

THE TYPE MATERIAL IN THE  
J. B. SMITH AND G. D. HULST  
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TERA IN THE AMERICAN  
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HISTORY

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AMERICAN MUSEUM OF NATURAL HISTORY  
VOLUME 106 : ARTICLE 2      NEW YORK : 1955





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BULLETIN OF THE AMERICAN MUSEUM OF NATURAL HISTORY

Volume 106, article 2, pages 91-172

*Issued April 25, 1955*

*Price: \$1.00 a copy*



## INTRODUCTION

ONE OF THE MOST IMPORTANT ADDITIONS to the collection of the Department of Insects and Spiders of the American Museum of Natural History was the accession of the J. B. Smith and G. D. Hulst collections of Lepidoptera. These collections were donated by the Department of Entomology at Rutgers University, and the transfer was made possible through the generous cooperation of Dr. William H. Martin, Dean of the College of Agriculture, and Profs. Bailey B. Pepper and John B. Schmitt of the Department of Entomology of that institution. Combined, this acquisition represents one of the most valuable collections of North American Lepidoptera in existence, as it consists of 32,022 specimens, representing almost 6000 species, and over 2200 type specimens, including approximately 1200 holotypes. The majority of the type specimens are those of Smith and Hulst.

George D. Hulst (1846–1900), although he described a number of phalaenids, is better known for his work on the Geometridae and Pyralidae. The Hulst collection is one of both butterflies and moths, but is richest in his specialities. He published almost one hundred papers, mostly on descriptions of early stages and of new species of Lepidoptera. Included in this list of publications were revisions of the North American Epipaschiinae, Phycitidae, and Geometridae, which still stand as the basic works in these groups. These papers were based mainly on his collection, which was given to Rutgers and contains many types.

John B. Smith (1858–1912) came to Rutgers in 1889, after spending the preceding three years at the United States National Museum, and remained there until his death. He was the State Entomologist of New Jersey from 1894 until 1912. Smith built up the North American phalaenid collection at Rutgers until it was one of the best collections in this family in existence. As he was the leading authority on this family, he also received material for identification from different collectors, and thus more interesting specimens came to hand. Smith described a very large number of new species, and he published a great number of papers. These

include not only papers with the original descriptions of new species, but a number of generic revisions and check lists. The collection at Rutgers formed the basis for the majority of these—hence its great value.

In addition to the types of Smith and Hulst, type material of a number of other authors is present. This includes the following workers: W. V. Andrews, W. Barnes, W. Barnes and F. H. Benjamin, W. Barnes and J. H. McDunnough, J. E. Bates, W. Beutenmüller, H. Bird, H. H. Brehme, T. D. A. Cockerell, H. G. Dyar, C. H. Fernald, J. A. Grossbeck, A. R. Grote, F. Haimbach, W. J. Holland, W. D. Kearfott, R. Ottolengui, A. S. Packard, R. F. Pearsall, C. V. Riley, F. H. Rindge, H. Strecker, and L. W. Swett.

In most of the early descriptions, no mention is made as to the deposition of either the type or of the type series. A large number of the types described by Smith and Hulst are in the present collection, while others are in the collections of the American Museum of Natural History and the United States National Museum. Partial listings of the type specimens for this institution have been given by Beutenmüller (1892, *Bull. Amer. Mus. Nat. Hist.*, vol. 4, pp. 59–64, 167–198; 1904, *ibid.*, vol. 20, pp. 81–86) and Klots (1942, *Bull. Amer. Mus. Nat. Hist.*, vol. 79, pp. 391–424). One of the primary purposes of the present paper is to give a listing of all the type material in the Smith and Hulst collections, so that the location, number, sex, and locality for all these type specimens may be made available to other workers.

### PROCEDURE

Before any specimens from this collection of Lepidoptera were incorporated into the collection of the American Museum of Natural History, each individual butterfly or moth was checked to see whether or not it was labeled with the original J. B. Smith or G. D. Hulst collection labels. If not, an appropriate label was affixed, so that future workers can recognize the specimens from these collections.

As the material was incorporated, a list of all type material was made out. The pri-

mary types have been segregated and placed in the Lepidoptera type collection, while all cotype or paratype material has been incorporated into the general collection. The present paper is a list of these types. They are arranged alphabetically by the specific or subspecific names within each family. The placement within families follows McDunnough (1938-1939, Check list of the Lepidoptera of Canada and the United States of America, pts. 1 and 2), with one exception. Rindge (1952, Jour. New York Ent. Soc., vol. 60, p. 172) has shown that *Brephos fletcheri* Smith is, in fact, a member of the genus *Annaphila*, so this name has been transferred from the Geometridae to the Phalaenidae.

#### TYPES AND LECTOTYPES

Unfortunately a number of the early workers were not careful to list specifically the locality of the type, as compared with the remainder of the type series, and this has never been so listed in the literature. It was not uncommon to find a list of localities from four or six states, for example, following a description, with no indication at all of what was considered the type locality. A rather confusing situation in the light of present-day population studies can result, as exact localities are needed to pinpoint subspecific population names. The present paper should help solve many of the problems, as Smith in particular was guilty of this procedure. However, he did have his type series labeled as to "male type," "female type," and "cotypes." It is assumed that his "male type" is equivalent to the more modern term "holotype," with the "female type" representing the "allotype." However, these two terms are not used in the text of the paper unless they specifically appear on the type labels. The only exception to Smith's labels stating "male type," "female type," and "cotype" was his very early work, where every specimen in the series was merely labeled "type." At this time he usually used black-bordered labels, as opposed to his later use of red-bordered labels with the improved terminology.

The type specimens of Hulst present more of a problem, as this author was notorious for his method of labeling type specimens. Very often the locality as given in the original

description does not agree with that on the label on the specimen, or the locality as given in a subsequent paper by the same author. In addition, Hulst had the habit of labeling specimens as "type" when he was doing identification work, apparently using this word in the sense that the specimen was typical or like the type. In this manner, one sometimes finds four or six specimens labeled "type," while the original description states that the species was described from a single example. Needless to say, this greatly complicates matters with regard to the Hulst types, and considerable care should be exercised when one is dealing with these specimens. Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, pp. 169-200) did much basic work straightening out this situation. In addition, Klots (1942, Bull. Amer. Mus. Nat. Hist., vol. 79, pp. 391-424) has designated a number of lectotypes from Hulst specimens already in the collection of the American Museum of Natural History. In the preparation of the present paper, the original descriptions have been consulted, and where discrepancies appear with regard to localities, they are so noted.

A number of the earlier authors, who have type material represented in this collection, also apparently labeled all the specimens in their type series as "types." This includes Barnes and Kearfott, to mention only two. Klots has already discussed the latter author and his labeling of types (1942, Bull. Amer. Mus. Nat. Hist., vol. 79, pp. 392-393). For most of the Barnes specimens, it has been assumed that Barnes distributed specimens from his type series, but that he retained the primary types in his own collection, now in the United States National Museum at Washington.

The same problem also appeared with other authors, and it is being left to subsequent revisers of the different groups to straighten out the problem of the primary types and their actual designation. The present author has not designated any lectotypes in this paper, with the following exceptions in the Geometridae: *Chlorochlamys appellaria* Pearsall, *Apicrena calcaria* Pearsall, and *Therina lugubrosa* Hulst. In the first two cases, the species were described from two specimens



each, one being deposited in the Hulst collection and the other in the collection of the American Museum of Natural History; as both specimens were before the author, the lectotype was designated. Capps apparently overlooked designating a lectotype of *lugubrosa* in his revision of the group (1943, Proc. U. S. Natl. Mus., vol. 93, pp. 115-151), so a lectotype has been chosen in the present paper.

#### GENITALIC PREPARATIONS

Smith was one of the pioneers in this country in the use of the genitalia as an aid in the classification of the moths. In some instances, he examined the genitalia in place within the abdomen; in others, he made regular dissections either of the entire structure or of one of the valves in the males. A collection of 767 slides was received, all having been made by Smith, and it includes preparations of both male and female genitalia, as well as anatomical slides. This set of preparations apparently includes all the dissections used by Smith in his numerous papers,

including both the descriptive and illustrated material. Usually the slides are labeled merely with the name of the moth, but sometimes locality data or a number is included. As a result it is sometimes a bit difficult to correlate the slides with the proper specimen. All the primary types have been checked for genitalic preparations and, when present, have been listed in the text. In addition, those specimens have been labeled "male (or female) genitalia mounted on slide by Smith," and the slides have been duly labeled also.

Other workers have made genitalic dissections and mounted them on slides. Where this has been done to any type specimen, it has been noted in the text. These slides are incorporated in the genitalic slide collection of the American Museum of Natural History. Genitalic preparations have been made by J. H. McDunnough (Geometridae), H. W. Capps (Geometridae), C. Heinrich (Pyraliidae), and the author (Phalaenidae, Geometridae).

## ANNOTATED LIST OF TYPE SPECIMENS

IN THE FOLLOWING LIST, the data are given as they appear on the labels of the specimens. The sex of each moth has been checked under a binocular microscope, but in a few cases it has not been possible to determine this accurately. The locality, date, and collector, if given, have been listed, with known abbreviations written out. The one exception has been instances in which the month and day could be confused, as where both are indicated by arabic numbers; in such cases, the date is given as written on the label.

### SATURNIIDAE

#### **neomexicana** Brehme, **Anisota**

1909, Canadian Ent., vol. 41, p. 324.

Cotypes, male and female, New Mexico, June 25-26.

### AMATIDAE

#### **hampsonii** Barnes, **Syntomeida**

1904, Canadian Ent., vol. 36, p. 165.

Cotype male, southern Arizona, July 15-30.

### ARCTIIDAE

#### **triangularis** Smith, **Haploa**

1899, Ent. News. vol. 10, p. 126.

Type female, New Jersey. According to the original description, the type locality is near Newark.

### PHALAEINIDAE (NOCTUIDAE)

#### **abalas** Smith, **Crambodes**

1905, Jour. New York Ent. Soc., vol. 13, p. 205.

Type male, Cochise County, Arizona, July; type female, same data; cotype female, Cochise County, Arizona, July 2; cotypes, two females, same data, July; cotype female, no data but with No. 583.

#### **abbea** Smith, **Aplectoides**

1908, Jour. New York Ent. Soc., vol. 16, p. 85.

Type female, Westminster, British Columbia.

#### **abnormis** Smith, **Agrotis**

1890, Trans. Amer. Ent. Soc., vol. 17, p. 41.

Type female, Sierra Nevada, California.

#### **acarneae** Smith, **Noctua**

1905, Jour. New York Ent. Soc., vol. 13, p. 194.

Type male, Banff, Alberta, July 11, 1902 (N. B. Sanson).

#### **accessa** Smith, **Schinia**

1906, Jour. New York Ent. Soc., vol. 14, p. 25.

Type female, Kerrville, Texas.

#### **acera** Smith, **Polia**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 472.

Type male, Pullman, Washington (C. V. Piper).

#### **acta** Smith, **Orthosia**

1907, Trans. Amer. Ent. Soc., vol. 33, p. 133.

Type male, Corvallis, Oregon, September 17, 1898; type female, Pullman, Washington, October 20, 1896, Washington Experiment Station No. 635.

#### **actona** Smith, **Rhizagrotis**

1910, Jour. New York Ent. Soc., vol. 18, p. 87.

Type male, Stockton, Utah, June 16, 1903 (Tom Spalding); type female, same data, June 23, 1903; cotypes, one male and two females, same data, April 14, 1903, June 20, July 7, 1903.

#### **actura** Smith, **Pseudanarta**

1908, Jour. New York Ent. Soc., vol. 16, p. 91.

Type male, Wilgus, Cochise County, Arizona; type female, same data.

#### **acutangula** Smith, **Stretchia**

1911, Jour. New York Ent. Soc., vol. 19, p. 147.

Type male, San Diego, California, November; type female, Witch Creek, California, 11-5; paratype male, San Diego, California, 11; paratype male, Witch Creek, California, 11-2; two paratype females, Witch Creek, California, 1-30, 11-14; paratype female, Pasadena, California, March 31.

#### **acutermis** Smith, **Mamestra**

1904, Canadian Ent., vol. 36, p. 153.

Type male, Wellington, British Columbia, July 17, 1902; type female, Volga, South Dakota; cotype male, Wellington, British Columbia, August 24, 1902; cotype male,



Cartwright, Manitoba; cotype female, Volga, South Dakota.

**acutifrons** Smith, **Carneades**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 458.

Type female, Oregon.

**acutus** Smith, **Conocharis**

1905, Jour. New York Ent. Soc., vol. 13, p. 207.

Type female, southern Arizona, May 15–30 (Poling); cotype male, Santa Catalina Mountains, Pinal County, Arizona, April 8–15.

**adustus** Smith, **Oxycnemis**

1907, Trans. Amer. Ent. Soc., vol. 33, p. 139.

Type male, San Antonio, Texas.

**aetheria** Barnes and McDunnough, **Heliothis**

1912, Canadian Ent., vol. 44, p. 17.

Cotypes, male and female, Redington, Arizona.

**aggressa** Smith, **Orthosia**

1907, Trans. Amer. Ent. Soc., vol. 33, p. 135.

Type male, Gunnison, Colorado, July 9; type female, Denver, Colorado, July 8–15.

**agnata** Smith, **Mamestra**

1905, Jour. New York Ent. Soc., vol. 13, p. 200.

Types, male and female, Redington, Arizona.

**alameda** Smith, **Nonagria**

1903, Proc. Ent. Soc. Washington, vol. 5, p. 318.

Type female, Alameda County, California, July; cotype male, Alameda County, California, July.

**alata** Smith, **Acontia**

1905, Jour. New York Ent. Soc., vol. 13, p. 210.

Type male, Baboquavaria Mountains, Pima County, Arizona, July 15–30, 1903 (O. C. Poling); type female, same data.

**alberta** Smith, **Hadena (Xylophasia)**

1903, Jour. New York Ent. Soc., vol. 11, p. 8.

Type male, head of Pine Creek, Calgary, Alberta, July 2, 1896 (F. H. W. Dod); type female, same data.

**albescens** Barnes and McDunnough, **Oligia (Hadena) fractilinea**

1910, Jour. New York Ent. Soc., vol. 18, p. 155.

Cotype female, Vineyard, Utah, August 26, 1909 (Tom Spalding).

**albiciliatus** Smith, **Yrias**

1903, Trans. Amer. Ent. Soc., vol. 29, p. 215.

Type female, Colorado Desert, Yuma County, Arizona.

**albicinerea** Smith, **Rancora**

1903, Canadian Ent., vol. 35, p. 137.

Type male, head of Pine Creek, Calgary, Alberta, April 28, 1895 (Dod); cotype male, Boucher, Saskatchewan, end of April, 1897. According to the original description, Boucher is in Manitoba, but the locality is as given on the label.

**albinacula** Barnes and McDunnough, **Namangana**

1912, Contributions to the natural history of the Lepidoptera of North America, vol. 1, no. 5, p. 20.

Cotype male, Provo, Utah, August 1, 1909 (Tom Spalding).

**albinuda** Smith, **Scotogramma**

1903, Jour. New York Ent. Soc., vol. 11, p. 19.

Cotype female, Rama, Labrador, 1899 (A. Strecker, J. D. Sornborger).

**albipuncta** Barnes and McDunnough, **Cerma**

1910, Jour. New York Ent. Soc., vol. 18, p. 155.

Cotype male, San Diego, California, October 8–15.

**albipuncta** Smith, **Platysenta**

1902, Jour. New York Ent. Soc., vol. 10, p. 46.

Type male, Harris County, Texas; cotype male, Colorado Springs, Colorado, August 5.

**albiserrata** Smith, **Hadena (Xylophasia)**

1903, Jour. New York Ent. Soc., vol. 11, p. 8.

Type male, Pullman, Washington, September 19, 1896 (C. V. Piper), Washington Experiment Station No. 639; type female, same data.

**albisinuatus** Smith, **Simplicia**

1905, Canadian Ent., vol. 37, p. 71.

Type male, Cochise County, Arizona; type female, same data, July 4, 1904.

**alboplagiata** Smith, **Tristyla**

1893, Insect Life, vol. 5, p. 332.

Type female, Argus Mountains, April, 1891 (K.).

**alcandola** Smith, *Rhychagrotis*

1908, Canadian Ent., vol. 40, p. 288.

Type female, Minnehaha, Yavapai County, Arizona, October 4.

**alcesta** Smith, *Euxoa*

1905, Jour. New York Ent. Soc., vol. 13, p. 196.

Type male, Stockton, Utah, September 5, 1904; type female, same data, September 9, 1904; cotypes, two males and two females, same data, September 4, 9, 18, 1904, September 23, 1903.

**aleada** Smith, *Faronta*

1908, Ann. New York Acad. Sci., vol. 18, p. 107.

Cotype female, Bragos, Texas.

**alensa** Smith, *Schinia*

1906, Jour. New York Ent. Soc., vol. 14, p. 26.

Type male, southern Arizona, August 1-15 (Poling); type female, same data.

**alessandra** Smith, *Acontia*

1903, Trans. Amer. Ent. Soc., vol. 29, p. 212.

Type male, Stockton, Utah, October; cotype male, Huachuca Mountains, Arizona.

**algula** Smith, *Stretchia*

1911, Jour. New York Ent. Soc., vol. 19, p. 148.

Type male, Arrowhead Lake, British Columbia; two paratype females, same data.

**allecto** Smith, *Hadena*

1899, Canadian Ent., vol. 31, p. 260.

Cotype male, Brandon, Manitoba; cotype male, South Dakota.

**altera** Smith, *Tornacontia*

1903, Trans. Amer. Ent. Soc., vol. 29, p. 209.

Type male, Hot Springs, New Mexico, 7000 feet altitude; type female, southern Arizona (Poling).

**alticola** Smith, *Agrotis*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 51.

Type male and type female, Sierra Nevada, California.

**altua** Smith, *Mamestra*

1901, Trans. Amer. Ent. Soc., vol. 27, p. 236.

Type male, Glenwood Springs, Colorado; cotype female, Glenwood Springs, Colorado, July.

**alurina** Smith, *Taeniocampa*

1902, Jour. New York Ent. Soc., vol. 10, p. 47.

Type male, Chicago, Illinois, April 27.

**amia** Dyar, *Noctua*

1903, Proc. Ent. Soc. Washington, vol. 5, p. 224.

Cotype female, Williams, Arizona, type No. 6728, United States National Museum.

**anacosta** Smith, *Euxoa*

1905, Jour. New York Ent. Soc., vol. 13, p. 196.

Type male, Stockton, Utah, September 22, 1904; type female, same data, September 9, 1904; cotypes, male and female, same data, September 18, October 2, 1904.

**ancilla** Smith, *Xylina*

1904, Psyche, vol. 11, p. 57.

Type male, Cartwright, Manitoba, October 6, 1901; type female, Wellington, British Columbia, April 11.

**andera** Smith, *Euxoa*

1910, Jour. New York Ent. Soc., vol. 18, p. 89.

Type male, Santa Catalina Mountains, Pinal County, Arizona, September; type female, Redington, Arizona; cotypes, two males and two females, Stockton, Utah, September 24, 26, 1903, October 2, 1904 (Tom Spalding).

**andrena** Smith, *Perigea*

1911, Jour. New York Ent. Soc., vol. 19, p. 135.

Type male, San Diego, California, 11-2-08 (George H. Field).

**angelica** Smith, *Copibryophila*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 416.

Cotype male, Los Angeles County, California, October; cotypes, male and female, California.

**angelica** Smith, *Heliodes*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 484.

Cotypes, two females, Los Angeles County, California, May.

**angelicus** Smith, *Cobalus*

1899, Jour. New York Ent. Soc., vol. 7, p. 223.

Cotype female, Los Angeles, California.

**angulata** Smith, *Perigonica*

1890, Ent. Amer., vol. 6, p. 124.



- Type male, Sierra Nevada, California.
- angulirena** Smith, **Euxoa**  
1910, Trans. Amer. Ent. Soc., vol. 36, p. 257.  
Type female, Colorado (Bruce).
- aniluna** Smith, **Acontia**  
1905, Jour. New York Ent. Soc., vol. 13, p. 209.  
Type female, Baboquivaria Mountains, Pima County, Arizona, July 15–30, 1903 (O. C. Poling); cotypes, two females, same data.
- annulimacula** Smith, **Taeniocampa**  
1891, Trans. Amer. Ent. Soc., vol. 18, p. 117.  
One male, labeled "type," without data except for 7/2.
- antapica** Smith, **Orthosia**  
1907, Trans. Amer. Ent. Soc., vol. 33, p. 134.  
Type male, Corvallis, Oregon, 11-3-1899; type female, Corfield, Vancouver.
- antennata** Barnes and McDunnough, **Eriopyga**  
1912, Contributions to the natural history of the Lepidoptera of North America, vol. 1, no. 4, p. 41.  
Cotype male, Redington, Arizona, photograph plate 19, No. 10 (1912, *op. cit.*, vol. 1, no. 4).
- antennata** Smith, **Meleneta**  
1908, Ann. New York Acad. Sci., vol. 18, p. 93.  
Type male, Huachuca Mountains, Arizona, July 30.
- anteroclara** Smith, **Leucania**  
1902, Proc. U. S. Natl. Mus., vol. 25, p. 200.  
Type female, mouth of Fish Creek, Calgary, Alberta, August 11, 1892 (F. H. Wolley Dod); cotypes, four males and one female, head of Pine Creek, Calgary, Alberta, June 25, 1896, July 5, 1896, August 3, 1897; cotype male, Livingston, Vancouver, 7-5-1896.
- antica** Smith, **Trichoclea**  
1891, Trans. Amer. Ent. Soc., vol. 18, p. 116.  
Type female, Los Angeles County, California, April.
- antonito** Barnes, **Mamestra**  
1907, Canadian Ent., vol. 39, p. 14.  
A male labeled "type" from south Arizona. However, the type was restricted by Barnes and McDunnough (1915, Canadian Ent., vol. 47, p. 20) to the male that was illustrated in "The Contributions to the natural history of the Lepidoptera of North America" (vol. 1, no. 4, p. 15, pl. 6, fig. 6, 1912). Accordingly this specimen must be a cotype.
- anxia** Smith, **Stylopoda**  
1908, Jour. New York Ent. Soc., vol. 16, p. 96.  
Type male, Fort Wingate, New Mexico, July 21; type female, same data, August 5.
- apicalis** Smith, **Eucalyptra**  
1903, Trans. Amer. Ent. Soc., vol. 29, p. 221.  
Type male, Hastings, Florida, June 24–30; type female, same data, September 22; cotypes, two males and three females, same data, September 21, 29, October 6.
- apicata** Smith, **Stretchia**  
1911, Jour. New York Ent. Soc., vol. 19, p. 147.  
Type male, San Diego, California, 11.
- areloides** Barnes and McDunnough, **Tarache**  
1912, Canadian Ent., vol. 44, p. 92.  
Cotype female, White Mountains, Arizona.
- argus** Smith, **Xylomiges**  
1909, Jour. New York Ent. Soc., vol. 17, p. 66.  
Type male, Witch Creek, California, February 14; type female, Argus Mountains, April, 1891 (K.); cotype female, Argus Mountains, May, 1891 (K.).
- arida** Smith, **Acontia**  
1900, Trans. Amer. Ent. Soc., vol. 27, p. 73.  
Cotypes, three males and one female, Argus Mountains, April, 1891 (K.).
- arizona** Smith, **Cucullia**  
1905, Jour. New York Ent. Soc., vol. 13, p. 206.  
Type female, Cochise County, Arizona, July.
- artesta** Smith, **Mamestra**  
1903, Trans. Amer. Ent. Soc., vol. 29, p. 197.  
Type female, Glenwood Springs, Colorado, 8-1-1894 (W. Barnes).
- ascula** Smith, **Mamestra**  
1905, Canadian Ent., vol. 37, p. 257.  
Type male, without locality data, but dated September 14, 1904; type female, no locality data, dated September 6, 1904; co-

type female, Stockton, Utah, September 9, 1904. According to the original description, the type locality is Stockton, Utah.

**astigma** Smith, *Copicucullia*

1894, Trans. Amer. Ent. Soc., vol. 21, p. 85.

Type male, Colorado (Bruce).

**atara** Smith, *Xylina*

1909, Jour. New York Ent. Soc., vol. 17, p. 62.

Three females from Redington, Arizona, each labeled "type."

**atincta** Smith, *Xylina*

1905, Jour. New York Ent. Soc., vol. 13, p. 206.

Type male, Cartwright, Manitoba, October 16, 1904; type female, same data, September 27, 1904; cotype female, same data, September 26, 1904.

**atlantica** Smith, *Hydroecia*

1899, Trans. Amer. Ent. Soc., vol. 26, p. 18.

Type male, without data.

**atoma** Smith, *Semiophora*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 126.

Type female, Lakehurst, New Jersey, September 27; cotype female, same data.

**atomaria** Smith, *Bomolocha*

1903, Trans. Amer. Ent. Soc., vol. 29, p. 216.

Type male, Volga, South Dakota; cotype male, South Dakota.

**atricincta** Smith, *Noctua*

1895, Ent. News, vol. 6, p. 333.

Type male, edge of Calgary, July 9, 1893, "type 2"; type female, same data, July 8, 1893, "type 3."

**atriluna** Smith, *Scolecocampa*

1903, Trans. Amer. Ent. Soc., vol. 29, p. 217.

Type female, Huachuca Mountains, Arizona.

**atrimacula** Smith, *Renia*

1910, Ent. News, vol. 21, p. 122.

Type male, Hampton, New Hampshire, July 26, 1908 (S. A. Shaw); type female, Sussex County, New Jersey, August 13.

**atristrigatus** Smith, *Anytus*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 460.

Cotype male, Texas.

**atrofusca** Smith, *Carneades*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 447.

Cotype male, Pullman, Washington, July 19, 1898, Washington Experiment Station No. 446; cotype female, Glenwood Springs, Colorado, August, 1892.

**atropulverea** Smith, *Carneades*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 428.

Cotype female, Denver, Colorado, October 18.

**audentis** Smith, *Carneades*

1894, Trans. Amer. Ent. Soc., vol. 21, p. 51.

Type female, Colorado (Bruce).

**avirida** Smith, *Bryophila*

1906, Jour. New York Ent. Soc., vol. 14, p. 10.

"Type male," Fort Collins, Colorado; this specimen is a female; type female, Cartwright, Manitoba, June 24-30.

**baboquavaria** Smith, *Oxycnemis*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 137.

Type male, Baboquavaria Mountains, Pima County, Arizona, July 15-30, 1903 (O. C. Poling); type female, same data.

**bairdii** Smith, *Noctua*

1908, Jour. New York Ent. Soc., vol. 16, p. 84.

Type female, High River, Alberta (Baird).

**balteata** Smith, *Oncocnemis*

1902, Jour. New York Ent. Soc., vol. 10, p. 43.

Type male, Poncha Springs, Colorado, July 14.

**balteata** Smith, *Tripudia*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 489.

Cotype female, Santa Rita Mountains, Arizona, June 16, 1895 (E. A. Schwarz).

**baranca** Barnes, *Tricholita*

1905, Canadian Ent., vol. 37, p. 195.

Type male, Kerrville, Texas; cotype female, Kerrville, Texas.

**barnesii** Smith, *Acronycta*

1898, Proc. U. S. Natl. Mus., vol. 21, p. 162.

Cotype male, Denver, Colorado (Bruce); cotype female, Colorado (Bruce).

**barnesii** Smith, *Hadena* (*Xylophasia*)

1899, Canadian Ent., vol. 31, p. 258.

Cotype male, Glenwood Springs, Colorado, September, 1895 (W. Barnes); cotype male, South Dakota; cotype female, Yellowstone Park, Wyoming.

**basiplaga** Smith, *Mamestra*

1905, Jour. New York Ent. Soc., vol. 13, p. 201.

Type male, Huachuca Mountains, Arizona; type female, same data; cotype female, Huachuca Mountains, Arizona.

**begallo** Barnes, *Catabena*

1905, Canadian Ent., vol. 37, p. 193.

Cotype male, Santa Catalina Mountains, Pinal County, Arizona. According to the original description, the type locality is southern Arizona, Pima County.

**belfragei** Smith, *Rhynchagrotis*

1890, Bull. U. S. Natl. Mus., vol. 38, p. 20.

A male labeled "type," from Texas, 4/6. As the type is in the United States National Museum (Smith, 1893, Bull. U. S. Natl. Mus., vol. 44, p. 53), this specimen may be a cotype.

**bethunei** Smith, *Phaeocyma*

1908, Proc. U. S. Natl. Mus., vol. 35, p. 260.

Type male, Tryon, North Carolina, April 19 (W. F. Fiske).

**betsia** Smith, *Fishia*

1905, Jour. New York Ent. Soc., vol. 13, p. 199.

Type male, Stockton, Utah, October 4, 1904.

**bialba** Smith, *Euxoa*

1905, Jour. New York Ent. Soc., vol. 13, p. 197.

Type male, Volga, South Dakota; cotype male, same data; cotypes, two females, Stockton, Utah, September 15, 1904, October 2, 1904.

**biformata** Smith, *Euxoa*

1910, Trans. Amer. Ent. Soc., vol. 36, p. 261.

Types, male and female, Sierra Nevada, California.

**bigallis** Smith, *Homopyralis*

1908, Ann. New York Acad. Sci., vol. 18, p. 125.

Type male, Huachuca Mountains, Arizona, July 30; type female, same data; cotype male, Hot Springs, New Mexico, 7000 feet altitude,

September; cotype female, Yavapai County, Arizona, August 8.

**binda** Barnes, *Grotella*

1907, Canadian Ent., vol. 39, p. 93.

A male from Rio Verde Mountains, Phoenix, Arizona, August, 1893 (W. Barnes), is labeled "type" in Barnes's writing. The lectotype was designated by Barnes and Benjamin (1922, Contributions to the natural history of the Lepidoptera of North America, vol. 5, p. 16) as a specimen in the Barnes collection. There is no mention of the above locality in the original description. However, Barnes and Benjamin have a similar specimen in their revision, and they treat it as a paratype. Hence it is possible that the specimen mentioned above may also be considered a paratype.

**bipartita** Smith, *Anepischetos*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 482.

Cotypes, two males, Key West, Florida.

**birnata** Smith, *Hadena* (*Luperina*)

1908, Ann. New York Acad. Sci., vol. 18, p. 113.

Type male, Newfoundland.

**blandula** Hulst, *Catocala*

1884, Bull. Brooklyn Ent. Soc., vol. 7, p. 38.

Two males, both labeled "type," one from New York, the other from Vermont.

**bonuscula** Smith, *Pleroma*

1898, Canadian Ent., vol. 30, p. 325.

Cotypes, two males, Glenwood Springs, Colorado, March, 1895 (W. Barnes), April 16-23.

**boretha** Smith, *Chorizagrotis*

1908, Jour. New York Ent. Soc., vol. 16, p. 86.

Type male, Kaslo, British Columbia, September 6, 1902.

**bostura** Smith, *Taeniocampa*

1908, Ann. New York Acad. Sci., vol. 18, p. 103.

Type male, British Columbia (Cockle).

**brevistriga** Smith, *Euxoa*

1910, Trans. Amer. Ent. Soc., vol. 36, p. 257.

Type male, Colorado (Bruce); paratype male, Colorado.



**brillians** Ottolengui, **Calocampa**

1902, Jour. New York Ent. Soc., vol. 10, p. 78.

Cotype male, Webster, New Hampshire, April 9.

**brucei** Smith, **Calocampa**

1892, Ent. News, vol. 3, p. 252.

Type male, Colorado (Bruce).

**brucei** Smith, **Rancora**

1903, Canadian Ent., vol. 35, p. 136.

Type male, Garfield County, Colorado, 6000 feet (Bruce).

**brucei** Smith, **Taeniocampa**

1910, Canadian Ent., vol. 42, p. 319.

Type male, Denver, Colorado, April 20. The genitalia have been mounted on a slide by Smith.

**brunneicrista** Smith, **Hyppa**

1902, Canadian Ent., vol. 34, p. 31.

Type male, head of Pine Creek, Calgary, Alberta, June 22, 1898 (F. H. Wolley Dod); type female, same data, July 2, 1899.

**bultata** Smith, **Hadena**

1906, Canadian Ent., vol. 38, p. 228.

Type male, Glenwood Springs, Colorado, July 16-23; type female, same data.

**buta** Smith, **Schinia**

1907, Trans. Amer. Ent. Soc., vol. 33, p. 131.

Type male, Los Angeles County, California.

**cacola** Smith, **Acontia**

1907, Trans. Amer. Ent. Soc., vol. 33, p. 141.

Type male, southern Arizona, August 15; cotype male, southern Arizona (Poling); cotype male, Ckll. 800. According to the original description, the locality for the last-mentioned specimen is New Mexico.

**caesarea** Smith, **Acronycta**

1905, Jour. New York Ent. Soc., vol. 13, p. 191.

Type male, Essex County, New Jersey, May 20 (W. D. Kearfott).

**calgariana** Smith, **Leucania**

1902, Proc. U. S. Natl. Mus., vol. 25, p. 201.

Cotypes, male and female, head of Pine Creek, Calgary, Alberta, June 25, 1897, July 15, 1896 (F. H. Wolley Dod).

**calgary** Smith, **Noctua**

1898, Jour. New York Ent. Soc., vol. 6, p. 101.

Type male, Calgary, Alberta, June 26, 1895.

**caloramica** Barnes and McDunnough, **Monima**

1911, Jour. New York Ent. Soc., vol. 19, p. 156.

Cotypes, two females, Redington, Arizona.

**calpota** Smith, **Leucania**

1908, Jour. New York Ent. Soc., vol. 16, p. 95.

Type male, Harris County, Texas; type female, same data; cotypes, six males and one female, same data.

**camina** Smith, **Eupanychis**

1906, Jour. New York Ent. Soc., vol. 14, p. 28.

Type female, Hampton, New Hampshire, 2164, W. and F.

**camina** Smith, **Platyperigea**

1894, Trans. Amer. Ent. Soc., vol. 21, p. 60.

Type male, Colorado (Bruce).

**caminalis** Smith, **Hypenula**

1905, Canadian Ent., vol. 37, p. 70.

Type male, Cochise County, Arizona, July; type female, same data.

**campanilis** Smith, **Phurys**

1905, Canadian Ent., vol. 37, p. 68.

Type male, Chokaloskee, Florida.

**cansa** Smith, **Pseudacontia**

1908, Ann. New York Acad. Sci., vol. 18, p. 119.

Type male, Hamilton County, Kansas, 3350 feet (F. H. Snow); type female, same data.

**capota** Smith, **Euxoa**

1908, Ann. New York Acad. Sci., vol. 18, p. 98.

Cotypes, two females, Palmerlee, Cochise County, Arizona, July.

**cariosus** Smith, **Carneades**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 449.

Cotype male, Pullman, Washington, July 24, 1898.

**carissima** Hulst, **Catocala cara**

1880, Bull. Brooklyn Ent. Soc., vol. 2, p. 97.

Types, one male and two females, Florida.

**carminata** Smith, **Taeniocampa**

1890, Ent. Amer., vol. 6, p. 121.

Type male, Colorado (Bruce).

**carminatra** Smith, **Pseudotamila**

1903, Trans. Amer. Ent. Soc., vol. 29, p. 207.

Type male, Colorado, 6000 feet (Mason); type female, same data; cotype female, same data.

**carolina** Smith, **Phurys**

1905, Canadian Ent., vol. 37, p. 68.

Type male, North Carolina, August; type female, same data.

**carolinensis** Barnes and McDunnough, **Lygranthoecia**

1911, Jour. New York Ent. Soc., vol. 19, p. 152.

Cotype female, Southern Pines, North Carolina, August 16-23.

**castrae** Barnes and McDunnough, **Scotogramma**

1912, Contributions to the natural history of the Lepidoptera of North America, vol. 1, no. 5, p. 11.

Cotype female, Fort Wingate, New Mexico, August 16-23.

**catalina** Smith, **Hadena**

1899, Canadian Ent., vol. 31, p. 261.

Type female, Catalina Springs, Arizona, April 10, 1898 (E. A. Schwarz); cotype male, same data, 8-4 (Hubbard and Schwarz).

**catalina** Smith, **Thalpochares**

1906, Jour. New York Ent. Soc., vol. 14, p. 29.

Type male, Yuma County, Arizona, April 19 (Hutson); type female, Tucson, Arizona, May 13-14, 1898.

**centralis** Smith, **Xylophasia**

1890, Proc. U. S. Natl. Mus., vol. 13, p. 441.

Types, two males, Sierra Nevada, California.

**cerivana** Smith, **Hadena**

1900, Canadian Ent., vol. 32, p. 220.

Cotype male, Calgary, Alberta, June 21, 1895 (F. H. W. Dod); cotype female, Calgary, Canada, June 23, 1897; cotype female, without locality data, but dated June 20, 1897.

**cervina** Smith, **Mamestra**

1898, Ent. News, vol. 9, p. 247.

Cotype male, Winnipeg, Manitoba.

**cervina** Smith, **Perigea**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 475.

Type female, Florida.

**cervinea** Smith, **Euxoa**

1910, Trans. Amer. Ent. Soc., vol. 36, p. 262.

Type male, Bozeman, Montana, August 31, 1907; type female, Vancouver, British Columbia, August 16, 1906 (A. N. Bush); paratype male, Bozeman, Montana, August 8, 1908; paratype male, Banff, "British Columbia," August 10, 1906.

**chipeta** Barnes, **Tricholita**

1904, Canadian Ent., vol. 36, p. 202.

Type male, Glenwood Springs, Colorado, October 1-7.

**chunka** Smith, **Mamestra**

1910, Trans. Amer. Ent. Soc., vol. 36, p. 265.

Type male, Aweme, Manitoba, May 13, 1906 (Criddle); cotype male, Aweme, Manitoba, May 20, 1905.

**ciliata** Smith, **Oncocnemis**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 478.

Cotype female, Colorado Desert (Edwards).

**cincta** Smith, **Kakopoda**

1900, Jour. New York Ent. Soc., vol. 8, p. 176.

Type male, Biscayne Bay, Florida.

**cinderella** Smith, **Acronycta**

1898, Proc. U. S. Natl. Mus., vol. 21, p. 64.

Cotype female, without locality data.

**cinderella** Smith, **Raphia**

1903, Trans. Amer. Ent. Soc., vol. 29, p. 193.

Type male, Los Angeles County, California; cotype male, California, May.

**cinerea** Smith, **Epidemas**

1894, Trans. Amer. Ent. Soc., vol. 21, p. 41.

Type male, Glenwood Springs, Colorado, October, 1892 (W. Barnes); type female, same data.

**cinerea** Smith, **Pleroma**

1904, Psyche, vol. 11, p. 56.

Type male, Corvallis, Oregon, October 11, 1898.

**cinereola** Smith, **Selicanis**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 481.

Cotype male, Glenwood Springs, Colorado, October, 1892 (W. Barnes); cotype female, Denver, Colorado, October 12.

**cinereopallidus** Smith, **Carneades**

1903, Canadian Ent., vol. 25, p. 10.

Type male, Stockton, Utah, October; type female, same data.

**circumcincta** Smith, **Mamestra**

1891, Proc. U. S. Natl. Mus., vol. 14, p. 253.

Type male, Sierra Nevada, California.

**circumlucens** Smith, **Hydroecia**

1899, Trans. Amer. Ent. Soc., vol. 26, p. 43.

Cotype male, without data.

**circumvadis** Smith, **Mamestra**

1902, Jour. New York Ent. Soc., vol. 10, p. 42.

Type female, head of Pine Creek, Calgary, Alberta, July 21, 1900 (F. H. W. Dod).

**citronella** Smith, **Neleucania**

1902, Proc. U. S. Natl. Mus., vol. 25, p. 206.

Type male, Glenwood Springs, Colorado, August 16-23; cotype female, Denver, Colorado, July 13.

**claromonta** Smith, **Euxoa**

1906, Jour. New York Ent. Soc., vol. 14, p. 11.

Type male, Claremont, California (Baker); type female, same data; cotype male, same data, no collector's name.

**clemens** Smith, **Agrotis**

1890, Trans. Amer. Ent. Soc., vol. 17, p. 44.

Type female, California.

**cocklei** Smith, **Euxoa**

1908, Ann. New York Acad. Sci., vol. 18, p. 96.

Type male, Kaslo, British Columbia (J. W. Cockle); type female, same data; cotype female, Victoria, British Columbia, July 19, 1905 (G. W. Taylor).

**cognata** Smith, **Xylomiges**

1894, Trans. Amer. Ent. Soc., vol. 21, p. 78.

Type male, Oregon.

**collocata** Smith, **Carneades**

1894, Trans. Amer. Ent. Soc., vol. 21, p. 50.

Type female, Glenwood Springs, Colorado, August, 1894 (W. Barnes).

**colorado** Smith, **Oncocnemis**

1893, Ent. News, vol. 4, p. 100.

Type male, Park County, Colorado.

**colorado** Smith, **Phaeocyma**

1908, Proc. U. S. Natl. Mus., vol. 35, p. 263.

Type male, Glenwood Springs, Colorado, May 1-7; type female, same locality, May; cotype male, H. G. Dyar No. 5694; cotype female, Texas.

**colorado** Smith, **Scopelosoma**

1903, Jour. New York Ent. Soc., vol. 11, p. 21.

Type male, Glenwood Springs, Colorado, October 1, 1895 (W. Barnes); cotype male, same data, April 20, 1894 (W. Barnes). There is a single slide of the male genitalia, and the type male is without an abdomen. The preparation is undoubtedly that of the type, and the slide of *walkeri*, with which it was compared in the original description, is also present.

**columbiana** Smith, **Feralia**

1903, Canadian Ent., vol. 35, p. 9.

Type male, New Westminster, British Columbia, 1896.

**consors** Smith, **Perigea**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 477.

Type female, Phoenix, Arizona (W. Barnes).

**conspicua** Smith, **Drasteria**

1900, Canadian Ent., vol. 32, p. 224.

Cotype male, Calgary, Alberta, June 16, 1898 (F. H. W. Dod); cotype female, same data, May 29, 1898.

**contagionis** Smith, **Carneades**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 421.

Type female, Glenwood Springs, Colorado, 8-7-1893 (W. Barnes); cotype male, Colorado, 2763.

**corrodora** Smith, **Noctua**

1910, Jour. New York Ent. Soc., vol. 18, p. 85.

Type male, Pullman, Washington (C. V. Piper); cotype female, Reno, Nevada.

**costiplaga** Smith, **Caradrina**

1908, Jour. New York Ent. Soc., vol. 16, p. 92.

Type male, Minnehaha, Yavapai County, Arizona, August 27; type female, Colorado Desert, Yuma County, Arizona.

**crassipes** Smith, **Podagra**

1902, Jour. New York Ent. Soc., vol. 10, p. 48.

Type female, Yuma County, Arizona, March; cotype male, Yuma County, Arizona, March; cotype male, Walters Station, California, April.

**cresina** Smith, **Melicleptria**

1906, Jour. New York Ent. Soc., vol. 14, p. 17.

Type female, Los Angeles County, California, April.

**criddlei** Smith, **Euxoa**

1908, Ann. New York Acad. Sci., vol. 18, p. 97.

Type male, Aweme, Manitoba, September 4, 1904 (Criddle); type female, same data, August 25, 1906.

**curema** Smith, **Phaeocyma**

1908, Proc. U. S. Natl. Mus., vol. 35, p. 250.

Type male, Centre, New York, May 14, 1877 (Dr. J. S. Bailey); type female, Pennsylvania.

**curtica** Smith, **Taeniocampa**

1890, Ent. Amer., vol. 6, p. 122.

Types, male and female, Sierra Nevada, California.

**curvifascia** Smith, **Dryobota**

1891, Trans. Amer. Ent. Soc., vol. 18, p. 109.

Type male, Sierra Nevada, California; type female, same data.

**cuta** Smith, **Acontia**

1905, Jour. New York Ent. Soc., vol. 13, p. 211.

Type female, Baboquavaria Mountains, Pima County, Arizona, July 15-30, 1903 (O. C. Poling); cotype female, same data.

**dakota** Smith, **Carneades**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 442.

Cotype male, Dakota.

**davena** Smith, **Mamestra**

1901, Trans. Amer. Ent. Soc., vol. 27, p. 237.

Cotypes, two males and one female, Sierra Nevada, California; cotype female, Siskiyou, California, September 2.

**dejecta** Strecker, **Catocala**

1880, Bull. Brooklyn Ent. Soc., vol. 2, p. 97.

Type male, Nebraska.

**delicata** Barnes and McDunnough, **Amolita**

1912, Contributions to the natural history of the Lepidoptera of North America, vol. 1, no. 4, p. 51.

Cotypes, male and female, White Mountains, Arizona.

**delorata** Smith, **Porosagrotis**

1908, Jour. New York Ent. Soc., vol. 16, p. 87.

Type male, High River, Alberta (Baird).

**demutabilis** Smith, **Peridroma**

1893, Insect Life, vol. 5, p. 328.

Type female, Granite Springs, San Bernardino County, California, April 6, 1891.

**dentilinea** Smith, **Xylina**

1899, Jour. New York Ent. Soc., vol. 7, p. 229.

Type female, without data, but with No. 506; cotypes, two females, Garfield County, Colorado, 6000 feet (D. Bruce), and Denver, Colorado, at light.

**denvera** Smith, **Acronycta**

1905, Jour. New York Ent. Soc., vol. 13, p. 189.

Type male, Denver, Colorado; type female, same data, July 1-7.

**dernarius** Smith, **Setagrotis**

1907, Trans. Amer. Ent. Soc., vol. 33, p. 128.

Type female, Easton, Washington.

**didonea** Smith, **Hadena**

1894, Trans. Amer. Ent. Soc., vol. 21, p. 58.

Type female, Glenwood Springs, Colorado, August, 1892 (W. Barnes).

**diffusa** Smith, **Schinia**

1891, Trans. Amer. Ent. Soc., vol. 18, p. 125.

Type male, Colorado (Bruce).

**digitalis** Smith, **Schinia**

1891, Trans. Amer. Ent. Soc., vol. 18, p. 128.

Type male, Dallas, Texas.



**dimidata** Smith, *Acontia*

1905, Jour. New York Ent. Soc., vol. 13, p. 208.

Type male, Redington, Arizona.

**diminuendis** Barnes and McDunnough, *Camptylchila*

1918, Contributions to the natural history of the Lepidoptera of North America, vol. 4, p. 126.

"Type" male, New Brighton, Pennsylvania, July 21, 1905 (H. D. Merrick). This is a Smith manuscript name validated by Barnes and McDunnough after Smith's death; the "type" female is in the collection of the United States National Museum. The type labels are in Smith's handwriting, and do not state that Barnes and McDunnough are the authors. A subsequent reviser of this group must settle the question of the status of the primary types for this species.

**dinalda** Smith, *Homohadena*

1908, Jour. New York Ent. Soc., vol. 16, p. 94.

Type male, W., July 19, 1897. The abbreviation is probably for Winnipeg, Manitoba.

**dionea** Smith, *Hadena* (*Xylophasia*)

1899, Canadian Ent., vol. 31, p. 258.

Cotype male, Volga, South Dakota; cotype male, South Dakota.

**discistriga** Smith, *Lythrodus*

1903, Trans. Amer. Ent. Soc., vol. 29, p. 207.

Type male, Walters Station, California, April. There is also a second male labeled "type" from southern Arizona, April 1-15 (Poling); this may be the specimen from the second locality given in the original description and, if so, should be considered a cotype.

**discistriga** Smith, *Platyperigea*

1894, Trans. Amer. Ent. Soc., vol. 21, p. 61.

Type female, Glenwood Springs, Colorado, August, 1892 (W. Barnes).

**discolor** Smith, *Aplectoides*

1905, Jour. New York Ent. Soc., vol. 13, p. 193.

Type female, Inverness, British Columbia, July 16.

**discolor** Smith, *Cleoceris*

1904, Psyche, vol. 11, p. 55.

Type female, Taos, New Mexico, August 20.

**disconnecta** Smith, *Acontia*

1903, Trans. Amer. Ent. Soc., vol. 29, p. 212.

Type male, Huachuca Mountains, Arizona.

**dislocata** Smith, *Noctua*

1904, Canadian Ent., vol. 36, p. 149.

Type male, head of Pine Creek, Calgary, Alberta, July 15, 1899 (F. H. W. Dod); type female, Calgary, Alberta, July 8, 1899 (F. H. W. Dod); cotypes, two males, head of Pine Creek, Calgary, Alberta, July 14, 1899, July 21, 1903 (F. H. W. Dod).

**dissimilis** Barnes and McDunnough, *Nocloa*

1910, Jour. New York Ent. Soc., vol. 18, p. 157.

Cotype male, Redington, Arizona; cotype female, Santa Catalina Mountains, Arizona.

**dives** Smith, *Homoglaea*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 135.

Type female, Wellington, British Columbia, April 14.

**dobla** Smith, *Melicleptria*

1906, Jour. New York Ent. Soc., vol. 14, p. 19.

Type female, Doble, California, 4-3.

**dodii** Smith, *Mamestra*

1904, Canadian Ent., vol. 36, p. 152.

Type male, head of Pine Creek, Calgary, Alberta, July 8, 1902 (F. H. W. Dod); type female, same data, July 4, 1896; cotypes, two males, same data, June 27, 1896, June 22, 1898.

**dolens** Smith, *Setagrotis*

1906, Canadian Ent., vol. 38, p. 226.

Type male, Beulah, Manitoba, August 28, 1902; type female, Arrowhead Lake, British Columbia.

**dollii** Smith, *Plagiomimicus*

1908, Ann. New York Acad. Sci., vol. 18, p. 118.

Cotype male, Palmerlee, Cochise County, Arizona, August.

**drasteroides** Smith, *Caradrina*

1903, Canadian Ent., vol. 35, p. 13.

Type male, southern California.

**duanca** Smith, *Rhynchagrotis*

1908, Canadian Ent., vol. 40, p. 228.

Type male, Stockton, Utah, October 2, 1904; type female, same data, September 29, 1904; cotype female, same data, September 29, 1904.

**dupla** Smith, *Pseudanarta*

1908, Jour. New York Ent. Soc., vol. 16, p. 89.

Type male, South Park, Colorado.

**dusca** Smith, *Orthosia*

1908, Ann. New York Acad. Sci., vol. 18, p. 117.

Type male, Brandon, Manitoba; type female, Miniota, Manitoba; cotypes, two males and two females, Miniota, Manitoba, September 12, 24, August 4; cotype female, Winnipeg, Manitoba, August 23, 1900.

**ectrapela** Smith, *Mamestra*

1898, Ent. News, vol. 9, p. 249.

Type female, Agnes Lake, British Columbia, August 21, 6800 feet.

**edentata** Smith, *Feltia*

1902, Jour. New York Ent. Soc., vol. 10, p. 38.

Type male, Pullman, Washington, August 13, 1898.

**edictalis** Smith, *Carneades*

1893, Ent. News, vol. 4, p. 99.

Type male, Salida, Colorado, April 18, 1888 (Bruce).

**edilis** Smith, *Homopyralis*

1906, Canadian Ent., vol. 38, p. 237.

Type male, Minnehaha, Yavapai County, Arizona, August 24; type female, Yavapai County, Arizona, August 23; cotype male, Minnehaha, Yavapai County, Arizona, August 23; cotypes, two males, Yavapai County, Arizona, June 23, 27.

**edwardsii** Smith, *Melicleptria*

1906, Jour. New York Ent. Soc., vol. 14, p. 19.

Type female, Yellowstone Park, Wyoming, July, 1900 (Burrison).

**elata** Smith, *Setagrotis*

1898, Jour. New York Ent. Soc., vol. 6, p. 106.

Cotype male, Colorado, 565.

**elbea** Smith, *Raphia*

1908, Jour. New York Ent. Soc., vol. 16, p. 83.

Type male, Deming, New Mexico; type female, same data, July 8-15; cotypes, male

and female, Deming, New Mexico, the latter dated July 8-15.

**eldana** Smith, *Perigonica*

1911, Jour. New York Ent. Soc., vol. 19, p. 143.

Type male, southern Arizona, April 15-30 (Poling); paratypes, two females, same data; paratype female, Gila County, Arizona, May 15-30 (O. Poling).

**eldora** Smith, *Acronycta*

1905, Jour. New York Ent. Soc., vol. 13, p. 189.

Type male, Glenwood Springs, Colorado, August 1-7; type female, same data, July 16-23; cotype female, Denver, Colorado, June 20.

**electa** Smith, *Demas*

1911, Jour. New York Ent. Soc., vol. 19, p. 134.

Type female, Winnipeg, Manitoba, May 31, 1909 (J. B. Wallis).

**electra** Smith, *Ufeus*

1908, Ann. New York Acad. Sci., vol. 18, p. 99.

Type female, Oregon.

**elingua** Smith, *Manruta*

1903, Trans. Amer. Ent. Soc., vol. 29, p. 205.

Type male, Phoenix, Arizona, November 19.

**elisabeta** Smith, *Acronycta*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 125.

Type male, North Elizabeth, New Jersey, August, 1906 (H. H. Brehme).

**emaculata** Smith, *Acronycta*

1898, Proc. U. S. Natl. Mus., vol. 21, p. 158.

Type male, Calgary, Alberta, 1394 A.H.

**emarginata** Smith, *Xylina*

1900, Trans. Amer. Ent. Soc., vol. 27, p. 28.

Cotype male, Glenwood Springs, Colorado, October 1-7.

**endiva** Smith, *Tricholita*

1911, Jour. New York Ent. Soc., vol. 19, p. 14.

Type male, Santa Catalina Mountains, Arizona, September; type female, Yavapai County, Arizona, September 13 (O. Buchholz); paratype male, Yavapai County, Arizona, September 14 (O. Buchholz); paratype female, Fort Wingate, New Mexico, August 28.

**enigra** Smith, *Xylophasia*

1904, *Psyche*, vol. 11, p. 54.

Type male, head of Pine Creek, Calgary, Alberta, July 3, 1903 (F. H. Wolley Dod).

**ensina** Barnes, *Oligia*

1907, *Canadian Ent.*, vol. 39, p. 12.

Female, Huachuca Mountains, Arizona, labeled "type." However, the type male is illustrated by Barnes and McDunnough (1912, *Contributions to the natural history of the Lepidoptera of North America*, vol. 1, no. 4, p. 15, pl. 6, fig. 14), so the present specimen cannot be the type.

**epictata** Smith, *Euxoa*

1907, *Trans. Amer. Ent. Soc.*, vol. 33, p. 130.

Types, male and female, southern Arizona, April 15–30; cotypes, one male and two females, same data; cotype male, same data, July 1–15; cotype female, same data, without date.

**erebus** Smith, *Tricholita*

1911, *Jour. New York Ent. Soc.*, vol. 19, p. 142.

Type male, Chiricahua Mountains, Arizona; paratype female, same data.

**erica** Smith, *Hadena*

1905, *Canadian Ent.*, vol. 37, p. 258.

Type male, no data except June 15, 1904; type female, Stockton, Utah, July 22, 1903 (Tom Spalding); cotypes, two males and one female, Stockton, Utah, June 23, 30, 1903 (Tom Spalding); cotypes, one male and two females, no data, but dated July 1, 2, 8, 1904.

**ernesta** Smith, *Schinia*

1907, *Trans. Amer. Ent. Soc.*, vol. 33, p. 131.

Type male, Garfield County, Colorado, 5000 feet (Bruce).

**erosa** Smith, *Schinia*

1906, *Jour. New York Ent. Soc.*, vol. 14, p. 23.

Type male, Utah; type female, Phoenix, Arizona, September 24.

**espea** Smith, *Schinia*

1908, *Ann. New York Acad. Sci.*, vol. 18, p. 119.

Type female, Marco, Florida, September.

**esta** Smith, *Euxoa*

1906, *Canadian Ent.*, vol. 38, p. 227.

Type male, Wellington, British Columbia, August 14, 1903 (Theo. Bryant); type female, Wellington, British Columbia, September 13, 1902.

**eudryada** Smith, *Acontia*

1905, *Jour. New York Ent. Soc.*, vol. 13, p. 210.

Type female, southern Arizona, August 15–30 (Poling).

**euta** Smith, *Oncocnemis*

1903, *Jour. New York Ent. Soc.*, vol. 11, p. 11.

Type female, Utah Territory.

**excogita** Smith, *Carneades*

1900, *Proc. U. S. Natl. Mus.*, vol. 22, p. 423.

Cotype male, Glenwood Springs, Colorado, July 3, 1894 (W. Barnes); cotype female, same data, August, 1892.

**exhausta** Smith, *Hadena*

1903, *Trans. Amer. Ent. Soc.*, vol. 29, p. 194.

Type male, Schenectady, New York (Lintner); type female, New Windsor, New York, September 29, 1893.

**exhilarata** Smith, *Fishia*

1903, *Trans. Amer. Ent. Soc.*, vol. 29, p. 202.

Type male, Pullman, Washington, October 10, 1894; type female, same data, October 15, 1894; cotypes, male and female, Glenwood Springs, Colorado, September 16–23, October, 1894 (W. Barnes); cotype female, Pullman, Washington, October 10, 1894.

**exserta** Smith, *Renia*

1909, *Jour. New York Ent. Soc.*, vol. 17, p. 70.

Type male, Trenton, Ontario, August 11, 1907 (Evans).

**extensa** Smith, *Luperina*

1905, *Jour. New York Ent. Soc.*, vol. 13, p. 203.

Type male, Regina, July 28, 1902 (T. N. Willing).

**extranea** Smith, *Oncocnemis*

1894, *Trans. Amer. Ent. Soc.*, vol. 21, p. 68.

Type male, Colorado (Bruce).

**exuberans** Smith, *Noctua*

1895, *Jour. New York Ent. Soc.*, vol. 6, p. 103.

Cotype male, Glenwood Springs, Colorado, July, 1895 (W. Barnes).

**factoris** Smith, **Carneades**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 456.

Cotype female, Glenwood Springs, Colorado, 7-10, 1894 (W. Barnes); cotype female, same data, August, 1892.

**falerina** Smith, **Carneades**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 429.

Type male, Glenwood Springs, Colorado, August, 1894.

**falles** Smith, **Aplectoides**

1905, Jour. New York Ent. Soc., vol. 13, p. 192.

Type male, Calgary, Alberta, July 2, 1896.

**fascia** Smith, **Cerma**

1903, Jour. New York Ent. Soc., vol. 11, p. 190.

Type female, Doble, California, August 1.

**fasciata** Smith, **Copipanolis**

1892, Proc. U. S. Natl. Mus., vol. 15, p. 62.

Two males, both labeled "type," one without data, the other labeled "Texas."

**felicita** Smith, **Baptarma**

1904, Psyche, vol. 11, p. 59.

Type male, Yuma County, Arizona, April 14; type female, same data; cotype female, same data.

**ferens** Smith, **Xylophasia**

1903, Canadian Ent., vol. 35, p. 134.

Type male, head of Pine Creek, Calgary, Alberta, July 20, 1902 (F. H. Wolley Dod).

**ferida** Smith, **Hadena**

1908, Ann. New York Acad. Sci., vol. 18, p. 115.

Type female, Newfoundland.

**fermata** Smith, **Perigonica**

1911, Jour. New York Ent. Soc., vol. 19, p. 144.

Types, male and female, San Diego, California, March; paratypes, two males, same data.

**ferricasta** Smith, **Schinia**

1906, Jour. New York Ent. Soc., vol. 14, p. 22.

Cotype male, Huachuca Mountains, Arizona; cotype male, Baboquivaria Mountains, Pima County, Arizona, July 15-30, 1903 (O. C. Poling).

**ferricola** Smith, **Leucania**

1905, Jour. New York Ent. Soc., vol. 13, p. 203.

Type male, Cochise County, Arizona, July.

**ferruginea** Smith, **Anticarsia**

1900, Jour. New York Ent. Soc., vol. 8, p. 174.

Type female, Florida.

**fervida** Barnes and McDunnough, **Scotogramma**

1912, Contributions to the natural history of the Lepidoptera of North America, vol. 1, no. 5, p. 10.

Cotypes, male and female, Fort Wingate, New Mexico, July 16-23.

**filaria** Smith, **Egrylon**

1900, Jour. New York Ent. Soc., vol. 8, p. 177.

Type female, Biscayne Bay, Florida.

**filiis** Smith, **Setagrotis**

1907, Trans. Amer. Ent. Soc., vol. 33, p. 127.

Type male, Pullman, Washington, August 21, 1897 (C. V. Piper).

**finitima** Smith, **Pleonectyptera**

1893, Insect Life, vol. 5, p. 333.

Two males, both labeled "type," one from Los Angeles County, California, October; the other, from Argus Mountains, April, 1891 (K.), through C. V. Riley.

**flagrantis** Smith, **Oncocnemis**

1893, Insect Life, vol. 5, p. 330.

Type male, Argus Mountains, April, 1891 (K.), through C. V. Riley.

**flanda** Smith, **Anarta**

1908, Ann. New York Acad. Sci., vol. 18, p. 111.

Types, male and female, Newfoundland; cotypes, five males and five females, same data.

**flaviannula** Smith, **Taeniocampa**

1899, Jour. New York Ent. Soc., vol. 7, p. 225.

Cotype male, Glenwood Springs, Colorado, April 20, 1894 (W. Barnes).

**flavicosta** Smith, **Conacontia**

1900, Trans. Amer. Ent. Soc., vol. 27, p. 58.

Cotype male, Hot Springs, New Mexico, 7000 feet altitude; cotypes, two males, Montana; cotype male, Colorado (Bruce);



cotype female, no data, *ex* collection G. D. Hulst.

**flavidenta** Smith, *Melicleptria*

1906, Jour. New York Ent. Soc., vol. 14, p. 20.

Type male, Utah, July, 1900 (Barnes).

**flavistriga** Smith, *Perigea*

1905, Jour. New York Ent. Soc., vol. 13, p. 204.

Type female, Lethbridge, Alberta, July 11, 1906 (T. N. Willing).

**flavoscapula** Smith, *Carneades*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 422.

Cotype male, New Mexico.

**fletcheri** Smith, *Brephos*

1907, Canadian Ent., vol. 39, p. 370.

Type male, Goldstream, British Columbia, March 23, 1902 (E. M. Anderson); male genitalia mounted on slide No. 3447 by F. H. Rindge.

**fletcheri** Smith, *Xylina*

1904, Psyche, vol. 11, p. 56.

Types, male and female, Ottawa, Ontario, October, 1903.

**floramina** Smith, *Euxoa*

1905, Canadian Ent., vol. 37, p. 202.

Type male, Stockton, Utah, September 14, 1904; type female, same data, September 15, 1904; cotypes, two males and two females, same data, September 24, 1903, September 14, 25, 1904.

**floridana** Smith, *Tetanolita*

1895, Bull. U. S. Natl. Mus., vol. 48, p. 63.

A male, labeled "type," from Archer, Florida, 7-3-82 (A. Koebele). However, the types are in the United States National Museum, so the present specimen must be a cotype.

**flosca** Smith, *Himella*

1906, Canadian Ent., vol. 38, p. 231.

Types, male and female, Huachuca Mountains, Arizona; cotype male, same data.

**flutea** Smith, *Euxoa*

1910, Trans. Amer. Ent. Soc., vol. 36, p. 255.

Type female, California; paratype female, Sierra Nevada, California.

**focinus** Smith, *Carneades*

1903, Jour. New York Ent. Soc., vol. 11, p. 7.

Type male, Glenwood Springs, Colorado, August, 1895 (W. Barnes); type female, Pullman, Washington, August 12, 1899 (C. V. Piper); cotype female, Sierra Nevada, California; cotype female, Pullman, Washington, July 24, 1898, Washington Experiment Station No. 383; cotype female, Calgary, Alberta (Dod).

**foeminalis** Smith, *Carneades*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 454.

Cotype male, Garfield County, Colorado (Bruce).

**formica** Smith, *Orthosia*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 134.

Type male, southern California.

**fractilinea** Smith, *Thalpochares*

1908, Ann. New York Acad. Sci., vol. 19, p. 125.

Type male, no data; type female, New Brighton, Pennsylvania, August 14, 1903 (H. D. Merrick); cotype male, same data, August 12, 1904.

**fractura** Smith, *Taeniocampa*

1906, Canadian Ent., vol. 38, p. 232.

Type male, Huachuca Mountains, Arizona; cotype female, same data.

**francisca** Smith, *Scotogramma*

1910, Jour. New York Ent. Soc., vol. 18, p. 96.

Type male, San Francisco, California, 10-4-08 (F. X. Williams).

**fraterna** Smith, *Campometra*

1899, Proc. U. S. Natl. Mus., vol. 22, p. 104.

Type female, Catalina Springs, Arizona, May 5 (E. A. Schwarz); cotype female, Arizona.

**frigida** Smith, *Acronycta*

1898, Proc. U. S. Natl. Mus., vol. 21, p. 54.

Cotype female, Sierra Nevada, California.

**fringata** Smith, *Taeniocampa*

1908, Ann. New York Acad. Sci., vol. 18, p. 104.

Types, male and female, Monterey County, California, March; two cotype males, same data.

**fulata** Smith, *Tetanolita*

1909, Jour. New York Ent. Soc., vol. 17, p. 69.

Type male, New Brighton, Pennsylvania, September 19, 1901 (H. D. Merrick); type female, Quincy, Illinois, September 1-15 (Poling); cotype male, Highspire, Pennsylvania, June 22.

**fulda** Smith, *Carneades*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 437.

Cotype female, Alameda County, California, September.

**fulcalis** Smith, *Chytolita*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 143.

Type male, Tennessee, 8-1.

**fuliginosa** Smith, *Stibadium*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 140.

Type male, Walters Station, California, April 20.

**fulminans** Smith, *Perigonica*

1890, Ent. Amer., vol. 6, p. 124.

Type female, Colorado (D. Bruce).

**fumata** Smith, *Spragueia*

1905, Canadian Ent., vol. 37, p. 259.

Type male, Verdi, Nevada, June 20-30 (A. H. Vachell); type female, same data, June 1-10; cotypes, two males, same data, June 1-10, June 29-30.

**furcata** Smith, *Hydroecia*

1899, Trans. Amer. Ent. Soc., vol. 26, p. 46.

"Type female," Volga, South Dakota. According to the original description, Smith had five males when he described this species, so the status of this specimen is dubious.

**furtiva** Smith, *Feralia*

1909, Jour. New York Ent. Soc., vol. 17, p. 57.

Type female, Sudbury, Ontario, 1891.

**fusimacula** Smith, *Oxycnemis*

1902, Jour. New York Ent. Soc., vol. 10, p. 50.

Type male, Yuma County, Arizona, March; cotypes, two females, Walters Station, California, April. The original description gives the type locality as Quartzsite in Yuma County.

**galena** Smith, *Viridemas*

1908, Ann. New York Acad. Sci., vol. 18, p. 92.

Type male, Huachuca Mountains, Arizona, July 30.

**gatei** Smith, *Mamestra*

1910, Jour. New York Ent. Soc., vol. 18, p. 95.

Type male, Fort Wingate, New Mexico, September 6; type female, same data, September 10; cotypes, three males and two females, same data, September 5-21.

**geminata** Smith, *Moma*

1903, Jour. New York Ent. Soc., vol. 11, p. 1.

Type female, Cartwright, Manitoba, 5-7-99.

**gerdis** Smith, *Oncocnemis*

1910, Jour. New York Ent. Soc., vol. 18, p. 90.

Type male, Baboquivaria Mountains, Pima County, Arizona.

**gertana** Smith, *Mamestra*

1913, Ent. News, vol. 24, p. 273.

Type male, San Diego, California, March; type female, same data; paratypes, four males and two females, same data.

**gigas** Smith, *Orthodes*

1906, Canadian Ent., vol. 38, p. 220.

Type male, southern Arizona (Poling); type female, same data; cotype male, Huachuca Mountains, Arizona.

**greta** Smith, *Tetanolita*

1909, Jour. New York Ent. Soc., vol. 17, p. 68.

Type male, San Diego, California, September 23, 1908 (Geo. H. Field).

**grisatra** Smith, *Semiophora*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 125.

Type female, Lakehurst, New Jersey, September 27.

**griseata** Smith, *Mamestra*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 467.

Type male, Hall Valley, Colorado.

**gussata** Smith, *Mamestra*

1895, Ent. News, vol. 6, p. 337.

Type male, Calgary, Alberta, May 7 (Dod); this specimen is labeled "type two."

**gustis** Smith, *Oxycnemis*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 138.

Type male, southern Arizona, August 1–15 (Poling).

**hampa** Smith, *Anarta*

1908, Ann. New York Acad. Sci., vol. 18, p. 111.

Type male, New Hampshire; type female, no data; cotype male, White Mountains (Slosson).

**hanhami** Smith, *Fishia*

1909, Jour. New York Ent. Soc., vol. 17, p. 59.

Type male, Victoria, British Columbia, September 17, 1903; type female, same data, September 29, 1903.

**hanhami** Barnes and McDunnough, *Polia* (*Mamestra*)

1911, Jour. New York Ent. Soc., vol. 19, p. 155.

Cotype male, Quamichan Lake, Vancouver Island, British Columbia, June 25, 1908; cotypes, one male and two females, Duncans, Vancouver Island, British Columbia, June 12, 14, 17, 1910 (Hanham).

**helata** Smith, *Phaeocyma*

1908, Proc. U. S. Natl. Mus., vol. 35, p. 252.

Type male, New Hampshire; cotype male, New York 363 (D. B.); cotype female, Amherst, Massachusetts (through C. V. Riley). The genitalia of the type male were mounted on a slide and are figured (1908, *ibid.*, vol. 35, pl. 32, fig. 10).

**henrietta** Smith, *Carneades*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 452.

Cotype male, Santa Cruz Mountains, California; cotypes, male and female, Alameda County, California, September.

**heterodoxa** Smith, *Leucania*

1894, Trans. Amer. Ent. Soc., vol. 21, p. 75.

Type male, Laggan Station, North West Territory (Bean).

**heuloa** Smith, *Bomolocha*

1905, Canadian Ent., vol. 37, p. 69.

Type male, Cochise County, Arizona, July.

**holoberba** Smith, *Carneades*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 443.

Cotype female, Calgary, Alberta, July 6, 1896.

**huachuca** Smith, *Conacontia*

1903, Trans. Amer. Ent. Soc., vol. 29, p. 211.

Type male, Huachuca Mountains, Arizona.

**hudsoni** Smith, *Feltia*

1903, Canadian Ent., vol. 35, p. 130.

Type male, head of Pine Creek, Calgary, Alberta, August 7, 1901 (F. H. Wolley Dod); type female, same data, August 15, 1901; cotype female, same data, August 16, 1901.

**hueco** Barnes, *Mamestra*

1904, Canadian Ent., vol. 36, p. 198.

Cotype male, Huachuca Mountains, Arizona.

**huita** Smith, *Acontia*

1903, Trans. Amer. Ent. Soc., vol. 29, p. 213.

Type male, Huachuca Mountains, Arizona; type female, same data, August 1–7; cotype female, Huachuca Mountains, Arizona. In addition there is a specimen from Kerrville, Texas, that appears to have been labeled as a cotype by Smith, but the word "cotype" has been cut out of the label.

**hulstii** Smith, *Ufeus*

1908, Ann. New York Acad. Sci., vol. 18, p. 99.

Type male, Stockton, Utah, July 22, 1903 (Tom Spalding).

**humeralis** Smith, *Eucalyptra*

1903, Trans. Amer. Ent. Soc., vol. 29, p. 220.

Type male, Hastings, Florida; type female, same data, September 30; cotypes, 10 males, same data, some of the specimens labeled April and June 24–30; cotype male, North Carolina, August.

**humerata** Smith, *Erastria*

1908, Ann. New York Acad. Sci., vol. 18, p. 123.

Type male, New Brighton, Pennsylvania, July 20, 1905 (H. D. Merrick); cotypes, four males, same data, July 11, 23, 27, 1905.

**hutsoni** Smith, *Renia*

1906, Canadian Ent., vol. 38, p. 237.

Type male, southern Arizona (Poling); type female, Minnehaha, Yavapai County, Arizona, August 20; cotypes, four males and two females, Minnehaha, Yavapai County, Arizona, August 18, 19, 20, 26.

**hutsoni** Smith, *Stibadium*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 140.

Type male, Yuma County, Arizona, March 23; type female, Walters Station, California, April 20.

**hutsoni** Smith, *Thalpochares*

1906, Jour. New York Ent. Soc., vol. 14, p. 28.

Type male, Yuma County, Arizona, March; type female, same data; cotype male, same data; cotype female, Colorado Desert, Yuma County, Arizona.

**hutsonii** Smith, *Behrensia*

1904, Psyche, vol. 11, p. 60.

Type male, Yuma County, Arizona, March 23. A second male is present, labeled "type female," but these words have been crossed out on the label.

**illita** Smith, *Acronycta*

1898, Proc. U. S. Natl. Mus., vol. 21, p. 151.

Cotype male, Denver, Colorado, at light (D. Bruce).

**illustra** Smith, *Schinia*

1906, Jour. New York Ent. Soc., vol. 14, p. 26.

Type female, Glenwood Springs, Colorado, July 16-23.

**illustra** Smith, *Xylophasia*

1908, Ann. New York Acad. Sci., vol. 18, p. 114.

Type male, High River, Alberta (Thos. Baird).

**imbuna** Smith, *Mamestra*

1905, Jour. New York Ent. Soc., vol. 13, p. 201.

Type male, Lucerne County, Pennsylvania, April; type female, same data; cotype male, same data.

**immaculalis** Hulst, *Botis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 154.

Type male, Montana, Hayden Ex., 1872; the type lacks its abdomen. According to the original description, the species was described from two females. There is another specimen, a female, without locality data.

**immuna** Smith, *Erastria*

1908, Ann. New York Acad. Sci., vol. 18, p. 124.

Type male, New Brighton, Pennsylvania, July 28, 1906 (H. D. Merrick).

**inattenta** Smith, *Everetagrotis*

1903, Jour. New York Ent. Soc., vol. 11, p. 5.

Type male, head of Pine Creek, Calgary, Alberta, July 10, 1899 (F. H. Wolley Dod); cotype male, same data, July 14, 1899; cotype male, Pullman, Washington, June 9, 1898, Washington Experiment Station No. 320.

**inconstans** Smith, *Acronycta*

1911, Ent. News, vol. 22, p. 316.

Type male, without locality data. According to the original description, the type locality is Cartwright, Manitoba, and there is a note by Smith in the collection to this effect.

**incresa** Smith, *Copicucullia*

1910, Jour. New York Ent. Soc., vol. 18, p. 97.

Type male, Claremont, California (Motz); type female, same data.

**incubita** Smith, *Carneades*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 435.

Cotypes, one male and two females, Pullman, Washington, August 6, 21, 1898 (C. V. Piper).

**indela** Smith, *Agroperina*

1910, Jour. New York Ent. Soc., vol. 18, p. 144.

Type male, Yellowstone Park, Wyoming; type female, same data; paratypes two males, same data, one dated July 8-15; paratype male, Montana; paratype female, Bozeman, Montana, July 21, 1908.

**indensa** Smith, *Euxoa*

1910, Trans. Amer. Ent. Soc., vol. 36, p. 263.

Type male, Brandon, Manitoba, August 14, 1897; type female, Volga, South Dakota.

**indiana** Smith, *Heliolonche*

1908, Ent. News, vol. 19, p. 423.

Type male, Hessville, Indiana, May 30, 1908 (A. Kwist); type female, same data, June 13, 1908; cotypes, male and female, same data, June 6, 1908.

**indicta** Smith, *Cucullia*

1904, Canadian Ent., vol. 36, p. 154.

Type female, head of Pine Creek, Calgary, Alberta, July 29, 1896 (F. H. Wolley Dod).



**indra** Smith, *Taeniocampa*

1906, Canadian Ent., vol. 38, p. 233.

Type male, Minnehaha, Yavapai County, Arizona, September 10; type female, same locality, October 2; cotypes, three males and five females, same data, September 25, October 2.

**indurata** Smith, *Xylomiges*

1894, Trans. Amer. Ent. Soc., vol. 21, p. 80.

Type female, Colorado.

**infanta** Smith, *Demas*

1911, Jour. New York Ent. Soc., vol. 19, p. 133.

Type male, Pennsylvania, 5-2; paratype female, Johnson City, Tennessee, May.

**inflava** Smith, *Taeniocampa*

1910, Canadian Ent., vol. 42, p. 321.

Type male, Washington Territory; paratype male, Vancouver, British Columbia, April 6, 1903. The type male has the genitalia mounted on a slide.

**infusa** Smith, *Carneades*

1902, Canadian Ent., vol. 34, p. 30.

Cotype male, Black Hills.

**infuscata** Smith, *Scotogramma*

1899, Jour. New York Ent. Soc., vol. 7, p. 42.

Cotype female, Colorado (Bruce).

**ingenua** Smith, *Charadra*

1906, Jour. New York Ent. Soc., vol. 14, p. 10.

Type male, Durango, Colorado, June 8-15; cotype female, Glenwood Springs, Colorado, July 1-7.

**inherita** Smith, *Taeniocampa*

1910, Canadian Ent., vol. 42, p. 321.

Type male, Vancouver, British Columbia, March 20, 1896 (Livingston); type female, British Columbia; paratype male, Corvallis, Oregon, March 31, 1900.

**innota** Smith, *Luperina*

1908, Ann. New York Acad. Sci., vol. 18, p. 113.

Type female, Arangie, Idaho.

**insinuata** Smith, *Orrhodia*

1905, Jour. New York Ent. Soc., vol. 13, p. 205.

Type female, Pullman, Washington, May 9, 1903; cotype female, same data, May 9, 1903.

**insolita** Smith, *Plusia*

1896, Ent. News, vol. 7, p. 30.

A male from Calgary, Alberta, July (Dod), labeled "type 2." According to the original description, this species was described from two females.

**instruta** Smith, *Fishia*

1910, Trans. Amer. Ent. Soc., vol. 36, p. 264.

Type male, De Clair, Manitoba, September 3; cotypes, two males, same data, September 15, 18.

**insuda** Smith, *Phaeocyma*

1908, Proc. U. S. Natl. Mus., vol. 35, p. 234.

Type male, Minnehaha, Yavapai County, Arizona, August 25; type female, same data, August 11; cotypes, three males and three females, Yavapai County, Arizona, July 14-27.

**intensalis** Smith, *Epizeuxis*

1908, Ann. New York Acad. Sci., vol. 18, p. 126.

Type male, Minnehaha, Yavapai County, Arizona, August 19; type female, Yavapai County, Arizona, July 20; cotype male, southern California (Poling); cotype male, southern Arizona, June 15-30 (Poling); cotype male, Minnehaha, Yavapai County, Arizona, August 19; cotype male, Yavapai County, Arizona, August 2.

**intentata** Smith, *Mamestra*

1898, Ent. News, vol. 9, p. 245.

Cotype female, Colorado, No. 2693.

**interoceanica** Smith, *Hydroecia*

1899, Trans. Amer. Ent. Soc., vol. 26, p. 17.

Cotype male, Winnipeg, Manitoba.

**interruptus** Smith, *Conochares*

1905, Jour. New York Ent. Soc., vol. 13, p. 208.

Type male, southern Arizona, April 1-15 (Poling); type female, Yuma County, Arizona, March; cotypes, two females, Argus Mountains, April, 1891 (K.); cotype female, Phoenix, Arizona, March 12; cotype female, Walters Station, California, April.

**intrabilis** Smith, *Schinia*

1893, Insect Life, vol. 5, p. 331.

Type male, Death Valley, April, 1891 (K.), through C. V. Riley.

**intruda** Smith, *Oncocnemis*

1910, Jour. New York Ent. Soc., vol. 18, p. 90.

Type male, Deming, New Mexico, September 1-7.

**intrusa** Smith, *Carneades*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 446.

Type female, Sierra Nevada, California.

**invalida** Smith, *Mamestra*

1891, Proc. U. S. Natl. Mus., vol. 14, p. 225.

Type female, Sierra Nevada, California.

**irentis** Smith, *Yrias*

1905, Canadian Ent., vol. 37, p. 259.

Type male, Cochise County, Arizona, July; type female, same data.

**itata** Smith, *Xylina*

1899, Jour. New York Ent. Soc., vol. 7, p. 231.

Cotype female, Glenwood Springs, Colorado, April 30, 1894 (W. Barnes).

**julia** Barnes and McDunnough, *Camptyllochila*

1918, Contributions to the natural history of the Lepidoptera of North America, vol. 4, p. 126.

"Type male," New Brighton, Pennsylvania, July 8, 1905 (H. D. Merrick); "type female," Arizona; "cotypes," five males, New Brighton, Pennsylvania, July 11, 1905, July 14, 15, 20, 1906 (H. D. Merrick). This is a Smith manuscript name that was validated by Barnes and McDunnough after Smith's death; there are four "cotypes" in the collection of the United States National Museum. The type labels are in Smith's handwriting and do not give Barnes and McDunnough as the authors. A subsequent reviser of this group must settle the question of the status of the primary types for this species.

**kasloa** Smith, *Melicleptria*

1903, Trans. Amer. Ent. Soc., vol. 29, p. 208.

Type female, Kaslo, British Columbia, June 7, 1902.

**keela** Smith, *Orthodes*

1908, Ann. New York Acad. Sci., vol. 18, p. 106.

Type female, Palmerlee, Cochise County, Arizona, August.

**laerta** Smith, *Anarta*

1903, Jour. New York Ent. Soc., vol. 11, p. 20.

Type male, Silver Lake, Utah, July 13 (H. Skinner); type female, Utah, July 15; cotype male, Utah, July 15.

**laetabilis** Smith, *Hadena*

1899, Canadian Ent., vol. 31, p. 263.

Cotype male, Santa Fe, New Mexico, July (Cockerell), No. 1657.

**laetifica** Smith, *Acronycta*

1898, Proc. U. S. Natl. Mus., vol. 21, p. 89.

Cotype male, New Jersey; cotype female, Florida.

**laevigata** Smith, *Hadenella*

1898, Canadian Ent., vol. 30, p. 321.

Cotype male, Colorado (Bruce).

**larga** Smith, *Noctua*

1908, Ann. New York Acad. Sci., vol. 18, p. 95.

Type female, Palmerlee, Cochise County, Arizona, August; cotype male, Huachuca Mountains, Arizona, June 16.

**largera** Smith, *Phaeocyma*

1908, Proc. U. S. Natl. Mus., vol. 35, p. 257.

Type male, Vancouver Island, May 8, 1888 (G. W. Taylor).

**lateclava** Smith, *Chytonix*

1903, Jour. New York Ent. Soc., vol. 11, p. 189.

Type male, Pullman, Washington, August 14, 1897 (C. V. Piper); type female, same data, August 31, 1897.

**laticollis** Smith, *Oncocnemis*

1908, Jour. New York Ent. Soc., vol. 16, p. 94.

Type female, Stockton, Utah, September 4, 1904.

**lenola** Smith, *Euxoa*

1910, Trans. Amer. Ent. Soc., vol. 36, p. 260.

Type male, Glenwood Springs, Colorado, August, 1895 (W. Barnes); type female, same data, August, 1892; paratype female, same data, August, 1894; paratype female, Colorado, 1743; paratype male, Hot Springs, New Mexico, 7000 feet altitude.

**leomegra** Smith, *Mamestra*

1908, Ann. New York Acad. Sci., vol. 18, p. 100.

Type male, Grand Lake, Newfoundland, August 28; type female, same data.

**lepetita** Smith, **Acronycta**

1908, Ann. New York Acad. Sci., vol. 18, p. 94.

Type male, Esper Ranch, Brownsville, Texas.

**leucorena** Smith, **Caradrina**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 477.

Cotype female, Los Angeles County, California, September; cotypes, two females, California (Coquillett).

**levitans** Smith, **Leptina**

1906, Jour. New York Ent. Soc., vol. 14, p. 9.

Type male, Durham, New Hampshire (W. & F.); type female, Ontario, Canada (A. H. Kilman).

**libedis** Smith, **Acontia**

1900, Trans. Amer. Ent. Soc., vol. 27, p. 80.

Cotype female, Hot Springs, New Mexico, 7000 feet altitude.

**ligeae** Smith, **Schinia**

1893, Insect Life, vol. 5, p. 331.

Type female, Argus Mountains, April, 1891 (K.), through C. V. Riley.

**limitata** Smith, **Leucania**

1902, Proc. U. S. Natl. Mus., vol. 25, p. 187.

Type male, Texas, June.

**lineosa** Smith, **Agroperina**

1910, Jour. New York Ent. Soc., vol. 18, p. 145.

Type male, W. Man. (probably an abbreviation for Winnipeg, Manitoba); type female, Winnipeg, Manitoba; paratype male, Minn.ota, Manitoba, July 27; paratype male, Calgary, Alberta, July 4, 1894 (F. H. Wolley Dod); paratype male, Calgary, Alberta, July 16-23.

**liturata** Smith, **Acronycta**

1898, Proc. U. S. Natl., vol. 21, p. 129.

Cotypes, two males, Garfield County, Colorado, 7000 feet altitude (Bruce).

**livalis** Smith, **Aplectoides**

1910, Jour. New York Ent. Soc., vol. 18, p. 86.

Type male, Newfoundland.

**longipalpata** Hulst, **Mycterophora**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 299.

Type female, Soda Springs, Siskiyou County, California, July 19.

**louisa** Smith, **Pseudacontia**

1908, Ann. New York Acad. Sci., vol. 18, p. 120.

Type male, Sabine Parish, Louisiana (G. Coverdale).

**lucina** Smith, **Mamestra**

1901, Trans. Amer. Ent. Soc., vol. 27, p. 236.

Type male, British Columbia; cotype female, Winnipeg, Manitoba, August 1.

**luctuosa** Hulst, **Catabapta**

1884, Bull. Brooklyn Ent. Soc., vol. 7, p. 53.

Two males, one female, all labeled "type," from Indiana.

**lunata** Smith, **Apamea**

1891, Trans. Amer. Ent. Soc., vol. 18, p. 110.

Type male, Alameda County, California, June.

**lunata** Smith, **Ursogastra**

1906, Jour. New York Ent. Soc., vol. 14, p. 13.

Type male, Huachuca Mountains, Arizona.

**lunolacta** Smith, **Mamestra**

1903, Jour. New York Ent. Soc., vol. 11, p. 17.

Type female, Pullman, Washington (C. V. Piper); cotype female, Idaho.

**lualba** Smith, **Bomolocha**

1906, Jour. New York Ent. Soc., vol. 14, p. 29.

Types, male and female, both without data. According to the original description, the type locality is Cartwright, Manitoba.

**lutea** Smith, **Diallagma**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 483.

Cotype female, Florida; cotype female, Florida, 9-3-82.

**luteodisca** Smith, **Copicucullia**

1909, Jour. New York Ent. Soc., vol. 17, p. 63.

Type female, Deming, New Mexico, September 1-7.

**luteola** Smith, **Scotogramma**

1894, Trans. Amer. Ent. Soc., vol. 21, p. 57.

Two males, both labeled type, Laggan, British Columbia, above 7000 feet, July 22, August 1, 1892.

**luteomedia** Smith, *Aleptina*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 136.

Type male, southern Arizona, August 1-15 (Poling); type female, Yavapai County, Arizona, May 22.

**luteopallens** Smith, *Leucania*

1902, Proc. U. S. Natl. Mus., vol. 25, p. 180.

Type male, Long Island; cotype male, same data; cotype female, Archer, Florida, March, 1882; cotype female, Torrington, Connecticut; cotype female, Anglesea, New Jersey, April 4; cotype male, New Hampshire; cotype male, Webster, New Hampshire.

**lutina** Smith, *Leucania*

1902, Proc. U. S. Natl. Mus., vol. 25, p. 176.

Type female, Biscayne Bay, Florida. The type label says *Leucania velutina* Smith (1900, Proc. U. S. Natl. Mus., vol. 22, p. 480), but this name was preoccupied, so Smith renamed his species.

**lutosa** Andrews, *Orthosia*

1877, Canadian Ent., vol. 9, p. 99.

Type female, labeled as follows: "2435, type of n. sp., W. V. Andrews; type of *O. lutosa* Andrews received from Mr. R. F. Pearsall who got it from Akhurst out of the Andrews collection." In addition a second female bearing No. 2435 and "*Orthosia lutosa* out of the Andrews collection from Mr. Akhurst through Pearsall."

**luxuriosa** Smith, *Tripudia*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 490.

Cotype female, Arizona.

**macerata** Smith, *Hadena*

1902, Jour. New York Ent. Soc., vol. 10, p. 40.

Cotype female, Cartwright, Manitoba, 11-7-99.

**macona** Smith, *Taeniocampa*

1908, Ann. New York Acad. Sci., vol. 18, p. 102.

Type male, Witch Creek, California, January 30; cotype female, same data, February 1.

**macroptica** Smith, *Schinia*

1906, Jour. New York Ent. Soc., vol. 14, p. 21.

Type female, southern Arizona (Poling).

**macula** Smith, *Metoponia*

1891, Trans. Amer. Ent. Soc., vol. 18, p. 132.

Two males, Hot Springs, New Mexico, 7000 feet altitude, and New Mexico, both labeled "type."

**maculata** Smith, *Agrotiphila*

1893, Ent. News, vol. 4, p. 100.

Type male, British Columbia.

**maestosa** Hulst, *Catabapta*

1884, Bull. Brooklyn Ent. Soc., vol. 7, p. 53.

Two males from Texas, labeled "type."

**maimes** Smith, *Carneades*

1903, Canadian Ent., vol. 35, p. 131.

Type male, head of Pine Creek, Calgary, Alberta, August 13, 1901 (F. H. Wolley Dod); type female, same data, August 16, 1901; cotypes, one male and one female, same data, August 18, 1895, August 16, 1901; cotype male, edge of Calgary, Alberta, August 13, 1893; cotype female, mouth of Fish Creek, Calgary, Alberta, August 15, 1893 (F. H. Wolley Dod); cotype female, Calgary, Alberta, August 10, 1894 (F. H. Wolley Dod); cotype female, Brandon, Manitoba.

**major** Smith, *Acontia*

1900, Trans. Amer. Ent. Soc., vol. 27, p. 64.

Cotype female, Colorado.

**mala** Smith, *Copicucullia*

1908, Ann. New York Acad. Sci., vol. 18, p. 118.

Type male, Witch Creek, California, August 12, 1906.

**malora** Smith, *Taeniocampa*

1910, Canadian Ent., vol. 42, p. 319.

Types, male and female, Calgary, Alberta, April 24; paratype male, same data.

**manitoba** Beutenmüller, *Catocala*

1908, Ent. News, vol. 19, p. 54.

A male labeled "type" from Winnipeg, Manitoba. This locality is not mentioned in the original description, although type specimens are stated to be in the Rutgers collection.

**mansueta** Smith, *Acronycta*

1898, Proc. U. S. Natl. Mus., vol. 21, p. 100.

Cotype male, Sierra Nevada, California; cotype female, Nevada County, California.

**manti Barnes, *Stibadium***

1904, Canadian Ent., vol. 36, p. 243.

Cotype female, San Antonio, Texas.

**marina Smith, *Cerma***

1906, Canadian Ent., vol. 38, p. 226.

Type male, southern Arizona (Poling).

**maritima Bird, *Papaipema***

1909, Canadian Ent., vol. 41, p. 59.

Cotypes, male and female, Rye, New York, bred September 30, 1908.

**marmorata Smith, *Acronycta***

1898, Proc. U. S. Natl. Mus., vol. 21, p. 131.

Cotype male, Folsom, California, 5-1-1885, from Dept. Agr.

**masculinus Smith, *Carneades***

1903, Jour. New York Ent. Soc., vol. 11, p. 6.

Type male, Silverbow County, Montana, August 28, 1900, elevation 5800 feet (R. A. Cooley).

**mecrona Smith, *Taeniocampa***

1908, Jour. New York Ent. Soc., vol. 16, p. 95.

Type male, Kaslo, British Columbia, July 3, 1905; type female, same data, July 1, 1905; cotype female, same data as type male.

**medialis Smith, *Bleptina***

1895, Bull. U. S. Natl. Mus., vol. 48, p. 60.

Type male, Florida.

**medialis Smith, *Hydroecia***

1894, Trans. Amer. Ent. Soc., vol. 21, p. 74.

Type male, Colorado (Bruce).

**megadia Smith, *Leucania***

1902, Proc. U. S. Natl. Mus., vol. 25, p. 191.

Type male, Calgary, Alberta, June 8-15; cotype female, Denver, Colorado, June 30.

**megarena Smith, *Mamestra***

1901, Trans. Amer. Ent. Soc., vol. 27, p. 236.

Type male, Glenwood Springs, Colorado, June 8-15; cotype male, Durango, Colorado; cotype female, Glenwood Springs, Colorado, August, 1892 (W. Barnes).

**megarena Smith, *Schinia***

1906, Jour. New York Ent. Soc., vol. 14, p. 27.

Type male, Utah, August 11, 1902 (Poling); type female, same data, August 8, 1902; cotype female, same data, August 4, 1902; cotype male, without data, but dated August 30, 1902, and it is probably from the same locality as above; cotype male, Kerrville, Texas.

**mellitula Hulst, *Catocala minuta***

1884, Bull. Brooklyn Ent. Soc., vol. 7, p. 35.

Type male, no locality data.

**meodana Smith, *Mamestra***

1910, Jour. New York Ent. Soc., vol. 18, p. 95.

Type male, Calgary, Alberta, June 16-23; type female, same data; cotypes, two males and one female, same data, June 16-23, July 1-7; cotypes, two males, Pullman, Washington, May 20, 1898, June 2, 1903; cotypes, male and female, Yellowstone Park, Wyoming, July 8-15; cotype female, Arrowhead Lake, British Columbia, July 8-15; cotype female, no data, but with No. 532.

**merceda Smith, *Xylina***

1904, Psyche, vol. 11, p. 58.

Type female, Cartwright, Manitoba, November 1, 1903.

**merricki Smith, *Epizeuxis***

1905, Canadian Ent., vol. 37, p. 260.

Type male, Chicago, Illinois, 7-12-02 (A. Kwiat); type female, New Brighton, Pennsylvania, July 25, 1904 (H. D. Merrick).

**mertena Smith, *Calocampa***

1909, Jour. New York Ent. Soc., vol. 17, p. 61.

Type male, Pullman, Washington, April 21, 1903; cotypes, two males, same data, April 25, 1903, May 9, 1903; cotype male, Washington Territory, April 7, 1893; cotype male, Olympia, Washington.

**meskei Smith, *Acontia***

1900, Trans. Amer. Ent. Soc., vol. 27, p. 79.

Cotype male, Texas.

**meta Smith, *Rhynchagrotis***

1903, Jour. New York Ent. Soc., vol. 11, p. 3.

Type female, Pullman, Washington (C. V. Piper); cotype female, San Francisco County, California.



**metata** Smith, *Phaeocyma*

1908, Proc. U. S. Natl. Mus., vol. 35, p. 248.

Type male, Florida; type female, Virginia, Cornell University lot 172, Sub. F'lks collection; cotype female, same data as type female; cotype female, no data. The legs and the genitalia of the type male were mounted on two slides, and the latter are figured (1908, *ibid.*, vol. 35, pl. 32, fig. 8).

**metra** Smith, *Acronycta*

1911, Ent. News, vol. 22, p. 311.

Type female, Colorado (Bruce).

**migrata** Smith, *Luperina*

1903, Jour. New York Ent. Soc., vol. 11, p. 188.

Type female, Stockton, Utah.

**minimalis** Barnes and McDunnough, *Bleptina*

1912, Canadian Ent., vol. 44, p. 123.

Cotype female, Baboquivara Mountains, Pima County, Arizona, July 16-23.

**miniota** Smith, *Xylophasia*

1908, Ann. New York Acad. Sci., vol. 18, p. 114.

Type male, Miniota, Manitoba, June 22; type female, same data, June 12.

**minor** Smith, *Campometra*

1899, Proc. U. S. Natl. Mus., vol. 22, p. 104.

Cotype female, Arizona.

**minorata** Smith, *Antiblemma*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 493.

Cotype male, Florida, April.

**minorata** Smith, *Eucalyptra*

1903, Trans. Amer. Ent. Soc., vol. 29, p. 221.

Type male, Hastings, Florida, October 4.

**minorata** Smith, *Leucania*

1894, Trans. Amer. Ent. Soc., vol. 21, p. 75.

Type male, Oregon.

**miona** Smith, *Annaphila*

1908, Ann. New York Acad. Sci., vol. 18, p. 121.

Type female, Plumas County, California, June; female genitalia mounted on slide No. 2308 by F. H. Rindge.

**miscella** Smith, *Hadena*

1902, Jour. New York Ent. Soc., vol. 10, p. 40.

Type female, Texas, 20-9 (Belfrage).

**mitis** Smith, *Carneades*

1894, Trans. Amer. Ent. Soc., vol. 21, p. 49.

Type female, Hot Springs, New Mexico. The only locality mentioned in the original description is Glenwood Springs, Colorado. However, Smith had two males and one female before him, and the present specimen may be the latter.

**modesta** Barnes and McDunnough, *Prochloridea*

1911, Jour. New York Ent. Soc., vol. 19, p. 153.

Cotype female, Fort Wingate, New Mexico, July 1-7.

**modesta** Smith, *Hypena*

1895, Bull. U. S. Natl. Mus., vol. 48, p. 117.

Two females, both labeled "type," Los Angeles County, California, April and July.

**montara** Smith, *Mamestra*

1910, Jour. New York Ent. Soc., vol. 18, p. 94.

Type male, Claremont, California (Metz); cotype male, same data.

**monteclara** Smith, *Noctua*

1906, Jour. New York Ent. Soc., vol. 14, p. 10.

Type male, Claremont, California (Baker).

**monticola** Hulst, *Mycterophora*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 299.

Type male, Sierra Nevada, California.

**morana** Smith, *Mamestra*

1910, Ent. News, vol. 21, p. 361.

Type male, Yellowstone Park, Wyoming; type female, same data, July 8-15; paratype male, same data; paratype male, Washington; paratype female, Colorado, 7-8.

**morsa** Smith, *Perigea*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 141.

Type male, Brownsville, Texas, June (F. H. Snow); type female, same data.

**mortalis** Barnes and McDunnough, *Renia*

1912, Contributions to the natural history of the Lepidoptera of North America, vol. 1, no. 5, p. 28.

Cotype female, Huachuca Mountains, Arizona, August 8-15.

**moxa** Smith, *Euxoa*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 129.

Type male, Glenwood Springs, Colorado.

**musa** Smith, **Feltia**

1910, Jour. New York Ent. Soc., vol. 18, p. 88.

Type male, Newfoundland.

**mustelina** Smith, **Xylomiges rubrica**

1911, Jour. New York Ent. Soc., vol. 19, p. 141.

Type male, Pullman, Washington, May 8, 1903; type female, same data, May 1, 1903; paratypes, male and female, same data, May 1, 8, 1903.

**mycterophaeta** Hulst, **Magdalena**

1882, Bull. Brooklyn Ent. Soc., vol. 4, p. 45.

Type male, Black Hills. There is a second male labeled "type," from Colorado (Bruce), but this is not mentioned in the original description.

**naevulus** Smith, **Carneades**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 424.

Cotypes, two males and two females, Placer County, California, September.

**nana** Barnes and McDunnough, **Cerma**

1911, Jour. New York Ent. Soc., vol. 19, p. 83.

Cotype male, San Diego, California.

**nasar** Smith, **Xylina**

1909, Jour. New York Ent. Soc., vol. 17, p. 62.

Cotype male, Redington, Arizona; cotype female, Arizona.

**nefascia** Smith, **Rhynchagrotis**

1908, Canadian Ent., vol. 40, p. 227.

Type male, Fort Wingate, New Mexico, July 27; type female, same data, August 1; cotypes, two males and one female, same data, July 29, August 20, September 20; cotypes, two males and two females, Yavapai County, Arizona, May 27, June 19, July 9.

**negalis** Barnes and McDunnough, **Tetanolita**

1912, Contributions to the natural history of the Lepidoptera of North America, vol. 1, no. 5, p. 29.

Cotype female, Palmerlee, Arizona.

**negussa** Smith, **Mamestra**

1900, Canadian Ent., vol. 32, p. 219.

Cotype male, mouth of Fish Creek, Calgary, Alberta, May 1, 1895 (F. H. W. Dod); cotype female, same data, May 14, 1898.

**neocula** Smith, **Acontia**

1900, Trans. Amer. Ent. Soc., vol. 27, p. 75.

Cotype male, Hot Springs, New Mexico, 7000 feet altitude; cotype female, no data except collection G. D. Hulst; cotypes, male and female, Texas.

**neomexicana** Smith, **Carneades**

1890, Bull. U. S. Natl. Mus., vol. 38, p. 218.

Type male, Hot Springs, New Mexico, 7000 feet altitude, August.

**neotelis** Smith, **Carneades**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 446.

Cotype male, Pullman, Washington (C. V. Piper).

**neoterica** Smith, **Mamestra**

1898, Ent. News, vol. 9, p. 244.

Type female, Winnipeg, Manitoba.

**neptis** Smith, **Leucania**

1902, Proc. U. S. Natl. Mus., vol. 25, p. 188.

Type female, Fort Collins, Colorado, August 13, 1895; cotype male, same data.

**nesaea** Smith, **Omia**

1893, Insect Life, vol. 5, p. 332.

Type female, Argus Mountains, April, 1891 (K.), through C. V. Riley.

**nesilens** Smith, **Euxoa**

1903, Jour. New York Ent. Soc., vol. 11, p. 192.

Type male, Brandon, Manitoba; type female, head of Pine Creek, Calgary, Alberta, July 6, 1898 (F. H. W. Dod); cotypes, male and female, Calgary, Alberta, July 12 (Dod).

**nevada** Barnes and McDunnough, **Scotogramma**

1912, Contributions to the natural history of the Lepidoptera of North America, vol. 1, no. 5, p. 9.

Cotype male, Esmerelda County, Nevada.

**nevada** Smith, **Carneades**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 420.

Cotypes, two males, Nevada.

**nicalis** Smith, **Xylomiges**

1909, Jour. New York Ent. Soc., vol. 17, p. 66.

Type male, Pullman, Washington, April 23, 1903; type female, same data, May 1, 1903; cotypes, three males and two females, same data, April 23, 1903, May 1, 1903.

**niger** Smith, *Rhynchagrotis*

1903, Jour. New York Ent. Soc., vol. 11, p. 3.

Type male, Pullman, Washington, May 31, 1897 (R. W. Doane); type female, Moscow, Idaho, July 14, 1898 (C. V. Piper).

**nigerrima** Smith, *Oncocnemis*

1903, Jour. New York Ent. Soc., vol. 11, p. 10.

Type male, Colorado Desert, Yuma County, Arizona.

**nigra** Smith, *Peridroma*

1894, Trans. Amer. Ent. Soc., vol. 21, p. 43.

Type female, Colorado, 9-2-88 (Bruce); this is the specimen illustrated.

**nigrocaput** Smith, *Oncocnemis*

1894, Trans. Amer. Ent. Soc., vol. 21, p. 67.

Type female, Colorado (Bruce).

**nigrofascia** Hulst, *Leucania*

1881, Bull. Brooklyn Ent. Soc., vol. 3, p. 77.

Type female, Florida. The original description gives the type locality as Tallahassee, Florida.

**nipana** Smith, *Mamestra*

1910, Jour. New York Ent. Soc., vol. 18, p. 93.

Type female, southern Arizona (Poling); cotype female, same data, June 1-15; cotype female, Baboquivari Mountains, Pima County, Arizona, July 15-30, 1903 (Poling).

**nita** Smith, *Oncocnemis*

1910, Jour. New York Ent. Soc., vol. 18, p. 91.

Type male, San Diego, California, October 26, 1908 (W. S. Wright); type female, same locality, 11-7-1908 (Geo. H. Field).

**nivalis** Smith, *Eucalyptra*

1903, Trans. Amer. Ent. Soc., vol. 29, p. 220.

Type male, Iowa City, June 23, 1898 (Wickham).

**niveicollis** Smith, *Acontia*

1902, Jour. New York Ent. Soc., vol. 10, p. 51.

Type male, Walters Station, California, April.

**niveicosta** Smith, *Neleucania*

1902, Proc. U. S. Natl. Mus., vol. 25, p. 205.

Type male, Glenwood Springs, Colorado, August, 1892 (W. Barnes); cotype male, same data, August 8-15.

**noctuidalis** Dyar, *Pleonectyptera*

1907, Jour. New York Ent. Soc., vol. 15, p. 107.

Cotype male, Oracle, Arizona, 6-9-03 (Oslar), type No. 10295 United States National Museum; cotype female, same data but without any date.

**norda** Smith, *Phaeocyma*

1908, Proc. U. S. Natl. Mus., vol. 35, p. 236.

Type male, Kaslo, British Columbia, May 19; type female, same data; cotypes, male and female, same data, May 27, 30.

**nordica** Smith, *Carneades*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 455.

Cotype female, Olds, British Columbia.

**nova** Smith, *Trichoclea*

1903, Trans. Amer. Ent. Soc., vol. 29, p. 198.

Type male, Tucson, Arizona, March 17; cotype male, Mesilla Park, New Mexico, March, 1900 (Norarewberry). There is a single slide of the male genitalia, and the type male is without an abdomen. It is probable that the preparation is from the type, as no other specimens were lacking abdomens.

**nubilata** Smith, *Taeniocampa*

1910, Canadian Ent., vol. 42, p. 319.

Type male, Glenwood Springs, Colorado, May 12, 1893 (W. Barnes); type female, same data, May 10, 1894; paratype female, Garfield County, Colorado, 6000 feet. The type male has the genitalia mounted on a slide.

**nugatis** Smith, *Mamestra*

1898, Ent. News, vol. 9, p. 240.

Cotype male, Nevada.

**nuicola** Smith, *Acontia*

1900, Trans. Amer. Ent. Soc., vol. 27, p. 67.

Cotype male, Texas.

**obesula** Smith, *Mamestra*

1904, Canadian Ent., vol. 36, p. 151.

Type male, head of Pine Creek, Calgary, Alberta, July 20, 1903 (F. H. W. Dod); type female, Denver, Colorado, July 11; cotype female, head of Pine Creek, Calgary, Alberta, July 22, 1903 (F. H. W. Dod).

**objurgata** Smith, **Carneades**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 448.

Cotypes, two males and one female, Pullman, Washington (C. V. Piper), one being dated July 12, 1898.

**obliqua** Smith, **Amolita**

1903, Trans. Amer. Ent. Soc., vol. 29, p. 222.

Type male, Hastings, Florida, April; type female, same data; cotypes, seven males, same data, March, April, September 30, October 15.

**obliqua** Smith, **Fagitana**

1900, Jour. New York Ent. Soc., vol. 8, p. 174.

Type female, Florida.

**obliqua** Smith, **Feltia**

1903, Canadian Ent., vol. 35, p. 129.

Type male, head of Pine Creek, Calgary, Alberta, May 31, 1902 (F. H. W. Dod); cotype female, same data, June 16, 1898.

**obnigra** Smith, **Mamestra**

1901, Trans. Amer. Ent. Soc., vol. 27, p. 238.

Type female, Corvallis, Oregon, 8-5-1898; cotype female, Livingston, Vancouver, July 17, 1896.

**obscura** Barnes and McDunnough, **Protagrotis**

1911, Jour. New York Ent. Soc., vol. 19, p. 154.

Cotypes, two males, Reno, Nevada.

**obscurior** Smith, **Cucullia**

1892, Proc. U. S. Natl. Mus., vol. 15, p. 41.

Type male, Colorado (Bruce).

**obscurior** Smith, **Leucania**

1902, Proc. U. S. Natl. Mus., vol. 25, p. 185.

Type male, Cartwright, Manitoba.

**obscurus** Smith, **Epidemas**

1903, Jour. New York Ent. Soc., vol. 11, p. 2.

Type male, Pullman, Washington (C. V. Piper).

**obtusa** Smith, **Cucullia**

1909, Jour. New York Ent. Soc., vol. 17, p. 63.

Type male, Santa Catalina Mountains, Arizona, September; type female, southern Arizona (Poling).

**obtusa** Smith, **Helotropha**

1902, Jour. New York Ent. Soc., vol. 10, p. 45.

Type male, Ashleys Ferry, Claremont, New Hampshire, September 3, 1900; type female, same data, August 17, 1901.

**occluna** Smith, **Taeniocampa**

1909, Jour. New York Ent. Soc., vol. 17, p. 64.

Type male, Mesilla Park, New Mexico, May 9, 1900 (Cockerell).

**ochracea** Smith, **Cyathissa**

1906, Canadian Ent., vol. 38, p. 225.

Types, male and female, southern Arizona (Poling). According to the original description, the type locality is Baboquivaria Mountains, Pima County, Arizona, July 15 (Poling); there are no specimens in the collection with these data on label.

**olga** Smith, **Andropolia**

1911, Jour. New York Ent. Soc., vol. 19, p. 139.

Type male, Sierra Nevada, California.

**olivacea** Barnes and McDunnough, **Grotella**

1911, Jour. New York Ent. Soc., vol. 19, p. 152.

Cotype male, Tucson, Arizona, July 24-31; cotype female, Deming, New Mexico.

**olivacea** Smith, **Schinia**

1906, Jour. New York Ent. Soc., vol. 14, p. 22.

Type female, Beeville, Texas, October, 1895.

**ona** Smith, **Luperina**

1909, Jour. New York Ent. Soc., vol. 17, p. 58.

Type male, Santa Catalina Mountains, Arizona, September; type female, southern Arizona (Poling).

**orba** Smith, **Conacontia**

1903, Trans. Amer. Ent. Soc., vol. 29, p. 210.

Type female, Huachuca Mountains, Arizona.

**orbiculata** Smith, **Stretchia**

1911, Jour. New York Ent. Soc., vol. 19, p. 147.

Type male, Colorado (Bruce).

**oregona** Smith, **Leucania**

1902, Proc. U. S. Natl. Mus., vol. 25, p. 202.

Type male, Corvallis, Oregon, 4-11-1898.

**orida** Smith, **Mamestra**

1903, Canadian Ent., vol. 35, p. 12.

Types, male and female, Stockton, Utah, October.

**ornatus** Smith, *Abagrotis*

1903, Jour. New York Ent. Soc., vol. 11, p. 4.

Type female, Kaslo, British Columbia (J. W. Cockle); cotype female, Idaho (C. V. Piper).

**ortruda** Smith, *Mamestra*

1910, Trans. Amer. Ent. Soc., vol. 36, p. 266.

Type male, Colorado (Bruce); type female, Glenwood Springs, Colorado, August 1-7; paratype male, Glenwood Springs, Colorado, August 8-15. The abdomen and genitalia of the paratype male were mounted on slides.

**othello** Smith, *Acronycta*

1908, Ann. New York Acad. Sci., vol. 18, p. 94.

Type male, San Diego, California.

**pacifica** Smith, *Acronycta*

1898, Proc. U. S. Natl. Mus., vol. 21, p. 56.

Cotype male, Sierra Nevada, California.

**pacifica** Smith, *Hydroecia*

1899, Trans. Amer. Ent. Soc., vol. 26, p. 19.

Type male, California.

**pallescens** Smith, *Hydroecia*

1899, Trans. Amer. Ent. Soc., vol. 26, p. 25.

Cotype male, Calgary, Alberta, August 24-30.

**pallicauda** Smith, *Mamestra*

1908, Ann. New York Acad. Sci., vol. 18, p. 101.

Cotype female, Huachuca Mountains, Arizona, July 12.

**pallincincta** Smith, *Schinia*

1906, Jour. New York Ent. Soc., vol. 14, p. 24.

Type male, Utah.

**pallida** Smith, *Cyathissa*

1902, Jour. New York Ent. Soc., vol. 10, p. 35.

Type female, Walters Station, California, April.

**pallimedia** Smith, *Crimona*

1902, Jour. New York Ent. Soc., vol. 10, p. 49.

Type female, Walters Station, California, April.

**palliseca** Smith, *Leucania*

1902, Proc. U. S. Natl. Mus., vol. 25, p. 203.

Cotypes, two females, Denver, Colorado, April 26, October 5.

**panatela** Smith, *Erastria*

1904, Psyche, vol. 11, p. 60.

Type male, W. Man., July. The abbreviation is probably for Winnipeg, Manitoba. The type also bears blue label with 195. There is a second male from the same locality that bears Smith's label "type lot."

**parallela** Smith, *Pleonectyptera*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 373.

Type female, Huachuca Mountains, Arizona.

**parcata** Smith, *Hadena* (*Xylophasia*)

1903, Jour. New York Ent. Soc., vol. 11, p. 9.

Type male, Yellowstone Park, Wyoming.

**pardalis** Smith, *Yrias*

1908, Jour. New York Ent. Soc., vol. 16, p. 97.

Type male, Santa Rita Mountains, Arizona, 5-8000 feet, July (F. H. Snow).

**paresa** Smith, *Campometra*

1906, Canadian Ent., vol. 38, p. 236.

Type male, Redington, Arizona; type female, Yavapai County, Arizona, May 29-30; cotypes, three males and two females, Yavapai County, Arizona, May 29-30.

**parta** Hulst, *Catocala petulans*

1884, Bull. Brooklyn Ent. Soc., vol. 7, p. 43.

Type female, without locality data.

**partialis** Smith, *Epizeuxis*

1908, Ann. New York Acad. Sci., vol. 18, p. 126.

Type male, Yavapai County, Arizona, July 22.

**parvimacula** Smith, *Chytonix*

1903, Jour. New York Ent. Soc., vol. 11, p. 189.

Type male, middle California.

**parvipuncta** Barnes and McDunnough, *Grotella*

1912, Canadian Ent., vol. 44, p. 19.

Cotype female, Deming, New Mexico, September 1-7.

**patefacta** Smith, *Noctua*

1895, Ent. News, vol. 6, p. 333.

Type female, Calgary, Alberta, July 2 (Dod). Smith's type label has the notation "type two."

**pausis** Smith, *Hadena*

1899, Canadian Ent., vol. 31, p. 262.

Cotypes, two males, Los Angeles County, California, June (Coquillett).

**pectinatus** Smith, *Nephelodes*

1900, Canadian Ent., vol. 32, p. 221.

Cotype male, Corfield, Vancouver, British Columbia, S., 7-9, 1896.

**pendens** Smith, *Leucania*

1905, Canadian Ent., vol. 37, p. 66.

Type female, Chokaloskee, Florida.

**pendina** Smith, *Agroperina*

1910, Jour. New York Ent. Soc., vol. 18, p. 146.

Type male, head of Pine Creek, Calgary, Alberta, July 22, 1896 (F. H. W. Dod); type female, Calgary, Alberta, July 8-15; paratype male, Winnipeg, Manitoba; paratype female, Brandon, Manitoba.

**penumbrata** Hulst, *Sigala*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 308.

Type male, Archer, Florida, March 21, 1882 (A. Koebele).

**perolivalis** Barnes and McDunnough, *Namangana*

1912, Contributions to the natural history of the Lepidoptera of North America, vol. 1, no. 5, p. 19.

Cotype female, Redington, Arizona.

**perolivalis** Smith, *Rhizagrotis*

1905, Jour. New York Ent. Soc., vol. 13, p. 194.

Type male, head of Pine Creek, Calgary, Alberta, July 9, 1904 (F. H. Wolley Dod); type female, mouth of Fish Creek, Calgary, Alberta, July 14, 1894 (F. H. Wolley Dod).

**pestula** Smith, *Euxoa*

1904, Canadian Ent., vol. 36, p. 150.

Type male, head of Pine Creek, Calgary, Alberta, July 4, 1904 (F. H. Wolley Dod); type female, same data; cotypes, male and female, same data, July 1, 2, 1904.

**petita** Smith, *Mamestra*

1901, Trans. Amer. Ent. Soc., vol. 27, p. 239.

Type male, Seattle, Washington; cotype female, Corfield, Vancouver.

**phila** Smith, *Cucullia*

1908, Ann. New York Acad. Sci., vol. 18, p. 117.

Type male, Philadelphia, Pennsylvania.

**pima** Smith, *Acontia*

1905, Jour. New York Ent. Soc., vol. 13, p. 209.

Type male, Babaquivera Mountains, Pima County, Arizona.

**pindar** Smith, *Carneades*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 451.

Cotype male, Bluff, Utah, 1898 (Mrs. H. M. Peabody).

**plagiata** Smith, *Nocloa*

1906, Jour. New York Ent. Soc., vol. 14, p. 13.

Type male, Arizona.

**plebeia** Smith, *Noctua*

1898, Jour. New York Ent. Soc., vol. 6, p. 105.

Cotype male, California.

**polingi** Barnes and Benjamin, *Rhizagrotis*

1922, Contributions to the natural history of the Lepidoptera of North America, vol. 5, p. 41.

Paratype female, Dixieland, Imperial County, California, March 1-15, 1922 (O. C. Poling).

**pomona** Smith, *Xylina*

1899, Jour. New York Ent. Soc., vol. 7, p. 230.

Type male, Olympia, Washington.

**poncha** Smith, *Euxoa*

1910, Trans. Amer. Ent. Soc., vol. 36, p. 258.

Type male, Poncha Springs, Colorado, July 12, 1898; type female, Colorado, 1494.

**praeacuta** Smith, *Platyperigea*

1894, Trans. Amer. Ent. Soc., vol. 21, p. 61.

Type female, Glenwood Springs, Colorado, September, 1892 (W. Barnes).

**proba** Smith, *Taeniocampa*

1910, Canadian Ent., vol. 42, p. 323.

Type male, Alameda County, California, January. The genitalia were mounted on a slide by Smith.

**protea** Smith, *Campometra*

1906, Canadian Ent., vol. 38, p. 234.

Type male, Yavapai County, Arizona, May 30; type female, same data, May 22; cotypes, nine males and three females, same data, May 23, 25, 28, 29, 31, June 21, 24; cotype male, southern Arizona, June 15-30 (Poling).



**pudorata** Smith, *Oncocnemis*

1894, Trans. Amer. Ent. Soc., vol. 21, p. 63.

Type male, British Columbia. According to the original description, the type locality is Agnes Lake, Laggan, "British Columbia," 6700 feet.

**pugionis** Smith, *Carneades*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 419.

Cotype male, Colorado, 1440.

**pulchella** Smith, *Xanthia*

1900, Canadian Ent., vol. 32, p. 223.

Type male, Livingston, Vancouver, September 14, 1896, No. 501.

**pulverea** Smith, *Narthecophora*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 486.

Cotype male, Tucson, Arizona, July 19 (E. A. Schwarz); cotype female, same data, July 20.

**pulverosalis** Smith, *Renia*

1895, Bull. U. S. Natl. Mus., vol. 48, p. 75.

Type female, Glenwood Springs, Colorado, September, 1892 (W. Barnes).

**pulverulenta** Smith, *Perigea*

1891, Trans. Amer. Ent. Soc., vol. 18, p. 105.

"Type" male, Colorado; "type" female, Arizona. Franclemont (1941, Canadian Ent., vol. 73, p. 133) chose a lectotype which is in the collection of the United States National Museum; hence these specimens are cotypes.

**puncticosta** Smith, *Erastria*

1908, Ann. New York Acad. Sci., vol. 18, p. 122.

Type male, New Brighton, Pennsylvania, August 3, 1903 (H. D. Merrick); cotypes, three males, same data, July 22, 24, 29, 1905.

**punctilinea** Smith, *Perigonica*

1906, Canadian Ent., vol. 38, p. 233.

Type male, no data except April 15-30; type female, southern Arizona, April 15-30 (Poling); cotypes, male and female, same data as for type female.

**punctirena** Smith, *Cosmia*

1900, Canadian Ent., vol. 32, p. 222.

Cotype male, Cartwright, Manitoba; cotype male, Glenwood Springs, Colorado, September, 1895 (W. Barnes).

**punctivena** Smith, *Capnodes*

1900, Jour. New York Ent. Soc., vol. 8, p. 175.

Type female, Charlotte Harbor, Florida.

**punctivena** Smith, *Caradrina*

1894, Trans. Amer. Ent. Soc., vol. 21, p. 77.

Type female, Colorado (Bruce).

**punitalis** Smith, *Pleonectyptera*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 375.

Type male, Palmerlee, Arizona; type female, same data; cotype male, Durango, Colorado, July 8-15; cotype female, Hot Springs, New Mexico, 7000 feet altitude, August.

**pura** Barnes and McDunnough, *Oslaria*

1911, Canadian Ent., vol. 43, p. 319.

Cotypes, two females, Christmas, Gila County, Arizona.

**pura** Hulst, *Catocala*

1880, Bull. Brooklyn Ent. Soc., vol. 2, p. 96.

Type male, Colorado.

**quadrata** Smith, *Mamestra*

1891, Proc. U. S. Natl. Mus., vol. 14, p. 248.

Type male, Placer County, California, June; type female, same data.

**quadrate** Smith, *Cyathissa*

1906, Canadian Ent., vol. 38, p. 225.

Type female, San Bernardino Ranch, Cochise County, Arizona, 3750 feet, August (F. H. Snow).

**quadriplaga** Smith, *Acontia*

1900, Trans. Amer. Ent. Soc., vol. 27, p. 72.

Cotypes, two females, Texas.

**quadristigma** Smith, *Himella*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 480.

Two cotype females, Bluff, Utah, 1898 (Mrs. H. M. Peabody).

**quinquefasciata** Smith, *Taeniocampa*

1909, Jour. New York Ent. Soc., vol. 17, p. 65.

Type male, Vancouver, British Columbia, March 31, 1903; type female, Massett, Q. C. I., April 28, 1894; cotype male, Pullman, Washington, April 19, 1898.

**quinta** Smith, *Euxoa*

1908, Ann. New York Acad. Sci., vol. 18, p. 97.

Type male, Kaslo, British Columbia, July 10, 1905; type female, same data, June 1, 1906; cotype male, High River, Alberta (Thos. Baird). McDunnough (1950, Bull. Amer. Mus. Nat. Hist., vol. 95, p. 370) is in error in the citing of the type material, as the localities are reversed.

**rabiata** Smith, *Euxoa*

1910, Trans. Amer. Ent. Soc., vol. 36, p. 255.

Type male, South Dakota; paratype male, Volga, South Dakota; paratype male, Colorado; paratype male, no data except collection S. T. Kemp.

**radiatus** Smith, *Lythrodus*

1903, Trans. Amer. Ent. Soc., vol. 29, p. 206.

Type female, Colorado Desert, Yuma County, Arizona; cotype female, same data.

**radiatus** Smith, *Setagrotis*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 418.

Cotype male, Nevada.

**rayata** Smith, *Homohadena*

1908, Jour. New York Ent. Soc., vol. 16, p. 93.

Type female, Kerrville, Texas.

**rectalis** Smith, *Pleonectyptera*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 375.

Type male, Baboquivari Mountains, Pima County, Arizona, July 15-30, 1903 (O. C. Poling); cotype female, Colorado.

**rectifascia** Smith, *Dryobata*

1891, Trans. Amer. Ent. Soc., vol. 18, p. 108.

Type male, Sierra Nevada, California.

**rectiflava** Smith, *Himella*

1908, Ann. New York Acad. Sci., vol. 18, p. 105.

Type male, Huachuca Mountains, Arizona, July 30.

**regina** Smith, *Oncocnemis*

1902, Jour. New York Ent. Soc., vol. 10, p. 44.

Type male, Regina, North West Territory, 1886.

**rena** Smith, *Agrotis*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 53.

Type male, Sierra Nevada, California.

**reniformis** Smith, *Isogona*

1903, Trans. Amer. Ent. Soc., vol. 29, p. 214.

Type male, Harris County, Texas; type female, Hockley, Texas, April 1-10; cotype male, Harris County, Texas; cotype male, Hockley, Texas, April 1-10; cotype female, Texas.

**reniformis** Smith, *Schinia*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 487.

Cotype male, Denver, Colorado, June 25; cotypes, male and female, Colorado (Bruce).

**repleta** Bird, *Hydroecia*

1911, Canadian Ent., vol. 43, p. 47.

Cotype male, Huachuca Mountains, Arizona, July 30.

**resoluta** Smith, *Polia*

1894, Trans. Amer. Ent. Soc., vol. 21, p. 70.

Type female, Colorado (Bruce).

**restora** Smith, *Mamestra*

1910, Ann. Ent. Soc. Amer., vol. 3, p. 156.

Type male, Kaslo, British Columbia, July 10; type female, same data, September 1.

**restrictalis** Smith, *Heliodes*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 485.

Type female, Butte County, California (Coquillett).

**reversalis** Smith, *Pleonectyptera*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 371.

Type male, Esper Ranch, Brownsville, Texas.

**rigida** Smith, *Renia*

1905, Canadian Ent., vol. 37, p. 70.

Type male, Oak Creek Canyon, Arizona, 6000 feet, August (F. H. Snow).

**rigida** Smith, *Siavana*

1903, Canadian Ent., vol. 35, p. 14.

Type male, Huachuca Mountains, Arizona.

**rivulosa** Smith, *Nocloa*

1906, Jour. New York Ent. Soc., vol. 14, p. 14.

Type male, Yuma County, Arizona, March 23.

**robustior** Smith, *Feltia*

1899, Canadian Ent., vol. 31, p. 206.

Cotype male, Brandon, Manitoba, September 1, 1898. One of the valves of the

male genitalia has been mounted on a slide, and the slide is labeled "male type."

**rorulenta** Smith, *Xylophasia*

1904, *Psyche*, vol. 11, p. 55.

Type female, head of Pine Creek, Calgary, Alberta, July 17, 1903 (F. H. Wolley Dod); cotype male, Winnipeg, Manitoba; cotype male, New York; cotype female, Denver, Colorado, May 29; cotype female, head of Pine Creek, Calgary, Alberta, July 2, 1896 (F. H. Wolley Dod).

**rosea** Smith, *Oncocnemis*

1903, *Jour. New York Ent. Soc.*, vol. 11, p. 11.

Type male, southern Arizona, April 1-15 (Poling); cotype male, Colorado Desert.

**roseola** Smith, *Amolita*

1903, *Trans. Amer. Ent. Soc.*, vol. 29, p. 223.

Type male, Hastings, Florida, March; cotypes, two males, same data.

**rubiata** Smith, *Phaeocyma*

1908, *Proc. U. S. Natl. Mus.*, vol. 35, p. 265.

Type male, Arizona; type female, same data; cotype male, Phoenix, Arizona, 1-25; cotype male, no data. Three legs and the genitalia of the type female were mounted on two slides, and the latter are figured (1908, *ibid.*, vol. 35, pl. 35, fig. 9).

**rubida** Barnes and McDunnough, *Namangana suffusa*

1912, *Contributions to the natural history of the Lepidoptera of North America*, vol. 1, no. 5, p. 23.

Cotype male, San Diego, California.

**rubiginosa** Bird, *Papaipema*

1911, *Canadian Ent.*, vol. 43, p. 40.

Cotype female, Buffalo, New York, *ex Angelica*, bred August 23, 1909 (H. Bird).

**rubripallens** Smith, *Leucania*

1902, *Proc. U. S. Natl. Mus.*, vol. 25, p. 182.

Type male, Glenwood Springs, Colorado, June 24-30; cotype female, same data, August 24-30.

**rumatana** Smith, *Carneades*

1903, *Trans. Amer. Ent. Soc.*, vol. 29, p. 203.

Type male, Volga, South Dakota; type female, same data; cotypes, four males and one female, same data.

**runata** Smith, *Hadena (Xylophasia)*

1899, *Canadian Ent.*, vol. 31, p. 257.

Cotype male, W., June 20, 1897; cotypes, one male and two females, Winnipeg, Manitoba, one of the latter dated June 25, 1897.

**sabulosa** Smith, *Melicleptria*

1906, *Jour. New York Ent. Soc.*, vol. 14, p. 16.

Type female, Doble, California, April 19.

**saleppa** Smith, *Taeniocampa*

1907, *Trans. Amer. Ent. Soc.*, vol. 33, p. 132.

Type male, Wellington, British Columbia, April 14, 1903; type female, Wellington, British Columbia.

**sambo** Smith, *Rhynchagrotis*

1908, *Canadian Ent.*, vol. 40, p. 287.

Type male, with small round label, July 29, 1905; type female, with same kind of label, August 1, 1907. This is the kind of label used by Cockle, and these two specimens probably came from him; these two types are probably from Kaslo, British Columbia. Cotypes, two females, both with small round label, August 1, 30, 1907. In addition to these specimens, there is one other that is labeled Kaslo, British Columbia (Cockle).

**sancta** Hulst, *Catocala*

1884, *Bull. Brooklyn Ent. Soc.*, vol. 7, p. 38.

Type male, without locality data.

**sanina** Smith, *Oncocnemis*

1910, *Jour. New York Ent. Soc.*, vol. 18, p. 91.

Type male, Gunnison, Colorado, July 9; type female, same data; cotypes, two females, same data.

**sara** Smith, *Schinia*

1907, *Trans. Amer. Ent. Soc.*, vol. 33, p. 130.

Type female, Wilgus, Cochise County, Arizona.

**sareta** Smith, *Mamestra*

1906, *Canadian Ent.*, vol. 38, p. 229.

Type male, Minnehaha, Yavapai County, Arizona, October 3; type female, same data, October 2; cotypes, three males and two females, same data, September 3-October 4; cotype male, Huachuca Mountains, Arizona.

**scarletina** Smith, **Palada**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 487.

Cotype male, California.

**schwarzii** Smith, **Acontia**

1900, Trans. Amer. Ent. Soc., vol. 27, p. 73.

Type female, Catalina Springs, Arizona, July 24 (E. A. Schwarz).

**secundalis** Smith, **Pleonectyptera**

1907, Trans. Amer. Ent. Soc., vol. 33, p. 377.

Type male, Plumas County, California, June 1; type female, Los Angeles, California (Coquillett).

**sedilis** Smith, **Scotogramma**

1898, Jour. New York Ent. Soc., vol. 7, p. 43.

Cotype female, Colorado (Bruce).

**segregata** Smith, **Carneades**

1894, Trans. Amer. Ent. Soc., vol. 21, p. 47.

Type male, Colorado (Bruce).

**segura** Barnes, **Isogona**

1907, Canadian Ent., vol. 39, p. 97.

A male, labeled "type," from southern Arizona, July 16-30 (Poling). The original description states that the types are from the Baboquivari Mountains, Arizona; the type female is illustrated by Barnes and McDunnough (1912, Contributions to the natural history of the Lepidoptera of North America, vol. 1, no. 4, p. 28, pl. 12, fig. 21). It is doubtful that the present specimen is the holotype, as it is probably in the Barnes collection in the United States National Museum, so it should probably be considered no more than a cotype.

**semiatra** Smith, **Acontia**

1902, Jour. New York Ent. Soc., vol. 10, p. 52.

Type male, Yuma County, Arizona, March; type female, same data. According to the original description, the type locality is Quartzsite in Yuma County.

**semicollaris** Smith, **Oncocnemis**

1909, Jour. New York Ent. Soc., vol. 17, p. 60.

Type female, Peachland, British Columbia, July, 1907 (J. B. Wallis).

**semifascia** Smith, **Chytonix**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 415.

Type female, Garfield County, Colorado, 6000 feet (Bruce).

**seminivealis** Hulst, **Orobena**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 157.

Type female, Arizona.

**senilis** Smith, **Hydroecia**

1894, Trans. Amer. Ent. Soc., vol. 21, p. 73.

Type male, Colorado (Bruce).

**serano** Smith, **Peridroma**

1910, Jour. New York Ent. Soc., vol. 18, p. 87.

Type female, Chiricahua Mountains, Arizona; cotype female, same data.

**serena** Smith, **Pleonectyptera**

1911, Jour. New York Ent. Soc., vol. 19, p. 149.

Type male, San Diego, California, 8-1, 1910 (George H. Field); paratypes, male and female, same data, 6-9, 1908, and 9-29, 1908; paratypes, two males, Plumas County, California, May 1; paratype female, California, 140 (Coquillett).

**serrata** Smith, **Trichopolia**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 479.

Cotype male, Texas.

**servitus** Smith, **Carneades**

1895, Ent. News, vol. 6, p. 336.

Type male, Colorado (Bruce). McDunnough (1949, Amer. Mus. Novitates, no. 1394, p. 8) is in error in saying that this specimen is a female.

**sexata** Smith, **Melicleptria**

1906, Jour. New York Ent. Soc., vol. 14, p. 17.

Type male, Aweme, Manitoba, July 21, 1904 (Criddle); type female, same data, July 27, 1904.

**similana** Smith, **Acronycta**

1905, Jour. New York Ent. Soc., vol. 13, p. 190.

Type male, Chicago, Illinois, June 15, 1904.

**similaris** Barnes, **Admetovis**

1904, Canadian Ent., vol. 36, p. 200.

Cotype female, Arizona, April 1-7.

**similaris** Smith, **Cucullia**

1892, Proc. U. S. Natl. Mus., vol. 15, p. 41.

Type male, Platte Canyon, Colorado, on flowers, 6500 feet (D. Bruce).

**simplicia** Smith, *Oncocnemis*

1903, Jour. New York Ent. Soc., vol. 11, p. 12.

Type male, Colorado Desert.

**slossoniae** Hulst, *Mycterophora*

1898, Canadian Ent., vol. 30, p. 120.

Type male, Franconia, New Hampshire, September or October. The original description states White Mountains, New Hampshire, from Mrs. Slosson.

**snowi** Smith, *Parora*

1908, Jour. New York Ent. Soc., vol. 16, p. 96.

Type male, Brownsville, Texas, July.

**socorro** Barnes, *Rhizagrotis*

1904, Canadian Ent., vol. 36, p. 171.

Cotypes, male and female, Huachuca Mountains, Arizona.

**sora** Smith, *Hadena (Xylophasia)*

1903, Canadian Ent., vol. 35, p. 133.

Type male, head of Pine Creek, Calgary, Alberta, July 2, 1896 (F. H. W. Dod).

**sordida** Smith, *Chorizagrotis*

1908, Jour. New York Ent. Soc., vol. 16, p. 86.

Type male, Kaslo, British Columbia, September 6, 1902; type female, Kaslo, British Columbia.

**sotnia** Smith, *Euxoa*

1905, Jour. New York Ent. Soc., vol. 13, p. 195.

Type male, Stockton, Utah, September 24, 1904; type female, same data, September 22, 1904; cotypes, one male and three females, same data, September 5, 9, 22, 25, 1904.

**spaldingi** Smith, *Hyppa*

1909, Jour. New York Ent. Soc., vol. 17, p. 59.

Type female, Stockton, Utah, June 30, 1907 (Tom Spalding).

**speratina** Smith, *Acronycta sperata*

1905, Jour. New York Ent. Soc., vol. 13, p. 190.

Type male, Denver, Colorado; cotype female, same data, July 8-15.

**spretia** Smith, *Noctua*

1902, Jour. New York Ent. Soc., vol. 10, p. 36.

Type male, Hastings, Florida; type female, same data.

**squara** Smith, *Anarta*

1908, Jour. New York Acad. Sci., vol. 18, p. 112.

Types, male and female, Greenland.

**stabilis** Smith, *Homohadena*

1896, Ent. News, vol. 7, p. 29.

Type male, Calgary, July 18, 1894. This specimen is labeled "type 3."

**stena** Smith, *Thyreion*

1906, Jour. New York Ent. Soc., vol. 14, p. 15.

Type male, Colorado, 556. According to the original description, the localities were Golden and Fort Collins.

**stigmata** Smith, *Miodera*

1908, Ann. New York Acad. Sci., vol. 18, p. 102.

Type male, Witch Creek, California, 1-12; cotypes, four males, same data, 11-1, 1-15, 1-19, 2-3.

**stigmatalis** Smith, *Carneades*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 425.

Cotypes, two males, Glenwood Springs, Colorado, August, 1892, 1894 (W. Barnes).

**straminea** Smith, *Orthosia*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 132.

Type male, Glenwood Springs, Colorado, October 16-23.

**strigalis** Smith, *Yrias*

1903, Trans. Amer. Ent. Soc., vol. 29, p. 215.

Type male, Arizona; type female, same data.

**strigata** Smith, *Eucalyptera*

1902, Jour. New York Ent. Soc., vol. 10, p. 45.

Type male, Hackley, Texas, September 1-10; type female, same data; cotypes, two males and three females, same data, May 29, September 1-10.

**strigulata** Smith, *Acronycta*

1898, Proc. U. S. Natl. Mus., vol. 21, p. 92.

Cotypes, two males, Colorado (Bruce).

**strigularia** Smith, *Erastria*

1900, Jour. New York Ent. Soc., vol. 8, p. 173.

Type female, Florida. The forewings are attached to a card, as there is no body at all.

**stygalis** Smith, **Eucalyptra**

1903, Trans. Amer. Ent. Soc., vol. 29, p. 219.

Type male, southern Arizona (Poling).

**stylata** Smith, **Cerapoda**

1894, Trans. Amer. Ent. Soc., vol. 21, p. 69.

Type male, Colorado (Bruce); type female, same data.

**suavis** Barnes and McDunnough, **Leucania**

1912, Canadian Ent., vol. 42, p. 52.

Cotype female, White Mountains, Arizona.

**subatra** Smith, **Melicleptria**

1906, Jour. New York Ent. Soc., vol. 14, p. 18.

Type male, Gallatin County, Montana, 7-10, 1900, 9400 feet elevation (E. Koch); type female, Mt. Rainier, Washington, Washington Experiment Station No. 631.

**subcitrinalis** Hulst, **Orobena**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 157.

Type male, Arizona.

**subjugata** Dyar, **Peridroma**

1904, Canadian Ent., vol. 36, p. 31.

Cotypes, one male and two females, Kaslo, British Columbia.

**submissa** Smith, **Andropolia**

1911, Jour. New York Ent. Soc., vol. 19, p. 138.

Type female, Provo, Utah, August 8, 1909 (Tom Spalding); paratypes, three females, same data.

**substrigata** Smith, **Noctua**

1895, Ent. News, vol. 6, p. 332.

Type male, edge of Calgary, August 4, 1893. Smith's type label says "type 3."

**subtermina** Smith, **Synedoida**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 492.

Cotype female, San Diego County, California.

**sudena** Smith, **Charadra**

1908, Jour. New York Ent. Soc., vol. 16, p. 80.

Types, male and female, Miami, Florida.

**suffusa** Barnes and McDunnough, **Namangana**

1912, Contributions to the natural history of the Lepidoptera of North America, vol. 1, no. 5, p. 21.

Cotype female, Santa Catalina Mountains, Arizona, September.

**suffusalis** Smith, **Epizeuxis**

1899, Jour. New York Ent. Soc., vol. 7, p. 233.

Type female, Santa Rita Mountains, Arizona, June 16, 1898 (E. A. Schwarz).

**susquesa** Smith, **Hadena**

1908, Ann. New York Acad. Sci., vol. 18, p. 116.

Type male, Claremont, California (Baker).

**tacna** Barnes, **Caradrina**

1904, Canadian Ent., vol. 36, p. 167.

Cotype male, Kerrville, Texas.

**tantiva** Smith, **Xylomiges**

1909, Jour. New York Ent. Soc., vol. 17, p. 67.

Type male, southern Arizona (Poling); type female, Redington, Arizona.

**tartarea** Smith, **Acronycta**

1903, Canadian Ent., vol. 35, p. 127.

Type male, head of Pine Creek, Calgary, Alberta, June 23, 1898 (F. H. Wolley Dod).

**taura** Smith, **Euxoa**

1905, Canadian Ent., vol. 37, p. 202.

Type male, Regina, Asba., August 5, 1904 (T. N. Willing).

**tela** Smith, **Hadena**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 470.

Cotypes, male and female, Rio Verde Mountains, Phoenix, Arizona, September, 1893 (W. Barnes).

**teltowa** Smith, **Anytus**

1910, Psyche, vol. 17, p. 207.

Type male, Elizabeth, New Jersey, 9-9; type female, Vineland, New Jersey, August 29; paratype female, Hampton, New Hampshire, September 29, 1908 (S. A. Shaw).

**tenalis** Smith, **Pleonectyptera**

1907, Trans. Amer. Ent. Soc., vol. 33, p. 379.

Type male, Yuma County, Arizona, August 19; type female, Minnehaha, Yavapai County, Arizona, August 18; cotype female, Minnehaha, Yavapai County, Arizona, August 26.

**tenisca** Smith, **Mamestra**

1910, Jour. New York Ent. Soc., vol. 18, p. 92.



Type male, Bozeman, Montana, August 21, 1907; type female, Stockton, Utah, September 15, 1904; cotype male, Bozeman, Montana, September 6, 1907; cotypes, two males and one female, Stockton, Utah, September 5, 8, 14, 1904. The type male has the genitalia mounted on slide No. 14.

**tenuescens** Smith, *Acontia*

1902, Jour. New York Ent. Soc., vol. 10, p. 53.

Type female, Lake Worth, Florida.

**teplia** Smith, *Euxoa*

1910, Trans. Amer. Ent. Soc., vol. 36, p. 253.

Type male, Colorado (Bruce); type female, Stockton, Utah, September 14, 1904.

**terminalis** Smith, *Yrias*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 142.

Type male, Yavapai County, Arizona, May 25; type female, same data, May 20.

**terrenus** Smith, *Carneades*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 436.

Cotypes, male and female, Pullman, Washington, July 12, 1898, Washington Experiment Station No. 344; cotypes, two males, eastern Washington (C. V. Piper).

**terrifica** Smith, *Setagrotis*

1894, Trans. Amer. Ent. Soc., vol. 21, p. 42.

Type male, Colorado (Bruce).

**territorialis** Smith, *Carneades*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 436.

Cotype male, Salida, Colorado, 7-10-1898.

**tertialis** Smith, *Nephelodes*

1903, Jour. New York Ent. Soc., vol. 11, p. 19.

Type male, Winnipeg, Manitoba, August 18, 1900; type female, same data, August 16, 1900.

**tetera** Smith, *Leucania*

1902, Proc. U. S. Natl. Mus., vol. 25, p. 187.

Type male, southern Arizona (Poling).

**texana** Smith, *Parora*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 491.

Cotype female, Brownsville, Texas, June 11, 1895.

**texana** Smith, *Perigea*

1900, Proc. U. S. Natl. Mus., vol. 22, p. 476.

Cotype male, Round Mountain, Texas; cotypes, three males, Brazos County, Texas.

**tilosalis** Smith, *Renia*

1909, Jour. New York Ent. Soc., vol. 17, p. 70.

Type male, New Brighton, Pennsylvania, July 23, 1902 (H. D. Merrick); type female, same data, August 2, 1903; cotypes, male and female, same data, July 24, 25, 1902; cotype male, Oak Ridge, New Jersey, 8-7-04.

**tobia** Smith, *Schinia*

1906, Jour. New York Ent. Soc., vol. 14, p. 24.

Type female, Phoenix, Arizona, September 16-23.

**tonitra** Smith, *Acronycta*

1908, Jour. New York Ent. Soc., vol. 16, p. 83.

Type male, St. Louis, Missouri, June 15 (H. McElhose); type female, same data, July 21, 1904.

**torrida** Smith, *Xylina*

1899, Jour. New York Ent. Soc., vol. 7, p. 228.

Cotype male, Pullman, Washington, March 7, 1895 (C. V. Piper).

**transversata** Smith, *Acronycta*

1898, Proc. U. S. Natl. Mus., vol. 21, p. 65.

Cotype male, Colorado.

**tricolor** Barnes, *Grotella*

1904, Canadian Ent., vol. 36, p. 240.

A male from the Baboquivaria Mountains, Pima County, Arizona, July 15-30, 1903 (Poling), is labeled "type." However, a lectotype was designated by Barnes and Benjamin (1922, Contributions to the natural history of the Lepidoptera of North America, vol. 5, p. 17). Hence the present specimen can be no more than a paratype, as it may be the specimen from Pima County listed in the original description.

**trifascia** Smith, *Taeniocampa*

1891, Trans. Amer. Ent. Soc., vol. 18, p. 118.

Type male, Colorado (Bruce).

**trigona** Smith, *Luperina*

1902, Jour. New York Ent. Soc., vol. 10, p. 39.

Type male, Smith County, Tennessee, August 6; cotype male, same data, August 21.

**triolata** Smith, **Melicleptria**

1906, Jour. New York Ent. Soc., vol. 14, p. 18.

Type male, without data; type female, Los Angeles County, California.

**tripartita** Smith, **Tornacontia**

1903, Trans. Amer. Ent. Soc., vol. 29, p. 210.

Type female, Wilgus, Cochise County, Arizona.

**tristis** Smith, **Acronycta**

1911, Ent. News, vol. 22, p. 316.

Type male, "No. 1275, see Dimmock's Entomological notes (in MS)"; paratypes, two males, Cohasset, Massachusetts, July 4; paratype female, Johnson City, Tennessee, July; paratype female, Canada, 8-15.

**tronellus** Smith, **Carneades**

1903, Canadian Ent., vol. 35, p. 11.

Type male, Stockton, Utah, October.

**trumani** Smith, **Noctua**

1903, Canadian Ent., vol. 35, p. 128.

Type male, Volga, South Dakota; type female, same data. There is a male specimen from the same locality that is labeled "male genitalic type."

**truva** Smith, **Euxoa**

1910, Trans. Amer. Ent. Soc., vol. 36, p. 259.

Type male, Colorado (Bruce); type female, Poncha Springs, Colorado, July 12, 1898.

**tuana** Smith, **Mamestra**

1906, Canadian Ent., vol. 38, p. 229.

Type male, Huachuca Mountains, Arizona; type female, same data.

**tufa** Smith, **Mamestra**

1905, Jour. New York Ent. Soc., vol. 13, p. 199.

Type male, Stockton, Utah, August 30, 1904.

**turpis** Smith, **Acronycta**

1911, Ent. News, vol. 22, p. 311.

Type male, Provo, Utah, July 24, 1908 (Tom Spalding).

**uintara** Smith, **Antitype**

1911, Jour. New York Ent. Soc., vol. 19, p. 135.

Type male, Witch Creek, California, January 18; paratypes, three males, San Diego, California, March, November; paratypes,

four males, Witch Creek, California, February 3, 14, and 15.

**ulalume** Strecker, **Catocala**

1878, Lepidoptera Rhopalocera Heterocera, p. 132.

A male, from Texas, labeled "from original type."

**ulamora** Smith, **Tricholita**

1911, Jour. New York Ent. Soc., vol. 19, p. 141.

Type male, San Diego, California, October 20, 1908 (George H. Field).

**uliginosa** Smith, **Mamestra**

1905, Jour. New York Ent. Soc., vol. 13, p. 202.

Types, male and female, Kerrville, Texas.

**umbonata** Smith, **Eucalyptra**

1903, Trans. Amer. Ent. Soc., vol. 29, p. 221.

Type male, Hastings, Florida, June 24-30; cotypes, five males, same data, April.

**unicincta** Smith, **Hadena**

1902, Jour. New York Ent. Soc., vol. 10, p. 41.

Cotype female, Soda Springs, California, August 24.

**unimoda** Smith, **Hydroecia**

1894, Trans. Amer. Ent. Soc., vol. 21, p. 73.

Type male, Colorado (Bruce).

**unita** Smith, **Xylophasia**

1904, Psyche, vol. 11, p. 54.

Type female, head of Pine Creek, Calgary, Alberta, June 26, 1897 (F. H. Wolley Dod).

**ura** Smith, **Euxoa**

1905, Canadian Ent., vol. 37, p. 203.

Type male, Stockton, Utah, September 26, 1903 (Tom Spalding); type female, same data, September 22, 1904; cotype female, same data, October 2, 1904.

**uramina** Smith, **Euxoa**

1905, Canadian Ent., vol. 37, p. 204.

Type male, Stockton, Utah, September 13, 1903 (Tom Spalding); type female, same data, September 18, 1903.

**ursina** Smith, **Lathosea**

1898, Canadian Ent., vol. 30, p. 324.

Cotypes, two males, Glenwood Springs, Colorado, March 27, 1893 (W. Barnes).

**ursina** Smith, **Merolonche**

1898, Proc. U. S. Natl. Mus., vol. 21, p. 180.

Cotype male, Colorado (Bruce).

**u-scripta** Smith, **Mamestra**

1891, Proc. U. S. Natl. Mus., vol. 14, p. 228.

Type male, Sierra Nevada, California.

**vanidicus** Smith, **Carneades**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 453.

Cotypes, two males, Phoenix, Arizona, November 5, 19.

**variabilis** Barnes and McDunnough, **Namangana**

1912, Contributions to the natural history of the Lepidoptera of North America, vol. 1, no. 5, p. 21.

Cotype male, San Diego, California.

**variegata** Smith, **Annaphila**

1908, Ann. New York Acad. Sci., vol. 18, p. 122.

Type male, Placer County, California, 2500 feet, male genitalia mounted on slide No. 2363 by F. H. Rindge; type female, same data, female genitalia mounted on slide No. 2310 by F. H. Rindge; cotypes, two males and three females, same data.

**vau-orbicularis** Smith, **Mamestra**

1902, Jour. New York Ent. Soc., vol. 10, p. 42.

Type male, Corvallis, Oregon, June 21, 1900.

**vega** Smith, **Bomolocha**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 494.

Cotypes, two males, southern California. According to the original description, the species is from Las Vegas, New Mexico (Balter), and Lower California (Barnes). However, the labels on these two specimens are of the type used by Barnes.

**venata** Smith, **Taeniocampa**

1890, Ent. Amer., vol. 6, p. 123.

Type male, New York.

**venatus** Smith, **Lythrodus**

1903, Trans. Amer. Ent. Soc., vol. 29, p. 207.

Type male, Santa Fe, New Mexico, July (Cockerell).

**venosa** Smith, **Cosmia**

1903, Jour. New York Ent. Soc., vol. 11, p. 21.

Type male, Corvallis, Oregon, 6-12-98;

cotype, two females, same data, 6-29-1896, 6-8-98.

**verberata** Smith, **Orthosia**

1904, Canadian Ent., vol. 36, p. 153.

Type male, head of Pine Creek, Calgary, Alberta, September 17, 1903 (F. H. Wolley Dod); type female, same data, September 27, 1903.

**verecunda** Hulst, **Catocala**

1884, Bull. Brooklyn Ent. Soc., vol. 7, p. 45.

Type male, Montana. There is a female labeled "type" from the Black Hills, but this locality is not mentioned in the original description.

**vertina** Smith, **Xylina**

1904, Psyche, vol. 11, p. 58.

Type male, Corvallis, Oregon, 10-8-1896.

**vestitura** Smith, **Euxoa**

1905, Canadian Ent., vol. 37, p. 201.

Type male, St. John, New Brunswick, August 15, 1899; type female, same data, August 7, 1899; cotypes, three males, same data, August 15, 1899, August 17, 1900.

**vinela** Smith, **Fishia**

1903, Jour. New York Ent. Soc., vol. 11, p. 191.

Type male, Glenwood Springs, Colorado, October, 1894 (W. Barnes); cotype male, Denver, Colorado, October 10.

**viridimedia** Smith, **Bryophila**

1905, Jour. New York Ent. Soc., vol. 13, p. 188.

Type male, Cochise County, Arizona, June 24.

**viriditincta** Smith, **Oncocnemis**

1894, Trans. Amer. Ent. Soc., vol. 21, p. 66.

Type female, McLean, British Columbia, August 21.

**votiva** Hulst, **Catocala verrilliana**

1884, Bull. Brooklyn Ent. Soc., vol. 7, p. 41.

Three males, labeled type, from Arizona.

**winnipeg** Smith, **Xylina**

1900, Trans. Amer. Ent. Soc., vol. 27, p. 31.

Cotype male, Winnipeg, Manitoba.

**yakima** Smith, **Mamestra**

1900, Proc. U. S. Natl. Mus., vol. 22, p. 464.

Cotype female, Yakima, Washington (C. V. Piper).

**yavapai** Smith, *Phaeocyma*

1908, Proc. U. S. Natl. Mus., vol. 35, p. 267.

Type male, Yavapai County, Arizona, July 22; type female, same data; cotype male, same data, July 13; cotype female, Minnehaha, Yavapai County, Arizona, August 11; cotype male, Glenwood Springs, Colorado, June 8-15. The legs and the genitalia of the type male were mounted on two slides, and the latter are figured (1908, *ibid.*, vol. 35, pl. 33, fig. 6). The genitalia of the female type were mounted, and they are illustrated on plate 35, fig. 11. In addition, the legs and genitalia of the cotype female from Minnehaha were also mounted on two slides.

**youngii** Smith, *Semiophora*

1902, Canadian Ent., vol. 34, p. 29.

Type male, Mer Bleue, Ontario, August 19, 1901; type female, same locality, August 30, 1899.

**yuma** Smith, *Oxycnemis*

1907, Trans. Amer. Ent. Soc., vol. 33, p. 138.

Type male, Colorado Desert, Yuma County, Arizona; type female, same data; cotype male, Kerrville, Texas, May 24-30; cotype male, southern Arizona (Poling); cotypes, five females, Colorado Desert, Yuma County, Arizona; cotype female, Gila County, Arizona, June, 1902 (O. C. Poling).

**zembla** Smith, *Euxoa*

1905, Jour. New York Ent. Soc., vol. 13, p. 198.

Type male, Stockton, Utah, October 8, 1904; type female, same data, October 2, 1904; cotype female, same data, no date.

**LASIOCAMPIDAE**

**coronada** Barnes, *Gloveria*

1904, Canadian Ent., vol. 36, p. 268.

Cotype male, without data.

**THYATIRIDAE**

**pennsylvanica** Smith, *Euthyatira*

1902, Jour. New York Ent. Soc., vol. 10, p. 34.

Type male, New Brighton, Pennsylvania, 5-3-01 (H. D. Merrick); cotype female, Pennsylvania, 4-29.

**GEOMETRIDAE**

**abacta** Hulst, *Mesoleuca*

1898, Canadian Ent., vol. 30, p. 117.

Type male, Arizona.

**abjectarius** Hulst, *Tornos rubiginosarius*

1887, Ent. Amer., vol. 2, p. 192.

Type male, Texas. The male genitalia have been mounted on slide No. 3719 by F. H. Rindge.

**addendaria** Grossbeck, *Alcis*

1908, Jour. New York Ent. Soc., vol. 16, p. 28.

Cotype male, Stockton, Utah, July 12, 1907.

**aemulata** Hulst, *Leptomeris*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 303.

Type female, Charlotte Harbor, Florida, March.

**affiliata** Pearsall, *Stamnodes*

1911, Canadian Ent., vol. 43, p. 252.

Cotype male, San Diego, California, December 3, 1910 (L. E. Ricksecker).

**alaskae** Hulst, *Coenocalpe*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 287.

Type male, Alaska.

**albidula** Hulst, *Cingilis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 301.

Type female, Florida (Mrs. Slosson).

**albidula** Hulst, *Stenaspilates*

1900, Canadian Ent., vol. 32, p. 107.

A male labeled "type" from Colorado (Bruce). However, according to the original description, the type is in the United States National Museum collection, so the present specimen becomes a cotype.

**albiserpentata** Pearsall, *Pigia*

1906, Sci. Bull. Brooklyn Inst. Arts Sci., vol. 1, p. 212.

Two female cotypes, Yavapai County, Arizona, May 29, 30.

**alticola** Hulst, *Meris*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 348.

Type female, Colorado (Bruce). Female genitalia on slide No. 7, June 14, 1946, H. W. Capps.

**amorata** Hulst, *Hydriomena*

1900, Canadian Ent., vol. 32, p. 104.

Types, male and female, Santa Cruz Mountains, California.

**ancellata** Hulst, *Acidalia*

1887, Ent. Amer., vol. 21, p. 186.

A male labeled "type" from Hot Springs, New Mexico, 7000 feet altitude, August. Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 172) have discussed this so-called "type" and say that it is spurious.

**anfractata** Hulst, *Eutrapela*

1886, Ent. Amer., vol. 1, p. 202.

There are two males, both labeled "type," one from California, the other from Santa Fe, New Mexico, July (Cockerell). According to the original description, this species was described from two males and one female from Arizona, so the status of the two specimens labeled "type" is somewhat dubious.

**animata** Pearsall, *Marmopteryx*

1906, Sci. Bull. Brooklyn Inst. Arts Sci., vol. 1, p. 212.

A male from Doble, California, July, is labeled "cotype." This locality is not mentioned in the original description, but two other specimens labeled "cotype" are in the collection of the American Museum of Natural History. One of these is from Walters Station, California, April, while the other is labeled "Nevada."

**annellata** Hulst, *Marmopteryx*

1887, Ent. Amer., vol. 2, p. 191.

Type male, Havilah, California, 7694; type female, Washington Territory.

**annettearia** Haimbach, *Haematopsis grataria*

1907, Ent. News, vol. 18, p. 45.

Cotype male, Cincinnati, Ohio, July 25, 1905 (Annette F. Braun).

**annulata** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 267.

Type female, without locality data "but probably from California."

**appellaria** Pearsall, *Chlorochlamys*

1911, Canadian Ent., vol. 43, p. 206.

A male labeled "type" from Yuma County, Arizona, August 19. However, the other specimen from which this species was described is also labeled "type male" and is in the collection of the American Museum of Natural History. The specimen from the Pearsall collection is hereby designated as the lectotype.

**argillaria** Hulst, *Metanema*

1886, Ent. Amer., vol. 1, p. 204.

A male labeled "type" from California. This is a spurious type, as the type locality is Arizona and the specimen is in the Neumogen collection.

**arizonaria** Grote, *Chloraspilates*

1882, Papilio, vol. 2, p. 80.

Type male, Arizona.

**arrogaria** Hulst, *Eurymene*

1886, Ent. Amer., vol. 1, p. 208.

Type male, New York. This specimen was designated the lectotype by Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 186).

**atrescens** Hulst, *Nacophora quernaria*

1898, Canadian Ent., vol. 30, p. 162.

Type male, London, Ontario.

**atrociorata** Hulst, *Azelina hubnerata*

1886, Ent. Amer., vol. 1, p. 205.

Type female, Florida. This specimen was designated as the lectotype by Grossbeck (1910, Proc. U. S. Natl. Mus., vol. 38, p. 365). There is also a male present, from New Hampshire and labeled "type," but it is spurious.

**atrolinearia** Hulst, *Boarmia*

1888, Ent. Amer., vol. 3, p. 214.

Type female, Kentucky.

**aulularia** Grote, *Lychinosea*

1883, Trans. Kansas Acad. Sci., vol. 8, p. 52.

Type male, Arizona.

**auriferaria** Hulst, *Phrygonis*

1887, Ent. Amer., vol. 2, p. 188.

A male labeled "type" from Indian River, Florida. However, this is a spurious type, as

the type is stated to be in the Holland collection.

**australis** Hulst, *Eois*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 306.

Type male, Florida. There is a slide of the male genitalia made by J. McDunnough that belongs to this type.

**baltearia** Hulst, *Rumia*

1880, Bull. Brooklyn Ent. Soc., vol. 3, p. 43.

Type male, Minnesota.

**barnesii** Hulst, *Gonodontis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 374.

Type male, Glenwood Springs, Colorado, October, 1892 (W. Barnes).

**behrensaria** Hulst, *Aspilates*

1887, Ent. Amer., vol. 2, p. 210.

A male labeled "type" from Colorado. The lectotype was designated by Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 179) as a specimen in the collection of the Illinois Natural History Survey. The present specimen may be considered a cotype.

**bifilata** Hulst, *Lozogramma*

1880, Bull. Brooklyn Ent. Soc., vol. 3, p. 44.

A female labeled "type" from Colorado. The lectotype has been designated as a specimen in the United States National Museum (Rindge, 1949, Bull. Amer. Mus. Nat. Hist., vol. 94, p. 262). Accordingly, the present specimen may be considered a cotype.

**bivittata** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 271.

Type female, Mendocino, California, June 18, 1884. The genitalia have been mounted on a slide by J. McDunnough.

**bolteri** Hulst, *Tracheops*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 366.

Type male, Las Vegas, New Mexico.

**bolterii** Hulst, *Tephroclystis*

1900, Canadian Ent., vol. 32, p. 102.

Type female, Texas. The genitalia have been mounted on a slide by J. McDunnough.

**borealis** Hulst, *Deilinia*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 327.

Type male, edge of Calgary, Alberta, July 1, 1894. The genitalia have been mounted on slide No. 1549 by F. H. Rindge.

**borealis** Hulst, *Tephroclystis*

1898, Canadian Ent., vol. 30, p. 114.

Type female, Winnipeg, Manitoba (Hingham). This last word was probably meant to be Hanham. The genitalia have been mounted on a slide by J. McDunnough.

**borealis** Hulst, *Xanthorhoe*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 292.

Type male, Alaska.

**bruceata** Hulst, *Cheimotobia*

1886, Ent. Amer., vol. 2, p. 132.

There are two males and one female bearing Hulst's type label. All of them are from Brockport, New York (D. Bruce).

**brunneilinearia** Grossbeck, *Metanema*

1907, Canadian Ent., vol. 39, p. 348.

Type male, Verdi, Nevada.

**brunneipennis** Hulst, *Nycterosea*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 263.

Type male, Alameda County, California (Riley).

**brunneolineata** Hulst, *Eugonobapta*

1900, Jour. New York Ent. Soc., vol. 8, p. 218.

Type male, Hastings, Florida, May. Male genitalia on slide No. 8, June 14, 1946, H. W. Capps.

**caelaria** Hulst, *Angerona crocataria*

1886, Ent. Amer., vol. 1, p. 208.

A male labeled "type" from Colorado. Swett (1918, Lepidopterist, vol. 2, p. 42) restricts the type of this species to a specimen labeled "Long Island, New York," that was in the collection of the Brooklyn Institute of Arts and Sciences, and he further states that the Colorado specimen is not conspecific with the one from Long Island.

**caesiaria** Hulst, *Semiothisa*

1888, Ent. Amer., vol. 3, p. 217.

Type female, northern Illinois.

**calcaria** Pearsall, *Apicrena*

1911, Canadian Ent., vol. 43, p. 205.

A female labeled "type" from Colorado Desert, Yuma County, Arizona, April 12. However, the other specimen from which this species was described is also labeled "type female" and is in the collection of the American Museum of Natural History. The specimen from the Pearsall collection is hereby designated as the lectotype.

**canavestita** Pearsall, *Philopsia*

1906, Canadian Ent., vol. 38, p. 118.

Cotype male, Doble, California, July.

**carata** Hulst, *Aspilates*

1887, Ent. Amer., vol. 2, p. 211.

Type male, Florida.

**cariosa** Hulst, *Pterotaea*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 349.

Type female, California. According to the original description, the type locality is Soda Springs, California, August.

**carlotta** Hulst, *Nacophora*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 361.

Type male, Florida (Slosson).

**carnearia** Hulst, *Tephrosia*

1888, Ent. Amer., vol. 3, p. 216.

A male labeled "type" from Sierra Nevada, California. However, the lectotype was designated as a Henry Edwards specimen in the collection of the American Museum of Natural History (Rindge, 1949, Bull. Amer. Mus. Nat. Hist., vol. 94, p. 276), so the present specimen may be considered a cotype.

**cavillaria** Hulst, *Tetracis*

1886, Ent. Amer., vol. 1, p. 203.

Type male, Arizona.

**celataria** Hulst, *Tephrosia*

1888, Ent. Amer., vol. 3, p. 216.

A male from California labeled "type." This specimen is a spurious type (Rindge, 1949, Bull. Amer. Mus. Nat. Hist., vol. 94, p. 287).

**cervinicolor** Hulst, *Deilinia behrensaria*

1898, Canadian Ent., vol. 30, p. 161.

Lectotype male, Colorado, with male

genitalia mounted on slide No. 1555 by F. H. Rindge (Rindge, 1949, Bull. Amer. Mus. Nat. Hist., vol. 94, p. 255). There is a second male, also labeled "type," from Rossland, British Columbia (Danby).

**cestata** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 271.

Type female, California. The genitalia have been mounted on a slide by J. D. McDunnough.

**cinctarius** Hulst, *Tornos rubiginosarius*

1887, Ent. Amer., vol. 2, p. 192.

Type female, Florida. The female genitalia have been mounted on slide No. 3572 by F. H. Rindge.

**cinereola** Hulst, *Diastictis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 335.

Type female, Glenwood Springs, Colorado, August, 1892 (W. Barnes).

**coenonymphata** Hulst, *Coenocalpe*

1900, Canadian Ent., vol. 32, p. 104.

Type male, Yosemite, California.

**coloradata** Hulst, *Erannis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 363.

Type male, Glenwood Springs, Colorado, October, 1892 (W. Barnes).

**coloradensis** Hulst, *Sympherta*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 338.

Type male, Colorado (Bruce).

**coloradensis** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 268.

Type male, Colorado. The genitalia have been mounted on a slide by J. McDunnough.

**colorata** Grote, *Semiothisa*

1883, Canadian Ent., vol. 15, p. 7.

Type male, Arizona.

**conarata** Grossbeck, *Sciagraphia*

1908, Jour. New York Ent. Soc., vol. 16, p. 26.

Cotype female, Yavapai County, Arizona, May 22.

**configurata** Hulst, *Selidosema*

1898, Canadian Ent., vol. 30, p. 195.

Type male, Colorado.



**conformata** Pearsall, *Eupithecia*

1908, Ent. News, vol. 19, p. 128.

Cotype female, without data but with "No. 5430."

**coniferaria** Packard, *Aplodes*

1884, Amer. Nat., vol. 18, p. 933.

A female from Maine labeled "type."

**constans** Hulst, *Eugonobapta*

1898, Canadian Ent., vol. 30, p. 216.

Type male, Prescott, Arizona, August, 1896 (Kunze).

**coortaria** Hulst, *Thamnonoma*

1887, Ent. Amer., vol. 2, p. 191.

Type female, Texas. This specimen was designated as the lectotype by Barnes and McDunnough (1917, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 236).

**correllatum** Hulst, *Selidosema*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 355.

Type male, Colorado.

**costiguttata** Hulst, *Hydriomena*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 286.

Type male, California, No. 280. According to the original description, this is a Henry Edwards number. In the Henry Edwards catalogue under 280 is the following: "San Mateo County, California, April, collected in pastures by Henry Edwards."

**crassata** Hulst, *Diastictis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 333.

Type female, with the locality data Hastings, Florida, June. According to the original description, the type locality is Colorado. However, the specimen with the type label agrees with the original description.

**cretata** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 269.

Type male, Colorado (Bruce).

**cristifera** Hulst, *Phaeoura*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 360.

Type male, Colorado (Bruce).

**crocearia** Hulst, *Aspilates*

1887, Ent. Amer., vol. 2, p. 211.

Type female, without data. According to the original description, the type locality is Texas.

**crossii** Hulst, *Eois*

1900, Canadian Ent., vol. 32, p. 105.

Type male, without locality data. According to the original description, the specimen was from Florida. There is a slide of the male genitalia by J. McDunnough that may belong to this specimen.

**curvilinea** Hulst, *Hydriomena*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 286.

Type female, Vancouver Island, No. 5524.

**danbyi** Hulst, *Jubarella*

1898, Canadian Ent., vol. 30, p. 192.

Type male, Rossland, British Columbia, May 2 (Danby).

**danbyi** Hulst, *Paraptera*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 253.

Type male, Victoria, British Columbia, December 5, 1893 (Danby). There are two females bearing type labels as follows: "Victoria, British Columbia, December 6, 1893 (Danby)," and "W.H.D.2."

**dataria** Grote, *Cymatophora* (*Boamira*)

1882, Canadian Ent., vol. 14, p. 173.

Type male, Arizona.

**dataria** Hulst, *Acidalia*

1887, Ent. Amer., vol. 2, p. 186.

Type male, California.

**deceptata** Hulst, *Diastictis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 334.

Type female, New York.

**decoloraria** Hulst, *Endropia*

1886, Ent. Amer., vol. 1, p. 207.

A male labeled "type" from New York. According to the original description, the species was described from two males without data, the specimens being in the collections of Graef and Tepper.

**decorata** Hulst, *Diastictis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 333.

Type male, Platte Canyon, Colorado, June 23, 1891 (W. Barnes).

**dejecta** Hulst, **Alcis**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 345.

Type male, Los Angeles County, California.

**delectata** Hulst, **Semiothisa**

1887, Ent. Amer., vol. 2, p. 190.

A female from Arizona is labeled "type." According to the original description, the species was described from a male from Colorado, so this Arizona specimen is spurious.

**deleta** Hulst, **Cymatophora**

1900, Jour. New York Ent. Soc., vol. 8, p. 218.

Type female, Webster, New Hampshire (Goodhue).

**delicata** Grossbeck, **Coenocalpe**

1908, Jour. New York Ent. Soc., vol. 16, p. 25.

Cotypes, male and female, Stockton, Utah, September 12.

**delicata** Hulst, **Eois**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 305.

Type female, Las Cruces, New Mexico.

**delicatum** Hulst, **Selidosema**

1900, Canadian Ent., vol. 32, p. 106.

Type male, California, 6-7 (Kemp). According to the original description, the type locality is Wilson's Peak, California, September 26.

**denticulata** Hulst, **Phigalia**

1900, Jour. New York Ent. Soc., vol. 8, p. 219.

Type male, Texas.

**denticulodes** Hulst, **Diastictis**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 332.

Type male, Colorado. There is another male labeled "type" from New York, but it is spurious.

**desperaria** Hulst, **Aspilates**

1887, Ent. Amer., vol. 2, p. 210.

Type male, Arizona. The male genitalia have been mounted on slide No. 1559 by F. H. Rindge. A second male, also labeled "type," from Prescott, Arizona, is present.

**desperata** Hulst, **Prorella**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 264.

Type male, Texas, October. The original description says Blanco County, Texas.

**dissimilis** Hulst, **Phengommataea**

1898, Canadian Ent., vol. 30, p. 215.

Type male, Glenwood Springs, Colorado, October 1-7.

**dissociarius** Hulst, **Tornos**

1887, Ent. Amer., vol. 2, p. 192.

Type male, California.

**dissonaria** Hulst, **Alcis**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 345.

Type male, Colorado.

**diva** Hulst, **Plataea**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 343.

Type female, Argus Mountains, April, 1891 (K.).

**dryadata** Hulst, **Marmopteryx**

1880, Bull. Brooklyn Ent. Soc., vol. 3, p. 43.

Type male, Colorado.

**eborata** Hulst, **Agia**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 260.

Type male, Mitchell County, North Carolina, July, 1892 (P. Laurent).

**ectrapelaria** Grossbeck, **Gonodontis**

1908, Jour. New York Ent. Soc., vol. 16, p. 31.

Cotype male, Stockton, Utah, August 8, 1907 (Tom Spalding).

**edenata** Swett, **Hydriomena**

1909, Canadian Ent., vol. 41, p. 232.

"Type" female, Monterey County, California. According to Barnes and McDunnough (1917, Contributions to the natural history of the Lepidoptera of North America, vol. 4, p. 31), the type female is in the Museum of Comparative Zoölogy, so the present specimen must be a cotype.

**edna** Hulst, **Tephroclystis**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 266.

Type male, Colorado (Bruce).

**edwardsata** Hulst, **Tetracis**

1886, Ent. Amer., vol. 1, p. 203.

Type female, Soda Springs, Siskiyou County, California, July 21.

**effascinaria** Hulst, **Drepanodes**

1886, Ent. Amer., vol. 1, p. 205.

Type female, South Carolina.

**electa** Hulst, *Aethyctera*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 339.

Type male, Siskiyou County, California. The male genitalia have been mounted on slide No. 1553 by F. H. Rindge.

**elimaria** Hulst, *Acidalia*

1887, Ent. Amer., vol. 2, p. 186.

Type male, Florida. The male genitalia have been mounted on slide No. 1557 by F. H. Rindge. According to the original description, the type locality is Colorado, and the species was described from four males in the Hulst collection. There is another male labeled as *quadrifasciata* Packard, typical, from Colorado (Bruce).

**ella** Hulst, *Charommataea*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 302.

Type male, Blanco County, central Texas, November; type female, San Antonio, Texas (Rautenberg).

**ella** Hulst, *Diastictis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 332.

Type female, Washington Territory. The female genitalia have been mounted on slide No. 1610 by F. H. Rindge.

**ellatina** Hulst, *Charommataea ella*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 303.

Type male, San Antonio, Texas (Rautenberg), bearing type label "*ella*" but agreeing with the original description of *ellatina*.

**elongata** Hulst, *Coenocharis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 353.

Type female, Texas. Grossbeck (1912, Bull. Amer. Mus. Nat. Hist., vol. 31, p. 387) restricted this name to Texas specimen. There is also a male type present labeled "Arizona."

**elsinora** Hulst, *Orthofidonia*

1900, Jour. New York Ent. Soc., vol. 8, p. 218.

Type female, Elsinor, California, March 28, 1899 (Dietz).

**ephelidaria** Hulst, *Heterolocha*

1886, Ent. Amer., vol. 2, p. 120.

Type female, Colorado. According to the original description, the type locality is Nevada. There is a second female, from Nevada,

labeled "type," but this is not conspecific with the above.

**eremiata** Hulst, *Eois*

1887, Ent. Amer., vol. 2, p. 187.

There is a male from Texas labeled "type." However, according to the original description, the species was described from Arizona, and types are stated to be in the collections of Graef and Neumoegen. The present specimen is probably a spurious type.

**escaria** Grote, *Tornos*

1882, Canadian Ent., vol. 14, p. 186.

Type female, Arizona.

**ethela** Hulst, *Mesoleuca*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 283.

Type male, Sierra Nevada, California.

**eupetheciaria** Grote, *Tornos*

1883, Canadian Ent., vol. 15, p. 24.

Type female, Arizona.

**evagaria** Hulst, *Cymatophora*

1900, Canadian Ent., vol. 32, p. 106.

Type male, St. Cloud, Minnesota.

**famulata** Hulst, *Lozogramma*

1887, Ent. Amer., vol. 2, p. 191.

Type male, Canada. According to the original description, the type locality is Hamilton, Canada (J. A. Moffat).

**fascioferaria** Hulst, *Thamnonoma*

1887, Ent. Amer., vol. 2, p. 191.

Type female, Colorado (Bruce).

**faustinararia** Strecker, *Sicya*

1899, Lepidoptera Rhopalocera Heterocera, suppl. 2, p. 7.

A female from Latrobe, Pennsylvania, labeled as being one of the original types.

**fautaria** Hulst, *Tephrosia*

1888, Ent. Amer., vol. 3, p. 216.

Type male, California, 1396. This is a Henry Edwards specimen, and the data for this number in his catalogue are Santa Clara County, California, June (Hy. Edwards).

**fernaldaria** Hulst, *Boarmia*

1888, Ent. Amer., vol. 3, p. 215.

Type male, Kentucky. According to the original description, the type locality is Maine.

**festia** Hulst, *Diastictis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 335.

Type female, June 6. According to the original description, the type locality is Colorado.

**festaria** Hulst, *Anaploides*

1886, Ent. Amer., vol. 2, p. 121.

One male from Arizona, labeled "type." Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 170) have restricted the type of this species to the female from Arizona in the Neumoegen collection, as the present male is not conspecific.

**flavescens** Hulst, *Eois*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 304.

Type male, without locality data.

**flavigutta** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 268.

Type male, Colorado (Bruce). The genitalia have been mounted on a slide by J. McDunnough.

**flavisaria** Grossbeck, *Stenaspilates*

1906, Canadian Ent., vol. 38, p. 272.

Cotype male, Yavapai County, Arizona, May 31, and cotype female, same data, May 29.

**flavivenata** Hulst, *Sciagraphia*

1898, Canadian Ent., vol. 30, p. 163.

Type male, Quebec, Canada, May 18, 1892 (Hanham).

**florida** Hulst, *Diastictis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 334.

Type male, Florida.

**floridaria** Hulst, *Boarmia*

1888, Ent. Amer., vol. 3, p. 215.

Type male, Florida.

**floridensis** Hulst, *Diastictis*

1898, Canadian Ent., vol. 30, p. 164.

Type female, south Florida (Rautenberg).

**floridensis** Holland, *Sphacelodes*

1884, Papilio, vol. 4, p. 72.

A male labeled "type" from Indian River, Florida.

**formosa** Hulst, *Philereme*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 276.

Type male, Colorado (Bruce).

**formosa** Hulst, *Scelolophia*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 302.

Type male, Sabine, Texas.

**formosata** Hulst, *Cleora*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 357.

Type female, Colorado (Bruce).

**fuliginaria** Hulst, *Boarmia*

1888, Ent. Amer., vol. 3, p. 215.

Type male, northern Illinois.

**fumosa** Hulst, *Deilinia*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 328.

A female from Utah, labeled "type." However, the lectotype was designated by Barnes and McDunnough (1912, Contributions to the natural history of the Lepidoptera of North America, vol. 1, no. 4, p. 33). The Utah female may be considered a cotype.

**fumosa** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 269.

Type male, South Abington, Massachusetts, August 10, 1880 (J. E. Bates). There is also a second specimen bearing a *fumosa* type label from Amherst, Massachusetts, but this specimen is not mentioned in the original description.

**furfuraria** Hulst, *Boarmia*

1888, Ent. Amer., vol. 3, p. 214.

Type male, Colorado.

**fuscata** Grossbeck, *Eucestia*

1906, Canadian Ent., vol. 38, p. 275.

Type male, Colton, California, February 26, 1888.

**fuscata** Hulst, *Acidalia quinquelineata*

1887, Ent. Amer., vol. 2, p. 187.

Type male, Summit, Sierra Nevada, California. This specimen was designated as the lectotype by Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 172).

**fuscata** Hulst, *Synaxis*

1898, Canadian Ent., vol. 30, p. 217.

Type male, Glenwood Springs, Colorado, September 16-23.

**galbanaria** Hulst, *Caberodes*

1886, Ent. Amer., vol. 1, p. 204.

Type female, Arizona.

**georgii** Hulst, *Plemyria*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 280.

Two males, both labeled "type," one from Nevada County, California, September (Riley), the other "W.M." Barnes and McDunnough (1917, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 226) designated a lectotype from the Hulst material as a specimen from Nevada. However, no such specimen is present, and it is supposed that this was in error for Nevada County, California.

**gertuda** Hulst, *Phengommataea*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 342.

Type male, Cusack Ranch, Willow Creek, Colorado.

**giganteus** Grossbeck, *Pero*

1910, Proc. U. S. Natl. Mus., vol. 38, p. 366.

Cotype female, Colorado.

**gillettei** Hulst, *Eucymatoge*

1898, Canadian Ent., vol. 30, p. 116.

Type male, Colorado, 2693.

**glacialis** Hulst, *Xanthorhoe*

1898, Canadian Ent., vol. 30, p. 119.

A female labeled "type" from Alaska. However, according to the original description, the type is in the United States National Museum collection, so the present specimen is at best a cotype.

**gracea** Hulst, *Mericisca*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 356.

Type female, Colorado (Bruce). There is a second specimen labeled "type," a male from Glenwood Springs, Colorado, July, 1895 (W. Barnes). However, this locality is not mentioned in the original description.

**graefiaria** Hulst, *Lozogramma*

1887, Ent. Amer., vol. 2, p. 192.

Type male, Arizona.

**graefii** Hulst, *Acanthophora*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 365.

Type male, Texas.

**graefii** Hulst, *Eucymatoge*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 273.

Type female, "M. H." (Graef). This is probably an abbreviation for Mt. Hood, which is the locality mentioned in the original description.

**grandiosa** Hulst, *Hydriomena*

1898, Canadian Ent., vol. 30, p. 118.

A male bears a type label. However, the type is in the United States National Museum collection, No. 3927. The present specimen from the Hulst collection is probably the one mentioned in the discussion following the original description.

**grandipennis** Hulst, *Ersephila*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 291.

Type male, Colorado (Bruce); type female, same data. Also present is a female from Glenwood Springs, Colorado, April 20, 1895 (W. Barnes), that is labeled "type," but this specimen is not mentioned in the original description.

**grandis** Hulst, *Eucymatoge*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 273.

Type female, "W. T." (Cook). The original description gives the type locality as Washington.

**graphidaria** Hulst, *Semiothisa*

1887, Ent. Amer., vol. 2, p. 190.

Type female, Texas. This specimen was designated as the lectotype by Barnes and McDunnough (1917, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 239).

**grassata** Hulst, *Macaria*

1881, Bull. Brooklyn Ent. Soc., vol. 4, p. 33.

Type female, Florida. It should be noted that the type locality in the original description is Colorado, as mentioned by Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 182).

**grossbecki** Pearsall, **Pero**

1911, Jour. New York Ent. Soc., vol. 19, p. 91.

Cotype male, Eureka, Utah, May 12, 1901 (Tom Spalding), and cotype female, same data, May 13, 1910.

**guttata** Hulst, **Alcis**

1900, Jour. New York Ent. Soc., vol. 8, p. 219.

Two males, both labeled "type," one from western Pennsylvania, June 26, the other without data. It is possible that the latter specimen is the one from New York mentioned in the original description.

**hanhami** Hulst, **Eois**

1898, Canadian Ent., vol. 30, p. 158.

Two males, both labeled "type," from Winnipeg, Manitoba. There is a slide of the male genitalia by J. McDunnough that may have been made from one of these specimens.

**hebetata** Hulst, **Phasiane**

1881, Bull. Brooklyn Ent. Soc., vol. 4, p. 34.

Type male, Colorado.

**helena** Hulst, **Diastictis**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 332.

Type female, Brooklyn, New York, September, 1892 (Miss Jackson).

**helveolaria** Hulst, **Endropia**

1881, Bull. Brooklyn Ent. Soc., vol. 4, p. 33.

Type male, Colorado.

**herbicolata** Hulst, **Hydriomena**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 285.

Two males, both labeled "type," Havilah, California, Henry Edwards No. 7671.

**hilliata** Hulst, **Eois**

1887, Ent. Amer., vol. 2, p. 187.

Type male, Rockledge, Florida, April, 1884 (W. W. Hill). There is a genitalic slide made by J. McDunnough that is labeled as having been made from this type.

**hilumaria** Hulst, **Endropia**

1886, Ent. Amer., vol. 1, p. 206.

Type male, Colorado (Bruce).

**hyalina** Hulst, **Eudule**

1898, Canadian Ent., vol. 30, p. 114.

Type male, Senator, Arizona, September 9, 1896.

**hyperborea** Hulst, **Rachela**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 254.

Type male, Alert Island, Alaska.

**ida** Hulst, **Caripeta**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 341.

Type female, Colorado (Bruce). The female genitalia have been mounted on slide No. 1608 by F. H. Rindge.

**illocata** Hulst, **Xanthorhoe**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 293.

Type female, Alaska. This specimen was designated as the lectotype by Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 176). A second specimen from Alaska is also labeled "type," but it is not conspecific.

**illustraria** Hulst, **Geometra**

1886, Ent. Amer., vol. 2, p. 121.

Type male, California.

**implorata** Hulst, **Tephroclystis**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 272.

Type female, Havilah, California. The genitalia have been mounted on a slide by J. McDunnough.

**incongruaria** Hulst, **Metanema**

1887, Ent. Amer., vol. 2, p. 212.

Type female, Canada. According to the original description, the type locality is Hamilton, Canada.

**inconspicua** Hulst, **Chloroclystis**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 264.

Type female, California, No. 1380.

**indefinata** Grossbeck, **Hydriomena**

1907, Trans. Amer. Ent. Soc., vol. 33, p. 336.

Type male, Soda Springs, Siskiyou County, California, May 25.

**indistincta** Hulst, **Ersephila**

1898, Canadian Ent., vol. 30, p. 119.

Type male, Washington Territory. There is a second male, labeled "type," from Glenwood Springs, Colorado, April 8, 1893 (W. Barnes).

**inferior** Hulst, *Gymnocelis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 264.

Type female, California.

**inornata** Hulst, *Stergamataea*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 368.

Type female, Colorado (Bruce).

**inornata** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 267.

Type female, Mitchell County, North Carolina, July, 1892.

**inquinaria** Hulst, *Semiothisa*

1887, Ent. Amer., vol. 2, p. 189.

Type male, California.

**insolabilis** Hulst, *Tephroclystis*

1900, Jour. New York Ent. Soc., vol. 8, p. 215.

Type female, Arizona. The genitalia have been mounted on a slide by J. McDunnough.

**interruptaria** Grote, *Tornos*

1882, Canadian Ent., vol. 14, p. 185.

A female from Havilah, California, labeled "type." This is a spurious type.

**inviolata** Hulst, *Stenaspilates*

1898, Canadian Ent., vol. 30, p. 218.

Type female, Phoenix, Arizona, May 30.

**jaspidiaria** Hulst, *Eucrostis*

1886, Ent. Amer., vol. 2, p. 122.

Type male, Charlotte Harbor, Florida.

**julia** Hulst, *Sympherta*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 338.

Two males, both labeled "type"; one is labeled "W.M.," the other Easton, Washington (through C. V. Riley). In addition there is another male from Sudbury, Ontario, 1891 (J. D. Evans), which may be the specimen mentioned in the original description from this locality, although it does not bear a type label.

**kempii** Hulst, *Plagodis*

1900, Jour. New York Ent. Soc., vol. 8, p. 220.

Type female, western Pennsylvania, July 26. According to the original description, the type locality is Beaver County, Pennsylvania.

**kunzei** Hulst, *Neoterpes ephelidaria*

1898, Canadian Ent., vol. 30, p. 215.

Type male, Prescott, Arizona, July 28, 1896. Type female, Senator, Arizona, August 17, 1896 (Kunze). Also present are two females without locality data, labeled "type."

**kunzei** Hulst, *Spodoptera*

1898, Canadian Ent., vol. 30, p. 192.

Two females, both labeled "type," one from Prescott, Arizona, August, 1896 (Kunze), female genitalia mounted on slide No. 1614 by F. H. Rindge, the other from Senator, Arizona, August 20, 1896 (Kunze), female genitalia mounted on slide No. 1616 by F. H. Rindge.

**labeculata** Hulst, *Eois*

1887, Ent. Amer., vol. 2, p. 187.

Type male, Arizona.

**lachrymosa** Hulst, *Tephroclystis*

1900, Canadian Ent., vol. 32, p. 103.

Type male, Marion County, Oregon.

**laeta** Hulst, *Therina*

1900, Canadian Ent., vol. 32, p. 107.

Type male, New Mexico. Male genitalia on slide No. 4, June 14, 1946, H. W. Capps.

**laetula** Hulst, *Nyctiphanta*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 336.

Type male, Arizona.

**lallata** Hulst, *Alcis*

1898, Canadian Ent., vol. 30, p. 193.

Type male, San Francisco Mountains, Arizona, July 26, 1897, 8-10,000 feet. This specimen was designated as the lectotype by Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 184).

**lanceolata** Hulst, *Eois*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 305.

Three specimens, labeled "type," from Arizona and New Mexico. According to the original description, the type is from the Argus Mountains, California, and it is in the collection of the United States National Museum. The present three specimens must therefore be considered as spurious.



**latipennis** Hulst, *Alcis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 346.

Type male, Easton, Washington.

**latipennis** Hulst, *Rachela*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 254.

Type male, California, No. 3519.

**latipennis** Hulst, *Tephroclystis*

1898, Canadian Ent., vol. 30, p. 114.

Type male, Quebec, Canada (Hanham), No. 956. This specimen was selected by Grossbeck (1907, Ent. News, vol. 18, p. 347) as the lectotype.

**lentaria** Hulst, *Endropia*

1886, Ent. Amer., vol. 1, p. 207.

Type male, Florida.

**leucata** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 267.

Type female, Montana.

**lineata** Hulst, *Aethytera*

1898, Canadian Ent., vol. 30, p. 192.

Type male, Glenwood Springs, Colorado, August, 1895 (W. Barnes).

**litaria** Hulst, *Aspilates*

1887, Ent. Amer., vol. 2, p. 211.

A male labeled "type" from Colorado (Bruce). The lectotype was designated by Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 178) as a specimen in the United States National Museum.

**longiciliata** Hulst, *Paleacrita*

1898, Canadian Ent., vol. 30, p. 113.

Type male, Palo Alto, California, May (W. Barnes).

**longidens** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 270.

Type female, Colorado (Bruce).

**longula** Hulst, *Xanthorhoe*

1898, Canadian Ent., vol. 30, p. 119.

A female labeled "type" from Alaska. According to the original description, the type is in the United States National Museum, so the present specimen is at best a cotype.

**louisia** Hulst, *Synchlora*

1898, Canadian Ent., vol. 30, p. 159.

A female labeled "type" from Cocoanut Grove, Florida (E. A. Schwarz). Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 196) have restricted the type to the male specimen in the United States National Museum collection and have said that the female in the Hulst collection is not conspecific with the male.

**lugubrosa** Hulst, *Therina*

1900, Canadian Ent., vol. 32, p. 106.

Type male, Rossland, British Columbia, September 11 (Danby). Male genitalia on slide No. 6, June 14, 1946, H. W. Capps. There is a second male with the same data, also labeled "type." The former specimen is hereby designated as the lectotype, so the second male becomes a lectoparatype.

**luridula** Hulst, *Alcis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 346.

Type female, Florida (Mrs. Slosson).

**luteolata** Hulst, *Cidaria*

1880, Bull. Brooklyn Ent. Soc., vol. 3, p. 42.

Type male, Colorado.

**luteolata** Hulst, *Phylace*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 277.

Type male, Hot Springs, New Mexico, 7000 feet altitude.

**maculifascia** Hulst, *Sciagraphia*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 329.

Type male, Dakota; type female, without data. According to the original description, the type locality is South Dakota.

**maestosa** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 269.

Type female, Colorado (Bruce). The genitalia have been mounted on a slide by J. McDunnough.

**magdalena** Hulst, *Melemaea*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 368.

Type male, Colorado (Bruce).

**manubiaria** Hulst, *Endropia*

1886, Ent. Amer., vol. 1, p. 207.

Type male, Colorado.

**maricopa** Hulst, *Diastictis*

1898, Canadian Ent., vol. 30, p. 164.

Type female, Arizona.

**marmoratus** Grossbeck, *Pero*

1910, Proc. U. S. Natl. Mus., vol. 38, p. 375.

Cotype female, New Jersey.

**mellitularia** Hulst, *Tetraxis*

1886, Ent. Amer., vol. 1, p. 202.

Type female, Summit, Sierra Nevada, California. This specimen was designated as the lectotype by Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 188).

**mendicata** Hulst, *Semiothisa*

1887, Ent. Amer., vol. 2, p. 189.

Type female, Prescott, Arizona.

**metanemaria** Hulst, *Semiothisa*

1887, Ent. Amer., vol. 2, p. 188.

Type male, Arizona.

**microptera** Hulst, *Eois*

1900, Jour. New York Ent. Soc., vol. 8, p. 217.

Type male, Hastings, Florida, May. There is a slide made by J. McDunnough labeled Hastings, Florida, that may have been made from this type.

**minima** Hulst, *Caberodes*

1898, Canadian Ent., vol. 30, p. 219.

Type male, Arizona. Male genitalia on slide No. 3, June 14, 1946, H. W. Capps.

**minima** Hulst, *Nacophora*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 360.

Type female, Colorado (Bruce).

**minoraria** Hulst, *Endropia bilinearia*

1886, Ent. Amer., vol. 1, p. 206.

Type male, New Jersey.

**minuta** Hulst, *Diastictis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 334.

A female from Texas, labeled "type." However, Barnes and McDunnough (1916,

Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 183) restrict the type to a specimen in the Neumoegen collection.

**minuta** Hulst, *Gymnocelis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 265.

Two males, both labeled "type," from the Argus Mountains, April, 1891 (K.).

**minutularia** Hulst, *Acidalia*

1880, Bull. Brooklyn Ent. Soc., vol. 3, p. 44.

Type female, Florida.

**miranda** Hulst, *Ptenopoda*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 307.

Type male, Texas. According to the original description, the specimen is from Blanco County.

**misturata** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 266.

Type male, California. The original description says Soda Springs, California, and Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 177) designated this the lectotype. The specimen mentioned in the original description from Hot Springs, New Mexico, 7000 feet altitude, September, is also present but is in very poor condition.

**mollisaria** Hulst, *Endropia bilinearia*

1886, Ent. Amer., vol. 1, p. 206.

Type male, Colorado.

**morbosa** Hulst, *Episemasia*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 328.

Type male, Florida.

**morensata** Hulst, *Nannia*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 262.

Type female, Wisconsin.

**morosata** Hulst, *Chesiadodes*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 354.

Type male, Sierra Nevada, California.

**morrisata** Hulst, *Marmopteryx*

1887, Ent. Amer., vol. 2, p. 190.

Type female, Prescott, Arizona.

**morsicaria** Hulst, *Tetracis*

1886, Ent. Amer., vol. 1, p. 203.

Type male, Texas.

**mulleolata** Hulst, *Cidaria*

1881, Bull. Brooklyn Ent. Soc., vol. 4, p. 27.

Type male, Washington Territory. According to the original description, the type locality was Colorado, but Barnes and McDunnough (1917, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 208; 1918, *op. cit.*, vol. 4, p. 137) have reviewed this problem, and the present specimen is considered to be the type.

**multilineata** Hulst, *Pigia*

1887, Ent. Amer., vol. 2, p. 188.

Types, male and female, Arizona.

**multiscripta** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 270.

Type female, Glenwood Springs, Colorado, May, 1895 (W. Barnes), designated as the lectotype by McDunnough (1949, Bull. Amer. Mus. Nat. Hist., vol. 93, p. 622). Cotype female, Colorado.

**multistrigata** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 270.

Type female, Glenwood Springs, Colorado, August, 1892. The genitalia have been mounted on a slide by J. McDunnough.

**multivagata** Hulst, *Scotosia*

1881, Bull. Brooklyn Ent. Soc., vol. 4, p. 27.

Type male, Colorado. In addition there is a female labeled "type" from northern Ontario, Canada. According to the original description, the type locality is Colorado, so this female is a spurious type.

**muricolor** Hulst, *Selidosema*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 355.

Type male, Hazelton, Pennsylvania (Dietz). There is a second specimen labeled "type" with the same data, but it is very badly damaged.

**muricolor** Hulst, *Stenaspilates*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 379.

Type male, San Antonio, Texas (Rautenberg).

**nebulosa** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 266.

Lectotype female, New York (Bruce), designated by Barnes and McDunnough (1918, Contributions to the natural history of the Lepidoptera of North America, vol. 4, p. 144). Cotypes, two females, Texas, April.

**nemorella** Hulst, *Xanthorhoe*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 293.

Type male, Aleutian Islands (Skinner). This specimen was designated as the lectotype by Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 176). A second specimen from Sauzalito, California, January, is also present.

**neo-mexicana** Hulst, *Hydriomena*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 285.

Lectotype female, Las Cruces, New Mexico, 600 (Cockerell), designated by Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 177). In addition, the following specimens bear type labels: one male, Blanco County, central Texas, September; two females, Texas, May; and one female without locality data.

**nevadaria** Hulst, *Rhaphidodemas*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 362.

Type male, Colorado (Bruce).

**nevadaria** Hulst, *Tephrosia*

1888, Ent. Amer., vol. 3, p. 217.

Type male, Sierra Nevada, California, No. 3507. The male genitalia have been mounted on slide No. 1551 by F. H. Rindge.

**nigrescaria** Hulst, *Plagodis keutzingaria*

1887, Ent. Amer., vol. 2, p. 212.

Type male, Brockport, New York (D. Bruce); type female, same data.

**nigrescens** Hulst, *Philereme*

1900, Canadian Ent., vol. 32, p. 104.

Type male, Marion County, Oregon.

**nigrescens** Hulst, *Selidosema*

1898, Canadian Ent., vol. 30, p. 214.

Type female, San Antonio, Texas (Rauten-

berg). The female genitalia have been mounted on slide No. 1612 by F. H. Rindge.

**nigrodiscalis** Hulst, *Leptomeris*

1898, Canadian Ent., vol. 30, p. 158.

Type female (?), Maine.

**nimbicolor** Hulst, *Eois*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 305.

Type male, Florida, April.

**nimbicolor** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 269.

Type male, Calgary, Alberta, 1894. The genitalia have been mounted on a slide by J. McDunnough.

**nimbosa** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 269.

Type female, Arizona. The genitalia have been mounted on a slide by J. McDunnough.

**niveifascia** Hulst, *Tephroclystis*

1898, Canadian Ent., vol. 30, p. 115.

Type female, Santa Fe, New Mexico, July (Cockerell), 3907.

**niveifasciata** Hulst, *Mesoleuca*

1900, Jour. New York Ent. Soc., vol. 8, p. 216.

There is a female labeled "type" from Fordham, New York, April 26, 1885 (George Gade). However, the type is in the United States National Museum, and this locality is not mentioned in the original description, so the present specimen is probably spurious.

**nocticolata** Hulst, *Cidaria*

1881, Bull. Brooklyn Ent. Soc., vol. 4, p. 26.

Type male, Colorado.

**notataria** Hulst, *Tetracis trianguliferaria*

1886, Ent. Amer., vol. 1, p. 203.

Type female, Colorado.

**novellata** Hulst, *Metanema*

1886, Ent. Amer., vol. 1, p. 204.

A female labeled "type" from Prescott, Arizona, with female genitalia on slide No. 1, June 14, 1946, H. W. Capps. The holotype is in the collection of the United States National Museum, and this Prescott specimen may or may not have been one of the original types.

**oblentaria** Grote, *Tetracis*

1883, Canadian Ent., vol. 15, p. 126.

Type male, Arizona.

**obliqua** Hulst, *Aplodes*

1898, Canadian Ent., vol. 30, p. 160.

Type male, Colorado (Bruce).

**obliquaria** Grote, *Cymatophora* (*Boarmia*)

1883, Canadian Ent., vol. 15, p. 124.

Type male, Arizona.

**obluridata** Hulst, *Acidalia*

1887, Ent. Amer., vol. 2, p. 185.

Type female, Rockledge, Florida, April 16, 1884 (W. W. Hill).

**obscurata** Hulst, *Zenophleps*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 281.

Type male, Siskiyou County, California.

**obscurior** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 271.

Type male, Colorado (Bruce). The genitalia have been mounted on a slide by J. McDunnough.

**occantaria** Hulst, *Endropia*

1886, Ent. Amer., vol. 1, p. 207.

A female labeled "type" from Washington Territory. This is probably spurious, because the type locality is said to be Nevada with types being in the collections of Graef and Tepper.

**occidens** Hulst, *Hydriomena*

1898, Canadian Ent., vol. 30, p. 118.

A female labeled "type" from Oregon (Koebele). The type is No. 3922 in the United States National Museum collection.

**occidentalis** Hulst, *Rachela*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 254.

Type male, Victoria, British Columbia, December 6, 1893 (Danby). There are two females labeled "type" with the same data, but they are dated December 13, 1893.

**ocellaria** Grossbeck, *Gonodontis*

1907, Canadian Ent., vol. 39, p. 347.

Cotype male, Minnehaha, Arizona, October 3.

- ochreata** Hulst, *Eugonobapta*  
1898, Canadian Ent., vol. 30, p. 216.  
Type male, Senator, Arizona, August 20, 1896 (Kunze).
- ochreatus** Hulst, *Ennomos*  
1898, Canadian Ent., vol. 30, p. 218.  
Type female, Colorado.
- octolineata** Hulst, *Semiothisa*  
1887, Ent. Amer., vol. 2, p. 190.  
A female from Arizona labeled "type." According to the original description, the type is a male and is in the Neumoegen collection.
- odontata** Hulst, *Marmopteryx*  
1896, Trans. Amer. Ent. Soc., vol. 23, p. 289.  
Type female, Colorado. Another female labeled "type" is present from Nevada. However, this locality was not mentioned in the original description, so the present specimen must be regarded as spurious.
- opacaria** Hulst, *Cidaria*  
1881, Bull. Brooklyn Ent. Soc., vol. 4, p. 27.  
Type female, Colorado.
- ophiurus** Rindge, *Exelis*  
1952, Amer. Mus. Novitates, no. 1582, p. 14.  
Paratypes, one male and two females, Texas, one of them dated May.
- opuscularia** Hulst, *Aspilates*  
1887, Ent. Amer., vol. 2, p. 210.  
A male from Arizona labeled "type," with male genitalia mounted on slide No. 1561 by F. H. Rindge. However, this type is spurious because the original description states that the species was described from one male from California in the Holland collection.
- ornata** Hulst, *Tephroclystis*  
1896, Trans. Amer. Ent. Soc., vol. 23, p. 267.  
Type female, Glenwood Springs, Colorado, August, 1892 (W. Barnes).
- osculata** Hulst, *Enchoria*  
1896, Trans. Amer. Ent. Soc., vol. 23, p. 281.  
Type male, without data.
- oxygramma** Hulst, *Coenocalpe*  
1896, Trans. Amer. Ent. Soc., vol. 23, p. 288.  
Type male, Havilah, California.
- packardaria** Hulst, *Hemerophila*  
1888, Ent. Amer., vol. 3, p. 217.  
Type male, Havilah, California.
- pallescens** Hulst, *Selidosema*  
1907, Ent. News, vol. 18, p. 150.  
Type female, California.
- pallida** Hulst, *Eois*  
1896, Trans. Amer. Ent. Soc., vol. 23, p. 306.  
Type male, Texas. According to the original description, the specimen is from Blanco County.
- pallidula** Hulst, *Diastictis*  
1896, Trans. Amer. Ent. Soc., vol. 23, p. 334.  
Type without locality data. According to the original description, the specimen was from Colorado. It is now in rather battered condition, with the head and abdomen missing and wings glued on.
- pallulata** Hulst, *Tetraxis*  
1887, Ent. Amer., vol. 2, p. 211.  
Type male, Crater Lake, Oregon, September 27, 1886, altitude 7100 feet, on bark of pine (J. C. Merrill).
- parvularia** Hulst, *Eois*  
1888, Ent. Amer., vol. 3, p. 213.  
Two females, both labeled "type," from Texas.
- peplarioides** Hulst, *Marmarea*  
1898, Canadian Ent., vol. 30, p. 218.  
A male labeled "type" from the San Francisco Mountains, Arizona, July 23, 1897, 8-10,000 feet altitude. However, McDunnough (1949, Amer. Mus. Novitates, no. 1393, p. 5) discussed this specimen and designated a lectotype in the collection of the American Museum of Natural History. Accordingly, the present specimen is a spurious type.
- perangulata** Hulst, *Enypia*  
1896, Trans. Amer. Ent. Soc., vol. 23, p. 343.  
Types, two females from Colorado (Bruce).
- perangulata** Hulst, *Selenia*  
1896, Trans. Amer. Ent. Soc., vol. 23, p. 376.  
Type female, Colorado (Bruce).

**perfalcata** Smith, *Deilinia*

1903, Check list, p. 73, no. 3915.

Types, two females, Soda Springs, Siskiyou County, California, April 30, May 16. This is apparently a Hulst manuscript name that Smith validated in his "Check list."

**perfusca** Hulst, *Tephroclystis*

1898, Canadian Ent., vol. 30, p. 116.

Two females, labeled "type," from Easton, Washington. The specimen from Utah was designated lectotype by Taylor (1908, Canadian Ent., vol. 40, p. 58), so these two specimens may be considered cotypes.

**pergracilis** Hulst, *Synelys*

1900, Canadian Ent., vol. 32, p. 105.

Type male, without locality data. According to the original description, the type locality is south Florida.

**perizomaria** Hulst, *Drepanodes*

1886, Ent. Amer., vol. 1, p. 205.

Type female, Montana.

**perolivata** Hulst, *Catopyrrha coloraria*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 340.

Type male, without locality data. The male genitalia have been mounted on slide No. 1545 by F. H. Rindge. According to the original description, the type locality is Texas.

**persimilis** Hulst, *Scopula*

1898, Canadian Ent., vol. 30, p. 158.

Type male, Ontario.

**perumbraria** Hulst, *Synglochis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 352.

Type female, San Bernardino County, California. A second female is present labeled "Colorado Desert."

**pervolata** Hulst, *Thamnonoma*

1880, Bull. Brooklyn Ent. Soc., vol. 3, p. 42.

Type male, Colorado.

**pictipennata** Hulst, *Macaria*

1898, Canadian Ent., vol. 30, p. 162.

Type female, Senator, Arizona.

**plantagenaria** Hulst, *Ephyra*

1887, Ent. Amer., vol. 2, p. 185.

Type female, Blanco County, central Texas, November.

**plumogeraria** Hulst, *Boarmia*?

1888, Ent. Amer., vol. 3, p. 216.

A male labeled "type" from Glenwood Springs, Colorado, 4-3-1893 (W. Barnes). This is a spurious type, as the species was described from California.

**polaris** Hulst, *Psychophora sabini*

"1902" [1903] in Dyar, Bull. U. S. Natl. Mus., no. 52, p. 287.

Type male, Polaris Bay.

**polygrammata** Hulst, *Coenocalpe*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 288.

Three specimens, all females and all labeled "type": Colorado (Bruce); Argus Mountains, April, 1891 (K.); Salida, Colorado, May 31, 1888.

**pulveraria** Hulst, *Deilinia*

1898, Canadian Ent., vol. 30, p. 161.

Two males, both labeled "type," from Rossland, British Columbia, April 18 (Danby). These specimens have been designated lectoparatypes by Rindge (1949, Bull. Amer. Mus. Nat. Hist., vol. 94, p. 270).

**punctata** Hulst, *Therina*

1898, Canadian Ent., vol. 30, p. 215.

Type male, Glenwood Springs, Colorado, October 1-7.

**punctomaculata** Hulst, *Cleora*

1888, Ent. Amer., vol. 3, p. 214.

Type male, Vancouver Island.

**purpurissata** Grossbeck, *Eupithecia*

1908, Jour. New York Ent. Soc., vol. 16, p. 23.

Type male, Monterey County, California.

**quaesitata** Hulst, *Acidalia*

1880, Bull. Brooklyn Ent. Soc., vol. 3, p. 45.

Type male, Colorado.

**rachelae** Hulst, *Apocheima*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 362.

Type male, Colorado (Bruce).

**radiosaria** Hulst, *Azelina*

1886, Ent. Amer., vol. 1, p. 206.

Type female, Arizona.

**rectifascia** Hulst, *Diastictis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 333.

A single female from Easton, Washington, labeled "type." According to the original description, this species was described from a single female, which has been designated as type No. 3909 in the United States National Museum collection (Rindge, 1949, Bull. Amer. Mus. Nat. Hist., vol. 94, p. 247).

**remorata** Grossbeck, *Gymnocelis*

1907, Canadian Ent., vol. 39, p. 345.

Type male, Yuma County, Arizona, April 12; type female, same data, April 20; cotypes, one male, five females, same data, April 12, 13.

**respersata** Hulst, *Macaria*

1880, Bull. Brooklyn Ent. Soc., vol. 3, p. 42.

Type male, Colorado.

**roseotincta** Hulst, *Leptomeris*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 303.

Type female, Florida, April.

**rubrotincta** Hulst, *Slossonia*

1898, Canadian Ent., vol. 30, p. 217.

A male labeled "type" from Los Angeles County, California, July. However, the type is in the United States National Museum collection, so the present specimen cannot be other than a cotype.

**rufescens** Hulst, *Eois*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 305.

Type female, Austin, Texas.

**saltusaria** Hulst, *Eucrostis*

1886, Ent. Amer., vol. 2, p. 122.

Type female, Indian River, Florida.

**scintillularia** Hulst, *Eois*

1888, Ent. Amer., vol. 3, p. 213.

Type female, Florida.

**semiatrata** Hulst, *Cidaria*

1881, Bull. Brooklyn Ent. Soc., vol. 4, p. 26.

Type male, Washington Territory. According to the original description, the type locality should be Colorado, but McDunnough (1943, Canadian Ent., vol. 75, p. 211) has already commented on this matter and has accepted the present specimen as the type.

**semipectinata** Hulst, *Monotaxis*

1898, Canadian Ent., vol. 30, p. 120.

Type female, Arizona.

**sericeata** Hulst, *Diastictis*

1898, Canadian Ent., vol. 30, p. 191.

Two females, both labeled "type," one from Colorado Desert, the other from Senator, Arizona, September 9, 1896.

**sex-punctata** Bates, *Semiothisa*

1886, Canadian Ent., vol. 18, p. 75.

Type female, Nevada. According to the original description, the type locality is Elko, Nevada, 10,000 feet.

**sierrae** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 268.

Type female, Colorado (Bruce).

**simpliciaria** Grote, *Tetracis*

1883, Canadian Ent., vol. 19, p. 217.

Type male, Arizona.

**simulata** Hulst, *Semiothisa*

1887, Ent. Amer., vol. 2, p. 188.

A female from Arizona, labeled "type." Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 182) restrict the type to a male in the Graef collection, so the present specimen is at best a cotype.

**skinnerata** Grossbeck, *Euphenolia*

1907, Ent. News, vol. 18, p. 252.

Type male, Carr Canyon, Huachuca Mountains, Cochise County, Arizona, August, 1905 (H. Skinner).

**smithii** Grossbeck, *Stenaspilates*

1906, Canadian Ent., vol. 38, p. 273.

Type female, Doble, California, August 1.

**smithii** Pearsall, *Graefia*

1910, Canadian Ent., vol. 42, p. 331.

Cotypes, six males, Walters Station, California, April. Also present is a cotype from Colorado Desert, Yuma County, Arizona, although this locality is not mentioned in the original description.

**snoviaria** Hulst, *Heterolocha*?

1888, Ent. Amer., vol. 3, p. 213.

Type male, New Mexico (F. H. Snow).

**solamata** Hulst, **Deilinia**

1900, Jour. New York Ent. Soc., vol. 8, p. 217.

Type male, Winnipeg, Manitoba, July 22, 1898 (A. W. Hanham). The male genitalia have been mounted on slide No. 1547 by F. H. Rindge.

**somniaria** Hulst, **Ellopia**

1886, Ent. Amer., vol. 1, p. 208.

Type female, Washington Territory. Female genitalia on slide No. 5, June 14, 1946, H. W. Capps.

**sparsimacula** Hulst, **Hydriomena**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 285.

Type female, California, 230.

**speciosa** Hulst, **Diastictis**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 332.

Type female, Hot Springs, New Mexico, 7000 feet altitude.

**speciosa** Hulst, **Neolexia**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 279.

Type male, Calgary, Alberta.

**speciosa** Hulst, **Paleacrita**

1898, Canadian Ent., vol. 30, p. 113.

Type male, Glenwood Springs, Colorado, 4-3-1893 (W. Barnes).

**spododia** Hulst, **Alcis**

1898, Trans. Amer. Ent. Soc., vol. 23, p. 345.

Type male, without locality data. According to the original description, the type locality is Colorado.

**spodopterata** Hulst, **Sciagraphia**

1898, Canadian Ent., vol. 30, p. 162.

Type female, Glenwood Springs, Colorado, August, 1892 (W. Barnes).

**sponsata** Grote, **Marmopteryx**

1882, Canadian Ent., vol. 14, p. 215.

A male from Colorado, labeled "type." This, however, is very doubtful, as the type locality is given as Las Vegas, New Mexico, and the word "type" on Grote's label was obviously written at a later date in a different type of ink.

**stellata** Hulst, **Tephroclystis**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 270.

Type male, Colorado.

**suavata** Hulst, **Eois**

1900, Jour. New York Ent. Soc., vol. 8, p. 217.

A male labeled "type" from Palm Beach, Florida (Dyar). However, the type is No. 4964 in the collection of the United States National Museum, so the present specimen may be considered a cotype.

**subacuta** Hulst, **Diastictis**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 335.

Type female, Colorado (Bruce). This specimen was designated as the lectotype by Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 180).

**subalbaria** Hulst, **Diastictis**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 333.

Two males, both labeled "type," from Colorado.

**subcolorata** Hulst, **Tephroclystis**

1898, Canadian Ent., vol. 30, p. 114.

Type male, San Francisco Mountains, Arizona, 8-10,000 feet altitude, July 20, 1897. This specimen was selected by Grossbeck (1907, Ent. News, vol. 18, p. 344) as the lectotype. The specimen from Arizona, August, is also present and it is a female.

**subfalcata** Hulst, **Diastictis**

1896, Trans. Amer. Ent. Soc., vol. 23, p. 335.

Type female, Platte Canyon, Colorado, June 23, 1891 (W. Barnes). This specimen was designated as the lectotype by Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 183). A second female, labeled "type," from Glenwood Springs, Colorado, September, 1892 (W. Barnes), is also present, but it is not conspecific with the lectotype.

**sublacteolata** Hulst, **Semiothisa**

1887, Ent. Amer., vol. 2, p. 189.

Type male, Dayton, Ohio (Pilate).

**subochrearia** Hulst, **Caberodes**

1900, Canadian Ent., vol. 32, p. 107.



Type female, New Jersey (Kemp). Female genitalia mounted on slide No. 2, June 14, 1946, H. W. Capps.

**subochreate** Hulst, *Eois*

1887, Ent. Amer., vol. 2, p. 187.

According to the original description, this species was described from one male in the collection of Graef. In the Hulst collection there are two males, both labeled "type," one from Colorado, the other from Salida, Colorado, 6-10-1888. Both these specimens are probably spurious types.

**subpunctata** Hulst, *Metanema*

1898, Canadian Ent., vol. 30, p. 218.

Type female, California.

**substriataria** Hulst, *Spodolepsis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 347.

Type female, New Hampshire (Mrs. Slosson).

**swettii** Grossbeck, *Eupithecia*

1907, Ent. News, vol. 18, p. 346.

Cotype male, Sharon, Massachusetts, May 1.

**syzygiaria** Hulst, *Drepanodes*

1886, Ent. Amer., vol. 2, p. 121.

Type male, Florida, April 15, 1880.

**tabulata** Hulst, *Talledega*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 260.

Type male, Alert Island. According to the original description, this is from Alaska; however, on the specimen there is a small label in pencil that says "Me."

**taylorata** Hulst, *Anthelia*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 337.

Type male, without locality data. According to the original description, the type locality is Victoria, British Columbia.

**tenebrescens** Hulst, *Tephroclystis*

1900, Canadian Ent., vol. 32, p. 103.

Type female, Texas, March 20.

**tenebrosata** Hulst, *Semiothisa*

1887, Ent. Amer., vol. 2, p. 189.

Type male, Arizona.

**tenuata** Hulst, *Eupithecia*

1880, Bull. Brooklyn Ent. Soc., vol. 3, p. 45.

Type female, Colorado.

**tepperaria** Hulst, *Nemoria*

1886, Ent. Amer., vol. 2, p. 122.

A female, labeled "type," from Florida. The original description gives the type localities as Georgia and North Carolina, the specimens being in the collections of Edwards and Tepper. The present specimen is probably a spurious type.

**texana** Hulst, *Synchlora*

1898, Canadian Ent., vol. 30, p. 160.

Type male, Austin, Texas.

**texanaria** Hulst, *Tephrosia*

1888, Ent. Amer., vol. 3, p. 216.

Type male, without locality data. According to the original description, the type locality is Texas.

**umbriferata** Hulst, *Semiothisa*

1887, Ent. Amer., vol. 2, p. 189.

Type male, Soda Springs, Siskiyou County, California, July 10.

**umbripennis** Hulst, *Somatolophia*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 350.

Type male, Colorado.

**unicolor** Hulst, *Tephroclystis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 271.

Type female, Soda Springs, Siskiyou County, California, September 1. This specimen was designated as the lectotype by McDunnough (1944, Canadian Ent., vol. 76, p. 53).

**unicoloraria** Hulst, *Rumia ochrearia*

1886, Ent. Amer., vol. 1, p. 208.

Type male, Arizona.

**vancouverensis** Hulst, *Erannis defoliaria*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 262.

Type male, Victoria, British Columbia, November 27, 1893 (Danby); type female, same data.

**vellivolata** Hulst, *Macaria*

1881, Bull. Brooklyn Ent. Soc., vol. 4, p. 34.

A male, labeled "type," from Florida, 5-6-

1880. However, the species was described from a single female, which is in the Neumoegen collection.

**vestalis** Hulst, *Ripula*

1898, Canadian Ent., vol. 30, p. 215.

Type male, south Florida (Mrs. Slosson).

**virginalis** Hulst, *Cymatophora*

1900, Jour. New York Ent. Soc., vol. 8, p. 218.

Type male, Newark, New Jersey. The genitalia have been mounted on a slide by J. McDunnough.

**virginaria** Hulst, *Ripula*

1886, Ent. Amer., vol. 1, p. 202.

Type male, Indian River, Florida, No. 7731.

**viridicaria** Hulst, *Aplodes*

1880, Bull. Brooklyn Ent. Soc., vol. 3, p. 41.

Type male, Colorado.

**viridipallens** Hulst, *Synchlora*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 315.

Type male, Colorado. The male genitalia have been mounted on slide No. 1563 by F. H. Rindge.

**viridipennata** Hulst, *Eucrostis*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 314.

Type female, Colorado (Bruce).

**viridipurpurea** Hulst, *Synchlora*

1898, Canadian Ent., vol. 30, p. 159.

Type female, Charlotte Harbor, Florida.

**volucer** Hulst, *Xanthorhoe*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 293.

Type male, Colorado.

**volucrata** Hulst, *Acidalia*

1887, Ent. Amer., vol. 2, p. 185.

Type male, Missouri.

**wrightiaria** Hulst, *Boarmia*

1888, Ent. Amer., vol. 3, p. 215.

Type male, southern California. According to the original description, the type locality is San Bernardino, California. This specimen was designated as the lectotype by Grossbeck (1909, Canadian Ent., vol. 4, p. 194). Also present is a female labeled "type," but the

original description calls for four males, so this female is to be considered as spurious.

**xylina** Hulst, *Neolexia*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 278.

Type male, New York. This specimen was designated as lectotype by Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 175).

**xysteraria** Hulst, *Racheospila*

1886, Ent. Amer., vol. 2, p. 121.

Type female, without locality data. According to the original description, the locality is Florida.

**zygotaria** Hulst, *Aplodes*

1886, Ent. Amer., vol. 2, p. 121.

Type female, Texas.

**EPIPLEMIDAE**

**slossoniae** Hulst, *Philagraula*

1896, Trans. Amer. Ent. Soc., vol. 23, p. 310.

Type male, Florida (Mrs. Slosson).

**LIMACODIDAE**

**oropeso** Barnes, *Limacodes*

1905, Canadian Ent., vol. 37, p. 215.

Cotypes, three males and one female, Yuma County, Arizona, August 19, 22.

**ZYGAENIDAE**

**yampai** Barnes, *Triprocris*

1905, Canadian Ent., vol. 37, p. 215.

A female, labeled "type," from the Baboquiverra Mountains, Pima County, Arizona, July 16-23. The type female is illustrated in Barnes and McDunnough (1912, Contributions to the natural history of the Lepidoptera of North America, vol. 1, no. 4, p. 55, pl. 26, fig. 16), so the above specimen should be considered a cotype.

**PYRALIDAE**

**actualis** Hulst, *Nephopteryx*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 161.

Type male, Colorado. Male genitalia mounted on slide No. 4143, June 13, 1946, C. Heinrich.

**adelalis** Kearfott, *Symphysa*

1903, Jour. New York Ent. Soc., vol. 11, p. 145.

Cotype female, Anglesea, New Jersey, August 5, 1902 (W. D. Kearfott), K. 253.

**adulatalis** Grote, *Toripalpus*

1887, Ent. Amer., vol. 3, p. 129.

Type male, southern California, June.

**aeneela** Hulst, *Pyla*

1895, Canadian Ent., vol. 27, p. 56.

Type female, Colorado (Bruce). Female genitalia mounted on slide No. 3183, June 13, 1946, C. Heinrich.

**affictella** Hulst, *Salebria*

1900, Canadian Ent., vol. 32, p. 170.

Type male, Montclair, New Jersey, August 9, 1899 (W. D. Kearfott). Male genitalia mounted on slide No. 3154, June 13, 1946, C. Heinrich. Type female, Elizabeth, New Jersey, August 7. Female genitalia mounted on slide No. 3155, June 13, 1946, C. Heinrich.

**alatella** Hulst, *Acrobasis*

1887, Ent. Amer., vol. 3, p. 135.

Type male, Napa County, California. Male genitalia mounted on slide No. 3129, June 13, 1946, C. Heinrich.

**albipenella** Hulst, *Pempelia*

1887, Ent. Amer., vol. 3, p. 133.

Type male, southern California.

**albobcapitella** Hulst, *Acrobasis*

1888, Ent. Amer., vol. 4, p. 116.

Type male, Canada.

**albobcostialis** Hulst, *Ephestia*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 164.

Type male, No. 5929, California.

**albobcostella** Hulst, *Maricopa*

1900, Canadian Ent., vol. 32, p. 176.

Two males, labeled "type," from Anglesea, New Jersey, August 21. One of these has the male genitalia mounted on slide No. 3219, June 14, 1946, C. Heinrich.

**albovittella** Hulst, *Pinipestis*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 138.

Type male, Colorado (Bruce). Male genitalia mounted on slide No. 3144, June 13, 1946, C. Heinrich.

**aliculella** Hulst, *Myelois*

1887, Ent. Amer., vol. 3, p. 155.

Types, two males, Arizona, June. One of these has the male genitalia mounted on slide No. 3162, June 13, 1946, C. Heinrich. Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 197) restricted the type of this species to these specimens, so the lectotype subsequently designated by Klots (1942, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 419) is invalid.

**alitalis** Hulst, *Glyphodes*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 157.

A female without locality data is labeled "type."

**amatella** Hulst, *Nephopteryx*

1887, Ent. Amer., vol. 3, p. 131.

Type male, Florida. According to the original description, this species was described from a female.

**anniculalis** Hulst, *Asopia*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 147.

Type male, Colorado.

**aplastella** Hulst, *Tioga*

1888, Ent. Amer., vol. 4, p. 113.

Type female, Colorado (Bruce).

**ardiferella** Hulst, *Altoona*

1888, Ent. Amer., vol. 4, p. 118.

A female labeled "type" from Colorado, July. Female genitalia mounted on slide No. 3229, June 14, 1946, C. Heinrich. This specimen is a doubtful type, and its status was discussed by Barnes and McDunnough (1917, Contributions to the natural history of the Lepidoptera of North America, vol. 4, p. 176).

**argenteonervella** Hulst, *Eufernaldia*

1900, Jour. New York Ent. Soc., vol. 8, p. 224.

Type male, Santa Rita Mountains, Arizona, June 13, 1898 (E. A. Schwarz).

**arizonella** Hulst, *Heterographis*

1900, Jour. New York Ent. Soc., vol. 8, p. 222.

A male labeled "type," Catalina Springs, Arizona, April 12, 1898 (E. A. Schwarz). Male genitalia mounted on slide No. 3204, June 14, 1946, C. Heinrich. The type is listed

in the original description as being in the United States National Museum.

**atrella** Hulst, *Megasis*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 166.

Type male, Colorado. Male genitalia mounted on slide No. 3185, June 13, 1946, C. Heinrich. Type female, Colorado (Cockerell). Female genitalia mounted on slide No. 3186, June 13, 1946, C. Heinrich.

**atrifascialis** Hulst, *Tetralopha*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 160.

A male, labeled "type" from Blanco County, central Texas, October. Klots (1942, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 419) has designated a male from the same locality as the lectotype, so the present specimen may be considered a lectoparatype.

**aureolalis** Hulst, *Eurycreon*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 156.

A female from Arizona labeled "type." According to the original description, this species was described from a single male from Arizona, and this specimen is in the collection of the American Museum of Natural History.

**australella** Hulst, *Selagia*

1900, Canadian Ent., vol. 32, p. 174.

Type female, Blanco County, central Texas. Female genitalia mounted on slide No. 3177, June 13, 1946, C. Heinrich.

**australis** Hulst, *Hydrocampa*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 168.

Type male, Florida, May.

**baccatalis** Hulst, *Loxostege*

1892, Canadian Ent., vol. 24, p. 63.

Type male, Blanco County, central Texas, October. There is a second male labeled "type" from the same locality but dated September, which lacks both secondaries and the abdomen.

**baptisiella** Fernald, *Tetralopha*

1887, Ent. Amer., vol. 3, p. 128.

Type male, 235-N., 5-8-82. According to the original description, this species was described from two males and two females from Missouri and New York, raised by Miss Murtfeldt.

**behrensellus** Fernald, *Crambus*

1887, Ent. Amer., vol. 3, p. 37.

Type male, California, September 17. Beneath the type label is the following notation by A. B. Klots, April, 1937: "probably the type of *biothanatalis* Hulst, but may be as labeled." Later Klots (1942, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 419) states that the unique type of *biothanatalis* is in the collection of the American Museum of Natural History.

**bella** Hulst, *Zophodia*

1892, Canadian Ent., vol. 24, p. 61.

Type female, Massachusetts. Female genitalia mounted on slide No. 3196, June 13, 1946, C. Heinrich.

**bellulalis** Hulst, *Botis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 149.

Type male, Texas, May.

**betulella** Hulst, *Acrobasis*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 125.

Two females, both labeled "type," from New York, July. One of the specimens has the female genitalia mounted on slide No. 3135, June 13, 1946, C. Heinrich.

**bicolorella** Hulst, *Atascosa*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 210.

Type male, Blanco County, central Texas, August. Male genitalia mounted on slide No. 3222, June 14, 1946, C. Heinrich.

**bifasciella** Hulst, *Nephopteryx*

1887, Ent. Amer., vol. 3, p. 132.

Type male, No. 7818, Arizona. Male genitalia mounted on slide No. 3163, June 13, 1946, C. Heinrich.

**bistriatella** Hulst, *Cayuga*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 209.

Type male, Colorado. Male genitalia mounted on slide No. 3224, June 14, 1946, C. Heinrich. According to the original description, the type locality is San Bernardino, California.

**bistriatella** Hulst, *Dioryctria*

1887, Ent. Amer., vol. 3, p. 136.

The specimen bearing the type label is a male from Iowa, June 6, 1886 (H. S. Saunders). Below the type label is a note by Mc-

Dunnough saying "this is probably the true type of *leucophaeella* Hulst," to which Heinrich has added "No."

**bistriatella** Hulst, *Pyla*

1895, Canadian Ent., vol. 27, p. 54.

Type male, Yosemite, California. Male genitalia mounted on slide No. 3179, June 13, 1946, C. Heinrich.

**bolterellus** Fernald, *Crambus*

1887, Ent. Amer., vol. 3, p. 37.

Type male, Texas.

**bonifatella** Hulst, *Spermatophthora*(?)

1887, Ent. Amer., vol. 3, p. 135.

Type male, Colorado.

**bonusculalis** Hulst, *Crambus*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 167.

Type male, Waverley, Massachusetts. According to the original description, this species was described from two females.

**brucei** Hulst, *Dioryctria*

1895, Canadian Ent., vol. 27, p. 55.

Three males labeled "type," from Colorado (Bruce). One has the male genitalia mounted on slide No. 3147, June 13, 1946, C. Heinrich.

**bububattalis** Hulst, *Botis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 149.

Type female, Colorado (Bruce).

**cacabella** Hulst, *Pinipestis*

1887, Ent. Amer., vol. 3, p. 133.

Type male, without locality data. Male genitalia mounted on slide No. 3172, June 13, 1946, C. Heinrich. According to the original description, the type locality is New York.

**caliginella** Hulst, *Nephopteryx*

1887, Ent. Amer., vol. 3, p. 131.

The Hulst type label is on a female from California. According to the original description, the type was from Arizona, and McDunnough has labeled this specimen as the true type of *caliginella*. The female genitalia have been mounted on slide No. 3139, June 13, 1946, C. Heinrich.

**callipelella** Hulst, *Tetralopha*

1888, Ent. Amer., vol. 4, p. 114.

A male, labeled "type," from Yuma

County, Arizona, May. According to the original description, this species was described from Texas. In the series under this name in the collection are four specimens from Blanco County, central Texas, plus another specimen labeled "New Hampshire" that may or may not be conspecific.

**candidella** Hulst, *Homoeosoma*

1888, Ent. Amer., vol. 4, p. 118.

Type male, No. 7821, Arizona.

**canescentella** Hulst, *Meroptera*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 149.

Type male, Texas.

**carbonella** Hulst, *Dasypyga*

1888, Ent. Amer., vol. 4, p. 117.

Type female, March. Female genitalia mounted on slide No. 3176, June 13, 1946, C. Heinrich. According to the original description, the type locality is Texas.

**carneella** Hulst, *Nephopteryx*

1887, Ent. Amer., vol. 3, p. 131.

Type male, without locality data. Male genitalia mounted on slide No. 3166, June 13, 1946, C. Heinrich.

**castanealis** Hulst, *Orobena*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 157.

Type female, Texas.

**celtidella** Hulst, *Salebria*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 155.

Type male, New York.

**cectalis** Hulst, *Anerastia*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 164.

Type male, Colorado Desert. According to the original description, this species was described from one female from Colorado.

**cinereella** Hulst, *Sarata*

1900, Canadian Ent., vol. 32, p. 172.

Type male, Salida, Colorado, 4-5-88. Male genitalia mounted on slide No. 3191, June 13, 1946, C. Heinrich.

**cirroferella** Hulst, *Acrobasis*

1892, Canadian Ent., vol. 24, p. 60.

Type male, Austin, central Texas.

**coeligenalis** Hulst, **Megastes**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 156.

Type male, Indian River, Florida.

**coloradella** Hulst, **Eurythmia**

1900, Canadian Ent., vol. 32, p. 175.

Type male, Colorado (Bruce). Male genitalia mounted on slide No. 3213, June 14, 1946, C. Heinrich.

**coloradellus** Fernald, **Crambus**

1893, Canadian Ent., vol. 25, p. 95.

Type male, Colorado.

**comacornella** Hulst, **Acrocaula**

1900, Canadian Ent., vol. 32, p. 170.

Type male, Blanco County, central Texas. Male genitalia mounted on slide No. 3132, June 13, 1946, C. Heinrich.

**comptoniella** Hulst, **Acrobasis**

1890, Trans. Amer. Ent. Soc., vol. 17, p. 125.

Two females, both labeled "type," from Long Island, June. One of these has the female genitalia mounted on slide No. 3134, June 13, 1946, C. Heinrich.

**confovealis** Hulst, **Botis**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 151.

Type male, Texas, No. 5566.

**confusalis** Hulst, **Desmia**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 158.

Type male, Indian River, Florida.

**constantella** Hulst, **Passadena**

1900, Canadian Ent., vol. 32, p. 171.

A male, labeled "type," from the Argus Mountains, April, 1891 (K.), through C. V. Riley. Male genitalia mounted on slide No. 3169, June 13, 1946, C. Heinrich. According to the original description, the type is in the United States National Museum.

**croceella** Hulst, **Sciota**

1888, Ent. Amer., vol. 4, p. 115.

Type male, Blanco County, central Texas. Male genitalia mounted on slide No. 3150, June 13, 1946, C. Heinrich.

**culiculis** Hulst, **Asopia**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 147.

Type female, Florida. Also present are two females from Texas, July, August, that are labeled "type." Someone has crossed out the word "type" on the label of these two specimens.

**cuneolalis** Hulst, **Crambus**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 166.

Type male, without locality data. According to the original description, the type locality is Texas.

**cupidinella** Hulst, **Bandera**

1888, Ent. Amer., vol. 4, p. 118.

Two males, labeled "type," from Hot Springs, New Mexico, 7000 feet altitude, August, September. The former has the male genitalia mounted on slide No. 3226, June 14, 1946, C. Heinrich. Colorado is given as the type locality in the original description.

**cypridalis** Hulst, **Crambus**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 165.

Type male, Utah.

**decimerella** Hulst, **Lipographis**

1888, Ent. Amer., vol. 4, p. 117.

Type female, Blanco County, central Texas, July. Female genitalia mounted on slide No. 3164, June 13, 1946, C. Heinrich.

**decorella** Hulst, **Paralipsa**

1892, Canadian Ent., vol. 24, p. 63.

Type male, Buffalo, New York.

**delassalis** Hulst, **Nephopteryx**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 161.

Type female, No. 3016, Nevada. Female genitalia mounted on slide No. 3171, June 13, 1946, C. Heinrich. There is a second specimen labeled "type" from Hot Springs, New Mexico, 7000 feet altitude, August, but this is a spurious type as the species was described from the single Nevada specimen.

**delectella** Hulst, **Salebria**

1895, Canadian Ent., vol. 27, p. 57.

Type female, Colorado (Bruce). Female genitalia mounted on slide No. 3156, June 13, 1946, C. Heinrich.

**dentilineella** Hulst, **Jocara** (**Toripalpus**)

1900, Jour. New York Ent. Soc., vol. 8, p. 221.

A female, labeled "type," from Catalina Springs, Arizona, April 4, 1898 (E. A. Schwarz). According to the original description, the type is in the United States National Museum, so the present specimen may be considered a cotype.

**differentialis** Fernald, *Diatraea*

1888, Ent. Amer., vol. 4, p. 120.

A male labeled "type," Florida, April. Dyar and Heinrich (1927, Proc. U. S. Natl. Mus., vol. 71, art. 19, p. 39) state that the type is in the United States National Museum collection, so the present specimen becomes a lectoparatype.

**dotalis** Hulst, *Anerastia*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 164.

Three males, labeled "type," from Phoenix, Arizona, June. One of these specimens has the male genitalia mounted on slide No. 3216, June 14, 1946, C. Heinrich. According to the original description, this species was described from one female from Arizona.

**dryadella** Hulst, *Ocala*

1892, Canadian Ent., vol. 24, p. 61.

Type male, Charlotte Harbor, Florida, March. Male genitalia mounted on slide No. 3208, June 14, 1946, C. Heinrich.

**dulciella** Hulst, *Myelois*

1900, Canadian Ent., vol. 32, p. 176.

Type male, Hastings, Florida, October 26. Male genitalia mounted on slide No. 3130, June 13, 1946, C. Heinrich.

**edentella** Hulst, *Dannemora*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 213.

Type male, Florida, April. Male genitalia mounted on slide No. 3209, June 14, 1946, C. Heinrich.

**edwardsialis** Hulst, *Megaphycis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 163.

A male, labeled "type," from Nevada, No. 274, with male genitalia mounted on slide No. 3183, June 13, 1946, C. Heinrich. Klots (1942, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 420) has designated a lectotype male in the collection of the American Museum of Natural History, so the present specimen becomes a lectoparatype.

**electalis** Hulst, *Aglossa*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 146.

A male, labeled "type," from Arizona, No. 7811. Klots (1942, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 420) has designated the male in the collection of the American Museum of Natural History as the lectotype, so the present specimen becomes a lectoparatype.

**electella** Hulst, *Anerastia*

1887, Ent. Amer., vol. 3, p. 137.

Three males, labeled "type," Blanco County, central Texas, April, June. The specimen labeled "April" has the male genitalia mounted on slide No. 3211, June 14, 1946, C. Heinrich.

**elegantella** Hulst, *Myelois*

1892, Canadian Ent., vol. 24, p. 59.

Type male, Seattle, Washington.

**ella** Hulst, *Ephestia*

1887, Ent. Amer., vol. 3, p. 138.

Type male, Florida. Male genitalia mounted on slide No. 3225, June 14, 1946, C. Heinrich.

**enthealis** Hulst, *Tetralopha*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 160.

Type female, Kentucky.

**euphemella** Hulst, *Katona*

1888, Ent. Amer., vol. 4, p. 113.

Type female, Blanco County, central Texas, May.

**excantalis** Hulst, *Anerastia*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 163.

Type female, No. 2953, California. Female genitalia mounted on slide No. 3184, June 13, 1946, C. Heinrich.

**extorralis** Hulst, *Crambus*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 165.

Type male, Florida, April. There is a second male labeled "type" from Texas, August, but this specimen is not mentioned in the original description, so it should be considered spurious.

**fasciella** Fernald, *Scirpophaga*

1887, Ent. Amer., vol. 3, p. 38.

Type male, Florida.

**fasciolalis** Hulst, *Pinipestis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 162.

Type male, Spencers Bridge, British Columbia. Male genitalia mounted on slide No. 3149, June 13, 1946, C. Heinrich. According to the original description, the type locality was Nevada.

**feriella** Hulst, *Tacoma*

1888, Ent. Amer., vol. 4, p. 115.

Two males, both labeled "type," from Blanco County, central Texas, one of the specimens dated May.

**fernaldialis** Hulst, *Megaphycis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 163.

Type female, Arizona. Female genitalia mounted on slide No. 3194, June 13, 1946, C. Heinrich.

**festalis** Hulst, *Botis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 153.

Type female, Arizona.

**filiolella** Hulst, *Nephopteryx*

1888, Ent. Amer., vol. 4, p. 117.

Type male, March. According to the original description, the type locality is Texas.

**flavicostella** Fernald, *Scirpophaga*

1887, Ent. Amer., vol. 3, p. 38.

Type male, Florida.

**floridalis** Hulst, *Stenurges*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 156.

Three females, labeled "type," one labeled "Florida, April," one from Indian River, Florida, the other without locality data. According to the original description, this species was described from one male from Indian River, Florida.

**floridella** Hulst, *Benta*

1900, Jour. New York Ent. Soc., vol. 8, p. 221.

A specimen labeled "cotype from Palm Beach, Florida, collection Dr. H. G. Dyar, No. 15718." This specimen lacks the abdomen and the secondaries.

**floridellus** Hulst, *Elasmopalpus*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 158.

Type male, Florida, April. Male genitalia mounted on slide No. 3175, June 13, 1946,

C. Heinrich. According to the original description, the species was taken at Charlotte Harbor, Florida.

**floscella** Hulst, *Atascosa*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 210.

Type male, Blanco County, central Texas.

**formosella** Hulst, *Tetralopha*

1900, Canadian Ent., vol. 32, p. 169.

A female, labeled "type," and "5120, July 27, 1891." There is a short word or abbreviation after "5120," but it is illegible. According to the original description, the type is in the United States National Museum, so the present specimen may be considered a cotype.

**fosterella** Hulst, *Pima*

1888, Ent. Amer., vol. 4, p. 114.

Type female, No. 43. Female genitalia mounted on slide No. 3182, June 13, 1946, C. Heinrich. According to the original description, the type locality is Colorado.

**franconiella** Hulst, *Euzophera*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 177.

Type male, Franconia, New Hampshire (Mrs. Slosson). Male genitalia mounted on slide No. 3197, June 13, 1946, C. Heinrich.

**fructetella** Hulst, *Myeloides*

1892, Canadian Ent., vol. 24, p. 59.

Two females, both labeled "type," from Blanco County, central Texas, June. One of these has the female genitalia mounted on slide No. 3137, June 13, 1946, C. Heinrich.

**fuliginosalis** Fernald, *Lipocosma*

1888, Ent. Amer., vol. 4, p. 37.

A female without locality data labeled "type."

**fumoferalis** Hulst, *Botis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 154.

A male labeled "type" from California. Klots (1942, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 420) designated the lectotype as a male from Siskiyou County, California, in the collection of the American Museum of Natural History, so the present specimen may be a lectoparatype. However, according to the original description, this species was de-



scribed from three males and one female from both California and Arizona. Klots (*loc. cit.*) lists two males and one female as being from the type series in the collection of the American Museum of Natural History, and these three specimens are all from California. The example from the Hulst collection is the fourth specimen, and none of these is from Arizona.

**fumosella** Hulst, *Honora*

1900, Canadian Ent., vol. 32, p. 174.

Type female, Newark, New Jersey, July 23. Female genitalia mounted on slide No. 3207, June 14, 1946, C. Heinrich.

**furfurella** Hulst, *Nephopteryx*

1887, Ent. Amer., vol. 3, p. 131.

Type male, Florida.

**fuscatella** Hulst, *Honora*

1888, Ent. Amer., vol. 4, p. 118.

Type male, Blanco County, central Texas, May.

**gaudiella** Hulst, *Statina*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 216.

Type male, Blanco County, central Texas, September.

**gausapalis** Hulst, *Crambus*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 167.

Type male, Sierra Nevada, California, No. 5924.

**gemmatella** Hulst, *Spermatophthora*

1887, Ent. Amer., vol. 3, p. 134.

Type male, Illinois. Male genitalia mounted on slide No. 3223, June 14, 1946, C. Heinrich.

**georgiella** Hulst, *Salebria*

1895, Canadian Ent., vol. 27, p. 57.

Type male, Charlotte Harbor, Florida, March. Male genitalia mounted on slide No. 3158, June 13, 1946, C. Heinrich.

**gilvibasella** Hulst, *Nephopteryx*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 145.

Type female, Blanco County, central Texas. Female genitalia mounted on slide No. 3151, June 13, 1946, C. Heinrich.

**glaucatella** Hulst, *Honora*

1888, Ent. Amer., vol. 4, p. 117.

Type male, Blanco County, central Texas.

**gleditschiella** Fernald, *Pempelia*

1881, Ann. Rept. Commissioner Agr., for year 1880, p. 262.

Type male, No. 7827, New York, No. 179, pupa found on ground, In. June 1, 1880.

**graciella** Hulst, *Spermatophthora*

1887, Ent. Amer., vol. 3, p. 134.

Type female, Blanco County, central Texas, July. Female genitalia mounted on slide No. 3195, June 13, 1946, C. Heinrich.

**gracilalis** Hulst, *Botis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 151.

Type female, Texas.

**gracilella** Hulst, *Canarsia*

1900, Canadian Ent., vol. 32, p. 174.

Two males, both labeled "type," Montclair, New Jersey, July 10, 1899, August 13, 1899 (W. D. Kearfott).

**gripalis** Hulst, *Aglossa*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 146.

Type female, Colorado.

**gulosalis** Hulst, *Botis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 155.

Type male, New York.

**gulosella** Hulst, *Acrobasis*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 126.

Type female, Hot Springs, New Mexico, 7000 feet altitude, August. Female genitalia mounted on slide No. 3192, June 13, 1946, C. Heinrich.

**gyralis** Hulst, *Botis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 152.

Type male, Colorado. According to the original description, this species was described from three males and one female from New York, Colorado, and Nova Scotia. In addition to the specimen with the type label there are a female from New York and a male from Nova Scotia. Whether or not these two specimens were the ones mentioned in the original description is not known.

**gyralis** Hulst, **Hydrocampa**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 159.

A male from Florida labeled "type." Klots (1942, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 420) has designated the male from Georgia in the collection of the American Museum of Natural History as the lectotype, so the present specimen becomes a lectopara-type.

**haedulalis** Hulst, **Botis**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 152.

Type female, Texas.

**hapsella** Hulst, **Nephopteryx**

1887, Ent. Amer., vol. 3, p. 132.

Type female, Florida. Female genitalia mounted on slide No. 3174, June 13, 1946, C. Heinrich.

**hariolalis** Hulst, **Botis**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 149.

Type male, Florida.

**hebescella** Hulst, **Acrobasis**

1890, Trans. Amer. Ent. Soc., vol. 17, p. 126.

Type female, on oak, Jersey Pines, June 23. Female genitalia mounted on slide No. 3136, June 13, 1946, C. Heinrich.

**hulstellus** Fernald, **Crambus**

1885, Canadian Ent., vol. 17, p. 56.

Type male, Texas.

**hulstii** Cockerell, **Laetilia coccidivora**

1897, Amer. Nat., vol. 31, p. 588.

Type male, Las Cruces, New Mexico (Cockerell). Male genitalia mounted on slide No. 3201, June 14, 1946, C. Heinrich. This specimen was labeled "type" by Heinrich, 1946.

**hystriculella** Hulst, **Acrobasis**

1887, Ent. Amer., vol. 3, p. 135.

Type female, Texas. Female genitalia mounted on slide No. 3131, June 13, 1946, C. Heinrich.

**illibella** Hulst, **Anerastia**

1887, Ent. Amer., vol. 3, p. 138.

Type female, Blanco County, central Texas, November. Female genitalia mounted on slide No. 3227, June 14, 1946, C. Heinrich.

**immundella** Hulst, **Myelois**

1890, Trans. Amer. Ent. Soc., vol. 17, p. 117.

Type male, Texas.

**impressalis** Hulst, **Homeosoma**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 163.

Two males, labeled "type," from Colorado. One of these has the male genitalia mounted on slide No. 3210, June 14, 1946, C. Heinrich. In the original description, the type locality was given as Nevada.

**incanella** Hulst, **Epischnia**

1895, Canadian Ent., vol. 27, p. 56.

A male, labeled "type," from Colorado (Gillette). According to the original description, this species was described from two females collected by Bruce in Colorado.

**incongruella** Hulst, **Urula**

1900, Canadian Ent., vol. 32, p. 175.

A male and a female labeled "type" from Phoenix, Arizona, June 4, 15. The female has the genitalia mounted on slide No. 3218, June 14, 1946, C. Heinrich. The type is stated to be in the United States National Museum, so the present specimens are probably co-types.

**incoruscella** Hulst, **Pyla**

1895, Canadian Ent., vol. 27, p. 56.

Type male, Colorado (Bruce). Male genitalia mounted on slide No. 3180, June 13, 1946, C. Heinrich.

**incrustalis** Hulst, **Toripalpus**

1887, Ent. Amer., vol. 3, p. 130.

Type male, without locality data. According to the original description, the type locality was Colorado.

**indentalis** Grote, **Prorasea**

1883, Ann. Mag. Nat. Hist., ser. 5, vol. 11, p. 57.

A female labeled "type" from Montana. According to the original description, the type locality is Washington Territory, and the type is stated to be in the Grote collection.

**inornatalis** Fernald, **Botis**

1885, Canadian Ent., vol. 17, p. 57.

A female from Texas labeled "type." Ac-

cording to the original description, this species was collected in Florida and sent to Fernald by Hulst.

**inornatellum** Hulst, **Euzophera**

1900, Canadian Ent., vol. 32, p. 173.

Type female, Anglesea, New Jersey, May 28. Female genitalia mounted on slide No. 3200, June 13, 1946, C. Heinrich.

**invinctalis** Hulst, **Botis**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 152.

Type male, British Columbia. According to the original description, this species was described from a single male from Washington Territory.

**junctolineella** Hulst, **Melitara**

1900, Canadian Ent., vol. 32, p. 173.

Type male, Texas. Male genitalia mounted on slide No. 3193, June 13, 1946, C. Heinrich. This specimen was designated as the lectotype by Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 199). There is also a female present from Colorado (Bruce) that is labeled "type," which may be the specimen mentioned in the original description from that locality.

**labeculalis** Hulst, **Botis**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 152.

Type female, Arizona.

**lacteella** Hulst, **Salebria**

1900, Canadian Ent., vol. 32, p. 171.

Type female, Blanco County, central Texas, September. Female genitalia mounted on slide No. 3160, June 13, 1946, C. Heinrich.

**lallatalis** Hulst, **Nephopteryx**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 161.

Type female, Nevada. Female genitalia mounted on slide No. 3146, June 13, 1946, C. Heinrich.

**lepidalis** Hulst, **Prorasea**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 146.

A male labeled "type" from Huntley, M. T., May 18, 1886 (J. C. M. coll.). This may be the specimen mentioned in the original description from Montana. The lectotype was designated by Klots (1942, Bull. Amer. Mus.

Nat. Hist., vol. 79, p. 420), so the present specimen becomes a lectoparatype.

**leucophaeella** Hulst, **Myelois**

1892, Canadian Ent., vol. 24, p. 60.

The specimen bearing Hulst's type label is merely labeled "Gillette." Below this is a note by McDunnough saying "spurious type," but Heinrich has added "no." The female genitalia have been mounted on slide No. 3128, June 13, 1946, C. Heinrich.

**levalis** Hulst, **Botis**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 152.

Type male, Florida.

**levigatella** Hulst, **Salebria**

1892, Canadian Ent., vol. 24, p. 61.

Type female, without locality data. Female genitalia mounted on slide No. 3153, June 13, 1946, C. Heinrich. According to the original description, the type localities were Amherst, Massachusetts, and Wisconsin.

**longipennella** Hulst, **Zophodia**

1888, Ent. Amer., vol. 4, p. 118.

Type male, Blanco County, central Texas, June.

**lulualis** Hulst, **Botis**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 150.

A male labeled "type" from Anticosti Island, No. 5242. Klots (1942, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 420) has designated the lectotype as the male from California, so the present specimen becomes a lectoparatype.

**luniferella** Hulst, **Oneida**

1895, Canadian Ent., vol. 27, p. 53.

Types, three males and one female, Colorado (Bruce). One of these males is without locality data, and another male does not have the collector's name on it.

**lunulalis** Hulst, **Toripalpus**

1887, Ent. Amer., vol. 3, p. 130.

Type female, Canada. Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 192) have discussed the discrepancy in the locality as given on the specimen and in the original description.

Further, they designated this female specimen as the lectotype.

**macluræ** Riley, *Loxostege*

1893, *Insect Life*, vol. 5, p. 155.

A male labeled "type" with the locality data 343 M. 9/7-92. According to the original description, this species was described from 10 specimens from Texas and Missouri.

**magdalena** Fernald, *Pyrausta*

1892, *Canadian Ent.*, vol. 24, p. 122.

Type male, Texas, October.

**magnalis** Hulst, *Emprepes*

1886, *Trans. Amer. Ent. Soc.*, vol. 13, p. 147.

A male labeled "type" from Arizona. Klots (1942, *Bull. Amer. Mus. Nat. Hist.*, vol. 79, p. 420) has designated the lectotype from a specimen in the collection of the American Museum of Natural History, so the present specimen becomes a lectoparatype.

**magnificus** Fernald, *Propexus*

1891, *Canadian Ent.*, vol. 23, p. 30.

Type male, Salida, Colorado, 6-10-88 (W. S. Foster).

**melanellus** Hulst, *Elasmopalpus*

1890, *Trans. Amer. Ent. Soc.*, vol. 17, p. 157.

Type male, Florida, April.

**metallicella** Hulst, *Pyla*

1895, *Canadian Ent.*, vol. 27, p. 54.

Type male, Colorado (Bruce). Male genitalia mounted on slide No. 3178, June 13, 1946, C. Heinrich.

**minutissima** Smith, *Lythrodus*

1906, *Canadian Ent.*, vol. 38, p. 234.

Type male, Yavapai County, Arizona, May 21; cotype male, same data, May 30.

**minutularia** Hulst, *Dioryctria*

1887, *Ent. Amer.*, vol. 3, p. 136.

Type female, Blanco County, central Texas. Female genitalia mounted on slide No. 3127, June 13, 1946, C. Heinrich.

**modestella** Hulst, *Nephopteryx*

1900, *Canadian Ent.*, vol. 32, p. 170.

Type male, Newton Highlands, Massachusetts (W. Barnes).

**montinatatella** Hulst, *Spermatophthora*

1887, *Ent. Amer.*, vol. 3, p. 134.

Type female, No. 6241, Sierra Nevadas, California. Female genitalia mounted on slide No. 3206, June 14, 1946, C. Heinrich.

**monulalis** Hulst, *Botis*

1886, *Trans. Amer. Ent. Soc.*, vol. 13, p. 154.

A female labeled "type" from Napa County, California. According to the original description, the type locality is the Sierra Nevada Mountains, California.

**mulleolella** Hulst, *Pempelia*

1887, *Ent. Amer.*, vol. 3, p. 133.

Type female, Florida.

**napaealis** Hulst, *Paraedis*

1886, *Trans. Amer. Ent. Soc.*, vol. 13, p. 145.

Type male, California.

**nasutella** Hulst, *Unadilla*

1890, *Trans. Amer. Ent. Soc.*, vol. 17, p. 197.

Type male, Hot Springs, New Mexico, 7000 feet altitude, September.

**nebulosalis** Fernald, *Hydrocampa*

1887, *Ent. Amer.*, vol. 3, p. 127.

Type female, Florida.

**nephelotella** Hulst, *Loma*

1888, *Ent. Amer.*, vol. 4, p. 114.

Type female, Blanco County, central Texas. According to the original description, the type locality is Pennsylvania.

**nevadellus** Kearfott, *Crambus*

1908, *Proc. U. S. Natl. Mus.*, vol. 35, p. 384.

Paratypes, four males, Verdi, Nevada, June 1-10, June 20-30 (A. H. Vachell).

**nexalis** Hulst, *Botis*

1886, *Trans. Amer. Ent. Soc.*, vol. 13, p. 150.

Type male, Summit, Sierra Nevada, California.

**nigralis** Fernald, *Pyrausta*

1892, *Canadian Ent.*, vol. 24, p. 178.

Type male, Charlotte Harbor, Florida, March.

**nigrella** Hulst, *Ephesiodes*

1900, *Jour. New York Ent. Soc.*, vol. 8, p. 224.

The specimen with Hulst's type label is a male from Yuma, Arizona. A second specimen from Blanco County, central Texas, is also present, which has been labeled "true type" by someone in pencil; this specimen is a female. According to the original description, the type locality is Los Angeles, California.

**nigricans** Hulst, *Salebria*

1900, Canadian Ent., vol. 32, p. 171.

Type female, Phoenix, Arizona, June 1. Female genitalia mounted on slide No. 3157, June 13, 1946, C. Heinrich.

**nigrocinerella** Hulst, *Macrotheca*

1900, Canadian Ent., vol. 32, p. 176.

A male, labeled "type," from Texas, July 7, 1891. According to the original description, the type is in the United States National Museum, so the present specimen is probably a cotype.

**nigromaculella** Hulst, *Aurora*

1900, Jour. New York Ent. Soc., vol. 8, p. 224.

A male, labeled "type," from Hot Springs, New Mexico, 7000 feet altitude, September. According to the original description, the type locality is the Santa Rita Mountains, Arizona, and the type is in the United States National Museum.

**nigrosignella** Hulst, *Acrobasis*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 123.

Type male, Texas, April. Male genitalia mounted on slide No. 3133, June 13, 1946, C. Heinrich.

**ninguidalis** Hulst, *Scoparia*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 147.

A female from Pennsylvania labeled "type." However, according to the original description, the type is a male from Arizona. Dyar (1929, Proc. U. S. Natl. Mus., vol. 74, art. 24, p. 5) states that the type is in the United States National Museum collection, hence the present specimen must be considered as spurious.

**niviella** Hulst, *Lipographis*

1888, Ent. Amer., vol. 4, p. 117.

Type male, Colorado.

**nodosella** Hulst, *Wekiva*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 215.

Type male, Florida.

**nominatalis** Hulst, *Scoparia*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 148.

Type female, Vancouver Island, No. 5957.

**nubilella** Hulst, *Monoptilota*

1900, Canadian Ent., vol. 32, p. 14.

A male labeled "type," Florida. Male genitalia mounted on slide No. 3142, June 13, 1946, C. Heinrich. However, the type is in the United States National Museum, so the present specimen may be considered a cotype.

**nymphaeella** Hulst, *Diviana*

1892, Canadian Ent., vol. 24, p. 62.

Type male, Charlotte Harbor, Florida, March.

**oblectalis** Hulst, *Botis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 154.

Type male, Texas. According to the original description, this species was described from two males from Arizona.

**obnigralis** Hulst, *Botis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 153.

Type female, Sierra Nevada, California, No. 3013.

**obnupsella** Hulst, *Myelois*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 118.

Type male, Canada. This specimen was designated as the lectotype by Barnes and McDunnough (1916, Contributions to the natural history of the Lepidoptera of North America, vol. 3, p. 193).

**obsipella** Hulst, *Honora*

1888, Ent. Amer., vol. 4, p. 118.

Type female, Colorado. Female genitalia mounted on slide No. 3173, June 13, 1946, C. Heinrich. According to the original description, this species was described from Texas.

**occidentalis** Hulst, *Asopia*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 147.

Type female, Colorado. According to the original description, this species was described from two males.

**octomaculalis** Fernald, **Diathrusta**

1887, Ent. Amer., vol. 3, p. 127.

Type male, without locality data. According to the original description, the type localities are Pennsylvania, New York, and Ontario.

**octosignalis** Hulst, **Botis**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 153.

A male labeled "type" from California. Klots (1942, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 421) has designated the lectotype as a male in the collection of the American Museum of Natural History, so the present specimen becomes a lectoparatype.

**odiosella** Hulst, **Nephopteryx**

1887, Ent. Amer., vol. 3, p. 132.

Type male, Blanco County, central Texas. Male genitalia mounted on slide No. 3165, June 13, 1946, C. Heinrich.

**offumalis** Hulst, **Botis**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 150.

Type female, San Diego, California.

**olbiella** Hulst, **Mona**

1888, Ent. Amer., vol. 4, p. 116.

Two males, both labeled "type," Salida, Colorado, July 3, 6, 1888 (W. S. Foster), the former with male genitalia mounted on slide No. 3203, June 14, 1946, C. Heinrich.

**olivalis** Hulst, **Tetralopha**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 160.

Type male, Colorado.

**olivella** Hulst, **Anoristia**

1888, Ent. Amer., vol. 4, p. 117.

Type male, southern California. According to the original description, the type locality is Needles, California.

**opacella** Hulst, **Anerastia**

1887, Ent. Amer., vol. 3, p. 138.

Type male, Blanco County, central Texas. Male genitalia mounted on slide No. 3221, June 14, 1946, C. Heinrich.

**opalescalis** Hulst, **Schoenobius**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 167.

A male, labeled "type," Salida, Colorado,

4-6-88. According to the original description, the type locality is Arizona.

**oratalis** Hulst, **Eudiotis**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 158.

Type male, Louisiana.

**oreadella** Hulst, **Uinta**

1888, Ent. Amer., vol. 4, p. 116.

A male, labeled "type," from Texas, June. According to the original description, the type locality is Colorado.

**ostricolorella** Hulst, **Euzophera**

1890, Trans. Amer. Ent. Soc., vol. 17, p. 175.

Type male, New York.

**pallidipennella** Hulst, **Volusia**

1895, Canadian Ent., vol. 27, p. 56.

Type female, Colorado (Bruce). Female genitalia mounted on slide No. 3215, June 14, 1946, C. Heinrich.

**pallulella** Hulst, **Stenoptycha**

1887, Ent. Amer., vol. 3, p. 137.

Type female, Colorado. Female genitalia mounted on slide No. 3199, June 13, 1946, C. Heinrich.

**pelviculella** Hulst, **Moodna**

1890, Trans. Amer. Ent. Soc., vol. 17, p. 194.

Type male, Hazleton, Pennsylvania (Dr. Dietz). Male genitalia mounted on slide No. 3214, June 14, 1946, C. Heinrich. According to the original description, the type locality is Newburgh, New York.

**perfuscalis** Hulst, **Nephopteryx**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 161.

Type female, No. 269, California. Female genitalia mounted on slide No. 3190, June 13, 1946, C. Heinrich.

**perfuscalis** Hulst, **Zinckenia**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 159.

Type male, Florida.

**pergilvalis** Hulst, **Botis**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 151.

A male, labeled "type," from Colorado. According to the original description, this species was described from three females from Arizona.

**pergratialis** Hulst, **Nephopteryx**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 162.

Type male, Florida.

**perlepidella** Hulst, **Chipeta**

1892, Canadian Ent., vol. 24, p. 62.

Type female, Florida. Female genitalia mounted on slide No. 3228, June 14, 1946, C. Heinrich.

**perplexalis** Fernald, **Eurycreon**

1885, Canadian Ent., vol. 17, p. 57.

A male with the Fernald type label, from New York. According to the original description, the type locality is Texas. Also included with the type are two specimens, a male from Blanco County, central Texas, and a female labeled merely "Texas."

**pilalis** Hulst, **Botis**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 151.

Type male, without locality data. The type locality is given as Indian River, Florida, in the original description.

**plumbosignalis** Fernald, **Botis**

1888, Ent. Amer., vol. 4, p. 37.

Type male, Colorado.

**pneumatella** Hulst, **Stenoptycha**

1887, Ent. Amer., vol. 3, p. 137.

Type female, without locality data. Female genitalia mounted on slide No. 3202, June 14, 1946, C. Heinrich.

**polingi** Kearfott, **Crambus**

1908, Proc. U. S. Natl. Mus., vol. 35, p. 382.

Cotypes, two males, southern Arizona, August 1-15 (Poling).

**proprialis** Fernald, **Hydrocampa**

1888, Ent. Amer., vol. 4, p. 37.

Type male, Texas, May.

**psychialis** Hulst, **Botis**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 149.

A female from Texas labeled "type." Klots (1942, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 421) has designated a female from Texas in the collection of the American Museum of Natural History as the lectotype. According to the original description, Hulst had two females, one from Georgia, the other

from Texas. This leaves the status of the present specimen rather dubious.

**purpurella** Hulst, **Salebria**

1892, Canadian Ent., vol. 24, p. 61.

Type female, New Mexico. Female genitalia mounted on slide No. 3167, June 13, 1946, C. Heinrich.

**quantulella** Hulst, **Pempelia**

1887, Ent. Amer., vol. 3, p. 134.

Type male, Blanco County, central Texas, March.

**refotalis** Hulst, **Crambus**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 166.

Type male, Colorado.

**refugalis** Hulst, **Scoparia**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 148.

Type male, Marin County, California.

**reluctalis** Hulst, **Orobena**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 156.

A female from Arizona labeled "type." Klots (1942, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 421) designated the lectotype as a male in the collection of the American Museum of Natural History, so the present specimen becomes a lectoparatype.

**rhypodella** Hulst, **Glyptoteles**

1887, Ent. Amer., vol. 3, p. 137.

Type female, without locality data, but with No. 42. Female genitalia mounted on slide No. 3148, June 13, 1946, C. Heinrich. According to the original description, this species was described from one male from Oregon.

**rogatalis** Hulst, **Botis**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 149.

Type male, Texas, October. According to the original description, the species was described from one female.

**roseopennalis** Hulst, **Botis**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 148.

A male from North Carolina labeled "type." Klots (1942, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 422) designated the lectotype of this species as a specimen from Arizona in the collection of the American Museum of

Natural History, so the North Carolina specimen becomes a lectoparatype.

**roseopennella** Hulst, *Volusia*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 206.

Type male, Florida, March. Male genitalia mounted on slide No. 3220, June 14, 1946, C. Heinrich. According to the original description, the type locality is Volusia County, Florida.

**rubribasella** Hulst, *Etiella*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 170.

Type female, Florida, May. Female genitalia mounted on slide No. 3188, June 13, 1946, C. Heinrich.

**saganella** Hulst, *Ragonotia*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 205.

Type female, Colorado, May. Female genitalia mounted on slide No. 3217, June 14, 1946, C. Heinrich.

**salutalis** Hulst, *Botis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 150.

Type male, Oregon.

**scitulella** Hulst, *Mineola*

1900, Canadian Ent., vol. 32, p. 169.

Two females, both labeled "type," from Colorado, one of them having been caught by Bruce. The other specimen has the female genitalia mounted on slide No. 3138, June 13, 1946, C. Heinrich.

**scurralis** Hulst, *Botis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 155.

A male labeled "type" from Arizona. Klots (1942, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 422) has designated the lectotype as a male in the collection of the American Museum of Natural History, so the present specimen becomes a lectoparatype.

**semiobscurella** Hulst, *Salebria*

1890, Trans. Amer. Ent. Soc., vol. 17, p. 151.

Types, male and female, Blanco County, central Texas, the male being dated May and the female with genitalia mounted on slide No. 3161, June 13, 1946, C. Heinrich.

**simpliciellus** Kearfott, *Crambus*

1908, Proc. U. S. Natl. Mus., vol. 35, p. 384.

Paratype male, Washington County, Arkansas, July–August (A. J. Brown).

**slossonella** Hulst, *Salebria*

1900, Canadian Ent., vol. 32, p. 170.

Type female, Miami, Florida, February–March (Mrs. Slosson). Female genitalia mounted on slide No. 3159, June 13, 1946, C. Heinrich.

**slossonii** Hulst, *Benta*

1895, Canadian Ent., vol. 27, p. 53.

Two females, both labeled "type," one from Miami, Florida, February–March (Mrs. Slosson), the other from Charlotte Harbor, Florida, March. According to the original description, this species was described from a single female from south Florida collected by Mrs. Slosson.

**subosseella** Hulst, *Lipographis*

1892, Canadian Ent., vol. 24, p. 62.

Type male, Bahama. Male genitalia mounted on slide No. 3187, June 13, 1946, C. Heinrich.

**subrufella** Hulst, *Nephopteryx*

1887, Ent. Amer., vol. 3, p. 132.

Type female, without locality data, but with No. 61. Female genitalia mounted on slide No. 3141, June 13, 1946, C. Heinrich. According to the original description, the type locality is Florida.

**succandidalis** Hulst, *Botis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 153.

Type male, Black Hills.

**taleolalis** Hulst, *Toripalpus*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 160.

Type female, Colorado.

**tarmitalis** Hulst, *Pempelia*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 162.

Type male, Colorado. Male genitalia mounted on slide No. 3170, June 13, 1946, C. Heinrich.

**tenebrosella** Hulst, *Nephopteryx*

1887, Ent. Amer., vol. 3, p. 131.



Type female, Texas. Female genitalia mounted on slide No. 3152, June 13, 1946, C. Heinrich.

**texanella** Hulst, *Myelois*

1892, Canadian Ent., vol. 24, p. 60.

Type male, Blanco County, central Texas.

**texanella** Hulst, *Psorosa*

1900, Canadian Ent., vol. 32, p. 174.

Type male, Blanco County, central Texas. Male genitalia mounted on slide No. 3205, June 14, 1946, C. Heinrich.

**thallophilalis** Hulst, *Botis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 154.

A female from Montana labeled "type." Klots (1942, Bull. Amer. Mus. Nat. Hist., vol. 79, p. 422) has designated the female from California as the lectotype, so the Montana specimen becomes a lectoparatype.

**tiltella** Hulst, *Wanda*

1888, Ent. Amer., vol. 4, p. 114.

Type male, Blanco County, central Texas, July.

**trichusalis** Hulst, *Crambus*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 165.

Type male, Colorado.

**umbripennis** Hulst, *Pinipestis*

1895, Canadian Ent., vol. 27, p. 57.

Type male, Colorado (Bruce). Male genitalia mounted on slide No. 3146, June 13, 1946, C. Heinrich.

**uncanalis** Hulst, *Nephoteryx*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 162.

The male bearing Hulst's type label is on a specimen labeled "No. 3838, Nevada." McDunnough has added the label "probably the type of *impressale* Hulst." A second specimen is present from Custer County, Colorado, which McDunnough has labeled "probably the type of *uncanale* Hulst," and this specimen has the female genitalia mounted on slide No. 3212, June 14, 1946, C. Heinrich. This latter specimen agrees with the locality data given in the original description.

**unicolorella** Hulst, *Dioryctria*

1887, Ent. Amer., vol. 3, p. 136.

Type male, June 23, 1886 (H. S. Saunders). According to the original description, the type locality is Washington, D. C.

**uxorculalis** Hulst, *Botis*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 153.

Type female, Sierra Nevada, California, No. 4460. According to the original description, this species was described from three males.

**vachellellus** Kearfott, *Crambus*

1903, Jour. New York Ent. Soc., vol. 11, p. 149.

Cotype male, Verdi, Nevada, July 1-10 (A. H. Vachell). There is a second male with the same data, but it is not labeled "cotype."

**villosella** Hulst, *Etiella*

1887, Ent. Amer., vol. 3, p. 133.

Type male, Colorado. Male genitalia mounted on slide No. 3189, June 13, 1946, C. Heinrich.

**xeniolalis** Hulst, *Isopteryx*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 159.

Type male, Texas, March. There is also a female from Texas, September, labeled "type," but according to the original description this species was described from a single male.

**yavapai** Kearfott, *Eugrotea*

1908, Proc. U. S. Natl. Mus., vol. 35, p. 377.

Cotype female, Yavapai County, Arizona.

**zelatella** Hulst, *Myelois*

1887, Ent. Amer., vol. 3, p. 136.

Type male, Blanco County, central Texas. Male genitalia mounted on slide No. 3140, June 13, 1946, C. Heinrich. According to the original description, the type localities are New York and Canada.

**OLETHREUTIDAE**

**offectalis** Hulst, *Crambus*

1886, Trans. Amer. Ent. Soc., vol. 13, p. 166.

Type female, Colorado.

**GLYPHIPTERYGIDAE****gemmalis** Hulst, **Chalcoela**

1886, Trans. Amer. Ent. Soc., vol. 13, p. 148.

Type male, California. According to the original description, the type locality is the Sierra Nevada Mountains, California.

**AEGERIIDAE****albicoma** Hulst, **Bembecia marginata**

1883, Bull. Brooklyn Ent. Soc., vol. 6, p. 10.

Type female, Long Island. According to the original description, the type locality is Brooklyn. Engelhardt (1946, Bull. U. S.

Natl. Mus., no. 190, p. 194) restricted the type of this species to the male in the collection of the American Museum of Natural History.

**XYLORYCTIDAE****tsugensis** Kearfott, **Ptochoryctis**

1910, Canadian Ent., vol. 42, p. 346.

Cotypes, male and female, Rutherford, New Jersey, May 12, bred from hemlock imported from Japan. The second specimen is dated May 9, and is labeled "bred from *Tsuga sieboldi* (Japan)."











