

CAN. ENT., p. 120, an instance of this sort is recorded by Mr. R. Bunker, of Rochester, where the larva became a chrysalis on the first of August and produced the moth on the 10th of September. Should these larvæ at any time prove troublesome, they can be readily subdued by hand-picking.

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LIST OF N. AMERICAN ANTHOMYIDÆ, EXAMINED BY  
R. H. MEADE, ESQ., BRADFORD, ENGLAND.

BY DR. H. A. HAGEN, CAMBRIDGE, MASS.

Mr. R. H. Meade has kindly examined the N. American Anthomyidæ of the Museum of Comparative Zoology in Cambridge, forwarded to him by the Baron von Osten Sacken. The collection was returned last year by the Baron to the Museum. The species are separated carefully and accompanied by a list giving the genera and species, the latter not named except when identical with European species. The notes and determinations of the list differ sometimes from the notes previously published by Mr. R. H. Meade in the Entom. Monthly Mag., 1878, xiv., p. 230-250. Those differences and the more complete statements in the list induced me to publish it, thinking it to be ungrateful to Mr. Meade that his extensive and thorough examination should rest in the archives of the Museum and be lost to science. Baron von Osten Sacken stated in his letter that he has not the intention to work out the Anthomyidæ. I have carefully compared the labeled types in the Loew collection, and have added always the locality for the species examined by Mr. Meade. Where I was able to make out identities, they are given. The collection of the Museum, out of which the Baron himself selected the lot sent to Mr. Meade, will probably contain only duplicates of the lot, except in later additions. Loew's collection contains a number not yet assorted and some new species. Types of European species sent by Loew, Schiner, Gerstaecker and Jmhoff, have been compared with the American ones. O. Sacken's Catalogue has 139 N. Amer. species, including a large number of Fr. Walker's not yet scientifically compared. Mr. Meade has counted (with a few varieties) 121 species, and Loew's collection contains 12 species not seen by Mr. Meade; therefore the whole number of N.

Am. species is 133. Mr. Meade has identified among them 27 European species and Loew 7 more; therefore 34 species seem to be identical with European ones. The Museum owes the most sincere thanks to Mr. Meade and to Baron v. Osten Sacken.

Genus HYETODESIA Rond. (*Aricia* pt. Macq.)

1. Bears a considerable resemblance to *Aricia marmorata* Zett.; 8 male and female; Lake Super., Huds. Bay Terr., Can., N. Hampsh.

No specimen of *A. marmorata* is at hand. I consider *A. morioides* Zett. (perhaps *A. mori* Zett. of O. Sack. Cat., p. 164) to be identical with No. 1. Loew's type is a female from Sitka (Sahlberg), and an *Aricia*.

2. Is perhaps a variety of No. 1; the longitudinal thoracic stripes are narrower; 2, male and female; Lake Super., N. Hampsh.
3. Closely corresponds to the descriptions of *A. serva*; this is perhaps also a var. of No. 1; 1, female; Norway, Maine.
4. Seems identical with *A. lucorum* Fall.; 1, male; West N. Y.
5. Is very similar to *A. obscurata* Meig.; 1, male; Huds. Bay Terr.
6. Differs from any species I know; 4, male and female; Brit. Amer., Western N. Y.; Geysers, Cala.

This species is *A. parviceps*, Loew collect., from Sitka, Sahlberg, male, female; the male agrees perfectly with No. 6; the female differs somewhat, but the 4 spec. of No. 6 seem to represent varieties.

7. Bears a very close general resemblance to *S. pagana* Fabr., but differs by having the eyes decidedly pubescent and also by having 3 instead of 4 thoracic bristles behind the suture; 2, male and female; Englewood, N. Jers.; Maine.

This species is identical with *H. angelicæ*, Loew coll., male and female (*Spilogaster angelicæ* O. Sack. Catal., p. 165) and one European type sent by Loew as *Fellaca angelicæ* Scop. The differences quoted above agree with *F. angelicæ*; nevertheless the eyes are a little less pubescent in the only European specimen before me, but decidedly as pubescent in the 2 Amer. specimens in Loew's coll.

There are in Loew's coll. the following species named, all different from the No. 1-7: *A. schinophora*, 3, male and female, from Sitka, Sahlberg, and from Alaska, related to No. 5 but different. *A. consors*, 2, male and female, from Sitka, Sahlberg, allied to No. 6.

*A. spec.*, 1, female, from Wisc., *simillima* *A. Bilbergi*, differt tarsis anticis. In Ent. M. Mag., xiv., p. 250, Mr. Meade has mentioned a species closely resembling *A. lugubris* Meig. This species is not given in his list.

Genus MYDÆA Desv. (*Spilogaster* p. unspotted.)

8. Unlike any species I know; 1 female, Arctic Amer.
9. Corresponds to the description of *M. floricola* Desv.; 1 female, N. Y. This is *Spilog. urbana* Loew, O. Sack. Catal., 3, male and female, in Loew's coll. from Br. Amer. and Conn.; I cannot compare *M. floricola*, but the specimen No. 9 agrees with the European type of *M. urbana* sent by Mr. Meade.
10. Male, Canada; 11 females and 12 males, Western N. Y.; 13 females, Catskill Mts., N.Y.; 14 males, Canada; 15 males, Arctic Amer. Unlike any species known to me. No. 12 seems to be identical with *A. flexuosa* Loew, male and female, from Sitka.
16. Very similar to *M. flaveola* Fall., but has the external transverse vein straight instead of curved; 4, male and female, from White Mts., N. H.; Quebec, Can.; Huds. Bay Terr.; Catskill Mts., N.Y. In Loew's coll. labelled *A. diaphana* (*Limnophora diaphana* O. Sack. Catal., p. 166); 7, male and female, from N. Hampsh.; Me.; Brit. Amer.; the specimens are identical with European types of *A. diaphana* sent by Loew.
- 16.a. An imperfect species, very like *A. varians* Zett.; 1 male, Canada; abdomen wanting; agrees well with one European type sent by Loew.

Genus SPILOGASTER Macq. (spotted.)

† Legs black. All species unlike any known to me.

17. 3, male and female. Ky.; Lake Super.—18; 1 male, Huds. Bay Terr.—19; 1 female, Huds. Bay Terr.—20; 1 male, no loc.
21. 1 female, Huds. Bay Terr.—22; 1 male, no loc.
- †† Legs wholly or partly yellow.
23. Differs from any species I know, but appears to be the analogue of *S. uliginosa* Fall.; 2, male; R. I.

I have compared European types of *S. uliginosa* sent by Mr. Meade and Loew, but they differ so strikingly from No. 23 that I am unable to say why they are analogous.

24. 1 male, Western N. Y.—25. 1 female, Cambridge, Mass. Both unlike any species known to me.
26. The generic position of this injured specimen is rather doubtful; 1 female, D. C.
27. Corresponds to Rondani's description of *S. hirticrura* and is very like *A. pertusa* Meig.; 7, male and female, from N. Y. and Ill.

I cannot compare *A. pertusa* nor *S. hirticrura*; the species is *Anth. trabeata* Loew; one type of Loew with his label is among the specimens No. 27; in Loew's coll. there are 7 specimens from N. Y., Ill., Pa., D. C.

Mr. Meade says, Ent. M. Mag., *l. c.* p. 251: In *Spilog*, there were eleven species. . . . There was only one male in the collection, and it bore a remarkable resemblance to *Cyrtoneura meditabunda* Fabr. The fifth longitudinal wing vein was curved in a similar manner towards the fourth vein, though in a less degree. . . .

There must be some misunderstanding here which I am not able to solve, as the eleven species before me contain 12 males belonging to 7 species. I have compared every one carefully with a type of *Cyrt. meditabunda* sent by Loew, without finding any male corresponding to the characters of *C. meditabunda*. Later I found among the Diptera not seen by Mr. Meade one female very well agreeing with the characters mentioned, bearing a label *M. meditabunda*? written by O. Sacken.

#### Genus HYDROPHORIA Desv.

28. Unlike any species known to me; 1 female, Connecticut.
29. Resembles *M. ambigua* Fall.; 1 male, Huds. Bay Terr.
30. Unlike any species known to me; 1 female, Brit. Amer.

#### Genus DRYMEIA Meig.

31. A well marked species which differs slightly from the only European one, *D. hamata*, 4, male and female, from Huds. Bay Terr.

It is difficult to decide about the similarity with *D. hamata*, as the Amer. specimens are in a rather indifferent condition; the European types sent by Mr. Meade and Loew are much larger. Formerly, *l. c.*, p. 251, Mr. Meade had considered them to be quite distinct.

## Genus HYDROTEA Desv.

32. Appears to be identical with *H. dentipes* Fall.; 1 female, Canada.  
In Loew's coll., 2 females, 1 from Sitka, Sahlb., with the same determination.
33. Seems identical with *H. armipes* Fabr.; 3, male and female, Cambridge, Mass.  
In Loew's coll., 1 male from Nebraska with the same determination.

## Genus LASTIOPS Meig.

34. Something like *L. canotans* Meig., but it is not identical; 1 male, Br. Colombia..
35. Not like any species known to me; 4, male and female, N. Hampsh.

## Genus OSPHYRA Desv.

36. Similar to *A. leucostoma* Fall.; 5, male and female, from D. C., Mass., Maine.  
In Loew's coll., 5 male and female, from Maine, New York, D. C., identical with No. 36, labelled *A. leucostoma*.
- 36.a. Not like any species known to me; 2, male and female, Canada.

## Genus LIMNOPHORA Desv.

37. Somewhat resembles *A. compuncta* Wied., but has the eyes more widely separated in the male; 6 male and female, from Mass.; N. Y., D. C.; Hudson Bay Terr.
38. 1 male, N. Y.—39; 1 male, Connect.—41; 1 male, Huds. Bay Terr.—42; 1 female, N. Y. - 43; 1 male, Mass.—43 a (lost) Huds. Bay Terr. All not like any species known to me.
40. Very like *Coenosia triangulum* Zett. This species might perhaps be placed in the genus *Coenosia*, as the eyes in both sexes are separated by a widish interval. But this occurs to some extent in nearly all the species of this genus; 1 male, Catskill Mts., N. Y.  
*L. stygia* Meig., O. Sacken Catal., p. 152, in Loew's coll. from Sitka, Sahlberg, is not represented among the species examined by Mr. Meade. *L. triangulifera* Zett., †male, labelled by Loew, is in the collection of the Museum.

## Genus HOMALOMYIA Bouché.

44. Identical with *M. canicularis* Linn.; 11 male and female, from South Greenland; Mass., Maine, Conn.

In Loew's coll. are 10, male and female, N. Y., Maine, with the same determination.

45. Identical with *A. scalaris* Meig.; 8, male and female, Maine, Mass., Pennsylvania.

In Loew's coll., 12 male and female, D. C., Pa., Wisc., with the same name.

46. Identical with *M. prostrata* Rossi (*invisurata* Zett.); 2, male and female, N. Y., Mass. There are 3, male and female, from the same locality in the Museum's coll.

47. Probably only var. of *H. canicularis*; 4 females, Middle States, Mass.

49. Not like any species known to me; 1 male, N. Hampsh., abdomen wanting; the other from Hudson's Bay Terr., lost.

Probably *H. serena* Loew, but the specimen is too imperfect to be sure.

50. Not like any species known to me; 4 females, from South Greenland; N. Y. All imperfect.

There are in Loew's collection the following determined species: *H. manicata* Meig., from Sitka, Sahlb.; *H. serena* Fall., from Br. Amer.; *H. subpellucens* Zett., from Sitka, Sahlb.; *H. tetracantha* Loew, from Middle States; *H. femorata* Loew, from Cuba. The *H. spathulata* Zett. quoted with \* in O. Sack. cat., p. 170, is not represented.

#### Genus AZELIA Desv.

51. Seems identical with *A. Slaegeri* Zett.; 1 male, N. Hampsh.

#### Genus ATOMOGASTER Macq.

Is not among the specimens examined by Mr. Meade, but represented in Loew's coll. by 5, male and female, from Texas; Nebr. *A. albicincta*.

#### Genus ANTHOMYIA Meig.

52. Identical with *M. radicum* Linn.  
 53. 3 males, Regio. arct.—54; 1 male, probably Mass.—55; 1 female, Cambridge, Mass.—56; 2, male and female, no loc.—58; 1 male, Illinois. All not like any species known to me.  
 57. Identical with *A. latitarsis* Slaeg. & Zett.; 2, male and female, from N. Hampsh. and N. Y.  
 59. Very similar to small specimens of *A. pluvialis*; 1 male, Long Island, N. Y.

## Genus HYLEMYIA Desv.

† Legs black.

60. Not like any species known to me; 10, male and female, Brit. Am., N. Y., N. J.  
 61. Not like any species known to me; 5, male and female, N. Hampsh., N. Y., Conn.  
 62. Resembles *H. antiqua* Meig.; 2, male and female, Hudson's Bay Terr., Reg. Arctic.

Is identical with *H. deceptiva* A. Fitch, 2 types in Loew's coll.

†† Legs yellow.

63. Not like any species known to me; this is perhaps *A. alcathoe* Walk. Mus. Cat.; 6, male and female, N. Hampsh., N. Y., Mass.  
 Is identical with *A. tarsata* Sik., male and female, N. Y., Ill., labelled by Loew.

In Loew's collection are 2 males from Cuba, types of *H. angustifrons* Loew, united (O. Sack. Cat., p. 167) probably after examination of Macquart's type with *H. pici*. Loew has written on the label: "Can be taken to be *H. pici*, if it is assumed that the artist has allowed himself wild fancy in drawing the veins of the wings and the bristles of the legs." On the label of the second specimen is said: "Probably the pale-winged variety quoted by Wiedeman as his *quadrilineata*."

- 64.—73. Unlike any species known to me. 64. 4, male and female, N. Y.—65; 1 female, N. Y.—66; 2 females, N. Hamps.—67; 1 female, Hudson's Bay Terr.—68; 1 male, D. C.—69; 3 females, Hudson's Bay Terr., Canada, N. Hamps.—70; 3 males, N. Y.—71; 2 females, Lake Super.—72; 1 female, Maine.—73; 3 females, Nebraska.

## Genus CHORTOPHILA Macq.

† Legs black.

74. Very similar to *C. floccosa* Meig.; 1 male, Mass.  
 75. 1 male, Mass.—76; 1 female, California—77; 1 male, Regio Arct.—  
 All unlike any species known to me.  
 78. Seems identical with *A. angustifrons* Meig.; 5, male and female, Br. Amer., Maine, Mass.

Is identical with *Anthom. calopteni* Riley, infesting the eggs of *Caloptenus spretus*, after the types in the Museum sent by Mr. Whitmann from St. Paul, Minn.

- 79.—85. 85 *a*. Not exactly like any species known to me. 79. 1 male, Hudson's Bay Terr.—80, 1 male, N. Y.—81; 1 male, Canada—82; 1 male, N. Y.—83; 1 male, Hudson's Bay Terr.—84; 10, male and female, Hudson's Bay Terr., Maine, N. Y., D. C., Arctic Reg.—85; 8 females, Mass., Conn., N. Y.

†† Legs yellow.

- 86.—92 and 96–101. Unlike any species known to me. 86, 1 male, Conn.—87, 2 females, Conn.—88, 1 male, Cala — 89, 3, male and female, N. Y.—90. 5, male and female, N. Y.—91. 7, male and female, Mass., bred from *Rumex* by O. Sack.—92. 1 male, N. Y.—96. 1 female, Hudson's Bay Terr.—97. 1 female, no loc.—98, 1 female, South Greenland. 99, 1 female, Hudson's Bay Terr.—100, 1 female, no loc.—101, 1 female, Regio Arct.

93. Resembles *A. gilva* Zett.; 2 females, N. Y.

94. Very like *A. vittigera* Zett.; 3, male and female, N. Y.

95. Very like *A. flavoscutellata* Zett.; 1 male, N. Hampsh.

In Loew's coll. one species with black legs from Texas is labelled  
*f. Chort. cilioraca*.

#### Genus LISPA Latr.

102. Like *L. tentaculata* Deg.; 2 females, N. Y.

Identical with *L. sociabilis* Loew; 5, male and female, D. C.

103. Like *L. oliginosa* Fall.; 1 female, Hudson's Bay Terr.

Identical with the same species by Loew from Ill.

104. Not like any European species; 1 female, Maryland.

In Loew's collection are *L. flavicincta* from Hudson's Bay Terr., and *L. consanguinea* from Texas.

#### Genus CARICEA Desv. (Cœnosia Meig.)

105. This very distinct species, of which there are many specimens, is different from any European one that I know; the female closely resembles that of *Mydaea impuncta* Meig. 27, male and female, from Hudson's Bay Terr.; Canada, N. Hampsh., Mass., N. Y.

#### Genus COENOSIA Meig.

- 106–115; 117–121. Not exactly like any species known to me; 106, 4, male and female, N. Y.—107. 3 females, Cuba, is labelled in Loew's coll. *C. strigosa* Loew. 108. 4, male and female, Mass.—109. 3, male and female, N. Hampsh., C. D., is *C. subsimplex*



- Loew (not described) from D. C. 110. 2 females, Rhode Island  
 —111. 1 male, Canada—112. 1 male, Canada—113. 2 females,  
 Conn. 114. 1 female, D. C.—115. 3 males, N. Hampsh., Conn.,  
 D. C., is *C. calopyga* L. from Pa.—117. 4, male and female. Hud-  
 son's Bay Terr., N. Hampsh., C. D.—118. 1 male, Hudson's Bay  
 Terr.—119. 2, male and female, Canada, Mass.—120. 1 female,  
 Hudson's Bay Terr.—121. 1 male, D. C.
116. Very similar to *C. pygmaea* Zett.; 1 male, Canada.

In Loew's coll. is also *C. modesta* from Washington Terr., not  
 from Washington, D. C., as in O. Sack. Catal., p. 171; and *C.*  
*nivea* from Pa.

#### Genus *SCHOENOMYZA* Hal.

In Loew's coll. are the types of *S. chrysostoma* from N. Hampsh.,  
 and *C. dorsalis* from D. C.

### NEW SPECIES OF CYNIPIDAE.

BY H. F. BASSETT, WATERBURY, CT.

#### CYNIPS *Q. CALIFORNICA*, n. sp.

Galls: Polythalamous, sessile on the branches of the Californian  
 White Oak (*Quercus Hindsii*?) Sub-globular, but varying much in form  
 and size. A common form is what may be termed balloon-shaped, the  
 upper part perfectly globular, the lower tapering more or less to the sessile  
 base. They often occur of a long compressed oval form; these are  
 placed longitudinally on the branch and the length is two or three times  
 their breadth or thickness. Those of this form are often of monstrous  
 size, being ten or twelve inches in their greatest circumference. The  
 globular galls are from one to two inches in diameter. In color they are  
 of an opaque white. They are usually smooth, but specimens occur that  
 have a more or less warty surface, and others are found that have slight  
 yellowish brown ridges. Internally they are of a uniform, dense cellular  
 structure, and the not very numerous larval cells (from one to a dozen)  
 lie closely imbedded in this cellular substance.

From their shape and color these galls might easily be mistaken for a  
 species of white fungus which grows on trees.