

BULLETIN
OF THE
AMERICAN MUSEUM OF NATURAL HISTORY.

VOLUME XXXVII, 1917.

59.57,8(75.9)

Article I. — INSECTS OF FLORIDA.¹

IV. LEPIDOPTERA.

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PREFACE.

[This paper, long overdue, would have been in the reader's hands before this but for the untimely death of the author in Barbados, April 8, 1914. It was supposed that the manuscript was practically ready for the printer, but it was found, after carefully looking through it, that, although complete, it was unchecked, *i. e.*, in a preliminary stage. With the exception of a few scattered pages and the section on the Geometridæ, all the manuscript was typewritten. This family being Mr. Grossbeck's specialty, he evidently left it for the last, perhaps having in mind some changes or additions which he wished to incorporate. The author had made, throughout, changes and additions to the original manuscript but it was, for the most part, uncorrected. It was evidently his intention to entirely rewrite it before sending it to the printer.

The notes and records by the editor are enclosed in square brackets. The work of editing has proceeded slowly, being interrupted by several expeditions, as well as by routine work. One of these expeditions, the third sent to Florida by this Museum and referred to in detail below, while delaying this publication, has enabled us to add a great many records to this list. In going over the list of Hesperiidæ, the writer found it necessary to make many changes in the genus *Thanaos*, so that this section has been practically rewritten. Where records as given by Mr. Grossbeck

¹ Through an oversight, part III of this series of papers (List of the Carabidæ of Florida by Charles W. Leng, Bull. Amer. Mus. Nat. Hist., XXXIV, 1915, pp. 555-601) was not given a general heading and serial number.

have been transferred to another species, the same has been indicated, thus preserving their identity. In order to obtain exact identifications of the *Thanaos* taken on the third expedition, genitalic slides were made of all the species, and of a large number of the specimens captured.

There being so few records from northern Florida, it was decided to make a survey of this portion of the state. Mr. A. J. Mutchler and the writer were in the state from September 25 to October 21, 1914, and collected between Jacksonville and Pensacola, the itinerary in detail being as follows: Jacksonville, Sept. 25-26; Gainesville and vicinity, Sept. 26 to Oct. 3; Monticello and vicinity, Oct. 4 to 8; Pensacola and vicinity, Oct. 10 to 14; Crestview, Oct. 15 and 16; De Funiak Springs and vicinity, Oct. 17 to 19; Jacksonville, Oct. 21. We were greatly assisted while at Gainesville by Mr. J. R. Watson, Entomologist of the Agricultural Experiment Station, who was most generous with his time and allowed us to go over the collections at the University from which we obtained a number of interesting records. He also sent to the Museum a large number of insects, including Lepidoptera, for identification and we have added many of these records to the list. We take this opportunity to express our thanks to Mr. Watson for his many kindnesses.

To enable anyone to readily locate, on the map, the less well known places visited by the writer, the following details are given:

Gainesville; for this region see the Arredondo Sheet, U. S. Geological Survey.

Agric. Exp. Sta. grounds, about one mile west of Gainesville.

Devils Mill Hopper, about six miles northwest of Gainesville.

East Gainesville, the region between the town and a point about three and one-half miles directly east of same.

Hogtown Creek, about three miles west of Gainesville.

Payne Prairie or Alachua Lake, about two and one-half miles south of Gainesville.

Lake Miceosukee, the region around a small eastern arm of the lake and about three miles northwest of Monticello.

Fort Barrancas, on the Gulf of Mexico, about seven miles southwest of Pensacola.

Fisherville, about one mile southwest of Pensacola.

Bayou Chico, about two miles southwest of Pensacola.

Star Lake or Spanish Grant, about three miles southwest of Pensacola.

Big Bayou (between the bayou and the coast), about four miles southwest of Pensacola.

Crestview, near Santa Rosa Co., in Walton Co.

Lake Stanley, about three miles northwest of De Funiak Springs.

In a list of this kind many errors and omissions occur. We would greatly appreciate information concerning any such and would also like to receive new records, all of which will be helpful should a supplement to this list be desirable.

FRANK E. WATSON.]

INTRODUCTION.

The Lepidoptera of Florida are especially interesting to students of the North American fauna because of the West Indian element which forms so marked a portion of the more southern parts of the state. For the most part this foreign element does not extend northwardly along the Atlantic States, which is explained largely by the fact that the larvæ are dependent for food upon plants which are not found there. Strong winged adults, as, for example, the Sphingidæ and some of the Noctuidæ, are frequently found as far north as Canada but the larvæ, except for a few cases, occur there only by accident: a gravid female, for instance, depositing eggs on its food plant which she has found in some garden. In such instances hibernation is never successfully effected and another brood of larvæ is again dependent upon a chance wanderer.

No complete list of Florida Lepidoptera has yet been made, though Dyar¹ has given a list of species found in the winter months in the vicinity of Lake Worth. The present list is based not only on material secured by the two Museum expeditions made in 1911 and 1912, but an effort has been made to compile all the records found in the literature, in the Museum and in some other collections which were gone over.

To Mr. Wm. T. Davis who accompanied both of the Museum expeditions and made a third independently in 1913, and to Dr. J. H. McDunnough who accompanied the second (1912) expedition, the writer is especially indebted for records or the loan of material. To Mr. Chas. E. Sleight, likewise, the author owes thanks for the loan of specimens. Thanks are also due Mrs. Annie Trumbull Slosson for permission to copy the records from her excellent collection of Florida Lepidoptera.

In preparing this list, Dyar's Catalogue has, in the main, been followed but, where any of the groups have been superseded by later revisions, such revisions have usually been my guide. Rothschild and Jordan have thus been followed in the Papilionidæ and Sphingidæ; Hampson in the Amatidæ and Arctiidæ; Dyar in the Hesperiidæ, Nymphulinæ, etc.; Barnes and McDunnough in the Megathymidæ and Cossidæ; and Prout in the Geometridæ, as far as he has revised that family. Hampson's Catalogue of the Noctuidæ forms an exception; this is only partially complete and to follow it would necessitate the arrangement at the end of the family of a large residue of species, which would be in accord with no published work. Where

¹ Proc. Ent. Soc. Washington, IV, 1900, pp. 446-485.

recent revisions have been used, cross-reference has always been made to Dyar's Catalogue and, in the case of the Noctuidæ, the genera to which Hampson refers the species are also given in parentheses. The cross-references will enable anyone using this list to locate the species in Dyar's or Hampson's Catalogue with facility.

In order to render this paper more useful than a bare list of species would be, I have endeavored to give some idea of the distribution of the individual species. The distribution as given may be far from complete but monographs, reviews, local lists and general works covering the species of a particular region have been taken into consideration. The Antilles and Central and South America, including Mexico, as well as our own Gulf States, particularly southern Texas, have not yet been thoroughly explored and when this is accomplished the distribution of many of the species enumerated may be vastly extended. Especially is this true as regards the Tineoidea.

Mr. W. D. Kearfott looked over most of the Pyralidæ and either named or verified the material in this family. Dr. H. G. Dyar is responsible for working up the whole of the Phycitinæ, but he declined to describe the new species discovered. It is with much pleasure and thanks that I acknowledge the assistance of these two gentlemen.

PAPILIONIDÆ.

Papilio philenor Linn. (*Laertias*). St. Augustine, June, July, very rare (Johnson); Apalachicola (Chapman); Gulf Hammock (Castle and Laurent); Enterprise, Apr. (Castle and Laurent, Schwarz); La Grange, Sept. 10, 11 (Ds., Sleight); Lakeland, Mar. 28, May 5, 6, Nov. 8, Fort Myers, Apr. 25 (A. M. N. H., Ds.); Lake Josephine (J. and H. Comstock); [common at Devils Mill Hopper, Gainesville, Sept. 27; common, East Gainesville, Sept. 28 and 29; Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Hogtown Creek, Gainesville, Oct. 1; Monticello, Oct. 5; Bayou Chico, Pensacola, Oct. 12; Crestview, Oct. 15 and 16].

Larva on *Aristolochia serpentaria*, *A. siphon* and *Asarum canadense*. Eggs have been laid on *Polygonum*.

Extends to Southern Canada, through Colorado and Arizona to California and into Mexico. A form occurs in Tres Marias Islands.

Papilio devilliers Godt. "Lower extremity of Florida" (Skinner).

Occurs in Cuba.

Papilio polydamus Linn. Indian River (Wittfeld).

Extends northward into Georgia and southward through Mexico and the Antilles to Argentina. Many of the West Indian Islands have distinct subspecies.

Papilio polyxenes asterias Cram. Jacksonville, Apr. (Castle and Laurent), Sept. 7 (Sleight); St. Augustine, Feb. to Sept. (Johnson); Gulf Hammock, Apr., Enterprise, Apr. (Castle and Laurent); Lakeland (McD.), Nov. 8 (Ds.); Lake Worth, Feb. (Dyar); Fort Myers, Mar. 31, Apr. 1, 25, Punta Rassa, Apr. 3, La Belle, Apr. 27, 28; South Bay, Lake Okeechobee, Apr. 30, May 2, larvæ and adults common at edge of Everglades (A. M. N. H., Ds.); Miami, common (Laurent); [East Gainesville, Sept. 28 and 29; Fort Barrancas, Oct. 10].

Larva on *Daucus carota*, *Conium maculatum*, *Cicuta maculata*, *C. virosa*, *C. bulbifera*, *Sium cicutæfolium*, *Apium divaricatum*, *A. graveolens*, *A. petroselinum*, *Discopleura capillacea*, *Carum carui*, *Amethum graveolens*, *Fœniculum vulgare*, *Archangelica*, *Tiedemannia*, *Pastinaca sativa* and *Ruta graveolens*.

Extends to Canada, California and Honduras; occurs also in the Antilles according to Skinner. The typical form is found in Cuba. Other forms occur in Mexico, South America and the Newfoundland-Anticosti region.

Papilio thoas Linn. Though one of the many forms of this species occurs in Cuba, there is no authentic record of its having been taken in Florida.

Papilio cresphontes *Cram.* (not *thoas* Linn.). St. Augustine, Mar. to Oct. (Johnson); Gulf Hammock, Apr., Enterprise, Apr. (Castle and Laurent); La Grange, Sept. 10 (Sleight); Lakeland, Mar. 28, May 5, Nov. 7 (A. M. N. H., Ds.); Punta Gorda, Feb. (Sloss.), May 5 (A. M. N. H.); Useppa, Apr. (Ds.); Lake Worth, Feb. (Dyar); South Bay, Lake Okeechobee, Apr. 30, La Bella, Apr. 7, Fort Myers, Mar. 30, Punta Rassa, Apr. 3, Marco, Apr. 18, Everglade, Apr. 4, 10, Chokoloskee, Apr. 8 (A. M. N. H., Ds.); Miami, common (Laurent); Key West, Sept. 18 (Ds.); [Jacksonville, Sept. 26; Devils Mill Hopper, Gainesville, Sept. 27; East Gainesville, Sept. 28 and 29; Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Hogtown Creek, Gainesville, Oct. 1; Payne Prairie, Gainesville, Oct. 2; Monticello, Oct. 4, 5 and 7; Pensacola, Oct. 10; De Funiak Springs, Oct. 19; near De Funiak Springs (G. C. Fisher)].

Larva on orange, lemon, *Ptelea trifoliata*, *Zanthoxylum americanum*, *Z. clava-herculis*, *Dictamnus fraxinella*, *Nyssa multiflora*, *Persea carolinensis* and *Populus dilatata* and, in Cuba, on *Piper peltatum*, *P. umbelatum* and *P. mollicornum*.

Extends to Montreal, Wisconsin and Iowa, and Costa Rica and Cuba.

Papilo aristodemus *Esper.* (*cresphontinus* Martyn). Key West (Skinner).

Occurs in Cuba and Haiti.

Papilio ponceana *Schaus.* Miami (Schaus). Described from Miami and not since found.

Papilio andræmon bonhotel *Sharpe.* Miami (Holland).

Occurs in the Bahamas. The typical form occurs in Cuba and another subspecies is found on Great Cayman Island.

Papilio glaucus *Linn.* Yellow form, **turnus** *Linn.* Jacksonville, Sept. 7 (Sleight); St. Augustine, May, June and July (Johnson); Lakeland, Mar. 28 (A. M. N. H.); Punta Gorda, Feb. (Sloss.); [Devils Mill Hopper, Gainesville, Sept. 27; East Gainesville, Sept. 28; Payne Prairie, Gainesville, Oct. 2; Lake Miceosukee, Monticello, Oct. 6 and 8; Star Lake, Pensacola, Oct. 13].

Black form, **glaucus** *Linn.* St. Augustine, May, June and July (Johnson); Indian River (Schwarz, Palmer); [Payne Prairie, Gainesville, Oct. 2; Lake Miceosukee, Monticello, Oct. 6 and 8; De Funiak Springs, Oct. 17].

Variety **australis** *Mayn.* Deep Lake, Apr. 13 (A. M. N. H.).

Larva on *Liriodendron tulipifera*, *Magnolia acuminata*, *Tilia americana*, *Prunus serotina*, *P. pennsylvanica*, *P. virginiana*, *P. americana*, cultivated cherry, plum, peach, *Pyrus malus*, *Cydonia vulgaris*, *Styrax americana*, *Fraxinus sambrucifolia*, swamp ash, "brown ash," *F. americana*, *Syringa*

vulgaris, *Catalpa bignonioides*, *Sassafras officinale*, *Humulus lupulus*, hickory, *Quercus tinctoria*, *Betula alba*, *B. lenta*, *Alnus incana*, *Populus tremuloides*, willow and thorn, [*Ptelea trifoliata* and *Magnolia glauca*].

Extends to Newfoundland, Alaska, the Rocky Mts. and Texas. A small form, *canadensis* R. and J., is also found in the northern parts of this range.

Papilio troilus Linn. Apalachicola (Chapman); St. Augustine, June and July (Johnson); Lakeland, Mar. 28, May 6, 8 (A. M. N. H., Ds.); Punta Gorda, Feb. (Sloss.); Marco, Apr. 21 (A. M. N. H.); Allen River to Deep Lake, Apr. 12, 13 (A. M. N. H., Ds.); Miami (Laurent); [One seen on the wing at Lake Miceosukee, Monticello, Oct. 8; near De Funiak Springs (G. C. Fisher). These may be the form *texanus*.]

Variety **texanus** Ehrm. Florida, Aug. to Sept. (Priddy); Titusville, Aug. (Rothschild and Jordan); Indian River (A. M. N. H.); Lakeland, Apr. 18 (Ds.); Marco, May 8 (A. M. N. H.); Chokoloskee, June (Rothschild and Jordan); [Devils Mill Hopper, Gainesville, Sept. 27].

Larva on *Benzoin*, *Sassafras*, *Magnolia glauca*, *Xanthoxylum americanum*, *Prunus serotina*, *Prunus persica*, *Pyrus arbutifolia*, *Syringa vulgaris* and *Persea carolinensis*.

Extends northward to Canada and westward to the North West Territory, Wisconsin and Texas.

Papilio palamedes Drury. Ortega, Sept. 6 (Sleight); St. Augustine, spring and summer (Johnson); Gulf Hammock, Apr., Enterprise, Apr. 4 (Castle and Laurent); La Grange, Sept. 9 (Sleight); Titusville, Aug.-Sept. (Rothschild and Jordan); Indian River (Johnson, Wittfeld); Lakeland, Mar. 28, May 5 (A. M. N. H., Ds.); Avon Park, Feb. 20-Mar. 25 (J. and H. Comstock); Punta Gorda, Feb. (Sloss.); Lake Worth, Feb. (Dyar); Useppa, Apr. (Ds.); Fort Myers, Mar. 30, Allen River to Deep Lake, Apr. 12, 13, Everglade, Apr. 4 (A. M. N. H., Ds.); Everglade, rare (McD.); [Gainesville, Sept. 26; Devils Mill Hopper, Gainesville, Sept. 27; East Gainesville, Sept. 28 and 29; Hogtown Creek, Gainesville, Oct. 1; Payne Prairie, Gainesville, Oct. 2; Lake Miceosukee, Monticello, Oct. 8; Star Lake, Pensacola, Oct. 13; Big Bayou, Pensacola, Oct. 14; De Funiak Springs, Oct. 17, near De Funiak Springs (G. C. Fisher)].

Larva on *Persea carolinensis* and *Magnolia glauca*.

Extends to New Jersey, Missouri and Texas. A form occurs in Mexico.

Papilio marcellus Cram. (*Iphioides*). The name *ajax* Linn. has been found to be a synonym of *polyzenes* or of *glaucus*. St. Augustine, spring and summer (Johnson); Sanford (Rothschild and Jordan); Indian River (A. M. N. H.); Lakeland, Mar. 28, May 7 (A. M. N. H., Ds.); Lake Josephine (J. and H. Comstock); Punta Gorda, Feb. (Sloss.); Lake Okeechobee (Palmer, Wittfeld, Schwarz).

Form **floridensis** *Holl.* St. Johns River (Holland); Lakeland, May 5, 6, 8 (A. M. N. H., Ds.); Fort Myers, common, also young larvæ (McD.), Mar. 30, Apr. 1, 7, 10, 25, South Bay, Lake Okeechobee, Apr. 29 (A. M. N. H., Ds.).

Form **telamonides** *Feld.* Jacksonville, Apr., Gulf Hammock, Apr., Enterprise, Apr. (Castle and Laurent); St. Augustine (Johnson); Indian River (A. M. N. H.); [one very poor specimen taken at Lake Miceosukee, Monticello, Oct. 6. A specimen of this form from Gainesville, is in the collection of the Agric. Exp. Sta.].

Form **lecontei** *R. and J.* Lakeland, Nov. 8 (Ds.); [Devils Mill Hopper, Gainesville, Sept. 27; East Gainesville, Sept. 28 and 29; Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Hogtown Creek, Gainesville, Oct. 1; Payne Prairie, Gainesville, Oct. 2; Monticello, Oct. 4, 5, 7; Lake Miceosukee, Monticello, Oct. 8].

Larva on *Asimina triloba* and other species of *Asimina*, and rarely on *Ericaceæ* and *Lauracæ*.

Extends to Southern Canada, Iowa and Texas; a specimen has been reported as captured on Vancouver Island.

Papilio celadon *Lucas* (*sinon* Fabr.; *Iphiclides*). "Southern Florida" (Skinner).

There seems to be no authentic record of this species from Florida. It occurs in Cuba. It has also been erroneously reported from California.

PIERIDÆ.

Tachyris margarita *Hbn.* Indian River (Edwards); Lake Worth (Dyar, Sloss.); Miami (Laurent), Jan. (Sloss.), Sept. 24 (Ds., Sleight).

Variety **neumoegenii** *Skinner.* Indian River (Neumoegen).

Extends to New York (as a straggler), Arizona and through the Antilles to South America.

Skinner says that all the Florida examples of this species belong to the variety *neumoegenii*. I have been unable to verify this by an examination of all the specimens reported from Florida so leave the records as I find them.

Pontia monuste *Linn.* St. Augustine, common during summer, some seasons large numbers are seen flying northward (Johnson); Enterprise, Apr. (Castle and Laurent); Indian River, Lakeland, May 7 (A. M. N. H.); Punta Gorda, Feb., Charlotte Harbor (Sloss.); Boca Grande, Apr., Useppa, Apr., May (Ds.); Fort Myers, Mar. 31, La Belle, Apr. 27, South Bay, Lake Okeechobee, Apr. 29, May 2 (A. M. N. H., Ds., McD.); Lake Worth (Dyar, Sloss.); Punta Rassa, Apr. 3, Marco, Apr. 17, 18, Everglade, Apr. 4,

7, 9, 10, 11, Chokoloskee, Apr. 8 (A. M. N. H., Ds., McD.); Miami, common (Laurent), Jan. (Sloss.); Key Largo, Nov. 6 (A. M. N. H.); Big Pine Key, Sept. 19 (Ds., Sleight).

Variety **phileta** *Fabr.* Indian River (A. M. N. H.); Lake Worth (Sloss.); Boca Grande, Apr., Useppa, Apr., May (Ds.); La Belle, Apr. 27, South Bay, Lake Okeechobee, Apr. 30 (A. M. N. H.).

Larva on cabbage, kale, lettuce, turnip, *Cleome* and *Polanisia*.

Extends to Georgia, Texas and through Mexico and the Antilles to South America.

Pontia protodice *Bd. and Lec.* "Florida" (Chapman, Abbott); Enterprise, Apr. (Castle and Laurent); [One male and one female, Monticello, Oct. 5; one male, Fisherville, Pensacola, Oct. 11; one specimen seen at Pensacola, Oct. 10. These were the only specimens observed].

Larva on *Brassica oleracea*, *Lepidium virginicum*, *Thlaspi*, *Alyssum marinum*, turnip and mignonette.

Extends to Maine, southern Canada, the Pacific and into Mexico.

Pontia rapæ *Linn.* Apalachicola (Scudder); [Monticello, Oct. 4 and 7; Pensacola, Oct. 12; Bayou Chico, Pensacola, Oct. 12; De Funiak Springs, Oct. 17. Very few specimens seen at any of these localities. Specimens from Gainesville in the collection of the Agric. Exp. Sta.].

Larva on many cruciferous plants, cabbage, cauliflower, *Brassica napus*, *Nasturtium palustre*, *N. armoracia*, *Raphanus*, *Sinapis*, *Matthiola*, *Alyssum marinum*, *Barbarea vulgaris*, *Cakile americana*, mignonette (*Reseda odorata*), [*Capsella bursa-pastoris*, garden nasturtium (*Tropæolum*)].

Extends to Labrador, and the Pacific Coast. Occurs also in Europe.

Nathalis iole *Bd.* Big Pine Key, Sept. 20 (Ds.).

Extends to Illinois, California and Mexico.

Callidryas eubule *Linn.* Jacksonville, Jan. 25 (Sloss.), Nov. 5 (A. M. N. H.); St. Augustine, common nearly the year around (Johnson); Lake Worth (Dyar); Gulf Hammock, Apr., Enterprise, Apr. (Castle and Laurent); La Grange, Sept. 9, 10, 12 (Ds., Sleight); Titusville, Nov. 8, Indian River (A. M. N. H.); Lakeland, Mar. 28, Nov. 7, 8, 9, Fort Meade, May 5 (A. M. N. H., Ds.); Punta Gorda, Feb. (Sloss.); Fort Myers, Mar. 30, Apr. 1, 24, Nov. 15, La Belle, Apr. 18, Chokoloskee, Apr. 8 (A. M. N. H., Ds.); Miami, common (Laurent), Jan. (Sloss.); Biscayne Bay (Sloss.); "Florida Keys" (Palmer); [Jacksonville, Sept. 26 and Oct. 21; common, Devils Mill Hopper, Gainesville, Sept. 27; common, East Gainesville, Sept. 28 and 29; Agric. Exp. Sta. grounds, Gainesville, Sept. 30; common, Hogtown Creek, Gainesville, Oct. 1; common, Payne Prairie, Gainesville, Oct. 2; Monticello, Oct. 4 and 5; Lake Micoosukee, Monticello, Oct. 6; Pensacola, Oct. 10 and 12; Bayou Chico, Pensacola, Oct. 12; Star Lake,

Pensacola, Oct. 13; Big Bayou, Pensacola, Oct. 14; Crestview, Oct. 16; De Funiak Springs, Oct. 19; near De Funiak Springs (G. C. Fisher). Specimens from Gainesville, in the collection of the Agric. Exp. Sta.].

Variety *senne* Linn. [One male, East Gainesville, Sept. 28; two males, Hogtown Creek, Gainesville, Oct. 1; one male, Payne Prairie, Gainesville, Oct. 2.]

Larva on leguminous plants, *Cassia marylandica*, *C. chamæcrista*, *C. occidentalis* and clover.

Extends to Massachusetts, Wisconsin, California and through Mexico and the Antilles to Argentina.

Aphrissa statira Cram. Upper Indian River (A. M. N. H.); Lake Worth (Dyar); Miami, between Jan. 28 and Feb. 8 (Hebard).

Extends through the Antilles to South America; occurs also in Central America.

Phœbis argante Fabr. "Florida" (Dyar).

Extends to Texas and through Mexico and the Antilles to South America.

Phœbis agarithe Bd. Upper Indian River (A. M. N. H.); Indian River (Neumoegen); Lake Worth (Dyar); Punta Rassa, Apr. 3, Everglade, Apr. 4 (A. M. N. H., Ds.); Miami, common (Laurent), Jan. (Sloss.), Nov. 5 (A. M. N. H.); Key West, Sept. 17 (Ds.).

Larva on the various species of *Cassia* and on *Pithecolobium guadalupensis*.

Extends to Illinois, Arizona and through Mexico and the Antilles to South America.

Zerene cæsonia Stoll. Jacksonville (Sloss.), Nov. 5 (A. M. N. H., Ds.); St. Augustine, Apr.-July (Johnson) La Grange, Sept. 9 (Sleight); Lakeland, May 6, Nov. 7 (A. M. N. H., Ds.); Seven Oaks (Thurston); Lake Josephine (J. and H. Comstock); Fort Myers, Mar. 30, Apr. 24, 25, 26 (A. M. N. H., Ds.); Miami (Laurent), Sept. 25 (Ds.); Biscayne Bay (Sloss.); [Devils Mill Hopper, Gainesville, Sept. 27; locally common between Hogtown Creek and Devils Mill Hopper, Gainesville, Sept. 27; somewhat common, East Gainesville, Sept. 28; Hogtown Creek, Gainesville, Oct. 1; Payne Prairie, Gainesville, Oct. 2; Lake Miceosukee, Monticello, Oct. 6 and 8; Monticello, Oct. 7; De Funiak Springs, Oct. 19].

Larva on *Trifolium*, *Amorpha fruticosa* and *A. californica*.

Extends to Staten Island, Ontario, California and through Mexico and the Antilles to South America.

Eurymus eurytheme Bd. "Southern Florida" (Holland).

Larva on clover.

This polymorphous species extends, in one or more of its many forms, to Hudson Bay, the Pacific Coast and Mexico.

Eurymus philodice *Godt.* "Western Florida" (Morrison); Lakeland, Mar. 28 (A. M. N. H.).

Larva on clover, [also on *Baptisia tinctoria*].

Extends to New England, the Rocky Mts. and Mexico.

Eurema nicippe *Cram.* Jacksonville (Sloss.), Spet. 7 (Ds.), Nov. 5 (A. M. N. H., Ds.); St. Augustine, Mar.-Nov., common (Johnson); Newberry, Nov. 19 (Ds.); Gulf Hammock, Apr. (Castle and Laurent); Enterprise, Nov. 9, Lakeland, May 5, Fort Myers, Mar. 30, Apr. 1, 26, Nov. 16, La Belle, Nov. 14 (A. M. N. H., Ds.); Useppa Is., May (Ds.); Miami, Jan. (Sloss.), Nov. 5 (A. M. N. H.); Key West (Maynard, Palmer); [Gainesville, Sept. 26 to Oct. 3rd; Devils Mill Hopper, Gainesville, Sept. 27; East Gainesville, Sept. 28 and 29; Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Hogtown Creek, Gainesville, Oct. 1; Monticello, Oct. 4 to 7; Lake Miceosukee, Monticello, Oct. 6 and 8; Pensacola, Oct. 10 and 12; Bayou Chico, Pensacola, Oct. 12; Star Lake, Pensacola, Oct. 13; Crestview, Oct. 15 and 16; De Funiak Springs, Oct. 17 and 19; near de Funiak Springs (G. C. Fisher); Jacksonville, Sept. 26 and Oct. 21. Specimens from Gainesville in the collection of the Agric. Exp. Sta. Common everywhere and especially abundant in the Gainesville region.]

Larva on *Cassia marylandica*, *C. tora*, *C. occidentalis*, *C. obtusifolia*, *Trifolium* sp. and other Leguminosæ.

Extends to Connecticut, the Great Lakes, through Kansas and Arizona to California and Mexico.

Eurema euterpe *Mén.* Jacksonville, Nov. 3, 5 (A. M. N. H., Ds.); Ortéga, Sept. 6 (Ds.); St. Augustine, common throughout the year (Johnson); Newberry, Nov. 19 (A. M. N. H.); Enterprise, Apr. (Castle and Laurent); La Grange, Sept. 9, 12 (Ds., Slight); Titusville, Nov. 8, Indian River, Lakeland, Mar. 28, May 6, 7, Nov. 7, 10 (A. M. N. H., Ds.); Lake Worth (Dyar); Punta Gorda, Feb. (Sloss.), Nov. 5 (A. M. N. H.); Useppa, Apr. (Ds.); Fort Myers, (McD.), Mar. 30, 31, Apr. 1, 24, 26, 28, 29, Nov. 16, Citrus Center, May 3, Marco, Apr. 18, 30 (A. M. N. H., Ds.); Chokoloskee (Barnes); Miami (Laurent); Big Pine Key, Sept. 21, Key West, Sept. 13 (Ds.); "Florida Keys" (Burgess, Palmer, Maynard); [Jacksonville, Sept. 26 and Oct. 21; Gainesville, Sept. 26; Agric. Exp. Sta. grounds, Gainesville, Sept. 26 and 30; Devils Mill Hopper, Gainesville, Sept. 27; East Gainesville, Sept. 28 and 29; Hogtown Creek, Gainesville, Oct. 1; Payne Prairie, Gainesville, Oct. 2; Monticello, Oct. 4, 5 and 7; Lake Miceosukee, Monticello, Oct. 6 and 8; Pensacola, Oct. 10 and 12; Fisherville, Pensacola, Oct. 11; Bayou Chico, Pensacola, Oct. 12; Star Lake, Pensacola, Oct. 13; Big Bayou, Pensacola, Oct. 14; Crestview, Oct. 15 and 16; De Funiak Springs, Oct. 17 and 19; Lake Stanley, De Funiak

Springs, Oct. 18. Specimens from Gainesville, in the collection of the Agric. Exp. Sta. Very common everywhere.]

Variety **alba** Strck. La Grange, Sept. 10, 12 (Ds., Sleight); [Devils Mill Hopper, Gainesville, Sept. 27; East Gainesville, Sept. 28 and 29; Payne Prairie, Gainesville, Oct. 2; Monticello, Oct. 5 and 7; Lake Miceosukee, Monticello, Oct. 6; Fisherville, Pensacola, Oct. 11; Star Lake, Pensacola Oct. 13; Big Bayou, Pensacola, Oct. 14; Lake Stanley, De Funiak Springs, Oct. 18; De Funiak Springs, Oct. 19. Generally distributed about the regions visited by us but rather scarce.]

Larva on *Cassia chamaecrista*, *C. occidentalis*, *C. nictitans*, *Trifolium* and *Glycine*.

Extends to Connecticut, the Great Lakes, through Kansas to California, and into Mexico and the Antilles.

Eurema delia Cram. Jacksonville, Jan. 25, Punta Gorda, Feb., Charlotte Harbor (Sloss.); Lake Josephine, Feb. (J. and H. Comstock); [Devils Mill Hopper, Gainesville, Sept. 27; Payne Prairie, Gainesville, Oct. 2; Monticello, Oct. 5 and 7; Lake Miceosukee, Monticello, Oct. 8; Fisherville, Pensacola, Oct. 11; common, Star Lake, Pensacola, Oct. 13; Big Bayou, Pensacola, Oct. 14; rather common, Crestview, Oct. 15 and 16; De Funiak Springs, Oct. 17 and 19; Lake Stanley, De Funiak Springs, Oct. 18. A specimen from Gainesville in the collection of the Agric. Exp. Sta.]

Larva on *Cassia*.

Occurs in the Southern States.

Eurema jucunda Bd. and Lec. Jacksonville (Sloss.); St. Augustine, very rare (Johnson); La Grange, Sept. 9 (Ds.); Lakeland, May 5, 6, 7, 8 (A. M. N. H., Ds.); Avon Park, May (J. and H. Comstock); [Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Monticello, Oct. 5 and 7; Crestview, Oct. 16; De Funiak Springs, Oct. 17 and 19; Lake Stanley, De Funiak Springs, Oct. 18].

Extends to Texas, Mexico and Central America.

Eurema gnatheme Bd. "Florida" (Dyar). [Mr. L. V. Coleman has four purchased specimens in his collection, marked Chokoloskee, Fla., Sept. Maynard records a specimen from Sanford, Oct. 1, 1887, under *Terias blakei* Maynard, which Dyar calls a variety of *E. gnatheme* Bd.

Food plant: *Cassia occidentalis* (E. S. Pantón).]

Occurs in the Antilles.

NYMPHALIDÆ.

Colænis julia *Fabr.* Lake Worth (Dyar); Miami, between Jan. 28 and Feb. 8 (Hebard); Biscayne Bay (Sloss.); Key Largo, Nov. 6 (A. M. N. H.).

Variety **delila** *Fabr.* Biscayne Bay (Sloss.).

Extends to Texas and through Mexico and the Antilles into South America.

Agraulis vanillæ *Linn.* Jacksonville, Sept. 7 (Ds., Slight), Nov. 3, 5 (Ds.); St. Augustine, common, Apr.-Nov. (Johnson); Gulf Hammock, Apr., Enterprise, Apr. (Castle and Laurent); Indian River (A. M. N. H.); Lakeland (McD.), Mar. 28, Nov. 7, 8, 10 (A. M. N. H., Ds.); Lake Josephine (J. and H. Comstock); Punta Gorda, Nov. 17 (A. M. N. H.); Charlotte Harbor (Sloss.); Useppa, Apr., May (Ds.); Lake Worth (Dyar); La Belle, Nov. 14, Marco, Apr. 18, Deep Lake, Apr. 13, Chokoloskee, Apr. 8, Miami, Nov. 5 (A. M. N. H., Ds.); Miami, common (Laurent), Jan. (Sloss.); Key Largo, Nov. 6 (A. M. N. H.); Key West, Sept. 16, 17 (Ds., Slight); [Jacksonville, Sept. 26 and Oct. 21; Devils Mill Hopper, Gainesville, Sept. 27; East Gainesville, Sept. 28 and 29; Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Hogtown Creek, Gainesville, Oct. 1; Payne Prairie, Gainesville, Oct. 2; Monticello, Oct. 4, 5, 7; Lake Micoosukee, Monticello, Oct. 6 and 8; Pensacola, Oct. 10 and 12; Fisherville, Pensacola, Oct. 11; Bayou Chico, Pensacola, Oct. 12; Star Lake, Pensacola, Oct. 13; Big Bayou, Pensacola, Oct. 14; Crestview, Oct. 16; De Funiak Springs, Oct. 17 and 19; Lake Stanley, De Funiak Springs, Oct. 18; near De Funiak Springs (G. C. Fisher). Common everywhere.]

Larva on *Passiflora pallida*.

Extends to New Jersey, Colorado, Southern California and through Mexico and the Antilles to Argentina.

Euptoieta claudia *Cram.* Jacksonville, Nov. 5 (Ds.); St. Augustine, during summer, rare (Johnson); Lakeland, Nov. 8 (A. M. N. H.); Punta Gorda, Nov. 14 (Ds.); Allen River to Deep Lake, Apr. 12 (A. M. N. H., Ds.); Biscayne Bay (Sloss.); [Devils Mill Hopper, Gainesville, Sept. 27; Monticello, Oct. 7; Pensacola, Oct. 12; Star Lake, Pensacola, Oct. 13; Crestview, Oct. 16; De Funiak Springs, Oct. 19].

Larva on *Passiflora incarnata*, *P. cærulea*, *Podophyllum peltatum*, *Sedum*, *Desmodium*, *Portulaca*, violets and garden pansy.

Extends to Massachusetts, Montreal, Alberta, California and through Mexico to South America.

Semnopsyche diana Cram. "Florida" (Skinner).

Larva on violets.

Extends to Ohio and Missouri.

Argynnis cybele Fabr. "Florida" (Skinner). [A specimen from Gainesville, in the collection of the Agric. Exp. Sta.].

Larva on the various species of violets.

Extends to Quebec and Colorado. The race *carpenterii* Edw. occurs in Arizona and New Mexico.

Apatura misippus Linn. Banana River (Cory); Indian River (Wittfeld).

Larva on various malvaceous plants and common *Portulaca*.

Occurs in the Antilles, the Guianas, India, Africa and Australia.

Phyciodes phaon Edw. Pablo Beach, Sept. 5, 27 (Ds., Sleight); Enterprise, Apr. (Castle and Laurent); Titusville, Nov. 8, Lakeland, May 8, Nov. 7 (A. M. N. H., Ds.); Avon Park, May (J. and H. Comstock); Useppa, Apr. (Ds.); Fort Myers, Mar. 30, 31, Apr. 1, 2, 23, 26, May 8, Nov. 7, 10, 13, La Belle, Apr. 27, Nov. 14, South Bay, Lake Okeechobee, May 2 (A. M. N. H., Ds.); Lake Worth (Dyar); Marco, Apr. 18, 21, Allen River to Deep Lake, Apr. 12, Everglade, Apr. 7, (A. M. N. H., Ds.); Miami, common (Laurent); Biscayne Bay (Sloss.); Key West, Sept. 16-18 (Ds., Sleight); [common, East Gainesville, Sept. 28 and 29; Big Bayou, Pensacola, Oct. 14. A specimen from Gainesville, in the collection of the Agric. Exp. Sta.]

Extends to Texas and Mexico; has also been reported from Kansas.

Phyciodes tharos Drury. Titusville, Nov. 8 (A. M. N. H.); St. Augustine, common most of the year (Johnson); La Grange, Sept. 9 (Ds., Sleight); Lakeland, May 4, 5, 6, 8, Nov. 7, Punta Gorda, Nov. 16 (A. M. N. H., Ds.); Fort Myers (McD.), Apr. 26, Deep Lake, Apr. 13, Everglade, Apr. 3 (A. M. N. H., Ds.); [common, East Gainesville, Sept. 28 and 29; Monticello, Oct. 7; Lake Miceosukee, Monticello, Oct. 8; Fisherville, Pensacola, Oct. 11; Star Lake, Pensacola, Oct. 13; Crestview, Oct. 14; De Funiak Springs, Oct. 17; Lake Stanley, De Funiak Springs, Oct. 18].

Larva on *Aster* and allied Compositæ: specifically reported as occurring on *Aster novæ-angliæ* and *Actinomeris helianthoides*.

Extends to Labrador, the Pacific slope and Mexico.

Anthanassa frisia Poey. La Grange, Sept. 9 (Ds., Sleight); South Bay, Lake Okeechobee, May 1, 2 (A. M. N. H., Ds.); Miami, between Jan. 28 and Feb. 8 (Hebard); Key West (Holland).

Extends through Mexico and the Antilles to South America.

Anthanassa texana Edw. "Florida" (Edw.). Reported also from Texas, Nebraska and Mexico.

Variety **seminole** Skinner. La Grange, Sept. 9, 10 (Ds., Sleight).

Described from Georgia. The record for the typical form may refer to this variety.

Cystineura cana Erichs (*floridana* Strck.; *Mestra*). "Florida" (Strecker.)

Extends through the Antilles to South America.

Polygonia interrogationis Fabr. "East Florida," Dec., Jan. (Double-day); St. Augustine, very rare during autumn (Johnson); Indian River (Edw.); [one specimen, Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Gainesville (Coll., Agric. Exp. Sta.)].

Larva on *Ulmus americana*, *Celtis occidentalis*, *Urtica*, *Bæhmeria cylindrica*, *Humulus lupulus* and *Tilia americana*.

Extends to Nova Scotia, Montana, Arizona and Mexico.

Eu Vanessa antiopa Linn. "Northern Florida" (Chapman); St. Augustine, very rare, saw two in 1887 (Johnson).

Larva on *Ulmus*, *Salix*, *Populus*, *Celtis occidentalis*, and rarely on rose bushes.

Extends to Labrador, the Pacific Coast and Central America. Occurs also in Europe and Siberia.

Vanessa atalanta Linn. St. Augustine, throughout the year (Johnson); Enterprise, Apr. (Castle and Laurent); Lakeland, May 6 (Ds.); South Bay, Lake Okeechobee, Apr. 29, 30, May 2 (A. M. N. H., Ds.); Lake Worth (Dyar); Miami (Laurent); [Devils Mill Hopper, Gainesville, Sept. 27; Monticello, Oct. 4].

Larva on *Humulus lupulus*, *Bæhmeria cylindrica*, *Urtica* and *Parietaria debilis*.

Occurs throughout North America, Europe, Northern Asia and Africa. It is found rarely in Cuba.

Vanessa huntera Fabr. "Florida," Feb., Mar. (Chapman); Jacksonville (Sloss.); St. Augustine, Oct.-Apr. (Johnson); Enterprise, Apr. (Castle and Laurent); Indian River (Palmer); Lakeland, Mar. 28, May 6, 7, Nov. 8, Punta Gorda, Nov. 17, Fort Myers, Mar. 31, La Belle, Apr. 27 (A. M. N. H., Ds.); Lake Worth (Dyar); [Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Lake Miceosukee, Monticello, Oct. 6 and 8; Crestview, Oct. 15 and 16; Lake Stanley, De Funiak Springs, Oct. 18; De Funiak Springs, Oct. 19; near De Funiak Springs (G. C. Fisher); Lake City (Coll. Agric. Exp. Sta., Gainesville)].

Larva on *Gnaphalium purpureum*, *Arctium*, *Helianthus* and *Antennaria*.

Extends to Nova Scotia, Vancouver, the Sierras and through Mexico and the Antilles to South America. Occurs also in the Canary Islands.

Vanessa cardui Linn. St. Augustine, rare during winter and spring (Johnson).

Larva on *Carduus nutans*, *C. lanceolatus*, *C. arvensis*, *Althæa rosea*, *Cnicus benedictus*, *Silybum marianum*, *Onopordon acanthium*, *Arctium lappa*, *Senecio*, *Helianthus*, *Anaphalis margaritacea* and cultivated *Artemisia*.

Cosmopolitan except Arctic regions, South America and Antilles. It occurs however in Cuba and Porto Rico.

Junonia coenia Hbn. "Eastern Florida," Feb., Mar., Apr. (Scudder); "Central Florida," June 23, July 16 (Wittfeld); Pablo Beach, Sept. 27 (Ds.); Jacksonville (Sloss.); Nov. 5 (A. M. N. H.); Ortega, Sept. 6 (Sleight); St. Augustine, common throughout the year (Johnson); La Grange, Sept. 10 (Ds.); Newberry, Nov. 19, Enterprise, Nov. 9, Titusville, Nov. 8, Lakeland, Mar. 28, May 1, 7, Nov. 8, 10 (A. M. N. H., Ds.); Lake Josephine (J. and H. Comstock); Punta Gorda, Feb. (Sloss.), Nov. 11, 15, 17 (A. M. N. H., Ds.); Boca Grande, Apr. (Ds.); Fort Myers, Mar. 30, Apr. 25, 26, Nov. 16, La Belle, Apr. 27, South Bay, Lake Okeechobee, Apr. 30, May 2 (A. M. N. H., Ds.); Lake Worth (Dyar); Marco, Apr. 20, Allen River to Deep Lake, Apr. 13, Everglade, Apr. 10, Chokoloskee, Apr. 8, Miami, Nov. 15 (A. M. N. H., Ds.); Miami, common (Laurent); Key West, Sept. 18 (Ds.); [Devils Mill Hopper, Gainesville, Sept. 27; East Gainesville, Sept. 28 and 29; Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Payne Prairie, Gainesville, Oct. 2; Monticello, Oct. 4, 5, 7; Lake Micoosukee, Monticello, Oct. 6 and 8; Fort Barrancas, Oct. 10; Pensacola, Oct. 10 and 12; Fisherville, Pensacola, Oct. 11; Bayou Chico, Pensacola, Oct. 12; Star Lake, Pensacola, Oct. 13; Big Bayou, Pensacola, Oct. 14; Crestview, Oct. 15 and 16; De Funiak Springs, Oct. 17 and 19; Lake Stanley, De Funiak Springs, Oct. 18; near De Funiak Springs (G. C. Fisher). Common at all the above localities.]

Larva on *Gerardia purpurea*, *Linaria canadensis*, *Ludwigia alternifolia* and *Plantago*.

Extends to Massachusetts, Alberta, California and through Mexico to Colombia. Occurs also in Cuba.

Junonia lavinia Cram. Marco. Apr. 18, 20, Everglade, Apr. 4, 5 (Ds.).

Occurs in Texas and through the Antilles to South America.

Anartia jatrophae Linn. Fort Myers, Mar. 30, Nov. 12, 15, 16 (A. M. N. H.); Lake Worth (Dyar, Sloss.); Miami (Laurent); Key West, Sept. 17, 18 (Ds., Sleight).

Occurs in Texas and through Mexico and the Antilles into South America. A stray specimen has been reported from Boston, Mass.

Victorina steneles Linn. Indian River (Wittfeld).

Occurs in Texas and through Mexico and the Antilles to South America.

Eunica monima *Cram.* Lake Worth (Dyar); Biscayne Bay (Sloss.).

Extends to Arizona and through Mexico and the Antilles to South America.

Eunica tatila *H.-S.* Lake Worth (Schaus.); Biscayne Bay (Sloss.); Miami, common (Sloss., Barnes, Laurent), between Jan. 28 and Feb. 8 (Hebard), Sept. 22 (Ds.); Key West (Morrison).

Known also from the Antilles, Mexico and Colombia.

Callicore clymena *Cram.* (*Diathria*). "Florida" (Holland).

Occurs in the Antilles, Mexico and Central America.

Timetes chiron *Fabr.* Miami (Dickerson).

Occurs in Texas and through Mexico and the Antilles into South America.

Athena peleus *Sulzer.* Indian River (Wittfeld); Avon Park (J. and H. Comstock); Allen River to Deep Lake, Apr. 12, Deep Lake, Apr. 13, Chokoloskee, Apr. 8 (A. M. N. H., Ds.); Miami, common (Laurent).

Occurs in Texas and through Mexico to South America.

Athena eleucha *Hbn.* Biscayne Bay (Sloss.); Miami, Jan. (Sloss.), between Jan. 28 and Feb. 8 (Hebard).

Occurs in Texas and the Antilles.

Basilarchia astyanax *Fabr.* [Devils Mill Hopper, Gainesville, Sept. 27; Monticello, Oct. 4.

Food plants: wild and cultivated cherry, apple, thorn, willow, poplar, birch, etc.

Extends to about the 43rd parallel of latitude and to the Mississippi Valley (Scudder).]

Basilarchia archippus *Cram.* Jacksonville, Jan. 25, Punta Gorda, Feb. (Sloss.).

Larva on *Salix nigra*, *S. sericea*, *Populus balsamifera*, *P. tremuloides*, *P. deltoides* and *P. dilatata*.

Extends to Nova Scotia, British Columbia and Texas.

Basilarchia floridensis *Strck.* Jacksonville, Sept. 7 (Ds., Sleight); St. Augustine, summer (Johnson); Gulf Hammock, Apr. (Castle and Laurent); Titusville, Nov. 8, Lakeland, May 7, Nov. 7 (A. M. N. H., Ds.); Avon Park, Apr., May (J. and H. Comstock); Punta Gorda, Feb. (Sloss.); Fort Myers, Mar. 31, South Bay, Lake Okeechobee, Apr. 30; Deep Lake, Apr. 13 (A. M. N. H., Ds.); Everglade (McD.); Biscayne Bay (Sloss.); Miami (Laurent), Nov. 5 (A. M. N. H.); [Devils Mill Hopper, Gainesville, Sept. 27; Payne Prairie, Gainesville, Oct. 2; Lake Miceosukee, Monticello, Oct. 6 and 8; Monticello, Oct. 7].

Larva on willow.

Known also from Georgia.

Chlorippe celtis *Bd. and Lec.* St. Augustine, June 26, rare (Johnson).
Larva on *Celtis*.

Extends to Montreal Island, Illinois and Mexico.

Chlorippe alicia *Edw.* Lake Josephine (J. and H. Comstock); Chokoloskee (Barnes); [Agric. Exp. Sta. grounds, Gainesville, Sept. 30.

Food plant: *Celtis*.]

Extends to Texas.

Chlorippe clyton *Bd. and Lec.* Biscayne Bay (Sloss.).

Larva on *Celtis*.

Extends to Connecticut, Wisconsin, Kansas and Texas.

Chlorippe flora *Edw.* St. Augustine, June and July, rare (Johnson); Lake Josephine (J. and H. Comstock); Miami, Feb., Biscayne Bay (Sloss.).

Larva on *Celtis*.

Extends to Texas.

Historis odius *Fabr.* "Florida" (Dyar).

Occurs in the Antilles and South America.

Anæa portia *Fabr.* Miami, common (Laurent), Jan. (Sloss.), between Jan. 28 and Feb. 8 (Hebard).

Occurs in Georgia and the Antilles.

AGAPETIDÆ.

Cercyonis pegala *Fabr.* Apalachicola (Chapman); Jacksonville, July to Oct. (Ashmead), Sept. 17, female variety with two large eye-spots on fore wings above (Ds.); Ovieda (Meade).

Larva on "coarse wild grass."

Occurs in the South Atlantic States.

Cercyonis alope *Fabr.* St. Augustine, common in summer (Johnson).

Larva on grasses.

Extends to Maine, Canada, Kansas and Texas. Has also been recorded as occurring in California.

Enodia portlandia *Fabr.* "Florida," Feb., May, Aug., Oct. (Chapman); [Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Gainesville, one ♀, Apr. 14 (Coll. Agric. Exp. Sta.); Monticello, Oct. 4 and 7].

Larva on grasses.

Extends to Nova Scotia, Nebraska and Kansas. Occurs also in Mexico.

Enodia creola *Skinner.* "Florida" (Holland).

Extends to Texas and Mexico.

Satyroides canthus *Linn.* [Lake Miceosukee, Monticello, Oct. 6 and 8.]

***Neonympha gemma* Hbn. "Florida" (Sloss.).**

Larva on grasses.

Extends to West Virginia, Mexico and Central America.

***Neonympha phocion* Fabr.** Pablo Beach, Sept. 5 (Sleight); St. Augustine, May and June (Johnson); Apalachicola (Chapman); Indian River (Wittfeld); La Grange, Sept. 13 (Ds.); Lakeland, May 4, 8 (A. M. N. H.); Seven Oaks (Ds.); Avon Park, Apr., May, Lake Josephine (J. and H. Comstock); Fort Myers, (McD.), Mar. 30, Apr. 2, 26, Deep Lake, Apr. 12, 13 (A. M. N. H., Ds.); Miami, common (Laurent); [common, East Gainesville, Sept. 28 and 29; Star Lake, Pensacola, Oct. 13; common, Crestview, Oct. 15 and 16; De Funiak Springs, Oct. 17].

Larva on grasses. *Panicum sanguinale* has been specifically recorded. Edwards bred it on *Dactyloctenium aegyptiacum*.

Extends to New Jersey and Texas.

The Florida examples differ from those of more northern regions in that the ocellar spots of the hind wings, beneath, are much more elongated (Davis).

***Cissia eurytus* Fabr.** Ortega, Sept. 6 (Ds., Sleight); St. Augustine, Apr., May, common (Johnson); Apalachicola, Mar., Apr., May (Chapman); Haulover, Mar. 16 (Schwarz); Gulf Hammock, Apr., Enterprise, Apr. (Castle and Laurent); La Grange, Sept. 9, 11 (Ds., Sleight).

Larva on grasses. Abbot figures it on *Xyris torta*.

Extends to Maine, southern Canada, Nebraska and Texas.

***Cissia sosybius* Fabr.** Jacksonville, Nov. 5, Pablo Beach, Nov. 4 (Ds.); St. Augustine (Johnson); Gulf Hammock, Apr., Enterprise, Apr. (Castle and Laurent); Titusville, Nov. 8, Lakeland, Mar. 28, May 4, 7, 8, Nov. 7 (A. M. N. H., Ds.); Lake Josephine (J. and H. Comstock); Lake Worth (Dyar); Fort Myers, rare (McD.), Apr. 24, Nov. 15, La Belle, Apr. 27, Deep Lake, Apr. 13, South Bay, Lake Okeechobee, May 2 (A. M. N. H., Ds.); [common, Agric. Exp. Sta. grounds, Gainesville, Sept. 26 and 30; Devils Mill Hopper, Gainesville, Sept. 27; East Gainesville, Sept. 28 and 29; Hogtown Creek, Gainesville, Oct. 1; Payne Prairie, Gainesville, Oct. 2; Monticello, Oct. 4, 5, 7; Lake Miceosukee, Monticello, Oct. 6 and 8; Star Lake, Pensacola, Oct. 13; Crestview, Oct. 16].

Larva on grasses.

Extends to New Jersey, through the Mississippi Valley and through Mexico to South America.

HELICONIDÆ.

Apostrophia charithonia Linn. Ortega, Sept. 6 (Ds., Sleight); St. Augustine, was common here prior to freeze of 1886 (Johnson); La Grange, Sept. 9 (Sleight); Titusville, Nov. 8, Lakeland, Nov. 7 (A. M. N. H., Ds.); St. Johns River (Holland); Indian River (Wittfeld, Holland); Lake Worth (Dyar, Sloss.); Useppa, Apr., May (Ds.); Fort Myers, Mar. 21, Apr. 24, La Belle, Apr. 28, Punta Rassa, Apr. 3 (A. M. N. H., Ds.); Marco, (McD.), Apr. 18 (Ds.); Deep Lake, Apr. 13, Everglade, Apr. 4, 7 (A. M. N. H., Ds.); Miami, common (Laurent), Jan. (Sloss.), Sept. 24 (Ds.), Nov. 5 (A. M. N. H.); [Agric. Exp. Sta. grounds, Gainesville, Sept. 26 and 30; Devils Mill Hopper, Gainesville, Sept. 27; Payne Prairie, Gainesville, Oct. 2; Monticello, Oct. 5 and 7; Lake Miceosukee, Monticello, Oct. 8].

Larva on *Passiflora pallida*.

Extends to North Carolina and through Mexico and the Antilles to South America.

LYMNADIDÆ.

Anosia plexippus Linn. "Florida," Jan. 3 (Thaxter); May to Nov., rare (Chapman); Jacksonville, Jan. 25 (Sloss.); St. Augustine, common in fall (Johnson); Titusville, Nov. 8, Lakeland, May 7, 9 (A. M. N. H., Ds.); Punta Gorda, Feb. (Sloss.), Nov. 17 (A. M. N. H.); Lake Worth (Dyar); South Bay, Lake Okeechobee, Apr. 30 (A. M. N. H., Ds.); [Jacksonville, Sept. 26; Devils Mill Hopper, Gainesville, Sept. 27; East Gainesville, Sept. 28 and 29; Monticello, Oct. 4 and 5; Lake Miceosukee, Monticello, Oct. 6; Pensacola, Oct. 12; Bayou Chico, Pensacola, Oct. 12; Crestview, Oct. 16; De Funiak Springs, Oct. 17 and 19; Lake Stanley, De Funiak Springs, Oct. 18; near De Funiak Springs (G. C. Fisher)].

Larva on *Asclepias*, *Apocynum androsæmifolium* and *Acerates*.

Extends throughout North America and the Antilles to Patagonia. It has been introduced through commerce into Europe, Australia, the Malay Archipelago, the Hawaiian and some of the South Sea Islands.

Anosia berenice Cram. Jacksonville, Nov. 5 (Ds.); St. Augustine, common in summer (Johnson); La Grange, Sept. 7, 11 (Sleight); Titusville, Nov. 8, Lakeland, Nov. 8 (A. M. N. H.); Lake Josephine (J. and H. Comstock); Punta Gorda, Nov. 13, 15, 16, 17 (A. M. N. H., Ds.); Useppa, Apr., May, Boca Grande, Apr. (Ds.); Fort Myers, Apr. 24, Nov. 15, La Belle, Apr. 27, Citrus Center, May 3, South Bay, Lake Okeechobee, Apr.

29, May 1 (A. M. N. H., Ds.); Lake Worth (Dyar); Marco, Apr. 19, Allen River to Deep Lake, Apr. 12, Everglade, Apr. 4, Chokoloskee, Apr. 8 (A. M. N. H., Ds.); Miami, common (Laurent); Key West, Sept. 15-17 (Ds., Sleight); [Devils Mill Hopper, Gainesville, Sept. 27; Hogtown Creek, Gainesville, Oct. 1; Monticello, Oct. 4; Fisherville, Pensacola, Oct. 11; Bayou Chico, Pensacola, Oct. 12; Star Lake, Pensacola, Oct. 13; common, Big Bayou, Pensacola, Oct. 14].

Larva on *Asclepias* and *Nerium*. [Also *Vincetoxicum palustre* at Lake Worth (Dyar).]

Extends to Arizona and through Mexico and the Antilles to South America.

Hebard records the variety *strigosa* Bates, which occurs in Arizona and Texas, from Miami (between Jan. 28 and Feb. 8), but it is doubtful whether this record really refers to *strigosa*.

***Lycorea cleobæa* Godt.** "Florida" (Dyar).

Occurs in South America.

LIBYTHEIDÆ.

***Hypatus bachmani* Kirtl.** Apalachicola (Chapman); Belleair (Sloss.); Lake Worth (Dyar).

Larva on *Celtis occidentalis*.

Extends to Ontario, Arizona and Mexico.

RIODINIDÆ.

***Calephelis virginiensis virginiensis* Gray.** Pablo Beach, Sept. 5 (Sleight); St. Augustine, common in spring and summer (Johnson); La Grange, Sept. 9 (Sleight); Titusville, Nov. 8 (A. M. N. H.); Indian River (Johnson); Lakeland, May 7, 8, Nov. 9, 10 (A. M. N. H.); Avon Park (J. and H. Comstock); Charlotte Harbor (Sloss.); Punta Gorda, Feb. (Sloss.), Nov. 14 (A. M. N. H.); Fort Myers, (McD.), Mar. 30, Apr. 2 (A. M. N. H., Ds.); Miami (Laurent); [East Gainesville, Sept. 28, 29; Fisherville, Pensacola, Oct. 11; Star Lake, Pensacola, Oct. 13; Crestview, Oct. 15, 16; De Funiak Springs, Oct. 17; Lake Stanley, De Funiak Springs, Oct. 18. Locally common at all of the above localities, and especially so at East Gainesville.]

Extends to Virginia.

[This species has generally been listed as *Calephelis cænius* Linn. *Emesis cæneus* Linn. (*Calephelis*) is however a South American species (Stichel).

C. virginiensis Gray has a subspecies which occurs in Mexico, Central and South America (Stichel). Records of *C. cænius* from Texas, should probably be referred to *C. nilus* Feld., or to *C. australis* Edw.

The environment for our Florida form is moist, open grassy places. It flits about, with slow flight, among the grasses and low herbaceous plants, frequently alighting after short flights. When it comes to rest, it assumes a curious (cryptic?) attitude, in which the wings are expanded and are held in the same plane with the axis of the body. The inner margins of the primaries are nearly at right angles, or very slightly less, to the axis. The secondaries are held so that the costal margins make a wide angle with the primaries, the angle being about 35°. The antennæ are projected directly in front, and are held in a plane with the wings. They may be held together in contact, or slightly expanded, the angle thus varying between 0° and 10° (maximum). The numerous individuals under observation, did not seem to show any predilection for alighting on either the upper or under surface of leaves, but had perhaps a slight preference for the vertical stems of grasses, in which case both upper and under sides of the wings might be equally exposed to the sun's rays. When at rest on the under surface of a leaf, the under side of the wings would be upward. The individuals observed gave no hint as to what their larval food plant might be.]

LYCÆNIDÆ.

Eumæus atala Poey. Biscayne Bay (Sloss., Schwarz); Miami, common (Laurent, Healy), Jan. (Sloss.), Sept. 25 (Ds.), Nov. 5 (A. M. N. H.); Cocoanut Grove, Sept. 14, common (Ds., Sleight); [Miami (Coll. Agric. Exp. Sta., Gainesville)].

Larva on *Zamia pumila* and *Z. integrifolia*.

Occurs in Cuba.

Atlides halesus Cram. Jacksonville (Sloss.); St. Augustine, April, rare (Johnson); Winter Park (Sloss.); [only one specimen, Devils Mill Hopper, Gainesville, Sept. 27; only one specimen, East Gainesville, Sept. 29; only one specimen, Hogtown Creek, Gainesville, Oct. 1; abundant, Lake Miceosukee, Monticello, Oct. 6 and 8.

Very fond of the flowers of *Eupatorium perfoliatum*. On a single flower cluster, from one to seven individuals would congregate in company with several *U. melinus* and *C. cecrops*.

A. halesus, sitting on *E. perfoliatum*, is quite conspicuous, the dark

brown (nearly black) undersides being contrasted against the background of white flowers. They may, nevertheless, obtain some protection from their resemblance to dead leaves. They especially resembled the small, oval, purplish brown or black dead leaves which fell from the gum trees and caught in a vertical position among the flowers.]

Extends to New Jersey, Illinois, Southern California and through Mexico to Central America.

Eupsyche m-album *Bd. and Lec.* St. Augustine, common in summer (Johnson); Avon Park (J. and H. Comstock); Punta Gorda, Feb., Biscayne Bay (Sloss.); [one specimen, Sept. 28th and one on the 29th, East Gainesville; two specimens, Oct. 6th and one on the 8th, Lake Miceosukee, Monticello].

Extends to New Jersey, Wisconsin and through Mexico to Venezuela.

Eupsyche telea *Hewitson.* Miami, between Jan. 28 and Feb. 8 (Hebard); Biscayne Bay (Sloss.).

Occurs in Mexico and South America.

Eupsyche martialis *H.-S.* Miami, Jan. (Sloss.), between Jan. 28 and Feb. 8 (Hebard); Biscayne Bay (Sloss.).

Larva on *Trema micrantha*.

Occurs in Cuba.

Eupsyche hugon *Godt.* "Florida" (Dyar).

Occurs in the Antilles.

Uranotes melinus *Hbn.* St. Augustine, spring and summer, common (Johnson); Enterprise, Capron (Schwarz); La Grange, Sept. 9 (Sleight); Indian River, Mar. (Palmer); Lakeland, (McD.), May 5, 7, 8, Nov. 8 (A. M. N. H., Ds.); Punta Gorda, Feb., Charlotte Harbor (Sloss.); Fort Myers (McD.), Apr. 20, 23, 24, 25, 26, Nov. 15, 16, La Belle, Apr. 27, South Bay, Lake Okeechobee, May 2 (A. M. N. H., Ds.); Lake Worth (Dyar); Everglade, Apr. 11 (Ds.); Chokoloskee (Barnes); Miami, common (Laurent); Biscayne Bay (Sloss.); [Devils Mill Hopper, Gainesville, Sept. 27; Gainesville (Coll. Agric. Exp. Sta.); Monticello, Oct. 4, 5, 7; very common, Lake Miceosukee, Monticello, Oct. 6 and 8; Pensacola, Oct. 10; Fisherville, Pensacola, Oct. 11; Bayou Chico, Pensacola, Oct. 12; Star Lake, Pensacola, Oct. 13; Big Bayou, Pensacola, Oct. 14; Crestview, Oct. 15 and 16; Lake Stanley, De Funiak Springs, Oct. 18; De Funiak Springs, Oct. 19].

Larva on pine and snap beans. [Also on *Lespedeza hirta*.]

Extends to Canada, Vancouver and California.

Concerning the Florida specimens of this species, Dr. McDunnough writes: "The specimens show a very prominent red patch on the under side of the secondaries, much more extended than in Hübner's figure which

agrees fairly well with Texan and Californian specimens. The figure of the under side of *hyperici* given by Boisduval and LeConte corresponds better with the Florida form."

Thecla favonius S. and A. St. Augustine, spring and summer, common (Johnson); New Smyrna, Apr. 25; Enterprise, Apr. (Castle and Laurent); Indian River (A. M. N. H.); Lakeland (McD.), May 5, 7 (A. M. N. H., Ds.); Lake Josephine (J. and H. Comstock); Fort Myers, Apr. 1, 24, 25, South Bay, Lake Okeechobee, Apr. 30, Marco, Apr. 17, 18, 19, 20, 21 (A. M. N. H., Ds.); Marco, common (McD.); Cocoanut Grove, Apr. 2 (A. M. N. H.); Biscayne Bay (Sloss.).

Larva on *Quercus* spp.

Extends to New Jersey and Texas.

Thecla wittfeldii Edw. Jacksonville, May 5 (Sloss.); Island Grove, May 13 (Seifert); Georgiana, June (Skinner); Indian River (Wittfeld).

Larva on oak.

Known only from Florida.

Several specimens from Lakeland (May 6, 8) taken by Mr. Davis, differ from the typical form by their smaller size and by the presence of a clearly marked inner white line to the transverse row of spots beneath.

Mitoura damon Cram. "Northern Florida" (Scudder).

Larva on *Juniperus virginiana*. *Smilax rotundifolia* recorded for this species is surely an error.

Extends to Massachusetts, Ontario, Dakota and Texas.

Mitoura acis Dru. Lake Worth (Sloss.); Miami (Laurent), Jan. (Sloss.), between Jan. 28 and Feb. 8 (Hebard); Biscayne Bay (Sloss.).

Occurs in the Antilles.

Calycopis cecrops Fabr. Pablo Beach, Nov. 4, Jacksonville, Sept. 7, 28, Ortega, Sept. 6 (Ds.); St. Augustine, spring and summer, common (Johnson); La Grange, Sept. 9-13 (Ds., Sleight); Lakeland, May 5, 8 (A. M. N. H.), Nov. 8 (Ds.); Lake Worth (Dyar); Fort Myers, rare (McD.), Apr. 30 (A. M. N. H.); Useppa Is., May (Ds.); La Belle, Apr. 28, Everglade, Apr. 10 (Ds.); Miami, common (Laurent); [common, Devils Mill Hopper, Gainesville, Sept. 27; rather common, East Gainesville, Sept. 28 and 29; Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Payne Prairie, Gainesville, Oct. 2; Gainesville (Coll. Agric. Exp. Sta.); Monticello, Oct. 4, 5, 7; abundant, Lake Miceosukee, Monticello, Oct. 6 and 8; Fisherville, Pensacola, Oct. 11; Bayou Chico, Pensacola, Oct. 12; Star Lake, Pensacola, Oct. 13; Big Bayou, Pensacola, Oct. 14].

Extends to New Jersey and southern Indiana.

Callicista columella Fabr. Miami (Laurent), Nov. 5 (A. M. N. H.); Biscayne Bay (Sloss.); Key West, Sept. 16, 18, Big Pine Key, Sept. 20 (Ds.).

According to Skinner, this species extends to New York, Texas, through Mexico and the Antilles to Brazil.

***Strymon titus* Fabr.** "Florida" (Hübner).

Larva on plum and wild cherry.

Extends to Canada and Arizona.

***Feniseca tarquinius* Fabr.** Fernandina (Scudder); [one specimen, Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Gainesville, May 30 (J. R. Watson)].

The larva feeds on plant lice, particularly *Shizoneura tessellata*, which occurs on alder. It has also been found with *Pemphigus fraxinifolii* and *P. imbricator* which feed on ash and beech respectively.

Extends to Nova Scotia, Kansas and Texas.

***Everes comyntas* Godt.** Apalachicola (Chapman).

Larva on *Lespedeza capitata*, *Phaseolus perennis*, *Meibomia marylandica*, *Galactia*, *Lathyrus* and clover. [Also on *Lespedeza hirta*, *Baptisia tinctoria* and *Meibomia canescens*.]

Extends to Maine, the Pacific Coast and Costa Rica.

***Hemiargus hanno* Stoll.** Jacksonville, Nov. 5 (Ds.); St. Augustine, common in summer and autumn (Johnson); Titusville, Nov. 8 (A. M. N. H.); La Grange, Sept. 9-12 (Ds., Sleight); Winter Park (Sloss.); Indian River (Johnson); Lakeland, May 5, 6, 8, Nov. 8, 10 (A. M. N. H.); Punta Gorda, Feb. (Sloss.), Nov. 16 (Ds.); Charlotte Harbor (Sloss.); Fort Myers (McD.); Miami, common (Laurent), Jan. (Sloss.); Coconut Grove, Sept. 14 (Ds., Sleight); Biscayne Bay (Sloss.); Key West, Sept. 15, 16, Big Pine Key, Sept. 20 (Ds., Sleight); [Devils Mill Hopper, Gainesville, Sept. 27; East Gainesville, Sept. 28 and 29; Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Payne Prairie, Gainesville, Oct. 2; Gainesville (Coll. Agric. Exp. Sta.); Monticello, Oct. 4 and 7; Bayou Chico, Pensacola, Oct. 12.

Food plant: *Phaseolus lathyroides*.]

Extends through Mexico and the Antilles to South America.

***Hemiargus ammon* Lucas.** Indian River (Edwards); La Grange, Sept. 11 (Ds.); Lakeland, May 7 (A. M. N. H.); Lake Worth (Sloss., Dyar); Useppa Is., May (Ds.); Punta Rassa, Apr. 3, Marco, Apr. 21, Everglade, Apr. 15 (A. M. N. H.); Miami, Jan. (Sloss.), Sept. 3 (Sleight), Nov. 5 (A. M. N. H.); Biscayne Bay (Sloss.).

Larva on *Guilandina bonducella* and *Pithecolobium guadalupensis*.

Extends through the Antilles and tropical America.

***Brephidium isophthalma* H.-S.** Indian River (A. M. N. H.); Punta Gorda, Feb. (Sloss.); Boca Grande, Apr. (Ds.); Marco, Apr. 20, 21, Everglade, Apr. 5, 6, 7, 9 (A. M. N. H., Ds., McD.); Key West, Sept. 18 (Sleight).

Extends to Georgia and through the Antilles. This species was very common in the middle of the salt marsh, at Everglade, wherever patches of a peculiar fleshy-leaved plant grew.

Leptotes theonus *Lucas*. Indian River (Edwards); Punta Gorda, Feb., Charlotte Harbor (Sloss.); Useppa Is., May (Ds.); Punta Rassa, Apr. 3, Chokoloskee, Apr. 8 (A. M. N. H., Ds., McD.); Miami, common (Laurent), Jan. (Sloss.), Nov. 5 (A. M. N. H.); Biscayne Bay (Sloss.); Key Largo, Nov. 6 (A. M. N. H.); Key West, Sept. 15 (Sleight).

Occurs in Cuba.

According to Holland it is found throughout the "Gulf States and hot lands of the New World."

HESPERIIDÆ.

Phocides batabano *Lefeb.* (*Erycides*). Indian River (Worthington); Punta Gorda, Feb. (Dyar); Charlotte Harbor (Sloss.); Useppa, Apr., May, Boca Grande, Apr. (Ds.); Lake Worth (Dyar); Marco Island, May (Worthington); Everglade, Apr. 5, 6 (A. M. N. H., McD.), Apr. 5, 7 (Ds.); Chokoloskee, Apr. 8 (A. M. N. H.); Dade Co. (Dyar); Miami, Jan. (Sloss.); [Punta Rosa (Johnson)].

Larva on *Rhizophora mangle*.

This species has, so far, been recorded only from Florida and Cuba.

Acolastus amyntas *Fabr.* (*Erycides*). Miami, common (Laurent, Skinner), Jan. (Sloss.), between Jan. 28 and Feb. 8 (Hebard), Nov. 5 (A. M. N. H.); Biscayne Bay (Sloss.); Key West, Jan. (Skinner), Sept. 18 (Sleight).

Larva on *Piscidia erythrina*.

Extends to Arizona, Mexico, Central America, and through the Antilles.

Eudamus proteus *Linn.* Jacksonville, Nov. 3 (A. M. N. H.), Sept. 7, Nov. 3, 5 (Ds.); Pablo Beach, Nov. 4 (A. M. N. H.); Apalachicola (Chapman); De Land Landing, St. Johns River, larvæ, Feb. 21 (Chittenden); Archer, larvæ, Nov. 4 (Neal); Gulf Hammock, Apr., Enterprise, Apr. (Castle and Laurent); Enterprise (Chittenden); Titusville, Nov. 8 (A. M. N. H.); Indian River, end of Mar., three broods in Florida (Palmer); Lakeville, larvæ, Dec. 2 (Babbitt); Rockledge (Chittenden); Lakeland, Nov. 7, Punta Gorda, Nov. 11, 17 (A. M. N. H.); Charlotte Harbor (Sloss.); South Bay, Lake Okeechobee, May 2 (A. M. N. H.); Fort Myers, Apr. 25, Mar. 31, Nov. 12 (A. M. N. H.), Mar. 31 (Ds.); Miami, common (Laurent), Nov. 5 (A. M. N. H.); Biscayne Bay (Sloss.); Florida Keys (Maynard, Palmer); [Devils Mill Hopper, Gainesville, Sept. 27; common, East

Gainesville, Sept. 28 and 29; Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Hogtown Creek, Gainesville, Oct. 1; Payne Prairie, Gainesville, Oct. 2; Monticello, Oct. 4, 5, 7; Lake Miceosukee, Monticello, Oct. 6 and 8; Fisherville, Pensacola, Oct. 11; Bayou Chico, Pensacola, Oct. 12; Star Lake, Pensacola, Oct. 13; Big Bayou, Pensacola, Oct. 14; Crestview, Oct. 16; De Funiak Springs, Oct. 17; Lake Stanley, De Funiak Springs, Oct. 18; St. Augustine (Johnson)].

Larva on various species of Leguminosæ, as *Wisteria frutescens*, *Desmodium viridiflorum*, *D. canescens*, *Phaseolus perrennis* and *Clitoria mariana*.

Extends along the Atlantic coast to Connecticut (very rarely to Canada), along the Gulf to Texas and through Mexico and the Antilles to Argentina.

Epargyreus tityrus Fabr. St. Johns River, Indian River (Palmer); La Grange, Sept. 10, 11 (Ds., Sleight); Lakeland, Mar. 28, Nov. 8, Fort Myers, Mar. 31, Deep Lake, Apr. 13 (A. M. N. H., Ds.); Miami, Jan. (Skinner); [Devils Mill Hopper, Gainesville, Sept. 27; Lake Miceosukee, Monticello, Oct. 6].

Larva on various species of Leguminosæ, as, *Amorpha fruticosa*, *Robinia pseudacacia*, *R. viscosa*, *R. hispida*, *R. neomexicana* (in southern California), *Wisteria frutescens*, *Lepedeza capitata*, *Lathyrus palustris*, *Apios tuberosa*, *Desmodium marylandicum*, *D. canadense*, *D. nudiflorum*, *Falcata comosa* and *Gleditsia*.

Extends from Vancouver, Quebec and Maine through Mexico and Central America to Ecuador and the Upper Amazons. Occurs also in the Antilles.

Epargyreus zestos Hbn. (*Rhabdoides*). Sanford (Skinner); Marco Island, May (Worthington); Miami (Laurent), between Jan. 28 and Feb. 8 (Hebard); Biscayne Bay (Sloss.); Key West (Skinner).

[Occurs in the Antilles and South America.]

Achlarus lycidas S. and A. [One old specimen, Devils Mill Hopper, Gainesville, Sept. 27; one old specimen, Monticello, Oct. 5.

Food plant: *Meibomia paniculata*.

Occurs in the Atlantic States and the Mississippi Valley.]

Rhabdoides cellus Bd. and Lec. Tallahassee, Apr. 17 (Maynard); Biscayne Bay (Sloss.).

Larva on *Breweria aquatica*.

Extends to West Virginia, the Pacific Slope and Mexico.

Cocceius pylades Scudd. (*Thorybes*). Apalachicola (Chapman); St. Johns River, St. Augustine (Palmer); Island Grove, Apr. 15, 23 (A. M. N. H.); La Grange, Sept. 9 (Ds., Sleight); Indian River (Palmer); Enterprise, Apr. (Castle and Laurent); South Bay, Lake Okeechobee, May 2 (A. M. N. H.); Fort Myers, Mar. 31 (Ds.).

Larva on many species of Leguminosæ, as *Trifolium pratense*, *T. repens*, *Lespedeza capitata* and *L. hirta*. It was also raised on *Desmodium dillenii*.

Extends to Maine, California and the Mackenzie region.

Thorybes daunus Cram. (*bathyllus* S. and A.). La Grange, Sept. 10 (Ds.); Miami (Laurent); Sept. 24 (Ds.); Biscayne Bay (Sloss.); [one specimen, Monticello, Oct. 5; one specimen, De Funiak Springs, Oct. 17; one specimen, Lake Stanley, De Funiak Springs, Oct. 18].

Larva on Leguminosæ, as, *Rhynchosia tomentosa*, *Tephrosia ambigua*, *Centrosema virginianum* [and *Lespedeza capitata*].

Extends to Massachusetts, Wisconsin, Arizona and through Mexico to Central America.

Heliopetes syrichtus Fabr. (*Hesperia*). Key West (Skinner).

[Food plant: *Sida retusa*.]

Extends to (?) Colorado, and through Mexico to Paraguay. [Occurs also in the Antilles.]

Pyrgus tessellata Scudd. (*Hesperia*). Jacksonville, Sept. 7, La Grange, Sept. 10, Lakeland, Nov. 8 (Ds.); Key West, Sept. 16-18 (Ds., Sleight); [Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Payne Prairie, Gainesville, Oct. 2; Monticello, Oct. 4, 5, 7; Lake Miceosukee, Monticello, Oct. 8; Pensacola, Oct. 10 and 12; Bayou Chico, Pensacola, Oct. 12; Star Lake, Pensacola, Oct. 13; Crestview, Oct. 16; De Funiak Springs, Oct. 17 and 19].

Larva on *Althæa*, *Abutilon* and *Sida*.

Occurs throughout Florida and to New York, Alberta, California and through Mexico to Nicaragua. The records from western localities may refer to a small form named *occidentalis* by Skinner.

Staphylus hayhurstii Edw. (*Pholisora*). La Grange, Sept. 9, 10 (Ds., Sleight); Useppa, Apr., May (Ds.); Lake Worth (Dyar); Marco, Apr. 30 (A. M. N. H.); Miami, common (Laurent), Jan. (Sloss.), Nov. 5 (A. M. N. H.); Biscayne Bay (Sloss.); [East Gainesville, Sept. 29; Agric. Exp. Sta. grounds, Gainesville, Sept. 30].

Larva on *Alternanthera*.

Extends to southern Pennsylvania, Kansas and New Mexico.

Melanthus brunnea H.-S. Florida Keys (Dyar).

Occurs also in Cuba.

Thanaos somnus Lint. Indian River (Lintner, A. M. N. H.); "Southern Florida" (Holland); [Marco Island, Feb., Island Grove, Mch. 19-Apr. 5 (Seifert). Records given by Dr. Skinner in "Studies in the Genus *Thanaos*" (Trans. Am. Ent. Soc. XL, 1914, p. 202): Georgiana, Indian River; Ormond, Mch. 27; Osprey, Mch. 11.

Known only from Georgia and Florida.

This is probably a subspecies of the following one.]

Thanaos brizo *Bd. and Lec.* Haulover (Schwarz). [This record should perhaps be referred to the preceding form.]

Larva on *Quercus ilicifolia* and *Galactia glabella*.

Extends to Nova Scotia, Athabasca and the Pacific Coast.

Thanaos icelus *Lint.* "Florida" (Edwards).

Larva on *Populus* and *Salix*.

Extends to Nova Scotia, Winnipeg, British Columbia and Arizona.

Thanaos terentius *Scudd. and Burg. (nævius Lint.)*. Apalachicola (Thaxter); Lakeland, May 5, 7 (A. M. N. H.); "Pablo Beach, Sept. 27 (Ds.); Jacksonville, Sept. 7, 9 (Ds., Sleight); Enterprise, Apr. (Castle and Laurent); Indian River (Lintner, A. M. N. H.); Fort Myers (McD.), Apr. 23 (Ds.), Apr. 25, 30 (A. M. N. H.); Marco (McD.). Laurent has also reported it as common at Miami but in this instance the identification was somewhat doubtful." [Fisherville, Pensacola, Oct. 11; Bayou Chico, Pensacola, Oct. 12; Big Bayou, Pensacola, Oct. 14; Useppa Is., Apr. 19 (Ds.). Common in the Pensacola region. The preceding records in quotation marks, Mr. Grosbeck had placed under *T. nævius* Lint.

Extends northward along the Atlantic coast to Massachusetts.]

Thanaos juvenalis *Fabr.* St. Johns River (Norton); Apalachicola (Chapman, Thaxter); Crescent City (Hubbard); Okahumpka (Maynard); Fort Myers (McD.); Lakeland, May 8, South Bay, Lake Okeechobee, Apr. 30 (A. M. N. H.); Florida Keys (Maynard); Biscayne Bay (Slosson).

Larva on *Quercus ilicifolia*, *Q. alba*, *Apios tuberosa* and *Lathyrus*. It has also been reared on *Corylus*.

[Extends to Canada and the Mississippi Valley.]

Thanaos horatius *Scudd and Burg. (petronius Lint.)*. St. Johns River, mid August, Florida Keys, late July (Palmer); "Jacksonville, Sept. 7 (Sleight), Nov. 5 (Ds.); La Grange, Sept. 10 (Ds.); Indian River (Lintner); Lakeland, May 6, 7, 8, Nov. 9 (A. M. N. H., Ds.); Useppa (Ds.); La Belle, Apr. 27, Fort Myers, Mar. 30, Apr. 24, 25, Marco, Apr. 20 (Ds.); Miami, common (Laurent); Biscayne Bay (Sloss.)"; [East Gainesville, Sept. 28; Payne Prairie, Gainesville, Oct. 2; Lake Miceosukee, Monticello, Oct. 8; Fisherville, Pensacola, Oct. 11; Bayou Chico, Pensacola Oct. 12; Star Lake, Pensacola, Oct. 13; Big Bayou, Pensacola, Oct. 14. Common in the Pensacola region. The preceding records in quotation marks, Mr. Grossbeck had placed under *T. petronius* Lint.

Larva on *Quercus*.

Extends to Massachusetts, Texas and Arizona.

This species, together with *T. terentius* Scudd. and Burg., were often seen feeding on the flowers of *Helianthus heterophyllus* at Fisherville,

Pensacola. They seemed to be especially fond of the old blackish brown flower-heads which had lost all or nearly all of their petals and when feeding on these were quite inconspicuous.]

Thanaos funeralis *Scudd. and Burg.* [Three males, Bayou Chico, Pensacola, Oct. 12; one male, Big Bayou, Pensacola, Oct. 14.

These seem to be the first records for this species from Florida. It is recorded from Southern California, Utah, Colorado, Arizona, New Mexico, Texas, Mexico, Central America to Colombia.]

Thanaos platus *Scudd. and Burg.* "Florida" (Scudder and Burgess).

Known only by the types. [This species is probably incorrectly placed under this genus.]

Ancyloxypha numitor *Fabr.* Enterprise, Apr. (Castle and Laurent); Lakeland, May 7 (A. M. N. H.), Nov. 7 (Ds.); Fort Myers, Apr. 26 (A. M. N. H.); South Bay, Lake Okeechobee, Apr. 30 (Ds.); May 2 (A. M. N. H.); Miami, common (Laurent); Biscayne Bay (Sloss.); [East Gainesville, Sept. 28 and 29; Hogtown Creek, Gainesville, Oct. 1; Payne Prairie, Gainesville, Oct. 2; Monticello, Oct. 5 and 7; Lake Miceosukee, Monticello, Oct. 6 and 8].

Larva on grasses.

Extends to Maine, Quebec, Texas and the Rocky Mountains.

Hylephila phylæus *Drury.* Jacksonville, Nov. 3, 5 (A. M. N. H.); Pablo Beach, Sept. 5 (Sleight); Apalachicola (Chapman); Gulf Hammock, Apr., Enterprise, Apr. (Castle and Laurent); La Grange, Sept. 10, 12 (Ds.); Titusville, Nov. 8 (A. M. N. H.); Indian River (A. M. N. H.), Mar. (Palmer); Lakeland, May 5 (A. M. N. H.), May 7, Nov. 8 (Ds.); Punta Gorda, Feb. (Sloss.); Nov. 6, 16, 17 (A. M. N. H., Ds.); Fort Myers, Apr. 2, 25, 26, Nov. 14, 15 (A. M. N. H., Ds., McD.); Chokoloskee (Barnes); Miami, common (Laurent), Sept. 23 (Ds.); Key West, Sept. 16-18 (Ds., Sleight); [East Gainesville, Sept. 28; Hogtown Creek, Gainesville, Oct. 1; Monticello, Oct. 4 and 5, Lake Miceosukee, Monticello, Oct. 8; Fisherville, Pensacola, Oct. 11; Bayou Chico, Pensacola, Oct. 12; Star Lake, Pensacola, Oct. 13; Big Bayou, Pensacola, Oct. 14; Crestview, Oct. 15; Lake Stanley, De Funiak Springs, Oct. 18; De Funiak Springs, Oct. 19; Eau Gallie, Indian River, Apr. 24 (E. L. Bell)].

Larva on grasses.

Extends to Connecticut, southern California, and through Mexico and the Antilles to Patagonia.

Atalopedes campestris *Bd. (Hylephila).* Gulf Hammock, Apr., Enterprise, Apr. (Castle and Laurent); Lakeland, May 7 (A. M. N. H.), Nov. 7, 8 (Ds.); Punta Gorda, Nov. 15, 16, 17 (A. M. N. H., Ds.); Charlotte Harbor (Sloss.); Fort Myers, Apr. 24, 25, South Bay, Lake Okeechobee,

May 2, La Belle, Apr. 27 (A. M. N. H., Ds.); Boca Grande, Apr. (Ds.); [East Gainesville, Sept. 28; Monticello, Oct. 5; Pensacola, Oct. 10 and 12; Bayou Chico, Pensacola, Oct. 12. One male specimen attracted by the hotel lights, was taken on a screen door along with some moths, on the evening of Sept. 30th, at Gainesville. Eau Gallie, Indian River, Apr. 24 (E. L. Bell)].

Larva on *Cynodon dactylon* and other grasses.

Extends to New York, Dakota, California and Central America.

Thymelicus baracoa Lucas (*Polites*). Ortega, Sept. 6, not rare (Ds., Slight); Biscayne Bay (Sloss.); [East Gainesville, Sept. 29; Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Monticello, Oct. 4, 5, 7].

Occurs also in Georgia and the Antilles.

Thymelicus brettus Bd. and Lec. Jacksonville, Sept. 28, Nov. 5 (Ds.); Apalachicola, Aug. 15 (Chapman); Newberry, Nov. 13 (Ds.); Gulf Hammock, Apr., Enterprise, Apr. (Castle and Laurent); La Grange, Sept. 9, 10 (Ds., Slight); Indian River (A. M. N. H.), and Mar. (Palmer); Lakeland, May 6, 8, Nov. 8 (A. M. N. H.), March 28, May 4, 5, 6, 8, Nov. 7, 8 (Ds.); Punta Gorda, Feb (Sloss.), Sept. 17 (Ds.); Nov. 13, 16 (A. M. N. H.); La Belle, Nov. 13, 14., South Bay, Lake Okeechobee, May 2 (A. M. N. H.); Useppa, Apr. (Ds.); Fort Myers, Mar. 30, 31, Apr. 1, 2, 3, 7, 23, 24, 25, 26 (A. M. N. H., Ds.); Miami, common (Laurent); [East Gainesville, Sept. 28 and 29; Agric. Exp. Sta. grounds, Sept. 30; Hogtown Creek, Gainesville, Oct. 1; Payne Prairie, Gainesville, Oct. 2; Monticello, Oct. 4, 5, 7; Lake Miceosukee, Monticello, Oct. 6 and 8; Fisherville, Pensacola, Oct. 11; Bayou Chico, Pensacola, Oct. 12; Star Lake, Pensacola, Oct. 13; Big Bayou, Pensacola, Oct. 14; Crestview, Oct. 16; De Funiak Springs, Oct. 17 and 19; Lake Stanley, De Funiak Springs, Oct. 18. Common everywhere.]

Larva on *Paspalum setaceum* and *P. ciliatifolium*.

Extends to Connecticut, Wisconsin, Central America and the Antilles.

It is also listed from California by Woodworth.

Thymelicus cernes Bd. and Lec. Pablo Beach, Sept. 27 (Ds.); Lakeland, Mar. 28, May 5, 7, Nov. 10 (A. M. N. H., Ds.); Punta Gorda, Nov. 15 (Ds.); Fort Myers (McD.), Apr. 23 (A. M. N. H.); South Bay, Lake Okeechobee, May 2 (A. M. N. H.); Miami (Laurent); [one specimen, Monticello, Oct. 4; one specimen, Fisherville, Pensacola, Oct. 11; one specimen, Lake Stanley, De Funiak Springs, Oct. 18].

Larva on *Panicum crus-galli*, *Triticum repens*, *Phleum pratense* and other grasses.

Extends to Canada, British Columbia, Utah and Texas.

Catia drury Latr. (*otho* S. and A.; *Thymelicus*). Jacksonville, Sept. 7

(Ds.); Gulf Hammock, Apr. (Castle and Laurent); Indian River (A. M. N. H.); Lakeland, May 5 (Ds.); Biscayne Bay (Sloss.); Key West, Sept. 16, 17 (Ds.); [Gainesville (Coll. Agric. Exp. Sta.)]; one specimen, Fishersville, Pensacola, Oct. 11].

Variety **egeremet** Scudd. Indian River (A. M. N. H.); [one specimen, Devils Mill Hopper, Gainesville, Sept. 27; one specimen, Lake Miceosukee, Monticello, Oct. 6; Eau Gallie, Indian River, Apr. 24 (E. L. Bell)].

Larva on grasses.

Extends to Maine, Montreal, Wisconsin, Arizona and Central America.

Erynnis metea Scudd. "Florida" (Skinner).

Larva on grasses.

Extends to New Hampshire, Colorado and Texas.

Erynnis attalus Edw. Lakeland, May 6, 8, Nov. 8, Fort Myers, Mar. 30, Allen River to Deep Lake, Apr. 12, 14 (Ds.); Miami (Laurent); Biscayne Bay (Sloss.); [Bayou Chico, Pensacola, Oct. 12; Crestview, Oct. 16; common, Lake Stanley, De Funiak Springs, Oct. 18; common, De Funiak Springs, Oct. 19].

Larva on grasses.

Extends to Massachusetts, Iowa and Texas.

Erynnis leonardus Harr. (*Anthomaster*). Indian River (Edwards); "Northeastern Florida" (Scudder).

Larva on grasses.

Extends to Maine, Montreal, Iowa and Kansas but not including the region along the Gulf.

Erynnis meskei Edw. (*Anthomaster*). Indian River (A. M. N. H., B'klyn. Mus.).

Occurs in Texas and Florida.

Ochlodes sassacus Harr. (*Erynnis*). Jacksonville (Sloss.).

Larva on *Panicum sanguinale* and other grasses.

Extends to Canada and Colorado.

Lerema accius S. and A. Ortega, Sept. 6 (Sleight); Apalachicola (Chapman); Enterprise, Apr. (Castle and Laurent); La Grange, Sept. 9-12 (Ds.); Indian River (A. M. N. H., Wittfeld); Lakeland, May 6, Useppa, Apr. 14, May, Boca Grande, Apr. (Ds.); Lake Worth (Dyar); Florida Keys (Palmer); Key West, Sept. 18 (Sleight); [Devils Mill Hopper, Gainesville, Sept. 27; common, East Gainesville, Sept. 28; common, Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Monticello, Oct. 5 and 7; common, Lake Miceosukee, Monticello, Oct. 6 and 8; Bayou Chico, Pensacola, Oct. 12; Star Lake, Pensacola, Oct. 13; Crestview, Oct. 15 and 16; De Funiak Springs, Oct. 17 and 19; Lake Stanley, De Funiak Springs, Oct. 18].

Larva on *Erianthus alopecuroides* and *Zea mays*.

Extends along the Atlantic Coast to Connecticut, along the Gulf to Texas, along the Mississippi River to Illinois, and southward to Central America.

Thespieus macareus *H.-S.* Marco Island (Skinner).

Extends through Mexico to South America.

Stomyles textor *Hbn.* (*Amblyscirtes*). Apalachicola (Chapman); [one specimen, Devils Mill Hopper, Gainesville, Sept. 27].

Extends to North Carolina, Louisiana and Texas.

Stomyles celia *Skinner* (*Amblyscirtes*). "Florida" (Skinner).

Known also from Texas.

Stomyles fusca *G. and R.* (*Euphyes*). Gulf Hammock, Apr. (Castle and Laurent); La Grange, Sept. 9, Lakeland, May 8 (Ds.); Punta Gorda, Feb. (Sloss.); Fort Myers (McD., Mattes); [East Gainesville, Sept. 28 and 29; Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Fisherville, Pensacola, Oct. 11; Bayou Chico, Pensacola, Oct. 12; Star Lake, Pensacola, Oct. 13; Big Bayou, Pensacola, Oct. 14; Crestview, Oct. 16; De Funiak Springs, Oct. 17 and 19; Lake Stanley, De Funiak Springs, Oct. 18].

Extends along the Atlantic Coast to New York.

Amblyscirtes vialis *Edw.* Apalachicola (Chapman).

Larva on *Avena striata*, *Poa pratensis* and other grasses.

Extends to Montreal, Texas, Nevada and British Columbia.

Amblyscirtes meridionalis *Dyar.* "Florida" (Dyar).

Known only from Georgia and Florida.

Paratrytone howardi *Skinner* (*Phycanassa*). "Florida" (Skinner).

Known only from Florida.

Phycanassa viator *Edw.* "Florida" (Scudder).

Extends to Toronto, Nebraska and Texas.

Calpodus ethlius *Cram.* Miami, Jan., Biscayne Bay (Sloss.); [eggs and larvæ in all stages on *Canna*, Gainesville, Oct. 3; larvæ in various stages on *Canna*, Pensacola, Oct. 10].

Larva on *Canna flaccida* and *C. indica*.

Extends as a migrant to Long Island, where it is sometimes found breeding; to Missouri, Texas and through Mexico and the Antilles to Argentina.

Lerodea loammi *Whitney* (*Lerema*). Jacksonville, Mar. 22, 23 (Whitney); Upper St. Johns River (Orange Co.) (Edwards, Bates); Fort Myers, Mar. 30 (Ds.); Miami (Laurent).

Extends to North Carolina.

Lerodea maculata *Edw.* (*Oligoria*). Jacksonville, Sept. 7 (Ds., Slight); Apalachicola (Chapman); Gulf Hammock, Apr. (Castle and Laurent) La Grange, Sept. 10 (Ds.); Indian River (A. M. N. H.), end of

Mar. (Palmer); Brevard Co. (Wittfeld); Lakeland, May 7 (A. M. N. H.); Punta Gorda, Feb. (Sloss.); Fort Myers, Apr. 2, 24 (Ds., McD.); Miami, common (Laurent); [rather common, East Gainesville, Sept. 28 and 29; Star Lake, Pensacola, Oct. 13].

The larva has been described but the food plant is apparently unrecorded.

Extends to Massachusetts and Texas.

Lerodea eufala Edw. (*floridae* Mab.; *Euphyes*). Apalachicola (Chapman); Indian River (A. M. N. H.); La Grange, Sept. 9 (Sleight); Lakeland, Nov. 8 (Ds.); Fort Myers (McD.), Mar. 30 (A. M. N. H.); Miami, Nov. 5 (A. M. N. H.); Big Pine Key, Sept. 19, Key West, Sept. 9 (Ds.); [East Gainesville, Sept. 28; Monticello, Oct. 5 and 7; common, Bayou Chico, Pensacola, Oct. 12; common, Star Lake, Pensacola, Oct. 13; abundant, Big Bayou, Pensacola, Oct. 14; Crestview, Oct. 16; Lake Stanley, De Funiak Springs, Oct. 18; De Funiak Springs, Oct. 19].

Extends to Texas and Central America. Occurs also in the Antilles.

Lerodea osyka Edw. (*Euphyes*). Lake Worth (Dyar).

Extends to Indiana, Texas and Mexico.

Euphyes metacommet Harr. Indian River (Skinner); [one male, Hogtown Creek, Gainesville, Oct. 1; two males, Bayou Chico, Pensacola, Oct. 14].

Extends to New England and the Pacific Coast.

Limochroes arpa Bd. and Lec. Apalachicola (Chapman); Indian River (A. M. N. H.); Punta Gorda, Feb. (Sloss.), Nov. 13 (Ds.); [East Gainesville, Sept. 28 and 29; Eau Gallie, Indian River, Apr. 24 (E. L. Bell)].

Larva on saw palmetto.

Extends westward along the Gulf.

Limochroes byssus Edw. Indian River (A. M. N. H., W. H. Edwards); Biscayne Bay (Sloss.).

Extends to Texas.

Limochroes palatka Edw. Apalachicola (Chapman); Indian River (A. M. N. H., Holland); Avon Park (J. and H. Comstock); Allen River to Deep Lake, Apr. 12 (A. M. N. H.); Miami (Laurent); [Bayou Chico, Pensacola, Oct. 12; Star Lake, Pensacola, Oct. 13].

Larva on *Cladium effusum*.

Extends westward along the Gulf and has also been reported from Nebraska.

Limochroes yehl Skinner. "Florida" (Holland).

Extends to Tennessee.

Limochroes streckeri Skinner (*Phycanassa*). "Florida" (Skinner).

Known only from Florida.

Prenes ocola *Edw.* Jacksonville, Sept. 7 (Ds.), Nov. 5 (A. M. N. H., Ds.); Newberry, Nov. 18 (Ds.); Indian River (A. M. N. H.); Lakeland, Nov. 8, Punta Gorda, Nov. 15, 16, 17 (A. M. N. H., Ds.); Fort Myers (McD.); La Belle, Nov. 14, Everglade, Apr. 5, Miami, Nov. 5 (A. M. N. H.); [East Gainesville, Sept. 28 and 29; Lake Miceosukee, Monticello, Oct. 8; Fisherville, Pensacola, Oct. 11; abundant, Bayou Chico, Pensacola, Oct. 12; Star Lake, Pensacola, Oct. 13; Big Bayou, Pensacola, Oct. 14; Lake Stanley, De Funiak Springs, Oct. 18].

Extends to Staten Island, Nebraska, and Mexico to South America.

Prenes nero *Fabr.* Marco Island (Skinner).

Extends through Mexico and the Antilles to Brazil.

Prenes panoquin *Scudd.* Ortega, Nov. 3 (A. M. N. H.); Apalachicola (Chapman); Titusville, Nov. 8, Indian River, Lakeland, May 8 (A. M. N. H.); Punta Gorda, Nov. 6, 15, 16, 17, Marco, Apr. 17, Everglade, Apr. 5, 6, 9 (A. M. N. H., Ds., McD.); [one male, Big Bayou, Pensacola, Oct. 14].

Extends along the Atlantic coast to New Jersey.

Prenes panoquinoides *Skinner.* Punta Gorda, Nov. 11 (A. M. N. H.); Marco, Apr. 20, 21 (Ds.); Key West (*Skinner*), Sept. 19 (Ds.).

Extends to Texas.

Anatrytone logan *Edw. (delaware Edw.).* [*A. vitellius* *Fabr.* (Dyar 566) is a tropical species.] Apalachicola (Chapman); Jacksonville, Sept. 27 (Ds.); Enterprise, Apr. (Castle and Laurent); Allen River to Deep Lake, Apr. 12 (A. M. N. H., Ds.); Miami (Laurent); Biscayne Bay (Sloss.).

Larva on *Erianthus alopecuroides*.

Extends to southern New England.

Anatrytone arogos *Bd. and Lec. (Phycanassa).* "Florida" (Dyar); La Grange, Sept. 12 (Ds.); [Miami, Fla., August (Coll. A. M. N. H.)].

Extends to New Jersey and Nebraska.

Megathymus yuccæ *Bd. and Lec.* Avon Park (J. and H. Comstock); Lake Worth (Sloss.); [Gulfport (R. Ludwig)].

Larva in stems and roots of *Yucca aloifolia*, *Y. gloriosa*, and *Y. filamentosa*.

Extends to South Carolina. This is the range of the typical form only; a subspecies occurs from Texas to Colorado and Arizona.

Megathymus cofaqui *Streck.* St. Augustine (Johnson); Boca Grande (Ds.).

Known only from Florida and Georgia. It has been recorded from Colorado, but erroneously.

The male of this species has, until now, remained undiscovered and, as

it differs sufficiently from the female to be taken for another species, I append the following description of it.

♂.—Expanse, 60 mm. Head and upper side of palpi brown, the former with some white scales; palpi beneath white. Antennal shaft ringed with white and brown, the tip brown above, hoary beneath. Body brown with long silken yellow hairs at the base of the abdomen. Upper surface of wings umber-brown, tinged at base and inner margin with yellow. Primaries with a sub-apical rectangular whitish spot between veins R_3 and M_1 , finely divided by the two intervening veins, R_4 and R_5 . A large squarish spot, bifid basally, occupies the end of the cell; this is yellow except on the anterior part where it is whitish. External to the subapical spot and between veins M_1 and M_3 are two smaller yellowish-white spots rather widely separated from each other. Beginning at vein M_3 is a very broad yellow subterminal band which extends to the anal vein; this is greatly constricted immediately below Cu_2 on the internal side and does not join with the spot in the cell as it does so broadly in the female. In this respect the band is similar to that of *streckeri* and *aryxna*. Secondaries with a broad yellow unbroken band to the outer margin; a vague yellowish spot which tends to join with the marginal band is present on vein M_2 . Beneath, primaries as above but paler, and the subterminal band broader; just preceding the spot in the cell is a white patch divided by the brown veins. Secondaries hoary except on basal and costal regions where they are brown; two conspicuous and defined pure white spots, well separated, are present below the subcostal vein. There is a subterminal row of about four rather diffuse brown crescents, indistinctly pupilled with white, and a larger more diffuse brown blotch on the disk of the wing; this latter is somewhat connected with the crescents by vague irregular markings between the last cubital and first anal vein.

The chief differences between this sex and the female is in the subterminal band referred to, in the absence of the double row of large yellow spots on the secondaries above and its replacement by a single marginal band, and on the under side of the wings in the reduction in the size of the spots. In appearance it approaches more nearly *streckeri* and might, at first glance, be taken for an extreme form of the subspecies *texana*. It differs from *streckeri*, however, in the absence of the long hair on the primaries beneath. The presence of the long hair on the upper surface of the secondaries places *cofaqui* in group III of Barnes and McDunnough's Revision of the Megathymidæ. The allotype is from Boca Grande and is in the collection of Mr. Davis.

SPHINGIDÆ.

Herse cingulata Fabr. (*Phlegethontius*). Gulf Hammock, Apr. (Castle and Laurent); Indian River (A. M. N. H.); Punta Gorda, Feb., larva, Lake Worth (Sloss.); Fort Myers, Apr. 2, 22, 23, Chokoloskee, Apr. 8 (Ds.); Biscayne Bay (Sloss.); [near De Funiak Springs (G. C. Fisher); St. Augustine (Johnson)].

Variety **decolorata** Hy. Edw. Indian River (A. M. N. H.).

Larva on *Ipomœa* and *Convolvulus* species.

Extends to Canada (as a straggler), South Dakota, California, through Mexico and the Antilles to Argentina. Occurs also in the Galapagos and Hawaiian Islands.

Cocytius antæus medor Stoll. Palm Beach, Feb., larva, Lake Worth (Dyar); Fort Myers (McD.); Biscayne Bay (Sloss.); Key West (Grote).

Larva on *Anona laurifolia*.

Has been reported from as far north as Chicago; southward it extends through Mexico to Southern Brazil. The typical form is confined to the Antilles.

Protoparce sexta Johan. (*Phlegethontius*). Lake Worth (Sloss.); Fort Myers, Mar. 30, 31, Apr. 22 (A. M. N. H., Ds.); Everglade, Apr. 13 (A. M. N. H.); Biscayne Bay (Sloss.).

Larva on Solanacæ. Dyar bred it on tomato in Florida.

Extends to New York, the Pacific, and through Mexico to Honduras. A race of this species is confined to the West Indies and two others to Central and South America.

Protoparce quinquemaculata Haw. (*Phlegethontius*). Gulf Hammock, Apr. (Castle and Laurent); Punta Gorda, Feb., larva, (Sloss.); Everglade (McD.).

Larva on *Solanum*, *Nicotiana* and *Datura*. Mrs. Slosson found it on tomato in Florida.

Extends to Canada, the Pacific and Mexico. A race occurs in the Hawaiian Islands.

Protoparce rustica Fabr. (*Phlegethontius*). Has apparently not yet been reported from Florida though it must surely occur there.

The typical form ranges from New York and Ohio, through Mexico and the Antilles to Buenos Ayres.

Subspecies occur in the West Indian and Galapagos islands.

The larva feeds on *Chionanthus*, *Jasminium* and *Bignonia*.

Protoparce brontes cubensis Grt. (*Diludia*). Indian River (A. M.

N. H.); Chokoloskee (Barnes); Miami (Rothschild and Jordan); South Florida (Dyar).

Extends through the Bahamas and West Indian Islands. The typical form is confined to Jamaica.

Dolba hylæus Dru. Jacksonville, Enterprise, Indian River, Rockledge, Lake Worth (Sloss.); [St. Augustine (Johnson)].

Larva on *Comptonia asplenifolia*, *Asimonia triloba*, *Ilex glabra* and *I. verticillata*.

Extends to Canada and Missouri.

Ceratomia undulosa Wlk. South Bay, Lake Okeechobee, May 1 (Ds.).

Larva on *Fraxinus*, *Ligustrum*, *Syringa* and *Robinia*.

Extends to Canada and Dakota.

Ceratomia catalpæ Bd. Tallahassee, Indian River (A. M. N. H.); [near De Funiak Springs (G. C. Fisher)].

Larva on *Catalpa*.

Extends to New York and to the Mississippi.

Isoparce cupressi Bd. (*Sphinx*). Enterprise (Sloss.).

Larva on *Cupressus thyoides*.

Known from Georgia and Florida only.

Atreus plebeja Fabr. (*Sphinx*). Jacksonville, Enterprise (Sloss.); Sanford, June (Rothschild and Jordan); Fort Myers, Apr. 22 (A. M. N. H.).

Larva on *Syringa*, *Tecoma radicans*, *Bignonia* and *Passiflora*.

Extends to Canada, Missouri and Texas.

Lapara coniferarum S. and A. Jacksonville, Enterprise (Sloss.); Sanford, June (Rothschild and Jordan); Punta Gorda, Feb., Lake Worth (Sloss.); [one nearly full grown larva taken on *Pinus virginiana*? at Big Bayou, Pensacola, Oct. 14; Gainesville (Coll. Agric. Exp. Sta.)].

Larva on *Pinus palustris*.

Extends along the Atlantic coast to Canada. [Also to the Mississippi Basin (Rothschild and Jordan).]

Lapara bombycoides Wlk. "Florida" (Rothschild and Jordan).

Larva on *Pinus strobus* and other species of *Pinus*.

Extends along the Atlantic coast to Canada. [Also to the Mississippi Basin (Rothschild and Jordan).]

Lapara halicarniæ Strok. (*Exedrium*). Florida (Strecker). Known only by the type.

Protambulyx strigilis Linn. [Miami, Feb. 2 (Hebard)]. The aberration *rubripennis* Butl. has been doubtfully recorded from Palm Beach.

Larva on *Anacardium*, *Spondia*, *Erythroxylon* and *Comocladia*.

Extends through the Antilles and Mexico to southern Brazil.

Protambulyx carteri *R. and J.* Biscayne Bay (Sloss.).

Occurs in the Bahamas.

Calasymbolus excæcatus *S. and A. (Paonias)*. Florida (Rothschild and Jordan).

Larva on *Prunus*, *Spiræa* and other Rosaceæ, *Wisteria*, *Ulmus*, *Quercus*, *Betula*, *Salix*, *Populus*, *Corylus*, *Carpinus*, etc. (For complete list of food plants see Ent. Am., I, p. 196.)

Extends to Canada and Colorado.

Cressonia juglandis *S. and A.* Green Cove Springs (on St. Johns R.) (Sloss.); Sanford (Rothschild and Jordan); [one specimen from Agric. Exp. Sta. grounds, Gainesville, Sept. 30].

Larva on *Juglans* and *Ostrya*.

Extends to Canada, Missouri and Texas.

Pseudosphinx tetrico *Linn.* Florida (Sloss.).

Larva on *Plumeria rubra* and *Jasminium*.

Occurs in Texas and through Mexico and the Antilles to Paraguay.

Erinnyis alope *Dru. (Dilophonota)*. Indian River (A. M. N. H., Wittfeld); Lake Worth (Sloss., Dyar); Fort Myers, Apr. 22 (A. M. N. H., Ds.); Chokoloskee (Barnes).

Larva on *Jatropha* and *Carica papaya*.

Extends as a straggler to New Jersey, through the Antilles and Mexico to Argentina.

Erinnyis lassauxii merianæ *Grt. (Dilophonota)*. Florida (Sloss.).

Larva on *Morrenis*.

Occurs in Central America and the West Indies. The typical form of this species is confined to South America. Other forms occur in South and Central America and the Antilles.

Erinnyis ello *Linn. (Dilophonota)*. Indian River (A. M. N. H., Wittfeld); Lake Worth, Dade Co. (Dyar); Miami, between Jan. 28 and Feb. 8 (Hebard); Biscayne Bay (Sloss.); [St. Augustine (Johnson)].

Larva on *Euphorbia heterophylla* and *E. cyathophora*.

Extends as a wanderer to Canada, Ohio, California through Mexico and the Antilles to Argentina.

Erinnyis oenotrus *Stoll. (Dilophonota)*. Florida (Sloss.).

Larva on *Morrenia*.

Occurs in Texas and the West Indies.

Erinnyis crameri *Schaus. (Dilophonota)*. Florida (Dyar).

Extends through Mexico and the Antilles to Paraguay.

Erinnyis obscura *Fabr. (Dilophonota)*. Jacksonville, Enterprise (Sloss.); Indian River (A. M. N. H.); Lake Worth (Dyar, Sloss.); Punta

Gorda, Feb. (Sloss.); Fort Myers (McD.), Apr. 22, 23 (A. M. N. H., Ds.); South Bay, Lake Okeechobee, May 2, Everglade, July (Ds.); Chokoloskee (Barnes); Biscayne Bay (Sloss.); Cocoanut Grove, Sept. 14 (Ds.).

Larva on *Philibertia viminalis* and *Vincetoxicum palustre*. Has been reported from Jamaica on "wild watplant."

Extends to Canada (as a straggler), Missouri and through Mexico and the Antilles to Argentina. A form occurs in the Galapagos Islands and the continental and Antillean forms may be divided into three subspecies.

Grammodia caicus Cram. (*Dilophonota*). Chokoloskee (Barnes); Biscayne Bay (Sloss.).

Extends through the Antilles and Central America to Buenos Ayres.

Pachylia ficus Linn. Lake Worth (Dyar); Everglade (McD.), Apr. 6, (Ds.); Miami, Jan. (Sloss.); between Jan. 28 and Feb. 8 (Hebard); Key West (Grt.).

Larva on *Ficus*.

Extends through the Antilles to Buenos Ayres. [Also occurs in Texas.]

Pachylia resumens Wlk. "Florida" (Rothschild and Jordan).

Larva on *Ficus*.

Extends through the Antilles to Buenos Ayres.

Madoryx pseudothyreus Grt. Punta Gorda (Sloss.); Fort Myers (Mattes); Chokoloskee (Rothschild and Jordan, Barnes); Biscayne Bay (Sloss.).

Known only from Cuba and Florida.

Hemeroplanes parce Fabr. Biscayne Bay (Holland).

Extends through the Antilles to southern Brazil and Bolivia.

Epistor lugubris Linn. (*Triptogon*). Gulf Hammock, Apr. (Castle and Laurent); Indian River (Edwards); Lake Worth (Dyar, Sloss.); between Jan. 28 and Feb. 8 (Hebard); Miami, Sept. 24 (Ds.); [St. Augustine (Johnson); near De Funiak Springs (G. C. Fisher)].

Larva on *Ampelopsis* and *Vitis*.

Extends to Massachusetts (as a wanderer) and through the West Indies to Paraguay. A subspecies occurs in Jamaica where the typical form is not found.

Epistor ocypete Linn. Has been doubtfully recorded from Florida (Barnes and McD.).

Occurs throughout the West Indies and Mexico to Paraguay and southern Brazil.

Cautethia grotei Hy. Edw. Indian River (A. M. N. H., Edwards, Wittfeld); Lake Worth (Sloss., Dyar); Palm Beach (Dyar); Marco, Apr. 18 (Ds.); Miami, between Jan. 28 and Feb. 8 (Hebard); Biscayne Bay (Sloss.).

Larva on *Chiococca racemosa*.

Occurs in Florida and the Bahamas.

Perigonia lusca interrupta Wlk. "Florida" (Rothschild and Jordan).

This form extends through Mexico and the Antilles to Bolivia. The typical form is confined to Cuba. Other forms occur in parts of Mexico, South America and the West Indies.

Sesia tantalus zonata Dru. (*Ællopos*). "Florida," Oct. 8 (Rothschild and Jordan); Lake Worth (Sloss.); Deep Lake, Apr. 13 (A. M. N. H., Ds.); Everglade, Apr. 10 (Ds.); Biscayne Bay (Sloss.); Key West, Sept. 16 (Ds.); [St. Augustine (Johnson)].

Extends to New York and Ohio (as a straggler) and through the West Indies. The typical form is confined to South America. A third form is found in Central America (and Texas?) and southward through the Andes.

Sesia fadus Cram. "Florida" (Barnes and McD.).

Extends southward through the Antilles to Paraguay.

Hæmorrhagia thysbe Fabr. (*Hemaris*). Hastings, June (Rothschild and Jordan).

Form **fuscicaudis** Wlk. Sanford, June (Rothschild and Jordan); LaBelle, Apr. 28 (Ds.); [a specimen of this form from Gainesville, in the collection of the Agric. Exp. Sta., Gainesville].

Form **cimbiciformis** Stephens. Hastings, June (Rothschild and Jordan).

Form **floridensis** G. and R. Melonville (Linden). This form is not synonymous with *cimbiciformis*, as Rothschild and Jordan indicate, but bears identically the same relation to *fuscicaudis* that *cimbiciformis* proper does to *thysbe*. It is the spring form of the local race *fuscicaudis*, being larger than *thysbe* and *cimbiciformis* (agreeing thus in size with *fuscicaudis*) and having the dark chestnut abdomen characteristic of this form.

Larva on *Viburnum*, *Symphoricarpos*, *Prunus*, *Cratægus* and *Lonicera*.

Extends to Canada, Iowa and Texas. The race *fuscicaudis* with its early form *floridensis* is found only in the extreme southern portion of this range and may indeed be confined to Georgia and Florida.

Hæmorrhagia diffinis Bd. (*Hemaris*). Tallahassee (A. M. N. H.).

Larva on *Symphoricarpos*, *Lonicera*, *Apocynum*.

Extends to Canada, British Columbia, South Dakota and Texas. Other races occur in the Pacific subregion and in the Southwest.

Pholus satellitia posticatus Lucas. "Florida" (Rothschild and Jordan); [near De Funiak Springs (G. C. Fisher). Mr. Johnson records *P. pandorus* Hbn., which I consider to be this form, from St. Augustine.]

Larva on *Vitis* and *Ampelopsis*.

Occurs in Florida, Cuba and the Bahamas. Other forms occur in North America, except Florida, in the West Indies and in Mexico and South America.

Pholus achemon *Drury*. [A specimen of this species from Lake City, in the collection of the Agric. Exp. Sta., Gainesville.

Food-plants: *Vitis* and *Ampelopsis*.

Habitat: Nearctic Region, from the Atlantic to the Pacific, extending into Mexico (Rothschild and Jordan).]

Pholus vitis *Linn.* Gulf Hammock, Apr. (Castle and Laurent); Chokoloskee (Barnes); Biscayne Bay (Sloss.); [St. Augustine (Johnson)].

Larva on *Vitis* and *Ampelopsis*.

Extends to New England and through Mexico and the Antilles to Paraguay.

Pholus fasciatus *Sulzer*. "Florida" (Koebele); La Grange, Sept., larve (Ds.).

Larva on *Jussiaea*.

Extends to New England and through the Antilles to Patagonia.

Pholus labruscæ *Linn.* (*Argeus*). Punta Gorda (Sloss.); South Bay, Lake Okeechobee, Apr. 29 (Ds.); Miami, Jan. (Sloss.).

Larva on *Vitis*, *Ampelopsis*.

Extends to Canada, Texas and through Mexico and the Antilles to Patagonia.

Ampeloeca versicolor *Harr.* (*Ampelophaga*). Biscayne Bay (Sloss.).

Larva on *Cephalanthus occidentalis*, *Hydrangea arborescens* and *Nesaea verticillata*.

Extends to Canada and Missouri.

Ampeloeca myron cnotus *Hbn.* (*Ampelophaga*). "Florida," May, Aug. (Rothschild and Jordan); Indian River, Lakeland, May 5 (A. M. N. H.); Lake Worth (Sloss.); Fort Myers, Apr. 23 (Ds.); Biscayne Bay (Sloss.); [Gainesville, June 17, in the collection of the Agric. Exp. Sta., Gainesville].

Larva on *Vitis*, *Ampelopsis* and *Viburnum*.

This very distinct form of *myron* has been reported from as far north as New Jersey. The typical form occurs from Canada to North Carolina (perhaps further south) and westward to Iowa.

Amphion nessus *Cram.* Sanford, June, Titusville, Aug. (Rothschild and Jordan); Lake Worth (Sloss.); [St. Augustine (Johnson)].

Larva on *Epilobium*, *Fuchsia*, *Ampelopsis* and *Vitis*.

Extends to Canada, Iowa and Texas.

Proserpinus guaræ circæ *Hy. Edw.* (*Lepisesia*). Pensacola, Apr. 14 (Sloss.).

Larva on *Guara biennis*.

Known from Georgia, Alabama. The typical form occurs from Georgia to Texas.

Xylophanes pluto Fabr. (*Calliomma*). South Florida (Dyar); Punta Gorda, Mar., Charlotte Harbor (Sloss.); Chokoloskee (Barnes); Miami, Jan. (Sloss.); between Jan. 28 and Feb. 8 (Hebard); Biscayne Bay (Sloss.).

Larva on *Erythroxylon*.

Extends through the Antilles to Southern Brazil.

Xylophanes porcus Hbn. (*Theretra*). "South Florida" (Dyar); Punta Gorda, Feb. (Sloss.).

Larva on *Hamelia patens*.

Occurs in Cuba. The race, **continentalis** R. and J., which extends from Mexico to South Brazil, has been recorded from Florida by Barnes and McDunnough.

Xylophanes chiron nechus Cram. "Florida" (Rothschild and Jordan).

Extends through Mexico and the Antilles to Uruguay. The typical form is found in Jamaica and St. Lucia.

Xylophanes tersa Linn. (*Theretra*). Gulf Hammock (Castle and Laurent); Indian River (Sloss.); Boca Grande, Apr. (Ds.); Chokoloskee (Barnes); between Jan. 28 and Feb. 8 (Hebard); [Agric. Exp. Sta. grounds, Gainesville, Sept. 26; Gainesville, Sept. 27; Monticello, Oct. 8; St. Augustine (Johnson)].

Larva on *Spermacoce*, *Bouvardia*, and *Manettia*.

Extends to Canada, Missouri, Texas, through Central America and the Antilles to Argentina.

Celerio lineata Fabr. (*Deilephila*). Florida (B. and McD.).

Larva on *Galium*, *Vitis*, *Rumex*, *Oenothera*, *Pyrus*, *Fuchsia*, *Portulaca*, *Prunus*, *Epilobium* and *Polygonum*.

Extends to Canada, British Columbia, Arizona and through the Antilles to Argentina. It has not, however, been recorded from Brazil.

SATURNIIDÆ.

Samia cecropia Linn. [Near de Funiak Springs (G. C. Fisher).

Food plants: maple, willow, wild-cherry, lilac, etc.

Extends to Canada and the Mississippi.]

Tropæa luna Linn. Var. **dictynna** Wlk. Tallahassee (A. M. N. H.); [Devils Mill Hopper, Gainesville, Sept. 27; near De Funiak Springs (G. C. Fisher); St. Augustine (Johnson)].

Larva on *Juglans*, *Liquidamber*, *Betula*, *Hicoria*, *Fagus*, etc.

The typical form extends to Canada and Missouri.

All the specimens from the more southern part of this range seem to belong to the form *dictynna* which in the North is a variety occurring singly among typical specimens of the same brood.

***Telea polyphemus* Cram.** Jacksonville (Sloss.); La Grange, cocoon (Ds.); Lakeland, cocoons, Fort Myers, larvæ and cocoons, early May (A. M. N. H., Ds.); Lake Worth, young larva Jan. or Feb. (Dyar); [young larvæ and old cocoons on small oaks, Crestview, Oct. 15 and 16; near De Funiak Springs (G. C. Fisher); St. Augustine (Johnson)].

Larva on *Tilia*, *Acer*, *Betula*, *Salix*, *Corylus*, *Hicoria*, *Pyrus*, *Prunus*, *Quercus*, *Ulmus* and *Rosa*.

Extends to Canada and Missouri.

***Automeris io lilith* Streck.** Sanford, Jan. 27 (Sloss.); Indian River, Lakeland, Mar. 31 (A. M. N. H.); Punta Gorda, Feb., larvæ (Sloss.), Useppa, Apr. (Ds.); Fort Myers, Mar. 30, larva, Marco, Apr. 17 (A. M. N. H.), Lake Worth, Miami, larvæ (Dyar); Biscayne Bay (Sloss.); [St. Augustine (Johnson). This record was given under *H. io* Fabr.]

Larva on *Rhizophora mangle* and *Conocarpus erecta*. In the North the larva has been recorded as feeding on over eighty different plants, including *Salix*, *Populus*, *Betula*, *Quercus*, *Acer*, *Tilia*, *Zea*, *Myrica*, *Comptonia*, *Fagus*, *Corylus*, *Ostrya* and *Carpinus*. For exhaustive list of food plants see Papilio, IV, p. 155.

Probably not recorded outside of Florida. The typical form extends to Canada, Missouri and Mexico.

***Hemileuca maia* Dru.** [St. Augustine (Johnson).]

Food plant: oak.

Extends to Maine, Nova Scotia and the Mississippi.]

CERATOCAMPIDÆ.

***Anisota stigma* Fabr.** West Palm Beach, Jan., larvæ (Dyar).

Larva on *Quercus* and *Corylus*.

Extends to Canada, Missouri and Kansas.

***Anisota consularis* Dyar.** West Palm Beach, Jan., larvæ (Dyar).

Larva on live oak.

Known only from Florida.

***Citheronia regalis* Fabr.** Crescent City (Hubbard); [near De Funiak Springs (G. C. Fisher).]

Larva on *Juglans*, *Hicoria*, *Diospyros virginiana*, *Rhus*, *Liquidamber*, *Platanus*, *Fraxinus* and *Syringa*.

Extends to Massachusetts, Missouri and Texas.

Citheronia sepulchralis G. and R. Jacksonville (Sloss.); Fort Myers (Mattes).

Larva on *Pinus strobus* and *P. rigida*.

Extends along the Atlantic coast to southern Maine and New Hampshire.

Basilona imperialis Drury. Useppa, Apr. (Mr. and Mrs. Hunt); [near De Funiak Springs (G. C. Fisher)].

Larva on *Tilia*, *Rhus glabra*, *Acer*, *Gleditsia*, *Liquidamber*, *Sassafras*, *Ulmus*, *Platanus*, *Castanea*, *Quercus*, *Fagus*, *Betula*, *Pinus* and many other plants. For exhaustive list of food plants see *Entomologica Americana*, II, p. 53.

Extends to Quebec, Missouri and Mexico.

AMATIDÆ.¹

Cosmosoma myrodora Dyar. Haulover, Mar. 9 (Hubbard and Schwarz); Enterprise, Apr. (Castle and Laurent); Indian River (A. M. N. H., C. V. Riley); Lake Worth (Sloss., Dyar); Palm Beach (Dyar); Fort Myers (McD.), Apr. (A. M. N. H.); Miami (Schaus.); [St. Augustine (Johnson)].

Larva on *Mikania scandens*.

Known only from Florida.

This is the species usually passing under the name *auge* Linn., which Dyar says does not occur in the United States.

Pseudomya minima Grt. Miami (Schaus, Ottolengui), Jan. (Sloss.); Coconut Grove, Sept. 14 (Ds.); Biscayne Bay (Sloss.).

Larva on *Myginda ilicifolia*.

Occurs in Cuba.

Syntomeida ipomææ Harr. Miami, Jan., Biscayne Bay (Sloss.); [St. Augustine (Johnson); one specimen taken at light, Monticello, Oct. 7].

Occurs in Georgia.

Syntomeida epilais var. **jucundissima** Dyar. Lake Worth, Palm Beach (Dyar); Miami (Schaus, Ottolengui), Jan. (Sloss.); Coconut Grove (Schwarz), Sept. 14, common (Ds., Sleight); Chokoloskee (Barnes);

¹ Equals *Syntomidæ* of authors. See Hampson, *Cat. Phalaenæ*, Supplement, I (1914).

Biscayne Bay (Sloss.); Homestead, Sept. 21, Key West, Sept. 18, larvæ and adults (Ds.); [Miami, Aug. (Coll. A. M. N. H.)].

Larva on *Echites umbellata*, *Nerium odorum* and *Oleander*.

The typical form occurs in Mexico and Central America.

Didasys belæ Grt. Indian River (A. M. N. H.); Punta Gorda, Feb. (Sloss.), Nov. 13 (A. M. N. H., Ds.); Charlotte Harbor (Sloss.); Fort Myers, Apr. 26 (A. M. N. H.); Lake Worth (Dyar); Allen River to Deep Lake, Apr. 12 (A. M. N. H., Ds.); Miami, Feb., Biscayne Bay (Sloss.); Cedar Keys, June 4 (Hubbard and Schwarz); [seemingly common, Bayou Chico, Pensacola, Oct. 12. Specimens were taken in marshy areas back from the shore.]

Known only from Florida.

Lymire edwardsi Grt. Indian River (Wittfeld); Lake Worth (Dyar); South Bay, Lake Okeechobee, Apr. 30 (A. M. N. H.); Fort Myers, Mar. 31, Nov. 12, Everglade, Apr. 15 (A. M. N. H., Ds.); Biscayne Bay (Sloss.).

Larva on *Ficus pedunculata*. (Rubber trees defoliated by them according to accounts of natives. — Dyar).

Known only from Florida.

Eucereon carolina Hy. Edw. Indian River (A. M. N. H.); Lake Worth (Dyar); Fort Myers (McD.), Apr. 25 (A. M. N. H.).

Larva on *Philibertia viminalis* and *Vincetoxicum palustre*.

[Also occurs in Mexico and Central and South America.]

"Our specimen lacks vein 4 of secondaries and would fall according to Hampson's tables into Section 1 B of genus *Neacerea*. The species is at any rate distinct from *confinis* H.-S. The primaries are more suffused olivaceous and less contrasting white and brown. The spots are smaller especially in submarginal and terminal areas, and the terminal row of dashes is unbroken; *confinis* according to Herrick-Schaeffer's figure and a specimen before us lacks a dash between the cubital branches." (McD.)

Scepsis fulvicollis Hbn. "Florida" (A. M. N. H.); [Gainesville (Coll. Agric. Exp. Sta.)].

Larva on grasses.

Extends to Canada, Vancouver and the Rocky Mountains.

Dahana atripennis Grt. Indian River (A. M. N. H.); Enterprise, Apr. (Castle and Laurent), May 8 (Hubbard and Schwarz); Lakeland, Nov. 10 (A. M. N. H.), larva (McD.), May 7 (Ds.); Punta Gorda, Nov. 14 (A. M. N. H.); Biscayne Bay (Sloss.); [Gainesville (Coll. Agric. Exp. Sta.)]; Devils Mill Hopper, Gainesville, Sept. 27; Payne Prairie, Gainesville, Oct. 2; Lake Miceosukee, Monticello, Oct. 6].

Larva on Spanish-moss.

Known only from Florida.

NOLIDÆ.

Celama sorghiella Riley. Hastings, Aug. 1 (A. M. N. H.); Fort Myers (McD.); Everglade (McD.), Apr. 6, 8 (A. M. N. H.).

Larva on *Sorghum vulgare*.

Extends to North Carolina and through the Antilles to Argentina.

Nola lagunculariæ Dyar. (*Celama obliquata* B. & McD.). Lake Worth (Dyar); Fort Myers, Apr. 23, Marco, Apr. 17 (A. M. N. H.); Everglade, Apr. 10 (A. M. N. H.), Apr. 16-23 (McD.).

Larva on *Laguncularia racemosa*.

Known only from Florida.

Negetia formosalis Wlk. South Bay, Lake Okeechobee, Apr. 30, Everglade, Apr. 11 (A. M. N. H.).

Extends to Buffalo and Texas.

Roeselia minuscula Zell. Lakeland (McD.), May 8 (A. M. N. H.).

The specimen in the Museum is much smaller than the typical form of *minuscula* (expanding only 15 mm.) and may represent a new species. More material is required to determine this satisfactorily.

Larva on *Quercus*.

Extends to New Jersey, California and through Mexico to Bolivia.

LITHOSIIDÆ.

Crambidia pallida Pack. Marco, Apr. 17, Everglade, Apr. 7, 10 (A. M. N. H.). All the specimens are considerably smaller than northern examples in the Museum.

Extends along the Atlantic coast to Canada and as far west as Quebec.

Crambidia uniformis Dyar. Fort Myers (McD.).

Comacla simplex Wlk. Charlotte Harbor (Sloss.); Everglade (McD.), Apr. 6 (A. M. N. H.).

Has been reported from Texas and Montana.

Afrida ydatodes Dyar. (*Aresia parva* B. and McD.). "Florida" (Beutenmüller); Fort Myers, Apr. 23, Everglade, Apr. 7 (A. M. N. H.), Apr. 1-7 (McD.).

Known only from Florida.

Illice unifascia G. and R. Florida Grt.

Extends to New York, Texas and Mexico.

Illice subjecta Wlk. Everglade, Apr. 9, 17 (A. M. N. H.); Biscayne Bay (Sloss.); [one specimen at light, De Funiak Springs, Oct. 19].

Larva on lichens.

Extends to New York and Texas.

Illice striata *Ottl.* Enterprise, Miami (Hampson).

Has been recorded from Colorado.

Clemensia albata *Pack.* Lakeland, May 6, La Belle, Apr. 27 (A. M. N. H.).

Extends to Canada, California, and Costa Rica.

Palpidia pallidior *Dyar.* Fort Myers (McD.), Mar. 31 (A. M. N. H.), Apr. 22 (Ds.); Cocoanut Grove (Schwarz); Biscayne Bay (Sloss.).

Known only from Florida.

Hypoprepia miniata *Kirby.* Allen River to Deep Lake, Apr. 14 (A. M. N. H.).

Larva on lichens.

Extends along the Atlantic coast to Canada.

Neoplynes eudora *Dyar.* Fort Myers, Apr. 23 (A. M. N. H.).

Described from Texas and not heretofore rediscovered.

ARCTIIDÆ.

Eupseudosoma involuta florida *Grt.* Indian River (A. M. N. H.); Fort Myers (McD.), Apr. 24 (A. M. N. H.); Charlotte Harbor (Sloss.); Lake Worth (Dyar).

Larva on *Psidium pyrifera*, *Eugenia buxifolia* and *E. procera*.

Known only from Florida. The typical form extends through Mexico and the Antilles to Brazil.

Ammalo insulata *Wlk.* Fort Myers (McD.); Biscayne Bay (Sloss.).

Extends through Mexico and the Antilles to Brazil.

Ammalo tenera *Hbn.* Lakeland, May 5 (A. M. N. H.); Fort Myers, Apr. 22 (Ds.).

In the above specimens, the yellow is confined to the base of the wing, as in the form *sciurus* described from California by Boisduval. They are not, however, so large as this Pacific Coast variety, but average smaller than the typical form, approaching in this respect, white specimens of *eglenensis*.

Larva on *Apocynum androsæmifolium*.

Extends to Canada, British Columbia and California.

Ammalo eglenensis *Clem.* Florida (Sloss.).

Variety **inopinatus** *Hy. Edw.* Indian River (Edw.).

Larva on *Asclepias*.

Extends through the Atlantic States to New York.

Halisdota tessellaris S. and A. [Gainesville (Coll. Agric. Exp. Sta.).

Food Plants: oak, willow, maple, beech, sycamore, etc.

Extends over the Atlantic States.]

Halisdota cinctipes Grt. Biscayne Bay (Sloss.).

Larva on *Coccoloba floridana* and *C. uvifera*.

Extends to Arizona, through Mexico and the Antilles to Brazil.

Halisdota longa Grt. Tallahassee (Schwarz); Jacksonville (Sloss.); Enterprise (Grote, Schwarz); Lakeland, Mar. 28 (A. M. N. H.), Nov. 9 (Ds.); Charlotte Harbor, Punta Gorda (Sloss.); Fort Myers (McD.), Apr. 3, 22 (Ds.); Lake Worth (Sloss.); LaBelle, Apr. 28 (Ds.); Everglade, Apr. 15 (A. M. N. H.); [Gainesville (Coll. Agric. Exp. Sta.)].

Known only from Florida.

Holomelina læta Guer. (*Eubaphe*). Tampa (Hampson); Charlotte Harbor (Sloss.); Fort Myers (McD.), Mar. 31, Apr. 8 (A. M. N. H., Ds.).

Extends to Massachusetts and Texas.

Holomelina aurantiaca Hbn. (*Eubaphe*). Charlotte Harbor (Sloss.).

Variety **brevicornis** Wlk. Florida (Hampson).

Larva on *Plantago* and grasses.

Extends to Hudson Bay, the Rocky Mountains and Central America.

Holomelina rubicundaria Hbn. (*Eubaphe*; Dyar 834a). Hastings, Mar., Sept. 22, 30, Newberry, Nov. 10 (A. M. N. H.); Gulf Hammock, Apr., Enterprise, Apr. (Castle and Laurent); La Grange, Sept. 12 (Ds.); Lakeland, May 4, 5, 6, 8, 9 (A. M. N. H., Ds.); Fort Myers (McD.), Mar. 30, 31, Apr. 1, 24, 25, La Belle, Apr. 26, 28, South Bay, Lake Okeechobee, May 2 (A. M. N. H., Ds.); [Gainesville (Coll. Agric. Exp. Sta.); Monticello, Oct. 7; Lake Miceosukee, Monticello, Oct. 8; Crestview, Oct. 17 and 18; De Funiak Springs, Oct. 19; Orlando, Mch. 27-31 (Pearsall)].

Extends to Texas.

This species (= *diminutiva* Graef) is widely distinct from *aurantiaca*, of which it is usually regarded a form, by its smaller size, deep orange primaries and vermilion secondaries. The coloring, also, is nearly always uniform, whereas in *aurantiaca*, it is broken on the primaries by dusky clouds or spots and on the secondaries by bands. Of the forty odd specimens of *rubicundaria* before me, only two show a suggestion of a dusky border to the hind wings. I have over one hundred specimens of *aurantiaca* for comparison with this southern species.

Euerythra phasma Harr. Ormond, Rockledge (Sloss.).

Occurs in Texas and to Missouri.

Diacrisia virginica Fabr. (*Spilosoma*). Fort Myers, Apr. 22, South Bay, Lake Okeechobee, Apr. 29 (A. M. N. H.), Apr. 30 (Ds.); Lake Worth (Dyar); Everglade, July (Ds.).

Larva a general feeder on low herbage.

Extends to Hudson Bay, Vancouver Island and Mexico. It has not been reported from the southern Pacific States.

Diacrisia isabella *S. and A. (Isia)*. Lakeland, May 8 (A. M. N. H.); Fort Myers, Mar. 31, La Belle, Apr. 27 (Ds.).

Larva a general feeder on low herbage.

Extends to Canada and the Pacific Coast.

Hyphantria cunea *Drury*. [We have no Florida records for this form.

Ab. **punctata** *Fitch*. Gainesville (Coll. Agric. Exp. Sta.).

Food plants: various orchard and shade trees.

Extends to Canada, the Pacific and into Mexico.]

Estigmene acraea *Drury*. Lake Worth (Dyar); Fort Myers, Mar. 31 (A. M. N. H.); [near De Funiak Springs (G. C. Fisher)].

Larva a general feed on low plants.

Extends to Hudson Bay, and the Pacific Coast. A form occurs in Mexico and Central America.

Estigmene congrua *Wlk.* [Gainesville (Coll. Agric. Exp. Sta.).

Food plants: various species of low plants.

Extends along the Atlantic States and to the Rocky Mountains.]

Ecpantheria deflorata *Fabr.* Jacksonville, Ormond (Sloss.); Lake Worth (Dyar); Biscayne Bay (Sloss.); [St. Augustine (Johnson)].

Variety **denudata** *Sloss*. Fort Myers, Apr. 1, 22, 23 (A. M. N. H., Ds.); Lake Worth, Biscayne Bay (Sloss.); [Gainesville (Coll. Agric. Exp. Sta.)].

Larva on *Euphorbia cyathophora*, *Ricinus communis*, *Helianthus*, *Plantago*, *Salix* and various other plants.

The typical form ranges to New York, Missouri and Texas; the variety seems to be confined to Florida and Georgia.

Apantesis michabo *Grt.* Suwanee Springs, Apr. 15, Ormond, Winter Park (Sloss.); [Gainesville (Coll. Agric. Exp. Sta.)].

Extends along the Atlantic coast to New Hampshire.

Apantesis arge *Drury*. [Near De Funiak Springs (G. C. Fisher).

Food plants: *Plantago*, *Chenipodium*, etc.

Extends over practically the entire United States and Canada.]

Apantesis phyllira *Drury*. Lake Worth (Sloss.); [near De Funiak Springs (G. C. Fisher)].

The larva is a general feeder.

Extends to New England and Colorado.

Apantesis vittata *Fabr.* Miami (Schaus).

Variety **radians** *Wlk.* Hastings (A. M. N. H.); Fort Myers (McD.), Apr. 23, 24 (A. M. N. H., Ds.).

Variety **phalerata** Harr. Lakeland, Mar. 28 (A. M. N. H.); Fort Myers (McD.), Apr. 22, Mar. 31, La Belle, Apr. 26 (Ds.); South Bay, Lake Okeechobee, Apr. 30 (A. M. N. H.); Everglade, May, Miami, Sept. 22 (Ds.).

The larva is a general feeder: *Taraxacum* and *Plantago major* have been specifically recorded.

Extends to Canada and Missouri.

Dr. McDunnough says of his specimens taken at Fort Myers: "The males were all of the form with pale colored secondaries and slight black costal patch. The single female captured had the markings of the primaries reduced to a costal and median dash; the secondaries rosy with broad black border much reduced opposite lower angle of cell and a spot in the cell." These represent *phalerata* and *radians* respectively. Dr. Ottolengui contends that *radians*, together with the form here listed as *phalerata*, represents a species distinct from *vittata*.

Apantesis nais Drury. Charlotte Harbor, Biscayne Bay (Sloss.).

The larva a general feeder on low plants and has been specifically recorded on dandelion, plantain and *Chenopodium*.

Extends to Canada and Missouri.

Apantesis placentia var. **flammea** Neum. Indian River (Wittfeld).

Extends to Georgia and Texas.

Pygarcia vivida Grt. "Florida" (Brooklyn Museum).

Extends to Texas.

Pygarcia abdominalis Grt. "Florida" (Grt.).

Has also been found in New Jersey and probably extends along the coast between these two points.

Pygarcia grossbecki Davis. Lake Worth, Palm Beach (Sloss.); Fort Myers, Apr. 22 (Ds.); Biscayne Bay (Sloss.).

Known only from Florida.

Euchætias egle Drury. "Florida" (Sloss.).

Larva on *Asclepias*.

Extends to Massachusetts, Quebec and Texas.

Seirarctia echo S. and A. Ormond, Cold Harbor, Apr., Charlotte Harbor (Sloss.).

Larva on *Sabal palmetto*.

Occurs in Georgia.

Calidota strigosa Wlk. Lake Worth, Palm Beach (Dyar); Biscayne Bay, Key Largo (Sloss.).

Larva on *Guettarda elliptica*.

Extends to Texas and through the Antilles. A subspecies occurs in Jamaica.

Utetheisa ornatatrix Linn. Lake Worth (Sloss.).

Extends to Pennsylvania, Texas, Mexico and the Antilles to Bolivia and Brazil. Occurs also in the Galapagos and Marquesas Islands.

Utetheisa bella Linn. Jacksonville (Sloss.), Nov. 5 (Ds.); Pablo Beach, Sept. 5, 27 (Ds., Sleight); Newberry, Nov. 19, Titusville, Nov. 8 (A. M. N. H.); La Grange, Sept. 9, 11 (Ds., Sleight); Enterprise (Sloss.), Apr. (Castle and Laurent); Indian River, Lakeland, Mar. 28, May 4, 7 (A. M. N. H., Ds.), Nov. 10 (A. M. N. H.); Palm Beach (Sloss.); Lake Worth (Dyar); Punta Gorda, Nov. 11, 17 (A. M. N. H.); Useppa Island, May, Lacosta Island, Apr. (Ds.); Fort Myers (McD.), Mar. 21, Apr. 1, 24, 26, Nov. 15, La Belle, Apr. 27, 28, South Bay, Lake Okeechobee, Apr. 19, 21, Miami, Nov. 5 (A. M. N. H., Ds.); [common, Devils Mill Hopper, Gainesville Sept. 27; East Gainesville, Sept. 29; Monticello, Oct. 5; Lake Micoosukee, Monticello, Oct. 8; Fisherville, Pensacola, Oct. 11; Star Lake, Pensacola, Oct. 13; very common, Big Bayou, Pensacola, Oct. 14; Crestview, Oct. 15 and 16; Lake Stanley, De Funiak Springs, Oct. 18; near De Funiak Springs (G. C. Fisher); St. Augustine (Johnson)].

Variety **terminalis** N. and D. Indian River (A. M. N. H.).

Variety **venusta** Dalm. Rockledge, Lake Worth, Biscayne Bay (Sloss.).

Larva on *Crotalaria* and *Lespedeza*.

Extends to Quebec, Missouri, Texas and Mexico. In the Antilles only the form *venusta* is found.

AGARISTIDÆ.

Alypia octomaculata Fabr. "Florida" (Grote coll.).

Larva on *Vitis* and *Ampelopsis*.

Extends to Quebec, Missouri and Texas.

Alypia wittfeldi Hy. Edw. Indian River (Wittfeld); Lake Worth, Biscayne Bay (Sloss.); [St. Augustine (Johnson)].

Known only from Florida.]

This is said by Hampson to be an aberration of the preceding species.

PANTHEIDÆ.

Panthea furcilla Pack. "Florida" (Sloss.).

Larva on *Larix*, *Pinus*, and *Tilia*.

Extends to Canada and Wisconsin.

Charadra deridens Gn. La Belle, larvæ, Apr. 28, adults May 21, June 1 (A. M. N. H.).

Larva on *Quercus*, *Betula* and *Ulmus*.

Extends to Canada, Colorado and Texas.

Charadra illudens Wlk. "Florida" (Dyar).

Reported from Missouri and Mexico.

Charadra sudena Sm. Miami (Barnes).

Known only from Florida.

NOCTUIDÆ.

Apatela lætifica Sm. (*Acronycta*). "Florida" (Smith).

Extends along the Atlantic Coast to New York.

Apatela lobeliæ Gn. (*Acronycta*). "Florida" (Doubleday).

Larva on *Prunus* and *Quercus*.

Extends to Canada, Minnesota, Kansas and Texas.

Apatela furcifera Gn. (*Acronycta*). "Florida" (Smith).

Larva on wild, fire and choke cherry.

Extends to Maine, Canada and Missouri.

Apatela chionochroa Hamps. (*lepusculina* S. and D. not. Gn.; *Acronycta*). "Florida" (Hampson).

Extends to Hudson Bay, Montana and Colorado.

Apatela clarescens Gn. (*Acronycta*). South Bay, Lake Okeechobee, May 1, Marco, Apr. 21 (A. M. N. H.).

Larva on mountain ash, wild and cultivated cherry, plum and apple.

Extends along the Atlantic Coast to Nova Scotia.

Apatela hamamelis Gn. (*Acronycta*). Lakeland, emerged June 24 (A. M. N. H.).

Larva on *Hamamelis virginiana*, oak and walnut.

Extends along the Atlantic Coast to New Jersey.

Apatela lithospila Grt. (*Acronycta*). "Florida" (Smith).

Larva on hickory, oak and chestnut.

Extends to Massachusetts, New York and the Pacific States.

Apatela tritona Hbn. (*Acronycta*). "Florida" (Sloss.).

Larva on *Vaccinium*, deer-berry and *Azalea*.

Extends to Canada and the Pacific Coast.

Apatela afficta Grt. (*Acronycta*). "Florida" (Doubleday).

Larva on oak.

Extends to Canada, the Rocky Mts. and Mexico.

Apatela brumosa Gn. (*persuasa* Harv.; *Acronycta*). "Florida" (Sloss.); Archer, Mar. (Smith).

Larva on *Corylus* and *Prunus*, [willow, birch and alder (Holl.)].

Occurs in Missouri and Texas, and is doubtfully recorded from Colorado and New Mexico.

Apatela impressa Wlk. (*Acronycta*). "Florida" (Smith).

Larva on willow, [plum, hazel, currant and blackberry (Holl.).]

Extends to Hudson Bay, Manitoba and Colorado.

Apatela longa Gn. (*xyliniformis* Gn.; *Acronycta*). "Florida," March (Smith).

Larva on birch and blackberry.

Extends to Canada, Missouri and Texas.

Apatela obliterata S. and A. (*Eulonche*). "Florida" (Sloss.).

Larva on alder, peach, asparagus, *Polygonum* and many other plants.

Extends to Nova Scotia and Manitoba.

Arsilonche henrici Grt. (*albovenosa* Auct.; *Simyra*). Biscayne Bay (Sloss.).

Larva on grasses.

Extends to Massachusetts, Ottawa, California and Cuba.

Harismemna trisignata Wlk. "Florida" (Sloss.).

Larva on lilac, winterberry, huckleberry and *Cephalanthus occidentalis*.

Extends to Canada, Missouri and Texas.

Jaspidia nana Hbn. "Georgia in Florida" (Hubner).

Jaspidia teratophora H.-S. (*Amyna*). "Florida" (Doubleday).

Extends to Canada, Iowa and Texas.

Diphthera fallax H.-S. (*Agriopodes*). "Florida" (Sloss.).

Larva on *Viburnum* and poplar.

Extends to Canada, Illinois and Texas.

Polygrammata hebraica Hbn. "Florida" (Smith).

Larva on *Nyssa sylvatica*.

Extends to Massachusetts and Texas.

Cyathissa percara Morr. (*Emarginea*). "Florida" (Sloss.).

Extends to Texas and Colorado.

Platysenta videns Gn. "Florida" (Smith).

Larva on? *Solidago*.

Extends to Massachusetts and Colorado.

Senta enervata Gn. (*Nonagria*). "Florida" (Doubleday).

Known only from Florida.

Gonodes liquida Moesch. Stemper, Sept. 19 (Marloff).

Extends through Mexico and the Antilles to Paraguay.

Anorthodes tarda Gn. (*prima* Sm.; *Athetis*). Archer, May 24 (Smith).

Extends to Ohio and Missouri.

Caradrina spilomela Wlk. Biscayne Bay (Sloss.).

Extends to California, and through Mexico and the Antilles to Paraguay.

Perigea xanthioides Gn. Charlotte Harbor (Sloss.).

Extends to Canada, Kansas, Texas and through the Antilles to Brazil.

Perigea apameoides Gn. (*icole* Grt.). Fort Myers, Apr. 3, 23, 29, Marco, Apr. 17, Allen River to Deep Lake, Apr. 14 (A. M. N. H., Ds.); Everglade, Apr. 5, 6, 7, 8, 9, 11, 16 (A. M. N. H., Ds., McD.); Miami, Sept. 23, Big Pine Key, Sept. 20 (Ds.); [De Funiak Springs, Oct. 17].

Extends through Mexico and the Antilles to Argentina.

Perigea selenosa Gn. (*vecors* Gn.). Lake Worth (Sloss.).

Extends to Massachusetts, Colorado, and through Mexico and Central America to Brazil. Occurs also in Jamaica.

Perigea cupentia Cram. (*epopea* Cram.). Fort Myers (McD.); South Bay, Lake Okeechobee, Apr. 29, 30, May 1, Marco, Apr. 1 (A. M. N. H., Ds.); Chokoloskee (Barnes); [De Funiak Springs, Oct. 18].

Extends to Maine and through the Antilles to Paraguay. Occurs also in Panama, Costa Rica and Guatemala.

Perigea sutor Gn. (*cervina* Sm.). "Florida" (Sloss.); Hastings, Oct. 24, Fort Myers, Apr. 23 (A. M. N. H.); South Bay, Lake Okeechobee, Apr. 30, May 1 (Ds.).

Extends to Massachusetts, Texas and through Mexico and the Antilles to Argentina.

Perigea pulverulenta Sm. (*Andropolia*). "Florida" (Sloss.).

Extends to Colorado and Alberta.

Perigea concisa Wlk. Miami (Schaus.); Everglade (McD.), Apr. 7, 9 (A. M. N. H., Ds.).

Occurs in Mexico, the Antilles and to Argentina.

Oligia festivoides Gn. (*Monodes*). "Florida" (Hampson).

Extends to Canada and Texas.

Oligia chalconia Hbn. (*Monodes*). St. Johns Bluff (Doubleday); Charlotte Harbor (Sloss.); South Bay, Lake Okeechobee, Apr. 29 (A. M. N. H.); Lake Worth (Dyar); Biscayne Bay (Sloss.); [Gainesville (Coll. Agric. Exp. Sta.); De Funiak Springs, Oct. 18].

Extends to Canada, Colorado and New Mexico.

Oligia exesa Gn. (*Monodes*). "Florida" (Doubleday); Enterprise (Hampson); South Bay, Lake Okeechobee, Apr. 29 (Ds.).

Known only from Florida.

Oligia fuscimacula Grt. (*Monodes*). "Florida" (Sloss.).

Known also from Texas.

Oligia grata Hbn. (*Monodes*). "Florida" (Hampson).

Extends to Maryland, Mississippi, Kansas and through Mexico and Central America.

Oligia nucicolora Gn. (*Monodes*). Hastings, Oct. 24, 25, 26, 27, 28,

(A. M. N. H.); Enterprise (Hampson); Lake Worth (Dyar); South Bay, Lake Okeechobee, Apr. 29–May 1 (A. M. N. H., Ds.); Fort Myers, Apr. 22, Everglade, Apr. 11 (Ds.); Chokoloskee (Barnes).

Extends through the Antilles to Peru. Occurs also in Texas.

Oligia agrotina Gn. (*trientiplaga* Wlk.; *Monodes*). Lake Worth (Dyar).

Extends through Mexico and the Antilles to Paraguay.

Hadena patina Harv. (*Dipterygia*). "Florida" (Sloss.).

Extends to the District of Columbia and Arizona.

Hadena turbulenta Hbn. (*Trachea*). "Florida" (Doubleday).

Larva on *Smilax*.

Extends along the Atlantic coast to New York.

Hadena tapeta Sm. (*Oligia*). Coconut Grove (Schwarz).

Known only from Florida.

Hadena miseloides Gn. (*Trachea*). "Florida" (Sloss.); St. Johns Bluff (Doubleday); [Monticello, Oct. 8; Gainesville (Coll. Agric. Exp. Sta.).

Larva on *Smilax rotundifolia*.

Extends to New York, Kansas and Texas.

Pyrophila tragopoginis Linn. (*Amphipyra*). Lake Worth (Sloss.).

Larva on *Plantago*, *Aquilegia* and hawthorn.

Extends through the eastern States to Canada. [Also from Pennsylvania west to the Mississippi.] Occurs also in Europe and Asia.

Prodenia dolichos Fabr. (*commelinæ* S. and A.). Jacksonville, No. 5 (A. M. N. H.); Charlotte Harbor (Sloss.); Fort Myers, Apr. 2 (Ds.).

Larva on grasses.

Extends to Massachusetts, Illinois, Texas and through Mexico and the Antilles to Argentina.

Prodenia ornithogalli Gn. "Florida" (Sm.); Chokoloskee (Barnes); [Gainesville, Oct. 2].

Variety **eudiopta** Gn. "Florida" (Sm.).

Extends to Massachusetts, Nebraska, California and Costa Rica.

Prodenia eridania Cram. South Bay, Lake Okeechobee, Apr. 30, May 1 (A. M. N. H., Ds.); Everglade (McD.), Apr. 5 (A. M. N. H.); Chokoloskee (Barnes); [Gainesville, Sept. 26].

Larva on pokeweed and "careless."

Extends into Georgia, and through Mexico and the Antilles to Argentina.

Laphygma frugiperda S. and A. Hastings, Oct. 24 (A. M. N. H.); Lakeland, May 7 (Ds.); Charlotte Harbor (Sloss.); South Bay, Lake Okeechobee, Apr. 29, May 1 (A. M. N. H., Ds.); [Crestview, Oct. 15 and 16].

Variety **obscura** Riley. South Bay, Lake Okeechobee, Apr. 29, May 1,

Chokoloskee, Apr. 8 (A. M. N. H., Ds.); [Gainesville, Sept. 27; Crestview, Oct. 16; De Funiak Springs, Oct. 17].

Larva on grasses and grains, and occasionally on fruit trees.

Extends to Canada, Nebraska, Mexico and the Antilles to Argentina.

Lussa abseuzalis Wlk. (*nigroguttata* Grt.; *Casandria*). Charlotte Harbor (Sloss.); Fort Myers (McD.); Lake Worth (Dyar); Marco, Apr. 17 (Ds.); Everglade, Apr. 7, 15 (A. M. N. H.), Apr. 11 (Ds.); Chokoloskee (Barnes); Biscayne Bay (Sloss.).

Occurs throughout the Antilles and in Brazil.

Dr. McDunnough says that "*Pleurasympieza smithii* Moesch. from Porto Rico appear to be a synonym."

Lussa filifera Wlk. (*inflexa* Morr.; *Casandria*). "Florida" (Hampson); Jacksonville (Morrison).

Has been recorded from Michigan, from the Bahamas and from Haiti.

Magusa orbifera Wlk. (*dissidens* Feld.). Lake Worth (Dyar); Biscayne Bay (Sloss.).

Larva on *Condalia ferrea*.

Extends to New York, Wisconsin, Texas, and through Mexico and the Antilles to Argentina.

Pseudanarta aurea Grt. (*Copanarta*). "Florida" (Sloss.).

Occurs in Texas and Arizona.

Homohadena infixa Wlk. "Florida" (Doubleday).

Extends to Missouri and Texas.

Lepipolys perscripta Gn. Island Grove (Seifert); St. Johns Bluff (Doubleday).

Larva on *Linaria canadensis*.

Extends to Massachusetts and through Texas and Colorado to California.

Copipanolis cubilis Grt. "Florida" (Sloss.).

Extends to Massachusetts, Quebec and Michigan.

Copipanolis stigma Sm. "Florida" (Sloss.).

Known only from Florida.

Eutotype rolandi Grt. "Florida" (Sloss.).

Extends to Massachusetts, Missouri and Texas.

Psaphidia resumens Wlk. "Florida" (Doubleday).

Extends to Massachusetts, Missouri and Texas.

Agrotis ypsilon Rott. Lake Worth (Sloss.); [Monticello, Oct. 6].

The larva is a general feeder.

Extends to Hudson Bay, the Rocky Mountains, and through Mexico and Central America to Chili. Occurs also in Europe, Asia, Africa, Australia and Hawaii.

Agrotis dapsilis Grt. "Florida" (Grote); Newberry, Nov. 18 (Ds.).

Known only from Florida.

Peridroma margaritosa Haw. (*Lycophotia*). "Florida" (Sloss.).

Larva a general feeder.

Extends to Canada, California, and through Mexico to Chili and Argentina. Occurs also in Jamaica, Europe, Asia, Africa and Hawaii.

Peridroma infecta Ochs. (*incivis* Gn.; *Lycophotia*). Jacksonville, Jan. 25 (Sloss.), Sept. 28 (Ds.); Ortega, Sept. 27 (Ds.); St. Johns Bluff (Doubleday); Newberry, Nov. 18 (Ds.); Sanford, Jan. 27 (Sloss.); Titusville, Nov. 8 (A. M. N. H.); Charlotte Harbor, Punta Gorda, Feb. (Sloss.), Nov. 12 (Ds.); Lake Worth (Dyar); Fort Myers, Mar. 30, Apr. 22, 23, Everglade, Apr. 14 (A. M. N. H., Ds., McD.).

Larva on grass (*Cenchrus*).

Extends to Massachusetts, Washington, California and through Mexico and the Antilles to Argentina. Occurs also in the Bermudas.

Peridroma digna Morr. (*Lycophotia*). Charlotte Harbor (Sloss.).

Occurs in Texas.

Noctua lubricans Gn. (*Lycophotia*). "East Florida" (Doubleday); Charlotte Harbor (Sloss.).

Extends to Hudson Bay, Colorado and New Mexico.

Noctua spreta Sm. (*Lycophotia*). Hastings (Sm.).

Known only from Florida.

Feltia annexa Treit. St. Johns Bluff (Doubleday); Hastings, Oct. 24 (A. M. N. H.); Fort Myers, Mar. 30, 31, Apr. 22, 23, South Bay, Lake Okeechobee, Apr. 29, May 1 (A. M. N. H., Ds.); Everglade, Apr. 6, 7, 8, 11 (A. M. N. H., Ds., McD.).

The larva is a general feeder.

Extends to Massachusetts, New York, California and through Mexico and the Antilles to Chili and Argentina. Occurs also in the Bermudas.

Feltia malefida Gn. Jacksonville, Jan. 25, Punta Gorda, Feb. (Sloss.); Fort Myers, Apr. 22 (Ds.); Lake Worth (Sloss.); [Gainesville (Coll. Agric. Exp. Sta.)].

The larva is a general feeder.

Extends to New York, California and through Mexico and the Antilles to Argentina.

Paragrotis messoria Harr. (*insulsa* Wlk.; *Euxoa*). "Florida" (Sloss.).

The larva is a general feeder.

Extends to Nova Scotia, Vancouver Island and California.

Paragrotis tessellata Harr. (*Euxoa*). "Florida" (Sloss.).

The larva is a general feeder.

Extends to Nova Scotia, Vancouver Island and Colorado.

Mamestra lustralis *Grt. (Polia)*. Biscayne Bay (Sloss.).

Extends to New York and Colorado.

Mamestra capsularis *Gn. (Epie)*. St. Johns Bluff (Doubleday).

Extends to Massachusetts, Wisconsin and New Mexico.

Mamestra laudabilis *Gn. (Polia)*. "East Florida" (Doubleday); Lake Worth (Dyar); [Gainesville (Coll. Agric. Exp. Sta.)].

Extends to New Jersey, California and Guatemala.

Mamestra erecta *Wlk. (Polia)*. "Florida" (Doubleday).

Occurs in Texas and thence to Guatemala.

Mamestra florida *Sm. (Discestra)*. Biscayne Bay (Sloss.).

Known only from Florida.

Morrisonia sectilis *Gn. (rileyana Sm.)*. "Florida" (Sloss.).

Extends to Missouri and Texas.

Morrisonia mucens *Hbn.* St. Johns Bluff (Doubleday).

Extends to the Middle States, Missouri and Texas.

Morrisonia confusa *Hbn.* "Florida" (Sloss.).

Larva on willow.

Extends to Canada, Colorado and Texas.

Heliophila velutina *Sm. (lutina Sm.; Chabuata)*. Biscayne Bay (Sloss.).

Known only from Florida.

Heliophila unipuncta *Haw. (Cirphis)*. It is strange that I have been unable to find any records of the actual occurrence of this species in Florida. In the present instance I have deviated from my practice of omitting from this list species not recorded from the state. The army-worm is so extremely common to the north, south and west of Florida that I feel that I cannot pass it by unnoticed.

The larva is a general feeder on grasses and cereals.

Extends to Hudson Bay, Arizona and through Mexico and the Antilles to Chili and Argentina. Occurs also in Europe, Asia, Australia, Java, Japan, and the Canaries, Azores and island of Madeira.

Heliophila pilipalpis *Grt. (Cirphis)*. Apalachicola (Thaxter, Schaus); Charlotte Harbor, Biscayne Bay (Sloss.).

Known only from Florida.

Heliophila latiuscula *H.-S. (subpunctata Harv.; Cirphis)*. Hastings, Oct. 24 (A. M. N. H.); South Bay, Lake Okechobee, Apr. 29, 30 (A. M. N. H., Ds.).

Extends to Georgia, Texas and through Mexico and the Antilles to Brazil.

Heliophila pallens *Linn. (luteopallens Sm.; Leucania)*. Archer, Mar. (Sm.).

Larva on grasses.

Extends to Canada and California. Occurs also in Europe and Asia.

Heliophila extincta Gn. (*ligata* Grt.; *Borolia*). "Florida" Mar. (Sm.); St. Johns Bluff (Doubleday); Hastings, Oct. 15 (A. M. N. H.); Lakeland, May 7 (Ds.).

Extends to Maine, Colorado and Mexico.

Heliophila linita Gn. (*Borolia*). St. Johns Bluff. (Doubleday); South Bay, Lake Okeechobee, Apr. 30 (A. M. N. H.).

Extends through the Atlantic States to Maine.

Heliophila juncicola Gn. (*Cirphis*). Indian River, Fort Myers, Mar. 30, Everglade, Apr. 6, 7 (A. M. N. H.); South Bay, Lake Okeechobee, Apr. 29, 30 (A. M. N. H., Ds.).

Occurs from Alabama to Texas.

Heliophila multilinea Wlk. (*Cirphis*). Palm Beach, Miami (Dyar).

Extends through the Eastern States to Canada, and through the Antilles to Paraguay. Occurs also in Costa Rica and Guatemala, but has not yet been reported from Mexico.

Heliophila commoides Gn. (*Cirphis*). "Florida," Mar. (Sm.).

Extends to Nova Scotia, Washington and New Mexico.

Heliophila phragmitidicola Gn. (*Cirphis*). "Florida," Mar. (Sm.); Lake Worth (Dyar); Chokoloskee (Barnes).

Extends to Canada, California and New Mexico.

Heliophila pendens Sm. Chokoloskee (Sm.).

Known only from Florida.

Cirphis calpota Sm. Fort Myers (McD.).

Graphiphora culea Gn. (*Eriopyga*). "Florida" (Sloss.).

Extends to Massachusetts and Missouri.

Graphiphora oviduca Gn. (*Eriopyga*). "Florida" (Sm.).

Extends to Canada and Vancouver Island.

Graphiphora vindemialis Gn. (*Physetica*). "East Florida" (Doubleday).

Though described "from Florida" this species may not be American.

Copicucullia alfarata Strck. St. Augustine (Strecker).

Known only from Florida.

Bellura gortynoides Wlk. Mellonville (Hampson).

Larva in cat-tail (*Typha*).

Extends to Canada and Missouri.

Bellura melanopyga Grt. Lake Beresford (Comstock).

Larva bores in stalks of pond lily.

Known only from Florida.

Sphida obliqua Wlk. Fort Myers, not rare (McD.); Chokoloskee (Barnes).

Larva in *Typha latifolia*.

Extends to Massachusetts, Ontario and Colorado.

Sphida anoa Dyar. Miami (Hegen and Hendricksen).

Known only from Florida.

Nonagria oblonga Grt. (*Archanara*). Jacksonville, Sept. 28 (Ds.); Indian River (Grt.).

Extends to Maine and Buffalo. Occurs also in Jamaica.

Achatodes zeæ Harr. Fort Myers (McD.).

Larva on *Sambucus* (not *Zea* as has been recorded).

Extends to New York and Colorado.

Gortyna u-alba Gn. (*Phuphena*). Charlotte Harbor (Sloss.); Key West (Sm.).

Extends to Massachusetts and Minnesota.

Jodia rufago Hbn. "Florida" (Sloss.).

Extends to Massachusetts, Canada and Texas.

Fagitana obliqua Sm. (*Phuphena*). "Chokalo" (Sm.); Fort Myers, Apr. 22, 23 (A. M. N. H., Ds.).

Known only from Florida.

Fagitana littera Gn. "Florida" (Sloss., Doubleday).

Extends to Massachusetts, New York and Illinois.

Orthosia aurantiago Gn. (*Rhodæcia*). "Florida" (Sm.); [East Gainesville, Sept. 29].

Extends to New York, Wisconsin and Missouri.

Orthosia chlorophora Hbn. "Florida" (Sm.).

Known also from Georgia.

Epiglæa sericea Morr. (*venustula* Grt.; *Harpaglæa*). "Florida" (Sloss.).

Extends to Massachusetts and Wisconsin.

Epiglæa apiata Grt. "Florida" (Sloss.).

Extends to Massachusetts and Illinois.

Atethmis subusta Hbn. (*Bagisara*). Fort Myers (McD.), Mar. 30, Apr. 22 (A. M. N. H., Ds.); Everglade (McD.), Apr. 7 (A. M. N. H.); Chokoloskee (Barnes); Biscayne Bay (Sloss.); [Gainesville, Sept. 26, 27, 29; Fisherville, Pensacola, Oct. 11; Big Bayou, Pensacola, Oct. 14; Crestview, Oct. 15].

Extends to Texas and through Mexico and the Antilles to Argentina.

Chloridea virescens Fabr. Fort Myers, Apr. 22, Everglade, Apr. 10 (A. M. N. H.); Chokoloskee (Barnes); [Gainesville (Coll. Agric. Exp. Sta.)].

Larva on *Rhexia*, *Solanum sieglingæ*, *Physalis viscosa* and tobacco.

Extends to Canada, California and through Mexico and the Antilles to Argentina.

Heliocheilus paradoxus Grt. (*Chloridea*). Jacksonville (Sloss.).

Extends through Texas to Colorado.

Heliocheilus albidentina Wlk. (*Chloridea*). "Florida" (Double-day).

Known only from Florida.

Heliothis armigera Hbn. (*Chloridea*). Lakeland, Nov. 9 (Ds.); South Bay, Lake Okeechobee, Apr. 30, May 1 (A. M. N. H., Ds.); Everglade, Apr. 10 (A. M. N. H.); Biscayne Bay (Sloss.); [Gainesville (Coll. Agric. Exp. Sta.)].

Larva on corn, cotton, tomatoes, *Rosa*, *Reseda* and *Calamintha*.

This species is world-wide, occurring throughout the United States and southern Canada and through Mexico and the Antilles to Chili; also in Europe, Asia, Africa, Australia, Japan and the Hawaiian and Canary Islands.

Rhodophora gauræ S. and A. La Belle, Apr. 27 (A. M. N. H.).

Larva on *Gaura biennis*.

Occurs also in Georgia and thence westward to Colorado.

Porrima sanguinea Geyer. (*Schinia*). "Central Florida" (Neu-moegen).

Occurs in Texas.

Canidia scissa Grt. (*Heliothis*). "Florida" (Grote).

Known only from Florida.

Schinia trifascia Hbn. Hastings, Sept. 22, Oct. 3, 6, 7, 15 (A. M. N. H.); [Gainesville (Coll. Agric. Exp. Sta.)].

Extends to New Jersey and Colorado.

Schinia arefacta Hy. Edw. "Florida" (Edwards).

Known only from Florida.

Schinia lynx Gn. "Florida" (Sm.).

Extends to Massachusetts, Missouri and Texas.

Schinia saturata Grt. "Florida" (Hampson).

Extends to Massachusetts and Southern California.

Schinia petulans Hy. Edw. "Florida" (Edw.).

Known only from Florida.

Schinia marginata Haw. (*Lygranthæcia*). [Gainesville, Sept. 26 and 27.

Extends to Massachusetts and Iowa.]

Schinia tuberculum Hbn. (*Lygranthæcia*). "Florida" (Sm.).

Extends through the Atlantic States to Pennsylvania.

Schinia meskeana Grt. (*Lygranthæcia*). "Florida" (Sm.).

Extends to Texas, New Mexico and Mexico.

Schinia espea Sm. "Miaco," Sept. (Sm.).

Known only from Florida.

Heliophana mitis Grt. "Florida" (Sloss.).

Extends to Texas.

Xanthopastis timais Cram. Ormond, larva (Sloss.); Indian River (A. M. N. H.); Punta Gorda (Sloss.); Fort Myers (McD.); Lake Worth (Dyar); Biscayne Bay (Sloss.).

Larva on *Pancratium rotatum*.

Extends to Maine (as a straggler) and through Mexico and the Antilles to Argentina.

Dr. Dyar recognizes four different kinds of larvæ to which he has applied names as follows: *regnatix* Grt. for the North American form, *antillium* Dyar for the West Indian form, *moctezuma* Dyar for the Mexican form, and *amaryllidis* Sepp. for the South American form. The name *timais*, he says may be retained as a general name for the species and not applied to any larva.

Psychomorpha epimenis Drury. Charlotte Harbor (Sloss.).

Larva on *Vitis*.

Extends to New York, Kansas and Texas.

Psychomorpha euryrhoda Hamps. "Florida" (Doubleday).

Known only from Florida.

Euthisanotia unio Hbn. (*Eudryas*). Charlotte Harbor (Sloss.); Fort Myers, Apr. 22 (A. M. N. H., Ds.); South Bay, Lake Okeechobee, Apr. 29 (Ds.).

Larva on *Epilobium* and *Vitis*.

Extends through the Atlantic States to New York and Massachusetts.

Noropsis hieroglyphica Cram. "Florida" (Sm.).

Extends to Missouri, Texas and through Mexico and the Antilles to South America.

Cocoons of this species were common in Jamaica, attached to the trunks of cocoanut palms.

Acherdoa ferraria Wlk. "Central Florida" (Neumoegen); Charlotte Harbor, Punta Gorda, Feb. (Sloss.); Fort Myers (Mattes, McD.); La Belle, Apr. 27, 28 (A. M. N. H.); Biscayne Bay (Sloss.).

Known only from Florida.

Basilodes pepita Gn. "Florida" (Snow).

Extends to Virginia and Kansas.

Gonodonta unica Neum. Indian River (Neumoegen); Lake Worth (Dyar); South Bay, Lake Okeechobee, Apr. 29, 30 (A. M. N. H., Ds.); Chokoloskee (Barnes).

Larva on *Anona laurifolia*.

Known only from Florida.

Gonodonta nutrix *Cram.* "Florida" (Dyar).

Extends through the Antilles to South America.

Plusia ærea *Hbn.* "Florida" (Smith).

Larva on *Verbena*.

Extends to Nova Scotia, Colorado and New Mexico.

Autographa verruca *Fabr.* Miami, Jan., Biscayne Bay (Sloss.); [Agric. Exp. Sta. grounds, Gainesville, Sept. 26].

Extends to New York, Kansas, Texas and through Mexico and the Antilles to South America.

Autographa ou *Gn.* Charlotte Harbor, Biscayne Bay (Sloss.); [Lake Miceosukee, Monticello, Oct. 6; De Funiak Springs, Oct. 17].

Extends to New York, Oregon, California, through Mexico and the Antilles to South America.

Autographa biloba *Steph.* "Florida" (Smith).

Larva on peony and *Eupatorium*.

Extends to Massachusetts, Quebec, California and Texas.

Autographa rogationis *Gn.* Indian River (A. M. N. H.); Biscayne Bay (Sloss.).

Larva on wandering jew, *Geranium* and *Eupatorium*.

Extends to New York, Colorado and through Mexico and the Antilles to Brazil.

Autographa egena *Gn.* Indian River (Grote).

Described from Brazil.

Autographa brassicæ *Riley.* Fort Myers Apr. 1, 22, 23 (A. M. N. H., Ds.); Everglade Apr. 10; Chokoloskee, Apr. 8 (Ds.); Biscayne Bay (Sloss.); [Fisherville, Pensacola, Oct. 11; Lake Stanley, De Funiak Springs, Oct. 18].

The larva is a general feeder on cruciferous plants.

Occurs throughout the United States and Canada.

Autographa abrota *Druce.* "Florida" (Dyar).

Occurs in Mexico.

Autographa oxygramma *Geyer.* [Lake Stanley, De Funiak Springs, Oct. 18.

Extends to New Jersey, Missouri, Texas, and through the Antilles and Mexico to Brazil.]

Autographa basigera *Wlk.* Lake Worth (Sloss.); Fort Myers, Apr. 23 (A. M. N. H.).

Extends through the Atlantic States to New York. Occurs also in Mexico.

Diastema tigris *Gn.* Indian River (A. M. N. H.).

Extends through Mexico and Central America to Columbia and Venezuela.

Ogdoconta cinereola Gn. Lakeland, May 6 (A. M. N. H.).

Larva on ragweed.

Extends to Massachusetts, Quebec, Nebraska and Texas.

Pæctes devincta Wlk. Stemper, Sept. 15 (Marloff).

Extends through Mexico to Brazil.

Pæctes lunodes Gn. Lake Worth, Palm Beach (Dyar).

Larva on *Bursera gummiifera*.

Extends through the Antilles to Brazil and Paraguay.

Pæctes abrostoloides Gn. St. Johns Bluff (Doubleday); [Gainesville (Coll. Agric. Exp. Sta.)].

Extends to Canada, Missouri and Mexico.

Pæctes pygmæa Hbn. Lake Worth, Biscayne Bay (Sloss.).

Larva on *Liquidamber styraciflua*.

Extends through Texas to New Mexico.

Pæctes oculatrix Gn. "Florida" (Sloss.).

Extends through the Eastern and Central States to Canada.

Eutelia pulcherrima Grt. "Florida" (Sloss.).

Hitherto specifically recorded only from New York and New Jersey.

Eutelia pyrastis Hamps. Miami (Schaus).

Occurs in the Bahamas.

Marasmalus basalis Wlk. (*ventilator* Grt.; *Marathyssa*). "Florida" (Sloss.).

Larva on poison ivy.

Extends to Massachusetts, Quebec, Nebraska, Colorado and Texas.

Marasmalus inficita Wlk. (*Marathyssa*). Fort Myers (McD.), Apr. 23, La Belle, Apr. 27 (A. M. N. H.).

Larva on poison ivy.

Extends to Quebec, Nebraska, Colorado and Texas.

Amyna octo Gn. (*orbica* Morr.). Everglade (McD.).

Extends to Kansas and through Mexico and the Antilles to Argentina. Occurs also in Asia, Africa, Australia, the Malay Archipelago and other islands of the South Pacific.

Pterætholix bullula Grt. (*Amyna*). Biscayne Bay (Sloss.).

Extends to Alabama, Texas and through Mexico to Guatemala.

Alabama argillacea Hbn. Indian River (A. M. N. H.); [Monticello, Oct. 4; Star Lake, Pensacola, Oct. 13; De Funiak Springs, Oct. 17].

Larva on cotton.

Extends to Massachusetts and Ontario as a migrant and through Mexico and the Antilles to Brazil.

Cosmophila erosa Hbn. (*Anomis*). Crescent City, Mar., larva (Riley); Lakeland, May 5, Fort Myers, Apr. 26, La Belle, Apr. 27 (A. M.

N. H.); South Bay, Lake Okeechobee, Apr. 29, 30 (A. M. N. H., Ds.); Indian River (A. M. N. H.); Chokoloskee (Barnes); [Hogtown Creek, Gainesville, Oct. 1].

Larva on *Urena lobata*, *Abutilon avicennæ*, *Malva rotundifolia* and *Hibiscus*.

Extends to Massachusetts, Montreal, Kansas and through Mexico and the Antilles to South America. Occurs also in South Africa and in the Oriental and Australian regions.

Cosmophila texana Riley (*Anomis*). Chokoloskee (Barnes).

The determination of the specimens on which this record is based is somewhat doubtful.

Occurs in Texas.

Cosmophila xanthindyma Bd. (*serrata* B. and McD.; *Anomis*). Fort Meade, Apr. (Barnes).

Occurs in the Antilles, South America, South Africa and the Oriental and Australian regions.

Cosmophila doctorium Dyar (*Anomis*). Everglade, Apr. 9 (Ds.).

The specimen was determined by Dr. Dyar who recently revised the genus. It agrees with the types in wing shape, but in color more nearly with *exacta* Hbn. which has more even wing margins.

Occurs in the West Indies and Brazil.

Scolecocampa liburna Geyer. "Florida" (Sloss.).

Larva in decaying cherry, hickory, oak and chestnut stumps.

Extends to Canada and the Rocky Mountains.

Eucalyptera bipuncta Morr. "Florida" (Smith).

The larva "probably bores in reeds or grasses."

Extends along the Atlantic Coast to Massachusetts.

Eucalyptera humeralis Sm. Hastings, Apr., June, Sept., Oct. (Barnes and Kearfott).

Occurs in North Carolina.

Amolita fessa Grt. Fort Myers, Apr. 26 (A. M. N. H.); La Belle, Apr. 26, 27 (A. M. N. H., Ds.); Lake Worth (Dyar); Everglade (McD.); [Gainesville (Coll. Agric. Exp. Sta.)].

Extends to Massachusetts and Texas.

Amolita sentalis Kaye. Hastings, Enterprise (Kearfott); Lakeland, Fort Myers (McD.).

Extends to Texas, Panama and Brazil. Occurs also in Trinidad.

Amolita roseola Sm. Hastings (Kearfott); Fort Myers (McD.).

Occurs in Texas.

Doryodes bistriaris Geyer. Lake Worth (Dyar); Punta Gorda, Nov. 5 (Ds.); Fort Myers (McD.), Mar. 30, 31, Apr. 23 (A. M. N. H.); Everglade, Apr. 6, 7, 9, 11, 14 (A. M. N. H., Ds.).

Larva on *Spartina juncea*.

Extends to Maine and Kansas.

Doryodes spadaria Gn. Atlantic Beach (Sloss.); Everglade (McD.).

Known only from Florida.

Except in size, I can find no definite marks of separation between this and the preceding species (McD.).

Phiprosopus callitrichoides Grt. "Florida" (Sloss.); [near De Funiak Springs (G. C. Fisher)].

Larva on *Smilax rotundifolia*.

Extends to New York and Texas.

Anepischetos bipartita Sm. Key West (Smith).

Known only from Florida.

Diallagma lutea Sm. "Florida," Sept. (U. S. N. M.); Archer, July 3 (Koebele); Charlotte Harbor (Sloss.).

Known only from Florida.

Pleonectyptera pyralis Hbn. "Florida" (Smith).

Extends to Long Island and Texas.

Pleonectyptera geometralis Grt. "Florida," Mar. (Smith); La Grange, Sept. 12 (Ds.); Lakeland, May 4, 5, 8 (A. M. N. H., Ds.).

Extends through the Atlantic States to New York.

Pleonectyptera habitalis Wlk. Glenwood (A. M. N. H.); La Grange, Sept. 7 (Ds.); Lakeland May 5, 8 (Ds., McD.); Marco, Apr. 19, 20, 21 (A. M. N. H., Ds., McD.); Everglade Apr. 15 (A. M. N. H.); Miami, Sept. 21 (Sleight).

Extends to New York and Texas.

Pleonectyptera (?) albocostaliata Pack. "Florida" (Sloss.).

Extends to Massachusetts.

Eustrotia flaviguttata Grt. "Florida" (Hampson).

Occurs in Texas.

Eustrotia apicosa Haw. (*Lithacodia*). St. Johns Bluff (Doubleday); Lakeland, May 4, Fort Myers, Apr. 22 (Ds.); South Bay, Lake Okeechobee, Apr. 29 (A. M. N. H.); Biscayne Bay (Sloss.).

Extends to Massachusetts, Quebec, Missouri and Cuba.

Eustrotia strigularia Sm. Lakeland, May 8 (Ds.); Fort Myers (McD.), Apr. 22 (A. M. N. H.).

Known only from Florida.

Galgula partita Gn. Lakeland, May 4, La Belle, Apr. 27 (A. M. N. H.).

Extends to Canada, California and through Mexico to Central America.

Occurs also in the Antilles, Azores, Canaries, Madiera and ? Spain.

Lithacodia bellicula Hbn. "Florida" (Sloss.).

Extends to Nova Scotia and Colorado.

Prothymia rhodarialis Wlk. "Florida," Mar. (Smith); Hastings,

Sept. 21, Oct. 3, Lakeland, May 5, 8 (A. M. N. H.); Punta Gorda, Nov. 11 (Ds.); Fort Myers (McD.), Apr. 1, 2, 23, 26, La Belle, Apr. 27, Marco, Apr. 18, Allen River to Deep Lake, Apr. 12 (A. M. N. H., Ds.); Everglade (McD.); Chokoloskee (Barnes).

Extends to Massachusetts and Texas.

Prothymia semipurpurea Wlk. Charlotte Harbor (Sloss.); Fort Myers, Apr. 21 (A. M. N. H.); [Star Lake, Pensacola, Oct. 13; Big Bayou, Pensacola, Oct. 14].

Extends to Massachusetts and Texas.

Ezyra semicrocea var. **hubbardiana** Dyar. De Funiak Springs (Hubbard).

Larva on *Sarracenia variolaris* and *S. flava*.

The typical form is reported from the Middle and Central States to as far north as New Jersey.

Xanthoptera nigrofimbria Gn. Enterprise (Hamps.); Lakeland, May 4, 5, Fort Myers, Apr. 22, 24 (A. M. N. H., Ds., McD.); La Belle, Apr. 27 (Ds.); Allen River to Deep Lake, Apr. 14 (A. M. N. H.); [East Gainesville, Sept. 28; Gainesville, Oct. 2].

Extends to New York, Missouri, Texas and Mexico.

Xanthoptera semiflava Gn. (*Tarachidia*). Lakeland (McD.), May, 4, 5, 7, 8 (A. M. N. H., Ds.); [Gainesville (Coll. Agric. Exp. Sta.); Crestview, Oct. 15].

Extends to New Jersey, Colorado and Texas.

Thalpochares ætheria Grt. (*Hyperstrotia*). Enterprise, Tampa (Hampson).

Known only from Florida.

Eumestleta obliquialis Fabr. (*flammicincta* Wlk.; *Eublemma*). Lake Worth (Dyar); Fort Myers, Apr. 24 (A. M. N. H.); Everglade, Apr. 7 (A. M. N. H., Ds., McD.); Marco (McD.); Chokoloskee (Barnes); Biscayne Bay (Sloss.); [Gainesville (Coll. Agric. Exp. Sta.)].

Extends to Alabama, Texas and through Mexico and the Antilles to Peru.

Eumestleta cinnamomea H.-S. (*laphyra* Druce; *Eublemma*). Everglade (McD.).

The specimen agrees with Hampson's figure and Druce's figure (Biol. Centr. Am. Het., Pl. 96, f. 2.). Close to *obliquialis* but with the median line much less oblique (McD.).

Extends through Mexico and the Antilles to Uruguay.

Eumestleta minima Gn. (*carmelita* Morr.; *Eublemma*). Lakeland, May 4 (A. M. N. H.); Fort Myers (McD.).

Extends through the southern United States to California. Also reported from St. Thomas, Brazil, Argentina and Cape Colony.

Tyrissa multilinea B. and McD. Everglade (McD.).

Occurs in Texas.

Acidalioides eoides B. and McD. Everglade (McD.).

Known only from Florida.

Proroblemma testa B. and McD. Everglade, Apr. 1-7 (McD.).

Known only from Florida.

Sigela basipunctaria Wlk. (*Pseudocraspedia*; *Eois*). "East Florida" (Doubleday); La Grange, Sept. 7 (Ds.); Egmont, Apr. 20, Palm Beach (A. M. N. H.); Everglade, Apr. 6 (Ds.).

Occurs in the Antilles.

Sigela penumbrata Hulst. Archer, Mar. 4, 9, 21, Apr. (Koebele).

Has been reported from California.

Tripudia quadrifera Zell. (*Cobubatha*). Enterprise (Sloss.).

Extends to Texas and through Mexico and the Antilles to British Guiana and Colombia.

Cobubatha numa Druce. South Bay, Lake Okeechobee, May 1 (A. M. N. H.), May 2 (Ds.).

Occurs in Mexico and thence to Colombia.

Cobubatha olivacea, new species.

Expanse, 11.5 mm. Head and thorax brown with many evenly scattered grayish scales, the posterior part of latter and apical ends of patagia yellow; abdomen dark brown. Primaries clear olive green, basal area brown with a few grayish scales, outer edge rounded and slightly irregular; median fascia rather broad, defined outwardly by a reddish-brown sinuous line, inwardly diffuse, with a scattering of silvery white lines on each side; subterminal shade rather narrow, brownish, diffuse inwardly, bent in before costa. Outer margin and fringe blackish-brown with whitish scales disposed in transverse lines. Apex black, preceded on costa by a white mark. Secondaries dark brown, outer half of fringe gray, the whole of fringe separated from rest of wing by a pale line. Beneath, primaries brown, inner margin whitish, costa marked with yellow spots, outer margin blackish, preceded by inter-venular yellow spots; secondaries rather finely mottled with brown and yellow, terminal line blackish, broken, fringe brown.

Described from one male taken at Marco, April 17.

The species is evidently closely allied to *C. goyanensis* Hamps. described from Argentina, but is of an olive rather than rufous color. For *goyanensis* also no mention is made of any yellow on the thorax, a most pronounced character and there are minor differences in maculation, chiefly of the underside.

Type: In the American Museum.

Metaponia obtusa H.-S. (*Stiriodes*). New Smyrna (Sloss.); Fort Myers (McD.); La Belle, Apr. 26 (Ds.); Biscayne Bay (Sloss.).

Extends to New Jersey and Texas.

Chamyris cerintha Treit. "Florida" (Hamps.).

Larva on plum, apple and *Prunus serotina*.

Extends to Massachusetts, Canada and Kansas.

Tarache terminimaculata Grt. Charlotte Harbor (Sloss.); Fort Myers (McD.); South Bay, Lake Okeechobee, Apr. 29, May 2 (A. M. N. H., Ds.); Biscayne Bay (Sloss.).

Extends to New York and Illinois.

The specimens from Okeechobee differ from the typical form in some respects, particularly in the more or less smoky hind wings; but the differences probably come within the range of variation of the species.

Tarache delecta Wlk. "Florida" (Smith).

Larva on *Hibiscus moscheutos*.

Extends to Long Island and Texas.

Tarache aprica Hbn. (*biplaga* Gn.). "Florida" (Sloss.); [Gainesville (Coll. Agric. Exp. Sta.)].

Variety **ceyvestensis** Dyar. Key West (Dyar).

Extends to Montreal, New Mexico and Honduras.

Tarache tetragona Wlk. (*quadriplaga* Sm.). Biscayne Bay (Sloss.).

Extends to New Mexico, Mexico and the Antilles.

Tarache candefacta Hbn. (*Tarachidia*). St. Johns Bluff (Doubleday); Enterprise (Hampson); Lakeland (McD.); Biscayne Bay (Sloss.); [Gainesville (Coll. Agric. Exp. Sta.)].

Larva on *Ambrosia artemisiæfolia*.

Extends to Massachusetts, Canada, Washington, California and Mexico.

Tarache tenuscens Sm. (*Tarachidia*). Lake Worth (Sloss.).

Known only from Florida.

Fruva fasciatella Grt. (Dyar 2696, syn.). Everglade (McD.).

Extends through Texas to Arizona.

Fruva apicella Grt. (*Heliocontia*). Tallahassee (Koebele, A. M. N. H.).

Larva on "yellow brown-weed."

Extends to North Carolina, Missouri and through Mexico to Colombia. Occurs also in Jamaica.

Fruva parvula Wlk. (*Tarachidia*). Fort Myers (McD.).

Occurs in Georgia.

Spragueia onagrus Gn. Tallahassee, Jacksonville, Sept. 7, La Grange, Sept. 11 (Ds.); Enterprise (Hampson); Lakeland, Fort Myers (McD.); La Belle, Apr. 28 (A. M. N. H.); [Gainesville, Sept. 26 and Oct. 2; Monticello, Oct. 5].

Extends to New Jersey, Missouri and Texas.

Spragueia leo Gn. "Florida" (Hampson).

Extends to New Jersey and Texas.

Spragueia dama Gn. (*transmutata* Wlk.). "Florida" (Hampson);

Hastings (A. M. N. H.); [Gainesville, Sept. 26 and Oct. 2; Monticello, Oct. 5].

Extends to Texas and through Mexico to Guatemala. Occurs also in the Antilles.

Callopistria floridensis Gn. (*Eriopus*). Jacksonville, Nov. 3, Indian River (A. M. N. H.); Orlando, July 10 (Russell); Fort Myers (McD.); South Bay, Lake Okeechobee, Apr. 29, 30 (A. M. N. H., Ds.); Chokoloskee (Barnes); Biscayne Bay (Sloss.).

Larva on fern.

This species has recently occurred, as a pest in greenhouses, as far north as Washington, D. C., and Illinois. Its normal range is not further north than Florida, but southward it extends through Mexico and the Antilles to Brazil.

Methorasa argentilinea Wlk. (*Eriopus*). Lakeland, May 5 (A. M. N. H.).

Extends through the Middle and Central States.

Methorasa monetifera Gn. (*Eriopus*). "Florida" (Hampson). It is probable that this record refers to the following species.

Extends to Nova Scotia.

Methorasa cordata Ljung. (*Eriopus*). Lakeland, May 7 (A. M. N. H.).

Extends to South Carolina and the Antilles.

Euherrichia mollissima Gn. (*Eriopus*). "Florida" (Sloss., Maynard).

Extends to Canada and Colorado.

Euherrichia granitosa Gn. "Florida" (Smith).

Known only from Florida.

Hormoschista pagenstecheri Moesch. Hastings, Oct. 27 (A. M. N. H.); Chokoloskee (Barnes).

The determination of the specimen on which the Barnes record is based is somewhat doubtful.

Extends to North Carolina, Mississippi and the Antilles.

Pangrapta decoralis Hbn. Lakeland, May 5, 6, 8, Fort Myers, Apr. 1, 7, 26 (A. M. N. H., Ds., McD.); [Gainesville (Coll. Agric. Exp. Sta.)].

Extends to Nova Scotia and Texas.

Sylectra erycata Cram. Florida (Dyar, Smith); Chokoloskee (Barnes).

Extends through the Gulf States and into South America.

Hyamia perditalis Wlk. Citrus Center, May 2 (A. M. N. H., Ds.); Everglade (McD.).

Extends to Massachusetts and New Mexico.

Homopyralis contracta *Wlk.* Everglade, Apr. 6 (Ds.).

Extends to Canada and Texas.

Homopyralis tantillus *Grt.* "Florida," Mar. (Smith); Charlotte Harbor (Sloss.).

Extends to New York and Texas.

Homopyralis monodia *Dyar.* Hastings, Oct. 15 (A. M. N. H.); Everglade, Apr. 5 (Ds.); Cocoanut Grove (Schwarz).

Occurs in the "South Atlantic States."

Hypsoropha monilis *Fabr.* "Florida" (Sloss.); Island Grove (Seifert).

Larva on *Diospyros virginiana*.

Extends to Missouri.

Hypsoropha hormos *Hbn.* "Florida" (Sloss.); Lakeland, May 5 (A. M. N. H.).

Extends to New York and Texas.

Hyblæa puera *Cram.* "Florida" (Smith).

Extends to Texas and the Antilles.

Drasteria erechtea *Cram.* [Gainesville (Coll. Agric. Exp. Sta.).

Food plants: grass, clover, etc.

Extends to Canada and California.]

Cænurgia convalescens *Gn.* Pablo Beach, Sept. 5 (Ds.); Glenwood, July (Barnes); Indian River (A. M. N. H.); Lakeland, May 4, 5, 7, 8, Fort Myers, Apr. 1, 2, 23, 25, La Belle, Apr. 27 (A. M. N. H.); Lake Worth, Biscayne Bay (Sloss.); [Gainesville (Coll. Agric. Exp. Sta.); Devils Mill Hopper, Gainesville, Sept. 27; Monticello, Oct. 5 and 7; Fisherville, Pensacola, Oct. 11; Bayou Chico, Pensacola, Oct. 12; Star Lake, Pensacola, Oct. 13; De Funiak Springs, Oct. 17 and 19; Lake Stanley, De Funiak Springs, Oct. 18].

Extends to Canada and Missouri.

Panula inconstans *Gn.* Charlotte Harbor (Sloss.).

Occurs in the "Southern States," Missouri and Texas.

Panula remigipila *Gn.* "East Florida" (Doubleday).

Known only from Florida.

Melipotis limbolaris *Geyer.* "Florida" (Smith).

Extends to New Hampshire, Quebec and Wisconsin.

Melipotis jucunda *Hbn.* La Grange, Sept. 12 (Ds.); Indian River (A. M. N. H.); Lakeland, May 5 (Ds.); Belleair (Sloss.); Fort Myers (McD.), Mar. 31, South Bay, Lake Okeechobee, May 2, Marco, Apr. 17 (A. M. N. H.).

Extends to New York, Colorado and Texas.

Melipotis famelica *Gn.* Chokoloskee (Barnes).

Melipotis sinualis Harv. Miami, Sept. 23 (Sleight).

Extends to Texas and through Mexico to Colombia.

Syneda graphica Hbn. Charlotte Harbor (Sloss.).

Variety **media** Morr. Belleair (Sloss.).

Extends to Massachusetts.

Syneda faceta Hy. Edw. "Florida" (Smith); Indian River (Edw.).

Known only from Florida.

Catocala epione Drury (*Mormonia*). [Gainesville (Coll. Agric. Exp. Sta.).

Food plants: oak and hickory.

Extends to Canada, Missouri and Iowa.]

Catocala sappho Strck. (*Catabapta*). Tallahassee (A. M. N. H.); end of Apr. (Koebele); [Gainesville (Coll. Agric. Exp. Sta.)].

Extends to Missouri and Texas.

Catocala vidua S. and A. (*Catabapta*). "Florida" (Smith).

Larva on oak, hickory and walnut.

Extends to Canada.

Catocala cara Gn. "Florida" (Smith).

Larva on willow and poplar.

Extends to Canada and Texas.

Catocala amatrix Hbn. (*Mormonia*). "Florida" (Smith).

Larva on willow and poplar.

Extends to Nova Scotia, Colorado, Arizona and Mexico.

Catocala coccinata Grt. (*Ephesia*). St. Johns River (A. M. N. H.).

Variety **sinuosa** Grt. Lakeland, May 5 (A. M. N. H.).

Larva on oak.

Extends to Canada, Illinois and Texas.

Catocala ultronia Hbn. (*Ephesia*). "Florida" (Koebele).

Variety **celia** Hy. Edw. Indian River (A. M. N. H.); [Gainesville (Coll. Agric. Exp. Sta.)].

Larva on apple, plum, wild cherry, dogwood and oak.

Extends to Canada and Colorado.

Catocala ilia Cram. Lakeland (McD.), Mar. 31, La Belle, Apr. 27, 28 (A. M. N. H., Ds.).

Larva on oak.

Extends to Canada and Missouri.

Catocala muliercula Gn. (*Catabapta*). Lakeland, May 5 (A. M. N. H.); Seven Oaks, May 24, very abundant (Thurston).

In all five examples collected, the ground color is black rather than brown as in the typical form and the subreniform is white.

Larva on wax myrtle.

Extends to Connecticut and New Mexico.

Catocala clintoni Grt. "Florida" (A. M. N. H.).

Extends to Canada and Texas.

Catocala cratægi Saund. (*polygama* Gn.; *Ephesia*). "Florida" (Smith).

Larva on thorn.

Extends to Canada and Arizona.

Catocala amasia S. and A. (*cordelia* Hy. Edw.; *Ephesia*). Tallahassee (A. M. N. H.).

Larva on oak.

Extends to New York and Kansas.

Catocala similis Edw. (*Ephesia*). Lakeland, two specimens inclining toward var. *isabella* Hy. Edw. (McD.).

Larva on oak.

Extends to Rhode Island and Texas.

Catocala micronympha Gn. (*Ephesia*). Lakeland, May 4, 5, La Belle, Apr. 27, 28, common (A. M. N. H., Ds.).

Variety **ouwah** Poling. La Belle, Apr. 27, 28 (A. M. N. H., Ds.).

Variety **hero** Hy. Edw. "Florida" (A. M. N. H.).

Variety **gisela** Meyer. La Belle, Apr. 28 (A. M. N. H., Ds.).

Larva on live, burr and other oaks.

Extends to Canada and California.

Catocala alabamæ Grt. (*Ephesia*). "Florida" (A. M. N. H.).

Extends to New Mexico.

Catocala amica Hbn. (*Corisce*). Lakeland, May 4, 5, 6, 7, 8, common (A. M. N. H., Ds., McD.); South Bay, Lake Okeechobee, Apr. 30, May 2 (A. M. N. H.).

Variety **androphila** Gn. Lakeland, May 6, 7 (A. M. N. H., Ds.); La Belle, Apr. 28 (A. M. N. H., Ds.); South Bay, Lake Okeechobee, May 2 (A. M. N. H.).

Variety **suffusa** Beut. Lakeland, May 7 (A. M. N. H., Ds.).

Larva on *Quercus*.

Extends to Massachusetts, Illinois and Texas.

Catocala jair Strck. Indian River district (Doll).

Hampson makes this a variety of the preceding species.

Has been taken in New Jersey.

Allotria elonympha Hbn. "Florida" (Hamps.).

Larva on *Glycine* and walnut.

Extends to New York.

Hypocala andremona Cram. "Florida," June (Smith).

Extends to New York, Texas and South America.

Phoberia atomaris *Hbn.* Biscayne Bay (Sloss.).

Extends to Massachusetts and Texas.

Siavana repanda *Wlk.* Ortega, Sept. 6 (Ds.); Suwanee Springs, Apr. 15 (Sloss.); La Grange, Sept. 10 (Sleight); Indian River, Lakeland, May 5 (A. M. N. H.); Useppa (Ds.); La Belle, Apr. 28 (A. M. N. H., Ds.); [Gainesville (Coll. Agric. Exp. Sta.)].

Extends to Kentucky.

Panapoda rufimargo carneicosta *Gn.* Suwanee Springs, Apr. 15, Biscayne Bay (Sloss.).

Larva on oak, basswood, hickory and willow.

Extends to Quebec and Texas.

Parallelia bistriaris *Hbn.* "Florida" (Smith); Lakeland (McD.).

Larva on *Acer rubrum* and *A. dasycarpum*.

Extends to Nova Scotia and Colorado.

Agnomonis anilis *Drury.* [One specimen at light, Gainesville, Oct. 2.

Extends to New York, Missouri and Texas.]

Remigia repanda *Fabr.* "Florida," Mar., Aug. (Smith); Jacksonville, Sept. 7 (Ds., Sleight), Nov. 5 (A. M. N. H.); La Grange, Sept. 10, 12 (Ds., Sleight); Lakeland, May 5, 7, 9 (A. M. N. H., Ds.); Charlotte Harbor (Sloss.); Punta Gorda, Nov. 15, Fort Myers, Apr. 3, 22, 26, 30, South Bay, Lake Okeechobee, Apr. 29, 30, Punta Rassa, Apr. 3, Nov. 12, 13, 15, Everglade, Apr. 8 (A. M. N. H., Ds.); Lake Worth (Dyar); [Agric. Exp. Sta. grounds, Gainesville, Sept. 30; Gainesville, Sept. 27; Star Lake, Pensacola, Oct. 13; Lake Stanley, De Funiak Springs, Oct. 18; De Funiak Springs, Oct. 18; near De Funiak Springs (G. C. Fisher)].

Variety **disseverans** *Wlk.* Chokoloskee (Barnes).

Variety **marcida** *Gn.* South Bay, Lake Okeechobee, May, 2 (A. M. N. H.); Miami, Sept. 21 (Sleight); Biscayne Bay (Sloss.); [Monticello, Oct. 5; De Funiak Springs, Oct. 18 and 19].

Larva on *Cenchrus*.

Extends to Labrador, the Rocky Mountains, and through Mexico and the Antilles to South America.

Grammodes smithii *Gn.* (*Parallelia*). Tallahassee.

Occurs in the Southern States.

Epidromia delinquens *Wlk.* Indian River, Fort Myers (McD.), Apr. 20, 23 (A. M. N. H.); Biscayne Bay (Sloss.); [Gainesville, Oct. 2].

Extends through Mexico and Central America to South America.

Poaphila quadriflalis *Hbn.* Lakeland, May 8 (A. M. N. H.); Fort Myers (McD.), Apr. 1, 2, 23, 29, 30 (A. M. N. H., Ds.).

Larva on *Gossypium*.

Extends through the Atlantic States to Massachusetts.

Poaphila deleta Gn. Charlotte Harbor (Sloss.); Fort Myers, Mar. 30, 31, Apr. 1, 2, 24, La Belle, Apr. 27, South Bay, Lake Okeechobee, May 2, Marco, Apr. 20 (A. M. N. H., Ds.).

Occurs in the Southern States.

Poaphila sylvarum Gn. Jacksonville (Sloss.).

Larva on *Andromeda ferruginea*.

Occurs in the Southern States.

Poaphila erasa Gn. Biscayne Bay (Sloss.).

Occurs in the Southern States.

Poaphila herbicola Gn. "Florida" (Sloss.).

Occurs in the Southern States.

Poaphila contempta Gn. "Florida" (Smith).

Occurs in Georgia.

Poaphila pacalis Wlk. Biscayne Bay (Sloss.).

Known only from Florida.

Poaphila turbata Wlk. "East Florida" (Doubleday).

Known only from Florida.

Phurys vinculum Gn. La Grange, Sept. 11, 12 (Ds.); Hastings, Oct. 4, Titusville, Nov. 8, Indian River (A. M. N. H.); Lakeland, May 4, 5, 7, 8 (Ds.); Punta Gorda, Feb. (Sloss.); Nov. 17 (A. M. N. H.); Fort Myers (McD.), Apr. 1, 21, 23, 24, La Belle, Apr. 27, South Bay, Lake Okeechobee, May 2, Marco, Apr. 21 (A. M. N. H., Ds.); Chokoloskee (Barnes); Biscayne Bay (Sloss.); [Gainesville, Oct. 3; Monticello, Oct. 5; Lake Miceosukee, Monticello, Oct. 6; Bayou Chico, Pensacola, Oct. 12].

Occurs in Georgia.

Phurys bistrigata Hbn. Charlotte Harbor (Sloss.).

Occurs in Georgia.

Phurys lima Gn. [Gainesville (Coll. Agric. Exp. Sta.).

Extends through the Southern and Gulf States.]

Phurys perspicua Wlk. "Florida" (Smith); [Lake Miceosukee, Monticello, Oct. 8].

Known only from Florida.

Phurys campanilis Sm. Chokoloskee (Smith).

Known only from Florida.

Anticarsia gemmatilis Hbn. Jacksonville, Sept. 7, Nov. 2, 5, Pablo Beach, Nov. 4 (A. M. N. H., Ds.); Hastings, Oct. 23, 24, Enterprise, Nov. 9, Indian River, Titusville, Nov. 8 (A. M. N. H.); Fort Myers, Nov. 15, South Bay, Lake Okeechobee, Apr. 29, 30 (A. M. N. H., Ds.); Chokoloskee (Barnes); Lake Worth, Biscayne Bay (Sloss.); [common, Agric. Exp. Sta. grounds, Gainesville, Sept. 26 and 30; Devils Mill Hopper, Gainesville, Sept. 27; Gainesville, Sept. 27; Gainesville, Aug. to early Jan.,

Winterhaven, Polk Co., June 30, Tavares, Lake Co., July 1, Miami, July (J. R. Watson).

Larva on velvet bean, kudzu vine and horse bean (J. R. Watson).]

Extends to Staten Island, Wisconsin, Texas and through Mexico and the Antilles to South America.

Anticarsia ferruginea Sm. Lake Worth (Sloss., Dyar, A. M. N. H.); Useppa, Apr. (Ds.); Dry Tortugas (A. M. N. H.).

Larva on *Canavalia obtusifolia*.

Occurs in the Bahamas.

Antiblemma inexacta Wlk. Indian River, Lakeland, May 8, Fort Myers, Apr. 24 (A. M. N. H.).

Variety **minorata** Sm. "Florida," Apr., June (Hulst); Glenwood (Barnes); Lake Worth (Sloss.).

Extends to New York, Arizona and South America.

Litoprosopus futilis G. and R. Indian River (A. M. N. H.); Charlotte Harbor, Punta Gorda, Feb. (Sloss.); Useppa, Apr. (Ds.); Lake Worth (Sloss.); Chokoloskee (Barnes).

Occurs in Georgia.

Ophideres apta Wlk. (*materna* Linn.). "Florida" (Sloss.).

Extends southward through Mexico into South America.

Campometra amella Gn. Enterprise (Sloss.); Indian River (A. M. N. H.); Punta Gorda, Feb. (Sloss.); South Bay, Lake Okeechobee, Apr. 30 (A. M. N. H.); Biscayne Bay (Sloss.); [Gainesville (Coll. Agric. Exp. Sta.)].

Extends through Texas to Colorado.

Campometra mima Harv. "Florida" (A. M. N. H.).

Extends to Colorado and Arizona.

Campometra cinctipalpis Sm. Cocoonut Grove (Schwarz).

Known only from Florida.

Trama detrahens Wlk. "Florida" (Sloss.), Mar. (Smith).

Extends to Texas.

Trama hinna Geyer. "Florida," Mar. (Smith); Punta Gorda, Feb. (Sloss.); [Lake Miceosukee Monticello, Oct. 6].

Extends to Georgia and Texas.

Massala larina Druce. Fort Myers, Apr. 23, Marco, Apr. 19, Everglade, Apr. 15, 22 (A. M. N. H.); Everglade, Apr. 5 (Ds.).

Described from Guatemala. Our specimens agree with examples in the National Museum under this name though they are somewhat darker than the type.

Capnodes punctivena Sm. Charlotte Harbor (Sloss.); Lake Worth (Dyar).

Larva on *Eugenia*, probably *E. buxifolia*.

Known only from Florida.

Capnodes rufinans *Gn.* Everglade (McD.), Apr. 10, 15 (A. M. N. H., Ds.); Allen River to Deep Lake, Apr. 14 (Ds.).

Occurs in Jamaica, Brazil and Honduras.

Kakopoda cincta *Sm.* Everglade (McD.); Chokoloskee, common (Barnes); Biscayne Bay (Sloss.).

Known only from Florida.

Egrylron filaria *Sm.* Biscayne Bay (Sloss.).

Known only from Florida.

Zale horrida *Hbn.* [East Gainesville, Sept. 28.

Extends to Canada and the Rocky Mountains.]

Selenis monotropa *Grt.* Biscayne Bay (Sloss.).

Extends to Texas.

Pseudanthracia coracias *Gn.* Indian River (A. M. N. H.); Fort Myers (McD.), Apr. 23, La Belle, Apr. 27 (Ds.); Biscayne Bay (Sloss.).

Extends to Canada and New Mexico.

Phæocyma exhausta *Gn.* Chokoloskee, July (Smith).

Extends through Mexico and Central America into South America. Occurs also in Santo Domingo.

Phæocyma fictilis *Gn.* Egmont, Apr. 29, Marco, July (Smith):

Extends to Texas and into South America. Occurs also in the Antilles.

Phæocyma viridans *Gn.* Marco, Miami (Smith).

[Occurs in Mexico, Central and South America.]

Phæocyma lunata *Drury.* Enterprise (Sloss.); South Bay, Lake Okeechobee, Apr. 30 (Ds.).

Larva on maple, willow, rose, wild cherry and plum.

Extends to Canada, the Rocky Mountains, Arizona and through Mexico to Argentina.

Phæocyma edusina *Harv.* Punta Gorda, Feb. (Sloss.).

Occurs in Texas and is doubtfully reported from Kentucky and New York.

Phæocyma undularis *Drury.* "Florida" (Sloss.).

Extends to Canada, Colorado and Mexico.

Phæocyma æruginosa *Gn.* "Florida" (Smith).

Extends to Canada and to the Mississippi River.

Phæocyma obliqua *Gn.* "Florida" (Smith).

Extends to New York and the Mississippi River.

Phæocyma curema *Sm.* Seven Oaks, Sept., Palm Beach, Mar. (Smith).

Extends to New York and Missouri.

Phæocyma benesignata *Harv.* Indian River (Smith); Punta Gorda, Feb. (Sloss.).

Extends to Canada.

Phæocyma cingulifera *Wlk.* "Florida" (Smith).

Extends to Maine and Wisconsin.

Phæocyma sexplagiata *Wlk.* Miami (Schaus).

Occurs in the Antilles and South America.

Phæocyma calycanthata *S. and A.* Indian River (A. M. N. H.).

Larva on *Calycanthus floridus*.

Known also from Georgia and North Carolina.

Phæocyma declarans *Wlk.* "East Florida" (Doubleday).

Known only from Florida.

Latebraria amphipyroides *Gn.* "Florida" (A. M. N. H.).

Occurs in Texas and in South America.

Erebus odora *Linn.* South Bay, Lake Okeechobee, Apr. 27 (A. M. N. H., Ds.).

Larva on *Cassia fistula*, *Pithecolobium* and *Saman*.

Extends to Canada as a straggler, Colorado, California, and through Mexico and the Antilles to Chili and Paraguay.

Peosina pandrosa *Cram.* Miami (Dyar).

Occurs in the Antilles, Panama and South America.

Thysania zenobia *Cram.* "Florida" (Smith).

Extends to New York, as a straggler, and Colorado, and through Mexico and the Antilles to Brazil.

Epizeuxis americalis *Gn.* Hastings (A. M. N. H.).

Larva on sweet clover and *Hedysarum* and has been bred from larvæ found in 'ants' nests.

Extends to Canada and New Mexico.

Epizeuxis lubricalis *Geyer.* Chokoloskee, Apr. 8 (A. M. N. H.).

Larva on grasses and decayed wood.

Extends to Nova Scotia, Colorado and Texas.

Epizeuxis scobialis *Grt.* Hastings (A. M. N. H.).

Extends through the Atlantic and Central States to New York.

Epizeuxis æmula *Hbn.* "Florida" (Sloss.); [Gainesville (Coll. Agric. Exp. Sta.); Monticello, Oct. 7].

Larva on *Phlox*, spruce and dead leaves.

Extends to Canada and Colorado.

Epizeuxis gopheri *Sm.* "Florida" (Hubbard).

Larva in the burrows of the gopher tortoise.

Known only from Florida.

Zanclognatha lituralis *Hbn.* "Florida" (Smith).

Extends to Canada and Texas.

Hypenodes macula *Druce.* Fort Myers, Everglade (McD.); Apr. 6 (A. M. N. H.).

"We possess two similarly marked specimens from South California which are, however, considerably larger." (McD.).

Described from Panama.

Sisyrhyphen *orciferalis* *Wlk.* Charlotte Harbor (Sloss.); Everglade, common (McD.), Apr. 6, 9, 11 (A. M. N. H.).

Extends to New York, Illinois and Texas.

"All the Everglade specimens are very dark, some being almost black with very faint maculation." (McD.). This statement applies also to the Museum specimens taken in the same locality.

Renia salusalis *Wlk.* Hastings, Mar. (A. M. N. H.); Enterprise, Apr. (Castle and Laurent).

Extends to New Jersey and Colorado.

Renia fraternalis *Sm.* Archer, Feb. (Smith); Glenwood (A. M. N. H.); Rockledge, Apr. (Smith); Everglade (McD.).

Extends to New Jersey.

Renia sobrialis *Wlk.* South Bay, Lake Okeechobee, Apr. 30 (A. M. N. H.).

Extends to Nova Scotia.

Variety *larvalis* *Grt.* "Florida," Mar. (Smith).

Extends to New York, Texas and Colorado.

Hypenula cacuminalis *Wlk.* "Florida," Apr. (Smith); Indian River (A. M. N. H.); Charlotte Harbor (Sloss.); Miami, Sept. 21 (Sleight).

Extends to New Jersey and Texas.

Bleptina caradrinalis *Gn.* Hastings, Mar., Lakeland, May 9 (A. M. N. H.); Useppa, Apr. (Ds.); Lake Worth (Dyar).

Extends to Canada, British Columbia and Arizona.

Bleptina inferior *Grt.* Hastings, Oct. 19, Lakeland, May 5, 7 (A. M. N. H.).

Variety *medialis* *Sm.* Jacksonville (Sloss.); Lakeland (McD.), May 4, 5, Nov. 1 (Ds.); Cocoonut Grove (Schwarz).

Extends to New Jersey and Texas.

Tetanolita palligera *Sm. (floridana Sm.)* Archer, Mar. 30, Apr. (Smith); Hastings, Oct. 25, 28, Lakeland, Mar. 28, La Belle, Apr. 27, South Bay, Lake Okeechobee, May 1, Apr. 29 (A. M. N. H.).

Extends to New Jersey and California.

Tetanolita mynesalis *Wlk.* "Florida," Jan., Oct. 19 (A. M. N. H.); Fort Myers (McD.); Everglade (McD.), Apr. 15 (A. M. N. H.).

Extends to Canada, Illinois and Texas.

Gaberasa ambigualis *Wlk.* Lakeland, May 6 (A. M. N. H.); Charlotte Harbor (Sloss.); Everglade, Apr. 5, 6 (A. M. N. H., Ds.).

Extends to Canada and Texas.

***Dircetis pygmæa* Grt.** La Belle, Apr. 28 (A. M. N. H.); Everglade (McD.), Apr. 9, 10 (A. M. N. H.).

Occurs in Texas.

***Palthis asopialis* Gn.** Lakeland, Mar 28 (A. M. N. H.), Nov. 9 (Ds.); Lake Worth, common at light (Dyar); Everglade (McD.); Apr. 7, 9, 10 (A. M. N. H., Ds.).

Extends to Canada and Missouri.

***Salia interpuncta* Grt.** "Florida" (Sloss., Schwarz).

Extends to Massachusetts and Arizona.

***Lomanaltes eductalis* Wlk.** Fort Myers (McD.).

"The specimen is smaller and darker than the more northern form." (McD.).

Extends to Nova Scotia and Minnesota.

***Bomolocha manalis* Wlk.** Lake Worth (Dyar); Fort Myers (McD.), Apr. 23, Citrus Center, May 2, South Bay, Lake Okeechobee, Apr. 29, 30, May 1 (A. M. N. H., Ds.).

Extends to Canada and Minnesota.

***Bomolocha baltimoralis* Gn.** Fort Myers, Apr. 22 (A. M. N. H.).

Larva on maple and *Baptisia tinctoria*.

Extends to Nova Scotia and the Central States.

***Bomolocha bijugalis* Wlk.** "Florida" (Smith).

Extends to Canada, Washington and Texas.

***Bomolocha citata* Grt.** Fort Myers (McD.); Everglade, Apr. 8 (A. M. N. H.).

Extends to New York, Illinois and Texas.

***Bomolocha umbralis* Sm.** "Florida" (Smith).

Known only from Florida.

***Plathypena scabra* Fabr.** [Gainesville (Coll. Agric. Exp. Sta.); Lake Miceosukee, Monticello, Oct. 6.

Larva on clover.

Extends to Canada, the Rocky Mountains and Texas.]

***Hypena ancara* Druce.** Fort Myers, Apr. 22 (Ds.).

Described from Guatemala.

PERICOPIDÆ.

Composia fidellissima H.-S. Indian River (Dyar); Lake Worth (Sloss., Dyar); Palm Beach, Dec., larva (Dyar); Miami, Jan., Biscayne Bay (Sloss.); Key West (French, Dyar).

Larva on *Echites umbellata*, *Canavalia* and cultivated oleander. Eggs have been found on *Vincetoxicum scoparium*.

Extends through the Antilles and Central America to Brazil.

NOTODONTIDÆ.

Apatelodes torrefacta S. and A. "Florida" (Edw.).

Variety **floridana** Hy. Edw. "Florida" (French); Indian River (A. M. N. H.).

Larva on willow, sassafras, ash, alder, blackberry, hazel, ironwood, gallberry, *Azalia*, *Viburnum*, *Prunus virginiana* and *Phaseolus*.

Extends to Massachusetts, Wisconsin, Missouri and Texas.

Apatelodes angelica Grt. Enterprise (Thaxter).

Variety **indistincta** Hy. Edw. Indian River (A. M. N. H., Neumoegen).

Larva on ash and *Syringa*.

Extends to Ontario and Ohio.

Melalopha inclusa Hbn. Jacksonville (Packard); Indian River (Edwards).

Variety **jocosa** Hy. Edw. Indian River (Edwards).

Larva on *Populus* and *Salix*.

Extends to Canada, Nebraska, Colorado and Texas.

Datana integerrima G. and R. Fort Myers, Apr. 22 (A. M. N. H.); Apr. 23 (Ds.); [Gainesville (Coll. Agric. Exp. Sta.)].

Larva on *Juglans*, hickory, beach, oak, willow, honey locust, thorn and apple.

[Extends over the Atlantic States.]

Datana floridana Graef. "Florida" (Graef, French), March (U. S. N. M.), larvæ, Oct. (U. S. N. M.).

Larva on *Andromeda mariana*.

Known only from Florida.

Datana modesta Beut. "Florida" (Graef, French); Kissimmee, May (Dyar, Palm); [Agric. Exp. Sta. grounds, Gainesville, Sept. 30].

Known only from Florida.

Hyperæschra georgica H.-S. "Florida" (U. S. N. M.).

Larva on *Quercus*.

Extends to Maine, Wisconsin and Colorado.

Lophodonta angulosa S. and A. "Florida" (Strecker).

Larva on *Quercus*.

Extends to Maine, Illinois, Arkansas and Texas.

Eunystalea indiana Grt. Indian River (Grote).

Known only from Florida.

Symmerista albifrons S. and A. Charlotte Harbor (Sloss.).

Larva on *Quercus* and beech.

Extends to Maine, Kansas and Texas.

Dasylophia anguina S. and A. "Florida" (Packard).

Variety **puntagorda** Sloss. Punta Gorda (Sloss.).

Larva on locust, clover, *Lespedeza capitata* and *Baptisia tinctoria*.

Extends to Maine, Wisconsin, Colorado and Texas.

Litodonta hydromeli Harv. Punta Gorda, Charlotte Harbor (Sloss.);

Key West (Schwarz).

Larva on *Bumelia angustifolia*.

Known also from Texas.

Heterocampa lineata Druce. "Florida?" (Dyar).

Known from Mexico.

Heterocampa astarte Doub. St. Johns Bluff (Doubleday); Biscayne Bay (Sloss.).

Larva on *Quercus*. *Q. nigra* has been specifically recorded.

Extends to Georgia and Texas.

Heterocampa obliqua Pack. Enterprise, Winter Park (Sloss.).

Larva on *Quercus macrocarpa*.

Extends to Massachusetts and Kansas.

Heterocampa picta Feld. Apalachicola (Chapman); Fort Myers, Mar. 30 (A. M. N. H.).

Known only from Florida.

Heterocampa umbrata Wlk. Pablo Beach, Nov. 4 (Ds.); Punta Gorda, Charlotte Harbor (Sloss.).

"A larva found on body of white oak fed on *Quercus alba* and *Q. coccinea*." (Packard).

Extends to Rhode Island and Illinois.

Heterocampa subrotata Harv. Punta Gorda (Sloss.).

Extends to New York, Illinois, Arkansas and Texas.

Heterocampa biundata Wlk. Winter Park (Sloss.); [Gainesville (Coll. Agric. Exp. Sta.)].

Larva on red and sugar maple, fire cherry, yellow birch, white birch, willow, witch hazel, dogwood, beech and hickory.

Extends to Massachusetts, Illinois, and Central America.

Heterocampa guttivitta Wlk. St. Johns Bluff, Mar., Apr. (Double-day); Fort Myers (McD.).

Larva on sugar maple, red maple, oak, apple, chestnut, beech and *Viburnum*.

Extends to Maine, Wisconsin, Iowa and Colorado.

Schizura ipomœæ Doub. Ortega, Sept. 6 (Ds.).

Larva on *Ipomœa coccinea*, *Quercus*, *Acer*, *Betula*, *Ulmus*, *Vaccinium*, *Ceanothus*, honey locust and blackberry.

Extends to Canada, Washington and Arizona.

Schizura concinna S. and A. "Florida" (Slosson, Palm); Lakeland, larvæ, May 6, adults, June 12-18 (A. M. N. H.).

Larva on *Hicoria*, *Salix*, *Populus*, *Prunus*, *Rubrus*, *Cratægus*, *Pyrus*, *Malus*, *Cornus florida*, *Liquidamber styraciflua*, *Diospyros virginiana*, *Illesia tetraptera*, *Myrica cerifera*, *Betula*, *Vaccinium*, *Wisteria*, rose, snowdrop, apricot, oak and locust.

Extends to Maine, Canada, Missouri and Texas.

Schizura semirufescens Wlk. Biscayne Bay (Sloss.).

Larva on *Salix*, *Populus*, *Betula*, maple, beech and apple.

Extends to Maine, New Hampshire and British Columbia.

Schizura apicalis G. and R. Charlotte Harbor (Sloss.).

Extends to Maine and Arkansas.

Hyparpax perophoroides Streck. Punta Gorda, Feb., Charlotte Harbor (Sloss.); Fort Myers, Mar. 31, Apr. 1, 23 (A. M. N. H., Ds.).

Variety **tyria** Sloss. Charlotte Harbor (Sloss.); Fort Myers (McD.).

Occurs in Texas.

Cerura scitiscrypta Wlk. Jacksonville (Sloss.); Indian River (A. M. N. H.).

Larva on willow, poplar, wild cherry and pomegranate.

Extends to New York, Missouri, Texas and Mexico.

Harpyia borealis Bd. Ormond (Sloss.).

Larva on *Prunus*.

Extends to Maine, Wisconsin and Missouri.

Harpyia cinerea Wlk. "Florida" (Sloss.).

Larva on willow and poplar.

Extends to Canada, the Pacific Coast and through Mexico to Guatemala.

Fentonia marthesia Cram. Indian River, opposite Micco, larva (Jenks); Biscayne Bay (Sloss.).

Larva on *Quercus* and beech.

Extends to Maine, Texas and through Mexico to Brazil and Surinam.

THYATIRIDÆ.

Euthyatira candida Sm. "Florida" (Sloss.).

Known only from Florida.

LIPARIDÆ.

Hemerocampa inornata Beut. Anastasia Island, Enterprise, May (A. M. N. H.); Fort Myers (McD.), Apr. 22, 26, adults, Allen River to Deep Lake, larvæ (A. M. N. H., Ds.); Everglade, Apr. 10 (A. M. N. H.). A common species in some parts of Florida.

Larva on *Quercus virens* and cypress.

Dyar says he obtained a *Hemerocampa* larva on Long Island which produced *inornata*. Verification of the determination, however, is desirable.

[Extends over the Atlantic States.]

Olene basiflava meridionalis B. and McD. "Florida," Aug. 15 (A. M. N. H.); "Hogart Land" (Barnes & McD.); Tallahassee, Apr. 30 (A. M. N. H.); Lakeland, May 10 (A. M. N. H.), June 1-7 (McD.); Island Grove, May 7, from which a second brood was raised in the north, July 20-Aug. 3. Mrs. Slosson's record of *achatina* S. and A. probably refers to this form. [Gainesville (Coll. Agric. Exp. Sta.).]

Larva on *Quercus* and *Hicoria*.

Extends to North Carolina. The typical form occurs from Maryland to Massachusetts.

Olene atomaria parallela G. and R. Tallahassee (Koebele).

Barnes and McDunnough in their revision of *Olene*, say that the record for this locality requires confirmation. The typical form occurs with the variety.

Larva is reported as occurring on *Quercus*, *Castanea*, *Hicoria*, wild cherry, plum and pear.

Extends to New Hampshire and (?) Nebraska.

Olene manto Streck. Hastings, May (Barnes & McD.); Fort Meade, Feb. (Dorner).

Larva on *Abies frazeri*, *A. mariana* and *Pinus*.

Extends to North Carolina.

Olene leucophæa S. and A., *cinnamomea* G. and R. and *plagiata* Wlk. have been recorded from Florida, but according to Barnes and McDunnough, these species do not occur there.

LASIOCAMPIDÆ.

Artace punctistriga *Wlk.* Lakeland, May 7 (A. M. N. H.); Fort Myers, Apr. 23, Nov. 12 (A. M. N. H.), May 3 (Ds., McD.); Biscayne Bay (Sloss.).

Larva on oak.

Extends to New Jersey.

Tolyte minta *Dyar.* Hastings (Dyar); Fort Myers, Mar. 24-30 (Ds.), Apr. 23 (A. M. N. H.). Cocoons were found on pine trees.

Known only from Florida.

Malacosoma americana *Fabr.* "Florida" (Dyar).

Larva on *Fraxinus*, *Quercus*, wild cherry, hawthorn, apple and other fruit trees.

Extends through the Atlantic States to Canada.

PLATYPTERYGIDÆ.

Oreta odona *Strck.* "Florida" (Strecker).

Known only by the type.

GEOMETRIDÆ.

Ametris nitocris *Cram. (Mecoceras).* Indian River (A. M. N. H., Grote); Lake Worth (Sloss., Dyar); Chokoloskee (Barnes); Miami, Sept. 21 (Sleight), 23 (Ds.); Biscayne Bay (Sloss.).

Larva on *Coccoloba floridana*.

Occurs in Mexico and thence into South America.

Almodes terraria *Gn.* Coconut Grove (Hulst.); Miami, Sept. 23 (Ds.); Biscayne Bay (Sloss.).

Occurs in the Antilles and probably in Mexico.

Racheospila lixaria *Gn.* St. Johns Bluff (Doubleday); Belleair, Charlotte Harbor (Sloss.); Fort Myers, Apr. 16-23 (McD.); Biscayne Bay (Sloss.).

Extends to Tennessee.

The species has been recorded from New Jersey as occurring in the larval stage on *Myrica*, but it is doubtful whether this record really refers to *lixaria*. The same may be said of the record of its occurrence in Arizona.

Racheospila extremaria *Wlk.* (Dyar 3571, syn.). Leesburg, Sept. 26 (Engelhardt); Fort Myers (McD.).

Larva on wax myrtle.

Extends through the Atlantic States to Montreal.

Racheospila rubrolinearia *Pack.* (Dyar 3571, syn.). Fort Myers, Apr. 16-23 (McD.).

Larva on *Myrica cerifera*.

Extends through the Atlantic States to Pennsylvania.

Racheospila catachloa *Hulst (Aplodes)*. Belleair, Charlotte Harbor (Sloss.); Fort Myers, Apr. 23, Mar. 31 (Ds.), May 1-7 (McD.).

Known only from Florida.

Racheospila gerularia *Hbn. (xysteraria Hulst; Synchlora)*. Fort Myers, Apr. 16-23, May 1-7 (McD.); Marco, Apr. 17 (A. M. N. H.); Biscayne Bay (Sloss.).

Extends through the Antilles to Brazil.

Racheospila sitellaria *Gn. (hulstiana Dyar; Synchlora)*. Lake Lucy, Jan. 30 (A. M. N. H.); Lake Worth (Dyar); Marco, Apr. 17, Everglade, Apr. 6 (A. M. N. H.); Biscayne Bay (Sloss.).

Larva on *Lantana camara*.

Occurs in the Antilles.

Racheospila cupidenaria *Grt. (Aplodes; Dyar 3571, syn.)*. Enterprise, May 24 (Schwarz); Everglade, Apr. 1-7 (McD.); Cocoanut Grove (U. S. N. M.); Biscayne Bay (Sloss.); Dry Tortugas, June 7-13 (Wickham).

Occurs in the Bahamas.

Racheospila atrapes *Druce* [Homestead, May 14 (Castle).

Described from Panama.]

Nemoria mimosaria *Gn. (Aplodes)*. "Florida" (Prout).

Larva on *Quercus*.

Extends to Canada and Missouri.

Synchlora ærata *Fabr.* Fort Myers, Apr. 1 (A. M. N. H.); Apr. 22 (Ds.).

Larva on *Rubus*, *Aster*, *Rudbeckia* and *Spiraea*.

Extends to Canada and Alberta.

Synchlora denticularia *Wlk.* Lake Worth (Dyar); La Belle, Apr. 27, Fort Myers, Apr. 1, 2, Marco, Apr. 20 (A. M. N. H., Ds.); Everglade, Apr. 8, 11, 14, 18, 19, 21, 23 (A. M. N. H., Ds., McD.); Biscayne Bay (Sloss.).

Larva on *Bidens* and *Solidago*.

Extends to (?) Canada and Texas. Occurs also in the Bermudas.

Phrudocentra centrifugaria *H.-S. (jaspidiaria Hulst, hollandaria Hulst, viridipurpurea Hulst; Racheospila)*. St. Johns River (Holland);

Indian River (A. M. N. H.); Lake Worth (Hulst); Charlotte Harbor (Sloss.); Fort Myers (Mattes); Marco, Apr. 17 (A. M. N. H.); Everglade, Apr. 1-7 (McD.).

Occurs in Cuba.

Dichorda iridaria Gn. (*Anaploides*). Tallahassee (A. M. N. H.); Charlotte Harbor, Cocanut Grove (Sloss.).

Larva on sumac.

Extends to Massachusetts, Texas and Mexico. The Californian records for this species refer to *Dichorda rectaria* Grt.

Chlorissa pistacea Gn. (*Nemoria*). Florida (Sloss.).

Extends to Massachusetts.

Chlorissa subroceata Wlk. (*auranticolorata* Streck., *dyarii* Hulst; *Nemoria*). "Florida" (Sloss.); Whitfield (Strecker).

Larva on *Quercus coccinea*.

Extends to Massachusetts.

Chlorochlamys chloroleucaria Gn. St. Johns Bluff (Doubleday); Orlando, Apr. 1 (Pearsall); Lake Lucy, Mar. 5 (A. M. N. H.); Lakeland, May 4, 5, 6, La Belle, Apr. 27 (A. M. N. H., Ds.); Fort Myers, Apr. 16-23, Everglade, Apr. 7, Apr. 16-23 (A. M. N. H., McD.).

Larva on *Ambrosia*, *Rubus*, *Helenium autumnale*, *Eupatorium perfoliatum*, *Achillea millefolium*, *Leucanthemum vulgare*, *Helianthus* and *Aster*. McDunnough adds *Bidens*.

Extends to Canada and California.

Chloropteryx tepperaria Hulst. "Florida" (Slosson).

Extends to North Carolina.

Eueana niveociliaria H.-S. (*saltusaria* Hulst; *Racheospila*). St. Johns River (Holland); Indian River (Neumoegen, Edwards, Hulst); Lake Worth (Sloss., Dyar).

Occurs in the Antilles.

Eucrostes dominicaria Gn. (*Synchlora*). "Florida" (Dyar).

Occurs in the Antilles.

Euacidalia sericeata Pack. "Florida" (Sloss.).

Extends to Arizona.

Pleuroprucha insulsaria Gn. (*Deptalia*). "East Florida" (Doubleday); Jacksonville, Nov. 3 (Ds.); Daytona, Sept. 10 (Engelhardt); Inverness, Nov. 18, Titusville, Nov. 8 (A. M. N. H.); Lakeland, Nov. 9 (Ds.); Tampa, Sept. 22 (Engelhardt); Punta Gorda, Nov. 16 (Ds.); Fort Myers, Apr. 24-30 (McD.), Nov. 12, 15 (A. M. N. H.); South Bay, Lake Okeechobee (A. M. N. H.).

Larva on *Galium*, *Quercus*, *Cassia chamæcrista*, *Celastrus scandens* and, in South America, *Prosopis* and *Acacia riparia*.

Extends to Massachusetts, Texas and Argentina.

Cosymbia myrtaria Gn. Daytona, Sept. 10 (Engelhardt); Fort Myers, May 1-7 (McD.), May 22 (Ds.); South Bay, Lake Okeechobee, May 1 (A. M. N. H.); Everglade, Apr. 8-15 (McD.), Apr. 10 (A. M. N. H.).

Larva on *Comptonia asplenifolia*, *Vaccinium* and *Gaylussacia*.

Extends to New York and Colorado.

Synelys enucleata Gn. "East Florida" (Doubleday).

Larva on *Vaccinium*, *Galium*, *Rhexia lutea*, *Prunus* and *Pyrus*.

Extends to Canada, Alberta and Texas.

Synelys nigrocandida Hulst. Jacksonville, Ormond (Sloss.); [Gainesville (Coll. Agric. Exp. Sta.)].

Extends through the Atlantic States to New Jersey.

Synelys timandrata Wlk. "East Florida" (Doubleday); Jacksonville (Sloss.); Daytona, Sept. 10 (Engelhardt).

Known only from Florida.

Synelys subquadrata Gn. (*Cinglis compensata* Wlk.). "East Florida" (Doubleday); Jacksonville (Sloss.); Daytona, Sept. 10 (Engelhardt); Rockledge, Apr. (Hill); Lake Worth (Sloss., Dyar); Fort Myers, Apr. 24, 25 (A. M. N. H.), Apr. 24-30 (McD.); La Belle, Apr. 28, South Bay, Lake Okeechobee, Apr. 29, 30 (A. M. N. H., Ds.).

Extends to Texas and through Mexico to Argentina.

Synelys umbilicata Gn. Lakeland, May 8 (Ds.); Fort Myers, Apr. 1-7, Apr. 24-May 7 (McD.); La Belle, Apr. 27 (A. M. N. H.).

Extends to Texas and through Mexico and the Antilles to Venezuela.

Scelolophia pannaria Gn. Lakeland, May 1-7 (McD.), Nov. 9 (Ds.); Charlotte Harbor (Sloss.); Fort Myers, Apr. 16-30, May 1-7 (McD.), May 1 (A. M. N. H.); Biscayne Bay (Sloss.).

Larva on cow pea.

Extends to New Jersey, the Antilles, Mexico and Costa Rica.

Scelolophia purpurascens Hulst (*Eois*). Cocoanut Grove, Miami (U. S. N. M.).

Known only from Florida.

Scelolophia rubroincta Hulst (*Wauchula*). Florida (Sloss.); Lake Worth (Dyar); Palm Beach, Mar. or Apr. (Hulst.).

Known only from Florida.

Scelolophia crossii Hulst (*Eois*). Florida (Dyar); Fort Myers, Apr. 16-23 (McD.).

Larva on *Lantana odorata*.

Occurs in the Bermudas and the Antilles.

Cinglis albidula Hulst. Jacksonville, Apr. 20 (Sloss.); Fort Myers, Apr. 24-30, Everglade, Apr. 8-15 (McD.); "South Florida" (Sloss.).

Known only from Florida.

Leptomeris lautaria *Hbn.* Tallahassee (Koebele); Jacksonville (Sloss.); Pablo Beach, Nov. 4 (A. M. N. H.); Daytona, Sept. 10 (Engelhardt); Enterprise (Hulst), Apr. (Castle and Laurent); Lake Lucy, Jan. 8, Feb. 15 (A. M. N. H.); Lakeland, May 5, 7 (A. M. N. H., Ds.); Charlotte Harbor (Sloss.); Lake Worth (Dyar); Fort Myers, Apr. 16-30 (McD.), Apr. 19 (A. M. N. H.); La Belle, Apr. 27 (A. M. N. H.); Everglade, Apr. 1-7 (McD.); Marco, Apr. 19 (A. M. N. H.); Biscayne Bay (Sloss.); [Gainesville, Sept. 26 & Oct. 2; East Gainesville, Sept. 28; Monticello, Oct. 5 & 8; De Funiak Springs, Oct. 17 & 18; Lake Stanley, De Funiak Springs, Oct. 18].

Occurs in Georgia.

Leptomeris roseotincta *Hulst.* Everglade, Apr. 6 (A. M. N. H.); Biscayne Bay (Sloss.).

Known only from Florida.

Leptomeris æmulata *Hulst.* Lake Lucy, June 8 (A. M. N. H.); Lakeland, May 1-7 (McD.), May 8 (A. M. N. H.); Charlotte Harbor, Mar. (Sloss.); Fort Myers, Apr. 23, 25 (A. M. N. H.), Apr. 24-30, May 1-7 (McD.); La Belle, Apr. 26, 27 (A. M. N. H., Ds.); Everglade, Apr. 1-7 (McD.), Apr. 6 (A. M. N. H.).

Known only from Florida.

Leptomeris ostentaria *Wlk.* "East Florida" (Doubleday).

Occurs in Texas.

Leptomeris plantagenaria *Hulst.* "Florida" (Dyar).

Extends to Arizona.

Eois parvularia *Hulst.* Marco, Apr. 16-23 (McD.), Apr. 17 (A. M. N. H.).

Extends to Texas.

Eois scintillaria *Hulst.* "Florida" (Beutenmüller).

Known only from Florida.

Eois demissaria *Hbn.* Jacksonville (Sloss.); Lakeland, May 1-7 (McD.), May 4 (A. M. N. H.); Everglade, Apr. 8-15 (McD.).

I have never seen this species from any point north of Georgia or west of Texas. *E. ferrugata* Pack. which is found in the North Atlantic States and *russata* Hulst which is a form of it is not a synonym of *demissaria* Hbn., nor is *bonifata* Hulst with its variety *eremiata* Hulst a synonym. Both these species are distinct from *demissaria* Hbn. and from each other. *Inclusaria* Wlk. from East Florida (Doubleday) however, appears to be the same as Hübner's species.

Eois davisii, new species.

Expanse, 22-26 mm. Palpi, frons and base of antennæ pinkish brown, vertex white. Wings and body soiled whitish with a very faint yellowish cast, silky. Primaries crossed by three fine dusky lines, the first one-third out, evenly excurved except

for a slight indentation on the anal vein, the second and third in outer area excurved on costa and thence running wavyly to inner margin. Terminal line brownish, fringes somewhat darker than wings. Discal dot vaguely showing, dusky. Secondaries with two wavy dusky extradiscal lines which correspond to the two outer lines of primaries. Terminal line and fringes as in primaries. Discal spot elongate, dusky, sometimes quite distinct. Beneath whitish, silky. Costa on basal half brownish pink. Outermost line of above brown very fine and emphasized on the veins; sometimes only the dots on the veins are noticeable. Other lines of above and rarely even the outer line of primaries absent.

Five females, four of them taken at Marco, Apr. 17 and 20, by Mr. Wm. T. Davis after whom the species is named and one taken at Everglade in Apr. by Dr. J. McDunnough.

Apparently very closely allied to *Eois suavata* Hulst; it is paler and lacks much of the red color described for that species.

A cotype has been deposited in the Museum.¹

***Eois hilliata* Hulst.** Rockledge, Apr. (Hill).

Known only from Florida.

***Eois laevitaria* Hbn.** Jacksonville (Sloss.); Lakeland, May 7 (A. M. N. H.); Fort Myers, Apr. 16–May 7 (McD.); La Belle, Apr. 7 (A. M. N. H.); Allen River to Deep Lake, Apr. 12, 14 (A. M. N. H., Ds.); Everglade, Apr. 1–15 (McD.).

Extends to Texas. It has also been recorded from California but I am inclined to doubt this record.

***Eois peralbata* Pack.** Jacksonville, Biscayne Bay (Sloss.).

Extends to Arizona.

***Eois nimbicolor* Hulst.** Florida, May (Hulst); Lakeland, May 1–7 (McD.).

***Eois ossularia* Hbn.** "East Florida" (Doubleday); Lakeland, May 6, 7 (A. M. N. H.); Fort Myers, Apr. 16–May 7 (McD.), Apr. 24 (A. M. N. H.); La Belle, Apr. 27, 28 (A. M. N. H.); Lake Worth (Dyar).

Larva on *Galium* and strawberry.

Extends to New York and California.

***Eois lanceolata* Hulst.** "Florida" (Dyar).

Extends to Southern California.

***Eois balistraria* Gn.** Fort Myers, Apr. 24 (A. M. N. H.); Lake Worth (Dyar).

Extends to Colorado and Arizona.

***Eois eburneata* Gn.** "East Florida" (Doubleday); Cocanut Grove (U. S. N. M.).

¹ After Mr. Grossbeck's death the material with which he was working was carefully gone over. The specimens upon which this description was based could not be found and have not yet been located. The description is given, however, as Mr. Grossbeck wrote it and it is possible that the original specimens may yet be found.

Extends through Mexico to Argentina.

Eois suavata *Hulst.* Lake Worth (Sloss.); Palm Beach (Dyar); Marco, Apr. 17, 20 (Ds.); Everglade, Apr. (McD.).

Larva on *Randia aculeata*.

Known only from Florida.

Eois lacteolata *Lint.* Lake Lucy, Feb. 15 (A. M. N. H.); Lakeland, May 1-7 (McD.), May 7 (A. M. N. H.).

Extends to Texas.

Eois obfusaria *Wlk.* East Florida (Doubleday).

Occurs in Texas.

Eois micropterata *Hulst.* Hastings, May (Hulst); Lakeland, May 5, Allen River to Deep Lake, Apr. 14 (A. M. N. H.).

Known only from Florida.

Eois australis *Hulst.* "Florida" (Dyar).

Extends to Pennsylvania and Long Island.

Eois refractaria *Wlk.* "East Florida" (Doubleday).

Known only from Florida.

Emmiltis sparsaria *Wlk.* East Florida (Doubleday); La Belle, Apr. 27 (Ds.).

Occurs in Texas.

Dyspteris abortivaria *H.-S.* "Florida" (Sloss.).

Larva on grape.

Extends through the Atlantic States to Massachusetts.

Eudule meridiana *Sloss.* Winter Park (Sloss.); Lakeland, May 8 (Ds.); Tampa, Charlotte Harbor (Sloss.); [Gainesville (Coll. Agric. Exp. Sta.)].

Extends through the Atlantic States to New Jersey.

Eupithecia miserulata *Grt. (nebulosa)* *Hulst.* Jacksonville, Nov. 8 (A. M. N. H.); Crescent City, Apr. 9-14 (Packard).

Larva on *Rhexia virginica*, *Solidago*, *Geranium* and cranberry. *Juniperus* and *Quercus* have also been recorded by Packard but probably in error.

Extends to Canada and California.

Cysteophora pervertipennis *Hulst.* Lake Worth, Mar. or Apr. (Dyar).

Known only from Florida.

Orthonana obstipata *Fabr. (fluviata)* *Hbn.*; *Percnoptilota*). Lake Worth (Sloss., Dyar).

Larva on *Ulmus* and *Polygonum*. In Europe it is also known to feed on *Senecio*.

An almost cosmopolitan species; unknown only in the Arctic regions, Australia, New Zealand and Chili.

Orthonana ceutrostrigaria Wlk. (*latirupta* Wlk.; *Hydriomena*).
Lake Lucy, Feb. 12 (A. M. N. H.).

Larva on *Polygonum aviculare*.

Extends to Canada, California and through Mexico and the Antilles to Brazil; occurs also in the Azores and the Canaries.

Hydriomena floridata Wlk. "East Florida" (Doubleday).

Known only from Florida.

Hydriomena neomexicana Hulst. Lake Worth, Biscayne Bay (Sloss.).

Extends to Colorado and California.

Hydriomena australata Hulst. Indian River (Edwards).

Known only from Florida.

Cænocalpe parinotata Zell. Indian River (A. M. N. H.); Lake Worth (Sloss., Dyar); Charlotte Harbor (Sloss.); Everglade, Apr. 8-15 (McD.); South Bay, Lake Okeechobee, Apr. 29 (Ds.); Biscayne Bay (Sloss.).

Extends to Texas.

Campptogramma (?) stellata Gn. (*Gypsochroa*). Daytona, Sept. 10 (Engelhardt); Indian River (A. M. N. H.); Lakeland, Nov. 9 (Ds.); Tampa, Sept. 22 (Engelhardt); Lake Worth (Dyar); Charlotte Harbor (Sloss.); Fort Myers, May 1-7, Apr. 16-23, Apr. 22, Everglade, Apr. 16-30 (A. M. N. H., Ds., McD.); Miami, Sept. 18 (Engelhardt), Sept. 23 (Ds.); [Gainesville, Sept. 26 & Oct. 2; Hogtown Creek, Gainesville, Oct. 2; Monticello, Oct. 5, 6, 8; Star Lake, Pensacola, Oct. 13; Big Bayou, Pensacola, Oct. 14; Crestview, Oct. 16; Lake Stanley, De Funiak Springs, Oct. 18; very common at light, De Funiak Springs, Oct. 17, 18, 19].

Larva on *Pisonia aculeata* and *Phytolacca*.

Extends to New Jersey, Texas and through Mexico and the Antilles to Argentina.

Eustroma diversilineata Hbn. Fort Myers, Apr. 16-23 (McD.), Apr. 25 (A. M. N. H.); [De Funiak Springs, Oct. 19].

Larva on *Vitis*, *Ampelopsis*, *Ulmus*, *Pyrus*, *Prunus*, *Rosa* and *Quercus imbricaria*.

Extends to Massachusetts, Canada and Colorado.

Episemasia morbosa Hulst. Hastings (A. M. N. H.).

Known only from Florida.

Sciagraphia granitata Gn. "East Florida" (Doubleday).

Larva on spruce and *Ribes*.

Extends to Nova Scotia, to British Columbia and California.

Sciagraphia continuata Wlk. "East Florida" (Doubleday); Ormond (Sloss.); Lakeland, May 6 (A. M. N. H.).

Larva on *Juniperus virginiana*.

Extends to Canada and Texas. The western records for this species refer to another species, *excurvata* Pack.

Macaria infimata Gn. Fort Myers, Apr. 16–23 (McD.); Everglade, Apr. 6 (A. M. N. H.).

Extends through the Atlantic States to Massachusetts.

Macaria æquiferaria Wlk. East Florida (Doubleday); Hastings (A. M. N. H.); Fort Myers, Apr. 16–23 (McD.), Apr. 22 (A. M. N. H., Ds.); Marco, Apr. 21, Allen River to Deep Lake, Apr. 12, 14, Everglade, Apr. 6, 7, 8, 10, very common at light (A. M. N. H., Ds.).

It is doubtful whether this species occurs north of the Southern States; all the specimens that I have seen from more northern regions being referable to *bisignata* Wlk. The southwestern form likewise seems to be *bisignata* rather than *æquiferaria*, though this may be distinct from both. The species has also been recorded from Mexico.

Macaria præatomata Haw. "Florida" (Sloss.); [Monticello, Oct. 4 and 5].

Larva on *Vaccinium*.

Extends through the Atlantic States to Canada.

Macaria punctolineata Pack. (*simulata* Hulst; *Sciagraphia*). Hastings, May, Marco Apr. 19 (A. M. N. H.); Everglade, Apr. 24–30 (McD.); Chokoloskee (Barnes).

Extends to Texas, and according to Dyar occurs in Arizona also.

Macaria maculifascia Hulst (*aucllaria* Streck.; *Sciagraphia*). "Florida" (Doll).

Extends to New Jersey, South Dakota and Texas.

Cymatophora cervinaria Blanch. Lakeland, May 6, La Belle, Apr. 27, Deep Lake, Apr. 13 (Ds.).

Extends to Arizona and through the Antilles to South America.

Cymatophora nicetaria Gn. "Florida" (Hulst).

Occurs in Haiti.

Cymatophora solitaria Wlk. "East Florida" (Doubleday).

Known only from Florida.

Cymatophora nervata Gn. "Florida" (Hulst).

Occurs in Brazil.

Cymatophora latiferrugata Pack. (*pustularia* Auct.). "East Florida" (Doubleday); Lake Lucy, Feb. 12, Mar. 5, Lakeland, May 4 (A. M. N. H.).

Larva on *Prunus pennsylvanica* and *Pyrus*.

Extends to Canada, British Columbia and Texas.

Cymatophora particolor Hulst. Lake Worth (Sloss.).

Known only from Florida.

Cymatophora floridensis *Hulst.* Enterprise, Apr. (A. M. N. H., Ill. State Lab.); Charlotte Harbor (Sloss.); Fort Myers, Apr. 25 (A. M. N. H.); "South Florida" (Rautenberg).

Known only from Florida.

Cymatophora abbreviata *Wlk.* Lake Worth (Dyar); Marco, Apr. 19 (A. M. N. H.); Everglade, Apr. 13 (A. M. N. H.), Apr. 16-23 (McD.).

Occurs in Georgia.

Cymatophora bicolorata *Fabr.* "Florida" (Hulst.).

This species has also been reported from Virginia, Pennsylvania, Alberta, British Columbia and California. The specimens on which these records are based may be conspecific but it is still doubtful as to what *bicolorata* really is.

Cymatophora distribuaria *Hbn.* "Florida" (Sloss.).

Variety **transitaria** *Wlk.* "East Florida" (Doubleday); Hastings, May 5 (A. M. N. H.).

Extends through the Atlantic States to Maine.

Apolema carata *Hulst.* "Florida" (Hulst.).

Known only from Florida.

Apæcasia deductaria *Wlk.* "Florida" (Sloss.).

Extends through the Atlantic States to Maine.

Apæcasia extremaria *Wlk.* "East Florida" (Doubleday).

Extends through the Atlantic States to New Jersey.

Catopyrrha coloraria *Fabr.* Jacksonville (Sloss.).

Form **dissimilaria** *Hbn.* "East Florida" (Doubleday); Lakeland, May 8 (A. M. N. H.).

Larva on *Trifolium* and raspberry.

Extends through the Atlantic States to Canada.

Catopyrrha sphæromacharia *Harv.* Hastings, May (A. M. N. H.); Enterprise (Sloss.); Deep Lake, Apr. 13 (Ds.); Allen River to Deep Lake, Apr. 14 (A. M. N. H.).

Variety **perolivata** *Hulst.* "Florida" (Sloss.).

Extends to Georgia, Arkansas and Texas.

Caripeta angustiorata *Wlk.* var. **latiorata** *Wlk.* "East Florida" (Doubleday).

Larva on *Pinus strobus*.

This variety is not known to occur outside of Florida. The typical form extends to New Hampshire and Canada.

Caripeta aretaria *Wlk.* "Florida" (Sloss.).

Extends to Virginia.

Nepytia fumosaria *Strck.* "Florida" (Koebele); Lakeland, May 7 (A. M. N. H.).

Extends to New Hampshire and Illinois.

Alcis luridula *Hulst.* "Florida" (Sloss.); La Grange, Sept. 12 (Ds.). Occurs in Georgia.

Stenotrachelys approximaria *Hbn.* Silver Springs, Sept. 25, Leesburg, Sept. 26 (Engelhardt).

Larva on *Smilax rotundifolia* and *S. laurifolia*.

Occurs in Georgia and North Carolina.

Tornos scolopacinaria *Gn.* Punta Gorda, Feb. (Sloss.); Fort Myers, May 1-7 (McD.).

Larva on *Coreopsis*.

Extends to Pennsylvania, Wisconsin and Arizona.

Tornos cinctarius *Hulst.* "Florida" (Sloss.); Orlando, Apr. 3 (Pearsall).

Occurs in Georgia.

Exelis pyrolaria *Gn.* Lakeland, Mar. 28 (A. M. N. H.), May 1-7 (McD.), May 5 (Ds.).

Extends to Kentucky and Texas.

Selidosema humarium *Gn.* "East Florida," St. Johns Bluff (Double-day); Lakeland, May 4, 5, 8 (A. M. N. H., Ds.).

Extends to New York. The records for New Mexico and California were based on an error. The species is also recorded from Mexico but this should be verified.

Selidosema cypressaria, new species.

Expanse, 23-28 mm. Head, body and all wings sordid pale gray with an ochreous tinge. Palpi with scattered dark brown, nearly blackish scales; front with a similarly colored line across the middle, and the space between the antennæ also blackish-brown. Tegulae usually blackish on their posterior margins. Abdomen sometimes blackish on the posterior edge of the basal segments. Basal line of primaries wanting. Intradiscal line dark brown often obscure, sometimes strongly contrasted, moderately broad, bends outward from costa at one-third from base to middle of cell, then turns rather sharply inward and extends slightly sinuous to inner margin. Extradiscal line concolorous with intradiscal and like it may be obscure or prominent; it begins on costa one-third in from apex, extends to M_2 , usually angled inward before reaching this vein, then rounds inward and runs sinuously to middle of inner margin. Both these lines are bordered, the first inwardly the second outwardly, by a broad ochreous shade, more or less pronounced. Median shade rarely present running through the elongated, faintly ringed, dark discal mark. Subterminal line whitish, strongly dentate or scalloped. Terminal line brown, scalloped, often broken and then presenting a series of intervenular points. Secondaries with basal and intradiscal lines absent. Median shade broad, straight, dark brown with diffuse edges; this line is nearly always the most prominent feature on the insect. Extradiscal line usually well marked, sinuous, frequently connecting with discal mark, which otherwise is situated between the two lines, and followed by an ochreous shade. Terminal and subterminal lines as on primaries. Beneath, dull gray washed with dark brown, particularly on inner half of primaries (σ^7) or near apex (φ). Conspicuous dark brown discal spots which are never ringed and present on all wings.

This species was very abundant in the cypress swamps where frequently a dozen occurred on a single trunk of a tree upon which the larvæ no doubt feed. Though many specimens were taken, few were in really good condition and of the thirty odd examples before me only ten have been selected to serve as types, eight from the Museum collection and two from the collection of Mr. Davis.

The localities at which this species has been collected are as follows: Hastings, May, June 24-30 (A. M. N. H.); Lakeland, May 4, 5 (Ds.); Deep Lake, Apr. 13, Allen River to Deep Lake, Apr. 12, 14 (A. M. N. H., Ds.). I have specimens also from Texas.

It seems strange that so common an insect coming from two quite widely separated states should remain so long undescribed, yet such is apparently the case. None of Walker's numerous descriptions of Florida moths seem to fit the present species, and Mr. L. B. Prout who very kindly looked through the British Museum collection for me says he cannot find it there. There seems no alternative, then, but to describe it. The species resembles most nearly the more modest colored form of Hulst's *Cleora pergracilis*, particularly what I take to be the male of this species, but may be separated from it by its duller color, by the prominent median shade of the secondaries, and by the discal spots which are nearly always solid; in *pergracilis* they are neatly ringed in all the specimens I have seen. *Cypressaria*, also, has no hair pencil in the hind tibiæ, though these are greatly dilated and show very distinct grooves.

In both of the Lakeland specimens there is a slight tendency toward melanism. The transverse lines are also heavier and blacker and all the discal spots are very much larger and blacker than in typical specimens.

***Cleora defectaria* Gn.** (*Selidosema*; Dyar 3838, syn.). St. Johns Bluff (Doubleday); Leesburg, Sept. 10 (Engelhardt); Glenwood (Barnes); Indian River (A. M. N. H.); Lakeland, Mar. 28, May 1, 4, 5, 6, 7 (A. M. N. H., Ds., McD.); La Belle, Apr. 28 (A. M. N. H., Ds.); Everglade, Apr. 1-7 (McD.); [Gainesville (Coll. Agric. Exp. Sta.)].

Larva on oak.

Extends to Washington, D. C., and Texas.

Dr. McDunnough who has bred the species from eggs obtained from a female secured in Florida, has handed me the following descriptions of the larval stages.

Stage I.—Head light red-brown; body deep-brown; traces of a white geminate dorsal line, only distinct on the posterior margin of the rear segments in the form of spots; a faint subdorsal line; a spiracular white band with irregular dorsal edge, jutting up into the dark lateral area; traces of pale lines immediately above and beneath this band; tubercles minute, black, with short black seta; spiracles black.

Width of head .3 mm. Length 2 mm.

Stage II.—Head flat. .5 mm. wide, red-brown, marbled with white; body pale brown with greenish tinge, covered with numerous fine, waved longitudinal white lines, about six on each side of the medio-dorsal line; the spiracular area shows traces of a pale band, irregular and not distinctly defined; tubercles small, black, with the exception of tubercle II on second abdominal segment, which is large, raised and black; anal segment reddish; beneath dark black-brown.

Length 4–5 mm.

Stage III.—Head square. 1 mm. wide, red-brown, marbled with white; body smooth, red-brown, shading into greenish laterally; often with green tinge in central portion of abdominal segments; lines much as in preceding stage; posterior portion of second abdominal segment with prominent dorsal and lateral warts, more or less black and arising from a blackish area; dorsal tubercles on other abdominal segments small black points; other tubercles pale, not noticeable; beneath dark.

Length 10 mm.

Stage IV.—Head square, rounded at apex of lobes, red-brown, heavily marbled with creamy. Body olive green or olive brown somewhat suffused with reddish anteriorly and posteriorly; numerous wavy longitudinal pale lines, bordered slightly with brown; tubercles small, black, those of the dorsal rows being larger and more distinct; second abdominal segment with two dorsal warts conical, red-brown, suffused with black at base; a small lateral wart posterior to the spiracle arising from a black area and itself largely black; slight elevation on posterior portion of eighth abdominal segment dorsally, this portion being occupied by tubercle II; spiracles whitish; beneath much as above, striped, pale centrally; intersegmental area rather reddish orange; prolegs shaded with purplish.

Length 15 mm.

Stage V.—Head square, central portion of lobes pale yellow-brown slightly mottled with red-brown; lateral and upper portion of head red-brown, width 2 mm. Body pale brown shading laterally into greenish, striate as in previous stages with fine wavy longitudinal lines; dorsal warts on abdominal segment II compressed from back to front, red-brown, tinged with yellow with tubercle II at apex, black, warts preceded by dark-brown shade patch; lateral warts broad, shaded with blackish, lighter at base; dorsal warts on eighth abdominal segment small, palish, surmounted by tubercle II which is conical and deep brown; other tubercles small, black; spiracles ochreous, tinged with red-brown; ventrally two small black warts on posterior portion of abdominal segment III arising from a reddish base; prolegs marbled with red-brown.

Length (full grown) 38 mm.

Cleora umbrosaria Hbn. (*Selidosema*). Lakeland, May 4, 5, 7 (A. M. N. H., Ds., McD.).

Extends to New York.

The records of the occurrence of this species in British Columbia and Alberta were based on errors. All the males taken at Lakeland possess well developed hair pencils.

Cleora pergracilis Hulst (*Synelys*). Everglade, Apr. 6, Lakeland, May 6 (A. M. N. H.); Apr. 8–15 (McD.); Allen River to Deep Lake, Apr. 12 (A. M. N. H.); Biscayne Bay (Sloss.). These records refer to the form

described by Hulst in which the two principal cross lines are very broad and conspicuous and the intervening space white. The more common form which has been taken at Lakeland, May 5, Fort Myers, Apr. 7, 22, South Bay, Lake Okeechobee, Apr. 30, May, Allen River to Deep Lake, Apr. 12, 14, and Everglade, Apr. 5, 6, 7, 9, 14 (A. M. N. H., Ds.), has the cross lines narrow edged with a broad deep ochreous band and the ground color is grayer. The males are much smaller than the females but are otherwise exactly the same, even to the development of the broad lined variety.

The species is so far known only from Florida.

Cleora indicataria *Wlk.* "East Florida" (Doubleday).

Extends to Maine, Canada, British Columbia and Texas.

Cleora pampinaria *Gn.* St. Johns Bluff (Doubleday); Glenwood, July 8-15 (Barnes); Enterprise, Apr. (Castle and Laurent); Lakeland, May 5, 6, 7, 8 (A. M. N. H., Ds.); Fort Myers, Apr. 22 (Ds.); Miami (Barnes).

Larva on a great variety of plants, among them *Geranium*, *Pyrus*, *Salix*, *Populus*, *Fraxinus*, *Acer*, *Ulmus*, *Citrus*, guava, cotton, clover, honey locust, hickory, asparagus, cranberry, blackberry and strawberry.

Extends to Canada, British Columbia, Arizona and Mexico.

Cleora vellivolata *Hulst.* "Florida," May 6 (Hulst.).

Extends to New Hampshire, New York and Texas.

Melanolophia canadaria *Gn.* "East Florida," (Doubleday).

Larva on tamarack, hemlock, spruce, pine and *Myrica*.

Extends through the Atlantic States to Canada.

Glena cognataria *Hbn.* (*Selidosema muricolor* Hulst.). "Florida" (Sloss.).

This record probably refers to the following species.

Glena umatillaria *Strck.* (*Cosymbia*; *Selidosema insaria* Dyar). "Florida" (Doll); Lakeland, May 16-23 (McD.); Fort Meade (Merrick); Fort Myers, Apr. 26 (A. M. N. H.), May 16-23 (McD.); [De Funiak Springs, Oct. 17].

This is scarcely more than a pale southern race of *Glena cognataria* Hbn.

Glena (?) texanaria *Hulst.* "Florida" (Sloss.); Ortega, Nov. 3 (A. M. N. H.).

Occurs in Texas.

Ectropis crepuscularia *D. and S.* "Florida" (Sloss.); [Monticello, Oct. 7].

Larva on *Ligustrum*, *Lonicera*, *Rubus*, *Quercus*, *Genista*, *Betula alba*, *Ulmus*, *Acer*, *Pyrus*, *Negundo aceroides*, white clover, plum, rose and "common locust." In addition, it is recorded in Europe on *Salix*, *Populus*, *Sambucus*, *Spartium*, *Alnus* and *Aquilegia*.

Extends to Canada and British Columbia.

Epimecis virginaria Cram. Indian River (A. M. N. H.); Biscayne Bay (Sloss.).

Variety **dendraria** Gn. "Florida" (Sloss.).

Larva on tulip.

Extends through the Atlantic States to Massachusetts.

Nacophora ypsilon Forbes. Charlotte Harbor (Sloss.).

Larva on apple.

Extends to Illinois.

Nacophora phigaliaria Gn. "Florida" (Sloss.).

Extends to New Jersey.

Nacophora quernaria S. and A. "Florida" (Sloss.).

Larva on *Quercus* and *Crataegus*.

Extends to Canada and Ohio.

Therina fiscellaria Gn. "Florida," May (Dyar); Crescent City (Packard); Rockledge, May (Williams).

Larva on *Quercus*; live oak has been specifically recorded.

Extends to Canada and Colorado.

Therina fervidaria Hbn. "East Florida" (Doubleday); Indian River (A. M. N. H.); Lakeland, May 5, 6, La Belle, Apr. 27, 28 (A. M. N. H., Ds.).

Larva on spruce, *Abies balsamia*, *Halesia dipterum* and live oak.

Extends to Maine.

Sericoptera virginaria Hulst (*Ripula*). Indian River (Edwards); Everglade, Apr. 9, 10 (A. M. N. H.).

Form **vestalis** Hulst. Jupiter, Feb. 21 (Dyar); Charlotte Harbor (Sloss.); Everglade, 5, 6, 9, 11, 15 (A. M. N. H., Ds., McD.); Cudjo Key (Pollard).

There is no doubt whatsoever that *vestalis* is simply an immaculate form of *virginaria*. Indeed the markings on the typical form are so slight that the two might well be included under one name. The form *virginaria* occurs also in Cuba, according to Dyar, and *vestalis* has been redescribed as *bilineata* from French Guiana by Warren, according to the same authority.

Ennomos subsignarius Hbn. Deep Lake, Apr. 13 (Ds.); Allen River to Deep Lake, Apr. 14 (A. M. N. H.).

Larva on *Tilia americana*, *Ulmus*, *Hicoria*, *Acer*, *Populus*, *Castanea* and *Pyrus*.

Extends to Canada and Colorado.

Xanthotype crocataria Fabr. Jacksonville (Sloss.), Sept. 7 (Sleight); Enterprise (Sloss.); Lakeland, Mar. 28 (Ds.), May 1-7 (McD.); [East Gainesville, Sept. 28; Lake Miceosukee, Monticello, Oct. 8].

Larva on *Polygonum*, red currant, "wild currant," strawberry, gooseberry and mint.

Extends to Canada and Colorado.

Ania limbaria Haw. Hastings (Hulst.).

Larva on *Quercus*, *Acer*, *Crataegus*, *Salix*, pear, currant, gooseberry, strawberry and rose.

Gonodontis hypochraria var. **homuraria** Grt. "Florida" (Sloss.).

The typical form of this species almost certainly occurs in Florida also.

Larva on *Diospyros virginiana*, sassafras and apple.

Extends through the Atlantic States to Canada.

Gonodontis obfirmaria Hbn. "Florida" (Sloss., A. M. N. H.); "East Florida" (Doubleday).

Larva on *Vaccinium*, *Cassandra* and bearberry.

Extends through the Atlantic States to Canada.

Gonodontis antidiscaria Wlk. "East Florida" (Doubleday); "Central Florida" (Neumoegen).

Known only from Florida.

Euchlæna amœnaria Gn. [Gainesville (Coll. Agric. Exp. Sta.).

Extends through the Atlantic States.]

Euchlæna astylusaria Wlk. (*vinulentaria* G. and R.). "East Florida," St. Johns Bluff (Doubleday); Lakeland, May 8 (A. M. N. H.); Fort Myers, May 1-7 (McD.), Apr. 1, 2, 3, 24 (A. M. N. H.); La Belle, Apr. 27 (Ds.).

Variety **tiviaria** Wlk. St. Johns Bluff (Doubleday).

Extends to Canada.

Euchlæna pectinaria D. and S. "East Florida" (Doubleday).

Larva on *Prunus*, *Quercus* and *Populus*.

Extends to Massachusetts, Canada and Illinois.

Metanema quercivoraria Gn. "East Florida" (Doubleday).

Larva on *Quercus*, *Populus*, *Uvularia perfoliata*, *Ulmus*, *Salix* and bellwort.

Extends to Canada.

Azelina zalissaria Wlk. (*Stenaspilates*). "East Florida" (Doubleday); Charlotte Harbor (Sloss.).

Extends along the Atlantic coast to New Jersey.

Azelina rectissima Dyar (*Stenaspilates*). Jacksonville, Sept. 28 (Ds.); Charlotte Harbor, Biscayne Bay (Sloss.).

Extends to Texas and Mexico.

Azelina atrocolorata Hulst. "Florida" (Hulst.).

This species was described from several examples taken in various eastern States. Of four of the types that I have located and examined, three are *Pero honestarius* Wlk. The fourth from Florida is a distinct

species on which (Proc. U. S. Nat. Mus., XXXVIII, p. 365) I have held the above name.

Pero honestarius Wlk. (*Azelina*). "Florida" (Sloss.).

Larva on wild cherry and maple.

Extends to Canada, Alberta, Colorado and Texas.

Patalene olyzonaria Wlk. (*Syssaura*). La Grange, Sept. 10, 11 (Ds.); Indian River (Neumoegen); Charlotte Harbor (Sloss.).

Occurs in Georgia and the Antilles.

Infensata, *siculata* and *syzygiaria*, also reported from Florida, have been found to refer to this species.

Caberodes juncturaria Gn. "Florida" (Neumoegen).

Extends to South Carolina and Texas.

Caberodes confusaria Hbn. "East Florida" (Doubleday); Lake Lucy, Jan. 8 (A. M. N. H.); Enterprise (Castle and Laurent); Deep Lake, Apr. 13, Everglade, Apr. 6 (A. M. N. H.).

Larva on *Taraxacum* and *Trifolium*.

Extends to Canada and Colorado.

Oxydia vesulia Cram. Charlotte Harbor, Punta Gorda (Sloss.); Boca Grande, Apr. (Ds.); Fort Myers, Mar. 21 (A. M. N. H.); Marco, Apr. 11, larva (Ds.); Everglade, Apr. 6, 8, 9 (A. M. N. H.); Miami (Sloss.).

Larva on oak.

Extends to Texas and through Mexico and the Antilles to Brazil.

Sabulodes transversata Dru. St. Johns Bluff (Doubleday); Crescent City (Pack.); Charlotte Harbor (Sloss.); [De Funiak Springs, Oct. 18].

Larva on *Acer rubrum*, *Clethra alnifolia*, *Myrica*, *Geranium*, *Polygonum*, live oak, currant and apple.

Extends to Canada.

Sabulodes politia Cram. Daytona, Sept. 10 (Engelhardt); Indian River (Grote, Neumoegen); Charlotte Harbor, Punta Gorda, Feb. (Sloss.); Fort Myers, Mar. 21, 30, Apr. 22, 23, May 3 (A. M. N. H., Ds.), May 1-7 (McD.); South Bay, Lake Okeechobee, Apr. 30 (Ds.); Lake Worth (Dyar); Marco, Apr. 20 (Ds.); Everglade, Apr. 5, 6, 9 (A. M. N. H., Ds.), May 16-23 (McD.); Chokoloskee (A. M. N. H., Barnes); Biscayne Bay (Sloss.).

Extends through Mexico and the Antilles to South America.

Abbottana clemataria S. and A. "Florida" (Sloss.); St. Johns Bluff (Doubleday).

Larva on *Quercus*, *Ulmus*, *Sassafras*, *Clematis* and *Hicoria*. It is also figured by Abbot on *Pyrrhopappus carolinianus*.

Extends through the Atlantic States to Canada.

Palyas auriferaria Hulst. Indian River (A. M. N. H., Hulst); Lake Worth (Dyar); Charlotte Harbor (Sloss.); Fort Myers, Apr. 22 (A. M.

N. H.), May 1-7 (McD.); Marco, Apr. 19 (A. M. N. H.); Deep Lake, Apr. 13 (Ds.); Everglade, Apr. 1-15 (McD.), Apr. 7 (Ds.); Biscayne Bay (Sloss.).

Known only from Florida.

Phrygionis argentiostriata *Strck.* Indian River (A. M. N. H., Grote); Lake Worth (Dyar); Charlotte Harbor, Punta Gorda, Feb. (Sloss.); South Bay, Lake Okeechobee, Apr. 30, Deep Lake, Apr. 13, 14 (A. M. N. H.); Everglade, Apr. 1-7 (McD.), Apr. (Ds.); Chokoloskee (Barnes), Apr. 8 (Ds.).

Larva on *Ardisia pickeringia*.

This species was not rare at Deep Lake where it flew in the shaded swamps; its flight resembled that of the Satyridæ, that is, in momentarily holding the wings together over the back. It seems also to have a propensity to fly around porches in the evening, seeking the protected corners to rest.

Sphæcelodes vulneraria *Hbn.* Indian River (A. M. N. H., Holland).

Extends to North Carolina (though a single instance of its capture at New York is on record) and through Mexico and the Antilles to Argentina.

Melanchroia regnatrix *Grt.* This is questionably recorded from Florida by Hulst.

It occurs in Cuba.

Melanchroia cephise *Cram.* Florida (Hulst).

Extends to southern California and through Mexico and the Antilles to South America.

Melanchroia geometroides *Wlk.* "Florida" (A. M. N. H.); Key West (Morrison).

Larva on *Cicca disticha* in Cuba.

Extends to Texas and through Mexico and the Antilles.

EPIPLEMIDÆ.

Philagraula slossoniæ *Hulst.* "South Florida" (Sloss.); Everglade, Apr. 8-15 (McD.).

Appears to be closely related to *Erosia mamillata* Feld. (Reise Nov., Pl. 133, f. 18). (McD.).

LACOSOMIDÆ.

Cicinnus melsheimeri Harr. Lakeland, larval case (Ds.); Charlotte Harbor, Lake Worth (Sloss.); Fort Myers, Mar. 30 (A. M. N. H.); Biscayne Bay (Sloss.); [St. Augustine (Johnson)].

Larva on oak and winterberry.

Extends through the Atlantic States to New York.

PSYCHIDÆ.

Oiketicus abbotii Grt. Charlotte Harbor (Sloss.); Punta Gorda, larvæ (Sloss.); Fort Myers (McD.), Mar. 30 (A. M. N. H.); Everglade (McD.). Cases have also been taken at Tallahassee (A. M. N. H.); Jacksonville, Newberry, Lakeland (Ds.); Fort Myers (A. M. N. H., Ds.); Marco, Everglade (A. M. N. H.); Miami, Key West (Ds.); [near De Funiak Springs (G. C. Fisher)].

Larva on *Citrus* and Japanese plum. Cases common on guava (McD.).

Known also from Texas.

Thyridopteryx ephemeraformis Haw. Biscayne Bay (Sloss.).

Larva on *Pinus*, *Cupressus*, *Salix*, *Populus*, *Quercus*, *Acer* and arborescent.

Extends through the Atlantic States to New York. It is probable that the Florida record refers to the following species.

Thyridopteryx pallidovenata, new species.

♂.—Expanse, 34.5 mm. Head and body above and beneath dark smoky brown with paler brown silken reflections; antennæ brown, the tips yellowish. Wings hyaline, the veins yellowish-white. Primaries with costa narrow and basal portion of the inner margin broadly marked with dark brown. Secondaries with the inner area almost completely marked with brown to Cu_2 ; costal margin also brown. Beneath as above but the brown scales less dense.

One male, Fort Myers, Apr. 23, taken at light. Closely allied to *T. ephemeraformis* Haw. but one-third larger than average sized specimens of that species and one-fourth larger than the largest examples in the long series before me. The wings are also a whiter hyaline and the veins of a paler tint than is probably ever attained (through abrasion) in *ephemeraformis*.

Type in the American Museum of Natural History.

Cases, apparently of this species, were taken at Lakeland and Everglade (A. M. N. H.), and at Key West (Ds.).

Platœceticus gloveri Pack. Jacksonville, Enterprise, Charlotte Harbor, Punta Gorda, Feb. (Sloss.); Fort Myers, Apr. 22 (Ds.); Allen River to Deep Lake, Apr. 14 (A. M. N. H., Ds.); Everglade, Apr. 12, 14 (A. M. N. H.). Cases presumably of this species have also been taken at Lakeland (A. M. N. H., Ds.); Punta Gorda, on pine (Ds.); Fort Myers, Everglade (A. M. N. H.); Key West (Ds.).

Known only from Florida.

Prochalia pygmæa B. and McD. [Everglade, Apr. 1-7 (McD.).

Known only from Florida.]

Manatha nigrita B. and McD. Fort Myers, Apr. 24-30, Everglade, Apr. 8-15 (McD.).

Larva "evidently feeds on coarse grasses."

Known only from Florida.

COCHLIDIIDÆ.

Sibine stimulea Clem. Lake Worth (Dyar); [near de Funiak Springs (G. C. Fisher)].

Larva on a wide range of plants, among them, basswood, cherry, chestnut, oak, corn leaves, sumac, rose, *Prunus*, *Rubus*, *Pyrus*, *Cratægus*, *Ame-lanchier*, *Cornus*, *Virburnum*, *Vaccinium*, *Myrica*, *Canna indica*, *Sebastiana lucida* and *Verbesina virginica*. For exhaustive list of food plants see Ent. Am., IV, p. 75.

Extends through the Atlantic States to New York and Massachusetts.

Euclea nanina Dyar. "Central Florida" (A. M. N. H.); Charlotte Harbor (Sloss.).

Known only from Florida.

Euclea delphinii Bd. Tallahassee (A. M. N. H.); Lake Worth (Dyar), larvæ in Jan. (Dyar); Everglade, Apr. 9 (A. M. N. H.).

Larva on *Rhizophora mangle*, *Coccoloba wifera*, *C. floridana*, *Andromeda*, *Nyssa*, *Salix*, *Pyrus*, cocoanut palm, blackberry, wax myrtle, oak, chestnut, beech and wild cherry.

Extends through the Atlantic States to Canada (Quebec).

Monoleuca subdentosa Dyar. "Florida" (Dyar); Fort Myers (McD.).

Known only from Florida.

Monoleuca sulfurea G. and R. "Florida" (Dyar).

Known only from Florida.

Monoleuca obliqua Hy. Edw. Indian River (Edw.).

Known only from Florida.

Isochætes beutenmülleri Hy. Edw. Enterprise, Mar. 31 (A. M. N. H.).

Larva on swamp oak.

Extends to Staten Island.

Alarodia slossoniæ Pack. Charlotte Harbor (Sloss.); Lake Worth (Dyar); Everglade (McD.), Apr. 6 (A. M. N. H.); Miami, Feb., Biscayne Bay (Sloss.).

Larva on *Rhizophora mangle*, *Myrsine floridana*, *Ardisia pickeringia*, *Myrica cerifera*, *Hypelate paniculata*, and *Chrysobalanus icacoa*.

This species has also been recorded, doubtfully, from Texas.

Cochlidion y-inversa Pack. Indian River (Edwards).

Variety **parallela** Hy. Edw. Indian River (A. M. N. H.).

Larva on hickory and blue beech.

Extends to Canada (Quebec).

Slossonella tenebrosa Dyar. Jacksonville (Sloss.).

Known only from Florida.

Prolimacodes badia argentimacula B. and McD. (*scapha*). Fort Myers, Apr. 2 (Ds.), Apr. 23 (A. M. N. H.), Apr. 16-23, May 1-7 (McD.).

Larva on various shrubs and trees, among them, *Pyrus*, *Citrus*, *Ulmus*, oak, chestnut, wild cherry, hickory, sweet gum, bayberry, linden, witch hazel and hop hornbeam.

Extends to Massachusetts.

MEGALOPYGIDÆ.

Carama cretata Grt. Biscayne Bay (Sloss.).

Larva on *Cercis canadensis*.

Occurs in the Atlantic States.

Megalopyge opercularis S. and A. Fort Myers, Apr. 22 (Ds.); Charlotte Harbor, Lake Worth, Biscayne Bay (Sloss.).

Larva on *Citrus* and *Pyrus*.

Occurs in the South Atlantic States.

Lagoa pyxidifera S. and A. Charlotte Harbor, Punta Gorda, Feb. (Sloss.); Fort Myers (McD.); [Gainesville, Aug. 28 (Coll. Agric. Exp. Sta.)].

Larva on *Viccinium* and *Quercus*.

Occurs in the South Atlantic States.

PYROMORPHIDÆ.

Acoloitus falsarius *Clem.* La Grange, Sept. 11 (Ds.); [Gainesville (Coll. Agric. Exp. Sta.)].

Larva on *Ampelopsis* and *Vitis*.

Extends through the Atlantic States to New York.

Acoloitus rectarius *Dyar.* Lake Worth, Biscayne Bay (Sloss.).

Hitherto known only from Arizona.

Pyromorpha centralis *Wlk.* "Florida" (Barnes).

A Mexican species of doubtful occurrence in Florida, according to Dyar.

Harrisina americana *G.-M.* Enterprise, Apr. (Castle and Laurent); Eustis (Dyar); Biscayne Bay (Sloss.).

Larva on *Vitis* and *Ampelopsis*.

Extends through the Atlantic States to New York.

Harrisina australis *Stretch.* Enterprise (Dyar); Indian River (A. M. N. H.); Lakeland, May 8 (Ds.); Fort Myers (McD.), Apr. 2 (A. M. N. H., Ds.); Miami, Feb. (Sloss.).

Extends to Missouri.

The specimens from Lakeland and Fort Myers are all smaller and less metallic in color than the typical form and thus approach the preceding species from which it differs not only in the extension of the yellow collar to the coxæ but in venation.

Concerning the larva, Dr. McDunnough writes: — "At Fort Myers, larvæ were common on a climbing vine which I could not identify: although wild grape grew in the immediate vicinity no larvæ were found on it. The larvæ differ from those of *texana* Stretch as described by Dyar (Proc. Ent. Soc. Wash., V, p. 326) in the following important particulars: there is no intersegmental black band dorsally, the only transverse band being the purple-brown one containing the warts; this band extends laterally as far as the third row of warts, leaving the fourth isolated in a small purple patch; the lateral purple-brown band is entirely lacking; the general color is yellowish, paler dorsally."

THYRIDÆ.

Thyris lugubris *Bd.* "Florida." [St. Augustine (Johnson).]

Extends through the Atlantic States to New Jersey.

Dysodia speculifera *Sepp.* "Florida" (Hampson).

Extends into South America.

Dysodia flagrata Wlk. (*floridanus* Hulst). "Florida" (Doll).

Occurs in South America.

Hexeris enhydris Grt. Lake Worth (Sloss.); Marco, Apr. 17 (A. M. N. H.); Chokoloskee (Barnes); Fort. Capron (Hubbard and Schwarz); Biscayne Bay (Sloss.); Flamingo (Ottolengui).

Extends to California.

Meskea dyspteraria Grt. Biscayne Bay (Sloss.).

Known only from Florida.

COSSIDÆ.

Givira basalis Wlk. Tallahassee (A. M. N. H., Koebele); Jacksonville (Sloss.); St. Johns Bluff (Doubleday); Indian River (A. M. N. H., Wittfeld); Biscayne Bay (Sloss.).

Occurs in Mexico.

Givira francesca Dyar. Fort Meade (Merrick).

Known only from Florida.

Givira anna Dyar. Miami, Biscayne Bay (Sloss.).

Known only from Florida.

Cossula magnifica Strck. Tallahassee (Koebele); Jacksonville (Barnes).

Larva on *Quercus virens*.

Known only from Florida.

Prionoxystus robiniae Peck. Fort Myers, Apr. 1 (Ds.).

Larva on *Robinia pseudacacia*, *Populus* spp., *Salix*, oak and chestnut.

Occurs throughout the United States.

ÆGERIIDÆ.

Melittia satyriniformis Hbn. [St. Augustine (Johnson).

Larva bores in the stems of *Cucurbitaceæ*.

Extends over practically all of the United States, Canada and to Argentina.]

Alcothoe caudata Harr. "Florida," Apr., May (Beutenmüller).

Larva bores in the roots of *Clematis virginiana* and *C. vitalba* and in the stems of *Ribes floridum*.

Extends to Canada, New England, Michigan and Illinois.

Synanthedon exitiosa Say (*Sesia*). "Florida" (Beutenmüller).

Variety **fitchii** Hy. Edw., Tallahassee (Koebele).

Larva in peach, plum, almond, nectarine, apricot, wild and cultivated cherry, willow, beach plum and *Amelanchier canadensis*.

Extends to Maine, Canada, Texas and the Rocky Mountains.

Synanthedon pictipes G. and R. (*Sesia*). "Florida" (Beutenmüller).

Larva under bark of plum, wild and cultivated cherry, beach plum, peach, chestnut and *Amelanchier canadensis*.

Extends to Canada, Texas and the Pacific.

Synanthedon pyri Harr. (*Sesia*). "Florida" (Beutenmüller).

Larva under and in bark of apple, pear and mountain ash.

Extends through Atlantic States to Canada. Occurs also in Texas.

Synanthedon texana Hy. Edw. (*Sesia*). Indian River (Wittfeld); South Bay, Lake Okeechobee, May 2 (Ds.); Biscayne Bay (Sloss.).

Occurs in Texas.

Synanthedon seminole Beut. (*Sesia*). Jacksonville (Sloss.); Lake Worth (Sloss., Dyar).

Known only from Florida.

Synanthedon marica Beut. (*Sesia*). Jacksonville, Punta Gorda (Sloss.).

Known only from Florida.

Synanthedon floridensis Grt. (*Sesia*). Jacksonville (Sloss.); Enterprise, Mar. 29 (Hubb. and Schwarz), May 29 (A. M. N. H.); Biscayne Bay (Sloss.).

Known only from Florida.

Synanthedon geliformis Wlk. (*Sesia*). Jacksonville (Sloss.); Archer (Koebele); Tampa, Charlotte Harbor (Sloss.).

Occurs in the Antilles and Mexico.

Synanthedon sapygæformis Wlk. (*Sesia*). "East Florida" (A. M. N. H.).

Known only from Florida.

Synanthedon ruficornis Hy. Edw. (*Sesia*). "Florida" (A. M. N. H.); La Grange, Sept. 11 (Ds.).

Known also from Georgia and Alabama.

Sannina uroceriformis Wlk. (*Sanninoidea*). "Florida" (Beutenmüller).

Larva in persimmon.

Extends through the Atlantic States to Virginia.

Memythrus scepiformis Hy. Edw. Biscayne Bay (Sloss.).

Extends to Maryland, Kansas and Texas.

Memythrus palmii Hy. Edw. Enterprise (Palm).

Known only from Florida.

Memythrus asilipennis Bd. Jacksonville (Sloss.).

Larva bores in oak. Ash and alder recorded as food plants of this species is an error (Engelhardt).

Extends to New Hampshire, Minnesota and Texas.

Memythrus seminole Neum. "Florida" (Neumoegen); Ortega, Sept. 6 (Sleight).

Known only from Florida.

The Ortega example differs considerably from the description of the type and may represent a new species. The central portion of the antennæ are darkened by brown scales, the hind tibiæ are also brown above toward their apices, while the border of the secondaries extends inward along the cubital and anal veins to the center of the wing. All these characters are at variance with the description of the type. In other details the specimen fits the description so closely that I am inclined to regard it as a variant.

PYRALIDÆ.

PYRAUSTINÆ.

Glaphria glaphyralis Gn. "Florida" (A. M. N. H.); Lakeland, Marco (McD.).

Extends through the Atlantic States to New Jersey.

Glaphria sesquistrictialis Hbn. Fort Myers, Apr. 22 (A. M. N. H.); Lakeland (McD.); [Monticello, Oct. 5].

Extends to New Jersey, Missouri, Texas and Honduras.

Glaphria fulminalis Led. Fort Myers, Everglade (McD.).

The Everglade specimens have the ground color of primaries a deep brown, whereas the Fort Myers specimen has a pale yellow ground suffused with purple-brown in the median area. (McD.).

Extends through the Atlantic States to New Jersey.

Glaphria basiflavalis B. and McD. Everglade (McD.); Chokoloskee (Barnes).

Occurs in Texas.

Sufetula diminutellus Wlk. Everglade (McD.), Apr. 6 (A. M. N. H.). Occurs in St. Vincent and Honduras.

Hymenia perspectalis Hbn. Indian River (A. M. N. H.); Charlotte Harbor (Sloss.); Fort Myers, Apr. 22 (Ds.), Nov. 5 (A. M. N. H.); Everglade (McD.), Apr. 6, 8 (A. M. N. H.); Biscayne Bay (Sloss.); [East Gainesville, Sept. 29; Monticello, Oct. 5; Star Lake, Pensacola, Oct. 13;

Big Bayou, Pensacola, Oct. 14; De Funiak Springs, Oct. 17, 18; Lake Stanley, De Funiak Springs, Oct. 18].

Larva on *Lilium canadense*.

Extends through the Atlantic States to New Jersey and through Mexico and the Antilles to South America. Occurs also in southern and central Africa and in the Australian region.

Hymenia fascialis Cram. Jacksonville, Nov. 7, 15 (A. M. N. H.); La Grange, Sept. 9 (Sleight); Lakeland, Nov. 9 (Ds.); Charlotte Harbor (Sloss.); Everglade (McD.); Biscayne Bay (Sloss.); [Payne Prairie, Gainesville, Oct. 2].

Larva on beets.

It is distributed over the southeastern United States, South America, southern Europe, southern and central Africa and the Australian region.

Crociodolomia palindialis Gn. (*Evergestis dyaralis* Fern.). Lake Worth (Dyar).

Larva on *Drypetes crocea*.

Extends through the Antilles and Mexico to South America.

Desmia funeralis Hbn. Jacksonville (Sloss.); Indian River (A. M. N. H.); Charlotte Harbor (Sloss.); La Belle, Apr. 27 (A. M. N. H.); Fort Myers, Everglade (McD.); Ocean Beach, Sept. 23 (Sleight); [Gainesville (Coll. Agric. Exp. Sta.)].

Larva on wild grape (McD.).

Extends through the Atlantic States to Canada.

Desmia tages Cram. Lake Worth (Dyar); Chokoloskee (Barnes).

Larva on *Psychotria undata*.

Extends through Mexico and the Antilles to Brazil.

Desmia geminalis Snell. Everglade, Apr. 11 (A. M. N. H.).

Known also from Colombia and Peru.

Synclera traducalis Zell. "Florida" (Dyar); Indian River (A. M. N. H.).

Extends through Mexico and the Antilles to South America. Occurs also in southern and central Africa and in southern Asia.

Ercta ornatalis Dup. Fort Myers, Apr. 1, 23 (Ds.); Marco, Apr. 17 (Ds.), Apr. 20 (A. M. N. H.); Everglade, common (McD.), Apr. 10 (A. M. N. H.).

Extends through the Antilles to South America. Occurs also in southern Europe, southern and central Africa and in the Oriental and Australian regions.

Marasmia cochrusalis Wlk. "Florida" (Dyar); Fort Myers (McD.).

Extends through the Antilles to South America.

Marasmia trapezalis *Gn.* Lake Worth (Dyar); Fort Myers, Apr. 24 (A. M. N. H.); Everglade (McD.).

Extends to Texas and through the Antilles to South America. Occurs also in southern and central Africa, and in the Oriental and Australian regions.

Marasmia floralis *Fern.* Lake Worth (Dyar); Palm Beach, Key West (Fernald).

Larva on *Vincetoxicum palustre*.

Known only from Florida.

Anania florella *Cram.* Fort Myers, Nov. 12, South Bay, Lake Okeechobee, Apr. 29 (A. M. N. H.); Biscayne Bay (Sloss.).

Extends through the Antilles to South America.

Samea ecclesialis *Gn.* Lakeland (McD.), May 4, 8 (A. M. N. H.); Charlotte Harbor (Sloss.); Fort Myers (McD.); La Belle, Apr. 27 (Ds.); Everglade, Apr. 6, 7 (Ds.), Apr. 9 (A. M. N. H.); Biscayne Bay (Sloss.); [Gainesville, Sept. 27; East Gainesville, Sept. 29; Lake Miceosukee, Monticello, Oct. 6, 8; Monticello, Oct. 7; Crestview, Oct. 15, 16; De Funiak Springs, Oct. 17; Lake Stanley, De Funiak Springs, Oct. 18].

Extends through Mexico and the Antilles to South America.

Samea multiplicalis *Gn.* Jacksonville, Nov. 5 (A. M. N. H.); Fort Myers (McD.), Apr. 23 (A. M. N. H.); La Belle, Apr. 26, 27 (A. M. N. H., Ds.); Everglade (McD.), Apr. 1-7 (Ds.), Apr. 6, 7, 11, 14 (A. M. N. H.).

Extends through the Antilles to South America.

Diastictis argyralis *Hbn.* Lakeland, May 7, 8 (A. M. N. H.); Biscayne Bay (Sloss.); [Devils Mill Hopper, Gainesville, Sept. 27].

Extends through the Atlantic States to New Jersey.

Pilocrocis ramentalis *Led.* Lake Worth (Sloss.).

Extends to New York. Occurs also in Venezuela and Brazil and probably in the Antilles.

Pilocrocis tripunctata *Fabr.* Indian River, South Bay, Lake Okeechobee, Apr. 30, Everglade, Apr. 9 (A. M. N. H.); Miami, Sept. 3 (Sleight); [Monticello, Oct. 5; Crestview, Oct. 15].

Extends to Texas and the Antilles. Reported also from Colombia.

Pilocrocis plumbicostalis *Grt.* West Park (Sloss.); Everglade (McD.); Chokoloskee (Barnes); Biscayne Bay (Sloss.).

Occurs in Alabama.

Pilocrocis inguinalis *Gn.* [Monticello, Oct. 4.

Extends to Alabama and South America.]

Pilocrocis tristigmalis *Hamps.* Miami (Schaus).

Known only from Florida.

Conchylodes diphteralis *Geyer.* Jacksonville (Sloss.).

Extends to Texas and the Antilles.

Conchyloides platinalis Gn. Lakeland, May 7, 8 (A. M. N. H., Ds.); [Gainesville (Coll. Agric. Exp. Sta.)].

Distributed through the South Atlantic States and thence through Mexico and the Antilles to South America.

Dichogama redtenbacheri Led. Lake Worth (Dyar); Chokoloskee (Barnes).

Larva on *Capparis cynophallophora*.

Occurs in the Antilles and in Mexico, Central and South America.

Dichogama amabilis Moesch. Lake Worth (Dyar).

Larva on *Capparis jamaicensis*.

Occurs also in the Antilles.

Dichogama bergii Moesch. Lake Worth (Dyar).

Larva on *Capparis cynophallophora*.

Occurs in the Antilles.

Nacoleia hampsoni B. and McD. Marco (McD.); Everglade, May (Ds.); Chokoloskee (Barnes).

Known only from Florida.

Hedylepta indicata Fabr. Fort Myers, Apr. 25 (Ds.); Marco (McD.), Apr. 19 (Ds.); Everglade (McD.); Biscayne Bay (Sloss.).

Extends through the Antilles to South America. Occurs also in southern and central Africa and in the Oriental region.

Blepharomastix ebulealis Gn. Fort Myers (McD.).

Occurs in the Antilles and in Central and South America.

Blepharomastix ranalis Gn. Lakeland, May 6 (A. M. N. H.).

Extends to New York and through Mexico and the Antilles to South America.

Blepharomastix magnalis Gn. Charlotte Harbor (Sloss.); Fort Myers, common (McD.), Apr. 22, 26 (A. M. N. H.); Allen River to Deep Lake, Apr. 12 (A. M. N. H.); Everglade, common (McD.); Biscayne Bay (Sloss.).

Extends to Texas and into the Antilles.

Blepharomastix stenialis Gn. Indian River (A. M. N. H.); Enterprise (Castle and Laurent); Fort Myers, Apr. 23, Everglade, Apr. 7 (A. M. N. H.); Biscayne Bay (Sloss.).

Extends to Quebec and through Mexico and the Antilles to South America.

Asciodes gordialis Gn. Indian River (Hulst); Lake Worth (Sloss., Dyar); Everglade (McD.); Biscayne Bay (Sloss.).

Larva on *Pisonia aculeata* and cultivated *Bougainvillea*.

Extends through Mexico and the Antilles to South America.

Asciodes anormalis Gn. Lake Worth (Dyar); Charlotte Harbor (Sloss.); Chokoloskee (Barnes).

Larva on *Ipomæa*.

Extends through the Antilles to South America.

Pantographa limata G. and R. "Florida" (Sloss.); [Gainesville (Coll. Agric. Exp. Sta.)].

Larva on *Tilia americana* and *Quercus*.

Extends to Maine, Minnesota and through Mexico to South America.

Sylepta penumbralis Grt. Fort Myers, Apr. 23 (A. M. N. H.).

Extends to Ohio.

Sylepta fluctuosalis Led. Lake Worth (Dyar).

Larva on *Bæhmeria cylindrica*.

The specimen on which this record is based was determined for Dyar by Fernald with a query.

Occurs in South America.

Sylepta obscuralis Led. "Florida" (Dyar).

Known only from Florida.

Sylepta elevata Fabr. Lake Worth, Biscayne Bay (Sloss.).

Extends through the Antilles to South America.

Sylepta masculinalis B. and McD. Marco, Apr. 16, 22 (McD.); Chokoloskee (Barnes).

Known only from Florida.

Lygropia chromalis Gn. Everglade (McD.), Apr. 11 (A. M. N. H.); Miami, Sept. 23 (Ds.).

Occurs in Brazil.

Agathodes monstrialis Gn. Indian River (Hulst); Lake Worth (Dyar).

Larva on *Erythrina herbacea*.

Extends through Mexico and the Antilles to South America.

Paradosis flegia Cram. Lake Worth (Dyar); Fort Myers (McD.); Biscayne Bay (Sloss.); Key West, common (Dyar).

Larva on *Thevetia neriifolia*.

Extends through Mexico and the Antilles to South America.

Diaphania olealis Feld. Fort Myers (McD.); South Bay, Lake Okeechobee, Apr. 30, Everglade, Apr. 9 (A. M. N. H.).

Occurs in Central and South America and in Mexico.

Diaphania nitidalis Stoll. Indian River (A. M. N. H.); Charlotte Harbor (Sloss.); Fort Myers (McD.); [De Funiak Springs, Oct. 18].

Larva in stems of cucurbs.

Extends to New Jersey and through Mexico and the Antilles to South America.

Diaphania infimalis Gn. Lake Worth (Dyar); Fort Myers (McD.), Apr. 26 (A. M. N. H.); South Bay, Lake Okeechobee, Apr. 29, 30 (A. M. N. H., Ds.); Marco, Everglade (McD.).

Larva on *Melothria*.

Known only from Florida.

Diaphania niveocilia Hamps. "Florida" (Sloss.).

Occurs in Barbados and South America.

Diaphania hyalinata Linn. Pablo Beach, Nov. 4 (A. M. N. H.); Sanford, Jan. 27 (Sloss.); Indian River, Lakeland, Nov. 8, Fort Myers, Apr. 23, Nov. 12, 15 (A. M. N. H.); Charlotte Harbor (Sloss.); South Bay, Lake Okeechobee, Apr. 29 (Ds.); Everglade (McD.), Apr. 8, 11 (A. M. N. H., Ds.); [Payne Prairie, Gainesville, Oct. 2].

Larva in stems of cucurbs.

Extends to Quebec and through Mexico and the Antilles to South America.

Diaphania quadristigmalis Gn. Enterprise (Castle and Laurent); Lake Worth (Dyar, Sloss.); Marco, Apr. 20 (Ds.); Everglade, (McD.), Apr. 6, 9 (A. M. N. H., Ds.).

Larva on *Forestiera* and *Ligustrum*.

Extends to Quebec and through Mexico and the Antilles to South America.

Diaphania sibillalis Wlk. Indian River (A. M. N. H.); Lake Worth (Dyar); Fort Myers (McD.); Chokoloskee (Barnes).

Larva on *Morus rubra*.

Extends to Texas and through Mexico and the Antilles to South America.

Hellula undalis Fabr. Lake Worth (Dyar); Charlotte Harbor (Sloss.); Fort Myers (McD.); Everglade (McD.), Apr. 6, 10 (A. M. N. H.); Biscayne Bay (Sloss.).

Distributed over the Southern States. Occurs also in southern Europe, southern and central Africa and in the Oriental region.

Terastia meticulosalis Gn. Indian River (Hulst); Lake Worth (Dyar); Charlotte Harbor (Sloss.); Fort Myers (McD.), Apr. 22 (A. M. N. H.); Marco, Apr. 20 (A. M. N. H.); Everglade (McD.), Apr. 11 (Ds.).

Larva bores in young stems of *Erythrina herbacea* and, according to McDunnough, in the large seed pods of the "Cherokee bean." (Possibly these two names refer to one species; both belong to the Leguminosæ).

Occurs in Central America, Mexico, the Antilles, Ceylon, Java and the Philippine Islands.

Evergestis rimosalis Gn. Marco, Apr. 6 (A. M. N. H.).

[Extends to West Virginia.] Occurs also in South America.

Crocidophora pustuliferalis Led. "Florida" (Dyar).

Known only from Florida.

Stenophyes huronalis Gn. Lakeland, May 5, 7 (A. M. N. H.); Fort Myers (McD.), Apr. 23, 24 (Ds.); La Belle, Apr. 27 (Ds.); [Devils Mill Hopper, Gainesville, Sept. 27; Gainesville, Sept. 27, Oct. 2; East Gainesville, Sept. 28; Monticello, Oct. 5, 7, 8; Lake Miceosukee, Monticello, Oct. 6, 8].

Extends through the Antilles to South America.

Nomophila noctuella D. and S. Lake Worth (Dyar); Biscayne Bay (Sloss.); [Crestview, Oct. 16; De Funiak Springs, Oct. 17].

Extends to Quebec and through Mexico and the Antilles to South America. Occurs also in Europe, Asia and Africa. Hampson says it is "universally distributed."

Pachyzancla periusalis Wlk. Fort Myers, Apr. 25 (Ds.); Everglade (McD.).

Larva on tomato (McD.).

Occurs in Brazil.

Pachyzancla bipunctalis Fabr. Newberry, Nov. 18 (Ds.); Indian River (A. M. N. H.); Fort Myers, Apr. 22 (Ds.), Nov. 1 (A. M. N. H.); Everglade (McD.), Apr. 7, 8, 9 (A. M. N. H., Ds.); Biscayne Bay (Sloss.); [Agric. Exp. Sta. grounds, Gainesville, Sept. 26; Gainesville, Sept. 27, Oct. 2; Lake Stanley, De Funiak Springs, Oct. 18].

Extends to New Jersey and through the Antilles to South America. Occurs also in central and southern Africa and in the Oriental region.

Pachyzancla phæopteralis Gn. Fort Myers (McD.), Nov. 12, 15 (A. M. N. H.); Marco, Everglade (McD.).

Occurs throughout the "Tropical Zone" according to Hampson.

Loxostege dasconalis Wlk. Jacksonville (Sloss.).

Extends to New York, Illinois and Colorado.

Loxostege helvialis Wlk. Lakeland (McD.), May 4, 5, 7 (A. M. N. H., Ds.); Fort Myers, Apr. 22 (A. M. N. H.).

Extends through the Atlantic States to New Jersey. Occurs also in Mexico and Central America.

Loxostege mancalis Led. "Florida" (Dyar).

Extends to Virginia and Missouri.

Loxostege similalis Gn. Lakeland (McD.), May 5 (A. M. N. H.); Fort Myers, Everglade (McD.).

The larva of the variety *rantalalis* Gn. is said to feed on *Ipomæa batatas*, *Medicago sativa*, *Amaranthus* and *Portulaca oleracea*.

Extends to New Jersey, Kansas, and through the Antilles to South America.

Loxostege albiceralis Grt. Charlotte Harbor (Sloss.).

Variety **floridalis** B. and McD. Everglade, Apr. 26-30 (McD.).

The record for the typical form may be referable to this variety.

Larva on "Florida cranberry."

Reported also from Colorado.

Loxostege nasonialis Zell. Lakeland (McD.).

Occurs in Texas.

Diasemia ramburialis Dup. Lakeland, Fort Myers (McD.).

Distributed over the South Atlantic States. Occurs also in Europe and Australia. According to Hampson it is "universally distributed."

Diasemia nigralis Fern. Charlotte Harbor (Sloss.); Fort Myers (McD.); Everglade (McD.), Apr. 6 (A. M. N. H.).

Known only from Florida.

Diasemia janassialis Wlk. "Florida" (Dyar).

Known only from Florida.

Diasemia magdalena Fern. "Florida" (Dyar).

Occurs in Texas.

Microcausta flavipunctalis B. and McD. Fort Myers, Apr. 1-7 (McD.).

Known only from Florida.

Tholeria reversalis Gn. Indian River (A. M. N. H.); Lake Worth (Dyar); Charlotte Harbor (Sloss.); Boca Grande, Apr., Useppe, Apr. (Ds.); Punta Rassa, Apr. 3 (A. M. N. H.); Biscayne Bay (Sloss.); [Gainesville (Coll. Agric. Exp. Sta.); Crestview, Oct. 16; De Funiak Springs, Oct. 17].

Larva on *Sophora tomentosa* and *Baptisia tinctoria*.

Extends through the Atlantic States to New York and southward into the Antilles.

Phlyctænia ferrugalis Hbn. Indian River (A. M. N. H.).

Extends to Quebec. Occurs also in Europe and Asia.

Phlyctænia helvalis Wlk. "Florida" (Hulst).

Larva on "broad-leaf willow."

Extends to Quebec and Colorado.

Phlyctænia tertialis Gn. Fort Myers, Apr. 1 (A. M. N. H.); [Agric. Exp. Sta. grounds, Gainesville, Sept. 26; Gainesville, Sept. 26].

Larva on *Vaccinium*.

Extends to Québec.

Phlyctænia desistalis Wlk. Fort Myers, common (McD.).

Occurs in Texas and Brazil.

Cindaphia bicoloralis Gn. [Monticello, Oct. 7.

Extends to New York and South America.]

Epicorsia mellinalis Hbn. Lake Worth (Dyar, Sloss.); Charlotte Harbor, Biscayne Bay (Sloss.).

Larva on *Citharexylum villosum*.

Extends through the Antilles to South America.

Pyrausta æglealis *Wlk.* Marco, Nov. 4 (A. M. N. H.).

Larva on pokeberry.

Extends to Quebec.

Pyrausta thestealis *Wlk.* South Bay, Lake Okeechobee, Apr. 30 (A. M. N. H.), May 1 (Ds.).

Larva on *Clethra alnifolia*.

Extends to New Jersey.

Pyrausta theseusalis *Wlk.* Lakeland, May 4 (Ds.); Fort Myers (McD.), Apr. 23 (A. M. N. H.); Marco (McD.), Apr. 11 (A. M. N. H.).

Larva on fern.

Extends to Quebec.

Pyrausta oxydalis *Gn.* [Devils Mill Hopper, Gainesville, Sept. 27.

Extends through the Atlantic States and to South America.]

Pyrausta orphisalis *Wlk.* Pablo Beach, Nov. 4 (A. M. N. H.); [Devils Mill Hopper, Gainesville, Sept. 27; East Gainesville, Sept. 28; Monticello, Oct. 5, 7; De Funiak Springs, Oct. 17].

Larva on *Monarda fistulosa*.

Extends to Quebec.

Pyrausta submedialis *Grt.* "Florida" (Dyar).

Extends to Canada, Illinois and Arizona.

Pyrausta illibalis *Hbn.* Lakeland (McD.).

Larva on plant with Ficus-like leaf (McD.).

"The two specimens taken agree far more closely with Hubner's figure than do the specimens from the north that commonly go under this name. The Florida species is white, sparsely speckled with brown, with yellow-brown costa, small round orbicular and large elongate reniform." (McD.).

Extends to Canada.

Pyrausta penitalis *Grt.* [Gainesville, Sept. 27, 29, Oct. 2.

Extends through the Atlantic States to New Jersey.]

Pyrausta phoenicealis *Hbn.* Indian River (A. M. N. H.); Fort Myers (McD.), Mar. 31, Apr. 23 (A. M. N. H.); [East Gainesville, Sept. 28; Bayou Chico, Pensacola, Oct. 12].

Extends to Quebec and through Mexico and the Antilles to South America. Occurs also in central and southern Africa, and in the Oriental and Australian regions.

Pyrausta acrionalis *Wlk.* Lakeland, May 4 (A. M. N. H.); Fort Myers (McD.).

Extends to New Jersey.

Pyrausta laticlavia *G. and R.* Jacksonville, Nov. 5 (A. M. N. H.); Lakeland, May 5, 7 (A. M. N. H., Ds.); Fort Myers (McD.), Mar. 31,

Apr. 22, 24 (A. M. N. H.); Everglade, Apr. 14 (A. M. N. H.); [Gainesville, Oct. 2; Monticello, Oct. 5; Crestview, Oct. 15].

Extends to Pennsylvania, Texas and California.

Pyrausta tyralis Gn. Lakeland, May 4 (Ds.); Lake Worth (Dyar); Charlotte Harbor (Sloss.); Fort Myers (McD.); Allen River to Deep Lake, Apr. 14 (A. M. N. H.); Everglade (McD.), Apr. 6, 10, 11 (A. M. N. H., Ds.); Biscayne Bay (Sloss.).

Larva on *Psychotria undata*.

Extends to Illinois, Texas and through Mexico to Brazil. Occurs also in Cuba.

Pyrausta inornatalis Fern. "Florida" (Hulst).

Extends to Texas and Mexico.

Pyrausta signatalis Wlk. [Gainesville, Oct. 2.

Extends to New Jersey, Missouri and Texas.]

Eustixia pupula Hbn. Charlotte Harbor (Sloss.).

Extends to New Jersey. Occurs also in Brazil.

Stenoptycha pterophoralis Wlk. (*solanalis* B. and McD.). Everglade, Apr. 16, 23 (McD.).

Larva on *Solanum* sp.

Occurs in the Antilles.

Lineodes contortalis Gn. Lake Worth (Dyar).

Extends to Texas and through Mexico to Brazil.

Lineodes integra Zell. Lake Worth (Dyar); Everglade (McD.), Apr. 8 (A. M. N. H.).

Larva on *Solanum radula* and cultivated *S. jasminifolium*.

Extends to Missouri and California. Occurs also in Brazil.

Lineodes interrupta Zell. Biscayne Bay (Sloss.).

Occurs in Texas.

Lineodes triangulalis Moesch. Lake Worth (Dyar).

Larva on *Capsicum frutescens*.

Occurs in the Antilles.

Nymphulinæ.

Nymphula maculalis Clem. Jacksonville (Sloss.); Indian River (A. M. N. H.); Lake Worth (Dyar); Cocoanut Grove (Schwarz); Everglade (McD.), Apr. 6 (A. M. N. H.); Biscayne Bay (Sloss.).

Variety **fœminalis** Dyar. Palm Beach, Jan. 25 (Dyar).

Variety **masculinalis** Dyar. Cocoanut Grove (Schwarz).

Larva on water lilies.

Extends to Massachusetts, Ontario and Illinois.

Nymphula allionealis *Wlk.* Lake Worth (Dyar); Fort Myers, common (McD.), Apr. 1, 22, 23, 24 (A. M. N. H., Ds.), Nov. 12 (A. M. N. H.); Allen River to Deep Lake, Apr. 12 (A. M. N. H.); Everglade (McD.), Apr. 6, 9, 11, very common (A. M. N. H., Ds.); Palm Beach, Cocoanut Grove, Miami, Mar., Aug. (Barnes, Schwarz, Dyar, Caudell); Biscayne Bay (Sloss.).

Extends to Massachusetts, Quebec and Wisconsin.

Nymphula obscuralis *Grt.* Charlotte Harbor (Sloss.).

Larva on *Vallisneria spiralis* and *Potamogeton natans*.

Extends to New York and Wisconsin.

Nymphula oblitalis *Wlk.* "Florida," Mar. (Dyar); Lakeland, May 8 (A. M. N. H.); Lake Worth (Dyar); Fort Myers, common (McD.); La Belle, Apr. 26 (Ds.); Everglade (McD.), Apr. 6, 7 (A. M. N. H.), Apr. 11 (Ds.); Chokoloskee (Barnes); Palm Beach, Feb. 4 (Dyar); West Palm Beach, Green Cove Springs, Mar. (Dyar and Caudell).

Larva on *Lemna*.

Dyar's specimens collected in "Florida, Mar.," were reared from aquatic larvæ on water lilies. On a specimen in the Museum is a note to the effect that it (the moth) was hatched from a pupa from the under side of a pond lily. Hart says the favorite home of the species is among the floating leaves of *Potamogeton natans*.

Extends to Quebec, Illinois and through Texas to California. Occurs also in Central America.

Nymphula nomophilalis *Dyar.* Hastings, Apr. (Kearfott); Charlotte Harbor, Mar.; Lake Worth (Sloss.); Everglade (McD.), Apr. 6, 7, 9, 11 (A. M. N. H., Ds.); Cocoanut Grove (Schwarz).

Occurs in Texas.

Nymphula gyralis *Hulst.* Crescent City (Hubbard); Palm Beach, Feb. 16 (Dyar); Everglade (McD.), Apr. 6, 7, 11 (A. M. N. H.), Apr. 15 (Ds.); Chokoloskee (Barnes).

Extends to Massachusetts, Illinois and Missouri.

Nymphula nebulosalis *Fern.* Hastings, Apr. (Kearfott), May (Hulst); Lakeland, May 8, Nov. 8 (A. M. N. H.), Nov. 9 (Ds.); [Monticello, Oct. 8].

Known only from Florida.

Nymphula icciusalis *Wlk.* Charlotte Harbor (Sloss.); La Belle, Apr. 27 (A. M. N. H.); Biscayne Bay (Sloss.); [Gainesville, May 10, Aug. 28 (Coll. Agric. Exp. Sta.); Crestview, Oct. 15].

Extends to Maine, Quebec and Wisconsin. Occurs also in South America.

Nymphula australis *Hulst.* "Florida" (Hulst).

Known only from Florida.

Oligostigma seminealis *Wlk.* Fort Myers (McD.); La Belle, Apr. 27, Everglade, Apr. 6, 7 (A. M. N. H.); Cocoanut Grove (Schwarz).

Our females have the primaries suffused with ochreous and show the white banding less distinctly than in the males.

Extends to Pennsylvania.

Oligostigma vittatalis *Dyar.* Hastings, Apr. (Kearfott); Biscayne Bay (Sloss.).

Known only from Florida.

Ambia striatalis *Dyar.* Charlotte Harbor, Mar. (Sloss.).

Known only from Florida.

Elophila bifascialis *Rob.* Charlotte Harbor (Sloss.).

Extends to Maryland and New Mexico.

Elophila drumalis *Dyar.* Fort Drum (U. S. Dept. Agric.).

Known only from Florida.

Elophila claudialis *Wlk.* Hastings, June (Hulst); Fort Drum (U. S. Dept. Agric.); Fort Myers (McD.); Chokoloskee (Barnes).

Extends to Pennsylvania, Illinois and Missouri. Occurs also in the Antilles.

Elophila slossonalis *Dyar.* Glenwood (Barnes); Indian River (A. M. N. H.); Lakeland, common (McD.); Charlotte Harbor, Mar. (Sloss.); Everglade, common (McD.), Apr. 6, 7, 9, 10 (A. M. N. H.).

Known only from Florida.

Elophila fulcalis *Clem.* Archer, Mar. 9 (Koebele); Lakeland, May 7 (A. M. N. H.); Fort Myers (McD.).

Extends to Massachusetts, Québec, Washington, New Mexico and Mexico.

Geshna cannalis *Quaint.* Lake City, Nov. 25 (Quaintance); Lake Worth, Feb., Mar. (Dyar); Marco, larvæ, pupæ and adults, Apr. 21, 25 (A. M. N. H., McD.).

Larva on *Canna flaccida* and *C. indica*.

Known only from Florida.

Piletocera bufalis *Gn.* Charlotte Harbor, Lake Worth, (Sloss.); Miami (Sloss., Schaus); Everglade (McD.); Chokoloskee (Barnes).

Extends through the Antilles to South America. Occurs also in Panama.

Piletocera simplicialis *B. and McD.* Lakeland, May 7 (A. M. N. H.); Marco, Apr. 17 (A. M. N. H., Ds.); Everglade, Apr. 6-15, very common (A. M. N. H., McD.); Chokoloskee (Barnes).

Extends through the Antilles to South America. Occurs also in Panama.

Stenia indianalis *Dyar.* Marco, Apr. 17 (A. M. N. H.).

Known only from Florida.

Steniodes gelliasalis *Wlk.* Archer, Dec. 3 (Koebele); Lake Worth (Sloss.); Marco (McD.).

Extends to Texas and through the Antilles to Brazil.

SCOPARIINÆ.

Scoparia basalis *Wlk.* Archer, Dec. 3 (Koebele).

Extends to Hudson Bay and Missouri.

Forms of this species are found in the western states from British Columbia to Arizona.

Scoparia strigalis *Dyar.* Everglade, Apr. 17 (Ds.).

Extends to Ontario.

PYRALINÆ.

Pyralis farinalis *Linn.* Jacksonville (Sloss.).

Larva in stored products, chiefly grain.

Distributed throughout the United States and Canada and occurs also in Europe and Asia.

Pyralis manihotalis *Gn.* Fort Myers (McD.); Miami (Schaus).

Extends through Mexico and the Antilles to South America. Occurs also in the Oriental and Australian regions.

Herculia sordidalis *B. and McD.* Fort Myers, Apr. 1-7 (McD.).

Known only from Florida.

Omphalocera cariosa *Led.* Jacksonville (Sloss.); Lakeland, May 8 (Ds.); Charlotte Harbor (Sloss.); Fort Myers (McD.); Marco, Apr. 17, larva (A. M. N. H.).

Larva on *Anona triloba*.

“Larvæ were common on a species of *Anona*. They live in long silken tubes thatched with dry leaves and excrement. The mature larva may be described as follows: Head black, spotted with pale ochreous. Body deep orange with a broad black subdorsal band extending laterally to just above stigmata; the dorsal margin of this band has a small orange incision about the center of each segment and immediately anterior and posterior to this are several pale yellow dots; below these near lower margin of band a broken yellow longitudinal line; faint pale dorsal and subdorsal lines, the former best defined on the black prothoracic plate, the latter bordering dorsally the black band; prothoracic plate large, black, dotted with pale yellow; spiracles ochreous, ringed with black, slight black markings laterally in the folds of the skin above tubercle VII. Length, 30 mm.” (McD.).

Extends to New Jersey and Alabama. Occurs also in Cuba and South America.

CHRYSAUGINÆ.

Cordylopeza nigrinodis Zell. (*Galasa rubidana* Auct.). Lake Worth (Dyar); Fort Myers, Apr. 1 (A. M. N. H.); Everglade (McD.), Apr. 7 (A. M. N. H.).

Extends to New Hampshire and through Texas to the Rocky Mountains. Occurs also in Mexico and the Antilles.

Tosale oviplagalis Wlk. "Florida" (Dyar).

Extends to Pennsylvania, Illinois, Arizona and through the Antilles to South America.

Chalinitis olealis Rag. "Florida" (Dyar).

Known only from Florida.

Arta statalis Grt. "Florida" (Hulst).

Extends to New York and Arizona.

Parachma ochracealis Wlk. Florida (Hulst).

Extends to Arizona.

Parachma nua Dyar. [Lakeland, Mar. (C. N. Ainslie).

Known only by the type.]

Macrothea unicoloralis B. and Mc D. Everglade (McD.).

Known only from Florida.

SCHÆNOBINÆ.

Patissa xantholeucalis Gn. "Florida" (Fernald).

Occurs in Georgia and in Brazil.

Patissa flavicostella Fern. "Florida" (Fernald).

Known only from Florida.

Patissa vestaliella Zell. Fort Myers, not rare (McD.).

Occurs in Texas.

Patissa flavifascialis B. and Mc D. Fort Myers, May 1-7 (McD.).

Known only from Florida.

Patissa sordidalis B. and Mc D. Everglade, Apr. 8-15 (McD.).

Known only from Florida.

Rupela albinella Cram. (*Scirpophaga*). Fort Myers, Mar. 30 (Ds.); South Bay, Lake Okeechobee, Apr. 30, May 1, very common, Allen River to Deep Lake, Apr. 12, not rare (A. M. N. H., Ds.); Everglade (McD.), Apr. 9 (A. M. N. H.), Apr. 14 (Ds.).

McDunnough would place this species in the genus *Patissa* on the strength of vein 10 being stalked with 8 and 9 instead of arising free from the cell as in *Scirpophaga*. He apparently overlooks the fact, however,

that in *Patissa*, veins 11 and 12 become coincident toward the costal margin whereas in *albinella* these veins merely anastomose before the costa or are entirely separate. Of the seventeen specimens before me, four from Florida and five from New Jersey, have the veins united before the costa, while in seven from Florida and one from New Jersey, they are separate. The species, therefore, is scarcely referable to *Patissa* and I use the name which Dyar has more recently resurrected from the synonymy of *Scirpophaga*.

The species extends through Mexico and the Antilles to South America.

Rupela unicolor B. and Mc D. (*Storteria*). Everglade, Apr. 8-15 (McD.); Miami (Dyar).

Occurs in South America.

The venation of *Storteria* agrees with those specimens of *albinella*, the type of *Rupela*, in which veins 11 and 12 of the fore wings are separate.

Scirpophaga perstrialis Hbn. Lakeland, May 8 (Ds.); Lake Worth (Sloss.); Fort Myers (McD.), Mar. 30 (Ds.), Apr. 22 (A. M. N. H.); La Belle, Apr. 26, 27 (A. M. N. H., Ds.).

Occurs in the Antilles.

Scirpophaga consortalis Dyar. (*Argyria*). Fort Myers (McD.); Dade City (Merrick).

Known only from Florida.

Dr. McDunnough says: "This species should be referred to *Scirpophaga*. One of the types from the Merrick collection is before us and neither it nor our very perfect specimen show pectinations of the median vein of secondaries. We should not be surprised if this species proved to be a variety of *perstrialis* without the median white stripe." Dr. Dyar has also examined the type in the National Museum and is in agreement with Dr. McDunnough as to the generic reference.

Schœnobius sordidellus Zinck. "Florida" (Dyar).

Extends to New Jersey and Illinois.

Schœnobius unipunctellus Rob. Indian River (A. M. N. H.); Fort Myers (McD.); Everglade, Apr. 6-15, common (A. M. N. H., Ds.).

Extends to New Jersey, Illinois and Texas.

Schœnobius tripunctellus Rob. Jacksonville, Biscayne Bay (Sloss.).

Extends to New Jersey and Texas.

Schœnobius melinellus dispersellus Rob. Indian River (A. M. N. H.); Everglade, common (McD.).

The typical form occurs with the variety in the Atlantic States but does not extend with it westward. The species extends northward to Maine and westward to Texas.

The identification of the Everglade specimens is not altogether certain. Dr. McDunnough says with regard to them: "The males are dark fuscous

with darker costa and terminal dots only on the primaries; the females rather light straw, variable, with black dash either present or absent; the discal dot is present, and subterminal row of dots mostly wanting; secondaries without terminal dots. This may represent a new form. We have a similar form from Brownsville, Texas."

CRAMBINÆ.

Prionapteryx nebulifera Steph. Jacksonville (Sloss.).

The larvæ construct tubes of sand at base of *Dendrium buxifolium* and *Vaccinium*.

Extends to Long Island and Texas.

Prionapteryx achatina Zell. Biscayne Bay (Sloss.).

Extends to New Jersey and Arizona.

Eugrotea dentella Fern. "Florida" (Fernald); Fort Myers (McD.).

Known only from Florida.

Crambus satrapellus Zinck. La Grange, Sept. 9 (Sleight); Lakeland, May 7 (A. M. N. H.); Fort Myers (McD.), Apr. 1 (A. M. N. H.); Marco (McD.).

Extends to New Jersey and Texas.

Crambus hastiferellus Wlk. Lake Worth (Dyar).

Extends to Nova Scotia and California.

Crambus extorralis Hulst. Fort Myers (McD.); Chokoloskee (Barnes).

Occurs in Louisiana.

Crambus multilinellus Fern. "Florida" (Fernald, A. M. N. H.).

Known only from Florida.

Crambus teterrellus Zinck. Fort Myers, Apr. 23, La Belle, Apr. 26, 27 (A. M. N. H., Ds.); Everglade, common (McD.), Apr. 6-15 (A. M. N. H., Ds.).

Extends to Maine, Missouri and Texas.

Crambus decorellus Zinck. Lakeland, May 7 (A. M. N. H.); Fort Myers, common (McD.), Apr. 26 (Ds.); La Belle, Apr. 27 (A. M. N. H.).

Extends through the Atlantic States to Massachusetts.

Crambus haytiellus Zinck. Fort Myers, Apr. 23 (A. M. N. H.); Everglade (McD.), Apr. 7-15 (A. M. N. H.).

Extends to Texas and the Antilles.

Crambus mutabilis Clem. Lake Worth (Dyar); Biscayne Bay (Sloss.).

Larva on grass.

Extends to Canada, Nebraska and Texas.

Crambus extornalis *Wlk.* Jacksonville, Mar. 27, Lakeland, May 8, Fort Myers, Apr. 24, Nov. 1 (A. M. N. H.).

Thaumatopsis floridella *B. and McD.* Punta Gorda, Nov. 16 (A. M. N. H.); Marco, Apr. 16-23, Everglade, Apr. 1-15 (McD.); Key West (Kearf.).

Known only from Florida.

In describing *T. fernaldella* (from New Jersey and the West) Kearfott included a specimen from Key West with a query which Barnes and McDunough say is probably *floridella*.

Thaumatopsis pectinifer *Zell.* Lakeland (McD.).

Occurs in Texas.

Argyria nivalis *Dru.* Lake Worth (Dyar); Fort Myers (McD.), Mar. 31 (A. M. N. H.); Everglade, Apr. 6-9 (A. M. N. H.).

Extends to Maine, Ontario, Missouri, Mexico and the Antilles.

Argyria argentana *Martyn.* Lakeland, May 7 (A. M. N. H.); Fort Myers (McD.), Apr. 1 (A. M. N. H.).

Extends to New Jersey and Illinois.

Argyria auratella *Clem.* Everglade (McD.).

Extends to Maine, Quebec and California.

Argyria lacteella *Fabr.* Lakeland (McD.), May 7 (A. M. N. H.); Everglade (McD.).

Extends to Texas and through the Antilles to South America. Occurs also in Central America.

Argyria multilineatella *Hulst.* "Florida" (Hulst); Chokoloskee (Barnes).

Extends to Connecticut and Texas.

Argyria differentialis *Fern. (Diatræa).* Jacksonville (Sloss.); Fort Myers (McD.), Apr. 22 (Ds.); Everglade, Apr. 15 (A. M. N. H.); Biscayne Bay (Sloss.).

Known only from Florida.

Platytes punctilineella *B. and McD.* Everglade, Apr. 8-15 (McD.).

Known only from Florida.

Diatræa saccharalis *Fabr.* Lake Worth, rare at light (Dyar); Everglade (McD.), Apr. 11 (Ds.).

Larva on sugar-cane and corn.

Extends to South Carolina, Kansas and through Mexico and the Antilles to South America. Dyar says, however, that the specimens from Mexico and the Gulf States, excepting Florida, represent a distinct form. This he has called *crambidoides*.

Iesta lisetta *Dyar.* Fort Myers, common (McD.); La Belle, Apr. 26, 27, common (A. M. N. H., Ds.); Dade City (Merrick).

Known only from Florida.

Chilo densellus Zell. Lake Worth, not uncommon (Dyar); Everglade (McD.); Chokoloskee (Barnes).

Extends to Illinois, Texas and Mexico.

Chilo squamulellus Zell. Fort Myers, Apr. 23 (A. M. N. H.); Everglade (McD.).

Occurs in Texas.

Chalcoela iphitalis Wlk. Charlotte Harbor, Biscayne Bay (Sloss.).

Extends through the Atlantic States to New Jersey. Occurs also in Guatemala.

Dichymolomia pegasalis Wlk. "Florida" (A. M. N. H.); Lakeland (McD.); Chokoloskee (Barnes).

Extends to New Jersey and the Antilles.

ENDOTRICHINÆ.

Neodavisia singularis B. and McD. Marco, Apr. 17 (A. M. N. H.); Everglade, Apr. 6 (A. M. N. H.), Apr. 8-15 (McD.).

Known only from Florida.

GALLERINÆ.

Galleria mellonella Linn. Indian River (A. M. N. H.); Chokoloskee (Barnes); Biscayne Bay (Sloss.); [St. Augustine (Johnson)].

Larva infests bee hives, eating the wax.

Occurs throughout most of the United States and Canada and in Europe.

EPIPASCHIINÆ.

Epipaschia superatalis Clem. Indian River (A. M. N. H.).

Extends to Ontario and Colorado.

Epipaschia interruptella Rag. Fort Myers, Mar. 31 (A. M. N. H.).

Occurs also in Arizona.

Epipaschia zelleri Grt. Fort Myers (McD.); Biscayne Bay (Sloss.).

Extends to New Jersey, Missouri, Texas and Mexico.

Jocara incrustalis Hulst. Lake Worth (Dyar).

Occurs in Colorado.

Jocara perseella B. and McD. [Everglade, Apr. 16-23 (McD.).

Larva on alligator pear (*Persea gratissima*) (McD.).

Known only from Florida.]

Tallula atrifascialis *Hulst.* West Park (Sloss.); Indian River (A. M. N. H.); Charlotte Harbor (Sloss.).

Occurs in the Gulf States and Colorado.

Benta malanogrammos *Zell.* "Florida" (Sloss.).

Variety **diluculella** *Grt.* Fort Myers, Mar. 30 (A. M. N. H.), Apr. 22 (McD.).

Extends to New York and Colorado.

Benta floridella *Hulst.* Lake Worth (Dyar); Marco (McD.).

Larva on *Guilandina bonducella* and, according to McDunnough, on a leguminous plant called by the natives of Florida the "knickerbean."

Known only from Florida.

Benta speciosella *Hulst.* "Florida" (Dyar).

Known only from Florida.

Tioga aplastella *Hulst.* "Florida" (Dyar).

Extends to Texas and Colorado.

Tetralopha robustella *Zell.* Lakeland (McD.).

Bred from larva on a trailing leguminous plant; the specimens are small, due probably to underfeeding but agree fairly well with Zeller's description. (McD.).

Occurs in Texas and Colorado.

Tetralopha subcanalis *Wlk.* Fort Myers, Apr. 30 (A. M. N. H.).

Occurs in Texas.

Tetralopha querciella *B. and Mc D.* [Marco, May 15-31 (McD.).

Larva on scrub oak (McD.).

Known only from Florida.]

PHYCITINÆ.

Sarasota plumigerella *Hulst.* Lake Worth (Dyar).

Larva on *Laguncularia racemosa*.

Known only from Florida.

Myelois transitella *Wlk.* "Florida" (Dyar).

Known only from Florida.

Myelois obnupsella *Hulst.* "Florida" (*Hulst.*)

Extends through the Atlantic States to Ontario.

Myelois bistriatella *Hulst.* "Florida" (*Hulst.*)

Extends to New York, Wisconsin and Colorado.

Myelois dulciella *Hulst.* Hastings, Oct. 26 (Kearfott).

Known only from Florida.

Myelois duplipunctella *Rag.* "Florida" (*Hulst.*)

Known only from Florida.

Myelois oporedestella Dyar. Miami (Busck).

Larva "bred from dried loquat fruits."

Acrobasis comptoniella Hulst. Fort Myers (McD.).

Larva on *Comptonia* and *Myrica*.

Extends through the Atlantic States to New Hampshire and Quebec.

Acrobasis evanescentella Dyar. Orlando (Dyar).

Larva on pecan.

Known only from Florida.

Acrobasis tenuella B. and Mc D. Fort Myers, Apr. 16-23, Everglade, Apr. 8-15 (McD.).

Known only from Florida.

Mineola indigenella nebulella Riley. Lakeland (McD.).

Larva on apple, plum and cherry.

Extends to Canada, Iowa and Texas. The typical form is recorded from Quebec.

Dr. McDunnough says: "We bred a number of specimens from larvæ found on a *Cratægus* sp. which correspond closely with Decatur, Illinois specimens also bred from thorn, which we have considered to be *nebulella* Riley. Dyar states (Proc. Ent. Soc. Wash., X, 45) that the type of *nebulella* shows it to belong in the genus *Acrobasis*, but he further states that the food plant is hickory and walnut and it would appear, though the phrasing is rather ambiguous, as if the type before Dyar was one of four specimens bred by Riley from larvæ on these trees. In this case it must be considered spurious, as Riley distinctly states (Fourth Missouri Rept., p. 42) that the single specimen of *nebulella* was bred from wild crab (*Cratægus*)."

Ulophora caricæ Dyar. Miami (Yothers).

Larva on papaya.

Known only from Florida.

Piesmopoda subrufella Hulst. "Florida," Apr. (Hulst); Fort Myers, Apr. 23, Marco, Apr. 17 (A. M. N. H.); Chokoloskee (Barnes).

Known only from Florida.

Piesmopoda fliolella Hulst. "Florida" (Dyar).

Occurs in Texas.

Dioryctria clarioralis Wlk. Fort Myers (McD.).

Described from the "United States." Known definitely only from Florida.

Monoptilota nubillella Hulst. "Florida" (Hulst).

Extends through the Atlantic States to Maryland.

Pinipestis amatella Hulst. "Florida" (Hulst).

Known only from Florida.

Glyptocera consobrinella Zell. "Florida" (Hulst).

Extends to Quebec and Texas.

Nephopterx pergratialis Hulst. "Florida" (Hulst).

Occurs in Georgia.

Nephopterix furfurella Hulst. "Florida" (Hulst).

Extends to Texas.

Thascala finitella Wlk. "Florida" (Hulst); Fort Myers (McD.).

Extends to Nova Scotia and Colorado.

Meroptera pravella Grt. Fort Myers (McD.).

Larva on *Rhus* (McD.) and *Salix*.

Extends to Ontario and Colorado.

Immyrta bumeliella B. and McD. Fort Myers, Apr. 24-30, May 1-7 (McD.).

Larva on *Bumelia microcarpa* (McD.).

Known only from Florida.

Salebria afflictella Hulst. Lakeland (McD.).

Larva on *Liquidambar styraciflua*.

Extends to New Jersey.

Salebria celtidella Hulst. "Florida" (Sloss.); Lake Worth (Dyar).

Larva on *Celtis occidentalis*.

Extends through the Atlantic States to New England.

Salebria georgiella Hulst. Charlotte Harbor (Sloss.).

Known only from Florida.

Salebria slossonella Hulst. Miami, Feb., Mar. (Sloss.).

Known only from Florida.

Elasmopalpus petrellus Zell. "Florida," Apr. (Hulst); Lakeland, May 4 (A. M. N. H.); Charlotte Harbor (Sloss.).

Extends to North Carolina and Colorado. Occurs also in South America.

Elasmopalpus floridellus Hulst. Charlotte Harbor (Sloss.); Fort Myers (McD.).

Reported from Arizona.

Elasmopalpus melanellus Hulst. "Florida," Apr. (Hulst).

Known only from Florida.

Elasmopalpus lignosellus Zell. Lake Worth (Dyar); Fort Myers, Everglade (McD.).

Extends to New Jersey, Texas and through Mexico and the Antilles to Patagonia.

Etiella zinckenella Treit. South Bay, Lake Okeechobee, May 2 (A. M. N. H.); Everglade (McD.); Chokoloskee (Ds., McD.).

Larva on *Colutea arborescens* in Europe, and according to McDunnough, on the pods of another leguminous plant, in Florida.

Extends to Canada, Texas and through Mexico and the Antilles to South America. Occurs also in Europe, Western Africa, Madagascar, central Asia and Australia.

Etiella schisticolor Zell. "Florida," May (Hulst).

Extends to New York and California.

Etiella rubribasella Hulst. "Florida," May (Hulst).

Reported from Colorado.

Melitara prodenialis Wlk. Lake Worth (Sloss.); Fort Myers (McD.).

[Larva in prickly pear.]

Extends to New Jersey, Colorado, Texas and through Mexico and the Antilles to South America.

Euzophera semifuneralis Wlk. "Florida" (Hulst).

Extends to Canada, Washington and Utah. Occurs also in South America.

Seneca tumidulella Rag. "Florida" (Hulst).

Known only from Florida.

Lætilia coccidivora Comst. Everglade (McD.), Apr. 6 (A. M. N. H.); Chokoloskee (Barnes).

Larva feeds upon the cottony maple scale and the tulip soft scale.

Extends to New Jersey and Arizona.

Mescina (?) **estrella** B. and McD. Marco, Apr. 17 (A. M. N. H.); Everglade, Apr. 8-15 (McD.).

Known only from Florida.

Divitiaca ochrella B. and McD. Marco, Apr. 17 (A. M. N. H.); Everglade, Apr. 8-15 (McD.), Apr. 11 (A. M. N. H.).

Known only from Florida.

Divitiaca simulella B. and McD. Fort Myers, Apr. 23 (A. M. N. H.); Everglade, Apr. 8-15 (McD.), Apr. 9-10 (A. M. N. H.).

Known only from Florida.

Divitiaca parvuella B. and McD. Marco, Apr. 16-23 (McD.), Apr. 17 (A. M. N. H.).

Known only from Florida.

Hulstia dulciella Hulst (*Honora*). Lake Worth (Dyar).

Known only from Florida.

Dolichorrhinia planatella, new species.

Expanse, 15-17 mm. Palpi and head griseous, antennæ brown. Thorax griseous with a pinkish tinge. Abdomen yellowish with a white dorsal patch on the second segment. Primaries whitish to pale gray. Transverse anterior line brown, over one-third out, dentate and continuous (female) or punctiform (male), preceded on the inner margin by a rufous patch and before this near the inner margin a conspicuous black spot in the male and a diffuse, vague dark spot in the female. Extreme basal area again pinkish. Two small black spots at the end of the cell, conspicuous

in the male, vague or absent in the female. Transverse posterior line brown, oblique, situated midway between the discal spots and outer margin, waved, rather diffuse in both sexes. A pinkish shade sometimes runs through the subterminal area and for a short distance along the inner margin. Terminal line black, punctate. Secondaries yellowish-brown, glistening, the edges and apex marked with deeper brown, which color also lines the veins to some slight extent. Beneath smoky, glistening, the primaries somewhat darker than the secondaries and slightly tinged with pink.

Described from three males and five females, a pair of which have been deposited in the National Museum.

Habitat: Fort Myers, Apr. 1, 23; Marco, Apr. 17; Everglade, Apr. 6, 10, 11.

Easily distinguished from the only other species referred to the genus by the absence of the orange color to the transverse anterior line and by the presence of the black spots at the end of the cell and on the inner margin.

Diviana eudoriella Rag. Everglade (McD.).

Extends to North Carolina.

Diviana verecuntella, new species.

Expanse, 15-18 mm. Palpi pinkish, end member usually brown and the under side of second joint near the apex also brown. Thorax and abdomen pinkish-ochreous, the former marked with a few brown scales, the latter frequently entirely pale brown on the basal segments. Primaries pale yellowish, more or less overlaid with brown and deep ochreous scales. Transverse anterior line white, over one-third out, oblique, sharply dentate, defined, preceded on the inner margin by a large ochreous patch which is overlaid with deep brown scales collected chiefly on the anal and cubital veins. Discal spot small, brown, conspicuous, sometimes with a smaller one immediately above it. Transverse posterior line white, irregularly waved, more or less defined by ochreous shades on each side of it. Terminal line brown, punctiform. Secondaries pale smoky, glistening, margin somewhat darker, fringes paler. Beneath rather uniform smoky.

Described from seven females taken at Fort Myers, Apr. 1, 10 and Everglade, Apr. 10, 15. One of the specimens from Everglade was collected by Mr. Wm. T. Davis and the cotype is in his collection; another cotype has been deposited in the National Museum.

This species is distinguished from *D. eudoriella* Rag., the only other species of the genus, by the pale instead of blackish ground color and by the very different ornamentation.

Ocala dryadella Hulst. Charlotte Harbor (Sloss.); Everglade (McD.).
Known only from Florida.

Palatka nymphaella Hulst. Charlotte Harbor (Sloss.).
Known only from Florida.

Wunderia, new genus.

Labial palpi long, slender, ascending, third member two-thirds as long as second; maxillary palpi pointed, reaching to middle of second joint of labial palpus; tongue strong; antennæ simple; ocelli present, small; front projected forward in the form of a flat cone. No thoracic nor abdominal tuftings. Legs normal. Primaries 10 veins. R_1 , R_2 , M_1 and Cu_2 from cell, R_{3+4} and R_5 , and M_3 and Cu_2 long stemmed, M_2 absent; secondaries 9 veins, M_2 absent, subcosta and radius, and M_3 and Cu , long stemmed, cross-vein absent. See figure.

Type: *Wunderia næriatella* Gross.

This genus, which I dedicate to my friend Mr. Chas. Wunder, is closely allied to *Eurythmidia* of Ragonot, but lacks all trace of a cross vein on the secondaries.

Wunderia næriatella, new species.

Expanse, 14.5 mm. Basal segments of palpi yellowish, end member dark brown. Head and body yellowish, the abdomen marked on the dorsum by a broken brown stripe which tends to become connected on the apical segments. Ground color of primaries soiled yellowish overlaid with pink scales on the costal and inner areas and with brown ones on the median area. A transverse brown and poorly defined line over one-third out on wing, waved, extending inward at either end but not reaching the costa or inner margin. Half way between this line and the outer margin in the center of the wing are two distinct brown spots, one below the other. Costa near apex narrowly whitish. Fringes pale whitish-gray on apical half, brown near and at anal angle. Secondaries subdiaphanous, very pale brownish, the outer edge narrowly margined with darker brown. Fringes concolorous with the ground color of wing. Beneath immaculate.

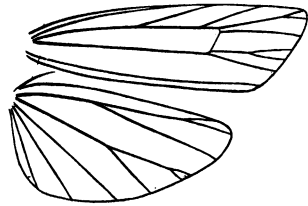


Fig. 1. Venation of *Wunderia næriatella* gen. et sp. nov.

One female from Everglade, Apr. 6.

Homœosoma electellum *Hulst.* (*differtella* B. and McD.). Fort Myers (McD.); Everglade, Apr. 8–15 (McD.), Apr. 10 (A. M. N. H.).

Extends to New Jersey and New Mexico.

Homœosoma uncanale *Hulst.* "Florida" (Dyar).

Extends to Quebec and Nevada.

Homœosoma stypicellum *Grt.* Marco, Apr. 17, Everglade, Apr. 6 (A. M. N. H.).

Extends to Quebec and Texas.

Varneria atrifasciella *B. and McD.* Everglade, Apr. 8–15 (McD.). Known only from Florida.

ANERASTINÆ.

Trivolusia roseopennella *Hulst.* Volusia Co. (Hulst.).

Known only from Florida.

Peoria approximella *Wlk.* Everglade (McD.); Biscayne Bay (Sloss.).

The Everglade specimens are very pale without much pink; vein 4 of secondaries is often entirely coalesced with 3. (McD.)

Extends to Ontario and Colorado.

Alamosa bipunctella *B. and McD.* Fort Myers, Apr. 16-23 (McD.).

Known only from Florida.

Hypsotropa luteicostella *Rag.* "Florida" (Hulst); Marco, Apr. 17 (A. M. N. H.).

Known only from Florida.

Wekiva nodosella *Hulst.* "Florida," Apr. (Hulst.).

Known only from Florida.

Homosassa ella *Hulst.* "Florida" (Hulst); Everglade, Apr. 6 (A. M. N. H.).

Known only from Florida.

Dannemora edentella *Hulst.* "South Florida," Apr. (Hulst.).

Known only from Florida.

Bandera carneela *B. and McD.* Everglade, Apr. 8-15 (McD.).

Known only from Florida.

Tampa dimediatella *Rag.* "Florida" (Hulst.).

Occurs in Texas.

Statina roseotinctella *Rag.* "Florida" (Hulst.).

Occurs in Texas.

Calera (?) **albicostella**, new species.

Expanse, 19-20 mm. Palpi pale pinkish, white beneath and at tips; thorax pinkish; abdomen yellowish. Primaries uniformly pale pink with a faint orange cast, except for a rather broad white band along the costa which becomes somewhat narrower toward the apex. Secondaries uniformly whitish, glistening. Beneath as above but the white on costa scarcely evident.

Two females from Fort Myers, Apr. 23 and Everglade, Apr. 7.

This species was placed for me by Dr. Dyar in the above genus to which it runs perfectly by Hulst's table in his revision of the North American Phycitidæ, but in the description of the genus, Hulst says that veins 3 and 4 (=Cu₁ and M₃) of the fore wings are stemmed whereas in the present species these veins arise separately from the cell. In this latter respect our species fits *Peoria* *Rag.* but differs again from the venation of this genus in that vein 4 (=M₃) of the hind wing is entirely absent instead of being

present and stemmed with vein 3 (=Cu₁). I hesitate to erect new genera on apparently unimportant differences of venation, so for the present I leave the species in *Calera* (with which it agrees in every other detail of structure) rather than in *Peoria* which differs further in the possession of ocelli.

In appearance *albicostella* is much like *Peoria approximella* but the wings are narrower and more pointed and the pink is much less intense. From *Calera punctilimbella* it differs chiefly in the absence of the terminal line of black points.

Chipota perlepidella *Hulst.* "Florida" (Hulst).

Known only from Florida.

PTEROPHORIDÆ.

Trichoptilus lobidactylus *Fitch.* Lakeland, Fort Myers (McD.); Everglade, Apr. 9 (A. M. N. H.); Chokoloskee (Barnes, McD.).

Larva on *Solidago canadensis*.

Extends to Massachusetts and California.

Trichoptilus centetes *Meyer.* Chokoloskee (Barnes).

Occurs in the Antilles, New Guinea and Australia.

Platyptilia edwardsii *Fish.* Biscayne Bay (Sloss.).

Extends to Maine and Quebec.

Platyptilia crenulata *B. and McD.* Fort Myers, Apr. 23 (A. M. N. H.), May 1-7 (McD.); Everglade, Apr. 1-15 (McD.), Apr. 7 (A. M. N. H.); Chokoloskee (Barnes).

Known only from Florida.

Pterophorus bipunctatus *Moesch.* Everglade (McD.).

"The specimen lacks any trace of brown scaling before anal angle of primaries but otherwise agrees exactly with description." (McD.).

Occurs in the Antilles.

Pterophorus kellicottii *Fish.* Everglade, Apr. 8 (A. M. N. H.).

Larva on *Solidago*.

Extends to Quebec.

Pterophorus rhynchosiæ *Dyar.* Miami (Dyar).

Larva on *Rhynchosia*.

Known only from Florida.

Pterophorus monodactylus *Linn.* Lake Worth (Dyar); South Bay, Lake Okeechobee, May 2 (A. M. N. H.).

Larva on *Ipomœa hederacea*, *Convolvulus sepium*, *C. arvensis*, *Chenopodium album* and *Atriplex patula*.

Extends to Maine and California. Occurs also in Europe, northern Africa and western Asia.

Pterophorus cervinicolor B. and McD. Everglade, Apr. 8-15 (McD.); South Bay, Lake Okeechobee, May 2 (A. M. N. H.).

Known only from Florida.

Pterophorus inquinatus Zell. Fort Myers, Everglade (McD.); Chokoloskee (McD., Barnes).

Larva on *Ambrosia artemisiæfolia*.

Extends to Missouri and Arizona. Occurs also in the Antilles.

Pterophorus unicolor B. and McD. Marco, Apr. 20 (A. M. N. H.), Apr. 24-30 (McD.).

Larva bores in stems of *Eupatorium* sp. (McD.).

Known only from Florida.

Pterophorus simplicius, new species.

Expanse, 11.5 mm. Head pale yellowish, tinged with brownish especially on the vertex; palpi white, brown apically; thorax pale straw-yellow, the tips of the patagia white, fore and mid-legs yellowish, the inner side of the tibiae and part of tarsus brown, hind legs wholly whitish; abdomen yellowish. Primaries very pale straw-yellow, costa with a few brown scales to incision, a small patch of similarly colored scales on costa beyond incision and another near the center of the wing at the incision. A few more brown scales are on the inner edge of both lobes near the apex. Secondaries smoky, immaculate. Beneath uniformly pale smoky.

One specimen from Everglade, Apr. 10.

This species resembles *Pterophorus unicolor* B. and McD. but is smaller, of a less vivid straw-yellow and is marked with brown, a character not possessed by *unicolor* in the slightest degree. The palpi are longer than is usual in *Pterophorus* being more like those of *Stenoptila*, but there is no anal angle on the first lobe of the primaries, and the front is smooth.

Pterophorus perplexus, new species.

Expanse, 14 mm. Head pale ochreous-brown, palpi concolorous but with some dark brown scales outwardly, antennae whitish annulated with pale brown above; thorax and abdomen whitish, the latter usually with a black point on the posterior edge of each segment above, and with a similar series on the sides which may form a patch on the sixth segment; legs creamy, glistening, fore and middle pairs largely brown on the inner side, the posterior pair marked with brown at the extreme apices of the joints and spurs. Primaries creamy-white shaded with pale ochreous-brown and more or less besprinkled with dark brown atoms, some of which form distinct spots as follows: one on each side of the first lobe near the apex, one at the incision, a larger elongated one on costa above base of incision and two more near the apex of the inner margin of the second lobe. Another smaller spot is formed in the cell half way between base of wing and incision. Fringes dusky. Secondaries uniform

pale smoky, the fringes paler. Beneath smoky with some of the apical black spots repeated.

Described from three specimens from La Belle, Apr. 27, Marco, Apr. 17 and Everglade, Apr. 10.

Apparently quite different from any described species.

Stenoptilia pallistriga *B. and McD.* Fort Myers, May 1-7 (McD.).

Known only from Florida.

TORTRICIDÆ.

OLETHREUTINÆ.

Bactra lanceolana *Hbn.* Lake Worth (Dyar); Fort Myers, Everglade (McD.).

Occurs throughout the United States and also in the Antilles, Europe, Asia, Africa, Australia and New Zealand.

Bactra verutana *Zell.* Fort Myers, Apr. 23, Everglade, Apr. 7 (A. M. N. H.).

Occurs in Texas.

Olethreutes devotana *Kearf.* Hastings, June 8 (Brown); "Harbor," Mar. (Hulst Coll.).

Known only from Florida.

Olethreutes rosaochreana *Kearf.* "Florida" (Fernald).

Known only from Florida.

Olethreutes andromediana *Kearf.* Fort Myers, Apr. 26 (A. M. N. H.).

Known only from Florida.

Phæcasiophora confixana *Wlk.* Enterprise, Apr. (Castle and Laurent).

Extends through the Atlantic States to New Jersey.

Eucosma circulana *Hbn.* Fort Myers, Apr. 22 (A. M. N. H.).

Occurs in the Southern States.

Eucosma quinquemaculana *Rob.* Biscayne Bay (Sloss.).

Extends through the Atlantic States to New Jersey.

Eucosma ochraceana *Fern.* Lake Worth (Dyar); Palm Beach (U. S. N. M.).

Adults resting on *Iva imbricata* (Dyar).

Known only from Florida.

Eucosma giganteana *Riley.* South Bay, Lake Okeechobee, May 2 (A. M. N. H.).

Extends to New Hampshire and Kansas.

Eucosma lineana Fern. Lake Worth (Dyar).

Larva on *Anona laurifolia*.

Known only from Florida.

Eucosma constrictana Zell. "Florida" (Dyar).

Extends to Texas.

Eucosma strenuana Wlk. Lake Worth (Dyar); Fort Myers (McD.).

Larva in stems of *Ambrosia trifida*.

Extends to Quebec.

Eucosma perplexana Fern. Lake Worth (Dyar); Everglade, Apr. 6, 10 (A. M. N. H.).

Extends to New Jersey.

Eucosma desertana Zell. Atlantic Beach (Sloss.).

Larva makes gall on stems of *Solidago*.

Extends to New York and Texas.

Eucosma tripartitana Zell. Everglade, Apr. 6 (A. M. N. H.).

Larva an inquiline on Cecidomyid gall on *Rudbeckia*.

[Extends to New Jersey and Texas.]

Eucosma floridana Kearf. Hastings, Oct. 6-15 (Brown).

Known only from Florida.

Eucosma vandana Kearf. Hastings, Mar., Apr., Oct. (Brown).

Known only from Florida.

Eucosma minutana Kearf. Everglade, Apr. 6 (A. M. N. H.).

"Larva doubtless in stems of aster or similar plants" (Kearfott).

Extends to New Jersey and Illinois.

Episimus augmentanus Zell. Lake Worth (Dyar).

Larva on *Rhus metopium*.

Occurs in the Antilles.

Episimus argutanus Clem. Lake Worth (Dyar); Fort Myers (McD.).

Larva on *Euphorbia heterophylla* and *Rhus* sp.

Extends to Connecticut and Texas. Occurs also in the Antilles.

Phthiniolophus indentanus Dyar. Hastings (Kearf.); Palm Beach (Dyar).

Larva on *Vaccinium* and *Myrica*.

Extends to New Jersey.

Enarmonia tristrigana Clem. Marco, Apr. 20 (A. M. N. H.).

Extends to Massachusetts.

Lipoptycha maculana Fern. Lake Worth (Dyar).

Larva on *Schæpfia arborescens*.

Known only from Florida.

TORTRICINÆ.

Epagoge sulphurana Linn. (*sulphureana* Clem.). "Florida" (Robinson).

Larva on grape, strawberry, willow and other plants.

Extends to Massachusetts, Quebec, Illinois and Texas.

Epagoge demissana Wlsm. "Florida" (Sloss.).

Larva on *Solidago*.

Extends to New Jersey and Texas.

Capua lentiginosana Wlsm. Lake Worth (Dyar). Identification somewhat doubtful (Dyar).

Occurs in Texas.

Sparganothis taracana Kearf. Hastings, Mar., Apr., Sept., Oct., Nov. (Brown).

Occurs in Texas.

Archips rosaceana Harr. "Florida" (Robinson).

Larva on roses and on orchard and small fruits.

Extends to Massachusetts and Colorado.

Archips obsoletana Wlk. "Florida" (Robinson).

Extends to New Jersey and Texas.

Archips argyrospila Wlk. "Florida" (Sloss.).

Larva a general feeder.

Extends to Quebec and California.

Archips georgiana Wlk. Jacksonville (Sloss.); Lakeland (McD.); Lake Worth (Dyar).

Larva on *Chiococca racemosa*.

Occurs in the South Atlantic States and in (?) Brazil.

Platynota flavedana Clem. Biscayne Bay (Sloss.).

Larva a general feeder.

Extends to Quebec.

Platynota rostrana Wlk. Lake Worth (Dyar).

Larva on *Rivina humilis*, *Randia aculeata*, *Gnaphalium purpureum* and *Myrsine floridana*.

Extends through the Antilles to Venezuela.

Platynota tinctana Wlk. Biscayne Bay (Sloss.).

Occurs in Texas.

Platynota metallicana Wlsm. "Florida" (Dyar).

Known only from Florida.

Tortrix peritana Clem. Lake Worth, common (Dyar).

Extends through the Atlantic States to New Jersey.

Tortrix ivana Fern. Lake Worth (Dyar).

Larva on *Iva imbricata*.

Known only from Florida.

Tortrix seminolana Kearf. Palm Beach (Dyar).

Larva on *Chiococca racemosa*.

Known only from Florida.

Tortrix chioccana Kearf. Palm Beach (Dyar).

Larva on *Chiococca racemosa*.

Known only from Florida.

Eulia amatana Dyar. Lake Worth (Dyar).

Larva on *Anona laurifolia* and *Nectandra wildenoviana*.

Eulia mariana Fern. "Florida" (Dyar).

Larva on *Vaccinium*.

Extends to New Jersey.

PHALONIINÆ.

Phalonia angulatana Rob. Everglade (McD.).

Extends to Pennsylvania and Texas.

Phalonia bunteana Rob. Lake Worth, common (Dyar).

Extends to New Jersey.

Phalonia ziscana Kearf. Hastings, Feb. 26 (Brown).

Known only from Florida.

Phalonia bomonana Kearf. Hastings, Mar. 19 (Brown).

Occurs in Illinois.

Pharmacis sartana Hbn. "Florida" (Dyar).

Extends to Pennsylvania.

Hysterosia inopiana Haw. "Florida" (Sloss.). "Northern United States" and Europe.

YPONOMEUTIDÆ.

Mieza igninix Wlk. Charlotte Harbor, Punta Gorda, Feb., larva (Sloss.); Everglade, Apr. 10 (A. M. N. H.); Chokoloskee (Barnes); Key West (Schwarz).

Larva on *Bumelia angustifolia*.

Known only from Florida.

Atteva aurea Fitch. "Florida" (Sloss.); [Big Bayou, Pensacola, Oct. 14; De Funiak Springs, Oct. 17, 19; Lake Stanley, De Funiak Springs, Oct. 18.

Extends to New Jersey, Texas and through Mexico to Central America.]

Atteva gemmata Grt. Upper Indian River (Neumoegen); Lake Worth (Sloss., Dyar); Miami (Dyar); Biscayne Bay (Sloss.).

Larva on *Simaruba glauca*.

Known only from Florida.

Trichostibas parvula Hy. Edw. (*calligera* Zell.). Jacksonville (Ashmead); Greencove Springs (Turner); Indian River (Edwards); Fort Myers, Apr. (Ds.); Cocoanut Grove (Schwarz); Biscayne Bay (Sloss.); [Seabreeze (Coll. Agric. Exp. Sta.)].

Larva on *Persea* sp.

Known only from Florida.

Plutella maculipennis Curt. Lake Worth (Dyar); Everglade, Apr. 9 (A. M. N. H.); Biscayne Bay (Sloss.).

Larva on *Bursa* (?) and turnip (Dyar).

Occurs in the United States and Canada and in Europe.

Choreutis carduiella Kearf. "Florida" (Dyar).

Extends through the Atlantic States to Quebec.

Variety **busckiella** Kearf. Hastings, Mar. 15 (Brown).

Known only from Florida.

Hemerophila dyari Busck. Lake Worth (Dyar).

Larva on *Ficus*.

Known only from Florida.

Walsinghamia diva Riley. Cocoanut Grove, May (Schwarz); Biscayne Bay (Sloss.).

Larva on *Ficus*.

Known only from Florida.

Walsinghamia slossonia Fern. South Bay, Lake Okeechobee, Apr. 30, Marco, Apr. 17, Everglade, Apr. 6 (A. M. N. H.); Biscayne Bay (Sloss.).

Known only from Florida.

Setiostoma xanthobasis Zell. Chokoloskee (Barnes).

Larva on *Quercus stellata*.

Extends to New Jersey, Illinois and Texas.

Polyhymno luteostrigella Cham. "Florida" (Busck).

Larva on *Cassia chamæchrista*.

Extends to New Jersey and Texas.

GELECHIIDÆ.

Nealyda pisoniæ *Busck.* Palm Beach, larvæ, adults issued Feb. 2 and Feb. 18 (Dyar).

Larva on *Pisonia aculeata*.

Known only from Florida.

Nealyda kinzelella *Busck.* Lake Worth (Dyar).

Larva on *Pisonia obtusata*.

Known only from Florida.

Aristotelia ivæ *Busck.* Palm Beach, larvæ, adults issue Mar. 10-20 (Dyar).

Larva on *Iva frutescens*.

Known only from Florida.

Gnorimoschema terracottella *Busck.* Palm Beach, larvæ, adults issued Mar. 8-10 (Dyar).

Larva on *Iva imbricata*.

Known only from Florida.

Prostomeus brunneus *Busck.* "Florida" (Busck).

Known only from Florida.

Menesta melanella *Murtf.* Jacksonville (Sloss.).

Larva on oak.

Occurs in Missouri.

Trichotaphe flavocostella *Clem.* "Florida" (Sloss.).

Larva on *Aster*, *Helianthus* and *Solidago*.

Extends to Quebec and Iowa.

Trichotaphe melantherella *Busck.* Palm Beach, larvæ, adults issued in early Mar. (Dyar).

Larva on *Melanthera deltoidea*.

Known only from Florida.

Trichotaphe condaliavorella *Busck.* Palm Beach (Dyar).

Larva on *Condalia ferrea*.

Known only from Florida.

Glyphidocera floridanella *Busck.* Lake Worth (Dyar).

Known only from Florida.

Dichomeris eupatoriellus *Cham. (Ypsolophus).* Lake Worth (Dyar).

Larva on *Eupatorium*.

Extends to New York and Arizona.

Dichomeris citrifoliellus *Cham. (Ypsolophus).* "Florida" (Dyar).

Larva on orange.

Known only from Florida.

Aproærema crotalariella *Busck*. Palm Beach, larvæ, adults issued Feb. 18–Mar. 10 (Dyar).

Larva on *Crotalaria pumila*.

[Known only from Florida.]

Anacampsis lagunculariella *Busck*. Lake Worth (Dyar); Everglade, Apr. 9 (A. M. N. H.).

Larva on *Laguncularia racemosa*.

Known only from Florida.

Anacampsis argyrothamniella *Busck*. Lake Worth (Dyar, Sloss.).

Larva on *Argyrothamnia blodgettii*.

Known only from Florida.

Gelechia coloradensis *Busck*. "Florida" (Dyar); La Belle, Apr. 27 (A. M. N. H.).

Extends to South Carolina and Colorado.

XYLORICTIDÆ.

Ide vestalis *Zell*. Lakeland, May 5, Fort Myers, Apr. 22 (A. M. N. H.).

Extends to South Carolina and Texas.

Ide lithosina *Zell*. "Florida" (Dyar).

Occurs in Texas.

ÆCOPHORIDÆ.

Cryptolechia obsoletella *Zell*. "Florida" (Sloss.).

Occurs in Ohio.

Depressaria amyrisella *Busck*. Palm Beach (Dyar).

Larva on *Amyris floridana*.

Known only from Florida.

Depressaria amissella *Busck*. Kissimmee (Beutenmüller).

Known only from Florida.

Ethmia confusella *Wlk*. Key West (Dyar).

Occurs in the Antilles.

BLASTOBASIDÆ.

Blastobasis guilandinæ *Busck.* Palm Beach, collected Mar. 5, bred Mar. 30 (Dyar).

Larva bores in stems of *Guilandina bonducella*.

Known only from Florida.

Blastobasis eriobotryæ *Busck.* [Miami (E. R. Sasser).]

Larva on loquat (*Eriobotrya japonica*) (Busck.).

Known only from Florida.]

ELASCHISTIDÆ.

Coleophora octagonella *Wlsm.* "Florida" (Dyar).

Known only from Florida.

Coleotechnistes citriella *Cham.* "Florida" (Dyar).

Known only from Florida.

Cosmopteryx floridanella *Beut.* "Central Florida" (Beutenmüller); Palm Beach, Jan. (Dyar).

Known only from Florida.

Cosmopteryx ipomœæ *Busck.* Lake Worth (Dyar).

Larva in leaves of *Ipomœa* sp.

Known only from Florida.

Cosmopteryx minutella *Beut.* "Central Florida" (Beutenmüller).

Known only from Florida.

Cosmopteryx attenuatella *Wlk.* Lake Worth (Dyar).

Occurs in the South Atlantic States.

Scelorthus pisoniella *Busck.* Palm Beach, bred in Feb. (Dyar).

Larva on *Pisonia obtusata* and *P. aculeata*.

Known only from Florida.

Scythris trivinctella *Zell.* Everglade, Apr. 7 (A. M. N. H.).

Occurs in Texas.

Antispila eugeniella *Busck.* Palm Beach, bred Feb. 25 (Dyar).

Larva in leaves of *Eugenia procera*.

Known only from Florida.

Cycloplasis panicifoliella *Clem.* Lake Worth (Dyar).

Larva on *Panicum divaricatum* and *P. clandestinum*.

Extends to New Jersey.

Coptodisca condaliæ *Busck.* Palm Beach, bred Feb. 12-24 (Dyar).

Larva in leaves of *Condalia ferrea*.

Known only from Florida.

Homaledra heptathalama Busck. Lake Worth (Dyar).

Larva on *Sabal palmetto*.

Known only from Florida.

Homaledra sabalella Cham. Lake Worth (Dyar).

Larva on *Sabal palmetto*.

Known only from Florida.

TINEIDÆ.

Stigmella condaliafoliella Busck (*Nepticula*). Palm Beach, bred Feb. 22 (Dyar).

Larva in leaves of *Condalia ferrea*.

Known only from Florida.

Stigmella myricafoliella Busck. (*Nepticula*). Lake Worth (Dyar)

Larva in leaves of *Myrica cerifera*.

Known only from Florida.

Bucculatrix ivella Busck. Lake Worth (Dyar).

Larva on *Iva frutescens*.

Cremastobombycia verbesinella Busck. (*Lithocolletes*). Lake Worth (Dyar).

Larva in leaves of *Verbesina virginica*.

Known only from Florida.

Bedellia minor Busck. Lake Worth (Dyar).

Larva in leaves of *Ipomæa* sp.

Known only from Florida.

Chilocampyla dyariella Busck. Palm Beach, bred Feb. 18–Mar. 20 (Dyar).

Larva in leaves of *Eugenia buxifolia* and *E. procera*.

Known only from Florida.

Lamprolophus lithella Busck. Palm Beach, bred in Feb. (Dyar).

Larva in stems of *Pisonia aculeata*.

Known only from Florida.

Eucosmophora sideroxytoniella Busck. Palm Beach, bred Feb. 27 (Dyar).

Larva in leaves of *Sideroxylon pallidum*.

Known only from Florida.

Gracilaria burserella Busck. Palm Beach, bred Feb. 21 (Dyar).

Larva on *Bursera gummiifera*.

Known only from Florida.

Gracilaria sebastianella *Busck*. Lake Worth (Dyar).

Larva in leaves of *Sebastiana lucida*.

Known only from Florida.

Coriscium randiella *Busck*. Lake Worth (Dyar).

Larva in leaves of *Randia aculeata*.

Known only from Florida.

Marmara guilandinæ *Busck*. Palm Beach, bred Mar. 27 (Dyar).

Larva in stems of *Guilandina bonducella*.

Known only from Florida.

Leucoptera erythrinella *Busck*. Palm Beach, bred Feb. 10-20 (Dyar).

Larva in leaves of *Erythrina herbacea*.

Known only from Florida.

Leucoptera guettardella *Busck*. Lake Worth (Dyar).

Larva in leaves of *Guettardia elliptica*.

Known only from Florida.

Phyllocnistis intermediella *Busck*. Palm Beach, bred in early Feb. (Dyar).

Larva in leaves of *Sideroxylon pallidum*.

Known only from Florida.

Metriochoa psychotriatella *Busck*. Lake Worth (Dyar).

Larva on *Psychotria undata*.

Known only from Florida.

Podiasa chiococcella *Busck*. Lake Worth (Dyar).

Larva in leaves of *Chiococca racemosa*.

Known only from Florida.

Eucatagma amyrisella *Busck*. Palm Beach, Mar. (Dyar).

Larva on *Amyris floridana*.

Known only from Florida.

Xylestia pruniramiella *Clem*. Everglade, Apr. 7 (A. M. N. H.).

Larva in woody excrescences on plum trees.

Extends through the Atlantic States to New Jersey.

Tinea seminolella *Beut*. "Central Florida" (Beutenmüller).

Known only from Florida.

Prodoxus quinquepunctella *Cham*. Lakeland, May 6 (A. M. N. H.).

Larva on *Yucca filamentosa*.

Occurs in the South Atlantic States.

Pronuba yuccasella *Riley*. Lakeland, May 6, common (A. M. N. H., Ds.).

Larva on *Yucca filamentosa*.

Extends to New Jersey.

Acrolophus plumifrontellus *Clem.* La Belle, Apr. 26, 27, common (A. M. N. H., Ds.); Biscayne Bay (Sloss.).

Extends to New Jersey.

Acrolophus cervinus *Wlsm.* "Florida" (Beutenmüller).

Occurs in Georgia and Texas.

Acrolophus hulstellus *Beut.* Indian River, Kissimmee (Beutenmüller).

Known only from Florida.

Anaphora propinqua *Wlsm.* "Florida" (Dyar).

Known only from Florida.

Anaphora morrisoni *Wlsm.* "Florida" (Dyar).

Known only from Florida.

Anaphora tenuis *Wlsm.* Fort Myers, Apr. 23 (A. M. N. H.).

Extends to New Jersey.

Pseudanaphora arcanella *Clem.* Biscayne Bay (Sloss.).

Extends to New Jersey.

