

A REVIEW OF THE AMERICAN MOTHS OF THE GENUS  
DEPRESSARIA HAWORTH, WITH DESCRIPTIONS OF  
NEW SPECIES.

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By AUGUST BUSCK,  
U. S. Department of Agriculture.

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The genus *Depressaria* was established in the third volume of Haworth's *Lepidoptera Britannica*.<sup>1</sup> Since then numerous species have been discovered from nearly all parts of the world, though principally in the northern temperate regions and especially in Europe.

In America, Brackenridge Clemens described four species during the years 1860 to 1864, namely, *lecontella*, *atrodorsella*, *pulciper-nella* and *cinereocostella*. These are true *Depressariæ* and easily recognized to-day.

Francis Walker, in his *Catalogue of the Insects in the British Museum*, described three species from America under the generic name *Depressaria*, namely, *confertella*,<sup>2</sup> *clausella*,<sup>3</sup> and *georgiella*,<sup>4</sup> of which, as Lord Walsingham has shown<sup>5</sup> only *clausella* properly belongs to this genus and that name falls as a synonym of Clemens's *cinereocostella*.

In the *Canadian Entomologist* (1869) C. J. S. Bethune described and gave the life history of *Depressaria ontariella*. This was soon suspected by J. Angus to be the European *heracliana*, which was thus included in the American fauna. This was later proven by Zeller's positive determination.

In 1870 C. T. Robinson<sup>6</sup> redescribed and figured Clemens's four species and added a new one, *Depressaria grotella*.

In the same year A. S. Packard, in his *Guide*, described and figured *Depressaria robiniella*, giving its life history.

Zeller, in his *Beiträge zur Kenntniss der nordamerikanischen Nachtfalter* (1873), recognized and redescribed *atrodorsella* and *heracliana*,

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<sup>1</sup> Page 505 (1812).

<sup>2</sup> Vol. XXIX, p. 563.

<sup>3</sup> Vol. XXIX, p. 564.

<sup>4</sup> Vol. XXXV, p. 1827.

<sup>5</sup> Proc. Zool. Soc. Lond., 1881, p. 312.

<sup>6</sup> Ann. Lye. Nat. Hist. N. Y., IX, p. 156.

and added three species as new—*hilarella*, *scabella*, and *nebulosa*. Of these *hilarella* is clearly the same as Packard's *robiniella*, not known to Zeller.

V. T. Chambers described a number of species under the name *Depressaria* which did not belong there. Several of these he himself removed, and in his Index he only retained the foregoing of other authors and five of his own species, namely, *eupatoriella*, *fernaldella*, *pallidochrella*, *rileyella*, and *versicolorella*, the last three with a query and the note: "Probably to be referred to *Gelechia*." Of these only the first, *eupatoriella*, belongs to the genus, and this is now found to be the same species which Clemens described as *pulvipennella*; *fernaldella* is evidently *Machimia tentoriferella* Clemens, as determined by Professor Fernald and Lord Walsingham; *pallidochrella* belongs to the gelechiid genus *Gnorimoschema*, as Chambers's type in Cambridge proves; *rileyella* is found by the type in the U. S. National Museum to be a *Gelechia*, and *versicolorella*, while not at present recognized with certainty, is evidently a gelechiid from Chambers's note on that species and *pallidochrella*: "Posterior wings deeply emarginate beneath the apex."

Two other species of Chambers's, however, described under *Gelechia*, namely, *thoracenigracella* and *thoracefasciella*, are found on examination of the authentic types in the Cambridge Museum to belong to *Depressaria*, and one other species, placed by Chambers under *Gelechia*, namely, *clemensella*, has been identified by Lord Walsingham as *Depressaria applana* Fabricius, of Europe.

In 1881 Lord Walsingham<sup>1</sup> reviewed the genus and included the species in Chambers's Index, besides describing and figuring eight new species, namely, *sabulella*, *argillacea*, *arnicella*, *klamathiana*, *posticella*, *nubiferella*, *psorabiella*, and *umbraticostella*. He also recognized from this country five European species, namely, *ciliella* Stainton, *yeatiana* Fabricius, *nervosa* Haworth, *emeritella* Stainton, and *parilella* Treitschke, the latter with some hesitation, and providing the name *novi-mundi* for his specimens if it should prove a distinct species. Of these the supposed *yeatiana* Fabricius was afterwards<sup>2</sup> redetermined by Walsingham as the European *arenella* Schiffermüller, and the *novi-mundi* it will be safer to regard as a distinct species at present, though Lord Walsingham seems to think<sup>3</sup> that it may be one of the many varieties of *parilella*.

In 1882 Lord Walsingham<sup>4</sup> further added the new species *fulva*.

In 1883 D. W. Coquillett<sup>5</sup> added a valuable contribution to our knowledge of the genus by publishing the life histories and food plants of four species, namely, *pulvipennella*, *atrodorsella*, *grotella*, and what was supposed to be *hilarella*.

<sup>1</sup> Proc. Zool. Soc. Lond., p. 311-319.

<sup>4</sup> Trans. Ent. Soc. Phila., 1882, p. 175.

<sup>2</sup> Trans. Ent. Soc. Phila., 1882, p. 175.

<sup>5</sup> Papilio, III, p. 98.

<sup>3</sup> Insect Life, I, p. 256.

This latter determination, however, was undoubtedly wrong, as the food plant of *hilarella* (*robiniella* Packard) is *Robinia pseudacacia*, as noted by both Zeller and Packard, and though many species have more than one food plant, it is improbable that one should feed on such different plants as *Robinia* and *Sanicula*, from which Mr. Coquillett bred his species.

In 1889 Lord Walsingham<sup>1</sup> further described five species as new, namely, *togata*, *solidaginis*, *fernaldella*, *lythrella*, and *gracilis*, of which, however, *solidaginis* is found to be the same as *pulripennella* (*eupatoriella* Chambers), and as the name *Depressaria fernaldella* had been previously employed, though wrongly, for another insect by Chambers, Walsingham's species of that name requires a new name; it may be known as *Depressaria walsinghamella*.

In the same paper Walsingham recorded from America the European *Depressaria ciniflonella* Zeller.

Miss Murtfeldt described<sup>2</sup> a *Depressaria persicælla*; but, as she has herself shown later,<sup>3</sup> this is not a *Depressaria*, but a *Gelechia*.

Finally, William Beutenmüller has described one species, *curviliniella*;<sup>4</sup> and the writer has described<sup>5</sup> one species from Florida, *amyrisella*.

To these are now added six new species in this paper, making a total of thirty-nine species of *Depressaria* recognized at present from America. As, however, our fauna of *Tineina* has only been collected very incompletely, in few and limited localities, this number will eventually be much enlarged. In the U. S. National Museum, for example, are more than a dozen forms, which can not be referred to any described species. These are not in sufficient numbers and are in too poor condition to justify description at present.

The genus *Depressaria* belongs to the family CECOPHORIDÆ, and may be recognized by the following characters: Antennæ about three-fourths as long as forewing, simple or slightly serrate; basal joint long with well-developed pecten. Labial palpi long, recurved; second joint beneath with heavy, rough, furrowed brush of scales; terminal joint shorter than second, pointed. Thorax often more or less crested; abdomen strongly flattened. Forewings elongate, three to four times longer than broad, apex obtuse, generally rounded, termen not very oblique; 12 veins, 7 and 8 stalked, to costa, 2 and 3 separate or stalked. Hindwings as broad or somewhat broader than forewings, oblong ovate to triangular, rounded; 8 veins, 8 not connected with cell, 6 and 7 parallel, 5 more or less approximate to 4, 3 and 4 connate or shortly stalked; cilia less than half the width of wing.

The larvæ are cylindrical or somewhat depressed, often prettily marked, with three pairs of normal thoracic feet and five pairs of

<sup>1</sup> Insect Life, I, 254-257.

<sup>4</sup> Ent. Am., V, 1889, p. 10.

<sup>2</sup> Rep. Mich. Sta. Agr. Coll., 1899.

<sup>5</sup> Proc. U. S. Nat. Mus., XXIII, 1900, p. 233.

<sup>3</sup> Can. Ent., XXXII, p. 164.

abdominal prolegs; tubercles well developed, normal, iv and v approximate or united, shields well developed. They feed in folded or rolled leaves or in the flower heads especially of Umbelliferae and Compositae, and pupate in the stems of the food plant or among rubbish on the ground.

The imagos are very retired in their habits and not frequently seen; most [or all?] of the species overwinter as imago.

The species fall naturally in two groups, the first with veins 2 and 3 in forewings stalked, the other with 2 and 3 separate. The first group has generally the base of the forewings of a lighter shade than the ground color of the wing, which shade often is continued along the basal part of costa and is sharply limited by a dark perpendicular streak or shadow from the inner margin two-thirds across the wing; while the insects of the other group generally lack the pale basal marking, but have a whitish, dark-edged streak along the base of the dorsal edge; but there are several exceptions in both groups.

Some of the species are very similar and difficult to distinguish from each other; but the recognized American species may be separated by the following synoptic table.

Only the American synonyms are mentioned in the following pages, and European references to such species as are common to America and Europe are given only by the number of the species in Staudinger and Rebel's Catalog der Lepidopteren des Palaearctischen Faunengebietes.

Forewings with veins 2 and 3 stalked .....	1
Forewings with veins 2 and 3 separate .....	30
1. Base of forewings black [or dark brown] .....	2
Base of forewings not black .....	5
2. Forewings with black costal markings .....	3
Forewings without such markings .....	4. <i>gracilis</i> .
3. Forewings with white dot at end of cell .....	1. <i>atrodorsella</i> .
Forewings without such dot .....	4
4. First discal spot a large comma-shaped streak .....	3. <i>thoracenigralla</i> .
First discal spot a small dot .....	2. <i>umbraticostella</i> .
5. Second discal spot at end of cell wholly or partly white .....	6
With no white in second discal spot .....	22
6. First discal spot wholly or partly white .....	7
With no white first discal spot .....	13
7. Ground color of wings greyish; extreme tip of palpi light .....	8
Ground color of wings reddish; extreme tip of palpi black .....	10
8. Brush on second joint of palpi large and much wider at tip than at the base.	
	17. <i>nebulosa</i> .
Brush on second joint of palpi narrow and of about even width in its entire length .....	9
9. With distinct black line preceding second discal spot .....	16. <i>ciniflonella</i> .
Without such line .....	15. <i>klamathiana</i> .
10. With two obliquely placed black dots in disk .....	11
Without such dots .....	12. <i>psoralicella</i> .
11. With indistinct angulated pale fascia .....	12
Without fascia .....	11. <i>walsinghamella</i> .

12. Cilia of hindwings tinged with reddish .....	10. <i>ciliella</i> .
Cilia of hindwing not reddish .....	9. <i>applanata</i> .
13. With large curved black line on disk .....	21. <i>curviliniella</i> .
Without such line .....	14
14. With large thoracic crest .....	19. <i>amyrisella</i> .
Without such crest .....	15
15. With pronounced row of dark spots round apical edge .....	16
Without such row .....	19
16. With dark cloudy area above second discal spot .....	17
Without such dark area .....	14. <i>thoracofasciella</i> .
17. Basal part of costa much lighter than rest of wing .....	6. <i>arnicella</i> .
Basal part of costa not or only slightly lighter .....	18
18. Second discal spot containing only a single white scale .....	18. <i>fulva</i> .
Second discal spot containing a round white dot .....	5. <i>pultripennella</i> .
19. Ground color gray .....	20
Ground color purplish fuscous or brown .....	13. <i>novi-mundi</i> .
20. With red scales around second discal spot .....	8. <i>sanguinella</i> .
Without red scales around second discal spot .....	21
21. Hindwing whitish .....	7. <i>argillacea</i> .
Hindwing dark gray .....	20. <i>muricolorella</i> .
22. With blackish dorsal patch at anal angle .....	27. <i>posticella</i> .
Without such patch .....	23
23. With continuous blackish line before cilia .....	24
With series of dots along apical edge .....	25
24. With curved black spot on disc .....	26. <i>lythrella</i> .
Without such spot .....	28. <i>nubiferella</i> .
25. Forewings grayish ocherous .....	26
Forewings tawny reddish .....	29
26. Forewings with rosy tint .....	25. <i>canadensis</i> .
Forewings not rosy .....	27
27. Forewings with single black spot at end of disk .....	28
Forewings with two black spots at end of disk .....	23. <i>sabulella</i> .
28. With conspicuous dark area between and above discal spots .....	24. <i>arenella</i> .
Such area absent or only slightly indicated .....	22. <i>senicella</i> .
29. With dark triangular shade at the end of disc .....	29. <i>robinella</i> .
Without such shade .....	30. <i>leontella</i> .
30. Forewings with raised scales .....	39. <i>scabella</i> .
Without raised scales .....	31
31. With base of wing and costal edge whitish .....	38. <i>cinereocostella</i> .
Base of wing and costa not whitish .....	32
32. With pale second discal spot .....	33
Without such spot .....	36
33. Second discal spot conspicuously white and preceded by longitudinal white line .....	31. <i>emeritella</i> .
Second discal spot not conspicuous and not preceded by white line .....	34
34. With thin, interrupted longitudinal white line from basal third of costa, crossing costal veins .....	35. <i>barberella</i> .
Without such line .....	35
35. With hindwings whitish .....	32. <i>toyata</i> .
With hindwings fuscous .....	33. <i>betulella</i> .
36. With distinct blackish terminal dots .....	37
Terminal dots not separate .....	34. <i>nerrosa</i> .
37. With pale acutely angulated fascia .....	36. <i>heracliana</i> .
Without such fascia .....	37. <i>grotella</i> .

1. *DEPRESSARIA ATRODORSELLA* Clemens.

*Drepressaria atrodorsella* CLEMENS, Proc. Ent. Soc. Phila., II, 1863, p. 124.—ROBINSON, Ann. Lyc. Nat. Hist. N. Y., IX, 1870, p. 156, pl. 1, fig. 7.—PACKARD, Guide Stud. Ins., 1870, p. 349.—CLEMENS, Stainton's Tin. Nor. Am., 1872, p. 230.—CHAMBERS, Can. Ent., IV, 1872, p. 91.—ZELLER, Verh. Zool. Bot. Ges. Wien., 1873, p. 233.—CHAMBERS, Bull. U. S. Geol. Surv. Terr., IV, 1878, p. 138.—WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 312.—COQUILLET, Papilio, III, 1883, p. 98.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5255.—DIETZ, Smith's Cat. Ins. N. J., 1900, p. 473.

*Foodplant*.—*Bidens frondosa*.

The larva is green, with dorsal and subdorsal stripes of very dark green, blackish or brown; piliferous spots and spiracles dark brown or black; head yellowish-brown, with two black lateral dots; thoracic shield yellowish-green, with a black spot on the middle of each outer edge. Length, 18 mm. It folds the leaf lengthwise. [Coquillett.]

In the U. S. National Museum collection are specimens from the District of Columbia; New York, a specimen from Asa Fitch's collection, with his manuscript name "*manella*" attached, and one from Connecticut (Beutenmüller).

2. *DEPRESSARIA UMBRATICOSTELLA* Walsingham.

*Depressaria umbraticostella* WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 318, pl. XXXVI, fig. 8.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5283.

*Foodplant*.—*Helianthus pumilus*.

In the U. S. National Museum are cotypes received from Lord Walsingham, collected in Oregon in 1872. Also other specimens from Arizona and California, named by him; a specimen from Placer County, California (Coquillett); California (Beutenmüller), and a bred specimen reared in Colorado by Dr. Dyar, who has kindly handed me the following notes on the larva:

Head elongate, half retracted in joint 2, black, rather dull, the clypeus brownish; width about 1 mm. Body moderately slender, the incisures distinct, rather flattened, all black; tubercles large, elevated, rounded, all conspicuously white ringed; iv and v united; on the thorax ia+ib and iia+iib. Shields black, concolorous, the feet shining. Abdominal feet moderate, normal.

Lives on *Helianthus pumilus*, webbing up the head of the growing shoot and partly mining in the leaf.

Found near Denver and Sedalia, Colorado.

3. *DEPRESSARIA THORACENIGRÆELLA* Chambers.

*Gelechia thoracnigræella* CHAMBERS, Cin. Quart. Jour. Sc., II, 1875, p. 246; Bull. U. S. Geol. Surv. Terr., IV, 1878, p. 147.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5495.

The type of this species, labeled by Chambers and conforming with his description, is in the Museum of Comparative Zoology at Cambridge, Massachusetts, where I had an opportunity to examine it in

May, 1900. It proves that the species belongs to *Depressaria* and is unlike any other described species of that genus.

It is easily recognized among the few species, which have the base of the wing black by the oblique streak on middle of disk. I have met with no other specimen of the species. It was described from California (Behrens).

#### 4. *DEPRESSARIA GRACILIS* Walsingham.

*Depressaria gracilis* WALSINGHAM, Insect Life, I, 1899, p. 257.

Of this very distinct species I have recognized a specimen from Colorado in the collection of the U. S. National Museum. The species was described from Texas.

#### 5. *DEPRESSARIA PULVIPENNELLA* Clemens.

*Depressaria pulvipennella* CLEMENS, Proc. Ent. Soc. Phil., 11, 1864, p. 421.—ROBINSON, Ann. Lyc. Nat. Hist. N. Y., IX, 1870, p. 157, pl. 1, fig. 8.—CLEMENS, Stainton's Tin. Nor. Am., 1872, p. 244.—CHAMBERS, Can. Ent., IV, 1872, p. 91; Bull. U. S. Geol. Surv. Terr., 1878, p. 138.—WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 312.—COQUILLET, Papilio, III, 1883, p. 97.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5270.

*Depressaria eupatoriella* CHAMBERS, Bull. U. S. Geol. Surv. Terr., 1878, pp. 82, 138.—WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 312.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5262.

*Depressaria solidaginis* WALSINGHAM, Insect Life I, 1889, p. 255.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5281.

*Depressaria pulvipennella* DIETZ, Smith's Cat. Ins. N. J., 1900, p. 474.

*Food plants.*—*Eupatorium* and *Solidago*.

The larva is green, sometimes with darker dorsal line and subdorsal stripe; piliferous spots green; cervical shield green with a black dot on each outer edge; anal plate edged behind with black; spiracles brown; head green, dotted or mottled with pale brown and marked with a dot on each side above the jaws; length 17–18 mm. It rolls the leaf lengthwise. [Coquillett.]

In the U. S. National Museum are specimens received from Miss Murtfeldt, from the series bred by her from *Solidago*, from one of which Lord Walsingham described his *Depressaria solidaginis*. There are other specimens, labeled by Walsingham "*pulvipennella* Clemens" and "*eupatoriella* Chambers," and one labeled by him "*pulvipennella* Clemens, must be very near *eupatoriella* Chambers;" other specimens, bred in the insectary of the U. S. Department of Agriculture from *Eupatorium* and from *Solidago*. All of these represent undoubtedly only one species, which, however, is somewhat variable in the intensity of the dark markings; the different descriptions also bear out the synonymy.

*Habitat.*—District of Columbia, Pennsylvania, New York, Illinois, and Missouri.

6. *DEPRESSARIA ARNICELLA* Walsingham.

*Depressaria arnicella* WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 314, pl. xxxvi, fig. 3.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5254.

*Food plant*.—*Arnica angustifolia*.

In the U. S. National Museum is a bred cotype from Mount Shasta, California, received from Lord Walsingham.

7. *DEPRESSARIA ARGILLACEA* Walsingham.

*Depressaria argillacea* WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 313, pl. xxxvi, fig. 2.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5252.

Cotypes from California are in the U. S. National Museum, received from Lord Walsingham; also a specimen from Connecticut (Beutenmüller), which I can not distinguish from this species.

It is very close to *Depressaria yeatiana* Fabricius, though lacking the pronounced row of dark spots before the cilia.

8. *DEPRESSARIA SANGUINELLA*, new species.

Antennæ dark fuscous. Labial palpi light grayish ochereous, second joint evenly speckled with black scales on the outside, terminal joint reddish with a small black spot in front near base and with extreme tip black. Face, head and collar of thorax light straw color; thorax and forewings gray with a carmine tint, especially along costal edge and in the apical part of the wing. An indistinct lighter basal field is slightly edged with blackish scales and the extreme base of costa is black. A small black spot in the middle of the disk and a similar one obliquely above and nearer base of wing are surrounded by a few bright carmine scales. At the end of the cell is a small round white dot, conspicuously edged with carmine scales; from this second discal spot is a short, oblique streak of blackish scales directed inward and upward, but not reaching costa. Sparse black and reddish scales are scattered over the wing; cilia reddish grey, sprinkled with black. Underside of wing dark fuscous, with costal edge reddish and the apical edge light ochereous, containing a row of small black dots.

Hind wings light ochereous fuscous, underside sprinkled with sparse black dots; cilia with indistinct dark line at base and two still less pronounced lines parallel with the edge of the wing.

Abdomen light ochereous, the underside sprinkled with black scales and with two longitudinal rows of black dots. Legs yellow, shaded with black.

Alar expanse: 21 mm.

*Habitat*.—Pinal Mountains, Arizona. (R. Kunzé.)

*Type*.—No. 6129, U.S.N.M.

This species is near *Depressaria argillacea* Walsingham, but easily distinguished by the red coloration and the well-defined oblique line



from second discal spot instead of the indistinct dark area found in *argillacea*. I am indebted to Mr. W. D. Kearfott for the specimen.

9. *DEPRESSARIA APPLANA* Fabricius.

*Depressaria applana* FABRICIUS; STAUDINGER and REBEL, Cat. Lep. Eur., II, 1901, No. 3233.—WALSINGHAM, Trans. Amer. Ent. Soc. Phila., 1882, p. 175.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5251.

*Gelechia clemensella* CHAMBERS, Can. Ent., VIII, 1876, p. 173.—CHAMBERS, Bull. U. S. Geol. Surv. Terr., IV, 1878, p. 142.

*Food plant*.—*Heraclenum*, etc.

The larva is green, with dorsal and subdorsal lines darker; dots black; head gray-green; first thoracic segment with two blackish green crescentic marks. It feeds in rolled leaves. [Meyrick].

Besides a large European series of this species there are in the U. S. National Museum two specimens from the District of Columbia, agreeing with Chambers's type of *Gelechia clemensella* in the Cambridge Museum; one of these bears Walsingham's label: "I am unable to distinguish this form from the common European *Depressaria applana*." These specimens do not seem to me identical with European specimens, being smaller than the average and more reddish along the costa, besides nearly wanting the white scales after first discal dot. However, they are very near.

If the species be bred in this country it can be determined definitely whether they are distinct or not.

I have met with no typical specimen of *Depressaria applana* from America.

10. *DEPRESSARIA CILIELLA* Stainton.

*Depressaria ciliella* STANTON; STAUDINGER and REBEL, Cat. Lep. Eur., II, 1901, No. 3234.—WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 316.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5257.

*Food plant*.—*Daucus*, etc.

The larva resembles that of the foregoing (*Depressaria applana*), but the head is ochreous-yellowish. [Meyrick]. One rather faded specimen determined and labeled by Lord Walsingham is in the U. S. National Museum, besides a European series. This species is very close to *Depressaria applana* and difficult to separate from it.

11. *DEPRESSARIA WALSINGHAMELLA* Busck.

*Depressaria fernaldella* WALSINGHAM, Insect Life, I, 1889, p. 256.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5262a.

[Not *Depressaria fernaldella* CHAMBERS, Bull. U. S. Geol. Surv. Terr., IV., 1878, pp. 82 and 138.]

The type of this species is in the collection of Professor Fernald, where, through his kindness, I have had an opportunity of examining it. An identical specimen from Ontario (A. W. Hanham) is in the U. S. National Museum. The species is very close to the fol-

lowing, *Depressaria psoralicella*. I am indebted to Dr. Dyar for calling my attention to the invalidity of Lord Walsingham's name, *fernaldella*.

12. **DEPRESSARIA PSORALIELLA** Walsingham.

*Depressaria psoralicella* WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 317, pl. xxxvi, fig. 7.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5275.

*Food plant*.—*Psoralea physodes*.

A bred cotype from Sonoma County, California, received from Lord Walsingham, is in the U. S. National Museum collection.

13. **DEPRESSARIA NOVI-MUNDI** Walsingham.

*Depressaria parilella*, var. *novi-mundi* WALSINGHAM, Proc. Zool. Soc. Lond., 1881, pp. 317-318; Insect Life, I, 1889, p. 256.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5273.

One specimen, collected at Mount Shasta, California, by Lord Walsingham, and labeled by him "*Depressaria parilella*, var. *novi-mundi*," is in the U. S. National Museum. It does not agree with any specimen of *Depressaria parilella* Treitschke known to me, and I think it safer to regard it, for the present at least, as a distinct species, of which the above specimen should be regarded as a cotype.

14. **DEPRESSARIA THORACEFASCIELLA** Chambers.

*Gelechia thoracefasciella* CHAMBERS, Cin. Quart. Journ. Sc., II, 1875, p. 246; Can. Ent., X, 1878, p. 50; Bull. U. S. Geol. Surv. Terr., IV, 1878, p. 147.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5494.

The type of this species is in rather poor condition but agrees well with Chambers's description. It is found with his label in the Cambridge Museum. It is a *Depressaria* distinct from any other described species. The type came from California (Behrens); I have met with no other specimen.

15. **DEPRESSARIA KLAMATHIANA** Walsingham.

*Depressaria klamathiana* WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 314, pl. xxxvi, fig. 4.—RILEY, Smith's List Lep. Bor. Am., No. 5267, 1891.

A cotype from Oregon, received from Lord Walsingham, is in the U. S. National Museum; also another specimen, from California, thus determined by Walsingham, which differs slightly from the type and description; it is possibly a variety.

16. **DEPRESSARIA CINIFLONELLA** Zeller.

*Depressaria ciniflonella* ZELLER; STAUDINGER and REBEL, Cat. Lep. Eur., II, 1901, No. 3221.—WALSINGHAM, Insect Life, I, 1889, p. 256.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5259.

*Food plant*.—*Betula*.

The larva is purple brown; the spots black; head pale reddish, thoracic plate blackish; it feeds in folded leaves of birch. [Meyrick.]

In the U. S. National Museum is one of the three specimens from Vancouver Island, on which Lord Walsingham added *Depressaria ciniflonella* Zeller to the American list, besides European specimens.

17. *DEPRESSARIA NEBULOSA* Zeller.

*Depressaria nebulosa* ZELLER, Verh. Zool. Bot. Ges. Wien, 1873, p. 237.—CHAMBERS, Bull. U. S. Geol. Surv. Terr., IV, 1878, p. 138.—WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 312.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5269.

In the U. S. National Museum is a specimen of this species with Zeller's label; also others from New York, Pennsylvania, and Massachusetts.

18. *DEPRESSARIA FULVA* Walsingham.

*Depressaria fulva* WALSINGHAM, Trans. Amer. Ent. Soc. Phila., 1882, p. 175.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5251.

I have examined the type of this species in Professor Fernald's collection. A single specimen, determined by Mr. Beutenmüller, is in the U. S. National Museum collection.

19. *DEPRESSARIA AMYRISELLA* Busck.

*Depressaria amyrisella* BUSCK, Proc. Nat. Mus., XXIII, 1900, p. 233, pl. 1, fig. 8.—DYAR, Proc. Ent. Soc. Wash., IV, 1901, p. 476.

*Food plant*.—*Amyris floridana*.

*Type*.—No. 4941, U.S.N.M.

The strongly crested thorax in this species is an easy distinguishing character.

*Habitat*.—Palm Beach, Florida (Dyar.)

The larva is yellowish, shaded with red, the food showing green; cervical shield pale orange; thoracic feet pale; tubercles small, dark; head bilobed, shining black. Lives in a folded leaf, with a rounded opening for emergence. [Dyar.]

20. *DEPRESSARIA MURICOLORELLA*, new species.

Antennæ dark ochereous gray without annulations. Labial palpi dark ochereous on the outside, evenly sprinkled with single black scales; inside of palpi and face light ochereous. Head and thorax grayish brown. Forewings dark mouse gray, toward the apex and round the edges with a purple tint and irregularly sprinkled with sparse, single, black scales; base and basal part of costa somewhat lighter than rest of wing, concolorous with thorax. First discal spot indicated by a collection of a few black scales; second discal spot at end of cell a white dot, edged on the outside by a narrow semicircle of black scales. Cilia a shade lighter than wing, and especially in the dorsal part tinged with

ochreous. Hindwings shining, dark gray, cilia lighter. Veins 3 and 4 in hindwings are shortly stalked. Legs ochreous, shaded with black; abdomen dark purplish grey, lighter on the under side and with ochreous darks intermixed.

*Alar expanse*.—17 mm.

*Habitat*.—Colorado.

*Type*.—No. 6125, U. S. N. M.

*Foodplant*.—"An umbelliferous plant." A very distinct species easily recognized by its uniform dark appearance.

Dr. Dyar has prepared the following notes on the larva:

Head bilobed, shining black, epistoma paler; shield luteous, black in a broad postero-lateral rim and anterior spot. Body normal, the incisures depressed; green, translucent; segments obscurely 3-annulate, the subventral fold distinct. Tubercles slightly elevated, concolorous; ia and ib separate, iia and iib approximate, iv + v, normal. Hair tubercles black; setae long, pale. No marks, but all the dorsum shaded with red when about to pupate. Lives on a species of umbellifere, webbing the leaves. Found on the foothills back of Golden, Colorado.

## 21. *DEPRESSARIA CURVILINIELLA* Beutenmüller.

*Depressaria curviniella* BEUTENMÜLLER, Ent. Am., V, 1889, p. 10.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5260.—DIETZ, Smith's Cat. Ins. N. J., 1900, p. 474.

U. S. National Museum type No. 441 of this species, obtained from Beutenmüller, and a specimen from Ontario (A. W. Hanham) are in the U. S. National Museum. This fine species can not easily be mistaken for any other *Depressaria*. It reminds one somewhat of *Semioscopis packardella* Clemens,<sup>1</sup> by the striking curved discal line.

## 22. *DEPRESSARIA SENICIONELLA*, new species.

Antennae ochreous with narrow black annulations. Labial palpi light ochreous, second joint sprinkled with white and black scales; terminal joint with an annulation at base, one round the middle and the extreme apex black. Face and tongue very light yellowish, nearly white; head and thorax light ochreous. Forewing dark ochreous gray, mottled with lighter ochreous and sparsely sprinkled with black and white scales. Base of wing concolorous with thorax, light ochreous and rather sharply edged outwardly by an area of somewhat darker shade than the rest of the wing. In the middle of the cell is a more or less conspicuous black dot, often preceded by a similar dot nearer costa; at the end of the cell is an inconspicuous black dot, and between and above these dots is in most specimens a faint dark fuscous area. Along costa and round apical edge is a series of more or less pronounced blackish dots, and the veins are in most specimens slightly indicated by interrupted rows of dark scales, with the intervals rather light unspotted ochreous.

<sup>1</sup>*Enicostoma? packardella* Clemens, Smith's List Lep. Bor. Am., 1891, No. 5290.

Hindwing shining dark gray with a faint blackish line at apex before the cilia, which are a shade lighter than the wing. Abdomen grayish ochereous with two longitudinal rows of black dots on the under side. Legs light ochereous with spurs and tarsal joints sparsely sprinkled with black scales.

*Alar expanse*.—17 mm.

*Habitat*.—District of Columbia, Virginia.

*Type*.—No. 6126, U.S.N.M.

*Foodplant*.—*Senecio aureus*.

The larva is of a dirty yellowish color with head, thorax, and anal plates black; tubercles very small, black, emitting short white hairs.

It rolls and later spins together the young leaves of *Senecio aureus*. It is one of the earliest micros met with in this locality; the young larva can be found in March, and the imago issues late in April and during May.

This species is near to *Depressaria arenella* Schiffermiller, and it is not easy to give definite differences, though the two are decidedly distinct, *seneciella* being a smaller and darker insect, not so conspicuously marked, and with relatively broader and more perpendicularly cut forewings.

I have bred *seneciella* in large series, and it is somewhat variable in the distinctness of the markings.

#### 23. *DEPRESSARIA SABULELLA* Walsingham.

*Depressaria sabulella* WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 313, pl. xxxvi, fig. 1.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5279.

This species was described from a single collected specimen from Mendocino County, California, and is, according to Walsingham, allied to the European *Depressaria subpropinquella* Stainton. The careful description and figure should make it recognizable when seen, but no specimen is found in the U. S. National Museum, and I am unacquainted with the species except through the description.

#### 24. *DEPRESSARIA ARENELLA* Schiffermiller.

*Depressaria arenella* SCHIFFERMILLER; STAUDINGER and REBEL, Cat. Lep. Eur., II, 1901, No. 3204.—WALSINGHAM, Trans. Amer. Ent. Soc. Phila., 1882, p. 175.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5253.

*Depressaria yeatiana* WALSINGHAM, (not FABRICIUS) Proc. Zool. Soc. Lond., 1881, p. 316.

*Foodplant*.—*Centaurea*, etc.

The larva is green, paler laterally, with dorsal and subdorsal lines dark green; dots blackish; head light brownish-ochereous; first thoracic segment with two blackish spots. It lives in folded leaves [Meyrick].

This species, recorded by Lord Walsingham from Texas and Oregon, I have not met with in American specimens, but a fine series of European specimens is in U. S. National Museum.

25. *DEPRESSARIA CANADENSIS*, new species.

Antennæ dark fuscous with narrow indistinct black annulations. Labial palpi light ochreous, second joint evenly sprinkled with black on the outside; terminal joint with two broad black annulations, one at base and one at the middle and with extreme tip black. Face and tongue creamy white; head and thorax light grayish ochreous with a few darker reddish scales intermixed. Forewings light yellowish gray suffused with dark ochreous fuscous and liberally sprinkled with black; there is a perceptible rosy tint, particularly at base of dorsal edge, on the middle of the wing and at apical half of costal edge. In the middle of the disk is a conspicuous black dot preceded by a similar one nearer costa; at the end of the cell is another black dot surrounded by smaller groups of black scales; between these dots is an area of black, not strongly defined and tinted round the edges with rose. Costal edge irregularly spotted with black and around the apical edge a pronounced row of black dots.

Hindwings light whitish fuscous, cilia nearly white; on the underside of the hindwing is an interrupted black line around the edge and an irregular sprinkling of black dots in the apical part.

*Alar expanse*.—17 mm.

*Habitat*.—Winnipeg, Manitoba. (A. W. Hanham.)

*Type*.—No. 6127, U.S.N.M.

This species resembles somewhat *Depressaria arenella* Schiffermiller, but is a smaller and much more mottled insect.

26. *DEPRESSARIA LYTHRELLA* Walsingham.

*Depressaria lythrella* WALSINGHAM, Insect Life, I, 1889, p. 257.

*Foodplant*.—*Lythrum alatum*.

I am unacquainted with this species, except from the description.

*Habitat*.—Illinois

27. *DEPRESSARIA POSTICELLA* Walsingham.

*Depressaria posticella* WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 315, pl. xxxvi, fig. 5.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5274.

*Foodplant*.—*Psoralia physodes*.

Of this fine species, easily recognized by the anal dark cloud, the U. S. National Museum possesses a cotype from California, received from Lord Walsingham. There is also a series, bred by Mr. E. A. Schwarz, at Fresno, California, with larvæ found by him on *Psoralia*, and a series bred in Colorado by Dr. Harrison G. Dyar, who has kindly communicated the following notes on the larva:

Head rounded, bilobed; shields large, anal plate and thoracic feet black. Body dark, sordid, olivaceous green, the tubercles distinct, black, white ringed; joint 2 pale in front. Tubercles iv and v in line, approximate, separated, but in a common

white area; on joints 3 and 4 tubercles ia, ib, iia+b in a common white area, ia and ib well separated; iv and v united. Sete brownish; anal footplates black. Head faintly diluted testaceous on the faces of the lobes.

Lives on *Psoralea tenuifolia*, uniting the leaflets together with silk into a sort of case and eating the inner portions of the leaves.

Found on the prairie near Denver and Golden, Colorado.

### 28. DEPRESSARIA NUBIFERELLA Walsingham.

*Depressaria nubiferella* WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 316, pl. xxxvi, fig. 6.

*Foodplant*.—*Hypericum*.

This also is a striking species, easily recognized from Lord Walsingham's careful description and figure.

In the U. S. National Museum is a cotype, bred from *Hypericum* in Oregon by Lord Walsingham.

### 29. DEPRESSARIA ROBINIELLA Packard.

*Depressaria robinella* PACKARD, Guide Stud. Ins., 1870, p. 349, pl. viii, fig. 14.—CHAMBERS, Can. Ent., IV, 1872, p. 107; Cin. Quart. Journ. Sc., I, 1874, p. 208.—WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 312.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5278.

*Depressaria hilarella* ZELLER, Verh. Zool. Bot. Ges. Wien., 1873, p. 234.—WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 312.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5266.—DIETZ, Smith's Cat. Ins. N. J., 1900, p. 474. [not *Depressaria hilarella* COQUILLET, Papilio, III, 1883, p. 98.]

*Foodplant*.—*Robinia pseudacacia*.

There can be no doubt about the synonymy of these two forms *robinella* and *hilarella*, the descriptions of which tally and both of which were recorded from *Robinia*. In the U. S. National Museum is a specimen with label "*Depressaria hilarella*" in Zeller's handwriting. Also other specimens from the District of Columbia, Virginia, New York, and Massachusetts.

The species which Mr. Coquillett bred from *Sanicula marilandica*<sup>1</sup> can hardly be this species; some mistake must have been made in the determination. It may possibly have been the very similar *Depressaria lecontella* Clemens, the foodplant of which is as yet unknown.

### 30. DEPRESSARIA LECONTELLA Clemens.

*Depressaria lecontella* CLEMENS, Proc. Acad. Nat. Sc. Phila., 1860, p. 174.—ROBINSON, Ann. Lyc. Nat. Hist., IX, 1870, 157, pl. 1, fig. 9.—CLEMENS, Stainton's Tin. Nor. Am., 1872, p. 137.—CHAMBERS, Can. Ent., IV, 1872, p. 146; Bull. U. S. Geol. Sur. Terr., IV, 1878, p. 138.—WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 312.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5268.—DIETZ, Smith's Cat. Ins. N. J., 1900, p. 474.

Very near the preceding species, *Depressaria robinella* Packard, but larger, paler, and lacking the triangular dark shade on the forewings.

<sup>1</sup> Papilio, III, 1883, p. 98.

A specimen in the U. S. National Museum with Zeller's label "mir unbekant;" other specimens from New York.

### 31. DEPRESSARIA EMERITELLA Stainton.

*Depressaria emeritella* STAINTON; STAUDINGER and REBEL, Cat. Lep. Eur., II, 1901, No. 3283.—WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 318.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5261.

*Foodplants*.—*Tanacetum*, *Artemisia*? (Walsingham.)

The larva is green with dorsal and subdorsal lines darker; head yellowish-green; first thoracic segment black dotted. [Meyrick.]

A good series of European specimens is in the collection of the U. S. National Museum, but I have not met with any from America.

### 32. DEPRESSARIA TOGATA Walsingham.

*Depressaria togata* WALSINGHAM, Insect Life, I, 1889, p. 254.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5282.

I have identified as this species a large series collected by Dr. W. Barnes, at Glenwood Springs, Colorado, in May, 1895, and specimens from Colorado and Vermont, by Dr. Dyar and others. It was described from Montana.

### 33. DEPRESSARIA BETULELLA, new species.

Antennæ light ochereous, with narrow purplish black annulations, basal joint black. Labial palpi ochereous, second joint on the outside sprinkled with black, terminal joint with base and broad annulation just before tip black; extreme tip ochereous. Face light ochereous; head and thorax darker ochereous, intermixed with brown. Forewings broad and rounded, ochereous, overlaid with fuscous. Base of wing and basal part of costa lighter ochereous, base of dorsal edge nearly white, with a small triangular deep black area above it. First discal spot on middle of disk light ochereous edged anteriorly and posteriorly with black scales; just below it on the fold is a black dot. Second discal spot at the end of the cell larger and somewhat more conspicuous than first, light ochereous, slightly edged with black. At apical third of costa begins a narrow, not very conspicuous, obtusely angulated, light ochereous fascia crossing the wing; it interrupts several narrow black longitudinal streaks which run from the cell nearly to the edge of the wing. Around the entire apical edge from the apical third of costa is a very pronounced row of black dots before the slightly lighter cilia. Hindwings rather dark shining ochereous fuscous, lighter at base; a distinct dark fuscous narrow line runs along the entire edge before the cilia, which is a shade lighter than the wing. On the under side the hindwings are whitish fuscous, sprinkled on the apical half with dark fuscous scales and with an interrupted black line round the edge before the cilia. Abdomen light yellowish fuscous, legs light ochereous,



sprinkled with fuscous; tarsal joints on the outside black, tipped with yellow.

*Alar expanse*.—23 mm.

*Habitat*.—Pennsylvania. (W. G. Dietz.)

*Type*.—No. 6130, U.S.N.M.

*Foodplant*.—*Betula nigra*.

A very distinct species, belonging to the group with veins 2 and 3 in forewing separate, near *Depressaria nervosa* Haworth, easily separated by the much broader wings and the obtuse fascia.

I am indebted to my friend Dr. Dietz for the finely preserved type which he has bred. A cotype is in his collection. He has kindly sent me the following notes on the larva:

Collected May 24, 1900; larva in silken tube between spun-together leaves of black birch; larva pale green, each segment with two dorsal, one dorso-lateral, and two lateral spots, the latter being placed somewhat obliquely. Moths issued June 27, 1900. [Dietz.]

#### 34. *DEPRESSARIA NERVOSA* Haworth.

*Depressaria nervosa* HAWORTH; STAUDINGER and REBEL, Cat. Lep. Eur., II, 1901, No. 3306.—WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 317.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5270.

*Foodplant*.—*Sium*, *Cicuta*, etc.

The larva is dark bluish-gray, lateral line orange-yellow; spots black, white circled; head black; thoracic plate black, bisected, anterior edge whitish; among spun flowers. Pupa in stem of foodplant. [Meyrick.]

This species, recorded by Lord Walsingham from southern Oregon, I have not seen except in European specimens, a good series of which is in the U. S. National Museum.

#### 35. *DEPRESSARIA BARBERELLA*, new species.

Antennæ dark reddish brown, indistinctly annulated with black, basal joint and pecten black. Labial palpi with large well-developed spreading brush, light ochereous, sprinkled with brown; a spot on the outside of second joint and base of terminal joint black. Face light ochereous; sides of head below and around the eyes deep black, which color continues as a streak on the side of the thorax and outward in a black longitudinal line on the forewing, described below. Top of head and thorax reddish ochereous with posterior tip of thorax black; patagia rich brown streaked with black. Ground color of forewings light ochereous, but so densely dusted with fuscous, reddish and black scales as to appear dark colored to the naked eye. From base, parallel with basal third of costa, is a thin deep black line, mentioned above, edged on both sides with reddish brown. Just before it ends at the costal edge there begins a narrow longitudinal interrupted white line, diverging somewhat from the costa, crossing the costal veins and reaching nearly to the tip of the wing; this line is also edged and

interrupted by reddish brown scales. At base of wing near the dorsal edge is a small black spot, and the fold and veins are indicated by narrow, more or less interrupted, black lines. At the end of the cell is a small round inconspicuous white dot, edged exteriorly with black scales, interiorly with reddish scales. Cilia ochereous fuscous, dusted with red and black scales. Hindwings light ochereous fuscous, whitish toward base, darker fuscous along the edges and at apex. Cilia ochereous fuscous. Abdomen on the upper side ochereous fuscous, on the under side blackish with light ochereous central line. Legs light ochereous on the inside; the outside and the spurs strongly mottled with black; tarsi blackish, each joint tipped with reddish ochereous.

*Alar expanse*.—28 mm.

*Habitat*.—Williams, Arizona. (H. S. Barber.)

*Type*.—No. 6128, U. S. N. M.

This very distinct species is named after the collector, Mr. Herbert S. Barber, who, with Mr. E. A. Schwarz, has added a valuable contribution of *Tineina* from this interesting locality to the National Museum.

*Depressaria barberella* is by far the largest species of the genus hitherto recorded from America, nearly of the size of the European *D. dictamniella* Treitschke, to which it also comes very near in ornamentation, though easily distinguished from it by the lack of the light-colored costal edge, which contrasts strongly with the dark area below it in *D. dictamniella*.

### 36. DEPRESSARIA HERACLIANA De Geer.

*Depressaria heracliana* DE GEER; STAUDINGER and REBEL, Cat. Lep. Eur., II, 1901, No. 3280.—LINTNER, Can. Ent., V, 1873, p. 82.—ZELLER, Verh. Zool. Bot. Ges. Wien., 1873, p. 235.—CHAMBERS, Bull. U. S. Geol. Surv. Terr., IV, 1878, p. 138.—WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 312.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5265.—DIETZ, Smith's List Ins. N. J., 1900, p. 474.

*Depressaria ontariella* BETHUNE, Can. Ent., II, 1869, pp. 3 and 19.—CHAMBERS, Can. Ent., IV, 1872, p. 9.

*Foodplant*.—*Heracleum*, *Pastinaca*, etc.

The larva is gray, on sides dull yellow, spots black; head and thoracic plate black. [Meyrick].

Besides European specimens the U. S. National Museum possesses a series from America including larvae.

### 37. DEPRESSARIA GROTELLA Robinson.

*Depressaria grotella* ROBINSON, Ann. Lyc. Nat. Hist. N. Y., IX, 1870, p. 157, pl. 1, fig. 10.—CHAMBERS, Bull. U. S. Geol. Surv. Terr., IV, 1875, p. 138.—WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 312.—COQUILLETT, Papilio, III, 1883, p. 98.—RILEY, Smith's List Lep. Bor. Am., 1901, No. 5264.

*Foodplant*.—*Corylus americana*.

The larva is green, darkest dorsally; cervical shield green, unmarked; head green, with a black dot on each side above the jaws [Coquillett].

This species is unknown to me except from the description. It can not from this alone be properly placed with certainty, and it is possible that it belongs in the group with veins 2 and 3 stalked in forewing. From the figure and description it looks to be very close to *heracliana*, and I have therefore placed it so.

### 38. DEPRESSARIA CINEREOCOSTELLA Clemens.

*Depressaria cinereocostella* CLEMENS, Proc. Ent. Soc. Phila., 1863, p. 125.—ROBINSON, Ann. Lyc. Nat. Hist. N. Y., IX, 1870, p. 155, pl. 1, fig. 6.—CLEMENS, Stainton's Tin. Nor. Am., 1872, p. 245.—CHAMBERS, Bull. U. S. Geol. Surv. Terr., IV, 1878, p. 138.—WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 312.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5258.

*Foodplant*.—*Sium lineare*.

This fine little species, which is very distinct from all other described American species, but which resembles the European *Depressaria absynthiella* Herrich-Schäffer,<sup>1</sup> I have bred from water parsnip growing on the Virginia side of the Potomac just above Washington. The larva is light sulphur yellow, strikingly marked by the small but intensely black, shining tubercles, which emit short black hairs. The head is rather dark ochereous, shining, with black eyespots; thoracic shield paler ochereous.

The larva folds and ties together the leaves and pupates among rubbish on the ground. Nearly full-grown larvæ were found early in July and the imagos issued by the end of the same month. A bred series and blown larvæ are in the U. S. National Museum.

### 39. DEPRESSARIA SCABELLA Zeller.

*Depressaria scabella* ZELLER, Verh. Zool. Bot. Ges. Wien., XXIII, 1873, p. 236.—CHAMBERS, Bull. U. S. Geol. Surv. Terr., IV, 1878, p. 138.—RILEY, Smith's List Lep. Bor. Am., 1891, No. 5280.

*Depressaria scabrella* WALSINGHAM, Proc. Zool. Soc. Lond., 1881, p. 312.

This species is unknown to the writer except from the description, which seems to indicate that it is not a true *Depressaria*. The nearly smooth labial palpi and the raised scales on the forewing are, as mentioned by Zeller, unusual to the genus. It was described from Ohio; the type is in the British Museum.

<sup>1</sup>Staudinger and Rebel, Cat. Lep. Eur., II, 1901, No. 3292.