

THREE HUNDREDTH MEETING,

JANUARY 4, 1917

The 300th regular meeting of the Society was entertained by Mr. E. A. Schwarz at the Saengerbund Hall, January 4, 1917. There were present Messrs. Ainslie, Back, Baker, Böving, Busck, Caudell, Cole, Cushman, Dietz, Duckett, Ely, Fink, Gahan, Garman, Gibson, Gill, Greene, Heinrich, Howard, Hunter, Hutchison, Isely, Johansen, Kelly, Kotinsky, Marlatt, Middleton, Morrison, Pierce, Popenoe, Ransom, Rohwer, Sanford, Sasscer, Schwarz, Simanton, Snyder, Turner, Walton, and White, members, and K. B. Brown, J. A. Corcoran, W. E. Dove, Henry Fox, Seymour Hadwen, Leale F. Howard, H. G. Ingerson, U. C. Loftus, visitors.

Mr. James C. Evenden, Bureau of Entomology was elected a corresponding member.

Mr. J. S. Wade, of the Bureau of Entomology, and Mr. Harry F. Dietz, of the Federal Horticultural Board, were elected active members.

The chair announced the death January 2, 1917, of Mr. John F. Strauss, a member of the Society.

The following program was presented:

A REVISION OF THE NORTH AMERICAN GRACILARIIDAE FROM
THE STANDPOINT OF VENATION.

BY C. R. ELY.

The writer has for some time been interested in the genus *Gracilaria* and its allies. The appearance of Meyrick's Revision of the Gracilariidae was therefore very welcome. It was a matter of some surprise that, in this revision, the character of the vestiture of the legs was made of chief importance in delimiting genera and that less emphasis than usual was placed upon venation. It is not intended, in this paper, to combat the deliberate opinion of Mr. Meyrick, in regard to what character is of most importance within this family, but it is believed that the publication of a classification of our North American forms, from the standpoint of venation, may be made to serve a useful purpose,

in calling attention to certain facts concerning the species of a geographically restricted group. For the study of the Gracilariidae along broader lines Meyrick's comprehensive work must be consulted.

The careful study of wing venation requires the complete denudation of the wings and it is therefore evident that unique types could not always be satisfactorily examined. In the following article all such exceptional cases will be noted.

The general characters of the Gracilariidae, so far as the venation is concerned, are given by Meyrick as follows: "Forewings lanceolate or very narrowly elongate; 1 b simple, cell long, two-thirds to three-fourths of wing, 2 from toward lower angle, 4 usually from angle, 7 to costa, 8 usually separate or absent, 11 from about one-third of cell or near base or absent, upper margin of cell usually obsolete on basal third. Hindwings one-half to two-thirds, lanceolate or linear cilia 2-8; 1 c absent, cell open between 4 and 5, 5 and 6 often stalked, 6 and 7 approximated anteriorly or seldom stalked."

This characterization holds good of all North American species, so far as observed, which are now listed in this family. I would add that, with the list of species now under consideration, 1 a is usually absent and 1 c weak, when present, in the forewings, and that, in the hindwing, 6 is invariably stalked with 5 when both are present. In regard to the anal veins it would appear that 1 b, which so often preserves the fork at the base, in other families, should be the strongest vein and the last to disappear. There seems to be a general tendency to eliminate both 1 a and 1 c, with 1 c the more persistent of the two. In the hindwings it is usually difficult to discern any anal vein whatever.

Metriochoa Busck¹ shows 6 stalked with 7 in the hindwing, but with a complete separation between 5 and 6, and for these reasons is not included in this paper. It is said by Meyrick to be allied to *Tischeria*. I am informed by Mr. Busck that there is some probability that the larva of another insect was described under this genus, as the collected material shows but one larva answering the published description, and two others which are typical *gracilariid* larvae, according to Heinrich.

Eucosmophora Walsingham is also not included in this paper. Meyrick states that Walsingham's description of the reduced neuration was incorrect and places this genus under *Acrocercops*. He does not however give a description of the true neuration, which is unknown to me. The species *sideroxylonella* Busck is therefore listed provisionally under *Acrocercops*.

¹ Busck, Proc. U. S. Nat. Mus., Vol. XXIII, p. 245, 1900.

The hindwings of the Lepidoptera taken as a whole, except the Micropterygidae, from which all the genera in this family are believed to have been derived, are characterized by a very simple neurulation along the costal area of the wing. Two branches only were formerly supposed to remain, 7 terminating near the apex and 8 reaching the costal margin nearer the base. In a paper read by Busck before this Society in 1909¹ attention was called to the fact that the genus *Cynodia* Herrich-Schaffer has three branches to the costa, vein 7 having two branches to the costa near the apex. At this time the author of the paper proposed the erection of a superfamily to be called the CYCNODIOIDEA, to include genera descended from this nine veined ancestor. A few years ago the present writer's attention was called to some peculiarities in the venation of *Ornix*, as shown in Stainton's figures in Vol. III of the *Insecta Britannica*. Further investigation, with the assistance of Mr. Busck, showed the existence of species of both *Ornix* and *Gracilaria* which appeared to possess an extra, or 9th, vein in the hindwings. These facts were interpreted by Busck² as confirming the belief in the separate family rank of the Gracilariidae a belief which had formerly rested almost wholly upon larval characters. It may be pointed out in this connection that *Cynodia*, as noted by Busck, while derived from a form having nine veins in the hindwing, does not show the same type of neurulation as *Gracilaria*. In *Cynodia* it is a vein near the outer portion of the wing which has persisted, while in *Gracilaria* it is one near the base of the wing. Judging from the position of vein 11 in the forewing it is probably the homologous vein which has been retained in the hindwing. Spuler³ in his excellent figures shows this vein, and the interpretation appears to be the same, in regard to which vein has persisted, though he treats the matter somewhat differently. This interpretation if correct would seem to indicate that the family under consideration is an old one, instead of recent as stated by Meyrick.⁴

The hindwing of a species of the genus *Gracilaria* presents a type of venation which is fairly constant within the genus, and is more or less closely approached by other genera within the family. The most striking characters appear to be the open cell, between 4 and 5, and the relation existing between 7 and 8. Vein 8 reaches the costa not far from the base, where it fuses with it at a point where the costa drops sharply downward, producing the characteristic hump with which the hindwing in this

¹ Busck, Proc. Ent. Soc. Wash., Vol. XI, p. 92.

² Busck, Proc. Ent. Soc. Wash., Vol. XVI, p. 52, 1914.

³ Spuler, Schmet. Eur., Band 2, p. 410, 1910.

⁴ Meyrick, Gen. Ins., 128, p. 3, 1912.

family is provided. Vein 7 is quite close to 8, and parallel with it, until it reaches a point near the hump, where it curves downward, approximating 6, with which it is usually connected by a cross vein, and then slants upward toward the outer extremity of the costa. The extra vein, when present, may be found arising out of 7, just under the hump, or at times connected by a cross vein with 8. In most of the later forms however this extra vein has disappeared. The changes which take place in the various genera, when a degradation of the neuration takes place in the hindwing, are apparently quite simple. The extra vein is usually the first to be lost, followed by 4 and then usually by 3, although sometimes 3 appears rather to become transformed into a continuation of 2. Of the branches 5 and 6 it is probably 6 that is the first to disappear. The median vein (5, 6) and 7 tend to approximate one another until they may culminate in the form found in *Phyllonorycter*, and its allies, and anastomose anteriorly.

In the forewing there are several features which are thought to be particularly noteworthy. In *Acrocercops*, *Parornix* and *Parectopa* it will be seen that the position of 11 is, at the point of its origin, much farther removed from the base of the cell, and that the system of veins 10 to 7 is much more advanced along the costal margin of the cell, than is the case with *Gracilaria*. In the latter 10 arises much nearer the base than 2 while with the former genera the contrary is the case. There seems to be in the later development, in this family, a crowding of the veins toward the apex of the wing, and the formation of a more or less pointed outline at the anterior margin of the cell, when any veins have been lost in this region. This may perhaps be accounted for by the fact that in many species possessing a complete neuration the outer wall of the cell is weak. The loss of veins takes place by means of the usual methods, obsolescence or stalking. In the costal series 11 and 7 may disappear by obsolescence or, in the case of 7, by stalking with 8. Of veins 8, 9 and 10 no tendency to disappear was noted, that is to say none of these veins was observed while in the act of disappearing, either by obsolescence or by stalking. In the case of several genera with much degraded neuration, where there were no intermediate forms, Meyrick's diagnosis was accepted and vein 8 stated to be absent. In the dorsal series 2, and possibly 6, may disappear by obsolescence. In *Gracilaria* there is a tendency toward simplification by the stalking of 4 and 5, while in *Parornix*, *Parectopa* and *Acrocercops* there is a tendency to simplify by means of the stalking of 6 with 5 or 7, and accompanying it the loss of veins 2 or 3.

It may be stated that the venation of *Apophthisis* Braun could not be studied, owing to lack of material, and that it is placed

in the list of genera according to my interpretation of the figure¹ accompanying the original description.

The obsolescence of vein 2 in the Gracilariidae appears not to have been noted by Meyrick and is not in conformity with his generic descriptions in several cases. When but one vein is absent in the dorsal series, he invariably specifies 3 as the one which has been eliminated. In authentic European specimens of *Acrocercops brogniardellum* Wallen., in the collections of the U. S. Nat. Museum, I have found that vein 2 was obsolescent while 3 remained strong. The same fact was observed in the case of *Dialectica* Wlsm. and *Chilocampyla* Busck.² In the species *strigifinielletta* and *salicifoliella* there is a weakening of 2 but in these cases 3 tends to disappear also. I may add that in the original description of *Chilocampyla* Busck² 3 was stated to be absent, while it may easily be seen, by the figure accompanying the description, that no veins are missing, but that 2 is disappearing and is the one which was overlooked.

It may be well to take up at this point some discrepancies which have been noted in reviewing Meyrick's Revision of the Gracilariidae and which show the need of accurate figures to accompany verbal descriptions. In the case of *Leucanthiza*³ Clem., it is stated that 5 and 6 are stalked in the hindwings, while the figure of the venation of this genus, Fig. 29 (b), shows that vein 6 is absent. In this case as with *Chilocampyla* Busck, mentioned above, the figure is correct while the description is not. In regard to the genus *Epicephala* Meyr.⁴ there is a similar disagreement. It is here stated that vein 3 of the forewing is absent while the figure 21 a shows all 12 veins to be present. In this case the writer is unable to judge whether the figure or the description is correct. The only figure given of a species of the genus *Gracilaria* is that of *G. alchimiella* Scop.⁵ which shows 5 and 6 stalked, in the hindwing, and the stalk arising out of 7, a type of venation which I have been unable to find in any of the North American species of *Gracilaria*, and which does not appear in any of the European forms examined, including *syringella*, *elongella*, *stigmatella*, *auroguttella* and *alchimiella*. The presence also of 1 a in the forewing is certainly not normal as I have been unable to find it in any of the species examined.

The task of revising the Gracilariidae of the world must have been very difficult and one which no one but Mr. Meyrick was

¹ Braun, Can. Ent., Vol. XLVII, p. 190, fig. 20, 1915.

² Busck, Proc. U. S. Nat. Mus., Vol. XXIII, p. 248.

³ Meyrick, Gen. Ins., 128, p. 12, 1912.

⁴ Meyrick, Gen. Ins., 128, p. 13, 1912.

⁵ Meyrick, Gen. Ins., 128, fig. 24b, 1912.

competent to undertake. It is not surprising however, considering the magnitude of the undertaking, that a few of our North American species are not properly listed. In the following pages the genera will be taken up in the order given by Meyrick and the reasons given for all changes which have been made.

The list of species under *Lithocolletis* has not been revised. This group has been so carefully studied by Miss Braun that, in the list of species which follows this paper, the arrangement given in her Revision will be followed. The only exception made is the listing of *Cameraria* Chapman, and the use of *Phyllonorycter* Hb. instead of *Lithocolletis* Hb. As to *Cameraria*, it would seem illogical to object to a division based upon larval characters, within a family whose family rank rests mainly upon a characteristic structure in the larval stage. One species only may be noted here, on account of the fact that it has the abnormal habit of forming its cocoon outside the mine. Upon examining the venation of this species, *ostensackenella* Fitch, it was found that the venation is abnormal, the two veins nearest the apex of the forewing arising from a short stalk from the tip of the cell.

Porphyrosela Braun is retained as a good genus as it is believed that it should not be dropped without further investigation.

Several species, noted later, were transferred from other genera and placed under *Marmara* Clemens. *Aesyle* Chambers, is removed from its position, as a synonym of *Acrocercops*, and made a synonym of *Marmara*, as *fasciella* Ch., the type species, belongs to this genus.

Under *Acrocercops* Wallengren, the writer has placed only those species which correspond rather closely to the type species *brogniardellum* Fabr. It is believed that Meyrick's conception of this genus is much too broad and that the group as listed by him will eventually be broken up. An additional reason for this restriction of the genus is the fact that in *albinatella* Ch. we have a species which corresponds generically in practically every detail with *brogniardellum*. It may be noted here also that Meyrick's very broad definition of the genus *Acrocercops* does not cover the venation of the type species, *brogniardellum*, which has 5 and 6 of the forewings stalked, the other veins remaining separate. This fact is also recorded by Stainton,¹ in regard to the relation of 5, 6. The following species were removed from under *Acrocercops*, because they did not fall within the limits of *Acrocercops*, under Meyrick's definition: *sebastianella* Busek, transferred to *Gracilaria*, from an examination of mounted wings, forewing not denuded; *fasciella*, to *Marmara* on venation; *strigifinitella* was

¹ Stainton, Ins. Brit., Vol. III, Pl. 6, fig. 11a, 1854.

made the type of a new genus; *randiella*, made the type of a new genus; *venustella* transferred to *Leucospilapteryx* Spuler; *boreasella* Clem. removed to *Parornix* Spuler, on Clemens description of the venation. In regard to *boreasella* a word of explanation is required. Clemens described the species from a single specimen without a head and much mutilated, basing his determination upon the neurulation, as he says, almost exclusively. Although he says it differs somewhat from the venation of species of *Parornix* sp. (*Ornix* Tr) then known to him, he was undoubtedly correct in his determination. I would direct particular attention to his description of the venation of the hindwings, which is as follows: "In the hindwings the venation is the same as in other members of the genus, except that the inosculation of the bifid subcostal vein with the tip of the costal, and of the lower branch of the former with the furcate discal *nervule*, is almost obsolete and very indistinct."¹ It will be noted that Clemens here has called attention to the three branches of the costa, shown in the species having the extra vein in the hindwing, mentioned at the beginning of this paper. Dietz² the last one to revise the North American species of *Parornix* Spl. (*Ornix* Tr) says that he believes it to be a true *Ornix* Tr.

Spuler's genus *Eutrichocnemis*³ was erected without a description of the neurulation and he places under it the two species *simploniella* V. Rösl, and *scalariella* Zell. but does not specify the type. As Walsingham made *scalariella* Zell. the type of his genus *Dialectica*, I would propose, in order to simplify matters, to consider *scalariella* Zell. as the type species and list *Eutrichocnemis* as a synonym of *Dialectica*. The genus represented by these two names is placed provisionally under *Acrocercops*. One species, *onosmodiella* Busck, corresponds more closely to *Dialectica* in venation than it does to *Acrocercops*, differing from the former genus chiefly in that vein 2 of the forewing is absent.

It was believed that *texanella* Busck should be transferred from *Parectopa* Clemens, to *Parornix* Spuler, which it most resembles in venation. The venation is quite close to that of *guttea* Haw. but in some respects it is an interesting species quite different from any other listed under this genus. The species *astericola* Frey and Boll, *quinquestrigella* Cham. and *rhombiferellum* Frey and Boll, were transferred from *Parectopa* to *Acrocercops* on external characters, following Meyrick's scheme. The species *salicifoliella* Cham., was found to correspond closely with the

¹ The Tineina of N. A., p. 237, 1872.

² Trans. Am. Ent. Soc., Vol. XXXIII, p. 290, 1907.

³ Spuler, Schmet. Eur. Band 2, p. 409, 1910.

type of Spuler's genus *Micrurapteryx*¹ and that genus is therefore included in this list.

Under *Gracilaria* the following changes have been made, *fulgidella* Clem. and *Elotella* Busck have been transferred to *Marmara*, on account of complete accord in venation as well as in other respects.

The classification which is here presented is based principally upon the position of vein 11 in the forewings, the movement forward of the costal or the dorsal series of veins along the anterior portion of the cell, and the relationship of veins 7 and 8 in the hindwings. There is one character which has not been included in the present paper which may prove to be of value. *Acrocercops* has a weak longitudinal vein through the middle of the cell in the forewings which appears to have been wholly lost in *Gracilaria*. The same vein is shown very faintly and brokenly in some of the other genera.

There would appear to be three main branches within this family, represented by *Gracilaria*, *Parornix* and *Acrocercops*. Of these *Gracilaria* is generally accepted as approaching most nearly the primitive form. Some species of *Parornix*, however, in the shape of the wings and form of venation of the hind wings, are strongly suggestive of the *Micropteryx* type. Stainton indeed uses the name Ornichidae for the family (p. 10, Ins. Brit., 1854) though he afterwards abandons it in favor of Gracilariidae. *Parectopa* appears to be an intermediate between *Gracilaria* and *Parornix*. *Micrurapteryx* is from gracilariid stock and is related to *Parectopa* while *Dialectica*, *Chilocampyla*, *Leucospilapteryx* and *Apophthisis* are closely related to *Acrocercops*. *Marmara* preserves a portion of the base of 7 parallel to 8 which suggests a relationship to the Gracilariid branch probably nearest to *Parectopa*. *Phyllonorycter* and its allies do not show a close relationship to any of the other genera and the parallel condition of 7 with 5, 6, is a great departure from the form of venation found in *Gracilaria*. It may be that this group is worthy of the family rank that is given it by some authors.

The difficulties in the way of interpreting a degraded neuration are illustrated in the case of *Leucanthiza*. There is nothing in the venation to show that it may not have been derived from *Gracilaria*, at the same time there is no positive evidence that it was so derived. The venation of the hindwings has been reduced to very nearly the simplest terms. There remain only the stems of the main branches, all separate. It would be difficult to see, for example, were venation the only guide, why the

¹ Spuler, Schmet. Eur. Band 2, p. 409, 1910.

genus *Phyllocnistis* included in a very different family might not be included with *Leucanthiza*. It is here that we are forced to fall back upon larval characters. *Leucanthiza* is therefore included in the Gracilariidae mainly on larval characters. The only suggestion of a family characteristic noted by the writer in this case, is the short vein 8 to the hump, in the hind wings.

The arrangement of genera which follows is constructed mainly upon venational characters, a few additional hints are however given for those who may wish to use it as a key.

The writer wishes to express his thanks to Mr. Heinrich for comparing the genitalia of a number of species whose status was in doubt. To Mr. Busck he wishes to gratefully acknowledge his indebtedness for help and advice upon numerous occasions. It is through the latter that there were available a number of named species which had been compared with Chambers' types, as well as notes regarding them.

KEY TO GENERA.

1. Hindwings with branch to costa between terminations on costa of 7 and 8..... 2
Hindwings without branch to costa between terminations on costa of 7 and 8..... 3
2. Forewings, 11 from near base of cell (head smooth)...(*Gracilaria* (part))
Forewings, 11 from about $\frac{1}{3}$ of cell (head rough).....*Parornix*
3. Hindwings, 8 veins (4 weak in *Micrurapteryx*)..... 4
Hindwings, less than 8 veins..... 9
4. Forewings, 11 from near base of cell (hind tibiae smooth)..... 5
Forewings, 11 from $\frac{1}{3}$ of cell or beyond $\frac{1}{3}$ (hind tibiae with bristles above)..... 6
5. Forewings, 6 and 7 separate.....*Gracilaria* (part)
Forewings, 6 and 7 stalked.....*Micrurapteryx*
6. Forewings, 12 veins (11 veins in *onosmodiella*)..... 7
Forewings, less than 12 veins..... 8
7. Forewings, 6 separate (base of antennae with eye flap)...*Chilosampyla*
Forewings, 6 stalked, with 5 or with 7.....*Acrocercops*
8. Forewings, 7 stalked with 8, or absent.....*Leucospilapteryx*
Forewings, 7 stalked with 6.....*Apophthisis*
9. Hindwings, 7 veins (5 and 6 stalked)..... 10
Hindwings, less than 7 veins..... 12
10. Forewings, 11 very near base of cell (10 not toward end of cell)... 11
Forewings, 11 from about $\frac{1}{3}$ of cell (10 toward end of cell)...*Paractopa*
11. Forewings, 12 veins, 2 and 3 weak (hind tibiae bristles above)

Neurobathra

Forewings, 11 veins, one dorsal branch absent (hind tibiae smooth)

Gracilaria (part)

12. Hindwings, 6 veins, 5 and 6 stalked..... 13
 Hindwings, 5 veins, 6 absent..... 16
 13. Forewings, 12 veins, separate, 11 near base (hind tibiae bristles above)
 Neurostrotia
 Forewings, 11 absent (hind tibiae without bristles)..... 14
 14. Forewings, 9 veins.....*Neurolipa*
 Forewings, less than 9 veins..... 15
 15. Forewings, 8 veins (head rough).....*Cremastobombycia*
 Forewings, 7 veins (head smooth).....*Marmara*
 16. Forewings, 9 veins (head smooth).....*Leucanthiza*
 Forewings, 7 veins (head rough)..... { *Phyllonorycter*
 *Cameraria*
 Forewings, 6 veins (head rough).....*Porphyrosela*

Porphyrosela Braun.

Type: *Porphyrosela desmodiella* Clem.

Characters as in *Phyllonorycter* Hb. except that vein 10 is obsolescent or absent, the hind tibiae without hairs and the basal joint of the antennae without a pecten.

Cameraria Chapman.

Type: *Phyllonorycter rajella* Linn.

Characters as *Phyllonorycter* except that the larva is flat and the nerve always on the upper side of the leaf of the food plant.

Phyllonorycter Hübner.

Type: *Cameraria guttifinitella* Clem.

Head roughly tufted on crown, face smooth. Antennae about 1, basal joint rather thick, usually with slight pecten. Labial palpi moderate or short, porrected or drooping, filiform, pointed. Maxillary palpi minute, filiform, porrected or rudimentary. Posterior tibiae with loosely appressed hairs. Forewings lanceolate; 7 veins, 3 absent, 4 absent, 6 absent, 8 absent, 11 absent. Hindwings about $\frac{1}{2}$, linear, lanceolate, cilia 4-5; 3 absent, 4 absent, 6 absent.

Larva cylindrical.

Cremastobombycia Braun.

Type: *Cremastobombycia solidaginis* Frey and Boll.

Characters as in *Phyllonorycter* Hb. except that vein 6 is present, stalked with 5, in both forewing and hindwing.

Marmara Clemens.

Type: *Marmara solictella* Clem.

Head smooth. Antennae $\frac{4}{5}$ to 1, basal joint thick with slight pecten. Labial palpi moderate, porrected, slender, pointed. Maxillary palpi

moderate, porrected, loosely scaled toward tip. Posterior tibiae smooth scaled. Forewings lanceolate; 3 absent, 4 absent, 6 absent, 8 absent, 11 absent. Hindwings about $\frac{1}{2}$, linear lanceolate, 3 absent, 4 absent, 5 and 6 stalked.

The venation of the forewings is very similar to that of *Phyllonorycter* Hb., but differs from the latter in that 7 approximates 8 toward the base and is well separated from the stalk of veins 5 and 6 in the hindwings.

Leucanthiza Clemens.

Type: *Leucanthiza ampicarpeae foliella* Clem.

Head loosely rough haired on crown, face smooth. Antennae 1, basal joint hardly thickened. Labial palpi short, slender, drooping. Maxillary palpi rudimentary. Posterior tibiae with appressed scales. Forewings lanceolate; 3 absent, 4 absent, 11 absent. Hindwings about $\frac{1}{2}$, narrow lanceolate, cilia 4; 3 absent, 4 absent, 6 absent.

It should be noted that vein 6 is not stalked with 5 as stated by Meyrick but is absent.

Neurolipa nov. gen.

Type: *Neurolipa randiella* Busck.

Head smooth. Antennae 1, base enlarged with faint pecten. Labial palpi loosely scaled, porrected or drooping, end joint equal to second, curved. Maxillary palpi moderate, filiform, loosely scaled, porrected. Hind tibiae with long appressed hairs. Forewings elongate, acuminate; 9 veins, 11 absent, one costal and one dorsal branch absent from near outer end of cell. Hindwings linear; 6 veins, 2, 3 and 4 coincident, 5 and 6 stalked.

This genus has a venation apparently derived from the *Acrocercops* type but the hind tibiae are similar to *Phyllonorycter* Hb.

Apophthisis Braun.

Type: *Apophthisis pullata* Braun.

Head with appressed scales. Antennae somewhat under 1, basal segment with pecten. Labial palpi moderate, straight, drooping. Maxillary palpi rudimentary. Posterior tibiae with a row of short projecting scales above. Forewings lanceolate, the margin from the inner angle to the apex is almost straight or slightly concave; 2 almost obsolete, 3 absent, 4 indistinct, from lower angle of the cell, 5 absent, 6 and 7 stalked, transverse vein indistinct between 4 and 6, 11 obsolete except at origin and near costa. Hindwings about $\frac{1}{2}$, lanceolate, cilia 5; 5 and 6 stalked.

This genus is known to me only from the original description given above and the figure of the venation which accompanies

the description. It appears to be a derivative of the *Acrocercops* group.

Leucospilapteryx Spuler.

Type: *Leucospilapteryx missella* Stainton.

Head smooth. Antennae 1, base somewhat enlarged. Labial palpi moderate; somewhat roughly haired, porrected, end joint equal second, recurved. Maxillary palpi filiform, small, porrected. Hind tibiae with row of bristly hairs above. Forewings elongate lanceolate; 11 more than $\frac{1}{3}$ of cell from the base and strongly joined to cell, 7 stalked with 8, or absent, one dorsal branch from cell absent (possibly 3), 4 and 5 short-stalked. Hindwings nearly linear, acuminate; 8 veins, 5 and 6 stalked and joined to 7 by a cross vein near middle of wing.

A genus derived from the *Acrocercops* group.

Acrocercops Wallengren.

Type: *Acrocercops brogniardellum* Fabr.

Head smooth. Antennae more than 1, labial palpi long, curved, ascending, tufted beneath on second joint, terminal joint equal to second, pointed. Maxillary palpi filiform, porrected. Posterior tibiae with row of bristly hairs above. Forewings elongate and acuminate; 12 veins, 2 weak toward its base, 5 and 6 stalked; (In *Dialectica*, Wlson, 6 is stalked with 7), origin of 11 distant from base of cell. Hindwings about one-half, narrow lanceolate; 8 veins, 5 and 6 stalked and connected to 7 by cross vein.

The above description is given from a European specimen of the type species, and is very much more restricted than that given by Meyrick in the Gens. Ins.

Chilocampyla Busck.

Type: *Chilocampyla dyariella* Busck.

Head smooth. Antennae nearly $1\frac{1}{2}$, basal joint somewhat flattened and enlarged with a projecting flap of dense scales. Labial palpi long, smooth, curved, subascending, pointed. Maxillary palpi filiform, moderate, porrected. Middle tibiae thickened with heavy tuft of scales. Posterior tibiae with double row of bristles above. Forewings elongate lanceolate; 12 veins, 2 weak, 6 and 7 stalked, 11 from toward middle of cell margin (10 in ♂ obliterated by a costal depression). Hindwings $\frac{1}{2}$, linear; 8 veins, 5 and 6 stalked.

A genus related to *Acrocercops* Wallgr. both by venation and hind tibiae. Separated from this genus by its flap of scales at the base of the antennae and thickened middle tibiae.

Neurostrata nov. gen.

Type: *Neurostrota gunniella* Busck.

Head smooth. Antennae 1, basal joint slightly enlarged. Labial palpi moderately long, porrected, smooth, end joint equal to second, pointed, upcurved. Maxillary palpi moderate, filiform, porrected. Posterior tibiae with row of bristly hairs above. Forewings lanceolate; 12 veins, all well separated, 2 weak at base, 11 from near base, not joined to cell. Hindwings linear lanceolate, acuminate; 6 veins, 4 absent, 2 and 3 coincident (in some specimens a portion of 2 is faintly discernible), 5 and 6 stalked and connected with 7, base of 7 parallel to 8, in the ♂ a spiny process at the termination of 8 on the costa.

A genus related to the *Acrocercops* group but with broader wings, complete venation and basal origin of 11, in the forewings, and degraded neuration in the hindwings.

Neurobathra nov. gen.

Type: *Neurobathra strigifinitella* Clemens.

Head smooth. Antennae 1, basal joint somewhat enlarged, very faint pecten of few hairs. Labial pulpi moderately long, porrected, end joint equal in length to second, pointed up curved. Maxillary palpi moderate, filiform, porrected. Posterior tibiae with row of bristly hairs above. Forewings narrowly lanceolate; 12 veins, 11 from very near the base of cell, 2 and 3 very weak, 3 out of the base of 4, 4 and 5 widely separated. Hindwings linear-lanceolate; 7 veins, 4 absent, 5 and 6 stalked, 7 close to 8 near origin, approaching or connected with stalk of 5 and 6 near middle of wing, costal fold in ♂ producing deformed neuration.

This genus may be separated from others in the *Acrocercops* group by the basal origin of vein 11 and the weakened condition of both 2 and 3 in the forewing and the absence of vein 4 in the hindwing. The venation resembles *Micrurapteryx* Spuler from which genus it may be separated by the characters of the hind tibiae.

Parectopa Clemens.

Type: *Parectopa lespedezae foliella* Clem.

Head with appressed scales. Antennae 1, with slight pecten. Labial palpi moderately long, curved upward, terminal joint equal second in length, smooth or slightly roughened. Maxillary palpi moderate, filiform, porrected. Middle and hind tibiae smooth scaled. Forewings elongate, acuminate; 11 veins (or sometimes 10), 2 or 3 absent (or sometimes both 2 and 3), 6 and 7 often stalked, 11 from about $\frac{1}{3}$ of cell from base. Hind wings about $\frac{1}{2}$, linear lanceolate; 7 veins, 5 and 6 stalked, 4 absent.

The above description is based mainly on a study of *P. robiniella* Clem. bred specimens of *P. lespedezaefoliella* not being available. Clemens in his original description gives 8 as arising out of 7 near its base.

The genus as given above is more narrowly restricted than as given by Meyrick, whose definition would include *Micrurapteryx* Spuler, given below.

Micrurapteryx Spuler.

Type: *Micrurapteryx Kollariella* Zeller.

Head smooth, erectile tufts of scales at either side of crown. Antennae 1, basal joint moderately enlarged. Labial palpi smooth, porrected or drooping. Maxillary palpi filiform, small. Hind tibiae smooth. Forewings elongate lanceolate, acuminate; 12 veins, 11 from near base, 6 and 7 stalked, 2 and 3 stalked and weak. Hind wings $\frac{1}{2}$ nearly linear, 8 veins, 4 very weak, 5 and 6 stalked.

This genus is probably an older form from which *Parectopa* Clemens, may have been derived. It is apparently more nearly related to *Gracilaria* than is the case with *Parectopa*.

Parornix Spuler.

Type: *Parornix anglicella* Stainton.

Head rough haired, face smooth. Antennae about 1, basal joint moderate. Labial palpi moderately long, slightly curved, porrected or sub-ascending, smooth scaled, terminal joint shorter than second, pointed. Maxillary palpi moderately long, filiform, porrected. Posterior tibiae smooth scaled. Forewings lanceolate or elongate lanceolate; 11 veins, one dorsal vein absent (2 or 3, possibly), 6 and 7 stalked, 11 from about $\frac{1}{3}$ of cell from base. Hindwings, $\frac{2}{3}$, narrow lanceolate; 4 usually absent, a branch to costa from cell between 7 and 8.

This genus corresponds to *Ornix* as given by recent authors. The latter name must unfortunately be ruled out of existence. For a recapitulation of the reasons for the change of name see Walsingham, Biol. Centr. Amer. IV, p. 341, 1909-1915. This genus may be separated from *Gracilaria* by means of its rough head.

It may be that the group of species related to *guttea* Haw. may have to be removed from this genus. Spuler places them under *Ornix* Tr., and separates them from his genus *Parornix*. If, however, the name *Ornix* is to fall it will necessitate the substitution of a new name for *Ornix* Tr., to include the species related to *guttea* Haw. having a complete venation in the hindwing.

Gracilaria Haworth.

Type: *Gracilaria syringella* Fabricius.

Head smooth. Antennae 1 or over 1, basal joint more or less elongate. Labial palpi long, curved, ascending, second joint sometimes with tuft beneath, terminal joint about as long as second, pointed. Maxillary palpi moderate, filiform, porrected. Middle tibiae tufted with dense scales, posterior tibiae smooth. Forewings elongate lanceolate or narrowly elongate; normally 12 veins (one dorsal branch from cell sometimes absent), 4 and 5 sometimes stalked. Hind wings about $\frac{1}{2}$, narrowly elongate, acuminate; 8 veins usually (sometimes anabolescent additional vein is distinguishable arising from the stem of 7 beneath the termination of 8 on the costa), 5 and 6 stalked.

This is a large genus which will probably eventually be broken up. Among our North American species we have none which comes close to *syringella*, the type, nor indeed to the species proposed as types of *Euspilapteryx* Steph., *Aspilapteryx* Spuler and *Xanthospilapteryx* Spuler. Practically all our species, hitherto described, will be found under Meyrick's division E of the genus *Gracilaria* and form quite a compact group, easily separable from other members of the family. In most of our species the venation is complete and but little tendency of the veins to stalk with one another is shown.

EXPLANATION OF PLATES.

PLATE VI.

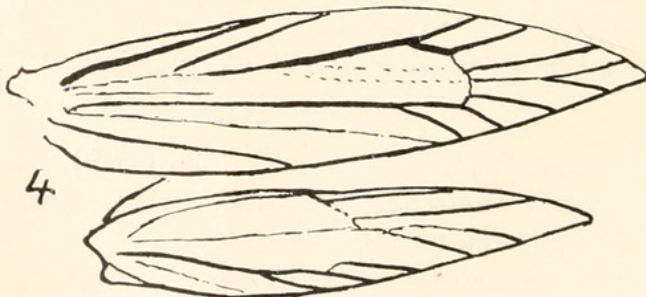
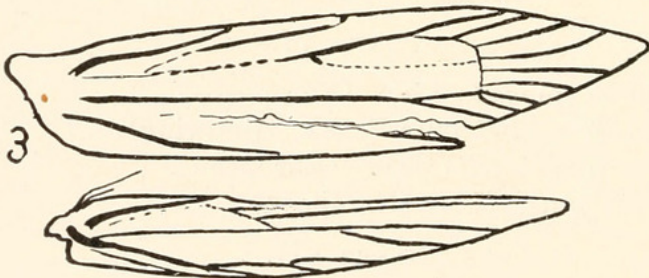
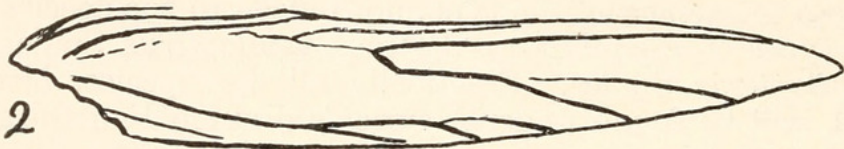
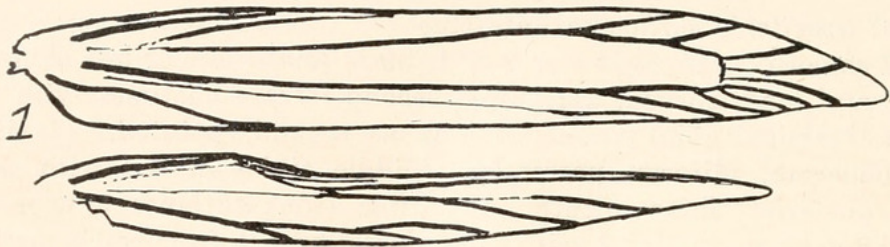
- Fig. 1. *Gracilaria elongella* Linn. (European).
- Fig. 2. *Gracilaria murtfeldtella* Busck (Hindwing).
- Fig. 3. *Gracilaria syringella* Fabr. (European).
- Fig. 4. *Parornix guttea* Haw. (European).

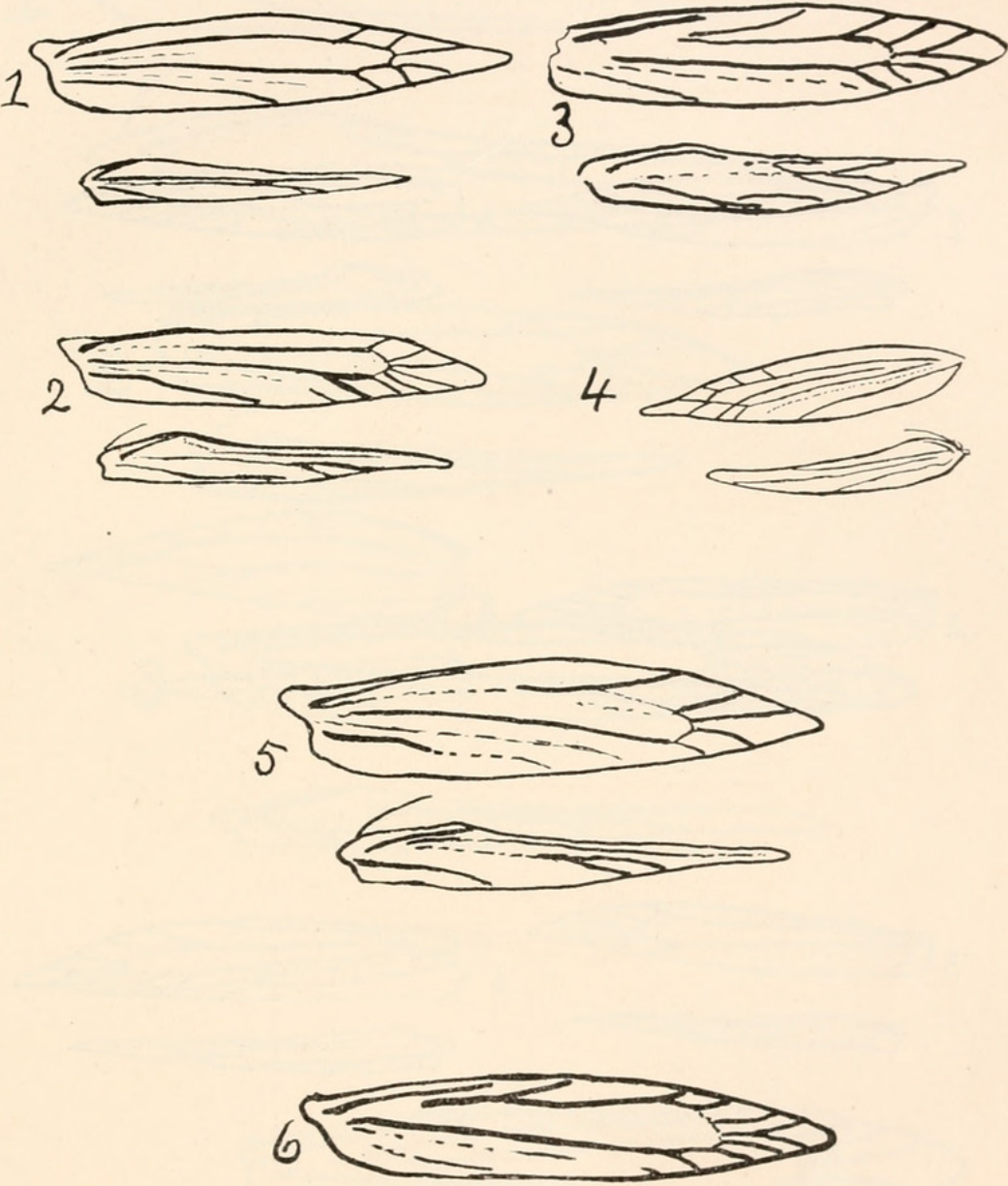
PLATE VII.

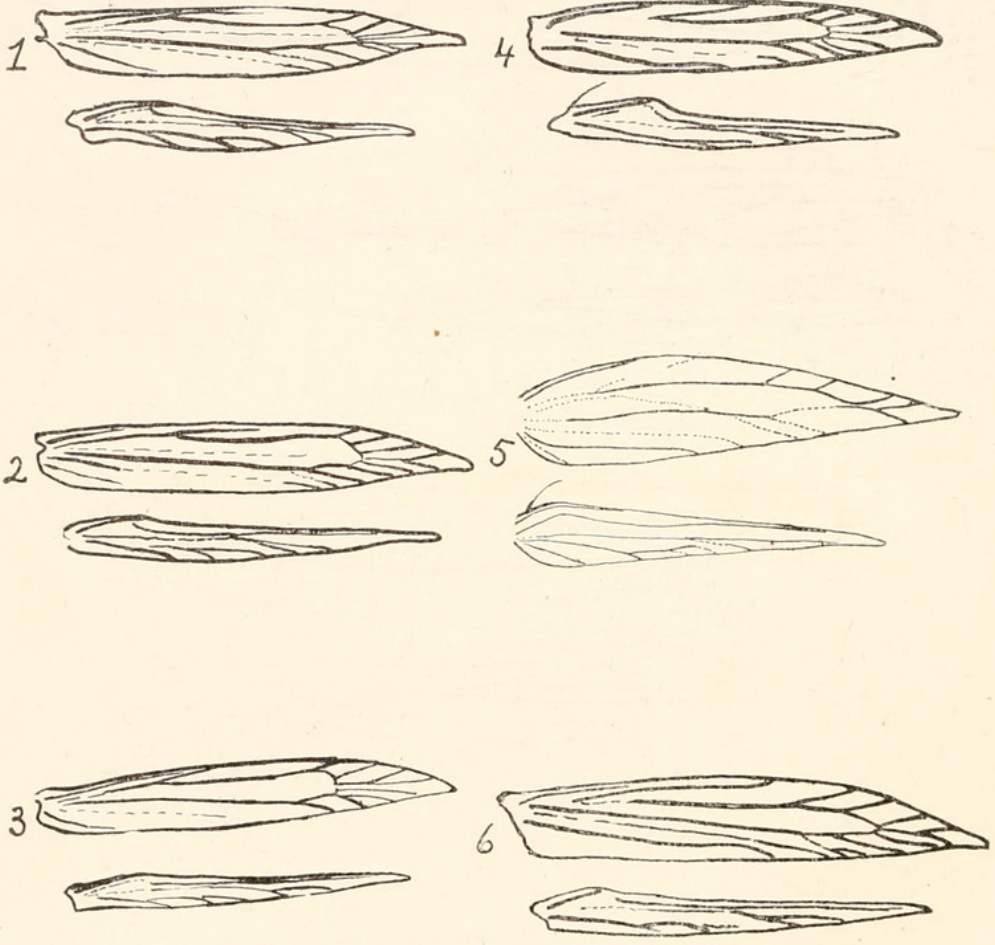
- Fig. 1. *Cremastobombycia solidaginis* Frey and Boll.
- Fig. 2. *Neurolipa randiella* Busck.
- Fig. 3. *Parornix preciosella* Dietz.
- Fig. 4. *Leucanthiza amphicarpeaefoliella* Clemens (after Clemens).
- Fig. 5. *Marmara fasciella* Chambers.
- Fig. 6. *Acrocercops onosmodiella* Busck (Forewing).

PLATE VIII.

- Fig. 1. *Acrocercops brogniardellum* Fab. (European).
- Fig. 2. *Acrocercops (Dialectica) scalariella* Zell (European).
- Fig. 3. *Leucospilapteryx venustella* Clemens.
- Fig. 4. *Parectopa pennsylvaniella* Engel.
- Fig. 5. *Apophthisis pullata* Braun (after Braun).
- Fig. 6. *Micrurapteryx salicifoliella* Chambers.







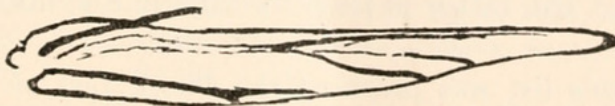
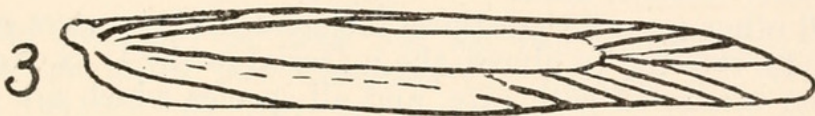
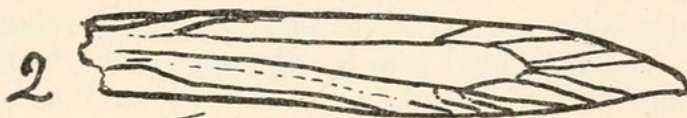
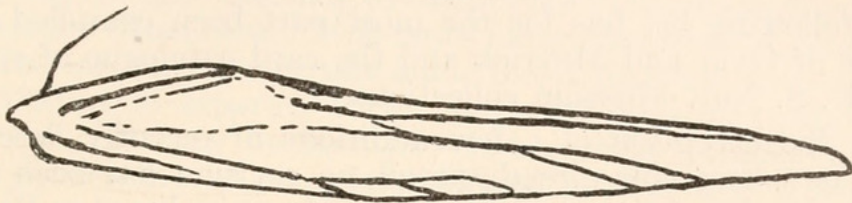
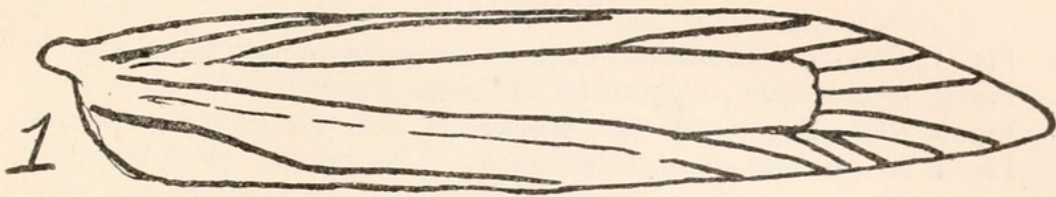


PLATE IX.

Fig. 1. *Gracilaria stigmatella* Fabr. (Form *purpuriella*, Chambers).

Fig. 2. *Neurobathra strigifinitella* Clemens.

Fig. 3. *Chilocampyla dyariella* Busck.

Fig. 4. *Neurostrota gunniella* Busck.

The following list has for the most part been compiled from the lists of Dyar and Meyrick and the card catalogue of species in the U. S. Nat. Museum collections.¹

With the exception of a few additions of recently described species, or corrections already noted, no revision has been made as to the identification or arrangement of species listed in Braun's Rev. of N. Am. *Lithocolletis* or in the Rev. of *Ornix* by Dietz. In regard to the relationship and arrangement of genera related to *Phyllonorycter* Hb. (*Lithocolletis*) one is referred to the works of Braun and Chapman and to Busck, Proc. Ent. Soc. Wash., XI, p. 100, 1909 and also to a letter from Meyrick, Proc. Ent. Soc. Wash., XI, p. 187, 1909.

For a more extended list of references to the synonymy of genera under *Gracilaria*, *Acrocercops*, *Parornix* (*Ornix*) and *Phyllonorycter* (*Lithocolletis*) one should consult Walsingham, Biol. Centr. Amer., 1915.

In all other genera than those included in the papers of Braun and Dietz, referred to above, the material in the U. S. Nat. Mus. has been examined with care, and all species which are not represented in the U. S. Nat. Mus. collections are marked with an asterisk (*) and their places in the list are based on published descriptions only. Species represented in the collections but which could not be satisfactorily examined as to venation, and which should be further studied in this respect, are marked with the symbol (†).

Names of species are given as originally printed and new names or revisions in spelling are not accepted, save only where a typographical error has been corrected.

As a result of data obtained by Mr. Carl Heinrich upon the comparison of the male genitalia of certain European and American species, closely resembling one another, it was found that *elongella* L. and *alnivorella* Cham. are distinct species, and the former is dropped from the list. In the case of *stigmatella* Fabr. and *purpuriella* Cham., however, there appeared to be no difference and the latter is therefore made a synonym of *stigmatella*.

¹ Since this list was prepared the Check List of the Lepidoptera of Boreal America, Barnes and McDonnough, Decatur, Ill., Feb. 1917, has appeared. The latter, so far as the Gracilariidae are concerned, closely follows Meyrick's lists.

In regard to *cuculipennellum* Hüb. and *fraxinella* Ely the difference was so slight as to be questionable. The latter is therefore listed as a doubtful synonym of the former. The other European species, *falconipennella* Hüb. and *alchimiella* Scop., have been dropped from the list of American species, as is done by Meyrick.

It was thought best not to disturb the existing synonymy under *alnivorella* Chambers. It is quite likely that several good species may be included under this name but it does not seem advisable to attempt to separate them, in the absence of sufficient bred material. It may be pointed out here that Chambers claimed that *alnivorella* and *alnicolella* differed in their food habits.

A LIST OF THE GRACILARIIDAE OF NORTH AMERICA.

(Dyar Cat = Dyar, Bull. 52, U. S. Nat. Mus. Wash., 1902.)

Meyr. Cat = Meyrick, Lep. Cat., pars. 6, 1912.)

Family GRACILARIIDAE.

PORPHYROSELA Braun.

Rev. Am. Lith., p. 348, pl. XX, fig. 8, 1908.

Type: *desmodiella* Clémens.

desmodiella Clemens, Proc. Acad. Nat. Sci. Phil., p. 220, 1859; Tin. No. Am., pp. 65, 68, 1872; Chambers, Can. Ent., III, pp. 127, 162, 1871; Jn. Cin. Soc. Nat. Hist., II, p. 189, 1879; Frey & Boll, Stett. ent. Zeit., XXXVII, p. 227, 1876; Wlsm., Trans. Am. Ent. Soc., X, p. 202, 1882; Busek, Proc. Ent. Soc. Wash., V, p. 187, 1903; Dyar, Cat., No. 6303; Braun, Am. Lith., p. 348, pl. XXIV, figs. 14, 15, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 41; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 110—, fig. 9, 1914.

syn: *gregariella* Murtf., Can. Ent., 13, p. 245, 1881; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 41.

Foodplants: *Desmodium*, *Lespedeza*, *Phaseolus*; under mine. East U. S.

CAMERARIA Chapman.

The Entomologist, vol. XXXV, p. 141, 1902.

Type: *guttifinitella* Clemens.

gaultheriella Wlsm., Ins. Life., II, p. 79, 1889; Dyar, Cat., No. 6291; Braun, Rev. Am. Lith., p. 324, pl. XXIII, fig. 6, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 91, 1914.

Foodplant: *Gaultheria shallon*; upper mine. West. U. S., Brit. Col.

memoris Wlsm., Ins. Life., II, p. 116, 1899; Dyar, Cat., No. 6293; Braun, Rev. Am. Lith., p. 324; pl. XXIII, fig. 7, 1908; Meyr., Gen. Ins.,

128, p. 10, 1912; Meyr., Cat., p. 39; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 90, 1914.

Foodplant: *Vaccinium ovata*; upper mine.

Calif.

caryaefoliella Clemens, Proc. Acad. Nat. Sci. Phil., p. 323, 1859; Tin. No. Am., pp. 65, 74, 1872; Chambers, Can. Ent., III, pp. 109, 165, 1871; Frey & Boll, Stett. ent. Zeit., XXXIX, p. 273, 1878; Busek, Proc. Ent. Soc. Wash., V, p. 189, 1903; Dyar, Cat., No. 6288; Braun, Rev. Am. Lith., p. 325, pl. XXIII, fig. 8, 1908; Meyr., Gen. Ins. 128, p. 10, 1912; Meyr., Cat., p. 39; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 72, 1914.

syn: *juglandiella* Clemens, Proc. Ent. Soc. Phil., I, p. 81, 1861; Tin. No. Am., p. 170, 1872; Chambers, Can. Ent., III, p. 165, 1871; XI, p. 91, 1879; Packard, Guide Stud. Ins., p. 353, 1869; Braun, Rev. Am. Lith., p. 325, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39.

syn: *caryifoliella* Meyr., Meyr., Cat., p. 39.

Foodplant: *Hicoria Juglans*; upper mine.

East. U. S.

lentella Braun, Rev. Am. Lith., p. 326, pl. XXIII, fig. 9, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 73, 1914.

Foodplants: *Betula lenta*; *Ostrya virginiana*; upper mine. **East. U. S.**

saccharella Braun, Ent. News., XIX, p. 104, 1908; Braun, Rev. Am. Lith., p. 327, pl. XXIII, fig. 10, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 76, 1914.

Foodplant: *Acer*.; upper mine.

N. J., Ohio.

macrocarpella Frey & Boll, Stett. ent. Zeit., XXXIX, p. 261, 1878; Wlsm., Ins. Life., II, p. 78, 1889; Dyar, Cat., No. 6289; Braun, Rev. Am. Lith., p. 328, pl. XXIII, fig. 11, 1912; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 74, 1914.

Foodplant: *Quercus macrocarpa*; upper mine.

Tex. N. J.

cinnantiella Chambers, Can. Ent., III, pp. 146, 149, 1871; Cin. Quart. Jn. Sci., I, p. 203, 1874; Bull. Geol. Surv. Terr., III, p. 141, 1877; Wlsm., Ins. Life, II, p. 78, 1889; Dyar, Cat., No. 6287; Braun, Rev. Am. Lith., p. 329, pl. XXIII, fig. 12, 1912; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 75, 1914.

Foodplant: *Quercus alba*; upper mine.

East. U. S.

hamadryadella Clemens, Proc. Acad. Nat. Sci. Phil., p. 324, 1859; Tin. No. Am., 65, 77, 1872; Chambers, Can. Ent., III, pp. 55, 164, 182, 1871; Cin. Quart. Jn. Sci., I, p. 201, 1875; II, p. 104, 1875; Frey & Boll, Stett. ent. Zeit., XXXIX, p. 262, 1878; Busek., Proc. Ent. Soc. Wash., V, p. 190, 1903; Dyar, Cat., No. 6334; Braun, Rev. Am. Lith., p. 329, pl. XXIII, fig. 13, 1912; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39; Braun, Jn. Ac. Nat. Sci. Phil., XVI pp. 117—, fig. 77, 1914.

syn: *alternatella* Zeller, Verh. zool-bot. Ges. Wien., XXV, p. 351, 1875; Braun, Rev. Am. Lith., p. 329, 1912; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39.

syn: *alternata* Chambers, Bull. Geol. Surv. Terr., IV, p. 153, 1878; Braun, Rev. Am. Lith., p. 329, 1912.

Foodplants: *Quercus alba*; *Magnolia*; *Ostrya virginiana*; upper mine.

East U. S.

umbellulariae Wlsm., Ins. Life., II, p. 78, 1889; Dyar, Cat., No. 6290; Braun, Rev. Am. Lith., p. 330, pl. XXIII, fig. 14, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 78, 1914.

Foodplant: *Umbellularia californica*; upper mine.

Calif.

agrifoliella Braun, Ent. News., XIX, p. 105, 1908; Braun, Rev. Am. Lith., p. 331, pl. XXIII, fig. 15, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 79, 1914.

Foodplant: *Quercus agrifolia*; upper mine.

Calif.

conglomeratella Zeller, Verh. zool-bot. Ges. Wien., XXV, p. 346, 1875; Wlsm., Ins. Life., II, p. 24, 1889; Dyar, Cat., No. 6295; Braun, Rev. Am. Lith., p. 332, pl. XXIII, fig. 16, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 94, 1914.

syn: *bicolorella* Chambers, Bull. Geol. Surv. Terr., IV, p. 103, 1878; Braun, Rev. Am. Lith., p. 332, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39.

syn: *obtusilobae* Frey & Boll, Stett. ent. Zeit., XXXIX, p. 265, 1878; Braun, Rev. Am. Lith., p. 332, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39.

Foodplant: *Quercus virginiana*; upper mine.

U. S.

ulmella Chambers, Can. Ent., III, p. 148, 1871; Cin. Quart. Jn. Sci., I, p. 202, 1874; II, p. 101, 1875; Frey & Boll, Stett. ent. Zeit., XXXIV, p. 214, 1873; Wlsm., Ins. Life., II, p. 24, 1889; Dyar, Cat., No. 6294; Braun, Rev. Am. Lith., p. 333, pl. XXIII, fig. 17, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 95, 1914.

syn: *modesta* Frey & Boll, Stett. ent. Zeit., XXXVII, p. 224, 1876; XXXIX, p. 274, 1878; Braun, Rev. Am. Lith., p. 333, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39.

Foodplant: *Ulmus*; upper mine.

East and South U. S.

quercivorella Chambers, Can. Ent., XI, p. 145, 1879; Wlsm., Ins. Life., II, p. 24, 1889; Dyar, Cat., No. 6296; Braun, Rev. Am. Lith., p. 334, pl. XXIII, fig. 18, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 93, 1914.

Foodplant: *Quercus*; upper mine.

East U. S.

mediodorsella Braun, Rev. Am. Lith., p. 335, pl. XXIII, fig. 19, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 92, 1914.

Foodplant: *Quercus*; upper mine.

Calif.

australisella Chambers, Bull. Geol. Surv. Terr., IV, p. 103, 1878; Dyar, Cat., No. 6297; Braun, Rev. Am. Lith., p. 335; pl. XXIII, fig. 20, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 39; Braun, Jn. Ac. Nat. Sci. Phil., pp. 117—, fig. 83, 1914.

syn: *australella* Meyr., Meyr., Cat., p. 39.

Tex.

chambersella Wlsm., Ins. Life., II, p. 78, 1889; Dyar, Cat., No. 6300; Braun, Rev. Am. Lith., p. 336, pl. XXIII, fig. 21, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 40; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 85, 1914.

syn: *quinquenotella* Chambers, Jn. Cin. Soc. Nat. Hist., II, 189, 1800; Braun, Rev. Am. Lith., p. 336, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 40.

Tex.

cervina Wlsm., Proc. U. S. Nat. Mus. XXXIII, p. 221, 1907; Braun, Rev. Am. Lith., p. 336, pl. XXIII, fig. 22, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 40; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 86, 1914.

N. Y.

platanoidiella Braun, Ent. News., XIX, p. 106, 1908; Braun, Rev. Am. Lith., p. 337, pl. XXIII, fig. 23, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 40; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 87, 1914.

Foodplant: *Quercus*; upper mine.

Ohio, N. Y.

fletcherella Braun, Rev. Am. Lith., p. 338, pl. XXIII, fig. 24, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 40; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 80, 1914.

Foodplant: *Quercus*; upper mine.

Can.

arcuella Braun, Ent. News., XIX, p. 107, 1908; Rev. Am. Lith., p. 338, pl. XXIV, fig. 1, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 40; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 81, 1914.

Va.

betulivora Wlsm., Ins. Life., III, p. 326, 1891; Dyar, Cat., No. 6328; Braun, Rev. Am. Lith., p. 339; pl. XXIV, fig. 2, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 40; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 82, 1914.

Foodplant: *Betula*.

Locality?

eppelsheimii Frey & Boll, Stett. ent. Zeit., XXXIX, p. 272, 1878; Dyar, Cat., No. 6325; Braun, Rev. Am. Lith., p. 339, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 40.

Foodplant: *Carya*; upper mine.

Tex.

bethunella Chambers, Can. Ent., III, p. 109, 1871; Cin. Quart. Jn. Sci., II, p. 103, 1875; Can. Ent., XI, p. 89, 1879; Dyar, Cat., No. 6326; Braun, Rev. Am. Lith., p. 340, pl. XXIV, fig. 3, 1908; Meyr., Gen.

Ins., 128, p. 10, 1912; Meyr., Cat., p. 40; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 84, 1914.

syn: *lebertella* Frey & Boll, Stett. ent. Zeit., XXXIX, p. 266, 1878; Dyar, Cat., No. 6327; Braun, Rev. Am. Lith., p. 340, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 40.

Foodplant: *Quercus*; upper mine.

U. S.

picturatella Braun, Ent. News., XXVII, p. 84, 1916.

Foodplant: *Myrica carolinensis*; upper mine.

Conn., N. Y., N. J.

fasciella Wlsm., Ins. Life., III, p. 326, 1891; Dyar, Cat., No. 6317; Braun, Rev. Am. Lith., p. 341, pl. XXIV, fig. 4, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 40; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 89, 1914.

syn: *unifasciella* Chambers (not Tengström), Cin. Quart. Jn. Sci., II, p. 103, 1875; Braun, Rev. Am. Lith., p. 341, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 40.

Foodplant: *Quercus*; upper mine.

Ohio and Ky.

castaneaeella Chambers, Cin. Quart. Jn. Sci., II, p. 104, 1875; Dyar, Cat., No. 6318; Braun, Rev. Am. Lith., p. 341, pl. XXIV, fig. 5, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 40; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 88, 1914.

syn: *castanella* Wlsm., Ins. Life., III, p. 329, 1891; Braun, Rev. Am. Lith., p. 341, 1908.

syn: *castaneella* Meyr., Cat., p. 40.

Foodplants: *Quercus* and *Castanea*; upper mine.

Ohio and Ky.

guttifinitella Clemens, Proc. Acad. Nat. Sci. Phil., p. 324, 1859; Tin. No. Am., pp. 65, 76, 1872; Chambers, Can. Ent., III, p. 110, 1871; Cin. Quart. Jn. Sci., I, p. 201, 1874; Bull. Geol. Surv. Terr., IV, p. 102, 1878; Jn. Cin. Soc. Nat. Hist., II, p. 82, 1879; Busck, Proc. Ent. Soc. Wash., V, p. 189, 1903; Dyar, Cat., No. 6306; Braun, Rev. Am. Lith., p. 342; pl. XXIV, fig. 6, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 40; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 71, 1914.

syn: *toxicodendri* Frey & Boll, Stett. ent. Zeit., XXXIX, p. 273, 1878; Dyar, Cat., No. 6304; Braun, Rev. Am. Lith., p. 342, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 40.

Foodplant: *Rhus toxicodendron*.

East. U. S.

obstrictella Clemens, Proc. Acad. Nat. Sci. Phil., p. 322, 1859; Tin. No. Am., pp. 64, 73, 1872; Chambers, Can. Ent., III, p. 183, 1871; Bull. Geol. Surv. Terr., IV, p. 102, 1878; Dyar, Cat., No. 6307; Braun, Rev. Am. Lith., p. 342, pl. XXIV, fig. 7, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 40; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 64, 1914.

syn: *bifasciella* Chambers, Bull. Geol. Surv. Terr., IV, p. 101, 119, 153, 1878; Dyar, Cat., No. 6329; Braun, Rev. Am. Lith., p. 342, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 40.

syn: *ceriferae* Wlsm., Proc. U. S. Nat. Mus., XXXIII, p. 222, 1907;

Braun, Rev. Am. Lith., p. 342, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 40.

Foodplant: *Quercus*; upper mine.

N. Y., Pa., Ohio, Ky.

corylisella Chambers, Can. Ent., III, p. 111, 127, 1871; Dyar, Cat., No. 6308; Braun, Rev. Am. Lith., p. 344, pl. XXIV, fig. 8, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 69, 1914.

syn: *coryliella* Chambers, Can. Ent., XI, p. 90, 1879; Braun, Rev. Am. Lith., p. 344, 1908.

syn: *bifasciella* Wlsm., Proc. U. S. Nat. Mus., XXXIII, p. 223, 1907; Braun, Rev. Am. Lith., p. 344, 1908; Meyr., Gen. Ins., 128, p. 11, 1912.

syn: *corylella* Meyr., Meyr., Cat., p. 40.

Foodplant: *Corylus americana*; upper mine.

East. U. S.

aesculisella Chambers, Can. Ent., III, p. 111, 1871; Wlsm., Ins. Life., II, p. 53, 1889; Busck, Proc. Ent. Soc. Wash., V, p. 190, 1903; Braun, Rev. Am. Lith., p. 344, pl. XXIV, fig. 9, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 40; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 70, 1914.

syn: *aesculella* Riley, Smith's List Lep. Bor. Am., p. 109, 1891; Braun, Rev. Am. Lith., p. 344, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 40.

Foodplant: *Aesculus*; upper mine

Central U. S.

ostryarella Chambers, Can. Ent., III, p. 111, 1871; Tin. No. Am., p. 72, 1872; Dyar, Cat., No. 6335; Braun, Rev. Am. Lith., p. 345, pl. XXIV, fig. 10, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 40; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 68, 1914.

syn: *ostryella* Meyr., Meyr., Cat., p. 40.

Foodplants: *Ostrya virginiana* and *carpinus caroliniana*.

East. U. S.

acერიella Clemens, Proc. Acad. Nat. Sci. Phil., p. 325, 1859; Tin. No. Am., pp. 65, 75, 1872; Busck, Proc. Ent. Soc. Wash., V, p. 189, 1903; Dyar, Cat., No. 6305; Braun, Rev. Am. Lith., p. 346, pl. XXIV, fig. 11, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 41; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 66, 1914.

Foodplant: *Acer*; upper mine.

Atl. States, Can.

hamameliella Busck, Proc. Ent. Soc. Wash., V, p. 189, 1903; Braun, Rev. Am. Lith., p. 347, pl. XXIV, fig. 12, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 41; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 67, 1914.

syn: *hamamelis* Riley, Smith's List Lep. Bor. Am., 1903, No. 6844; Braun, Rev. Am. Lith., p. 347, 1908.

Foodplant: *Hamamelis virginiana*; upper mine.

Atl. States.

tubiferella Clemens, Proc. Acad. Nat. Sci. Phil., p. 208, 1860; Tin. No. Am., p. 140, 1872; Chambers, Can. Ent., III, p. 165, 183, 1871; Wlsm. Ins. Life., II, p. 24, 77, 1889; III, p. 329, 1891; Busck, Proc. Ent. Soc.

Wash, V, p. 204, 1903; Dyar, Cat., No. 6330; Braun, Rev. Am. Lith., p. 347, pl. XXIV, fig. 13, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 41; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 117—, fig. 65, 1914.

Foodplant: *Quercus*; upper mine.

Atl. States.

PHYLLONORYCTER Hübner.

Tentamen 1806.

Type: *rayella* Linn.

fitchella Clemens, Proc. Acad. Nat. Sci. Phil., p. 207, 1860; Tin. No. Am., p. 139, 1872; Chambers, Can. Ent., III, p. 183, 1871; Cin. Quart. Jn. Sci., I, p. 201, 1874; Packard, Guide Stud. Ins., p. 353, 1869; Chambers, Bull. Geol. Surv. Terr., III, p. 139, 1877; Can. Ent., XI, p. 90, 1879; Frey & Boll, Stett. ent. Zeit., XXXIX, p. 260, 1878; Busck, Proc. Ent. Soc. Wash., V, p. 204, 1903; Dyar, Cat., No. 6253; Braun, Rev. Am. Lith., p. 277, pl. XXI, fig. 1, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 26; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 115—, fig. 14, 1914.

syn: *quercifoliella* Fitch, Fifth Rept. Ins. N. Y., p. 327, 1859; Braun, Rev. Am. Lith., p. 277, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27.

syn: *quercitorum* Frey & Boll, Stett. ent. Zeit., XXXIV, p. 207, 1873; Zeller, Verh. zool-bot. Ges. Wien., XXV, p. 346, 1875; Chambers, Cin. Quart. Jn. Sci., I, p. 201, 1874; II, p. 229, 1875; Bull. Geol. Surv. Terr., III, pp. 139, 141, 1877; Braun, Rev. Am. Lith., p. 277, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27.

Foodplant: *Quercus*; under mine.

East U. S.

leucothorax Wlsm., Proc. U. S. Nat. Mus., XXXIII, p. 223, 1907; Braun, Rev. Am. Lith., p. 278, pl. XXI, fig. 2, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27; Braun, Ent. News, XXVII, p. 83, 1916; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 115—, fig. 13, 1914.

Calif.

bataviella Braun, Rev. Am. Lith., p. 278, pl. XXI, fig. 3, 1908; Meyr., Gen. Ins., 128, p. 10, 1912; Meyr., Cat., p. 38; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 114—, fig. 58, 1914.

Ohio.

trinotella Braun, Ent. News., XIX, p. 99, 1908; Braun, Rev. Am. Lith., p. 279, pl. XXI, fig. 4, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 47, 1914.

N. J.

quercialbella Fitch, Fifth Rept. Ins. N. Y., p. 328, 1859; Chambers, Can. Ent., III, p. 57, 1871; Wlsm., Ins. Life., II, p. 25, 1889; III, p. 325, 1891; Dyar, Cat., No. 5259; Braun, Rev. Am. Lith., p. 279, pl. XXI, fig. 5, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 46, 1914.

syn: *quercibella* Chambers, Cin. Quart. Jn. Sci., II, p. 102, 1875; Wlsm., Ins. Life, II, p. 77, 1889; Braun, Rev. Am. Lith., p. 279, 1908.

syn: *quercipulchella* Chambers, Bull. Geol. Surv. Terr., IV, p. 120, 1878; Packard, Bull. Ent. Comm., VII, p. 53, 1881; Wlsm., Ins. Life., II, p. 77, 1889; Braun, Rev. Am. Lith., p. 279, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27.

syn: *quercipulchrella* Riley, Smith's List Lep. Bor. Am., p. 109, 1891; Braun, Rev. Am. Lith., p. 279, 1908.

Foodplant: *Quercus*; under mine.

East. U. S.

clemensella Chambers, Can. Ent., III, pp. 57, 85, 1871; XI, p. 91, 1879; Wlsm., Ins. Life., II, p. 25, 1889; Dyar, Cat., No. 6256; Braun, Rev. Am. Lith., p. 280, pl. XXI, fig. 6, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27; Braun, Jn. Act. Nat. Sci. Phil., XVI, pp. 116—, fig. 45, 1914.

Foodplant: *Acer saccharum*; under mine.

Ohio.

argentifimbriella Clemens, Proc. Acad. Nat. Sci. Phil., pp. 318, 321, 1859; Tin. No. Am., pp. 39, 64, 70, 1872; Chambers, Can. Ent., III, pp. 57, 85, 1871; Cin. Quart. Jn. Sci., I, p. 201, 1874; II, p. 229, 1875; Frey & Boll, Stett. ent. Zeit., XXXIV, p. 209, 1873; Wlsm., Ins. Life., III, p. 325, 1891; Busck, Proc. Ent. Soc. Wash., V, p. 188, 1903; Dyar, Cat., No. 6258; Braun, Rev. Am. Lith., p. 281; pl. XXI, fig. 7, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 43, 1914.

syn: *longistriata* Frey & Boll, Stett. ent. Zeit., XXXIV, p. 209, 1873; Chambers, Cin. Quart. Jn. Sci., II, p. 229, 1875; Wlsm., Ins. Life., II, p. 325, 1891; Braun, Rev. Am. Lith., p. 281, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27.

syn: *longirostrata* Dyar, Bull. 52, U. S. Nat. Mus., 550, 1902; Braun, Rev. Am. Lith., p. 281, 1908.

syn: *fuscocostella* Chambers, Cin. Quart. Jn. Sci., II, p. 102, 1875; Wlsm., Ins. Life., II, p. 25, 1889; Braun, Rev. Am. Lith., p. 281, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27.

Foodplant: *Quercus*; under mine.

East U. S.

lucidicostella Clemens, Proc. Acad. Nat. Sci. Phil., p. 318, 1859; Tin. No. Am., pp. 39, 64, 66, 1872; Chambers, Cin. Quart. Jn. Sci., II, p. 102, 1875; Can. Ent., III, p. 57, 1871; Busck, Proc. Ent. Soc. Wash., V., p. 187, 1903; Dyar, Cat., No. 6257; Braun, Rev. Am. Lith., p. 281, pl. XXI, fig. 8, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 44, 1914.

Foodplant: *Acer saccharum*.

Centr. and North East U. S.

albanotella Chambers, Cin. Quart. Jn. Sci., II, p. 101, 1875; Dyar, Cat., No. 6263; Braun, Rev. Am. Lith., p. 282, pl. XXI, fig. 9, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 42, 1914.

syn: *subaureola* Frey & Boll, Stett. ent. Zeitt., XXXIX, p. 262, 1878; Wlsm., Ins. Life., II, p. 25, 1889; III, p. 325, 1891; Dyar, Cat., No. 6260; Braun, Rev. Am. Lith., p. 282, 1908; Meyr., Gen. Ins., 128, p. 5, 1912.

syn: *albinotella* Meyr., Meyr., Cat., p. 27.

Foodplant: *Quercus*; under mine.

Ohio, Ky., Tex.

insignis Wlsm., Ins. Life., II, p. 117, 1889; Dyar, Cat., No. 6255; Braun, Rev. Am. Lith., p. 283, pl. XXI, fig. 10, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27; Braun, Ent. News., XXVII, p. 82, 1916; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 115—, fig. 19, 1914.

Calif.

hageni Frey & Boll, Stett. ent. Zeit., XXXIV, p. 208, 1873; Chambers, Cin. Quart. Jn. Sci., I, p. 201, 1874; Bull. Geol. Surv. Terr., IV, p. 100, 1878; Dyar, Cat., No. 6252; Braun, Rev. Am. Lith., p. 284, pl. XXI, fig. 11, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 115—, fig. 17, 1914.

syn: *necospinusella* Chambers, Bull. Geol. Surv. Terr., IV, p. 100, 1878; Can. Ent., XI, p. 144, 1879; Braun, Rev. Am. Lith., p. 284, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27.

Foodplant: *Quercus platanooides*; under mine.

East U. S.

arbutusella Braun, Rev. Am. Lith., p. 285, pl. XXI, fig. 12, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 115—, fig. 18, 1914.

syn: *arbutella* Meyr., Meyr., Cat., p. 27.

Foodplant: *Arbutus menziesii*.

Calif.

obscuricostella Clemens, Proc. Acad. Nat. Sci. Phil., p. 321, 1859; Tin. No. Am., pp. 64, 71, 1872; Chambers, Can. Ent., III, p. 85, 1871; XI, p. 92, 1879; Busck, Proc. Ent. Soc. Wash., V, p. 188, 1903; Braun, Rev. Am. Lith., p. 286, pl. XXI, fig. 13, 1908; Meyr., Gen. Ins., 128, p. 6, 1912; Meyr., Cat., p. 27; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 115—, fig. 25, 1914.

syn: *virginiella* Chambers, Can. Ent., III, p. 84, 1871; Dyar, Cat., No. 6280; Braun, Rev. Am. Lith., p. 286, 1908; Meyr., Gen. Ins., 128, p. 6, 1912; Meyr., Cat., p. 27.

Foodplant: *Ostrya virginiana*; under mine.

Atl. States.

ostreaefoliella Clemens, Proc. Acad. Nat. Sci. Phil., p. 322, 1859; Tin. No. Am., pp. 64, 71, 1872; Chambers, Can. Ent., III, p. 85, 1871; Cin. Quart. Jn. Sci., I, p. 202, 1874; Can. Ent., XI, p. 91, 1879; Wlsm., Ins. Life., II, p. 53, 1889; Busck, Proc. Ent. Soc. Wash., V, p. 188, 1903; Dyar, Cat., No. 6275; Braun, Rev. Am. Lith., p. 286, pl. XXI, fig. 14, 1908; Meyr., Gen. Ins., 128, p. 6, 1912; Meyr., Cat., p. 27; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 23, 1914.

syn: *mirifica* Frey & Boll, Stett. ent. Zeit., XXXIV, p. 212, 1873; Braun, Rev. Am. Lith., p. 287, 1908; Meyr., Gen. Ins., 128, p. 6, 1912.

syn: *ostyrifoliella* Meyr., Meyr., Cat., p. 27.

Foodplant: *Ostrya virginiana*; under mine.

Atl. States.

rileyella Chambers, Cin. Quart. Jn. Sci., II, p. 236, 1875; Wlsm., Ins. Life, II, p. 25, 1889; Dyar, Cat., No. 6254; Braun, Rev. Am. Lith., p. 287, pl. XXI, fig. 15, 1908; Meyr., Gen. Ins., 128, p. 6, 1912; Meyr., Cat., p. 28; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 22, 1914.

syn: *tenuistrigata* Frey & Boll, Stett. ent. Zeit., XXXVII, p. 225, 1876; XXXIX, p. 260, 1878; Braun, Rev. Am. Lith., p. 287, 1908; Meyr., Gen. Ins., 128, p. 6, 1912; Meyr., Cat., p. 28.

Foodplant: *Quercus*; under mine.

Mo., Tex.

kearfottella Braun, Ent. News., XIX, p. 100, 1908; Braun, Rev. Am. Lith., p. 288, pl. XXI, fig. 10, 1908; Meyr., Gen. Ins., 128, p. 6, 1912; Meyr., Cat., p. 28; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 26, 1914.

Foodplant: *Castanea*; under mine.

Wash., D. C., N. J., Ky.

caryaealbella Chambers, Can. Ent., III, pp. 58, 85, 182, 206, 1871; Dyar, Cat., No. 6261; Braun, Rev. Am. Lith., p. 289, pl. XXI, fig. 17, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 21, 1914.

Wis., Ky.

syn: *caryalbella* Wlsm., Ins. Life., III, p. 328, 1891; Braun, Rev. Am. Lith., p. 289, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27.

Wis., Ky.

olivaeformis Braun, Rev. Am. Lith., p. 289, pl. XXI, fig. 18, 1908; Meyr., Gen. Ins., 128, p. 5, 1912; Meyr., Cat., p. 27; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 24, 1914.

syn: *oliviformis* Meyr., Meyr., Cat., p. 27.

Foodplant: *Carya olivaeformis*.

martiella Braun, Rev. Am. Lith., p. 290, pl. XXI, fig. 19, 1908; Meyr., Gen. Ins., 128, p. 8, 1912; Meyr., Cat., p. 33; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 114—, fig. 52, 1914.

Foodplant: *Betula*?

Brit. Col.

gemmea Frey & Boll, Stett. ent. Zeit., XXXIV, p. 218, 1873; Chambers, Cin. Quart. Jn. Sci., I, p. 206, 1874; II, p. 227, 1875; Can. Ent., XI, p. 144, 1879; Wlsm., Ins. Life., II, p. 53, 1889; Dyar, Cat., No. 6266; Braun, Rev. Am. Lith., p. 290, pl. XXI, fig. 20, 1908; Meyr., Gen. Ins., 128, p. 8, 1912; Meyr., Cat., p. 33; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 114—, fig. 53, 1914.

Foodplant: *Robinia pseudacacia*; upper mine.

Mass.

diversella Braun, Ent. News., XXVII, p. 83, 1916.

Foodplant: *Gaylussacia baccata*; *Oxydendrum arboreum*.

Ohio.

morrisella Fitch, Rept. Ins. N. Y., V, p. 336, 1859; Chambers, Can. Ent., III, p. 183, 1871; Wlsm., Ins. Life, II, p. 52, 1889; Dyar, Cat., No. 6269; Braun, Rev. Am. Lith., p. 291; pl. XXI, fig. 21, 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 33; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 110—, fig. 48, 1914.

syn: *texanella* Zeller, Verh. zool-bot. Ges. Wien., XXV, p. 349, 1875; Frey & Boll, Stett. ent. Zeit., XXXIX, p. 275, 1878; Braun, Rev. Am. Lith., p. 291, 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 33.

syn: *amphicarpaceella* Chambers, Bull. Geol. Surv. Terr., III, p. 137, 1877; Braun, Rev. Am. Lith., p. 291, 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 33.

Foodplant: *Falcata comosa*; under side.

U. S.

uhlerella Fitch, Rept. Ins. N. Y., V, p. 337, 1859; Chambers, Can. Ent., III, p. 183, 1871; Wlsm., Ins. Life, II, p. 53, 1889; Dyar, Cat., No. 6268; Braun, Rev. Am. Lith., p. 291, pl. XXI, fig. 22, 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 32; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 114—, fig. 49, 1914.

Foodplant: *Amorpha fruticosa*; under mine.

East and South U. S.

robiniella Clemens, Proc. Acad. Nat. Sci. Phil., p. 318, 1859; p. 209, 1860; Tin. No. Am., p. 66, 1872; Chambers, Can. Ent., III, pp. 54, 87, 163, 183, 185, 1871; IV, pp. 9, 107, 1872; Cin. Quart. Jn. Sci., II, p. 228, 1875; Bull. Geol. Surv. Terr., III, p. 137, 1877; Jn. Cin. Soc. Nat. Hist., II, p. 91, 1879; Zeller, Verh. zool-bot. Ges. Wien., XXV, p. 347, 1875; Frey & Boll, Stett. ent. Zeit., XXXIX, p. 275, 1878; Busck, Proc. Ent. Soc. Wash., V, p. 189, 1903; Dyar, Cat., No. 6267; Braun, Rev. Am. Lith., p. 292, pl. XXI, fig. 23, 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 32; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 110—, fig. 50, 1914.

syn: *pseudacaciella* Fitch, Rept. Ins. N. Y., V, p. 335, 1859; Braun, Rev. Am. Lith., p. 292, 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 32.

Foodplant: *Robinia pseudacacia*; upper and under mine.

Atl. States.

auronitens Frey & Boll, Stett. ent. Zeit., XXXIV, p. 216, 1873; Dyar, Cat., No. 6302; Braun, Rev. Am. Lith., p. 293, pl. XXI, fig. 24, 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 32; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 115—, fig. 10, 1914.

Foodplant: *Alnus serrulata*; under mine.

Mass.

diaphanella Frey & Boll, Stett. ent. Zeit., XXXIX, p. 265, 1878; Dyar, Cat., No. 6277; Braun, Rev. Am. Lith., p. 294, pl. XXII, fig. 1, 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 32; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 28, 1914.

Foodplant: *Quercus*; under mine.

Tex.

minutella Frey & Boll, Stett. ent. Zeit., XXXIX, p. 263, 1878; Dyar, Cat., No. 6276; Braun, Rev. Am. Lith., p. 294, 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 32.

Foodplant: *Quercus rubra*; under mine.

Texas.

scudderella Frey & Boll, Stett. ent. Zeit., XXXIV, V. 212, 1873; Chambers, Cin. Quart. Jn. Sci., II, p. 230, 1875; Bull. Geol. Surv. Terr., IV, p. 156, 1878; Can. Ent., XI, p. 72, 1879; VII, p. 126, 1875; Dyar, Cat., No. 6278; Braun, Rev. Am. Lith., p. 295, pl. XXII, fig. 2,

1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 32; Braun, Jh. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 35, 1914.

Foodplant: *Salix*; under mine.

Ohio.

ledella Wlsm., Ins. Life., II, p. 79, 1889; Dyar, Cat., No. 6292; Braun, Rev. Am. Lith., p. 296, pl. XXII, fig. 3, 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 32; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 33, 1914.

Foodplant: *Ledum glandulosum*; upper mine.

Calif.

salicivorella Braun, Ent. News., XIX, p. 101, 1908; Braun, Rev. Am. Lith., p. 297, pl. XXII, fig. 4, 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 32; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 29, 1914.

Foodplant: *Salix*; under mine.

N. J.

deceptusella Chambers, Can. Ent., XI, p. 73, 1879; Wlsm., Ins. Life., III, p. 328, 1891; Busek, Proc. Ent. Soc. Wash., V, p. 190, 1903; Braun, Rev. Am. Lith., p. 298, pl. XXII, fig. 5, 1912; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 32; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 30, 1914.

syn: *deceptella* Meyr., Meyr., Cat., p. 32.

Foodplant:

Ky.

alnicolella Wlsm., Ins. Life., II, p. 80, 1889; Dyar, Cat., No. 6273; Braun, Rev. Am. Lith., p. 298, pl. XXII, fig. 6, 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 31; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 32, 1914.

Foodplant: *Alnus incana*; upper mine.

Calif.

alni Wlsm., Ins. Life., III, p. 326, 1891; Dyar, Cat., No. 6274; Braun, Rev. Am. Lith., p. 299, 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 31; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 31, 1914.

syn: *alnivorella* Chambers, (not Ragonot), Cin. Quart. Jn. Sci., II, p. 302, 1875; Bull. Geol. Surv. Terr., III, p. 139, 1877; Braun, Rev. Am. Lith., p. 299, 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 31.

Foodplant: *Alnus*; under mine.

malimalifoliella Braun, Ent. News., XIX, p. 101, 1908; Braun, Rev. Am. Lith., p. 300, pl. XXII, fig. 7, 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 37, 1914.

syn: *malijoliella* Meyr., Meyr., Cat., p. 30.

Foodplants: *Malus*, *Crataegus*; under mine.

N. J., Ky., Ohio.

crataegella Clemens, Proc. Acad. Nat. Sci. Phil., p. 324, 1859; p. 208, 1860; Tin. No. Am., pp. 76, 141, 1872; Chambers, Can. Ent., III, pp. 55, 108, 1871; V, p. 50, 1873; XI, p. 73, 1879; Bull. Geol. Surv. Terr., IV, p. 100, 1878; Wlsm., Trans. Am. Ent. Soc., X, p. 202, 1882; Busek, Proc. Ent. Soc. Wash., V, p. 190, 1903; Braun, Rev. Am. Lith., p. 301, pl. XXII, fig. 8, 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 30; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 109—, fig. 36, 1914.

Foodplants: *Crataegus*, *Malus*, and *Prunus*; under mine. **East. U. S.**
propinquella Braun, Rev. Am. Lith., p. 302, pl. XXII, fig. 9, 1908;
 Meyr., Gen. Ins., 128, p. 6, 1912; Meyr., Cat., p. 30; Braun, Jn. Ac.
 Nat. Sci. Phil., XVI, pp. 116—, fig. 38, 1914.

Foodplant: *Prunus serotina*; under mine.

incanella Wlsm., Ins. Life., II, p. 81, 1889; Dyar, Cat., No. 6272; Braun,
 Rev. Am. Lith., p. 302, pl. XXII, fig. 10, 1908; Meyr., Gen. Ins.,
 128, p. 7, 1912; Meyr., Cat., p. 31; Braun, Jn. Ac. Nat. Sci. Phil.,
 XVI, pp. 116—, fig. 34, 1914.

Foodplant: *Alnus incana*; under mine and upper mine. **Calif.**

populiella Chambers, Bull. Geol. Surv. Terr., IV, p. 101, 1878; Dyer,
 Cat., No. 6331; Braun, Rev. Am. Lith., p. 303, pl. XXII, fig. 11,
 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 31; Braun,
 Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 27, 1914.

Foodplant: *Populus alba*; under mine.

Ohio, Ky.

sexnotella Chambers, Jn. Cin. Soc. Nat. Hist., II, p. 189, 1879; Dyar,
 Cat., No. 6282; Braun, Rev. Am. Lith., p. 304, pl. XXII, fig. 12,
 1908; Meyr., Gen. Ins., 128, p. 6, 1912; Meyr., Cat., p. 29; Braun,
 Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 39, 1914. **Ky., Pa.**

aeriferella Clemens, Proc. Acad. Nat. Sci. Phil., p. 320, 1859; Tin. No.
 Am., pp. 64, 68, 1872; Chambers, Can. Ent., III, p. 183, 1871; Cin.
 Quart. Jn. Sci., II, p. 104, 1875; Busck, Proc. Ent. Soc. Wash. V,
 p. 187, 1903; Dyar, Cat., No. 6281; Braun, Rev. Am. Lith., p. 305,
 pl. XXII, fig. 13, 1908; Meyr., Gen. Ins., 128, p. 6, 1912; Meyr.,
 Cat., p. 29; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 116—, fig. 40,
 1914.

Foodplant: *Quercus imbricaria*; under mine.

Pa., Ohio.

obsoleta Frey & Boll, Stett. ent. Zeit., XXXIV, p. 211, 1873; Chambers,
 Cin. Quart. Jn. Sci., I, p. 202, 1874; Dyar, Cat., No. 6279; Braun,
 Rev. Am. Lith., p. 306, pl. XXII, fig. 14, 1908; Meyr., Gen. Ins., 128,
 p. 6, 1912; Meyr., Cat., p. 29; Braun, Jn. Ac. Nat. Sci. Phil., XVI,
 pp. 116—, fig. 41, 1914.

syn: *obsoletella* Chambers, Bull. Geol. Surv. Terr., IV, p. 155, 1878;
 Braun, Rev. Am. Lith., p. 306, 1908. **Mass.**

argentinetella Clemens, Proc. Acad. Nat. Sci. Phil., p. 321, 1859; Tin.
 No. Am., pp. 66, 78, 1872; Chambers, Can. Ent., III, p. 148, 1871;
 XI, p. 89, 1879; Frey & Boll, Stett. ent. Zeit., XXXIV, p. 213,
 1873; Chambers, Cin. Quart. Jn. Sci., I, p. 202, 1874; II, p. 101, 1875;
 Busck, Proc. Ent. Soc. Wash., V, p. 190, 1903; Dyar, Cat., No. 6283;
 Braun, Rev. Am. Lith., p. 306, pl. XXII, fig. 15, 1908; Meyr., Gen.
 Ins., 128, p. 7, 1912; Meyr., Cat., p. 31; Braun, Jn. Ac. Nat. Sci.
 Phil., XVI, pp. 115—, fig. 11, 1914.

Foodplant: *Ulmus*; under mine.

East. U. S.

occitanica Frey & Boll, Stett. ent. Zeit., XXXVII, p. 224, 1876; XXXIX,
 p. 270, 1878; Dyar, Cat., No. 6284; Braun, Rev. Am. Lith., p. 307,

1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 31; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 115—, fig. 12, 1914.

Foodplant: *Ulmus fulva*; under mine.

Tex.

apicinigrella Braun, Rev. Am. Lith., p. 307, pl. XXII, fig. 16, pl. XXIV, fig. 23, 1908; Meyr., Gen. Ins., 128, p. 7, 1912; Meyr., Cat., p. 32; Braun, Jn. Ac. Nat. Sci. Phil., XVI, 114—, figs. 55a, 55b, 1914.

Foodplant: *Salix*; under mine.

Calif., Wash.

basistrigella Clemens, Proc. Acad. Nat. Sci. Phil., p. 321, 1859; Tin. No. Am., pp. 39, 65, 69, 1872; Chambers, Can. Ent., III, p. 148, 166, 182, 1871; Cin. Quart. Jn. Sci., I, p. 205, 1874; Wlsm., Ins. Life., II, p. 25, 1889; Busck, Proc. Ent. Soc. Wash., V, p. 188, 1903; Dyar, Cat., No. 6301; Braun, Rev. Am. Lith., p. 308, pl. XXII, fig. 17, 1908; Meyr., Gen. Ins., 128, p. 6, 1912; Meyr., Cat., p. 28; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 114—, fig. 57, 1914.

syn: *intermedia* Frey & Boll, Stett. ent. Zeit., XXXIV, p. 210, 1873; Chambers, Cin. Quart. Jn. Sci., II, p. 230, 1875; Braun, Rev. Am. Lith., p. 308, 1908; Meyr., Gen. Ins., 128, p. 6, 1912; Meyr., Cat., p. 28.

Foodplant: *Quercus*; under mine.

Calif. and Ore.

celtisella Chambers, Can. Ent., III, p. 129, 1871; Cin. Quart. Jn. Sci., I, p. 201, 1874; Bull. Geol. Surv. Terr., IV, p. 117, 1878; Frey & Boll, Stett. ent. Zeit., XXXIX, p. 274, 1878; Chambers, Jn. Cin. Soc. Nat. Hist., II, p. 190, 1879; Wlsm., Ins. Life., II, p. 52, 1889; Braun, Rev. Am. Lith., p. 309, pl. XXII, fig. 18, 1908; Meyr., Gen. Ins., 128, p. 9, 1912; Meyr., Cat., p. 37; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 114—, fig. 56, 1914.

syn: *nonfasciella* Chambers, Can. Ent., III, p. 108, 1871; Cin. Quart. Jn. Sci., I, p. 201, 1874; Braun, Rev. Am. Lith., p. 309, 1908; Meyr., Gen. Ins., p. 9, 1912; Meyr., Cat., p. 37.

syn: *pusillifoliella* Frey & Boll, Stett. ent. Zeit., XXXVII, p. 226, 1876; Stett. ent. Zeit., XXXIX, p. 274, 1878; Braun, Rev. Am. Lith., p. 309, 1908; Meyr., Gen. Ins., 128, p. 9, 1912; Meyr., Cat., p. 37.

syn: *celtiella* Meyr., Meyr., Cat., p. 37.

Foodplant: *Celtis occidentalis*; first under, then upper mine.

Ky., Ohio.

lucetiella Clemens, Proc. Acad. Nat. Sci. Phil., pp. 319, 322, 1859; Tin. No. Am., pp. 65, 73, 1872; Chambers, Can. Ent., III, p. 56, 1871; Wlsm., Ins. Life., II, p. 52, 1889; Busck, Proc. Ent. Soc. Wash., V, p. 188, 1903; Dyar, Cat., No. 6262; Braun, Rev. Am. Lith., p. 310, pl. XXII, fig. 19, 1908; Meyr., Gen. Ins., 128, p. 8, 1912; Meyr., Cat., p. 34; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 114—, fig. 51, 1914.

syn: *aenigmatella* Frey & Boll, Stett. ent. Zeit., XXXIV, p. 219, 1873; Chambers, Cin. Quart. Jn. Sci., I, p. 210, 1874; Braun, Rev.

Am. Lith., p. 310, 1908; Meyr., Gen. Ins., 128, p. 8, 1912; Meyr., Cat., p. 34.

Foodplant: *Tilia americana*; under mine.

Atl. States.

symphoricarpella Chambers, Cin. Quart. Jn. Sci., II, p. 98, 1875; Dyar, Cat., No. 6311; Braun, Rev. Am. Lith., p. 311, pl. XXII, fig. 20, 1908; Meyr., Gen. Ins., 128, p. 8, 1912; Meyr., Cat., p. 34; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 114—, fig. 54, 1914.

syn: *symphoricarpella* Frey & Boll, Stett. ent. Zeit., XXXIX, p. 271, 1878; Braun, Rev. Am. Lith., p. 311, 1908.

syn: *bolliella* Dyar, Cat., No. 6312; Braun, Rev. Am. Lith., p. 311, 1908; Meyr., Gen. Ins., 128, p. 8, 1912; Meyr., Cat., p. 34.

Foodplant: *Symphoricarpos*; under mine.

Ohio, Ky., Texas.

ostensackenella Fitch, Rept. Ins. N. Y., V, p. 338, 1859; Chambers, Can. Ent., III, p. 183, 1871; Dyar, Cat., No. 6265; Braun, Rev. Am. Lith., p. 311, pl. XXII, fig. 21, 1908; Meyr., Gen. Ins., 128, p. 8, 1912; Meyr., Cat., p. 34; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 110—, fig. 7, 1914.

syn: *ornatella* Chambers, Can. Ent., III, p. 161, 1871; IV, p. 107, 1872; XI, p. 91, 1879; Zeller, Verh. zool-bot. Ges. Wien., XXV, p. 347, 1875; Frey & Boll, Stett. ent. Zeit., XXXIV, p. 217, 1873; Wlsm., Ins. Life., II, p. 53, 1889; Braun, Rev. Am. Lith., p. 311, pl. XXII, fig. 21, 1908; Meyr., Gen. Ins., 128, p. 8, 1912; Meyr., Cat., p. 34.

Foodplant: *Robinia*; upper and under mine.

East. U. S.

tritaenianella Chambers, Can. Ent., III, pp. 110, 184, 1871; V, p. 48, 1873; XI, p. 89, 1879; Wlsm., Ins. Life., II, p. 53, 1889; Braun, Rev. Am. Lith., p. 312, pl. XXII, fig. 22, 1908; Meyr., Gen. Ins., 128, p. 8, 1912; Meyr., Cat., p. 34; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 112—, fig. 5, 1914.

syn: *tritaeniella* Dyar, Cat., No. 6316; Braun, Rev. Am. Lith., p. 312, 1908; Meyr., Cat., p. 34.

syn: *consimilella* Frey & Boll, Stett. ent. Zeit., XXXIV, p. 214, 1873; Chambers, Cin. Quart. Jn. Sci., I, p. 202, 1874; II, p. 230, 1875; Wlsm., Ins. Life., II, p. 51, 1889; Braun, Rev. Am. Lith., p. 312, 1908; Meyr., Gen. Ins., 128, p. 8, 1912; Meyr., Cat., p. 34.

Foodplant: *Ostrya virginiana*; upper mine.

Atl. States.

affinis Frey & Boll, Stett. ent. Zeit., XXXVII, p. 222, 1876; XXXIX, p. 270, 1878; Wlsm., Ins., Life., II, p. 51, 1889; Dyar, Cat., No. 6314; Braun, Rev. Am. Lith., p. 313, 1908; Meyr., Gen. Ins., 128, p. 8, 1912; Meyr., Cat., p. 34; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 112—, fig. 6, 1914.

Foodplants: *Lonicera* and *Symphoricarpos*; under mine.

Tex.

mariaeella Chambers, Cin. Quart. Jn. Sci., II, p. 99, 1875; Can. Ent., XI, p. 92, 1879; Wlsm. Trans. Am. Ent. Soc., X, p. 201, 1882; Dyar Cat., No. 6315; Braun, Rev. Am. Lith., p. 313, pl. XXII, fig. 23

1908; Meyr., Gen. Ins., 128, p. 8, 1912; Meyr., Cat., p. 34; Braun, Jn., Ac. Nat. Sci. Phil., XVI, pp. 113—, fig. 8, 1914.

syn: *mariella* Riley, Smith's List Lep. Bor. Am., p. 190, 1891; Braun, Rev. Am. Lith., p. 313, 1908; Meyr., Cat., p. 34.

Foodplant: *Symphoricarpos vulgaris*; under mine.

Mo.

tiliacella Chambers, Can. Ent., III, p. 56, 1871; Dyar, Cat., No. 6310; Braun, Rev. Am. Lith., p. 314, pl. XXII, fig. 24, 1908; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 111—, fig. 1, 1914.

syn: *tiliaeella* Chambers, Cin. Quart. Jn. Sci., I, p. 203, 1874; Braun, Rev. Am. Lith., p. 314, 1908; Meyr., Gen. Ins., 128, p. 8, 1912; Meyr., Cat., p. 34.

syn: *tiliella* Wlsm., Ins. Life., III, p. 328, 1891; Braun, Rev. Am. Lith., p. 314, 1908; Meyr., Gen. Ins., 128, p. 8, 1912; Meyr., Cat., p. 34.

Foodplant: *Tilia americana*; upper mine.

Atl. States.

oregonensis Wlsm., Ins. Life., II, p. 117, 1889; Dyar, Cat., No. 6309; Braun, Rev. Am. Lith., p. 314, 1908; Meyr., Gen. Ins., 128, p. 8, 1912; Meyr., Cat., p. 34; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 112—, fig. 2, 1914.

Ore.

fragilella Frey & Boll, Stett. ent. Zeit., XXXIX, p. 270, 1878; Wlsm. Ins. Life., II, p. 51, 1889; Dyar, Cat., No. 6313; Braun, Rev. Am. Lith., p. 315, pl. XXIII, fig. 1, 1908; Meyr., Gen. Ins., 128, p. 8, 1912; Meyr., Cat., p. 34; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 112—, fig. 3, 1914.

syn: *trifasciella* Frey & Boll, (not Haworth), Stett. ent. Zeit., XXXIV, p. 215, 1873; Chambers, Cin. Quart. Jn. Sci., I, p. 205, 1874; Wlsm., Ins. Life., III, p. 326, 1891; Braun, Rev. Am. Lith., p. 315, 1908.

Foodplant: *Lonicera*; under mine.

East. U. S.

salicifoliella Clemens, Proc. Ent. Soc. Phil., I, p. 81, 1861; Tin. No. Am., p. 169, 1872; Packard, Guide Stud. Ins., p. 353, 1869; Chambers Can. Ent., III, pp. 163, 185, 1871; Cin. Quart. Jn. Sci., II, p. 302, 1875; Can. Ent., VII, p. 126, 1875; Bull. Geol. Surv. Terr., III, p. 139, 1877; Wlsm., Ins. Life., II, p. 54, 1889; Dyar, Cat., No. 6333; Braun, Rev. Am. Lith., p. 316, pl. XXIII, figs. 2, 3, pl. XXIV, fig. 24, 1908; Meyr., Gen. Ins., 128, p. 9, 1912; Meyr., Cat., p. 37; Braun Jn. Ac. Nat. Sci. Phil., XVI, pp. 115—, fig. 15, 1914.

syn: *atomariella* Zeller, Verh. zool-bot. Ges. Wien., XXV, p. 350, 1875; Wlsm., Ins. Life., II, p. 54, 1889; Dyar, Cat., No. 6332; Braun, Rev. Am. Lith., p. 316, 1908; Meyr., Gen. Ins., 128, p. 9, 1912.

Foodplants: *Salix* and *Populus*; under mine.

U. S.

tremuloidiella Braun, Ent. News., XIX, p. 102, 1908; Braun, Rev. Am. Lith., p. 317, pl. XXIII, fig. 4, 1908; Meyr., Gen. Ins., 128, p. 9, 1912; Meyr., Cat., p. 37; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 115—, fig. 16, 1914.

Foodplant: *Populus tremuloides*; under mine.

Brit. Co^l.

celtifoliella Chambers, Can. Ent., III, p. 128, 1871; Bull. Geol. Surv. Terr., IV, p. 118, 1878; Wlsm., Ins. Life., II, p. 52, 1889; Dyar, Cat., No. 6286; Braun, Rev. Am. Lith., p. 319, pl. XXIII, fig. 5, 1908; Meyr., Gen. Ins., 128, p. 9, 1912; Meyr., Cat., p. 37; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 112—, fig. 4, 1914.

Foodplant: *Celtis occidentalis*; under mine. Ky., Ohio, W. Va.

lysimachiaeella Chambers, Cin. Quart. Jn. Sci., II, p. 100, 1875; Wlsm., Ins. Life., II, p. 77, 1889; Dyar, Cat., No. 6336; Braun, Rev. Am. Lith., p. 320, 1908.

Foodplant: *Lysimachia lanceolata*; under mine. (Larva described, adult not known.)

CREMASTOBOMBYCIA Braun.

Rev. Am. Lith., p. 349, pl. XX, figs. 6, 7, 13, 1908.

Type: *solidaginis* Frey & Boll.

grindeliella Wlsm., Ins. Life., III, p. 327, 1891; Dyar, Cat., No. 6299; Braun, Rev. Am. Lith., p. 350, pl. XXIV, figs. 16, 22, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 41; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 157—, fig. 59a, 59b, 1914.

Foodplant: *Grinde'ia robusta*; upper or lower mine. Calif.

solidaginia Frey & Boll, Stett. ent. Zeit., XXXVII, p. 223, 1876; Dyar, Cat., No. 6298; Braun, Rev. Am. Lith., p. 351, pl. XXIV, fig. 17, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr. Cat., p. 41; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 124—, fig. 60, 1914.

syn: *solidaginisella* Chambers, Jn. Cin. Soc. Nat. Hist., II, p. 190, 1880; Braun, Rev. Am. Lith., p. 351, 1908.

Foodplant: *Solidago*; under mine. U. S.

ambrosiella Chambers, Can. Ent., III, p. 127, 1871; Cin. Quart. Jn. Sci., II, p. 100, 1875; Frey & Boll, Stett. ent. Zeit., XXXVII, p. 221, 1876; XXXIX, p. 267, 1878; Wlsm., Ins. Life., II, p. 54, 1889; Dyar, Cat., No. 6321; Braun, Rev. Am. Lith., p. 352, pl. XXIV, fig. 18, 1908; Meyr. Gen., Ins., 128, p. 11, 1912; Meyr., Cat., p. 41; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 157—, fig. 61, 1914.

syn: *amoena* Frey & Boll, Stett. ent. Zeit., XXXIX, p. 269, 1878; Dyar, Cat., No. 6285; Braun, Rev. Am. Lith., p. 352, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 41.

Foodplants: *Ambrosia* and *Verbesina*; under mine. Atl. States, Tex.

Ignota Frey & Boll, Stett. ent. Zeit., XXXIV, p. 215, 1873; Chambers, Cin. Quart. Jn. Sci., I, p. 206, 1874; II, p. 230, 1875; Wlsm., Ins. Life., II, pp. 54, 119, 1889; Dyar, Cat., No. 6320; Braun, Rev. Am. Lith., p. 353, pl. XXIV, figs. 19, 20, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr. Cat., p. 41; Braun: Jn. Ac. Nat. Sci. Phil., XVI, pp. 124—, fig. 62, 1914.

syn: *bostonica* Frey & Boll, Stett. ent. Zeit., XXXIV, p. 216, 1873; Chambers, Cin. Quart. Jn. Sci., I, p. 206, 1874; Dyar, Cat., No. 6319; Braun, Rev. Am. Lith., p. 353, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 41.

syn: *helianthisella* Chambers, Cin. Quart. Jn. Sci., I, p. 205, 1874; Braun, Rev. Am. Lith., p. 353, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 41.

syn: *helianthivorella* Chambers, Cin. Quart. Jn. Sci., II, p. 100, 1875; Braun, Rev. Am. Lith., p. 353, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 41.

syn: *elephantopodella* Frey & Boll, Stett. ent. Zeit., XXXIX, p. 268, 1878; Busck, Proc. U. S. Nat. Mus., XXIII, p. 247, 1900; Dyar, Cat., No. 6322; Braun, Rev. Am. Lith., p. 353, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 41.

syn: *actinomeridis* Frey & Boll, Stett. ent. Zeit., XXXIX, p. 268, 1878; Dyar, Cat., No. 6324; Braun, Rev. Am. Lith., p. 353, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 41.

Foodplants: *Verbesina*, *Elephantopus*, *Helianthus*; under mine.

Atl. States, Tex.

verbesinella Busck, Proc. U. S. Nat. Mus., XXIII, p. 246, 1900; Dyar, Cat., No. 6323; Braun, Rev. Am. Lith., p. 354, pl. XXIV, fig. 21, 1908; Meyr., Gen. Ins., 128, p. 11, 1912; Meyr., Cat., p. 41; Braun, Jn. Ac. Nat. Sci. Phil., XVI, pp. 157—, fig. 63, 1914.

Foodplant: *Verbesina virginica*; under mine.

Fla.

MARMARA Clemens.

Proc. Ent. Soc. Phil., II, p. 6, 1863.

Type: *salictella* Clem.

Aesyle, Chambers, Cin. Quart. Jn. Sci., II, p. 98, 1875.

Type: *Marmara fasciella*, Cham.

salictella Clemens, Proc. Ent. Soc. Phil., II, p. 7, 1863; Tin. No. Am., p. 212, 1872; Dyar, Cat., No. 6403; Busck, Jn. N. Y. Ent. Soc., X, p. 98, 1902; Proc. U. S. Nat. Mus., XXIII, p. 246, 1900; Proc. Ent. Soc. Wash., V, p. 210, 1903; Meyr., Gen. Ins., 128, p. 12, 1912; Meyr., Cat., p. 42.

syn: *Salicella* Cham., Bull. Geol. Surv. Terr., IV, p. 156, 1878.

Foodplant: *Salix*.

Atl. States.

serotinella Busck, Proc. Wash. Ent. Soc., XVII, p. 89, 1915.

Foodplant: *Prunus serotina*.

Va.

guilandinella Busck, Proc. U. S. Nat. Mus., XXIII, p. 245, 1900; Meyr., Gen. Ins., p. 12, 1912; Meyr., Cat., p. 42.

syn: *guilandinae* Dyar, Cat., No. 6404.

Foodplant: *Guilandina bonducel* a.

Fla.

fulgidella Clemens, Proc. Acad. Nat. Sci. Phil., p. 6, 1860; Proc. Ent. Soc. Phil., V, p. 145, 1865; Tin. No. Am., p. 92, 1872; Busck, Proc. Ent. Soc. Wash., V, p. 195, 1903; Dyar, Cat., No. 6357; Meyr., Gen. Ins., p. 26, 1912; Meyr., Cat., p. 54.

Foodplants: *Quercus* and *Castanea*.

Atl. States.

elotella Busck, Proc. Wash. Ent. Soc., XI, p. 102, 1909; Meyr., Gen. Ins., p. 26, 1912; Meyr., Cat., p. 54; Busck, Proc. Wash. Ent. Soc., XV, p. 150, 1913.

Foodplant: *Malus*.

Conn., Mass.

opuntiella Busck, Proc. Ent. Soc. Wash., IX, p. 97, 1907; Meyr., Gen. Ins., p. 12, 1912; Meyr., Cat., p. 42.

Foodplant: *Opuntia*.

Tex.

arbutiella Busck, Proc. U. S. Nat. Mus., XXVII, p. 772, 1904; Meyr., Gen. Ins., p. 12, 1912; Meyr., Cat., p. 42.

Foodplant: *Arbutus menziesi*.

Wash., Ore.

fasciella Chambers, Cin. Quart. Jn. Sci., II, p. 98, 1875; Can. Ent., VII, p. 93, 1875; IX, pp. 123, 194, 1877; XI, p. 118, 1879; Wlsm., Trans. Am. Ent. Soc., X, p. 201, 1882; Dyar, Cat., No. 6356; Meyr., Gen. Ins., p. 16, 1912; Meyr., Cat., p. 44.

Syn: *quinquenotella* Chambers, Can. Ent., IX, p. 124, 1877; Meyr., Gen. Ins., p. 16, 1916; Meyr., Cat., p. 44.

Atl. States.

pomonella Busck, Proc. Wash. Ent. Soc., XVII, p. 89, 1915.

Foodplant: *Malus*.

Ore.

(*) **aura tella** Braun, Can. Ent., XLVII, p. 192, 1915.

Foodplant: *Rudbeckia laciniata*.

Ohio.

(*) **apocynella** Braun, Can. Ent., XLVII, p. 193, 1915.

Foodplant: *Apocynum cannabinum*.

Ohio.

(*) **Smilacicella** Braun, Ent. News., Phil., XX, p. 432, 1909; Meyr., Gen. Ins., p. 12, 1912; Meyr., Cat., p. 42.

Syn: *Smilaciella* Meyr., Gen. Ins., p. 12, 1912; Meyr., Cat., p. 42.

Foodplant: *Smilax hispida*.

Ky., Ohio.

LEUCANTHIZA Clemens.

Proc. Acad. Nat. Sci. Phil., p. 327, 1859.

Type: *Leucanthiza amphicarpeaefoliella* Clem.

amphicarpeaefoliella Clemens, Proc. Acad. Nat. Sci. Phil., p. 327, 1859; Tin. No. Am., p. 85, 1872; Chambers, Can. Ent., III, p. 162, 1871; Dyar, Cat., No. 6402; Meyr., Gen. Ins., p. 12, 1912; Meyr., Cat., p. 42; Busck, Proc. Ent. Soc. Wash., V, p. 191, 1903.

syn: *saundersella* Chambers, Can. Ent., III, p. 205 1871; Meyr. Gen. Ins., p. 12, 1912; Meyr., Cat., p. 42.

syn: *amphicarpeifoliella* Meyr., Gen. Ins., p. 12, 1912; Meyr., Cat., p. 42.

Foodplant: *Amphicarpaea monoica*.

Atl. States.

(*) **dircella** Braun, Ent. News., XXV, p. 115, 1914.

Foodplant: *Dirca palustris*.

Ohio.

NEUROLIPA Nov. Gen.

Type: *Neurolipa randiella* Busek.

randsiella Busek, Proc. U. S. Nat. Mus., XXIII, p. 247, 1900; Dyar, Cat., No. 6399; Meyr., Gen. Ins., p. 21, 1912; Meyr., Cat., p. 49.

Foodplant: *Randia aculeata*.

Fla.

APOPHTHISIS Braun

Can. Ent., XLVII, p. 190, 1915.

(*) Type: *Apophthisis pullata* Braun, Can. Ent., XLVII, p. 191, 1915.

LEUCOSPILAPTERYX Spuler.

Schmett., Eur. B. 2, p. 408, 1910.

Type: *Leucospilapteryx omisella*, Stainton.

venustella Clemens, Proc. Ac. Nat. Sci. Phil., p. 6, 1860; Proc. Ent. Soc. Phil., II, p. 10, 1863; V, p. 145, 1865; Tin. No. Am., pp. 92, 216, 269, 1872; Dyar, Cat., No. 6375; Busek, Proc. Ent. Soc. Wash., V, p. 195, 1903; Meyr., Gen. Ins., p. 16, 1912; Meyr., Cat., p. 44.

syn: *eupatoriella* Chambers, Can. Ent., IV, p. 9, 1872; V, pp. 44, 46, 1873; Dyar, Cat., No. 6375; Busek, Proc. Ent. Soc. Wash., V, p. 195, 1903; Meyr., Gen. Ins., p. 16, 1912; Meyr., Cat., p. 44.

Foodplant: *Eupatorium ageratoides*.

Atl. States.

CHILOCAMPYLA Busek.

Proc. U. S. Nat. Mus., XXIII, p. 248, pl. 1, fig. 15, 1900.

Type: *Chilocampyla dyariella* Busek.

dyariella Busek, Proc. U. S. Nat. Mus., XXIII, p. 249, 1900; Dyar, Cat., No. 6339; Meyr., Gen. Ins., p. 25, 1912; Meyr., Cat., p. 53.

Foodplant: *Eugenia garbari*.

Fla.

NEUROSTROTA Ely.

Type: *Neurostrota gunniella* Busek.

gunniella Busek, Proc. U. S. Nat. Mus., XXX, p. 731, 1906; Meyr., Gen. Ins., p. 16, 1912; Meyr., Cat., p. 44.

Tex.

ACROCERCOPS Wallengren.

Ent. Tidskr., II, p. 95, 1881.

Type: *Acrocercops brogniardellum* Fabr.

– *Dialectica* Wlsm., Proc. Zool. Soc. Lond., p. 150, 1897.

Type: *Acrocercops scalariella* Zell.

– *Eutrichocnemis* Spuler, Schmett., Eur. Band 2, p. 409, 1910.

Type: *Acrocercops scalariella* Zell.

albinatella Chambers, Can. Ent., IV, p. 25, 1872; Dyar, Cat., No. 6396; Meyr., Gen. Ins., p. 16, 1912; Meyr., Cat., p. 44.

syn: *albanotella* Chambers, Can. Ent., IX, p. 123, 1877; Cin. Quart. Jn. Sci., I, p. 200, 1874; Bull. Geol. Surv. Terr., III, p. 132, 1877.

syn: *albinotella* Meyr., Gen. Ins., p. 16, 1912; Meyr., Cat., p. 44.

Foodplant: *Quercus*.

Ky., Md., N. Y.

quinquestrigella Chambers, Can. Ent., VII, p. 75, 1875; IX, pp. 14, 124, 1877; X, p. 109, 1878; Dyar, Cat., No. 6398; Meyr., Gen. Ins., p. 21, 1912; Meyr., Cat., p. 49.

Ky., Tex.

rhombiferellum Frey & Boll, Stett. ent. Zeit., XXXVII, p. 212, 1876; Dyar, Cat., No. 6400; Meyr., Gen. Ins., p. 21, 1912; Meyr., Cat., p. 49.

syn: *rhombiferella* Meyr., Gen. Ins., p. 21, 1912; Meyr., Cat., p. 49.

Tex.

astericola Frey & Boll, Stett. ent. Zeit., XXXIV, p. 204, 1873; Chambers, Cin. Quart. Jn. Sci., II, p. 200, 1875; Dyar, Cat., No. 6345; Meyr., Gen. Ins., p. 20, 1912; Meyr., Cat., p. 48.

Foodplant: *Aster cordifolius*.

Mass., Pa.

(†) **strigosa** Braun, Ent. News., Phil., XXV, p. 116, 1914.

Foodplant: *Quercus prinus*.

Ky., N. C.

onosmodiella Busck, Proc. U. S. Nat. Mus., XXV, p. 409, 1902; Meyr., Gen. Ins., p. 15, 1912; Meyr., Cat., p. 43.

syn: *pnosmodiella* Busck, Proc. U. S. Nat. Mus., XXV, p. 409, 1902; Dyar, Cat., No. 6385.

Foodplant: *Onosmodium carolinianum*.

Col.

(†) **sideroxylonella** Busck, Proc. U. S. Nat. Mus., XXIII, p. 250, 1900; Meyr., Gen. Ins., p. 18, 1912; Meyr., Cat., p. 46.

syn: *sideroxylella* Meyr., Gen. Ins., p. 18, 1912; Meyr., Cat., p. 46.

Foodplant: *Sideroxylon pallidum*.

Fla.

NEUROBATHRA Ely.

Type: *Neurobathra strigifinitella* Clem., Proc. Ac. Nat. Sci. Phil., p. 6, 1860,

strigifinitella Clemens, Proc. Ac. Nat. Sci. Phil., p. 6, 1860; Tin. No. Am., p. 92, 1872; Dyar, Cat., No. 6370; Busck, Proc. Ent. Soc. Wash., V, p. 195, 1903; Meyr., Gen. Ins., p. 17, 1912; Meyr., Cat., p. 45; Heinrich and DeGryse, Proc. Ent. Soc. Wash., XVII, p. 6, 1915.

syn: *duodecemlineella* Chambers, Can. Ent., IV, p. 11, 1872; Dyar, Cat., No. 6371; Busck, Proc. Ent. Soc. Wash., V, p. 195, 1903; Meyr., Cat., p. 45.

(*) syn: *quercifoliella* Chambers, Cin. Quart. Jn. Sci., II, p. 116, 1875; Dyar, Cat., No. 6393; Busck, Proc. Ent. Soc. Wash., V, p. 195, 1903; Meyr., Cat., p. 45.

Foodplants: *Quercus*, *Castanea* and *Fagus*.

Atl. States.

MICRURAPTERYX Spuler.

Schmett., Eur. B. 2, p. 409, 1910.

Type: *Micrurapteryx kollariella* Zell.

salicifoliella Chambers, Can. Ent., IV, p. 25, 1872; V, pp. 15, 46, 186, 1873; Cin. Quart. Jn. Sci., I, p. 340, 1874; Dyar, Cat., No. 6365; Meyr., Gen. Ins., p. 21, 1912; Meyr., Cat., p. 49.

Foodplant: *Salix*.

Atl. States.

PARECTOPA Clemens.

Proc. Acad. Nat. Sci. Phil., p. 210, 1860.

Type: *Parectopa lespedezaefoliella* Clem.

lespedezaefoliella Clemens, Proc. Acad. Nat. Sci. Phil., p. 210, 1860; Tin. No. Am., p. 144, 1872; Chambers, Can. Ent., IV, p. 7, 1872; V, p. 47, 1873; VIII, p. 19, 1876; Bull. Geol. Surv. Terr., III, p. 132, 1877; Dyar, Cat., No. 6364; Busck, Proc. Ent. Soc. Wash., V, p. 205, 1903.

syn: *lespedezifoliella* Meyr., Gen. Ins., 120, p. 20, 1912; Meyr., Cat., p. 48.

syn: *mirabilis* Frey & Boll, Stett. ent. Zeit., XXXIV, p. 203, 1873; Chambers, Cin. Quart. Jn. Sci., II, p. 227, 1875; Meyr., Gen. Ins., 128, p. 20, 1912; Meyr., Cat., p. 48; Busck, Proc. Ent. Soc. Wash., V, p. 205, 1903.

Foodplant: *Lespedeza violacea*.

Atl. States.

robinella Clemens, Proc. Ent. Soc. Phil., II, p. 4, 1863; Tin. No. Am., p. 207, 1872; Chambers, Can. Ent., III, p. 87, 1871; IV, p. 7, 1872; V, p. 47, 1873; VIII, p. 33, 1876; Bull. Geol. Surv. Terr., III, p. 132, 1877; Wlsm., Trans. Am. Ent. Soc., X, p. 193, 1882; Dyar, Cat., No. 6364; Meyr., Gen. Ins., 128, p. 20, 1912; Meyr., Cat., p. 48; Busck, Proc. Ent. Soc. Wash., V, p. 210, 1903.

Foodplant: *Robinia pseudacacia*.

Atl. States.

pennsylvaniella Engel, Ent. News, XVIII, p. 278, 1907; Meyr., Gen. Ins., 128, p. 20, 1912; Meyr., Cat., p. 49; Braun, Ent. News., XXV, p. 117, 1914.

Foodplant: *Aster cordifolius*.

Ohio, Pa., Conn.

(†) **plantaginisella** Chambers, Can. Ent., IV, p. 10, 1872; V, p. 46, 1873; Dyar, Cat., No. 6353; Meyr., Gen. Ins., p. 20, 1912; Meyr., Cat., p. 48.

syn: *geiella*, Chambers, Cin. Quart. Jn. Sci., I, p. 200, 1874; Dyar, Cat., No. 6353; Meyr., Gen. Ins., p. 20, 1912; Meyr., Cat., p. 48.

syn: *erigeronella* Chambers, Can. Ent., IX, p. 127, 1877; Bull. Geol. Surv. Terr., IV, p. 148, 1878; Dyar, Cat., No. 6353; Meyr., Gen. Ins., p. 20, 1912; Meyr., Cat., p. 48.

syn: *plantaginella* Meyr., Gen. Ins., p. 20, 1912; Meyr., Cat., p. 48.

Foodplant: *Erigeron*.

Ky.

- (†) **thermopsella** Chambers, Cin. Quart. Jn. Sci., II, p. 300, 1875; Bull. Geol. Surv. Terr., III, p. 132, 1877; Dyar, Proc. U. S. Nat. Mus., XXV, p. 409, 1902; Dyar, Cat., No. 6374; Meyr., Gen. Ins., p. 20, 1912; Meyr., Cat., p. 48.

Foodplant: *Thermopsis montana*.

Col.

- bosquella** Chambers, Can. Ent., VIII, p. 33, 1876; Bull. Geol. Surv. Terr., III, p. 132, 1877; Dyar, Cat., No. 6350; Meyr., Gen. Ins., p. 20, 1912; Meyr., Cat., p. 49.

Tex.

- (*) **interpositella** Frey & Boll., Stett. ent. Zeit., XXXVII, p. 211, 1876; Dyar, Cat., No. 6381; Meyr., Gen. Ins., p. 16, 1912; Meyr., Cat., p. 44.

Tex.

PARORNIX Spuler.

Schmett., Eur., B. 2, p. 410, 1910.

Type: *Parornix anglicella* Stainton.

= *Ornix* Treitschke, Schmett., Eur., IX (2), p. 192, 1833. (See Walsingham, Biol. Centr. Am., p. 341, 1915.)

- (*) **boreasella** Clemens, Proc. Ent. Soc. Phil., II, p. 415, 1864; Tin. No. Am., p. 237, 1872; Dyar, Cat., No. 6389; Busck, Proc. Ent. Soc. Wash., p. 215, 1903; Meyr., Gen. Ins., p. 17, 1912; Meyr., Cat., p. 45.
syn: *boreella* Meyr., Gen. Ins., p. 17, 1912; Meyr., Cat., p. 45.

Labrador.

- guttea** Haw, Lep. Brit., p. 531, 1828; Dietz, Trans. Am. Ent. Soc., XXXIII, p. 290, 1907; Meyr., Gen. Ins., p. 23, 1912; Meyr., Cat., p. 50.

?syn: *solitariella* Dietz, Trans. Am. Ent. Soc., XXXIII, p. 290, pl. 4, fig. 1, 1907; Meyr., Gen. Ins., p. 23, 1912; Meyr., Cat., p. 50.

Foodplant: *Malus*.

Europe, U. S.

- kalmiella** Dietz, Trans. Am. Ent. Soc., XXXIII, p. 291, pl. IV, fig. 3, 1907; Meyr., Gen. Ins., p. 23, 1912; Meyr., Cat., p. 51.

Foodplant: *Kalmia angustifolia*.

Pa., Conn.

- preciosella** Dietz, Trans. Am. Ent. Soc. Phil., XXXIII, p. 291, pl. IV, fig. 2, 1907; Meyr., Gen. Ins., p. 23, 1912; Meyr., Cat., p. 51.

Foodplant: *Vaccinium corymbosum*.

Pa., Conn.

- crataegifoliella** Clemens, Proc. Acad. Nat. Sci. Phil., p. 8, 1860; Tin. No. Am., p. 94, 1872; Cham., Can. Ent., V, p. 48, 1873; Busck, Proc. Ent. Soc. Wash., V, p. 215, 1903; Dyar, Cat., No. 6388; Dietz, Trans. Am. Ent. Soc., XXXIII, p. 292, 1907; Braun, Ent. News., XX, p. 431, 1909; Meyr., Gen. Ins., p. 24, 1912; Meyr., Cat., p. 52.

Foodplant: *Crataegus tomentosa*.

Atl. States.

- dubitella** Dietz, Trans. Am. Ent. Soc., XXXIII, p. 292, pl. IV, fig. 4, 1907; Meyr., Gen. Ins., p. 24, 1912; Meyr., Cat., p. 52.

Pa.

conspicuella Dietz, Trans. Am. Ent. Soc., XXXIII, p. 293, pl. IV, fig. 5, 1907; Meyr., Gen. Ins., p. 24, 1912; Meyr., Cat., p. 52.

Foodplant: *Betula nigra*.

Pa.

arbitrella Dietz, Trans. Am. Ent. Soc., XXXIII, p. 293, pl. IV, fig. 6, 1907; Meyr., Gen. Ins., p. 24, 1912; Meyr., Cat., p. 52.

Foodplant: *Vaccinium corymbosum*.

Pa.

vicinella Dietz, Trans. Am. Ent. Soc., XXXIII, p. 296, pl. IV, fig. 8, 1907; Meyr., Gen. Ins., p. 24, 1912; Meyr., Cat., p. 53.

Foodplant: *Betula flava*.

Pa.

strobivorella Dietz, Trans. Am. Ent. Soc., XXXIII, p. 296, 1907; Meyr., Gen. Ins., p. 24, 1912; Meyr., Cat., p. 53.

Foodplant: *Sorbus*.

Pa.

arbutifoliella Dietz, Trans. Am. Ent. Soc., XXXIII, p. 296, 1907; Meyr., Gen. Ins., p. 24, 1912; Meyr., Cat., p. 53.

Foodplant: *Pyrus arbutifolia*.

Pa.

obliteratella Dietz, Trans. Am. Ent. Soc., XXXIII, p. 297, pl. IV, fig. 10, 1907; Meyr., Gen. Ins., p. 24, 1912; Meyr., Cat., p. 53.

Foodplant: *Betula nigra*.

Pa.

inusitatumella Chambers (Braun), Can. Ent., V, p. 47, 1873; VIII, p. 19, 1876; Dyar, Cat., No. 6392; Dietz, Trans. Am. Ent. Soc., XXXIII, p. 289, 1907; Braun, Ent. News., XX, p. 431, 1909; Meyr., Gen. Ins., p. 24, 1912; Meyr., Cat., p. 52.

syn: *inusitatella* Meyr., Gen. Ins., p. 24, 1912; Meyr., Cat., p. 52.

Foodplant: *Crataegus mollis*.

Ky., Ohio.

melanotella Dietz, Trans. Am. Ent. Soc., XXXIII, p. 293, pl. IV, fig. 7, 1907; Meyr., Gen. Ins., p. 24, 1912; Meyr., Cat., p. 52.

Foodplant: *Crataegus*.

Pa.

geminatella Packard, Guide Stud. Ins., p. 353, 1869; Chambers, Can. Ent., III, p. 183, 1871; Dyar, Cat., No. 6387; Dietz, Trans. Am. Ent. Soc., XXXIII, p. 295, 1907; Meyr., Gen. Ins., p. 24, 1912; Meyr., Cat., p. 53.

syn: *prunivorella* Chambers, Can. Ent., V, p. 50, 1873; Cin. Quart. Jn. Sci., II, p. 301 1875; Bull. Geol. Surv. Terr., III, pp. 133, 141, 1877; psyche, III, p. 67, 1880; Wlsm., Trans. Am. Ent. Soc., X, p. 194, 1882; Dyar, Cat., No. 6378; Dietz, Trans. Am. Ent. Soc., XXXIII, p. 295, 1907; Meyr., Gen. Ins., p. 24, 1912; Meyr., Cat., p. 53.

Foodplants: *Malus* and "wild cherry."

Mo., North Atl. States.

quadripunctella Clemens (Dietz), Proc. Ent. Soc. Phil., I, p. 86, 1861; Tin. No. Am., p. 177, 1872; Dyar, Cat., No. 6395; Dietz, Trans. Am. Ent. Soc., XXXIII, p. 295, 1907; Meyr., Gen. Ins., p. 24, 1912; Meyr., Cat., p. 53.

Foodplants: *Pyrus arbutifolia* and *Malus*.

Atl. States.

?syn: *albifasciella* Dietz, Trans. Am. Ent. Soc., XXXIII, p. 295, 1907; Meyr., Cat., p. 53.

Pa.

- innotata** Wlsm., Proc. U. S. Nat. Mus., XXXIII, p. 224, 1907; Meyr., Gen. Ins., p. 24, 1912; Meyr., Cat., p. 52. U. S.
- trepidella** Clemens, Proc. Acad. Nat. Sci., p. 7, 1860; Tin. No. Am., p. 94, 1872; Busck, Proc. Ent. Soc. Wash., V, p. 196, 1903; Dyar, Cat., No. 6394; Meyr., Gen. Ins., p. 24, 1912; Meyr., Cat., p. 52. Pa.
- festinella** Clemens, Proc. Acad. Nat. Sci., Phil., p. 97, 1860; Tin. No. Am., p. 94, 1872; Busck, Proc. Ent. Soc. Wash., V, p. 196, 1903; Dyar, Cat., No. 6391; Meyr., Gen. Ins., p. 24, 1912; Meyr., Cat., p. 52. Pa.

GRACILARIA Haworth.

Lep. Br., p. 527, 1828.

Type: *Gracilaria syringella* Fabricius.

Coriscium Zeller, Isis, p. 210, 1839.

Type: *Gracilaria cuculipennellum* Hübner.

- minimella** Ely, Inse. Insc. Mens., III, p. 58, 1915. Conn.
- (†) **sebastianella** Busck, Proc. U. S. Nat. Mus., XXIII, p. 251, 1900; Dyar, Cat., No. 6384; Meyr., Gen. Ins., p. 16, 1912; Meyr., Cat., p. 44. Fla.
- Foodplant: *Sebastiana lucida*.
- (†) **burserella** Busck, Proc. U. S. Nat. Mus., XXIII, p. 251, 1900; Dyar, Cat., No. 6383; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 58. Fla.
- Foodplant: *Bursera gummifera*.
- flavimaculella** Ely, Inse. Insc. Mens., III, p. 57, 1915. Conn.
- cornusella** Ely, Inse. Insc. Mens., III, p. 53, 1915. Conn., Md.
- Foodplants: *Cornus stolonijera* and *C. alternifolia*.
- vacciniella** Ely, Inse. Insc. Mens., III, p. 52, 1915. Pa.
- Foodplant: *Vaccinium*.
- bimaculatella** Ely, Inse. Insc. Mens., III, p. 53, 1915. Atl. States.
- Foodplant: *Acer rubrum*.
- burgessiella** Zeller, Ver. zool-bot. Ges. Wien., XXIII, p. 307, 1873; Dyar, Cat., No. 6378; Meyr., Gen. Ins., p. 29, 1912; Meyr., Cat., p. 58; Ely, Inse. Insc. Mens., III, p. 51, 1915. Mass., Conn.
- Foodplant: *Cornus candidissima*.
- belfrageella** Chambers, Can. Ent., VII, p. 92, 1875; Dyar, Cat., No. 6348; Meyr., Gen. Ins., p. 29, 1912; Braun, Ent. News., XXIII, p. 166, 1912; Meyr., Cat., p. 58. Tex.
- syn: *auriferella* Frey & Boll, Stett. ent. Zeit., XXXVII, p. 211, 1876; Dyar, Cat., No. 6379; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 56. Tex., Atl. States.
- Foodplant, *Cornus*.
- blandella** Clemens, Proc. Ent. Soc. Phil., III, p. 505, 1864; Tin. No. Am., p. 257, 1872; Cham., Can. Ent., V, pp. 13, 47, 1873; Dyar, Cat., No. 6349; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 58.

syn: *juglandivorella* Chambers, Can. Ent., V, p. 15, 1873.

Foodplant: *Juglans nigra*.

Tex., East States.

juglandiella Chambers, Can. Ent., IV, pp. 28, 88, 1872; V, pp. 15, 47, 1873; Dyar, Cat., No. 6359; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 56.

syn: *juglandisnigraella* Chambers, Bull. Geol. Surv. Terr., IV, p. 149, 1878; Dyar., Cat., No. 6359; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 56.

Foodplants: *Juglans nigra*.

East States.

ostryaella Chambers (Braun), Bull. Geol. Surv. Terr., IV, p. 121, 1878; Can. Ent., IX, p. 127, 1877; Braun, Ent. News., XXIII, p. 167, 1912; Ely, Inse. Insc. Mens., III, p. 61, 1915.

Foodplants: *Ostrya*; *Carpinus*.

Atl. States.

violacella Clemens, Proc. Ac. Nat. Sci. Phil., p. 7, 1860; Tin. No. Am., p. 93, 1872; Cham., Can. Ent., IV, p. 26, 1872; V, p. 46, 1873; Cin. Quart. Jn. Sci., I, p. 208, 1874; Zeller, Verh. zool-bot. Ges. Wien., XXIII, p. 108, 1873; Dyar, Cat., No. 6352; Meyr., Gen. Ins., p. 29, 1912; Meyr., Cat., p. 58; Busck, Proc. Ent. Soc. Wash., V, p. 196, 1903.

syn: *desmodijoliella* Clemens, Proc. Ent. Soc. Phil., V, p. 145, 1865; Tin. No. Am., p. 268, 1872; Frey & Boll, Stett. ent. Zeit., XXXVII, p. 212, 1876; Dyar, Cat., No. 6352; Busck, Proc. Ent. Soc. Wash., V, p. 196, 1903; Meyr., Gen. Ins., p. 29, 1912; Meyr., Cat., p. 58.

Foodplant: *Desmodium*.

Mo., Atl. States.

(*) **zachrysa** Meyrick, Jn. Bomb. Nat. Hist. Soc., XVII, p. 983, 1907; Gen. Ins., p. 29, pl. fig. 4, 1912; Meyr., Cat., p. 58.

syn: *azalea* Busck, Inse. Insc. Mens., III, p. 42, 1915.

N. Y.

Foodplant: *Azalea*.

Ceylon.

packardella Chambers, Can. Ent., IV, p. 27, 1872; IX, p. 194, 1877; Cin. Quart. Jn. Sci., I, p. 200, 1874; Dyar, Cat., No. 6372; Meyr., Gen. Ins., p. 29, 1912; Meyr., Cat., p. 58.

Foodplant: *Acer saccharinum*.

Atl. States.

syn: *elegantella* Frey & Boll, Stett. ent. Zeit., XXXIV, p. 202, 1873; Chambers, Cin. Quart. Jn. Sci., II, p. 227, 1875; Dyar, Cat., No. 6372; Meyr., Gen. Ins., p. 29, 1912; Meyr., Cat., p. 58.

syn: *inornatella* Chambers, Can. Ent., VIII, p. 31, 1876; XI, p. 119, 1879; Dyar, Cat., No. 6372; Meyr., Gen. Ins., p. 29, 1912; Meyr., Cat., p. 58.

coroniella Clemens, Proc. Ent. Soc. Phil., II, p. 421, 1864; V, p. 145, 1866; Tin. No. Am., p. 243, 1872; Wlsm., Trans. Am. Ent. Soc., X, p. 192, 1882; Dyar, Cat., No. 6351; Busck, Proc. Ent. Soc. Wash., V, p. 216, 1903; Meyr., Gen. Ins., p. 29, 1912; Meyr., Cat., p. 58.

Foodplant: *Betula populifera*.

Pa., Ill., Md., Conn.

glutinella Ely, Inse. Insc. Mens., III, p. 55, 1915.

Foodplant: *Alnus*.

Conn., Va.

superbifrontella Clemens, Proc. Ac. Nat. Sci. Phil., p. 5, 1861; Proc.

Ent. Soc. Phil., V, p. 145, 1865; Tin. No. Am., pp. 91, 269, 1872; Frey & Boll, Stett. ent. Zeit., XXXIV, p. 202, 1873; Cham., Cin. Quart. Jn. Sci., I, p. 200, 1874; II, p. 226, 1875; Dyar, Cat., No. 6372; Busck, Proc. Ent. Soc. Wash., V, p. 194, 1903; Meyr., Gen. Ins., p. 29, 1912; Meyr., Cat., p. 58.

Foodplant: *Hamamelis virginiana*.

Atl. States.

negundella Chambers, Can. Ent., VIII, p. 18, 1876; Bull. Geol. Surv. Terr., III, p. 132, 1877; Psyche, III, p. 66, 1880; Dyar, Cat., No. 6360; Meyr., Gen. Ins., p. 28, 1912; Braun, Ent. News., XXIII, p. 169, 1912; Meyr., Cat., p. 56.

Foodplant: *Negundo aceroides*.

Col., Atl. States.

stigmatella Fabricius, Sp. Ins., II, p. 295, 1781; Chambers, Can. Ent., XI, pp. 74, 119, 1879; XII, p. 24, 1880; Busck, Proc. U. S. Nat. Mus., XXVII, p. 771, 1904; Dyar, Cat., No. 6362; Meyr., Gen. Ins., p. 29, 1912; Meyr., Cat., p. 59.

Foodplants: *Salix* and *Populus*.

Europe, Transcaspian, U. S.

syn: *purpuriella* Chambers, Can. Ent., IV, p. 27, 1872; V, p. 46, 1873; IX, pp. 126, 194, 1877; XI, p. 74, 1879; Dyar, Cat., No. 6362; Busck, Proc. U. S. Nat. Mus., XXVII, p. 771, 1904; Meyr., Gen. Ins., p. 29, 1912; Meyr., Cat., p. 59.

(*) syn: *consimilella* Frey & Boll, Stett. ent. Zeit., XXXVII, p. 210, 1876; Dyar, Cat., No. 6380; Meyr., Gen. Ins., p. 29, 1912; Meyr., Cat., p. 59.

(*) **populiella** Chambers, Cin. Quart. Jn. Sci., II, p. 301, 1875; Bull. Geol. Surv. Terr., III, p. 132, 1877; Dyar, Cat., No. 6373; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 56.

Foodplant: *Populus*.

Col.

(*) **palustriella** Braun, Ent. News., XXI, p. 178, 1910; Meyr., Cat., p. 56.

Foodplant: *Salix*.

Calif.

rhoifoliella Chambers, Can. Ent., VIII, p. 31, 1876; Dyar, Cat., No. 6363; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 56.

Foodplant: *Rhus*.

Kan., East. States, So. States.

sassafrasella Chambers, Can. Ent., VIII, p. 33, 1876; Dyar, Cat., No. 6367; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 56.

Foodplant: *Sassafras*.

Atl. States.

(*) **obscuripennella** Frey & Boll, Stett. ent. Zeit., XXXVII, p. 209, 1876; Dyar, Cat., No. 6382; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 58.

Tex.

acerifoliella Chambers, Cin. Quart. Jn. Sci., II, p. 299, 1875; Bull. Geol. Surv. Terr., III, p. 132, 1877; Dyar, Cat., No. 6342; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 56.

Foodplant: *Acer*.

Col.

atmosella Zeller, Verh. zool-bot. Ges. Wien., XXIII, p. 309, 1873; Dyar, Cat., No. 6346; Meyr., Gen. Ins., p. 27, 1912; Meyr., Cat., p. 55.

Tex., Atl. States.

quercinigrella Ely, Inse. Insc. Mens., III, p. 60, 1915.

Foodplant: *Quercus*.

Conn.

(*) **reticulata** Braun, Ent. News., XXI, p. 177, 1910.

Foodplant: *Quercus agrolia*.

Calif.

flavella Ely, Inse. Insc. Mens., III, p. 56, 1915.

Foodplant: *Myrica cerifera*.

Conn.

alnivorella Chambers, Cin. Quart. Jn. Sci., II, p. 299, 1875; Bull. Geol. Surv. Terr., III, p. 132, 1877; Dyar, Cat., No. 6344; Busck, Proc. U. S. Nat. Mus., XXVII, p. 771, 1904; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 57. •

Foodplant: *Alnus*.

Can. West. States.

syn: *alnicolella* Chambers, Cin. Quart. Jn. Sci., II, p. 299, 1875; Bull. Geol. Surv. Terr., III, p. 132, 1877; Dyar, Cat., No. 6343; Busck, Proc. U. S. Nat. Mus., XXVII, p. 771, 1904; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 57.

syn: *pulchella* Chambers, Can. Ent., VII, p. 186, 1875; Dyar, Cat., No. 6377; Busck, Proc. U. S. Nat. Mus., XXVII, p. 771, 1904; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 57.

syn: *sanguinella* Beutenmüller, Ent. Am., IV, p. 30, 1888; Dyar, Cat., No. 6368; Busck, Proc. U. S. Nat. Mus., XXVII, p. 771, 1904; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 57.

syn: *nigristrigella* Beutenmüller, Ent. Am., IV, p. 30, 1888; Dyar, Cat., No. 6361; Busck, Proc. U. S. Nat. Mus., XXVII, p. 771, 1904; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 57.

syn: *ruptostrigella* Beutenmüller, Ent. Am., IV, p. 30, 1888; Dyar, Cat., No. 6361; Busck, Proc. U. S. Nat. Mus., XXVII, p. 771, 1904; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 57.

syn: *shastaella* Beutenmüller, Ent. Am., IV, p. 30, 1888; Dyar, Cat., No. 6369; Busck, Proc. U. S. Nat. Mus., XXVII, p. 771, 1904; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 57.

syn: *juscoochrella* Beutenmüller, Ent. Am., V, p. 10, 1889; Dyar, Cat., No. 6358; Busck, Proc. U. S. Nat. Mus., XXVII, p. 771, 1904; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 57.

(*) **strictella** Walker, Cat. Brit. Mus., XXIX, p. 591, 1864; Dyar, Cat., No. 6386; Meyr., Gen. Ins., p. 27, 1912; Meyr., Cat., p. 56.

syn: *adaptella* Walker, Cat. Brit. Mus., XXIX, p. 590, 1864; Dyar, Cat., No. 5778; Meyr., Gen. Ins., p. 27, 1912; Meyr., Cat., p. 56.

Can.

(*) **sauzalitoella** Chambers, Can. Ent., VIII, p. 32, 1876; Dyar, Cat., No. 6366; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 56. Calif.

syn: *sauzalitella* Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 56.

murtfeldtella Busck, Proc. U. S. Nat. Mus., XXVII, p. 771, 1904; Meyr., Gen. Ins., p. 28, 1912; Meyr., Cat., p. 58. D. C. Mo., Wash.,

serotinella Ely, Ent. News., XXI, p. 57, 1910; Meyr., Cat., p. 49.

Foodplant: *Prunus serotina*.

N. Atl. States.

paradoxum Frey & Boll, Stett. ent. Zeit., XXXIV, p. 205, 1873; XXXVII, p. 212, 1876; Cham., Cin. Quart. Jn. Sci., I, p. 200, 1874; Dyar, Cat., No. 6397. **Atl. States.**

syn: *paradoxa* Meyr., Gen. Ins., p. 21, 1912; Meyr., Cat., p. 49.

cuculipennellum Hübner, Ges. eur. Schmett., VIII, Tin., VI, Al. B, F. 2, 1831; Fernald, Can. Ent., XXV, 96, 1893; Dyar, Cat., No. 6401; Kellogg, Am. Insects, p. 378, 1905; Braun, Can. Ent., XLIV, p. 160, 1912.

Foodplant: *Ligustrum*.

Europe.

syn: *cuculipennella* Meyr., Gen. Ins., p. 26, 1912; Meyr., Cat., p. 55.

?syn: *fraxinella* Ely, Inse. Insc. Mens., p. 58, 1915.

Foodplant: *Fraxinus*.

N. Y., Ohio, Conn.

Not recognized from descriptions.

(*) **aceriella** Chambers, Jn. Cin. Soc. Nat. Hist., III, p. 295, 1880; Dyar, Cat. No. 6341; Meyr., Gen. Ins., p. 27, 1912; Meyr., Cat., p. 56.

Foodplant: *Acer*.

Mass.

(*) **behrensella** Chambers, Can. Ent., VIII, p. 32, 1876; Dyar, Cat., No. 6347; Meyr., Gen. Ins., p. 27, 1912; Meyr., Cat., p. 55. **Cal.**

(*) **ribesella** Chambers, Bull. Geol. Surv. Terr., III, p. 132, 1877; Dyar, Cat., No. 6376; Larva only described.

Foodplant: *Ribes*.

Col.

SCHISTOCERCA TARTARICA TAKEN AT SEA.

BY L. O. HOWARD

A specimen of *Schistocerca tartarica* (determined by Caudell) was received from Professor Marvin, the Chief of the Weather Bureau, to whom it had been sent by Captain B. Morthensen of the Norwegian bark *Robert Srafton*. It seems that Captain Morthensen is one of the coöperative marine observers of the Weather Bureau, and he noted in his report that on October 7, 1916, a lot of these grasshoppers came aboard in lively condition. At that time the vessel was 1200 nautical miles from the African coast, latitude 20° 57' N., longitude 39° 28' W. The author has been informed by Mr. Caudell that this locust occurs in southern Europe, Africa, in Ceylon, and also in Central America and northern South America, and that there are records of its prolonged flight over the sea. It is worth while, however, to place this well authenticated case on record.



Ely, Charles R. 1918. "A revision of the North American Gracilariidae from the standpoint of venation." *Proceedings of the Entomological Society of Washington* 19, 29-77.

View This Item Online: <https://www.biodiversitylibrary.org/item/20207>

Permalink: <https://www.biodiversitylibrary.org/partpdf/19140>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Smithsonian

Copyright & Reuse

Copyright Status: NOT_IN_COPYRIGHT

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.