous, shaded and speckled with brownish gray, especially at the base, along the costa, more widely on the outer half, as well as on the apical and dorsal portions of the wing; with an outwardly curved, ill-defined, brownish gray fascia, at about one-third from the base, followed by a discal spot of the same color slightly above the middle; at the end of the cell are two spots, one above the other, corresponding to the angles of the cell, and below and beyond these is a less clearly defined spot touching the dorsum about the tornus; cilia brownish gray.

Alar expanse.—14-16 mm.

Hindwings and cilia pale yellowish brown, the former with a rather shining gloss.

Abdomen pale yellowish brown.

Legs pale yellowish brown, the tarsi faintly mottled.

Type.—Male, No. 33087; female, No. 33089, Mus. Walsingham; paratypes male and female, Cat. No. 10671, U.S.N.M.

Habitat.—Bosque County, Texas. April 28-May 20, October 6-10, 1876 (Belfrage, collector). Nine specimens.

HYPATOPA EPISCIA, new species.

Antennæ, palpi, head, and thorax uniformly grayish cinereous.

Forewings grayish cinereous, somewhat mottled with slightly darker shades; the first of these at the basal third takes the form of a rather wide band from the costa, but does not reach the dorsum; beyond this lies a small darkened spot, and about the tornus is a small patch of the same color preceded and followed by others smaller and less conspicuous; cilia concolorous with the wing.

Alar expanse.—14-15 mm.

Hindwings and cilia pale grayish, with a slight brownish ochreous iridescence.

Abdomen pale grayish, inclining to ochreous posteriorly.

Legs conforming in color to the hindwings, tarsal joints not shaded. Type.—Male, No. 90420; female, No. 90421, Mus. Walsingham; para-

type male, Cat. No. 10675, U.S.N.M.

Habitat.—Sonoma County, Russian River, California, May 19, 1871; Dry Creek, May 20–21, 1871; Mendocino County, head of Noyo River June 8–11, 1871; past Little Lake, June 12, 1871 (Walsingham, collector). Five specimens.

In some specimens there are two elongate spots on the fold, but such markings are so little differentiated from the ground-color as to be scarcely worthy of description. The whole insect has a plain unornamented appearance, it is somewhat darker and grayer than conia, from which it differs in having veins 3 and 4 of the hindwings stalked instead of connate.

B. HINDWINGS WITH VEINS 3 AND 4 CONNATE.

HYPATOPA CONIA, new species.

Antennæ cinereous.

Palpi whitish cinereous, sprinkled with brownish fuscous; median joint brownish fuscous externally, except its apex, which is whitish.

Head and thorax whitish cincreous, dusted with brownish fuscous.

Forewings whitish cinereous, dusted with brownish fuscous, especially on the costal and dorsal portions; an elongate brownish fuscous spot before the middle, sometimes reduplicated above toward the base; there is sometimes an elongate spot of the same color in the fold below them, a slight shade at the end of the cell, and a few ill-defined groups of brownish fuscous scales around the apex; cilia whitish cinereous, inclining to grayish at the tornus, dusted with brownish throughout; underside scarcely darker than the pale, shining hind-wings.

Alar expanse.—14-16 mm.

Hindwings cinereous, with a slight brownish tinge; cilia paler, inclining to ochreous.

Abdomen pale grayish, inclining to ochreous posteriorly.

Legs of the same color as the cilia of the hindwings, tarsal joints somewhat griseous.

Type.—Male, No. 90405; female, No. 90408; Mus. Walsingham; paratypes male and female, Cat. No. 10674, U.S.N.M.

Habitat.—Lake County, Blue Lake, California, June 15–16, 1871; Siskiyou County, Mount Shasta, October, 1871 (Walsingham, collector). Fifteen specimens.

This species differs from fasciata in the absence of the wide curved band before the middle of the forewing, and in its paler coloring, but in other respects it bears great resemblance to it, although in many specimens the markings are wholly or partly obliterated.

HYPATOPA FASCIATA, new species.

Antennæ with a pecten, but not notched; brownish fuscous. Palpi brownish fuscous, both joints tipped with hoary fuscous.

Head and thorax hoary, dusted with brownish fuscous.

Forewings hoary, profusely sprinkled with brownish fuscous; a somewhat outwardly curved brownish fuscous fascia, at one-third from the base, is preceded by a distinct line of the pale ground-color and followed about its middle by a thickened patch of brownish fuscous, sometimes divided into two spots on the pale discal surface; there is a longitudinal streak of the same color lying in the fold beyond its middle, and at the end of the fold, opposite the tornus, is a somewhat triangular patch of brownish fuscous, its apex pointing toward the costa; a series of indistinct mottlings or groups of scales are noticeable in good specimens around the termen; cilia hoary, inclining to grayish, with two slender lines running throughout from tornus to apex; underside unicolorous pale brownish gray, with a slight iridescence.

Alar expanse.—14-17 mm.

Hindwings shining, pale brownish, with an iridescent luster in a strong light; cilia the same, slightly paler along their base; underside unicolorous pale brownish gray, slightly iridescent.

Abdomen shining, pale brownish gray; anal tuft corresponding in

color with the hindwings.

Legs pale brownish, the tarsal joints somewhat shaded with brownish fuscous.

Type.—Male, No. 90388, Mus. Walsingham; paratypes male, Cat. No. 10673, U.S.N.M.

Habitat.—Head of Noyo River, Mendocino County, California, June 8–11, 1871; past Little Lake, June 12, 1871; Lake County, Blue Lake, June 15–16, 1871; Colusa County, North Fork Cache Creek, June 24–26, 1871 (Walsingham, collector). Sixteen specimens.

HYPATOPA ORITES, new species.

Antennæ brownish gray; basal joint pectinate.

Palpi strongly recurved to the back of the head above; grayish white, much dusted with brownish fuscous, especially on the outer side of the median joint.

Head grayish white, sprinkled with fuscous.

Thorax grayish white, suffused and sprinkled with brownish fuscous.

Forewings grayish white, suffused and sprinkled with brownish fuscous; the central portion of the wing, on which is exhibited a dark discal shade-spot and another at the end of the cell is less overclouded with fuscous sprinkling than the margins or apex of the wing; a little beyond the discal spot is an elongate dark streak in the fold, and a dark shade at the end of the fold is a little less obliquely placed in relation to a spot at the end of the cell; the apex and termen show slight pale interruptions in the dark shading, which gives the appearance of a series of ill-defined marginal shade-spots extending through the whitish gray cilia; the whole wing has thus a mottled and speckled appearance, the white ground-color showing chiefly before and beyond the discal spot, and in two rather oblique marks pointing to the flexus beneath the basal half of the fold.

Alar expanse.—16 mm.

Hindwings shining, grayish brown; cilia brownish ochreous.

Abdomen pale brownish ochreous.

Legs pale brownish ochreous.

Type.—Female, No. 90427, Mus. Walsingham.

Habitat.—Mount Shasta, Siskiyou County, California, August. 1871 (Walsingham, collector). Unique.

Family STENOMATIDÆ.

=Xyloryctidæ Dyar, Bull. U. S. Nat. Mus., No. 52, 1902, pp. 518-9.

Allied to Xyloryctidæ Meyrick, but differing in having veins 7 and 8 of the forewings separate.

This family is characteristic of tropical America, but would include *Agriophara* Rosenstock ^a (the only Australian genus with veins 7 and 8 of the forewings separate referred by Meyrick to the Xyloryctidæ) and a few Indian forms.

The species belonging to various genera of the Stenomatidæ have been generally erroneously described as "Cryptolechia" (Oecophoridæ) which genus differs in having 7 and 8 of the forewings stalked, and 6 and 7 of the hindwings separate and parallel.

MENESTOMORPHAb, new genus.

Type of the genus.—Male of Menestomorpha oblongata Walsingham. Antennæ biciliate $(2\frac{1}{2})$.

Maxillary palpi rudimentary.

Labial palpi recurved, median joint of even width throughout, closely clothed; terminal joint rather more than half the length of the median, reaching above the vertex, acuminate.

a Ann. Mag. Nat. Hist. (5), XVI, 1885, p. 439.

b From Menesta and $\mu o \rho \phi \dot{\eta}$, signifying form.

Haustellum moderate.

Head rough above.

Thorax smooth.

Forewings elongate, oblong, of approximately equal width throughout, costa very slightly depressed along middle, termen oblique.

Neuration 11 veins; 2 and 3 coincident, stalked with 4; 7 and 8 separate, 7 to apex; rest separate.

Hindwings (2), evenly rounded to the somewhat prolonged apex, not sinuate below apex.

Neuration 7 veins; 3 and 4 coincident, connate with 5; 6 and 7 stalked.

Abdomen somewhat stout.

 $L\epsilon gs$, hind tibiae hairy.

Allied to *Ide* Chambers, but differing in the loss by coincidence of a vein in both wings.

MENESTOMORPHA OBLONGATA, new species.

Antennæ cinereous.

Palpi, head, and thorax whitish cinereous, mixed with grayish fuscous scales.

Forewings whitish cinereous, streaked and speckled with grayish fuscous, a slight indication of a grayish fuscous transverse band forming a very indistinct basal patch, a slender grayish fuscous line beyond it in the fold, and above this toward the costa, some grayish fuscous shading, blending with a series of ill-defined grayish fuscous streaks, following the lines of the veins, beyond the cell to the costa and termen; along the termen, reaching to the apex, is a series of five or six obscure grayish fuscous spots; cilia grayish fuscous, with a darker line along their base above the middle; underside pale brownish cinereous.

Alar expanse 15 mm.

Hindwings brownish gray; eilia somewhat paler, a slender grayish fuscous line along the margin at the base and two parallel shades of grayish fuscous running through them; underside pale brownish cinereous.

Abdomen brownish gray, with some grayish fuscous scaling. Legs whitish cinereous.

Type.—Male, No. 32542, Mus. Walsingham; paratype, Cat. No. 10347, U.S.N.M. (Walsingham determined, No. 4778, 1906.)

Habitat.—Fort Grant, Arizona, from Cynipid gall on oak, issued April 22, 1882 (Morrison, collector).

Family HYPONOMEUTIDÆ.

Genus COLEOPHORA Hubner.

COLEOPHORA PRUNIELLA Clemens and Walsingham.

Coleophora pruniella Clemens, Proc. Ent. Soc. Phil., I, 1861, pp. 78, 79.—Clemens in Stainton, Tin. No. Am., 1872, pp. 165–167.—Zeller, Verh. zool.-bot. Gesell. Wien., XXIII, 1873, pp. 309, 310.—Chambers, Bull. U. S. Geol. Surv., IV, 1878, pp. 111, 136.—Packard, U. S. Dept. Agr., Int. Ent. Comm. Bull., VII, 1881, p. 134.—Hy. Edwards, Bull. U. S. Nat. Mus., No. 35, 1889, p. 128.—Packard, Rept. U. S. Dept. Agr., Ent. Comm., V, 1890, p. 528, No. 17.—Riley, Smith's List Lep. Bor. Am., 1891, p. 106, No. 5699.—Dyar, Bull. U. S. Nat. Mus., No. 52, 1902, p. 533, No. 6034.

Larva on Prunus serotinus, imago unknown.

Antennæ grayish fuscous, without a basal tuft, basal joint enlarged. Palpi with a very small tuft from the median joint; hoary.

Head and thorax hoary.

Forewings hoary whitish gray, sprinkled with fuscous scales, the apex irrorated with fuscous; a distinct, but not clearly defined, spot above the tornus at one-third from the dorsum; costal cilia greyish, terminal cilia hoary gray, dorsal cilia pale grayish.

Alar expanse 13.5 mm.

Hindwings shining gray; cilia pale grayish.

Abdomen and legs grayish, the tarsal joints with faintly paler bands. Case.—This agrees with Clemens' description, but he omits to say that it is pale ochreous, with a slight ridge along the top from mouth to apex.

Type.—Female (Walsingham determined No. 4943, 1906), U.S.N.M. Habitat.—Placer County, California. Larva on Prunus demissa, issued August. Unique.

This species is distinct from *occidentis* Zeller. The imago was unknown to Clemens.

COLEOPHORA OCCIDENTIS Zeller.

Coleophora occidentis Zeller, Verh. zool.-bot. Ges. Wien., XXIII, 1873, pp. 309-311.

Coleophora occidentalis Chambers, Bull. U. S. Geol. Surv., IV, 1878, p. 136.—Riley, Smith's List. Lep. Bor. Am., 1891, p. 106, No. 5695.

Coleophora pruniella Dyar, Bull. U. S. Nat. Mus., No. 52, 1902, p. 533, No. 6034.

Type.—In Mus. Walsingham.

Habitat.—Massachusetts.

COLEOPHORA LAPIDICORNIS, new species.

Antennæ without a basal tuft, but the basal joint is thickened; pale stone-color, inclining to whitish ochreous, faintly annulate toward the tips.

Palpi with a slight brush from the median joint; stone-gray.

Head and thorax stone-gray.

Forewings stone-color, with a slight brownish tinge, with numerous lines of blackish scales intermixed with some whitish ones, especially on the outer half of the wings; the lines are not clearly defined, but one subcostal, one along the fold, one along the dorsum, and about three from the apical portion, pointing inward, are faintly distinguishable; cilia gray.

Alar expanse.—11.5 mm.

Hindwings and cilia gray.

Abdomen and legs brownish gray.

Type.—Male (Walsingham determined, No. 4927, 1906), Cat. No. 10348, U.S.N.M.

Habitat.—Akron, Ohio; Larva on Prunus . . . issued October 14, 1890 (E. M. Claypole, collector). Unique.

COLEOPHORA VAGANS, new species.

Antennæ faintly annulate, brownish gray.

Palpi simple, without a basal tuft; brownish gray.

Head and thorax dull brownish gray.

Forewings dull brownish gray, with very faintly indicated lines of mixed fuscous and pale scales; one running from the base about the middle, slightly bent downward toward the tornus; another on the fold; a few indications of oblique pale lines between the middle of the costa and the apex, pointing inward, and a slight sprinkling of blackish scales about the apex; costal cilia slightly paler than the dorsal.

Alar expanse.—12 mm.

Hindwings grayish; cilia brownish gray.

Abdomen (greasy).

Legs (broken).

Type.—Female (Walsingham determined, No. 4928, 1906). Cat. No. 10349, U.S.N.M.

Case.—Triangular at the apex, cylindrical, slightly bulged, the mouth bent over; general color stone-grayish, a brownish patch above, extending from the mouth, which is slightly lipped, to about one-third of its length.

Habitat.—New York city, larva on grass, issued August, 1888. Unique.

Genus CŒLOPŒTA", new genus.

Type of the genus.—Male and female, Calopata glutinosi Walsingham.

Antennæ.—Male, simple, $\frac{2}{3}$; basal joint with pecten.

^a From $\kappa o i \lambda v_5$, signifying hollow; and $\pi o i \eta \tau \dot{\eta}_5$, signifying a maker.

Maxillary palpi obsolete.

Labial palpi moderate, curved, slightly ascending; terminal joint much shorter than median.

Haustellum naked.

Ocelli absent.

Head and thorax smooth.

Forewings tapering, acute.

Neuration 12 veins; 2, 3, and 4 separate, discoidal subobsolete between 4 and 5; 5 out of radius before 8, apparently connate with (6+7+8); 6 and 7 stalked, inclosing the apex, 8 out of stalk of (6+7); tornal branch of media traceable between 3 and 4, rest of media subobsolete; 1^b strongly furcate, 1^c strongly developed outwardly. Hindwings $\frac{1}{2}$, tapering, acute, margins not sinuate; cilia $2\frac{1}{2}$.

Neuration 8 veins; cubitus strong, as also 2 and 3; media weak, its upper fork subobsolete, but becoming distinct as vein 5; discoidal obsolete; radius strong, 6 and 7 stalked; 8 strong.

Abdomen moderate, wide at the base.

Legs hind tibiæ hairy above and beneath.

This genus belongs to the group of *Elachista* Treitschke, from which it differs entirely in its larval habits and in having all the veins present in both wings. In *Elachista* vein 6 of the forewings arises from the stalk of (7+8), while in $\ell \approx 100$ larval veins 6 and 7 are stalked, vein 8 arising from their stem.

COELOPŒTA GLUTINOSI, new species.

Antennæ fawn-whitish, barred on the upper side with fuscous. Palpi whitish.

Head and thorax whitish, sprinkled with fawn.

Forewings fawn-whitish, profusely sprinkled and shaded throughout with fawn-ocherous, or fawn-brown, a few fuscous scales at the extreme base of the costa, and at the base of the costal and apical cilia in some specimens; cilia fawn-ocherous, sprinkled on their basal half with fawn-brown.

Alar expanse.—12-13 mm.

Hindwings tawny gray; eilia rather paler, grayish fuseous.

Abdomen gray; anal tuft fawn-whitish.

Legs whitish; hind tarsal joints barred with fuscous.

Type.—Male, No. 90511; female, No. 90512 in Mus. Walsingham; paratypes, male and female, No. 10350, U.S.N.M. (11 specimens.)

Habitat.—California, Mendoeino County, Coal Creek Cañon (Potter's Valley), June 14, 1871; larvæ in galls on Eriodycteon glutinosum, June 14, issued middle of June to middle of July, 1871: Lake County, Scott's Valley (5 miles north of Clear Lake), June 17–19, 1871: Lower Lake, June 22–23, 1871: Colusa County, Phip's Place, June 26,

1871: Shasta County, Hatchet Creek, July 14-17, 1871: Bear Creek, July 27-28, 1871: Siskiyou County, Mount Shasta, August 2-September 1, 1871. Seventy-three specimens (Walsingham, collector).

The color of the forewings is somewhat variable; in some specimens the darker sprinkling gives a suffused appearance beyond the middle and is condensed in two obscure marginal spots on either side of the tornus, but in the majority this brownish sprinkling is evenly distributed over the wing surface and no markings are apparent. In other specimens the ground color becomes almost white and the darker sprinkling is unimportant.

I first met with this species in the middle of June, 1871, on the borders of Mendocino and Lake counties, California, where I took specimens flying among plants of *Eriodycteon glutinosum*; on the same plant I found bladder-like galls produced by a larva, apparently mining in the midrib. The gall occupied nearly the whole width of the leaf, which was curled up at the sides and at the end by contraction. On opening these galls a small elongate-ovate and rather flattened cocoon was found; from these the moths continued to emerge up to the middle of July. More specimens were met with at the end of July and the beginning of August on the borders of Shasta and Siskiyou counties; it is certainly abundant where it occurs.

I am indebted to the late Professor Bolander, of San Francisco, for the determination of the plant.

Genus STAGMATOPHORA Herrich-Schaeffer.

Stagmatophora Herrich-Schaeffer, Syst. Beschr. Schmett. Eur., V, 1853, p. 49, No. 87; VI, 1853, expl. of pl. vu.—Staudinger and Rebel, Cat. Lep. Eur., Pt. 2, 1901, p. 188, No. 405.—Walsingham and Durrant, Ent. Mo. Mag., XLII, 1906, p. 196-7.

STAGMATOPHORA SEXNOTELLA, Chambers.

Gelechia sexnotella Chambers, Bull. U. S. Geo. Surv., IV, 1878, p. 88.—Hagen, Papilio, IV, 1884, p. 99.—Riley, Smith List. Lep. Bor. Am., 1891, p. 102, No. 5482.

Mompha sexnotella Busck, Journ. N. Y. Ent. Soc., X. 1902, p. 97–98.—Dyar. Bull. U. S. N. Mus., No. 52, 1902, p. 543, No. 6168.

Antennæ brownish fuscous, with a small white spot at the end of the basal joint.

Palpi cream-white, the terminal joint biannulate with brownish fuscous.

Head white.

Thorax brownish fuscous.

Forewings rather shining, brownish fuscous, with shining white markings; a rather outwardly oblique costal streak, from near the base, reaching over the fold but not to the dorsum, a medio-costal

spot, somewhat obliquely prolonged, and a larger costal spot before the apex; also two small dorsal spots, the first opposite the middle costal spot, the second beyond it, and a small spot at the apex; cilia brownish gray.

Alar expanse.—11 mm.

Hindwings and eilia brownish gray.

Abdomen brownish fuscous, with whitish marks along the sides.

Legs whitish, barred with brownish fuscous on the hind tarsal joints.

Habitat.—Bosque County, Texas; Georgiana, Florida; Pennsylvania; Virginia. Larva in stem-gall on *Trichostomum dichotoma*; issued June 9, 1881. Walsingham determined No. 4497, 1906.

There is a specimen from Beverly, Massachusetts, July 11, 1868 (Burgess) "Stagmatophora argyræla," Mus. Z." (Zell. Coll. 101533), which very nearly agrees with the type, the only difference being that the two dorsal spots and some white scales on the margin between these and the apical spot are slightly raised and somewhat metallic. I must express my thanks to Mr. Busck for suppressing a prospective synonym by letting me know that this description applies to Gelechia sexnotella Chambers, with which I was unacquainted.

Genus HYPONOMEUTA Latreille.

HYPONOMEUTA DIAPHORUS new species.

Antennæ fuscous.

Palpi slender, projecting about the length of the head beyond it; whitish, touched with chestnut-brown.

Head and thorax white, dusted with grayish above.

Forewings white, with grayish dusting along the costal portion, especially near the base; numerous grayish brown spots of varying sizes run in four diverging lines from the base; on the costal portion above the cell is a row of six, the last but one of which is situated at about half the wing-length; below this series is another, of six or seven, running through the discal cell, and on the outer third of the wing are two or three detached spots above it leading up to the apical series; immediately below the fold is a third row of spots, and along the dorsum are four or five more, forming the fourth row; the apical series commences on the costa at about the end of the cell, and is continued along the termen to the tornus, consisting of about eleven spots; cilia fawn-color.

Alar expanse.—19 mm.

Hindwings light chestnut-brown, or fawn-color, somewhat intensified toward the apex; cilia concolorous.

Abdomen and legs agreeing in color with the hindwings.

Type.—Female, No. 5391, Mus. Walsingham; paratypes, U. S. Nat. Mus., Mus. Fernald. Three specimens.

Habitat.—Texas ("Ber. Gerh.").

A single specimen given me by the late Monsieur Ragonot in 1884 agreed with another in the late Doctor Riley's collection, also from Texas; a third specimen is in the collection of Professor Fernald. The paratypes were perhaps labeled by me about 1885, "Enæmia posticella Wlsm. MS.;" they however differ from Micza Walker (= Eustixis Hübner, = Enæmia Zeller) in the coincidence of veins 3 and 4 of the hindwings, thus agreeing with Hyponomeuta Latreille.

Family TINEID.E.

-Genus BUCCULATRIX Zeller.

BUCCULATRIX EUROTIELLA, new species.

Antennæ white, faintly annulate with grayish fuscous.

Head and thorax white.

Forewings white, with a patch of fawn-colored scales on the costa beyond the middle, a smaller patch of the same color before the middle; opposite to and between these two is a larger patch of fawn scales adjacent to the dorsum, with a black spot at its inner edge on the fold; the termen is shaded with fawn and contains some scattered black scales, the fawn shading extending through the cilia, which are grayish about the tornus and white at the apex; underside rather bright ocherous, with white margins.

Alar expanse.—8 mm.

Hindwings pale brownish gray; cilia slightly paler.

Abdomen pale brownish gray.

Legs whitish; hind tarsi faintly spotted.

Type.—Male (Walsingham determined, No. 4993, 1906). Cat. No. 10352, U.S.N.M.

Habitat.—Lancaster, California.

Larva from leaves of *Eurotia canata*. Pupa in a white, ribbed cocoon, issued May, 1890 (A. Koebele, collector). Unique.

Genus LITHOCOLLETIS Hübner.

LITHOCOLLETIS CERVINA, new species

Antennæ whitish.

Palpi white.

Head pale rust-brown; face white.

Forewings whitish fawn, with very indistinct whitish costal streaklets; the first, before the middle, oblique, outwardly margined with

^a This specimen does not now appear in the U. S. National Museum collection, and has been lost, presumably. It was seen by Lord Walsingham in 1886 and brought back to America by Dr. C. V. Riley. The species may be the same as *H. atomocella* Dyar, from Texas and Illinois, Cat. No. 6614, U.S.N.M.—Harrison G. Dyar.

rust-brown; the second, at about the middle, also outwardly margined with rust-brown, runs obliquely outward and is angulated on the cell, returning to the middle of the dorsum, its lower half longer and more oblique than its upper; the third costal streak is triangular, not oblique, also outwardly margined with rust-brown, which is continued across the wing to the tornus, where there is also a faint indication of a whitish spot; there is no basal streak, and, except for a slightly paler space before the line of dark scales on the middle of the dorsum, no defined dorsal streak; the space between the streaks and about the apical portion of the wing is slightly shaded with rust-brown, and the apex is profusely sprinkled with blackish scales mixed with some white ones; a slender blackish line runs around the extreme apex at the base of the pale cilia, which have a pale rust-brown line running through their middle.

Alar expanse.—6 mm.

Hindwings and cilia grayish.

Abdomen gravish.

Legs whitish, unspotted.

Type.—Male. Walsingham determined No. 4972, 1906. Cat. No. 10353, U.S.N.M.

Habitat.—New York. (Beutenmüller collection.) Unique.

This species belongs to the group of messaniella Zeller; there is no record of its life history.

LITHOCOLLETIS CERIFERÆ, new species.

Antennæ gravish.

Palpi silvery.

Head pale saffron-brown; face silvery.

Thorax saffron-brown.

Forewings shining saffron-brown, with two straight, transverse, silvery fasciæ, both dark-margined externally; the first at one-fourth from the base, sloping slightly inward toward the dorsum; the second slightly beyond the middle, almost at right-angles to the costa; beyond the second fascia two silvery spots, the first costal, the second opposite to it on the tornus; these are also dark-margined externally, and, being almost confluent, present the appearance (in one wing) of a third fascia, not quite so far removed from the second as this is from the first; a few fuscous scales are scattered about the apex; cilia brownish, grayish toward the tornus.

Alar expanse.—6 mm.

Hindwings and cilia brownish gray.

Abdomen dull gravish fuscous.

Legs whitish, slightly speckled with grey.

Type.—Male. Walsingham determined, No. 4969, 1906. U. S. National Museum, Cat. No. 10361.

Habitat.—New York. Larva on Myrica cerifera. Unique.

This species was first named *ceriferella* Walsingham MS., but as *aeriferella* Clemens is by a typographical error catalogued as *ceriferella* H. Edwards, Bull. U. S. National Museum No. 35, p. 132 (1889), the new species is now published as *ceriferæ* Walsingham.

LITHOCOLLETIS LEUCOTHORAX, new species.

Antennæ pale saffron.

Palpi white.

Head pale saffron; face white.

Forewings pale saffron, the extreme costa whitish from the base, with two very oblique, shining, whitish costal streaks tending outward, the first at the middle, the second beyond it, and two much shorter streaks in the costal cilia pointing inward—all anteriorly dark-margined; on the dorsum are three very conspicuous, broad, white streaks, tending obliquely outward, the first and second before the middle, the third beyond it—these are all also anteriorly margined with ferruginous, the ferruginous shades bent outward about the middle of the wing, giving them an angulated appearance; cilia shining, saffron, a small blackish apical dot and a dark line running from it through the cilia toward the tornus.

Alar expanse.—8.5 mm.

Hindwings whitish gray; cilia pale grayish.

Abdomen tinged with saffron; anal tuft grayish.

Legs, hind tibiæ yellowish white, very faintly spotted.

Type.—Female. Cat. No. 10354, U.S.N.M.

Habitat.—Santa Cruz Mountains, California (A. Koebele, collector). Unique. (Walsingham determined, No. 4976, 1906.)

There is no record of the life history.

LITHOCOLLETIS BIFASCIELLA Chambers.

Lithocolletis bifasciella Chambers, Bułl. U. S. Geol. Surv., IV, 1878, pp. 101-2, 119, 153.—Packard, U. S. Dept. Agr., Int. Ent. Comm. Bull., VII, 1881, p. 54.—Hagen (and Frey), Papilio, IV, 1884, p. 151.—Walsingham, Insect Life, II, 1884, pp. 24, 119; III, 1891, p. 329.—Packard, U. S. Dept. Agr., Rept. Ent. Comm., V, 1890, p. 219.—Riley, Smith's List Lep. Bor. Am., 1891, p. 108, No. 5839.—Dvar, Bułl. U. S. Nat. Mus., No. 52, 1902, p. 556, No. 6329.

Antennæ grayish fuscous, faintly barred with ocherous.

Palpi shining silvery white.

Head pale otherous above, reddish brown at the sides; face shining silvery white.

Thorax rich reddish brown.

Forewings shining, rich reddish brown, with shining silvery white markings; a slightly oblique fascia near the base, further from the base on the costa than on the dorsum, a second parallel fascia at about the middle, both with a few dark scales on their outer sides; a small costal streak before the apex, preceded by another on the

dorsum before the tornus, above which are a few white scales on the costal cilia, both streaks have a few black scales on their outer side; cilia reddish brown, fading to gray about the tornus.

Alar expanse.—7 mm.

Hindwings gray; cilia grayish.

Abdomen grey.

Legs whitish, posterior tibiæ very faintly spotted.

Caenotype.—Male (Walsingham determined, No. 4974, 1906) U.S. National Museum.

Type.—Female in Museum of Comparative Zoology, Cambridge, Massachusetts.

Larva on Quercus alba.

Habitat.—Kentucky, New York (Beutenmüller collection), U. S. National Museum.

Genus ORNIX Treitschke.

ORNIX INNOTATA, new species.

Antennæ brownish fuscous, very faintly annulate.

Palpi whitish, annulate, with fuscous before the apex.

Head brownish.

Thorax grayish brown.

Forewings grayish brown, with a series of almost undistinguishable streaklets along the costa, slightly oblique outward; a minute whitish spot occurs about the middle of the costa, and there are two pale spots in the costal cilia before the apex; the apical cilia have a pale line along their base, preceded along the margin by a few dark fuscous scales; there is also a faint indication of a darkened spot near the outer end of the fold; cilia brownish gray.

Alar expanse.—9 mm.

Hindwings grayish; cilia brownish gray.

Abdomen gravish brown; anal tuft slightly ocherous.

Legs cinereous.

Type.—Male. Cat. No. 10355, U.S.N.M.

Habitat.—United States. Unique. (Walsingham determined, No. 4984, 1906.)

Genus TISCHERIA Zeller.

TISCHERIA ALBOSTRAMINEA, new species.

Antennæ, head, and thorax pale whitish straw-color.

Forewings pale whitish straw-color, the extreme costa narrowly sprinkled with purplish brown scales to two-thirds the length of the wing, where they form a slight costal spot; a dorsal spot, consisting of a group of scales of the same color, lies about the tornus, and beyond it the apex of the wing is thickly bestrewn with purplish scales, a reddish brown hue prevailing among them; this dark sealing does not extend to the costal cilia, which are of the pale ground

color, but the apical cilia and those extending to the dorsum are pale chestnut-brownish.

Alar expanse.—7 mm.

Hindwings pale yellowish gray, the base slightly thickened; cilia slightly coppery gray.

Abdomen and legs pale yellowish gray.

Type.—Male. Cat. No. 10356, U.S.N.M.

Habitat.—New York (Beutenmüller collection). Unique. Walsingham determined, No. 4991, 1906.

 Λ small, slender, delicate species, decidedly distinct from any known form.

Genus SCARDIA Treitschke.

SCARDIA GRACILIS, new species.

Antennæ distinctly ciliate, the joints tufted; whitish ocherous, annulate with fuscous.

Maxillary palpi strongly developed, folded; whitish ocherous.

Labial palpi whitish ocherous on their inner side, the median joint almost as long as the terminal, tinged with brownish externally on the terminal joint and on the median joint to its apex.

Head and thorax whitish ocherous; the latter with a brownish fuscous band across its middle, the tegulæ anteriorly brownish fuscous.

Forewings narrow, elongate, the costa slightly bulged near the base, apex rounded, termen oblique; whitish ocherous, much clouded and speckled with brownish fuscous, which appears in a series of costal spots of varying size and in a large median costal blotch which extends in a somewhat triangular form to the lower edge of the cell, its outer edge being almost perpendicular to the dorsum; the dark coloring is also strongly apparent along the fold, arising at the extreme base of the costa, crossing the fold obliquely outward, and reaching nearly to the dorsum at about one-fifth from the base, thence angulated upward to the fold and returning to the dorsum at about its middle; thence again angulated upward and continued, with more or less interruption, parallel with the termen to the costa before the apex; a series of small dark spots along the termen; cilia whitish ocherous, with a brownish fuscous shade running through them near their base and spreading over them outwardly at about their middle; between these dark markings the intermediate space is speckled with brownish fuscous; underside with a slight cupreous tinge, the very pale margins speckled with brownish fuscous, a spot of the same showing through the wing at the end of the cell.

Alar expanse.—25 mm.

Hindwings very pale whitish ocherous, the rather shining cilia with one or two brownish fuscous spots around the apex.

Abdomen whitish ocherous, sprinkled with fuscous posteriorly.

Legs whitish ocherous, the anterior and median banded above with fuscous; the posterior tarsal joints sprinkled with fuscous.

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Type.—Female. Cat. No. 10357, U.S.N.M.

Habitat.—California (Beutenmüller collection). Unique. Walsingham determined, No. 4756, 1906.

Apparently allied to Scardia anatomella Grote, but of a somewhat more slender and paler appearance, differing also in the dark shade reaching to the dorsum in the middle of the forewing.

Genus PSEUDOXYLESTHIA", new genus.

Type of genus.—Pseudoxylesthia angustella Walsingham.

Antennæ simple in both sexes; basal joint without pecten.

Maxillary palpi present, not folded.

Labial palpi porrect, closely clothed, terminal joint as long as median.

Haustellum long.

Ocelli absent.

Head rough above; face with appressed scales.

Thorax smooth.

Forewings narrow, clongate, of equal width throughout, apex rounded.

Neuration 12 veins, all separate; 7 to apex; 2 from near angle of cell.

Hindwings broader than the forewings, termen slightly sinuate, attenuate, but rounded at the apex.

Neuration 8 veins; 5 and 6 stalked; 7 straight; 3 and 4 remote.

Abdomen rather stout; male with shortly bifid uncus and long, narrow elaspers; female, anal segment with long hairs, ovipositor extruded.

Legs not thickly but loosely clothed.

Allied to Xylesthia Clemens, but differing in the stalking of veins 5 and 6 in the hindwings.

PSEUDOXYLESTHIA " ANGUSTELLA, new species.

Antennæ greyish.

Palpi hoary grayish.

Head and thorax hoary gray; tegulæ touched with ocherous.

Forewings hoary grayish, sprinkled with ocherous, especially along the costa and beyond the middle, also at the extreme base of the dorsum; some bands of dense fuscous speckling extend across the wing from costa to dorsum, the first, at about one-fourth, running obliquely outward from the costa reaches the dorsum at about one-third from the base, this is more or less connected with the base of the wing by dark speckling; the second beyond the middle of the costa, tends outward in the direction of the tornus, becoming dilated

a From the Greek word $\psi \varepsilon \nu \delta \dot{\eta} \varsigma$, signifying false and Xylesthia.

and somewhat broken-up along the dorsum, this is joined by a short, straightish band which connects it with the costa at one-third from the apex, and beyond this again is a narrower band preceding the termen, a detached costal spot before it and another almost about the middle of the wing; cilia hoary, much speckled with fuscous; underside cinereous, cilia paler.

Alar expanse.—Male 18 mm.; female 24 mm.

Hindwings brownish einereous; cilia with a slight ocherous tinge. Abdomen brownish cinereous; anal tuft slightly tinged with ocherous.

Legs cinereous, with some darker speckling.

Type.—Male No. 32547; female No. 5390 a Mus. Walsingham; paratype female (Walsingham determined, No. 4902, 1906); Cat. No. 10358, U.S.N.M.

Habitat.—Arizona—(Cox, collector); Texas ("Ber. Gerh."). Three specimens.

Genus TINEA Linnæus.

TINEA SPARSIPUNCTELLA, new species.

Antenna blackish, white towards the base.

Maxillary palpi folded.

Labial palpi hoary, with a few projecting bristles on the upper side of the median joint.

Head and thorax hoary white.

Forewings grayish white, profusely sprinkled with brownish fuscous dots, very equally distributed about the wing; these have a tendency to run together into narrow transverse streaks in fine specimens, but are apparently very easily obliterated; somewhat more conspicuous than the others are is a line of spots along the costa and around the apex and termen to the tornus; a small patch at the end of the cell, about equidistant from the costa and dorsum, and three or four spots ranged parallel to and beneath the fold; cilia white at the base, grayish outwardly, with a darker parting line.

Alar expanse.—26 mm.

a I wrote to Lord Walsingham, calling his attention to the fact that his Pseudoxylestia angustella had apparently been already described as Dyotopasta yumaclla Kearfott. He replied as follows: "Our generic descriptions are at variance—you write 'ocelli large,' I write 'ocelli absent;' you write 'tongue and maxillary palpi obsolete,' I write 'Haustellum long. Maxillary Palpi present.' Mr. Durrant and I have very carefully reexamined my types under the microscope. The male (No. 32547) from Arizona (Cox, through Riley, 1886), the head of which, however, is much distorted and possibly injured, has no tongue. The female (No. 5390) Texas (Ber. Gehr.) received from Ragonot, has a long tongue curled round one of the labial palpi and possesses distinct maxillaries." On reexamination I find that there are no ocelli; but all the specimens, both the cotypes returned by Lord Walsingham and others before me, lack tongue and maxillary palpi. Lord Walsingham's name, Pseudoxylestia angustella, is therefore retained based on the female type (No. 5390) in his possession.—August Busck.

Hindwings and cilia grayish fuscous.

Abdomen slightly darker: female ovipositor extruded.

Legs grayish fuscous.

Type.—Female No. 90947 in Mus. Walsingham; paratype, female, No. 90948, Cat. No. 10359, U.S.N.M.

Habitat.—Mendocino County, north of Mendocino city, California (near the town), June 3-5, 1871. Three specimens.

A very distinct species, perhaps nearest to the *occidentella* Chambers group. The veins are all present and separate in both wings.

Genus HOMONYMUS Walsingham.

HOMONYMUS COLORADELLUS, new species.

Antenna cinereous.

Palpi erect, reaching scarcely above the base of the antenne, thickly clothed throughout; mixed brownish ocherous and brownish fuscous, appearing slightly paler than the head and thorax above and below them.

Head and thorax are brownish fuscous, the scales tipped with

hoary gray.

Forewings rather narrow, of about equal width throughout, except at the extreme base, the width equal about one-third the length, termen slightly convex, oblique, apex rounded.

Neuration 12 veins, all separate; dull cinereous, with some paler hoary patches running along the fold to the end of the cell, thickly sprinkled throughout with brownish ocherous and dark fuscous scales which are concentrated in some small patches, one at the end of the cell, one on, and one immediately above the fold beyond it, with a series of very obscure costal spots; cilia brownish fuscous, slightly paler along their base and mixed with brownish ocherous about the tornus: underside uniformly brownish fuscous, with narrowly pale margins.

Alar expanse.—24 mm.

Hindwings, 8 veins, all separate; slightly wider than the forewings; brownish fuscous; cilia with some paler markings.

Abdomen (missing).

Legs brownish fuscous.

Type.—Male (Walsingham determined, No. 4749, 1906), Cat. No. 10360, U.S.N.M.

Habitat.—Custer County, Westeliff, Colorado. (Collection Beutenmüller). Unique.

This agrees with the genus *Homonymus*, described from South America, but differs from the only species at present known in its shorter palpi and by the absence of deep purple coloring in the hindwings, as well as by the somewhat different pattern of the obscure markings on the forewings.