ARTHROPODS OF FLORIDA
AND NEighboring LAND AREAS
VOLUME 1

LEPIDOPTERA OF FLORIDA
C. P. KIMBALL

FLORIDA DEPARTMENT OF AGRICULTURE
DOYLE CONNER, COMMISSIONER
The

LEPIDOPTERA OF FLORIDA

AN ANNOTATED CHECKLIST

BY

CHARLES P. KIMBALL

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DIVISION OF PLANT INDUSTRY
STATE OF FLORIDA DEPARTMENT OF AGRICULTURE
GAINESVILLE, FLORIDA

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Cover Illustration: Diurnal moth, *Composita fdeissima ogoran* Bates, painted by Marjorie Statham, American Museum of Natural History.

RELEASE DATE JANUARY 1, 1965
FOREWORD

*Lepidoptera of Florida* is to be the first of an irregularly appearing series of publications relating to the insects and other arthropods of Florida and neighboring land areas—the southeastern United States, the Bahama Islands, and the West Indies—with emphasis on taxonomy, ecology, biology, and zoogeography. Emphasis in this series, to be published by the Division of Plant Industry, Florida Department of Agriculture,1 will be placed on the Florida fauna.

Special acknowledgment is due the National Science Foundation for generous support in the publication of *Lepidoptera of Florida*.

The files and preserved specimens of The Florida State Collection of Arthropods provided a basis for many of the records in this publication. This collection is being developed by staff members of the Entomology Section, Division of Plant Industry, Florida Department of Agriculture, and several appointed associates of the state collection. Close support is provided by the Florida State Museum and its several Associates in Entomology.

Commitment to publish *Lepidoptera of Florida* originally was made in 1955 during the administration of Ed. L. Ayers, then Commissioner of the State Plant Board of Florida. It was reaffirmed by his successor, the late Dr. W. G. Cowperthwaite, and is being published under the administration of Division Director Hal L. Jones and Florida Commissioner of Agriculture Doyle Conner.

Written in an informal, pleasing style, this publication should constitute the primary reference on the butterflies, skippers, and moths of Florida for both amateurs and professionals, and it should provide a useful reference for those interested in Florida agriculture. Although any work of this nature never can be complete, a great deal of effort by the author, with substantial aid from others, has gone into the preparation of this publication.

The author, Charles P. Kimball, was born in Rochester, New York, in 1897. He received his early education in the schools of New York, South Carolina, and Rhode Island. He received his A. B. degree from Harvard College in 1919 (1920), following service in Europe during World War I. After graduation from Harvard he worked as a bookkeeper for Union Trust Company, Rochester, New York, and in 1923 he received his M. S. degree at the University of Rochester. He worked as a Fellow in Biochemistry at the University of Rochester, School of Medicine for three years and moved to Nantucket, Massachusetts, in 1925, where he was active in civic affairs. In collaboration with Dr. Frank M. Jones, he compiled a list of the Lepidoptera of Nantucket and Martha's Vineyard Islands which was published in 1943. During World War II he was a Research Associate in Radiology at the University of Rochester School of Medicine and Dentistry. After the war he became more seriously interested in Lepidoptera, first collecting in Florida in 1946. He moved to Sarasota in 1951, although continuing to maintain summer residence in Barnstable, Massachusetts, and began compilation of the *Lepidoptera of Florida* in 1953. His interest in contributing to our knowledge of the Lepidoptera of Florida is continuing beyond the completion of the manuscript for this publication.

HOWARD V. WEEBS, JR.
*Editor*

Entomology Section
Division of Plant Industry
Florida Department of Agriculture
November 30, 1964

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1 Effective January 15, 1961, the State Plant Board of Florida became known as the Division of Plant Industry of the Florida Department of Agriculture.
INTRODUCTION

This is not a text book, nor is it an analysis. Rather it is a compilation of the distribution, deposits, and other pertinent information relating to the Lepidoptera of Florida as gathered together from many sources. Falling short of its goal as it does, as indeed must any similar list, such accomplishment as has been realized is due in very large measure to the enthusiastic and generous cooperation of many people. It is to their kindly spirit that I would dedicate this work.

Many problems have arisen. Some of these have been solved through the generous assistance of one or another authority whose aid will be acknowledged and recognized individually in due course. Other problems remain. These I have attempted to set forth in the hope that they will inspire the curious student to probe into them and to build on to what is hoped may be a solid and firm foundation. First, however, there are various aspects of the work as a whole which must be discussed in order that the main body of the text and the method of treatment may be reasonably clear, for without a knowledge of this groundwork, the text will not be completely comprehensible. Unfortunately, because of the dissimilar nature of the subjects, this introductory section cannot flow with a unity of idea and purpose, but must perform jump from one topic to another. For this reason, and also in order to make reader reference to the various subjects, each subject has been segregated under its own heading.

GEOGRAPHY

Though it may seem gratuitous to stress the point that the list is limited to the present boundaries of the State of Florida, a word of explanation is needed, for in the past the northern boundary was frequently changing and ever shrinking southward, the original Florida of the Spaniards having embraced practically the entire southeastern United States.

The vagaries of this northern boundary are well described in Florida, Land of Change by Kathryn Trimmer Abbey (Hanna) (1941) and I am indebted to Mrs. Hanna personally for further elucidation of the mysteries.

Disregarding the few botanists who visited the region in the early days even though they may have picked up an odd specimen or so of Lepidoptera, only two collectors whose sites of operations concern us were in the region prior to 1886, when the boundary was fixed in its present position. These were John Abbot and Edward Doubleday.

So far as we know Abbot collected essentially in Screven County, Georgia, well north of the state line, and it is not believed that any of his material can be credited definitely to Florida. If he did obtain any specimens from here through other channels, we have no way of knowing which they were, whence they came, nor where they are. One of the confusing factors, presumably based on Abbot material, is the Hübner locality citations: “Aus Florida” and “Aus Georgien in Florida.” However, as pointed out by Austin Clark (1950, p. 62), these all boil down to country north of the Altamaha River. The “Florida in Georgia” citations are a misquotation, as shown by Franclemont (1951, p. 6). Therefore, none of Abbot’s records need be considered in connection with this list.

On the other hand Doubleday’s collecting was primarily at St. Johns Bluff, on the south bank of the St. Johns River, between Jacksonville and the sea, well within the confines of the state. Of his collecting more will be said under the subject of collectors.

TOPOGRAPHY

The topography of the state is relatively uncomplicated. Nevertheless, though the elevations are slight, even these often may have greater influence on the flora (West and Arnold, 1952, p. xii) and consequently on the insect life. The east-west axis of the northern panhandle is long and narrow; yet in spite of the fact that there are different biological areas to be found in it, the latter must be disregarded as far as the present study is concerned because until very recently collecting there has been on a minimal basis.

On the other hand the north-south peninsula is most important. It covers roughly 425 miles in length, including the Keys, the whole thrusting down between the Atlantic Ocean on the east and the Gulf of Mexico on the west, with a maximum width of slightly more than 150 miles. The proximity of warm water, especially that of the Gulf Stream along the Keys and lower east coast, has a marked effect on the climate of this peninsula.

CLIMATE

Climate affects the insect fauna anywhere, and Florida is no exception, though here the overall influence, aside from that due to the Gulf Stream, is more limited because of the relatively more even temperature, the comparatively less drastic drought conditions, and generally less
excessive rainfall than that in some parts of the United States.

The temperature ranges from about 25° to 95° F in the northern half of the state, from 35° to 95° F in the southern half, and 40° to 90° F on the Keys of Monroe County, generally known simply as "the Keys." Naturally, there are exceptions to these figures, and lower temperatures may be encountered the length of the peninsula. However, these are seldom of sufficient duration to cause permanent injury to the flora; but when really low temperatures do occur and persist, there is unquestionably a pronounced change in the lepidopterous population. An illustration of this is the extremely severe winter of 1899, when the thermometer indicated two degrees below zero F in Tallahassee, the lowest temperature ever observed in Florida.

The state cannot be divided accurately into northern and southern halves because the proximity of the Atlantic Ocean on the one side and the Gulf of Mexico on the other holds the coastal temperatures a few degrees higher than those in the interior during cold snaps and lower during heat waves. Stated another way, the winter isotherms would dip more and more sharply in the center as they moved down the peninsula, and those of summer would rise less and less sharply as they moved up.

During the latter part of the Nineteenth Century when entomologists were making the first scientific collections of Lepidoptera in Florida, a number of species of butterflies were taken in the Indian River region which since 1899 have been seen only in the southern most tip of the peninsula or perhaps only on the Keys. It seems a reasonable deduction that the intense cold of that winter, which damaged irreparably an immense segment of the vegetation, caused the annihilation of certain tropical and semitropical flora in their northern range, and with them their dependent species of butterflies, thus confining the latter to the small section of the state where their food plants managed to survive. The same probably was true of many moths, but, because of limited data, little can be said about them.

The meaning of "Indian River" on labels is not always clear. Dr. W. T. M. Forbes told me that much of the Slosson and Dyar material labeled "Indian River" almost certainly was taken in the general vicinity of Palm Beach. Yet why would there be this apparent mislabeling of some when much of their material was clearly labeled "Palm Beach" and "Lake Worth"? The Indian River itself runs from the very southern edge of Volusia County; the length of Brevard, Indian River, and St. Lucie Counties; and more or less ends at the St. Lucie Inlet in Martin County.

Basing my theory on the known localities where most of the Nineteenth Century collectors, other than Slosson and Dyar, made their headquarters, and the fact that more than half of the river lies within Brevard County, I have arbitrarily assigned all Indian River records to that county. It is also possible that the small village of Indian River City in Brevard County just south of Titusville may have been intended.

Evidence exists that some of the species which suffered extinction in their northern ranges are, or have been, spreading northward again. For some it may be a first migration and an extension of range. Buchholz took Composta fidelissima vagnans Bates at Jupiter in 1946, the first record north of Miami in sixty years. Phoebis statira floridensis (Neumoegen) was practically unknown north of Miami except for a few scattered records between 1930 and 1953 when it became quite common in the Sarasota and Okeechobee areas. Aboileus capucinus (Lucas) was taken first near Miami in 1947; by 1955 it was common on Siesta Key and had reached St. Petersburg. Although it is too early to speak with finality as to the effect of the unusually cold winter of 1957-1958 on other species that have appeared in recent years north of their customary limits, capucinus at least has been present on Siesta Key during the four years succeeding that winter, and in March 1961 it was found near Oviedo in Seminole County.

Drought conditions occasionally occur but it is probable that crops and gardens suffer more severely from these than does the indigenous flora. Relatively few spots are very high above the water table, but whether they are or not, so much of the soil is of a sandy nature that the vegetation is largely adapted to scarcity of water. More serious trouble might arise from too much rainfall. The average varies from 50 to 70 inches per annum in different parts of the state, but there have been instances when the rainfall for a single month has reached 25 inches or more. The resultant flooding may be temporarily disastrous to the local Lepidoptera along with everything else.

An important, indirect effect of drought is the destruction wrought by fire. When dry, much of the land may be burned off by fire of spontaneous origin. Some fires are for the purpose of clearing farm and grazing land; others, unfortunately, are deliberately and maliciously set. Whatever the origin, the result is a great loss to all the fauna of the area. Clearing not only for agricultural purposes but also for real estate developments, much of the latter purely to catch the unwary dollar, has been done with the bulldozer and the dragline. Nothing more destructive to the native flora, and consequently the
fauna, has been invented yet. The worst and most inexcusable phase of this desecration is that the land is skinned of every last vestige of vegetation and most of it burned on the spot. Probably the greatest crime in this respect has been perpetrated on the Keys, where grass, or did grow, plants not found elsewhere in the United States. If this unmitigated depredation goes on, most of the unique flora will vanish forever.

VEGETATION

On the subject of vegetation, and more on the climate, one cannot do better than refer to Harper (1914). Referring to northern Florida on page 184 he wrote: "Taking the area as a whole, the salient features of its climate, as compared with that of Georgia and Alabama, are the mild dry winters and hot summers. The copious summer rains, while they make droughts rare, seem to be largely responsible for the prevalence of sandy soils and evergreen trees in Florida, for the rain tends to leach out the clay, lime, potash, etc., and leave the sand, and evergreens seem to be especially characteristic of soils poor in clay and potash, as already noted." Harper then discussed at length the effects of fire, caused by lightning or man, and explained that "Long-leaf pine is injured less by fire than almost any other tree, so that the effect of repeated fires is to give this tree the advantage over all its associates.

"It is reasonably certain that if fire were kept out of a long-leaf pine forest long enough hardwood trees of various kinds would come in and choke out the pine. . . . " All of this would have its influence on the insect population.

Harper divided the northern part of the state into twenty geographical, or perhaps we should say "geobotanical," divisions, each having certain individual characteristics of soil, and hence of vegetation. Each of these divisions would have a few species of Lepidoptera not found in any other part of the state. In Harper's other papers (1921 and 1927) he carved the rest of the state into geobotanical areas in the same way and one of the important fields of research for some student to undertake is the correlation of rare and localized species with these areas.

Speaking more broadly, and especially with reference to the southern third of the state, Harper (1927, p. 138) wrote: "The native flora can be divided into northern, tropical, and endemic elements. Some of these here called northern range as far north as Canada, and others no farther than Georgia. They are mostly plants of sandy pine lands, swamps, and marshes. A considerable number . . . seem to reach their southern limits in the neighborhood of the Peace River, perhaps mostly because that is practically the coolest part of South Florida, or else because the soil there is more like that in the northern parts of the State. A few others extend nearly or quite as far south in the lake region or central prairies.

"Such counties as Okeechobee, Glades, and Charlotte have comparatively few species of trees, being too far south for most northern species, and too cool for most of the tropical ones. "The strictly tropical species are chiefly confined to the Miami limestone region and southward, and to very narrow strips along both coasts farther north; and nearly all of them extend farther north on the east coast than on the west . . . .

"The endemic element, comprising species peculiar to Florida, is chiefly confined to the lake region and the Miami pine lands. They are generally rarer than the more widely distributed species . . . Many of them are confined to single counties, principally Highlands and Dade. Some . . . range northward into Polk County or farther. . . ."

One should recall that Harper was here writing only of the southern part of the state, the endemic element in the northern and central sections having been discussed in his earlier papers (1914 and 1921).

Since virtually no collecting has been done in Okeechobee and Glades Counties there is no way of estimating the effect of the paucity of tree species on the lepidopterous fauna in these counties. On the other hand, Punta Gorda in Charlotte County has been the scene of intensive collecting, and it should be possible to make a rough estimate of the effect in that region. Although I have made no detailed analysis, I am positive that anyone reading through the list will readily agree that Punta Gorda stands very high in the number of species recorded. Whether or not they are tree feeding, or shrub or grass feeders, is another question, but the fauna is rich there. As far as the endemic element is concerned, Dade County boasts a number of lepidopterous species which have not been taken elsewhere. The records for Highlands County, primarily from the Archbold Biological Station, are plentiful from November through May, and in that period at least three undescribed species have turned up—a species of an unrecognized genus near Gabara Walker, a species of Platyes Guenée, and a Macrotheca Ragonot.

Again writing of the southern section of the state, Harper, (1927, p. 141) stated, "The weeds seem to be mostly of West Indian origin, but quite a number are supposed to be natives of the United States and there are a few from Europe,
Asia, and Africa.” These could account for some of the exotic species of Lepidoptera which apparently have become established there. He wrote further, (pp. 188-191): “Practically all the plants listed [on the upper Keys] grow also in the tropics, and there are no very distinct endemic species on the upper Keys. . . . The vegetation [on the lower Keys] is more diversified than that of the upper Keys. . . . but there are several endemic species [of herbs] among them . . . .”

Whether the lepidopterous species that are unique to the Keys are endemic and are supported by the endemic flora, of which Harper states there is very little on the Upper Keys, would be impossible to say without rearing them. However, the fact remains that we do have species unique to the Keys, for example Scopula insulensis Rindge and an Aniola which Franclemont is describing. Both of these have been taken on the upper Keys but because so little collecting has been done on the lower Keys (below Bahia Honda), we are not in a position to say anything about the situation there.

Since there is a certain amount of West Indian vegetation on the Keys, it is difficult to say whether the exotic Lepidoptera of Cuban or Antillean origin may have become established, or whether they are nothing more than strays of an occasional or perhaps even frequent appearance. A West Indian species may effect a temporary foothold for a year or two, possibly longer, but the hypothesis would be difficult to prove. Why the colony should then cease if the theory is correct, is a problem on which I would not care to speculate, but will leave for someone else to puzzle out. Euereuma mixta (Cramer) may be a case in point. Though first taken in 1935, it was found common only in 1947, and so far as I am aware, there have been no records for it since then.

For exotic strays pure and simple, distances are not at all insurmountable, the closest of the Bahamas being less than fifty miles from mainland Florida. Cuba is less than one hundred miles from Key West, and the Yucatan Peninsula of Central America is only slightly over three hundred miles away, with Cuba as a convenient stepping stone, the water gap between these two being approximately one hundred and twenty-five miles. In addition, many of the West Indian islands are within very reasonable flight range, even under normal conditions, and during hurricane weather, insects are carried many hundreds of miles with no apparent injury.

Whether or not strays come from the north is more difficult to say. Undoubtedly there are some, but until we have a greater knowledge of the moths of the neighboring states both to the north and the west, to say nothing of our own northern counties, it is unwise to hazard an opinion. Probably some of the unique records for moths, perhaps also butterflies, that are well south of their customarily recognized range are based on specimens that have been brought into the state in one or another stage of their life by carrier, be it on vegetable matter or otherwise.

Some of the butterflies may have come as strays, such as Lycaena theo (Guérin), L. phlaeas americana Harris, and Celastrina argiola pseudargiola (Boisduval & Leconte). A recently discovered colony of the last near Jacksonville may indicate that a stray or carrier borne specimen has found suitable conditions for propagation. Or the species may be spreading its range southward, as an even more recent capture has been made at Florida Caverns State Park. There is also the very dubious record of Speyeria diana (Cramer), which if correct, would be accounted for by a stray. I had thought that the records for S. cybele (Fabricius) also were those of strays, but the taking of several fresh specimens in the Gainesville region in recent years, suggests that this species has become established, at least tentatively. Of course the presence of any of these may be explained on other grounds, such as introduction by carrier.

Returning to the question of adventitious species of an exotic nature, G. W. Dekle, of the Division of Plant Industry, has pointed out to me that many of the nurseries for exotic shrubs were started years ago when the plant quarantine inspection was either non-existent or not so thorough as it is today. Oneo is an illustration of this point, the first nursery for exotics having been established there in 1881 and many records for exotic moths having been made in the immediate neighborhood.

**DISTRIBUTIONAL AREAS**

West and Arnold (1952, p. xii) made eight distributional areas for the trees which fit more satisfactorily into our present scheme for locality records than the more explicit areas of Harper, for it would require more time than should be spared on geographic work to allocate the records into these latter, highly desirable as the results would be. Nor is it satisfactory to use the division into life zones, primarily because they are too inclusive, but also because authorities vary. However, those who wish to look more closely into this phase of the subject should consult Merriam (1894, p. 14) and Howell (1932, pp. 66-72). Howell also has an interesting chapter (pp. 59-65) on the physiographic regions based largely on Harper's papers which have been discussed earlier.
INTRODUCTION

The West and Arnold divisions are: I. Western Florida, west of the Ancilla River; II. Northern Florida, east of the Ancilla River and north of the line from Cross City to Gainesville to Palatka; III. Central Florida, south of the last line and north of the curved line from Tampa to Avon Park to Melbourne; IV. Southern Florida, south of the last line, but excluding area V; the Ten Thousand Islands; VI. the Everglade Keys; VII. Cape Sable; and VIII. the Florida Keys. However, for practical purposes I have shifted the boundaries of areas II, III, and IV to coincide with county lines as will be seen on the map (Fig. 1 p. 306).

When these slight changes were discussed with West, he pointed out that the coastal species of area IV extend at least one county farther north on the east coast and three or four counties farther north on the west coast, though the inland range does not extend more than a mile from the shore. This factor should be borne in mind in the case of Lepidoptera characteristic of the coastal flora. Another point that West brought out was that the boundaries between areas II and III represent an even more ill-defined transition belt than the boundaries between the other zones.

COMPARISON WITH NEIGHBORING STATES

Fauna are frequently compared with those of adjacent areas. To make such a comparison for Florida would present several problems. To begin with, Florida is, geologically speaking, a newcomer among its neighbors. Long after the North American land mass to the north and Cuba to the south were covered with vegetation, Florida did not exist as a land entity. Eventually the Ocala region appeared as an island, and subsequently, but very gradually the peninsula took form and substance. Consequently all of the fauna is of comparatively recent introduction. Secondly, although there are butterfly lists for Georgia, Mississippi, and Louisiana, there are none for the moths of any of these states, nor any list whatsoever for Alabama. There are old lists for both Cuba and the Bahamas, but none that would be adequate for such a study except for a few families where recent, limited lists have been published. We need to work out the proportion of species of West Indian, Texan, Central American, especially Mexican, and even South American origin, as compared with those of northern origin and the few of endemic sources. Another approach would be to assess the species in three broader classifications—continental, Antillean, and endemic.

As information in some detail has become available recently from Quincy and the Pensacola area, it has become evident that there is a fairly appreciable representation of northern species in these two localities, especially around Pensacola. It becomes more apparent as records accumulate that there is a definite and sharp increase in the number of what one may call distinctively northern species working west from Monticello to Quincy to Pensacola. Not only that, but Pensacola has produced several unrecognized noctuids, both large and small, and one apparently new notodontid. This area needs the attention of collectors of Lepidoptera.

FORM OF THE LIST

Some explanation is in order as to the manner in which the list is put together. For the most part it follows the order and arrangement of the McDunnough Check List of the Lepidoptera of Canada and the United States (1938, 1939), that being the most recent comprehensive list. There is some divergence where recent revisions warrant it; however, the guiding principle has been to keep the divergence to a minimum. For instance, insofar as I have had access to the nomenclature to be used by C. F. dos Passos in his forthcoming check list of the Rhopalocera, it has been followed with his permission. However, I have followed McDunnough’s (1938, 1939), arrangement with the few exceptions where subsequent generic reassignments such as those of Evans (1951-1955) in the Hesperiidae, warrant. On the other hand, I have not followed the extensive changes made by Forbes in his various volumes on the Lepidoptera of New York (1928-1960), nor in all cases have I followed his generic nomenclature, largely on Forbes’ suggestion that I be guided by fact rather than opinion, priority of specific name being fact, classification being matter of opinion.

Species that are not in the McDunnough List have been interpolated as nearly as possible to the appropriate place. New species and undetermined species, provided the latter are definitely distinct from named species listed in the present publication also are placed under an interpolated number, as nearly as may be in the correct sequence, their status as currently conceived being explained in the text in some cases. However, because this is not a taxonomic work, as already explained, no real significance should be placed on these interpolations, although every attempt has been made to be sure that it is clear which insect is under discussion. Obviously, in the case of new or unplaced species, precision is not readily achievable.

When a record in the literature is definitely erroneous, or where there seems to be some
question of its validity, the McDunnough number and name are set in italics and the whole put in brackets. All presumably valid species names and their numbers are printed in boldface. When the determination is probably correct but because the amount of material is insufficient for positive determination, or when the applicability of the name itself may be in question, the specific name and that of the author are bracketed. In other words, this last device will serve to call attention to the fact that the name used is presently on the list in a tentative status.

A good deal of thought has been given to the form in which the records should be organized and an effort has been made to strike a balance between fullness and compactness. Except for species of generally state-wide and common occurrence, each locality is given with all its record, the locality name being followed by the date or dates, with the initials of the depository collection or collections, or the literature reference. When the material is in more than one collection or reference, the appropriate data are set off by semicolons, except that when the dates are the same, commas only are used. In most cases the collector's name is omitted, except for the rarer species. When it is given, it is in parentheses.

In as much as the text for each species is relatively short, the location "loc. cit." or the use of a date for a citation already made within that text, is omitted. In other words the use of the word "Smith" by itself as the authority for the record, would refer back to the previous Smith citation in the text for that species or the original description thereof.

All published records, except those noted below and those for the common species, are included, whether or not they are correct. When an error has been proven or is strongly suspected, the check list number and name are enclosed in brackets, and the explanation of the error, or the reason for suspecting one, is made, or reference is made to the correct species if it is a matter of misidentification. Though it has been stated that all erroneous records from the literature are discussed, none appearing under my name in "A proposed revision of the check list of Florida Lepidoptera" (1953, pp. 103-107) are included, because as explained in that paper, the records were not to be accepted as definitive. The same is true for various records under my name in the "Season Summaries" (1951, p. 101), in which several typographical errors appeared. An unsigned, mimeographed list of moths was circulated by me in the spring of 1959. This was supposed to include all valid names as of that date. However, a few have since been proved erroneous. Therefore, all of these "records" should be completely ignored in the future.

Certain published records are omitted because they merely duplicate or repeat older records. Nor is any useful purpose served by quoting all the references even for the rarer species, because many of them are of a general nature, giving no further data than "Fla." Where it is felt that some useful purpose may be served, they have been included. On the other hand, all specimens labeled "Fla." even with no additional data on the label, must be included as they are an essential part of the record.

All data gathered on the common species, literature references not quoted, all correspondence on the subject, in fact everything pertinent to the subject, have been filed with the Division of Plant Industry in Gainesville. These together with the Works Progress Administration file hereinafter discussed, which is in the University of Florida Agricultural Experiment Station in Gainesville, are accessible to anyone interested.

DETERMINATIONS

As much of the information has been received from other collectors, I cannot assume responsibility for all the determinations, though for many of them I must. Nor can I be responsible for any in the literature. Nevertheless, every effort has been made to assure accuracy. When any question has arisen in my mind concerning the correctness of a determination, I have asked the owner of the specimen to check it. Sometimes my guess has been right, sometimes wrong. In many cases the suspect specimens have been sent to me, and either I have made the determinations myself, or passed the specimens along to more competent hands. Many of my own specimens have been passed along for this purpose. When the authority for the determination is important, it is given, if known. Many determinations have been made especially for this undertaking which are not specifically indicated, as they were not of a critical nature. These are acknowledged in footnotes to the family and generic headings.

The statements that someone "said", "reported," or "wrote" are based primarily on letters received from the individuals quoted. Some of the information was related in conversation, and I must assume responsibility for any misquotation even though the majority of the text has been read by the individuals involved.

There may be some criticism concerning the application of the terms subspecies, form, and variety. The latter has been used sparingly and perhaps should have been abandoned entirely
IN INTRODUCTION

in favor of "form." On the basis of our present limited knowledge of much of the Florida fauna, it is not always easy to judge whether we are dealing with a clear cut subspecies, or with one or more variable and intergrading forms. The status of many, consequently, must be considered as placed tentatively in one or other of these categories solely on the basis of that very limited knowledge.

The terms Rhopalocera and Heterocera are considered incorrect as scientific classifications but they are used as convenient alternatives, the former for the butterflies and skippers as a whole, the latter for the moths. In the same sense, the terms macrolepidoptera and microlepidoptera are unscientific but useful for covering certain groups of superfamilies.

DESCRIPTIONS

No attempt has been made to describe species, nor has much been given by way of taxonomic keys to aid in determinations, although in a few instances certain characters that may be helpful in separating closely related and easily confused species have been pointed out. However, in order that it may be possible for anyone using this list, especially the amateur, to refer to some source other than the original descriptions, many of which are in relatively inaccessible works or periodicals, a few text books and papers should be mentioned.

The citations to original descriptions will have some inconsistencies in the abbreviated forms in which they are given in the text as many of these citations were taken from secondary sources because the originals were not available to me. This will be true particularly in the case of Hübner and Fabricius citations. The result is that the same volume may be found abbreviated in more than one form, and it seemed advisable to leave them as they were found rather than to complicate matters further by making changes which might prove to be erroneous. For the same reason, some of the dates may be incorrect.

Klots' Guide (1951), Holland's Butterfly Book (1931), and Ehrlich and Ehrlich, How to Know The Butterflies (1961), cover the field of butterflies thoroughly. The moths are a different matter. There is no text book that provides descriptions, or keys for all the Florida moths, and all we can do is list the works that should prove to be helpful to the beginner and the less advanced student. To the more advanced student the texts will be familiar.

Holland's Moth Book (1903), though a useful general work with many illustrations, is too limited to serve as more than an initiation, and it is difficult to obtain. Klots has in preparation a general work on moths, but because of the magnitude of the field, it cannot cover everything. However, it will give the average collector one more very valuable tool with which to work.

The only other general work, The Lepidoptera of New York and Neighboring States, by Forbes (1823, 1948, 1954, and 1960), is an advanced work which covers all families, but naturally it does not include all Florida species by any means.

For various individual families and genera, the following will be of assistance in varying degree:

Sphingidae, Rothschild & Jordan, 1903
Saturniidae, Packard, 1914
Ceratocampidae, Packard, 1905
Amatidae, Nolidae, Arctiidae, Agaristidae, and Phalaenidae (Nocuinae), Hampson, 1898-1920 (in large part)
Notodontidae and Zanolidae, Packard, 1895
Geometridae, Packard, 1876, (out of date)
Macrolepidoptera and some microlepidoptera, Seitz, 1913-1981, (far from complete)
Limacodidae, Dyar, 1891 (in part only)
Pyralidae, Amsel, 1954 (on the microlepidoptera of Venezuela, includes a surprisingly large number of Pyralidae common to Florida, and although the figures of genitalia and the illustrations of the adults leave much to be desired, the paper is useful within these limitations)
Nymphulinae, Lange, 1956
Phycitinae, Heintich, 1956
Pterophoridae, Barnes & Lindsey, 1921
Olethreutidae, Heinrich, 1933a, 1939
Sparagnothinae, Lambert and Powell (in preparation)
Archipinae, Freeman, 1958
Cosmopterigidae, Hodges, 1962b
Morphidae, Hodges (in preparation)
Oecophoridae, Clarke, 1941
Blastobasidae, Dietz, 1910 (poor and out of date); Selandar (in preparation)
Stenomidae, Duckworth (in preparation)
Aegeridae, Beutenmueller, 1901; Engelhardt, 1946
Elachistidae, Braun, 1948
Lithocolletis, Braun, 1903
Bucculatrix, Braun, 1983
Psychididae, Davis (in preparation)
Acrolophidae, Hasbrouck (in press)
Tineidae, Dietz, 1905 (poor and out of date)
Nepticulidae, Braun, 1917

Perhaps it should be noted that several revisions are just being started, or are far short of completion, namely: Crambinae, Klots; Tortri-
coideae, Obraztsova; Phalomiidae, Clarke; Gelechiidae, Hodges; and Gracillaridae, Davis.

Many papers on the West Indian fauna are useful, especially those by Herrich-Schaeffer (1864-1871), Mocschler (1886, 1890, Forbes (1890, 1931, 1940), Schaus (1940), Busck (1933), and Walsingham (1891). The Universidad de Oriente, Santiago de Cuba, has been publishing some excellent papers on the Lepidoptera of Cuba which, if continued, will be most useful.

LOCALITY RECORDS

Except where the records are so numerous that it is fully apparent that the species under consideration is to be found throughout the state, all locality records are given. They are listed in a north to south order, working from west to east according to an arbitrary order of counties which have been grouped to fit into the West and Arnold areas of distribution previously discussed. The order admittedly is not happily set up, but whatever order is used, some inconsistency will result, and any improvement to be gained by changing to one that would be more logically correct, would not be worth the labor involved in revising the thousands of locality records. The order of counties together with the localities which are mentioned in each, will be found in the gazetteer. Intensive collecting has been carried on in few parts of the state, namely: Quincy, Monticello, the Gainesville region, Cassadaga, the Orlando region, Weeki-wachee Springs (during certain months only), the Tampa area, Bradentont, Oneco, Siesta Key, Vero Beach, Port Sewall, Punta Gorda, Archbold Biological Station, Palm Beach, and the area between Miami and Paradise Key. Very recently the Pensacola area has come into this category. The Keys have been combed for butterflies but until 1955 the moths were sadly neglected in this most fruitful region. During 1955 a wild cotton survey team under the leadership of J. N. Todd made extensive collections on several of the upper Keys, from which have come many important records and several new species. All the Keys, upper and lower, should be worked over with great thoroughness before the bulldozers denude them of all vegetation.

Collecting has amounted to practically nothing in many regions of the state. A glance at the gazetteer will show how few are the places which have been visited in western Florida, and in many of the counties in other sections. Worthwhile unexplored collecting territories can be found by studying Harper's geobotanical divisions and comparing them with the gazetteer.

Some of the place names have not been located even with the assistance of the State Department of Agriculture and the State Librarian, Miss Dorothy Dodd, to whom I am indebted for spotting a number of obscure places, some only after much research. These unidentified localities appear at the end of the gazetteer, though listed first under the species involved.

There is some confusion surrounding the name Capron. Lucien Harris, Jr. has received material from an individual, Louis Capron, who lives in West Palm Beach, but in the older records the name appears to indicate a place. Schaus (1880, p. 178) called it both Capron and Fort Capron and located it on the Indian River which as noted earlier covers a long stretch of territory.

Royal Palm State Park, Royal Palm Hammock, and Paradise Key are names that have been used for the same locality, a tropical hammock located in the Dade County part of Everglades National Park (Section 15 and 22, Township 58S, Range 37E), and many early records for what today constitutes Everglades National Park refer to this hammock. Another large hammock in Collier County, located along the Tamiami Trail south of Naples, was also known as Royal Palm State Park. It is listed officially as Collier-Seminole Park, although it is shown on the most recent official road map of Florida as Royal Palm Hammock. Early records for Royal Palm State Park, Royal Palm Hammock, and Paradise Key have been placed arbitrarily under the last of these names, since Paradise Key is the preferred name for this hammock according to Dr. William B. Robertson, Park Biologist, Everglades National Park, and Dr. John H. Davis, noted plant ecologist at the University of Florida. Some collecting has been done in the Park at other localities in recent years, but since they have identifiable names, there can be no question of ambiguity with them.

All records for Lake Placid, Childs, and Hicoria have been placed under Archbold Biological Station, an affiliate with the American Museum of Natural History. Although located nearby ten miles south of Lake Placid, the Archbold Biological Station is the actual site of collection for many specimens bearing a Lake Placid label. Childs, a very small community, is located only a mile north of the Station, and according to information received recently Childs will not appear on future road maps. Hicoria, another small community, is located less than three miles south of the Station. Dr. L. J. Brass, American Museum of Natural History botanist permanently assigned to the Archbold Biological Station, has collected in this general area northward to Childs and southward to Hicoria.

The only locality name which appears under two county heads is Longboat Key which is
partly in Manatee County and partly in Sarasota County. Gasparilla Island is partly in Charlotte County and partly in Lee County, but I believe that all records from that island are from Boca Grande, in Lee County.

Any unusual records from Chokoloskee, other than those of McDunnough, and also some from Marco, should be viewed with a very jaundiced eye, as this was the "source" of a number of specimens representing subspecies that could have originated only in far distant climes, despite the fact that many strange strays may and do reach Florida. According to Blatchley (1932, p. 308), Mrs. C. G. McKinney, wife of the postmaster at Chokoloskee, collected butterflies, moths, and Orthoptera for northern dealers for a number of years. All her material unquestionably was valid, but what the northern insect dealers may have foisted on the trusting buyer is another matter.

The evaluation of strays and essentially exotic species is one of the most exasperating features of Florida lepidopterology. I have been told by various specialists that some of the "Chokoloskee" specimens were patently fakes because the subspecies palmed off was a sheer impossibility, the habitat being too far afield to permit flight hither, whereas an Antillean race might have been perfectly possible. Such a situation is most unfortunate because it means that we simply cannot be sure of any of the unique Chokoloskee or Marco records unless the name of a reliable collector is attached, yet many of the unusual specimens taken at Chokoloskee in addition to those taken by McDunnough, undoubtedly were authentic.

The difficulty of making a true appraisal of some of these exotics is well illustrated by an extract from a letter dated November 19, 1927, from Dr. H. G. Dyar to Dr. F. M. Jones in connection with material collected by Jones in Royal Palm State Park.

"Dr. Schaus is very incredulous about this piece of Mexican fauna occurring in the midst of the Florida everglades; but it cannot be doubted. Where is Chokoloskee, Florida? A good many years ago Dr. Barnes purchased a lot of material so labeled, which was composed of mainland Mexican forms, though not the same species you sent, still of the same fauna. Only the other day I had before me two specimens of undoubted Sibine extensa Schaus labeled 'Chokoloske, Fla.' To be sure we laughed Dr. Barnes out of court at the time for being so easily taken in by false labels; but now it looks as though the laugh was the other way." When McDunnough collected at Chokoloskee, he found none of the spectacular species which were supposed to be there, and the more one studies the situation, the more one is inclined to believe that Dyar's first laugh was the best.

Besides these "Chokoloskee" records there are a number from Stemper in various collections that are surprising, to put it mildly, and here too the collector's name is invariably missing. Several reliable collectors were active around Stemper and Lutz at about the same time—namely, Bromley, Krautwurm, and Friday, and probably Engel; but it is not of their material that any question arises. The most dubiously labeled specimens either are in the Cleveland Museum of Natural History or have been transferred in recent years to the Carnegie Museum. Both E. C. Welling, who kindly listed the material in the first instance, and H. K. Clench, who has examined the part now in the Carnegie, concur in suspicion of certain species records.

Nonetheless it would be very short sighted to deny the possibility of a species of West Indian origin wandering a few hundred miles up the peninsula, for exotics are apt to turn up in strange places at approximately the same time because of severe disturbances or freak conditions of the atmosphere. Frequently, distinctly southern species are taken in New England in September and October.

The more I have seen of the interceptions made by the customs and quarantine services, the more plausible I feel are some of the records which have been frowned upon as figments of the imagination or palpable errors. Let us consider an illustration or two. In 1945 Klots captured a specimen of the South American Thebrone tricolora (Sulzer) at the airport in Miami. There is no question about the validity of this record, nor is there any doubt of its having arrived by plane and having escaped the vigilance of the quarantine inspection. It is merely a matter of fortunate coincidence that a collector of repute happened to be there and was able to seize the opportunity. In 1953 a species of the closely allied genus Pericopsis was intercepted at Miami, but had it got by inspection and had another alert collector been on hand, we would have had one more "impossible" record. In April and May of 1956, no less than four striking exotics were similarly intercepted. How many escape detection and are not taken, it would be idle to speculate; but we do know that there must be some. All of which makes one wonder whether the commonly accepted belief that Ithomia phoeno (Geyer) and Greta diaphana (Drury) were erroneously recorded, is itself an error, and whether perhaps they were actually taken much in the same way as Klots took T. tricolora, but by obscure collectors. Because they lacked his prestige, disbelief and time have gradually relegated them and their prizes to oblivion. In
the case of *Diaethria clymena* (Cramer), we do have documentation in the literature of a specimen taken in 1836; the details appear in the text under that species.

Whether my estimate on the validity of certain exotics is accurate or not would be hard to say. I feel that unless there is strong evidence on the point of who did the collecting, most of them should be excluded, awaiting duplication or confirmation. I have, therefore, taken the position that it is my duty to chronicle what has come to my attention, make such comment as to me seems appropriate, and leave the ultimate judgment to the reader, or to more evidence.

**DATES**

Although exact dates should be a part of the label on every specimen, it would serve no useful end to go into such detail here except in the case of strays or rare species. In general, all we want to know is the approximate time or times during the year when a species is flying in order to try to determine the number of broods, or when to look for it. Actually, dates in Florida have less meaning than in climates where seasonal change is greater. So many insects are taken in every month of the year that it becomes difficult to guess accurately the number of broods; in many instances it seems to indicate a continuous breeding.

The dates are given in the order of the months, as that method seems to me more important than the chronological order of the years. The apparent discrepancy of a more recent year being listed before an earlier one occurs only a few times, but this is the explanation for it.

The records reveal that most of the collecting has been done in the first half of the year, too much, in fact, in the winter months only, and I feel that until we have more complete information covering the whole year we cannot make categorical statements concerning the number of broods for most species. This preponderance of records for the winter months is easily explained by the fact that this is the time of year when Florida is popular with the visiting collectors, and only recently with the advent of more year-round collectors and the broadening work of the Division of Plant Industry has the summer fauna begun to take its place in the scheme of things.

George D. Morgan, who collected in the Tampa region for many years, very generously supplied me with notes he had made on the butterflies of that region, and for the vast majority the story is the same, "common in every month from March to December." This, of course, is not always true for every year, nor on the other hand would it be accurate to say that there are never years in which they might be common in January and February. Constant observation and meticulous notes will be needed before we can state authoritatively how many broods this or that species may have. It is indeed the exception when a single or double brood is clearly indicated.

The question of broods is further complicated by the occasional prolonged periods of cooler or actually cold weather from November through March. This period, though longer, might be likened to the spring in the north, and every collector there knows how variable is the date of first appearance of the very early species, in spite of the hypothesis that appearance is due to the intensity of the infra-red light from the sun having reached the critical point.

The statement that the records cover every month does not necessarily mean that the insect is flying continuously, especially in the northern part of the state, though it may be true literally for the southern tip of the peninsula. Nevertheless, because occasional winters are unusually mild throughout or because there may be prolonged warm spells at any time during the winter, many insects will be present every month, even well up the peninsula, though this may not happen often in any given year.

In an attempt to learn more about the flight periods and the peaks of abundance, a record was kept of all species taken during the year from April 1, 1955 to April 1, 1956 at the University of Florida Gulf Coast Experiment Station at Bradenton, and a detailed record of the number of specimens of each species taken at the University of Florida Sub-Tropical Experiment Station at Homestead was compiled for the year April 1, 1958 to April 1, 1959. Parallel data is being compiled for the University of Florida North Florida Experiment Station at Quincy; the collecting there started in June 1960 and has continued into 1963. Odd as it may appear, many of the species usually thought of as being common and present most of the year, were not taken at all, or were taken in such negligible numbers that the figures have no meaning. In the few instances where some significance is observable, the records for one or more of the three localities are added to the text in connection with the species which are otherwise dismissed as being of state-wide occurrence and taken in every month. If these appear to be inconsistent at times with the general statement, it must be recalled that only a specific year is under consideration.

**COLLECTORS**

The history of collecting in Florida goes back a long way. Bryant Mather kindly called my attention to a passage by Bartram (1791, pp.
and although the latter was not a lepidopterist, the passage is worth quoting at length for he depicted three butterflies, one of which is readily recognizable as Heliconius charitonius Linnaeus, but the other two are not identifiable. Because Bartram was too skilled an observer to have been very wide of the mark, and his details are precise rather than general, one wonders what he actually saw. In the case of the first of his mysteries it sounds as though he might have observed several different species of swallowtail butterflies and made a composite description. The second suggests Acis monuste (Linnaeus) but the extra and highly colorful markings rule it out. "When travelling on the East coast of the isthmus of Florida, ascending the South Mosquito river, in a canoe...I resolved to make a little botanical excursion alone; crossing over a narrow isthmus of sand hills which separated the river from the ocean, I passed over a pretty high hill...I continued along the beech [sic], a quarter of a mile, and came to a forest of the Agave vivipara...which occupied a space of ground of several acres...I proceeded towards the shrubberies on the banks of the river, and though it was now late in December (1774) the aromatic groves appeared in full bloom. The broad leaved sweet Myrtus, Erythrina corallodendrum, Cactus cochonellifer, Calatia suffruticosa, and particularly, Rhizophora conjugata, which stood close to, and in the salt water of the river, were in full bloom, with beautiful white sweet scented flowers, which attracted to them, two or three species of very beautiful butterflies, one of which was black, the upper pair of its wings very long and narrow, marked with transverse stripes of pale yellow, with some spots of a crimson colour near the body. Another species remarkable for splendor, was of a larger size, the wings were undulated and obtusely crenated round their ends, the nether pair terminating near the body, with a long narrow forked tail; the ground light yellow, striped oblique-transversely, with stripes of pale celestial blue, the ends of them adorned with little eyes encircled with the finest blue and crimson, which represented a very brilliant rosy. But those which were most numerous were white as snow, their wings large, their ends lightly crenated and ciliated, forming a fringed border, faintly marked with little black crescents, their points downward, with a cluster of little brilliant orbes of blue and crimson, on the nether wings near the body..."

The next collector and the first of importance was Edward Doubleday who was in the field from December 1837 to June 1838, mostly at St. Johns Bluff, as already mentioned, but possibly also at St. Augustine and Jacksonville. As his material is in the British Museum, the only records available to me were those taken from the literature, in this case Packard (1878, and perhaps his other works) and Grossbeck (1917). I am assuming that all the Grossbeck references were based on Walker (1854-1866) or some other source of information, and am assuming further that Grossbeck extracted all the records from Walker and that it was unnecessary for me to check Walker. All the Grossbeck records for Doubleday have been credited to the British Museum as depository. Packard's references have been left as given by him.

Actually there was a third collector earlier than Doubleday—a Dr. Leitner, 1836—but as he is known for only a single specimen, Diaethria clarae (Cramer), q.v., he hardly need be taken into consideration.

Perhaps mention should be made of John James Audubon who was in Florida from 1832 to 1834 during which time he made many paintings of birds. Scattered through his bird studies there appear numerous illustrations of insects, mostly Lepidoptera. A collection of these bird illustrations which included insects was published by Alice Ford (1952) but according to the comments in the text (p. 13), all the insect specimens used as models were supplied to Audubon by a correspondent in New Orleans. However, it is not beyond the range of possibility, or probability, that he may have included some insects in sketches made during his long stay at Key West, where many beautiful specimens must have come within his observations. If so, they would represent the earliest illustrations of Florida Lepidoptera, unless some appeared in Catesby (1731-1748), a rare work which I have not seen.

A. W. Chapman collected at Apalachicola in the late 1860's. Where his material is deposited, if extant, I do not know.

Charles J. Maynard made many trips to Florida from 1868 to 1901 in the course of which he visited many parts of the state. His primary interest was in ornithology, but he did collect some Lepidoptera, records for which appear in his Manual (1891) and which were repeated by Grossbeck (1917). Maynard's material is in the Museum of Comparative Zoology, Cambridge, Massachusetts.

Regular collecting began about 1875 when Roland Thaxter first visited and collected at Apalachicola. He made visits to other parts of Florida, including Miami, as late as 1897. His ma-
terial is also in the Museum of Comparative Zoology.

Albert Koebel likewise collected at Apalachee-
cola, in 1882, and covered several other locali-
ties either then or later. His material is scat-
ttered in a number of institutions, but where the
bulk of his Florida specimens are to be found is
a mystery. Probably they, too, are scattered.

In the same year, 1882, Dr. Wittfeld was col-
collecting in the Indian River region, probably
around Georgiana, and possibly before that
time, as *Strymon wittfeldi* was named for him by
W. H. Edwards, the description appearing early
in 1893. Some of Wittfeld’s specimens went to
Herbert Edwards.

W. W. Hill collected at Rockledge in 1884.
His material is in the New York State Museum
at Albany, and the entire Hill collection was
listed in the 23rd Report of the State Entomolo-
gist (1908, pp. 61–117). Unfortunately, the
determinations leave much to be desired accord-
ing to those who have had occasion to work with
the collection, and consequently need to be veri-
fied, as will be noted in the text under certain
species.

H. K. Morrison collected in some parts of
south Florida in 1884 and at Key West in 1885.

In 1888 E. A. Schwarz published on the insect fauna of tropical Florida; however, references to
Lepidoptera are few and are chiefly in the re-
port of the discussion which immediately fol-
lowed the paper. Nonetheless, he must have
collected many specimens as several authors
mention material of Schwarz and of Schwarz and
Barber. Specimens collected by Schwarz and
Bela Hubbard were noted by Grote (1875c),
which would place Schwarz as one of the earlier
collectors. Grote also mentioned in this paper
specimens received from George Dimmock, but
of the latter there is no other record.

William Beutenmuller and Charles Palm were
in Florida the same year (1887) as Schwarz. A
few species were named for Palm—a point it is
well to bear in mind as it is easy to assume with-
out thinking that *palmi* has something to do with
a palm tree, whereas there may be no connec-
tion whatsoever.

In 1890, and again in 1900, Dr. H. G. Dyar
collected assiduously in the Palm Beach-Lake
Worth area, though the inference is clear from a
close reading of his papers relating to the ma-
terial collected there that all the collecting was
done actually at Palm Beach. Accordingly, I
have credited the records to Palm Beach, though
Grossbeck (1917) listed them all under Lake
Worth. The results of these two visits, including
a number of life histories, were published by
Dyar in several papers during 1901 and a few
subsequently. Until recently this was almost the
only source of information regarding microlepto-
doptera in Florida, especially for their life his-
tories.

Mrs. Annie T. Slosson collected at several
places over a number of years, principally at
Fernandina, Ormond, Charlotte Harbor, and
Biscayne Bay, i.e., the Miami region. Some of
her Lake Worth records were included in Dyar’s
paper (1901a). Unfortunately the papers which
she herself published in several early volumes of
the *Entomological News* and of the *Journal of
the New York Entomological Society* do not give
satisfactory records, nor do her labels supply
any data beyond locality, sometimes not even
that. Although most of her material is in the
American Museum of Natural History, some of
it is scattered and cannot be located now, in-
cluding, unfortunately, several specimens repres-
senting species whose presence in Florida needs
confirmation. Perhaps she did what some of us
have thoughtlessly done, discarded things that
seemed common and worthless; common in the
north, but extremely rare in Florida.

Just before and after 1900, Dr. D. M. Castle
and Phillip Laurent collected in two or three lo-
calities and recorded their captures in the litera-
ture (1896, 1897, and 1903). Laurent’s material
is in the collection of the Academy of Natural
Sciences, Philadelphia.

Between 1911 and 1914, four expeditions to
Florida were made under the auspices of the
American Museum of Natural History. The re-

results of these expeditions were published in
1917. The primary author of the paper was Dr.
John A. Grossbeck, but owing to his untimely
death in 1914, the final editing was done by
Frank E. Watson. This has been the standard
list of the Lepidoptera of Florida, and is, of
course, one of the main sources in the literature
on which I have drawn. Some of the records
are a little hard to interpret, but it is quite prob-
able that had Grossbeck lived to finish the work,
there would have been adequate explanation of
the form in which they are written. For ex-
ample, it is difficult to decide whether “Char-
lotte Harbor, Punta Gorda,” means that speci-
mens were taken in both places or whether he is
simply aiding the reader to locate the lesser
known place by that which is better known. I
believe this was definitely his motive in writing
“South Bay, Lake Okeechobee,” and have ac-
cordingly dropped the second name. It is also
difficult to figure out whether “Punta Gorda,
February, Lake Worth (Sloss.),” means that Slos-
sen took the moth at both places or only at
the latter. I have assumed only at the latter, or,
be in doubt, have not credited her for the for-
mer, but have cited Grossbeck as the authority,
even though she did collect in the Punta Gorda
INTRODUCTION

That can be said of Sleight is that Forbes remembered him and thought he had been a member of the Brooklyn Entomological Society, and probably the New York Society as well. If his material was left to the Brooklyn Museum, it might be in the United States National Museum where the collection eventually wound up, or it may be anywhere, as apparently there was some prior distribution, or in plainer language, helping one's self. George Clyde Fisher, an ornithologist attached to the American Museum of Natural History, made a visit to Lake Wimico near Apalachicola in December 1909, according to Howell (1932, p. 51), but in Howell's bibliography (p. 503), the titles of Fisher's papers show that he was in Florida at Quincy in 1907, at Apalachicola in 1908, at DeFuniak Springs in 1909 and 1910, and at Tallahassee in 1916. Grossbeck (1917) gave many records for Lepidoptera collected by Fisher at DeFuniak Springs, but at no other locality. A check for two or three of these showed that this material is in the American Museum collection.

The Johnson referred to by Grossbeck almost surely is Dr. Charles Williston Johnson, for in Part I of the "Insects of Florida", of which Johnson was the author, he stated that many of his records for the Diptera (the subject of Part I) were the result of his residence in St. Augustine from 1880 to 1888, and the Johnson records cited by Grossbeck were all from St. Augustine during that period. Where the material is I have not been able to discover, but from some of the statements made by Grossbeck it seems that Johnson may have kept notes of his observations, and perhaps did not actually collect.

Palmer possibly refers to William Palmer who was associated with the Smithsonian Institution, but this a guess based purely on the fact that he wrote a few papers on Florida birds.

Of the names appearing in Grossbeck with less frequency than the four above, some can be identified from the bibliography in this publication; of the remainder, relatively little information has been found: A. N. Caudell was with the Bureau of Entomology of the United States Department of Agriculture; Dickenson, also spelled Dickerson, I suspect was W. S. Dickerson of Miami, who sent his season's catch for several years to W. C. Wood, of Mahopac, New York (Wood, 1939, p. 131). Where Wood's collection is, I do not know. Jacob Doll was the well known collector from Brooklyn, but there is no evidence that he visited Florida; the French named may have been G. H. French, author of The Butterflies of the Eastern United States; John L. Healy of Chicago made at least one visit to Florida, probably about 1922; Alex K. Wyatt has informed me that Healy's material was in the vicinity. Certain other assumptions have been made, such as that all specimens on which Doubleday records are based are in the British Museum, as already mentioned; also, that the specimens for all the Davis records are in the Staten Island Museum except a few known to be in the American Museum of Natural History. All the records that coincide with the dates of the 1914 expedition have been credited in this list to the American Museum of Natural History as depository.

The first expedition, that of 1911, consisted of Grossbeck and William T. Davis, the second, 1912, of Grossbeck, Davis, and Joseph Mattes, who were joined later by Dr. J. H. McDunnough. The latter related to me an incident that other collectors may appreciate. "When the other members of the expedition left for Everglades, Mattes remained in Fort Myers, where he was made the butt for a gang of rude boys who followed him along from one electric light to another and annoyed him excessively by their remarks." Mattes is probably not the only one who has undergone such trials, but it should be recalled that Fort Myers was originally a "cow town" and apparently the rugged life of its early days still persisted into 1912. This was the expedition instigated by Barnes to look into the authenticity of the peculiar Chokoloskee records, which, needless to say, were not verified. The third expedition in 1913, was made independently by Davis. A fourth, in 1914, was carried out by Frank E. Watson and A. J. Mutchler, the object of this case being a month's collecting across the little explored northern strip from Jacksonville to Pensacola, with a side trip down to Gainesville. McDunnough informed me that all the material from the Barnes collection from which new specific names were proposed in the Barnes and McDunnough Contributions, Vol. II, No. 4 and Vol. III, No. 4 is in the United States National Museum. Part of the material, Grossbeck's misidentified species as recorded in the above Vol. III, should be in the American Museum of Natural History, possibly still under the wrong name; the balance of the material, formerly in the Barnes Collection, should now be in the United States National Museum.

In addition to the collectors named above and in the earlier part of this section, there are several whose names appear in the Grossbeck list. Of course it is quite possible that in some instances the parenthetical names may refer to collections of that day, rather than collectors, but if so, there is no way of distinguishing that fine point at this time. Four of the names appear with relative frequency, Charles E. Sleight, G. C. Fisher, Johnson, and Palmer. About all
Chicago Natural History Museum collection but was destroyed by pests; Prof. J. W. P. Jenks of Providence, Rhode Island, an ornithologist, collected a few specimens of Lepidoptera in 1887; R. Ludwig collected around Stemer, but when, is uncertain; Frank Merrick of New Brighton, Pennsylvania, made one or more trips to Florida, being in Dade City at least in 1813, according to Wyatt, and gave his material to Barnes; Grossbeck named A. L. Quaintance of the United States Department of Agriculture, but there is no evidence of his having visited Florida, unless the fact were to emerge from some of Quaintance's papers; it is believed that F. Rauterburg was a dealer, perhaps one of those who obtained material from Mrs. McKinney, of Chokoloskee; E. R. Sasscer was with the United States Department of Agriculture and was with the Division of Plant Industry for a few months in 1854, but must have collected in Florida prior to 1817; Otto Seifert collected in Florida in March 1901, (see Ent. News 15:47), lived in the New York area, probably Brooklyn, and his collection may have gone to Buchholz or the Brooklyn Museum; the Snow mentioned probably is Prof. Francis H. Snow of the University of Kansas; Henry Thurst- ton, an ornithologist from New York, collected a few specimens at Seven Oaks; Wickham may have been the coleopterist from Philadelphia; and Williams may have been Roswell C. Williams, the specialist in Hesperidae. Finally, there are those who are no more than names. Perhaps someone will be able to rescue them from complete oblivion: Babitt; Brown, who collected at Hastings; Dornan; Hegen and Henderson; Mrs. & Mrs. Hunt; Linden; Neal; Norton; Pollard (Query: Could this be the curator of the Staten Island Museum, C. L. Pollard?); Friddle (is this an error for Friddle?); Turner. I believe Linden was one of the early collectors, but the only information I have is in Grote & Robinson (1868, p. 25) in their description of *Dyops futilis*, now in the genus *Litoprosopis*, where the habitat is given as "Florida (Linden)." This is the form in which the collector is generally indicated in this paper. However, there is a town of Linden in Sumter County and the possibility that it was to this the reference was intended, cannot be ruled out entirely.

W. H. Safford made a report (1917) on the natural history of Paradise Key and the nearby Everglades, with illustrations of some Lepidoptera as well as text references to them.

In 1920, H. L. Dozier published a brief list of insects of the Gainesville region taken during the years 1916-1917.

From 1921 to 1942 the late Dr. Frank M. Jones made a number of visits to Florida to collect specimens, covering a wide range of localities from DeFuniak Springs to Paradise Key. In connection with a survey of the natural history of the Key projected by the Women's Garden Club of Florida, at that time the owners of the Key, he made a complete report of his captures on the Key. The general editor of the project was W. S. Blatchley, but apparently the only section of the survey that actually reached the report stage was that on Lepidoptera by Jones. A copy of this Jones very generously turned over to me together with all his correspondence with the various specialists in Washington who had made many of the determinations for him, as well as his records for other Florida localities. The material itself, including a very small amount taken by Blatchley, is partly in the United States National Museum, partly in the Academy of Natural Sciences of Philadelphia, partly in the Peabody Museum of Natural History, New Haven, Connecticut, and partly in my collection.

A small collection was made in the summer of 1938 on the Dry Tortugas by Prof. H. H. Plough, which is now in the Cornell University collection, and which was listed by Forbes (1941). The late W. M. Davidson and Dr. G. W. Rawson made brief visits to these remote Keys in the early summers of 1939 and 1940, primarily for bird banding and observation, but collected some Lepidoptera there which are in their collections. A paper prepared by them which will summarize their captures is scheduled to appear in the Journal of the Lepidopterists' Society. Recently entomologists of the Division of Plant Industry inaugurated a series of visits to these Keys for the purpose of a systematic study of the terrestrial arthropods. Their findings are to be published by the Florida Department of Agriculture.

Otto Buchholz made a collecting trip to Florida in 1948, the results of which added to material obtained by him from several other sources, made his one of the most important Florida collections. Since his death, his collection has been acquired by the American Museum of Natural History, but no attempt has been made to change all the depository records in this publication.

Dr. J. C. Franclemont has made several short, but intensive collecting visits to Oneco in recent years, with briefer stays in a few other localities.

Roger W. Pease has made a couple of lengthy stays at the Archbold Biological Station for collecting, and was joined for a shorter period by Dr. Charles L. Remington, their material being deposited partly in the Yale University collection, partly in the Station collection, after being thoughtfully submitted to me for study and records.
INTRODUCTION

From November 1 to May 1, in the winters of 1958-1959, 1959-1960, and 1961-1962, Prof. S. W. Frost also ran a light trap at the Archbold Biological Station. He, too, generously submitted all his material for my inspection, and it is in the collection of the Pennsylvania State University, except for a few specimens which I was permitted to retain through Prof. Frost's kindness and some specimens which have not been determined and which are on loan to me.

Alex K. Wyatt spent the winter of 1959-1960 in St. Petersburg, but because of the prolonged cold, did not collect much at that time. However, a briefer, earlier visit, together with the valuable material collected by Henry Ramstedt over several winters at Punta Gorda, gave Wyatt one of the finest of Florida collections. This, together with his other material, he has turned in recently to the Chicago Natural History Museum, but the depository records are still credited to Wyatt in the text. Ramstedt also collected very briefly on Egmont Key over fifty years ago and is probably the only person who has collected there. Some of his Punta Gorda records are unique, and he is unquestionably one of the most important collectors to date.

Other collectors have visited Florida for brief periods, some limiting their activities to one place, others doing a day or so here and there. All have contributed to the sum of our knowledge of the fauna, either on their own account through brief notes in the literature, or through the current holders of their material, individual or institutional. The names of some will appear also under the heading "B" of the section on depositaries or in connection with various institutions under "C" in the same section, but they are enumerated here as collectors in the field.

Henry Engel and Bernard Krautwurm both collected at Stemper, and probably at Lutz, their material ending up mostly in the Carnegie Museum, but also in the hands of a few individuals. Additional Florida material collected by John Bauer, E. F. Mellon II, C. W. Stafford, Dr. Walter Sweadner, and Mrs. Mary Wible, is in the Carnegie Museum collection.

Dr. J. C. Bradley, Fred Marloff, and F. W. Friday are others who collected at Stemper and perhaps Lutz. Friday's collection is in the Los Angeles County Museum. C. O. McBride, Dr. J. C. Needham, ? Henri, ? Hoffman, and Dr. J. S. Rogers collected at various places, with the material going to the Cornell University collection. Material that went essentially to the Museum of Zoology, University of Michigan, was collected in a number of localities from Monticello to Miami by D. M. Bates, H. E. Bratley, Dr. I. J. Cantrall, H. Fraufl, Dr. F. M. Gaige, Dr. T. H. Hubbell, and F. W. Walker. The American Museum of Natural History has been enriched by collections made around Tampa by E. L. Bell, at Florida City by Mrs. C. F. dos Passos, at Winter Park and Archbold Biological Station by Dr. A. B. Klotz, at Port Sewall and Big Pine Key by L. J. Sanford, and from various localities by F. E. Church. Richard Archbold and Dr. L. J. Brass have collected in the neighborhood of the Archbold Biological Station, and their material is at the Station. Prof. R. H. Beamer and a group of his students made a collecting trip for the University of Kansas. G. B. Fairchild deposited in the Museum of Comparative Zoology some Florida specimens which he had taken.

R. T. Bird of Rye, New York, made a brief collecting trip to Paradise Key about 1930. F. G. Blachler collected specimens for Bunchholz at Bonita Springs. William Reiff and Samuel E. Cassino spent a short time at Rockledge and wrote of their captures (1917). Cassino described several geometrids from St. Petersburg, but there is no evidence that he went there. The late Prof. F. W. Fattig, a prolific insect collector, who served as curator of the Emory University Museum for many years, was a Professor of Agriculture at the University of Florida from 1818 to 1921, during which time he made all or most of his Florida collections. Collecting trips of longer or shorter duration have been made by J. W. Cadbury and Mrs. Margaret M. Cary; M. O. Glenn; Dr. R. W. Hodges; H. W. Howe; G. W. Kamp; E. V. Komarek of Grady County, Georgia; R. R. McElvare; Lt. Col. S. S. Nicloly; Kilian Roever; Dr. T. E. Snyder; P. C. Truman; G. S. Walley of Ottawa, Ontario; and J. P. Knudsen made a collection while residing briefly at Tallahassee. Janice Magill established the most southerly record for Actias luna L. while a high school student in Clewiston.

There were others about whom little information is available, even whether they were visitors or residents: Applegate and Smith; Beatty at Milton in 1958; B. L. Boyden; Bramley (perhaps in error for the late Dr. Stanley W. Bromley of Stanford, Connecticut); H. J. Erb; P. G. Hawes; Heness at LaBelle; Krueger; J. H. McMillan at Gainesville; Dr. Levi W. Mengel of Reading, Pennsylvania; G. F. Moznette at Miami in 1920; Murrell, in 1938; Niedsugar; Norris; Carolyn Ponsonby; Samuel N. Roads of Philadelphia; William Sawyer; Mrs. L. Walsh; White; Wood; and R. H. Young in 1917.

A fascinating study which would consume much patient labor would be to try to find out where people like Strecker, Henry Edwards, Hulst, and Smith got the Florida specimens from which they described so many species. Some of the sources are mentioned in the descriptions, but for many of them the source is not indicated.
Were there other early collectors about whom we know nothing at all?

The resident collectors, permanent and seasonal, have provided the greatest amount of information, some of it indirectly through the disposition of their material to others, although their impact on that information scarcely began to take effect until forty years ago.

In the forefront of these contributions, though not in point of seniority, stands Mrs. Leslie E. Forsyth, whose records for macrolepidoptera, and to a small degree for microlepidoptera, are unmatched by anyone in Florida. Her material is held by many collectors, for with her it was largely a commercial venture, but nonetheless, she was the sole source of many a choice item. Buchholz thoughtfully pulled from his files and turned over to me some old sales lists received from Mrs. Forsyth, and these lists are my authority for one or two species which appear on them. Even though Mrs. Forsyth did not indicate that they were currently available, it is hard for me to believe that the names would have been on the lists had she not at one time or another taken specimens. The lists were headed: “Noctuidae” (etc.) “from So. Fla.,” suggesting that although her home was in Florida City, she probably collected in other, nearby places.

The earliest resident collectors probably were Johnson and Wittfeld, both already mentioned. They were followed by T. L. Mead who lived at Orlando or Ormond at one time and did some collecting for his father-in-law, William H. Edwards, and some perhaps for himself; if he had his own collection, the answer will be forthcoming when someone goes over the Carnegie Museum collection for Florida records. Edwards may have done a little collecting on his own, as F. Martin Brown has written me that Edwards visited his semi-invalid wife and their son in St. Augustine in the late 1860’s. Brown reported further that there is reference in Edwards' letters to S. F. Baird with regard to specimens collected for him by the son.

Next in importance to Mrs. Forsyth comes Henry Ramstedt who has been mentioned in connection with A. K. Wyatt.

To Major Dean Berry goes credit for many contributions to the knowledge of the butterflies, Genatoca, and other large moths of the Orlando and Titusville regions. Much of his material was distributed to various collections. Unfortunately, after his death Mrs. Berry, due to ill health, was not able to give proper care to the remainder, and much data has been lost to molds and pests. Berry will be remembered especially for the discovery of the hesperid which bears his name.

George D. Morgan, already mentioned, collected industriously in and around Tampa and published privately (1933) a list of the butterflies of the area, a copy of which Lucien Harris, Jr. kindly made and gave to me. Morgan is responsible for many notes and comments on the relative abundance and season of numerous species. What little remains of his collection is in the Biology Department of the University of Tampa. Prof. Clyde T. Reed, of that department has picked up one or two good specimens. Also collecting at Tampa was U. C. Zeluff, although his activities in the field were essentially commercial and have been discontinued.

Dr. H. T. Fernald moved to Orlando in 1928 and then to Winter Park in 1930, where he lived until his death in 1952. Most of his collecting was done in his early years there. A large part of his collection is in The Florida State Collection of Arthropods, although he sent many specimens to the United States National Museum where they were made types of species described by the workers there.

Mrs. Florence M. Grimshawe has been an active collector of butterflies in Miami and the upper Keys for some years, but because of other activities has been able to supply only a small portion of the large amount of data she possesses.

J. F. Malloch, formerly with the United States Department of Agriculture, collected much material at Vero Beach which he has deposited in the United States National Museum, but very little of it has been worked up.

J. F. May ran a light trap at Weeki Wachee Springs on several occasions, an operation which Mrs. May has continued at times. Since they were interested primarily in the larger and more spectacular species to add to their fascinating exhibit at the Springs, they most generously saved the balance of the catches and turned them over to me. During his life, May did not have an opportunity to work up his own material in a scientific way, nor has Mrs. May, although I have seen and recorded some of it.

S. V. Fuller, who holds a staff appointment with the Division of Plant Industry, has one of the finest collections of Florida material, taken mostly at or near his home in Cassadaga, but also from other parts of the state including the upper Keys.

H. L. King of Sarasota has collected butterflies in many parts of the state and has contributed a number of pertinent observations based on his wide experience in the field; during one summer he took many moths which he kindly turned over to me and which form a part of my records, without, I fear, always giving due recognition to him.

In the text much more material is credited to my personal collection than is actually there, for
INTRODUCTION

many hundreds of specimens have been distributed to various individuals and museums, and, although no record was kept of where they went, a record was kept of what was caught. In asking others to list their Florida material it seemed pointless to have them spend their time duplicating records I already had. Consequently, they were told to ignore them. Also, many common species, or what I thought were common species, were discarded before there was any thought of compiling a list—a pity, because what since have turned out to be rare insects in Florida, though common in the north, were tossed aside. In going over Buchholz’s collection with him, I discovered that he had done the same thing. However, a related point should be mentioned. The more one studies the moths of Florida, the less sure one becomes. What appears to be a familiar species of the north turns out to be something quite different, sometimes undescribed; what appears to be something quite different turns out to be nothing more than a Florida subspecies, of a common species, perhaps herefore unrecognized. Species which seem to be readily determinable turn out to have been masquerading under assumed names for years, the name not applicable and the species often standing without a name.

Another reason for letting many of these specimens remain credited to my collection is that it pins the responsibility for the determination on my shoulders.

Small collections have been made by Leroy N. Kilman of St. Petersburg, J. Harold Matte-son of Miami, J. M. Plomley of West Hollywood, and W. T. Thomas of Daytona Beach. W. J. Platt, III, a student at the University of Florida, has been collecting for some years and has contributed some interesting records.

H. E. Woodcock, formerly of Chicago, moved to Jacksonville recently and is getting material for the Canadian National Collection, to which he had previously donated most of his own collection, the latter containing many specimens from Florida, partly from his collecting around Lake Geneva and Keystone Heights in earlier years. A part of his collection and literature was donated to the Division of Plant Industry. Another recent settler in Jacksonville is C. F. Zei-ger, who is working on the butterflies, especially Asterocampa and Lycaenidae. Still another who has taken up collecting recently is Dr. I. J. Abramson of Miami Beach. He is planning to make a thorough study of the butterflies of Ever-glades National Park with special reference to their habitats and seasonal abundance, and to publish on the same.

Miss Paula Dillman of Oneco ran a light trap for me during two summers which resulted in some very important contributions, especially in the microlepidoptera. Not only are many of these undetermined, but many more are still unspread.

From April 1955 through April 1956 the trap was operated at the University of Florida Gulf Coast Experiment Station, Bradenton, under the supervision of Dr. E. G. Kelsheimer, assisted by Frank Secor. So far as I am aware, the micro-lepidoptera collections thus made by Dillman at Oneco, by Kelsheimer and Secor at Braden-ton, and by the author at Siesta Key, all within a radius of twenty miles, represent the only intensive year round collecting in this field that has been undertaken in Florida. The one drawback is that there is so much material that it has been impossible to prepare even a fraction of it, and because there are so many unrecognized and undescribed species present, the vast majority of what has been mounted is undeter-mined beyond the Pterophoridae. However, in 1961, Mrs. Shirley M. Hills began collecting micro-lepidoptera with great enthusiasm near Pensacola, and as she is an excellent preparer of even the smallest specimens, her collection promises to be one of the finest in this field in Florida. But again it may be years before many of her specimens will be identified to species, or described.

From April 1958 to November 1959, Dr. D. O. Wolfenbarger operated the trap at the University of Florida Sub-Tropical Experiment Station near Homestead. Here, too, complete identification of the microlepidoptera must wait until someone undertakes a thorough study of most of the families involved. The collections were made on a weekly basis only, but the great difficulty encountered in trap collecting in this locality is the presence from time to time of hordes of small, greasy beetles that make a horrible mess of all the Lepidoptera, almost totally so of the microlepidoptera. Sometimes less than one per cent of the entire catch is recognizable.

William B. Tappan started operating the trap at the University of Florida North Florida Ex-periment Station at Quincy in June 1950, with the operation continuing into 1963. Curiously enough the same greasy beetle problem has arisen in Quincy, although it was negligible at both Bradenton and Oneco.

For the benefit of future investigators, it might be well to summarize the type of results from these operations. From Homestead come many unusual and presumably Antillean species; from Bradenton and Oneco, a wealth of microlepidop-tera; and from Quincy, northern species that were not known in Florida, in fact, some of them were not known south of North Carolina heretofore.
THE LEPIDOPTERA OF FLORIDA

Among the most important recent collections are those made by Commodore V. F. Grant, and William Patterson of Warrington, W. J. Warren, Jr., of Myrtle Grove, and Mrs. Hills who lives about twelve miles northeast of Pensacola. Not only have they gathered a surprisingly large number of species, but they are providing us with the first real knowledge of the fauna of the western tip of Florida. Mrs. Hills in particular has been most generous in supplying duplicate material which has been distributed to various collections, primarily those of the American Museum of Natural History, the Canadian National Collection, the Florida State Collection of Arthropods, the United States National Museum, and the author, although none of them has been indicated as the depository of the individual species because of the complicated bookkeeping involved.

Harry O. Hilton of Fort Walton Beach is another recent addition to resident collectors. Although he has been collecting for some two years, knowledge of the fact was received too late to incorporate many of his records. In addition to collecting, Hilton has made many color slides of Lepidoptera, not only of adults, but of the earlier stages as well. It is to be hoped that some general use of these excellent photographs may be made in time. In May 1963, Hilton started operating a light trap and this, coupled with his other collecting, will give us one more valuable locality link in the western part of the state.

There are other collectors whose work has produced a tremendously important yield, the importance of which is constantly increasing and becoming the dominant factor—the professional entomologists, connected with the University of Florida Experiment Stations and the main campus at Gainesville, the Division of Plant Industry of the Florida Department of Agriculture, the University of Miami, and the other universities, colleges, and institutions. A few of these have been named, but it is well to identify them, in order that as few names as possible remain devoid of all identity. Their connection with the Division of Plant Industry (DPI), or the United States Department of Agriculture (USDA), is indicated by the abbreviations.

Adkins, T. R., DPI, Ocala
Ayers, C. I., DPI, Gainesville
Baker, C. H., DPI, Vero Beach
Baranowski, Dr. R. M., U. of Fla. Sub-Tropical Exp. Sta., Homestead
Beers, W. L., Jr., Buckeye Cellulose Co., Foley
Betts, H. M., DPI, Macclenny
Bottimer, L. J., USDA, Kerrville, Texas
Brown, A. C., DPI, Gainesville
Dekle, G. W., DPI, Gainesville
Denmark, H. A., DPI, Gainesville
Desin, C. W., USDA, Sanford
Dickinson, C. L., DPI, DeFuniak Springs
Dowling, C. F., Jr., DPI, Miami
Foster, R. E., DPI, Gainesville
Frierson, P. E., DPI, Gainesville
Henderson, W. P., DPI, Groveland
Hetrick, Dr. L. A., U. of Fla., College of Agriculture, Gainesville
Hill, L. B., DPI, Largo
King, Dr. J. R., U. of Fla. Indian River Field Sta., Fort Pierce
Knight, R. A., DPI, Gainesville
Link, O. D., (Deceased) DPI, Gainesville
Merkel, E. P., Southeastern Forest Experiment Station, U. S. Forest Service, Okeechobee
Miller, R. H., U. of Fla. Pecan Investigations Lab., Monticello
Morse, Dr. R. A., Cornell Univ. (formerly with DPI, Gainesville)
Nakahara, Steve, Plant Quarantine Div., USDA, Seattle, Wash. (formerly stationed at Miami Springs)
Perry, J. W., DPI, Gainesville
Peterson, Dr. Alvah, Columbus, Ohio (formerly with DPI, Gainesville)
Poucher, Charles, DPI, Winter Haven
Roof, L. R., USDA, Brooksville
Snell, R. R., DPI, Homeland
Stegmaier, C. E., Jr., USDA, Miami
Tissot, Dr. A. N., U. of Fla. Agr. Exp. Sta., Gainesville
Vild, R. E., USDA, Winter Haven
Wade, G. F., Sr., DPI, Bushnell
Wagner, W. E., Vero Beach Labs. Inc., Vero Beach
Weems, Dr. H. V., Jr., DPI, Gainesville
Whitton, Gil, Asst. Co. Agrt., Clearwater
Wilson, Dr. J. W., U. of Fla. Central Fla. Exp. Sta., Sanford
Woodley, J. R., USDA, Orlando
Yaz, C. L., USDA, Palmetto
Yothers, W. W., USDA, Orlando

Special mention should be made of the contributions made by Prof. J. R. Watson of the University of Florida Agricultural Experiment Station in Gainesville to whose assiduous efforts and enthusiasm a large part of the Station collection is due. In addition Prof. Watson made many notes of his observations. These notes, now owned by his daughter, Miss Wilma Watson of Sarasota, unfortunately were inaccessible.
INTRODUCTION

If and when they become available, they should prove of great value.

In January 1955 there was inaugurated by the State Plant Board of Florida (DFP) a series of light traps to be operated for the purpose of spotting the advent of species of economic importance. These traps are located from Quincy to Homestead, and although all the material taken has not been of cabinet quality due to the difficulty of working out an efficient trap, the determinations resulting from the catches have been of inestimable value in the knowledge of geographic and seasonal distribution, and relative abundance of many species besides those of purely economic interest. If these traps are maintained and the catches fully analyzed, the results will provide an abundance of information in the future.

Dr. L. A. Hetrick has operated a trap, primarily to provide specimens for his students, but in the process has picked up a number of important species, all of which he has been kind enough to submit for examination. I am also indebted to him for the gift of several rare specimens.

COLLECTIONS

There must be authority for every record. This authority comes from three sources—a specimen in a collection, from a statement in the literature, or occasionally on the word of a reliable collector. The literature will be discussed anon; at the moment we will confine ourselves to the collections.

The lists and data of material in private hands have been supplied by the owners of those collections, and without their generous and enthusiastic cooperation, amateur and professional, this list could not have been prepared. To all of them I want to extend my warmest thanks and appreciation for all they have done to help, and to give them credit for supplying the major part of the data, much of which does not appear because with the accumulation of it, the need for detail vanished, and many species could be relegated to the classification “generally distributed.”

Since one of the objects of this undertaking has been to catalogue the present depositories of specimens, and also to give credit where credit is due, the collections have been divided into four sections:

A. those which contain only the generally distributed species, specific records for none of which are mentioned in the body of the text.
B. those in private hands, of which at least some specimens are mentioned in the text.
C. institutional collections.
D. collections, private and institutional, whence for various reasons, it has not been possible to get a list of material. In the case of individuals it has been a question of lack of time, not unwillingness; in the case of museums, no staff member could take the time, an understandable situation, nor could I take the time myself. Since someone may wish to study some special field of Florida Lepidoptera, this last group should not be forgotten.

Section A


Section B

OA Otto Ackermann, Irwin, Pa.
FRA F. R. Arnold, Chippewa Falls, Wisc.
DLB D. L. Bauer, Bremerton, Wash.
WBR W. R. Bauer, Peraluma, Calif.
HB the late Henry Bird, Rye, N. Y. His collection is now in the American Museum of Natural History.
AB André Blanchard, Houston, Texas
AFB Dr. A. F. Braun, Cincinnati, Ohio
AEB Dr. A. E. Brower, Augusta, Maine
FMB F. M. Brown, Colorado Springs, Colo.
OB the late Otto Buchholz, Roselle Park, N. J. His collection is now in the American Museum of Natural History.
JWC J. W. Cadbury, Browns Mills, N. J.
THE LEPIDOPTERA OF FLORIDA

Only a very few specimens of his large collection of Florida material which includes the remainder of the Forsyth collection, have been listed.

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
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</thead>
<tbody>
<tr>
<td>RRM</td>
<td>R. R. McElvare, Southern Pines, N. C.</td>
</tr>
<tr>
<td>CGM</td>
<td>C. G. Merker, Pittsburgh, Pa.</td>
</tr>
<tr>
<td>JRM</td>
<td>Prof. J. R. Merritt, Louisville, Ky.</td>
</tr>
<tr>
<td>BLM</td>
<td>B. L. Munroe, Jr, Baton Rouge, La.</td>
</tr>
<tr>
<td>SSN</td>
<td>Lt. Col. S. S. Nicolay, Cherrypoint, N. C.</td>
</tr>
<tr>
<td>WP</td>
<td>William Patterson, Warrington, Fla.</td>
</tr>
<tr>
<td>LSP</td>
<td>L. S. Phillips, Chicago, Ill.</td>
</tr>
<tr>
<td>BHP</td>
<td>B. H. Pickell, Overland, Mo.</td>
</tr>
<tr>
<td>WJF</td>
<td>W. J. Flatt, III, Gainesville, Fla.</td>
</tr>
<tr>
<td>JFP</td>
<td>J. M. Flomley, West Hollywood, Fla.</td>
</tr>
<tr>
<td>JAP</td>
<td>J. A. Powell, Berkeley, Calif.</td>
</tr>
<tr>
<td>GWR</td>
<td>Dr. C. W. Rawson, New Smyrna Beach, Fla.</td>
</tr>
<tr>
<td>WAR</td>
<td>Dr. W. W. Rees, Los Angeles, Calif.</td>
</tr>
<tr>
<td>PSR</td>
<td>P. S. Remington, St. Louis, Mo.</td>
</tr>
<tr>
<td>LRR</td>
<td>L. R. Rupert, Sardinia, N. Y.</td>
</tr>
<tr>
<td>VGS</td>
<td>V. G. Sisko, Chicago, Ill.</td>
</tr>
<tr>
<td>WES</td>
<td>W. E. Sieker, Madison, Wis.</td>
</tr>
<tr>
<td>HFS</td>
<td>Dr. H. F. Strohecker, Coral Gables, Fla.</td>
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<tr>
<td>JCS</td>
<td>J. C. Symmes, Atlanta, Ga.</td>
</tr>
<tr>
<td>JWT</td>
<td>Dr. J. W. Tilden, San Jose, Calif.</td>
</tr>
<tr>
<td>EGV</td>
<td>Dr. E. G. Voss, Ann Arbor, Mich.</td>
</tr>
<tr>
<td>WJW</td>
<td>W. J. Warren, Jr., Myrtle Grove, Fla.</td>
</tr>
<tr>
<td>JRW</td>
<td>the late Prof. J. R. Watson, Gainesville, Fla.</td>
</tr>
<tr>
<td>HEW</td>
<td>H. E. Woodcock, Jacksonville, Fla.</td>
</tr>
<tr>
<td>AKW</td>
<td>Most of his material is in the Canadian National Collection.</td>
</tr>
<tr>
<td>CFZ</td>
<td>C. F. Zeiger, Jacksonville, Fla.</td>
</tr>
<tr>
<td>JEB</td>
<td>Dr. J. B. Ziegler, Summit, N. J.</td>
</tr>
<tr>
<td>SEZ</td>
<td>S. E. Ziemer, Kewaunee, Wisc.</td>
</tr>
</tbody>
</table>

Section C

ANSP Academy of Natural Sciences of Philadelphia, Pa. Material taken by Cadbury, Forsyth, Jones, and others, much of it unmounted. Only a very few records are included here. It is one of the important depositories that has not been studied.

AMNH American Museum of Natural History, New York, N. Y. The material is from many sources: Slosson, the Rev. G. D. Hulst, Sanford, Klotz, Mrs. dos Passos, J. L. Sperry, J. B. Smith, and more recently, that of Buchholz. As previously noted, the latter is still listed in the
INTRODUCTION

The older records in the Museum collection were listed by Grossbeck: the more recent acquisitions, other than those from Buchholz, were examined by the author with valuable assistance from Dr. F. H. Rindge.

Archbold Biological Station, a privately owned biological station affiliated with the American Museum of Natural History south of Lake Placid and near Childs, Fla. A small collection, being built up by the visiting entomologists. Some of the specimens credited to PSU and YU are here.

British Museum, South Kensington, England. A few records in the Hesperiidae were supplied through the courtesy of the late Brigadier W. H. Evans, but except for the Doubleday records, all of which have been taken from the literature, that is the extent of the information from this source.

California Academy of Sciences, San Francisco, Calif. Contains some Florida material, but only two or three records have been obtained.

Canadian National Collection, Ottawa, Ont. A list of the noctuidae was supplied through the kindness of Dr. D. F. Hardwick, and a partial list of the microlepidoptera through the kindness of Dr. E. G. Munroe and the late Dr. R. Lambert. However, there is still a lot of material, especially from Berry and the more recent additions from Woodcock, that should be examined. The earlier Woodcock collection which has recently been placed here, stands in the present list under the symbol “HEW.” Some material was collected on a visit to Florida in 1932 by McGillis, Peck, J. R. Vockeroth, and G. S. Walley, all connected with the Canadian Department of Agriculture. Munroe also has done some collecting at various times.

Carnegie Museum, Pittsburgh, Pa. A very few records have been extracted. H. K. Grench most considerately sent a list of the Limacodidae and Cossidae, and has reported broadly on the balance of the material as follows: 1) Stemper and Lutz specimens collected by Kruitzwagen very interesting. 2) A small but diverse and choice lot from the Titusville area, from Engel. 3) Many undetermined microlepidoptera taken by Sneath in southern Florida. 4) Bauer material from St. Johns and Flagler Counties. 5) Collection of small moths from Lochloosa, taken by Mrs. Wible. 6) The Edwards collection which contains material taken by T. L. Mead, probably in Orange and Seminole Counties. 7) Also material from Matheson, Mellon, and Stafford. There is obviously valuable information that should be obtained from this source.

Chicago Natural History Museum, Chicago, Ill. Contains the Strecker collection, from which Wyatt with characteristic kindness supplied certain records. Wyatt’s personal collection has been transferred lately to the Museum, but the specimens are still listed under “AKW.”

Cleveland Museum of Natural History, Cleveland, Ohio. A list was prepared by E. G. Wellig. Under the subject of locality records, mention has been made of some of this material, a part of which has been transferred to the Carnegie Museum.

Cornell University Agricultural College, Ithaca, N. Y. The material came from a number of collections: Pasch, Engel, Rogers, Hoffman, McBride, Needham, and a few minor sources. The listing was made by Forbes, as mentioned earlier.

Division of Plant Industry, Florida Department of Agriculture. This collection now is known as The Florida State Collection of Arthropods. This title was established on September 25, 1961 for the collection being developed by the Entomology Section, Division of Plant Industry, Florida Department of Agriculture, Gainesville, and its associates. This collection consists primarily of what was the State Plant Board collection, with subsequent additions. This collection includes an older collection made by the late Dr. H. T. Fernald, mostly from Orange County, and a more recent and increasingly important one by members of the staff of the Division of Plant Industry and several officially appointed collaborators. In addition, the entire arthropod portion of The University of Florida Collections has been placed on indefinite loan to the Division of Plant Industry for continued development in conjunction with the Division’s collection. Staff entomologists of the Division of Plant Industry and several Associates in Insects of the Florida State Museum are
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collaborating in this undertaking. Effective January 15, 1961 the State Plant Board of Florida became the Division of Plant Industry of the Florida Department of Agriculture. The symbol "DPI" is used for specimens in these collections, and also is used indiscriminately for the records in the Division of Plant Industry files and, therefore, may not always represent actual specimens.

EES University of Florida Everglades Experiment Station, Belle Glade, Fla. A small collection of local species.

ENP Everglades National Park, southwest of Florida City, Fla. A small collection from various sources to which additions are being made by Dr. F. C. Craighead, mostly from reared microlepidoptera material.

EU Emory University, Atlanta, Ga. Collections made by Lucien Harris, Jr. and the late Prof. P. W. Fattig. The material was examined and listed by Harris and the author. The Fattig collection was donated to the University of Georgia by Emory University in 1962.

GSDA Georgia State Department of Agriculture, Atlanta, Ga. In the State Museum in the State Capitol are or were, four specimens of special interest from the collection of W. M. Mills, and obviously acquired from a dealer, the specimens all labeled "Chokoloskee!" These specimens were examined by Harris and the author.

GCES University of Florida Gulf Coast Experiment Station, Bradenton, Fla. Collection made by Kelsheimer and examined by the author.

LACM Los Angeles County Museum, Los Angeles, Calif. Rhopalocera listed by Martin and Truxal (1955). The collection also contains some moths, a part of which was collected by Friday.

MCZ Museum of Comparative Zoology, Cambridge, Mass. The records have been extracted in part only, most of them by Forbes. Thaxter's material is here. There is also a collection of some 500 microlepidoptera, collected in 1942 at Sebring by C. T. Parsons, which came to my attention too late to be examined.

NFES University of Florida North Florida Experiment Station, Quincy, Fla. A small lot collected by W. B. Tappan.

NSMS Nova Scotia Museum of Science, Halifax, N. S. A collection made by Dr. D. C. Ferguson in March 1962. Only the most important records are included here.

NYSM New York State Museum, Albany, N. Y. All from the W. W. Hill collection mentioned on an earlier page.

PSU Pennsylvania State University, University Park, Pa. Collection made by Prof. S. W. Frost at the Archbold Biological Station, and examined by the author.

SPJC St. Petersburg Junior College, St. Petersburg, Fla. Collection made by H. E. Willford and examined by the author.

SDM San Diego Natural History Museum, San Diego, Calif. A list of the butterflies supplied through the kindness of C. F. Harbison, but he was unable to take the time to list the moths.

SIM Staten Island Museum, Staten Island, N. Y. Material collected by the late W. T. Davis. All records have been taken from Grossbeck (1917).

STES University of Florida Sub-Tropical Experiment Station, Homestead, Fla. Consists mostly of material collected by Dr. D. O. Wolfenbarger for the author and most of it actually credited to the author's collection, but there are other specimens collected by the staff.

TU Tulane University, New Orleans, La. List supplied through the courtesy of Dr. E. N. Lambremont.

USNM United States National Museum, Washington, D. C. The records from this are mostly from the literature. A few have been supplied by members of the staff in connection with determinations made for me, and I have extracted a few. Unfortunately, the time was not available to utilize this vast source of information, a circumstance which results in a serious weakness in this publication.

UFA University of Florida College of Agriculture, Gainesville, Fla. Collection made by Dr. L. A. Hetrick and examined by the author.

UFES University of Florida Agricultural Experiment Station, Gainesville, Fla. An important collection made by various members of the staff which was recorded by Jed Driggers and the author. The older records were included in the Grossbeck List (1917).

UK University of Kansas, Lawrence, Kans. Collection made by the late Dr. R. H. Beamer and his students, and listed by them.
University of Michigan, Museum of Zoology, Ann Arbor, Mich. Collections made by D. M. Bates, H. E. Bratley, Dr. I. J. Cantrall, H. Friau, F. M. Gaige, Dr. T. H. Hubbell, and F. W. Walker. The long list was made by Dr. Cantrall, a task for which I am most grateful. A list of the microlepidoptera had been prepared previously by Ralph Beebe. Dr. Hubbell very kindly sent a large number of specimens for examination, about the determination of which there was some question and many of these still have not been determined.

University of Tampa, Biology Department, Tampa, Fla. A collection made by G. D. Morgan, perhaps only a representative lot as it is not very large and he was an avid collector. Examined by the author with assistance from Harris. One very important item is a specimen of *Thysania agrippina* Cramer, taken by Prof. C. T. Reed.

Peabody Museum of Natural History, Yale University, New Haven, Conn. Part of the Florida material of Dr. F. M. Jones, who furnished a list of his entire collection. However, none of the Jones specimens will appear under "YU" since the list was made before they were donated to the Museum, and it is now impossible to separate them from Jones' other material which has been distributed several ways. There is also material from additional sources, primarily Dr. C. L. Remington and R. W. Pease, both of whom collected at the Archbold Biological Station. Most of their material was generously submitted to the author for determination.

**Section D**


If the present list is seen by any of the above and they have information or data to add, any such belated items would be greatly appreciated and should be passed along to the Division of Plant Industry. It is hoped that eventually one or more supplements will be published.

Other collections of Florida Lepidoptera surely exist, but all depositories of such which have come to my attention are summarized above. I should appreciate being informed of any omissions.

**LITERATURE**

Much of the information for the list has been derived from the literature, Grossbeck (1917) being the primary source, but since many of his records are undocumented every effort was made to trace them back to their sources. Where this has been possible, citation to Grossbeck has been dropped in favor of the original. When his source could not be found or was uncertain, the citation is to his list. Because there is a host of such citations, I have departed from the normal practice of documentation in the interest of brevity in this one case, and have abbreviated "Grossbeck, 1917, p. xyz" to "Grsb., xyz." Nonetheless, when reference is a part of the commentary, the fuller form is used. Annotations as to the relevancy to Florida have been added in the bibliography for some references, but no attempt was made to do this for all publications listed.

Because no check list can be considered final, it should be the duty of every compiler or reviser to state clearly what literature has been covered, especially through what date in order to save later revisers the necessity of plodding through it once more.

About 1941 the Works Progress Administration had some women extracting information on Florida insects from the literature. Because many of these references were incorrect, either through carelessness or inept interpretation, it was necessary to check everything quoted from that source, but it has been assumed, perhaps rather naïvely, that they did make a record for every reference to Florida Lepidoptera in the literature which they covered. Consequently I have gone through the following periodicals only from the date of the last W.P.A. entry up to the end of 1961: *Annals of the Entomological Society of America, Bulletin of the Brooklyn Entomological Society, Canadian Entomologist, Entomologica...*
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American Entomological News, Florida Entomologist, Insect Pest Survey Bulletin (and its successors: Cooperative Economic Insect Report and Cooperative Insect Pest Survey), Journal of the Lepidopterists' Society, Journal of the New York Entomological Society, Lepidopterists' News, Proceedings of the Entomological Society of Washington, Psyche, and the Transactions of the American Entomological Society. As very little relating to Florida Lepidoptera has appeared in these during the past fifteen years or so, outside of the Insect Pest Survey Bulletin, it seems reasonable to assume that little, if anything, has been missed by not checking through all the other periodicals that touch in any way on Entomology, although an occasional paper has come to notice. All separate American works, and European, which might be presumed to bear on any phase of the subject, have been explored with the exception of Walker (1854-1868) which was apparently covered by Grossbeck; Seitz, Vol. 5, in part; Romanoff, Vol. 8; the Lepidoptera Catalogus; Oberthür (1876-1892 and 1904-1924); Strand, whose contribution seems to have been limited to giving names to Hampson's forms and aberrations; and the Genera Insectorum.

The necessity for checking the references in the Works Progress Administration file has been mentioned. It is impossible to trust them, and everything of the least importance must be verified. For example, "Florida" in several cases turned out to be in Costa Rica. The trouble into which one might run from blindly following such misleading guide posts is readily apparent.

DIVISION OF PLANT INDUSTRY RECORDS

The Division of Plant Industry has an immense and constantly increasing file of determinations made either by the staff or at the United States National Museum, or, in connection with their current light trap project, by the author or one of the specialists. This file has provided a quantity of records, all listed under the depository symbol "DPI," though the actual specimens in most cases have been discarded. Many of the records are unique, many supply important food plant observations, and many contribute significantly to the distributional pattern. A reference collection of Florida Lepidoptera is being developed by the Division of Plant Industry, and in a few years this should be a great aid to collectors in determining Florida material, a task which at the present time is such a difficult one. This reference collection should stimulate and encourage collectors to persist in a pursuit that is both delightful and rewarding.

FOOD PLANTS

Though food plant records are the most important factor from the economic aspect, modern thinking limits these to the actual records within the scope of the subject matter. In other words, in a state faunal list such as this, only those food plants which have been observed as hosts within the state should be noted. Nevertheless, since a knowledge of acceptable food plants is essential, these have been included, but only definite Florida records are documented. These are listed last, set off by semicolons, if food plants recorded elsewhere are part of the immediate text. Any undocumented host is not a specific Florida record, though it is more than probable that the larva in question will feed on the plant, if the latter is found within the state.

My own observations on this phase of the subject being practically nil, I have relied almost exclusively on the Division of Plant Industry's findings, and have quoted, though without specific acknowledgment, from Kloots, Forbes, and Heinrich exclusively for the general records, believing that they have excluded those of a dubious nature. Of course very few of those they list are specifically for Florida. Many records have been supplied by Fuller and various other individuals as indicated in the text.

Erdman West, Botanist and Mycologist at the University of Florida, has checked the plant names used in this publication, and currently recognized plant names have been substituted for names in the literature considered to be synonyms. Such synonyms have been placed in brackets following the currently accepted plant names.

I have been informed that some of the older "DPI" records are unreliable because the determination of the plant often was made in the field by the investigator and was not subject to critical review, as is the present practice. It should be borne in mind that some records may mean that only the pupa was found on a given food plant. Where this is so stated in the original reference, that information is repeated here, but at times it is uncertain which stage of the insect's life history may have been found, and even if it did happen to be the larva which was found, the result still may be confusing, as some larvae wander to a different environment for pupation. Some of the records may appear suspicious; I have quoted these as reported, but cannot vouch for their validity.

The subject of food plants is a fertile field for investigation in Florida where the vegetation is a mixture of the native and the exotic.
INTRODUCTION

QUARANTINE INTERCEPTIONS

As an appendix there are records of interceptions made by the customs and quarantine services. The specimens involved are not, naturally, a part of the Florida fauna, the origin in each instance being clearly stated, but they are indicative of species that might someday slip by the inspection and become established. As a matter of fact we do have instances where the first actual record has been such an interception and subsequently the species was taken at a distance from the port. Of course this is not proof that the insect had not been here all along, but it does afford a fair inference that some carrier may have been the agent of introduction.

ILLUSTRATIONS

The choice of specimens for the colored plates was based on three considerations. First, many species were selected which had never been illustrated. Second, certain closely related species were picked to help make determinations in these complexes easier. Third, some were chosen for their beauty. Additional illustrations, particularly of butterflies and skippers, are to be included at such time as a supplement may be issued.

The selection for the black and white photographs was made at a time when I was in Florida and my collection was stored in Massachusetts. Fortunately, local collectors and institutions were able to help, and I want to express my thanks for this generous assistance, especially to S. V. Fuller, Commodore V. F. Grant, Mrs. Shirley M. Hills, and the Florida State Collection of Arthropods. I am indebted to the United States National Museum, the American Museum of Natural History, and the Canadian National Collection for many of the specimens used. One or more specimens were borrowed from H. L. King, Dr. C. T. Reed, W. E. Sieker, C. F. Zeiger, the Everglades National Park, the University of Florida Everglades Experiment Station, the University of Florida Sub-Tropical Experiment Station, the University of Florida Agricultural Experiment Station in Gainesville, and the University of Florida College of Agriculture, to all of whom I am once more beholden for many and continued kindnesses. In an effort to avoid error, the names of all specimens illustrated have been checked by the various specialists who have assisted throughout the preparation of this work. For this, too, I thank them.

SUMMATION

In a list like this authors frequently include a table showing the number of species in each family. Sometimes they have been known to pad the numbers by including species and "varieties," enumerating the latter as though they were valid species. When it is possible to prepare such a table accurately, it is in order. In Florida the question arises, what should one include? An accidental stray certainly is a valid record, but it hardly represents a unit in the local fauna. Then, too, it is often difficult to decide what is a stray and what is a rare but established species. Next are all the "reported" species. Some of these may be authentic; some are patently dubious. How many of these are strays? Let us take as an example the family Papilionidae. There are thirteen names on the list. One is an error. One, if not more, is questionable, and if they have been taken, undoubtedly they are strays. What, then, are we to emulate? Nine? Somewhere between nine and twelve? Twelve? This may be an extreme case, but similar problems arise in other families. There are many instances where further study is needed to decide whether we have a complex involving two or three species, or, on the other hand, whether two apparent valid species are actually forms of a single species. Present information is too incomplete to permit any summation. Even for the macrolepidoptera it would be misleading, and for the microlepidoptera it would be woefully incomplete because there are so many species that are undetermined, many of them unnamed.

RANDOM OBSERVATIONS

Night insect activity, in the Sarasota region at least, is greatly reduced when the temperature falls below 60°F, at 55°F it practically ceases. Yet on sunny days butterflies are seen often when the temperature in the shade is down in the 40's.

Studies by Frost at the Archbold Biological Station, published in the Florida Entomologist (1962, 1963), agree generally with these crude observations, but Frost's figures are based on carefully documented recordings. The moth collections in his light traps were greatly reduced when the temperature fell below 60°F; at 50°F they almost ceased. This was not entirely true for other insects such as the midges, which often were still taken in the traps with temperature as low as 45°F. Frost's papers include total catches for each night from November 1 to April 1 with totals for certain groups and some common species, including a few Lepidoptera. Precipitation, temperature, and light intensity are detailed.

The taking of butterflies and diurnal moths in light traps may be characteristic of warm climates, but I have never seen it mentioned. Per-
haps it has something to do with the ultraviolet lights used, but the catches seem much more frequent than in the north with the same or similar light, furthermore, the insects are seen often fluttering or resting near ordinary outside lights or on store windows.

One feature of insect life in Florida is most intriguing. During the daylight hours one may drive through the cattle country, prairies, or other parts of sparse vegetation and see scarcely a butterfly, but as soon as the dark descends, multitudes of moths, many of large size, make constantly shifting kaleidoscopes of the beams from the car lights. It makes one realize that in Florida even the most unlikely looking place may produce a fruitful harvest.

The sporadic abundance of species seems to be more noticeable here than in the north. Perhaps it is because during the winter months the total number of species under observation is relatively small and their presence or absence is more readily apparent, whereas in the warm months, whether north or south, the array of species is so great that only by chance would an absence be noted, though the presence in numbers of some unusual species, or an unusual abundance of a common species would force itself on our attention.

The question often is asked as to which flowers are the most attractive to the butterflies, and also to the moths. Each collector probably has his own favorite, but certain blossoms are generally recognized as especially favored. Some are seasonal and of a short flowering period. These include wild plum, poinsettia, Chinaberry, azalea, and to my mind, the most attractive of all, *Cestrum diurnum*, but unfortunately the blossoms of this last only three or four days, and appear only three or four times a year. *Lantana camara* and *Senecio confusus* (Mexican flamevine), both have a fairly long florescence, and the two best of the continuous bloomers are *Bidens pilosa* (Spanish needle) and *Vincia rosea* (periwinkle). Cary has found the collecting of sphingids over petunias at twilight very profitable. Weems has supplied these additional comments on attractive blossoms: "In general, the Compositae and Leguminosae include most of the species of plants the bloom of which is frequented by diurnal Lepidoptera. Most leguminous plants are attractive to many Lepidoptera, and some are the preferred hosts... such plants as the cassias, partride peas, and the clovers, especially white sweet clover. Other good hosts that come to mind are ironweed (*Vernonia*) and *Baccharis*. Ironweed bloom in the fall is almost invariably frequented by papilionids and nymphaids, as is thistle bloom in the spring. Sassafras, cherry laurel, hawthorne and some of the mint family attract many butterflies, especially the hairstreaks. On the Florida Keys, bay cedar is an extremely good host for sphingids and hairstreaks, and poisonwood (*Metopium toxiferum*) attracts many lycaenids, nymphaids, and sulfurs; *Flaviera linearis*, the sporadically blooming weed resembling goldenrod which is found along roadsides and in fields on the Keys, attracts many kinds of diurnal Lepidoptera. In the sandy scrub oak country, dogtongue (*Erionium*) is a preferred host. In short, one must learn partly from experience which are the preferred hosts for a particular area and a particular season for particular species or groups of species."

Notations appear in the text to the effect that a certain subspecies or form is probably the only one to be found in Florida. These were written before the opportunity arose to study the fauna from the western part of the state, and as a result of this study, limited as it may be, I am now inclined to believe that in many cases two forms overlap in the northern, and particularly western counties. The reader, consequently, should be wary of any dogmatic statement in the text about only one form being present. It is another case of not having sufficient material available on which to base a positive statement.

ACKNOWLEDGMENTS

In addition to my indebtedness to all those members of the Lepidopterists’ Society who have so generously aided in this undertaking with their personal lists, I am beholden to a number of individuals for assistance of a more specific nature. Indebtedness has been expressed to some, but I do not feel that it will be redundant to once more extend my grateful thanks to them along with those who have not been so singled out.

At one time Forbes planned to revise the Grossbeck list, somewhat along the lines of the present undertaking, but got only as far as setting up work sheets for the species in Grossbeck and the additions from the Cornell collection. These sheets were turned over to me with characteristic generosity, thus saving me much preliminary drudgery. My indebtedness to Dr. Forbes is greater than this, for not only has he assisted me with many determinations, but he has read the entire manuscript and made many valuable suggestions based on his wide knowledge and experience, giving helpful guidance from beginning to end.

I am deeply indebted to: Hahn W. Capps for a number of determinations of pyraloids and geometrids; Dr. J. F. Gates Clarke for determining many microlepidoptera, for assisting with
their nomenclature, and for friendly advice, and equally friendly criticism; Dr. D. R. Davis for determinations of microlepidoptera; Miss Paula Dillman for operating a light trap for two summers and in the process turning up many new and as yet undescribed microlepidoptera; Dr. W. D. Duckworth for determinations of Stenoidae; Dr. W. D. Field for determinations; Dr. J. G. Franelemont for the determination of many macroheterocera and ironing out problems of a generic and specific nature; Dr. T. N. Freeman for determinations of microlepidoptera; S. V. Fuller for loan of material for illustrations and other assistance; Commodore Vernon F. Grant for the loan of material for illustration; Lucien Harris, Jr. for editorial help; Mrs. Shirley M. Hills for exceptional generosity with her material and loan of specimens for illustrations; Dr. R. W. Hodges for determinations of microlepidoptera; the late Dr. F. M. Jones for his Paradise Key report in particular and for other data and the gift of numerous specimens; Dr. E. G. Kelsheimer for his enthusiastic backing in the initial stages and for supervising a light trap operation; Dr. A. B. Klots for determinations, reviewing the sections on the butterflies and the Crambinae, and editorial advice; E. M. Collins, Mrs. Mildred Eaddy, F. W. Mead, and E. L. Wells for photographic and other work in preparing the colored and black and white plates; Mrs. Mary Monroe for stenographic work and keeping office copies of the manuscript up-to-date; Mrs. A. J. Milner and Mrs. Marjorie S. Batey for aid in editing and proofreading the manuscript; Miss Mary Lee Clary for preparing the final draft with such great accuracy; Dr. E. G. Monroe for the determination of many Pyralidae and for help with the nomenclature in the family; Dr. N. S. Obraztsov and Dr. J. A. Powell for determinations of Tortricoidae; Dr. F. H. Rindge for many determinations and straightening out the intricacies of the geometrid arrangement; Frank Secor for operating a light trap; Miss Marjorie Statham for the painting used on the cover; W. B. Tappan for operating a light trap; Dr. A. N. Tissot for encouragement and many friendly discussions on the form and content; Dr. E. L. Todd for numerous determinations of noctuids and geometrids; Erdman West for editing all food plant and other botanical names, a truly great help; Dr. D. O. Wolfenbarger for operating a light trap; Mrs. Pauline Christie and Miss Elita Lovejoy for setting up the index of food plant names; G. W. Dekle, H. A. Denmark and Dr. H. V. Weems, Jr. for making available the facilities of the Division of Plant Industry and cheerful aid and cooperation throughout the entire undertaking; last but not least, my wife for proofreading the several stages of the manuscript and the galley.

I am no less indebted to the following who have given of their time, material, or skill in varying degrees, but always without stint: Richard Archbold, Dr. R. M. Bananowski, the late Dr. R. H. Beam, Ralph Beebe, Dr. Lewis Berner, Dr. Annette F. Brau, Dr. A. E. Brower, the late Otto Buchholz, Dr. I. J. Cantrall, Mrs. Margaret C. Cary, H. K. Cleanch, Dr. F. C. Craighead, the late W. M. Davidson, C. F. dos Passos, the late Brigadier W. H. Evans, Dr. J. R. Eyre, Dr. D. C. Ferguson, H. A. Freeman, Prof. S. W. Frost, Dr. C. F. Harbison, Dr. D. F. Hardwick, Dr. F. F. Hasbrouck, Dr. L. A. Hetrick, Dr. T. H. Hubbell, H. L. King, C. W. Kirkwood, Dr. L. C. Kuitert, the late Dr. Robert Lambert, Dr. E. N. Lambremont, the late J. F. May, Mrs. J. F. May, the late Dr. J. H. McDunnough, R. R. McElvain, G. B. Merrill, Prof. J. R. Merritt, Dr. W. E. Miller, G. D. Morgan, Prof. C. T. Reed, L. R. Rupert, W. E. Sieker, the late J. L. Sperry, Dr. H. F. Strohecker, E. C. Wellig, H. E. Woodcock, A. K. Wyatt, and the staffs of various institutions, in particular those of the University of Florida Agricultural Experiment Stations at Gainesville, Bradenton (Gulf Coast), Homestead (Sub-Tropical), and Quincy (North Florida), and the Division of Plant Industry, Florida Department of Agriculture.
ABBREVIATIONS OF BIBLIOGRAPHICAL REFERENCES

For additional information see bibliography.

Abhandl. Senk. Natur.—Abhandlungen der Senckenbergischen Naturforschenden Gesellschaft
Amer. Ent.—American Entomologist
Amer. J. Sci.—American Journal of Science and Arts
Amer. Mus. Nov.—American Museum Novitates
Amer. Nat.—American Naturalist
Ann. Ent. Soc. Amer.—Annals of the Entomological Society of America
*Biol. Cent. Amer. Het.—Biologia Centrali-Americana. Druce, also Walsingham
Bol. Ent. Venezuela—Boletín de entomología venezolana
*Brit. Ent.—British Entomol. Curtis
Bull. Brooklyn Ent. Soc.—Bulletin of the Brooklyn Entomological Society
Bull. N. Y. State Mus.—Bulletin of the New York State Museum
Bull. Southern Calif. Acad. Sci.—Bulletin of the Southern California Academy of Sciences
*Cat. Anim. Mass.—Catalogue of the animals and plants of Massachusetts. Harris, T. W.
Can. Ent.—Canadian Entomologist
Can. J.—Canadian Journal
Can. Nat. Geol.—Canadian Naturalist and Geologist
*Cent. Ins. Rar.—Centuria insectorum rariorum Johansen
*Cent. Lép. Cuba—Centurie de lépidoptères de l'Isle de Cuba. Poey
*Chil. et Cramb.—Chilonideram et Crambidarum genera et species. Zeller
Cincinnati Quart. J. Sci.—Cincinnati Quarterly Journal of Science
Coop. Ins. Pest Surv.—Cooperative Insect Pest Survey
Coop. Econ. Ins. Rept.—Cooperative Economic Insect Report
Corresp. Blatt. Regensb.—Correspondenz-Blatt des zoologisch-mineralogischen Vereins in Regensburg
*Desc. New genera & spec.—Descriptions of new genera and species . . . (Noctuinae) in the British Museum. Hampson
*Enc. Méth.—Encyclopédie Méthodique. Godart, also Latreille et Olivier
Ent. Amer.—Entomologica Americana
*Ent. Contr.—Entomological contributions. Lintner
*Ent. Corresp.—Entomological Correspondence. Harris, T. W.
Ent. Mittteil.—Entomologische Mitteilungen
Ent. Monthly Mag.—Entomologist's Monthly Magazine
Ent. News—Entomologists' News
*Ent. Syst.—Entomologica systematica. Fabrictius
*Ent. Syst. Suppl.—Supplementum entomologiae systematica. Fabricius
*Exot. Micro.—Exotic microlepidoptera. Meyrick
*Faun. Bor. Amer.—Fauna boreali-Americana
Kirby
*Faun. Suec.—Fauna suecica sistens animalia Sueciae regni. Linnaeus
Fla. Agr. Exp. Sta. Bull.—University of Florida Agricultural Experiment Station Bulletin
Fla. Buggist—Florida Buggist
Fla. Ent.—Florida Entomologist
Fla. Geo. Surv.—Annual report of the Florida Geological Survey
*Gen. Diur. Lep.—The genera of diurnal Lepidoptera. Doubleday
*Gen. Ins.—Genera insectorum. Wytman

(*) Denotes separate works.)
ABBRVIEATIONS OF BIBLIOGRAPHICAL REFERENCES

Germ. Mag.—Germar & Zincken, Magazin der Entomologie
*Gesch. Ins.—Abgekurzte Geschichte der Insecten nach dem Linnaischen System. Sulzer
*Hist. Cuba.—Histoire physique, politique et naturelle de l’isle de Cuba. Sagra
Hor. Soc. Ent. Ross.—Horae Societatis entomologicae Rossiae
*Ill. Brit. Ent.—Illustrations of British entomology . . . Stephens
*Ill. Exot. Ent.—Illustrations of the natural history of Exotic entomology. Drury
Ins. Pest Surv. Bull.—Insect Pest Survey Bulletin
Ins. Insc. Mens.—Insector Insctiatiae Mensstruam
Ins. Life.—Insect Life
Iisis—Iisis-Encylopädische Zeitschrift
J. Agr. Res.—Journal of Agricultural Research
J. Cincinnati Soc. Nat. Hist.—Journal of the Cincinnati Society of Natural History
J. Econ. Ent.—Journal of Economic Entomology
J. Lep. Soc.—Journal of the Lepidopterists’ Society
J. N. Y. Ent. Soc.—Journal of the New York Entomological Society
J. Wash. Acad. Sci.—Journal of the Washington Academy of Science
*Lép. Brit.—Lepidoptera britannica . . . Hawksworth
*Lep. Cafr.—Lepidoptera microptera quae J. A. Wahlberg in Cafrorum terra colletit. Zeller
*Lép. France.—Histoire naturelle des Lépidoptères de France. Dupechon
*Lep. Ins. Ga.—The natural history of the rarer lepidopterous insects of Georgia. Abbot and Smith
Lep. News.—Lepidopterists’ News
*Lep. New York.—The Lepidoptera of New York
and neighboring states. Forbes
*Lep. Rhop. Het.—Lepidoptera, Rhopaloceræ and Heteroceræ . . . Stecker
Lep. Soc. Mem.—Lepidopterists’ Society Memoirs
Linn. Ent.—Linnæa Entomologica . . . Verein in Stettin
*Macrolep.—The macrolepidoptera of the world. Seitz
*Mant. Ins.—Mantissa insectorum. Fabricius
*Mant. Plant.—Mantissa plantarum. Linnaeus
Mem. Amer. Mus.—Memoirs of the American Museum of Natural History, New York
Mém. Soc. Linn. Paris.—Mémoires de la Société linnéenne de Paris
Mem. Southern Calif. Acad. Sci.—Memoirs of the Southern California Academy of Sciences
*Mono. Geom. Moths.—A monograph of the geometrid moths or Phalaenidae of the U. S. Packard
*Mus. Ulr.—Museum . . . Ludovicæ Ulricæ Reginae . . . Linnaeus
N. Amer. Ent.—North American Entomologist
Natl. Geog. Mag.—National Geographic Magazine
*Noct. Eur.—Die Noctuinen Europas. Lederer
*Nouv. Gen.—Nouveau Genera et Espèces de Phycitidae et Galleriidae. Ragonot
Nov. Zool.—Novitates Zoologicae . . . Tring Museum
Occasional Papers Boston Soc. Nat. Hist.—Occasional Papers of the Boston Society of Natural History
Ohio J. Sci.—Ohio Journal of Science
Pan-Pacific Ent.—Pan-Pacific Entomologist
*Pap. Exot.—Papillons exotiques des trois parties du monde. Cramer, also Stoll
Pomona College J. Ent.—Pomona College Journal of Entomology

(* Denotes separate works.)
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Proc. Essex Inst.—Proceedings of the Essex Institute
Proc. Intern. Soc. Sugar Cane Technol.—Proceedings of the International Society of Sugar Cane Technologists
*Pteroph. Calif. Ore.—Pterophoridae of California and Oregon. Walsingham
Quart. Bull. State Plant Board Fla.—Quarterly Bulletin of the State Plant Board of Florida
*Reise Nov.—Reise der österreichischen Fregatte Novara um die Erde. Felder
Rept. Ent. Comm.—Report of the United States Entomological Commission
*Rept. Ins. of N. Y.—Reports on the noxious and beneficial and other insects in the state of New York. Fitch
*Rept. Ins. Mass.—A report on the insects of Massachusetts injurious to vegetation. Harris, T. W.
*Rept. Ins. Mo.—Reports on the noxious and beneficial and other insects of the state of Missouri. Riley
Rept. Peabody Acad. Sci.—Report of the Peabody Academy of Sciences
Rev. Appl. Ent.—Review of Applied Entomology
Rev. Francaise d’Ent.—Revue Française d’Entomologie
Rev. Zool.—Revue et magasin de zoologie
*Samml. aussereur. Schmett.—Sammlung . . . wenig bekannter aussereuropäischer Schmetterlinge. Herrich-Schaeffer
*Samml. eur. Schmett.—Sammlung europäischer Schmetterlinge. Hübner
*Samml. exot. Schmett.—Sammlung exotischer Schmetterlinge. Hübner
*Schmett. Eur.—Die Schmetterlinge von Europa. Ochsenheimer, also Treitschke
Sci. Agr.—Scientific Agriculture
Stillman J. Sci. Arts—Stillman’s Journal of Science and Arts
*Spec. Gén.—Histoire naturelle des insectes: spécies général des lépidoptères. Guénéé

*Spec. Ins.—Species insectorum. Fabricius
Stett. Ent. Zeit.—Stettiner entomologische Zeitung
*Surinaam. Vlinders—Surinaamische Vlinders . . . Sepp
*Syst. Ent.—Systema entomologiae. Fabricius
*Syst. Nat.—Systema naturae . . . Linnaeus
*Syst. Verz. Wien.—Systematisches Verzeichniss der Schmetterlinge der Wiener Gegend. Denis und Schiffermuller
Tids. Ent.—Tidschrift voor Entomologie
Trans. Amer. Ent. Soc.—Transactions of the American Entomological Society
Trans. Chicago Acad. Nat. Sci.—Transactions of the Chicago Academy of Sciences
Trans. Kansas Acad. Sci.—Transactions of the Kansas Academy of Science
Trans. N. Y. Agr. Soc.—Transactions of the New York State Agricultural Society
Trans. St. Louis Acad. Sci.—Transactions of the St. Louis Academy of Science
*Treatise Ins. Inj. Veg.—A treatise on some of the insects injurious to vegetation . . . Harris, T. W.
Tulane Studies Zool.—Tulane Studies in Zoology
U. S. Dept. Agr. Farmers’ Bull.—United States Department of Agriculture Farmers’ Bulletins
*Verz. bek. Schmett.—Verzeichniss bekannter Schmetterlinge. Hübner
Vet. Acad. Handl.—Vetenskaps Academie Handlinger
Wasmann J. Biol.—Wasmann Journal of Biology
Wien. entl. Monat.—Wiener entomologische Monatsschrift
*Zool. Ill.—Zoological Illustrations . . . Swainson
*Zutr. exot. Schmett.—Zuträge zur Sammlung exotischer Schmetterlinge . . . Hübner
*Zyg. & Bomb. N. Amer.—Illustrations of the Zygaenidæ and Bombycidae of North America. Stretch

(* Denotes separate works.)
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SUPERFAMILY
PAPILIONOIDEA

The manuscript for the section on the butterflies has been read by Prof. A. B. Klots, Messrs. C. F. dos Passos, S. V. Fuller, L. Harris, Jr., and H. L. King, to each of whom I am indebted for helpful criticism, suggestions, and pertinent comments, based on their broad knowledge and experience of the fauna of the area.

Family PAPILIONIDAE
BATTUS Scopoli

I B. PHILENOR (Linnaeus)
Pipevine swallowtail. Pl. 1, Fig. 5, δ.

Philenor is generally present throughout the state, though there are few records from the extreme southern portion, and I have found none from Monroe County. King says it is common inland but a straggler along the coastal areas. Morgan termed it abundant in the Tampa region from March to November. He also listed the form acaida Oberth, but Forbes doubts its presence, and believes that Morgan based his record on specimens similar to an undescribed one with greatly reduced tails taken in Marion County, May 1956, which is in The Florida State Collection of Arthropods. This is comparable to the early northern spring brood, though it is not hirsute like the subspecies hirsuta Skinner. As several more of these runs were taken in October 1956, it looks as if further study were needed. The usual food plants are Aristolochia spp., but the larva also feeds on Asarum.

[2 B. devilliers (Godart)]
Devilliers' swallowtail.
The records for this species are all dubious, though admittedly it might stray from Cuba. III. Lutz: Aug. 2, 1825 dosP. The latter commented, "the locality may be false." V. Chokoloskee: Oct. 1900, formerly in the W. L. Mills collection at the Georgia State Capitol, Atlanta, the data supplied by L. Harris, Jr. However, when Harris and the writer visited the Capitol in November 1954, the specimen was no longer there. What delightful irony that some light fingered collector should lift a spurious jewel! Holland (1931, p. 313) said: "The Academy of Natural Sciences in Philadelphia has a couple of specimens which were captured in southern Florida." Edwards (1877, p. 9) noted: "occasional in Florida." In the "Synoptic table of the genus Papilio Linn." (Anon., 1876b, p. 37), the range in the United States is given as Florida. None of these references are satisfactory.

3 B. POLYDAMAS LUCAYUS (Rothschild & Jordan)
Polydamas swallowtail. Pl. I, Fig. 4, θ.

This subspecies is relatively common, though perhaps somewhat local. The northern limits appear to be: III. Tampa and Daytona Beach, though there is one record for II. Gainesville: Sept. 25, 1957, WJP. Harris found it common at Daytona Beach in November 1919. Fuller reports it plentiful at DeLand and Cassadaga April-October, and Davidson said it was commoner than Papilio troilus at Orlando. Morgan listed it as common at Tampa from May to November, and occasional in the winter. Records from other localities are in agreement with these dates. It comes readily to a number of blossoms. Food: Aristolochia, Bates (1929b, p. 42); Passiflora, SVF.

PAPILIO Linnaeus

4 P. POLYXENES ASTERIUS Stoll
Black swallowtail.
Pap. Exot. 4; Pl. 385, Figs. C, D. 1782.

Here is one of many instances where the nomenclature may be confusing to the average collector. At various times this species has been known as asterius, as polyxenes, and as ajax, the last name having been used for what is now known as Graphium marcellus (Cramer). The species is common throughout, with captures in all months, but mostly from March to May. Several forms have been reported: Typical polyxenes, FMJ, JPK; calverleyi Grote, "Synoptic table of the genus Papilio Linn." (Anon., 1876a, p. 22); curvispica Skinner, CCM, CU; ampliata Ménétr., UK; americus Kollar, Morgan (1933): type of ab. forsythea, reared from eggs obtained from Mrs. Forsythe, Wood (1937, p. 273); forsythea Wood, May, LACM. Kaugsen has a specimen taken at Tallahassee, July 24, 1950, which he said "is distinctive in a series of asterius. It has the yellow sub-marginal band very distinct, and the color of the band is more ochreous than in any asterius I have ever seen. It is not an absolutely fresh specimen, but is also not badly flown." He added that the genitalia do not agree with asterius from Atlanta, Georgia. Food: Umbelliferae; celery, Watson (1931, p. 49); dill, Wood (1937); Oxyopsis filiformis, FMJ.
THE LEPIDOPTERA OF FLORIDA

[II P. thoas autocolis Rothschild & Jordan]  
Thoas swallowtail.  

Castle & Laurent (1896, p. 302, and 1897, p. 9) and Laurent (1903a, p. 290) recorded this from several places. However, as they speak of it as common and did not list P. cresphontes, obviously, they simply mistook the species.

12. P. CRESPHONTES Cramer  
Giant swallowtail.  

Cresphontes is common all over the state, during most of the year, though it is infrequent during January and February. King reported it variable in size and markings, with some Florida specimens that could easily be called pennsylvanicus Chemock & Chemock. A melanistic form which bears the dubiously valuable name melanura Hoffman, has been taken: VIII. Stock Island: Sept. 5, 1961, (Weems), det. Marks, DPI. The larva, the well known "orange dog," is often a pest on citrus. Other food plants: Zanthoxylum, Ptelea, Dictamnus; Casimiroa edulis, DPI.

12.1 P. ANDRAEMON BONHOTEL Sharpe  

The following records are all unquestionably of strays. IV. Miami: Holland (1902, p. 489); two, shortly after a hurricane, (Matheson), Chemock letter (Oct. 11, 1945) to Forbes; two May 3, 1940, (Wm. Sawyer), Clarke (1940a, p. 156). VIII. Long Key: Oct. 8, 1955, (Applegate & Smith), AMNH. Klots says this one is too perfect to have strayed as an adult, and is absolutely authentic. Key West: Chemock (letter above).

14 P. ARISTODEMUS PONCEANUS Schaus  
Schaus’ swallowtail. Pl. 1, Fig. 3, $.  

IV. Schaus described the subspecies from Miami, but his specimen was taken before the freeze of 1899. R. J. Ford has a specimen labeled Miami, but is doubtful of its validity. Bates (1934, p. 187) reported that G. B. Fairchild took one at Coconut Grove, May 31, 1924. V. Chokoloskee: Nov. 1907, GSDA. Since this is typical aristodemus, not ponceanus, it is, like many a Chokoloskee specimen, suspect. VIII. The majority of records come from Key Largo and Lower Matecumbe, and were largely summarized by Henderson (1945a, pp. 29-32; 1945b, pp. 187-188; and 1946, pp. 100-101) though there are a number of records which have escaped him, and which I have made no attempt to include. The dates are mostly in May, but extend back into late April and on to late June. Whatever its status may have been at one time, and according to report it was locally abundant, it is now very rare and should be allowed to multiply. Nor should it be purchased, because that would encourage dealers to collect it. The food plant is Amyris emfisera, and the life history was described in detail by Grimshawe (1940, pp. 587, 611).

15 P. GLAUCUS Linnaeus  
Tiger swallowtail. Pl. 1, Fig. 1, australis Maynard, $. Fig. 2, $.  
Mus. UIR., p. 190. 1784.

Found all over the state from March to November, with an occasional specimen in other months. The proportion and distribution of the typical form and australis Maynard should provide some inquiring mind with a nice problem. Fuller comments that the dark females are scarce but large in the Cassadaga region. King finds that the farther south one goes, the larger the specimens, with australis coming in September in great abundance to flowers, especially wild lilies in open places which earlier in the year were marshes. The dimorphic female is on the wing at that time. He finds that glaucus seems to prefer lanes inland from bays and open salt water. Food: foliage of a wide variety of trees, including wild cherry; once on Catalpa (SVF).

20 P. TROILUS Linnaeus  
Spice-bush swallowtail.  
Mus. UIR., p. 187. 1764.

Troilus is common throughout the state from March to November, and occasionally in January and February. Illoneus Abbot & Smith is generally considered a subspecies, but Remington has raised a question on this point, which, along with the distribution of the two forms or species, is another problem to be worked out. King finds illoneus present and dominant from southeastern Georgia, west to Alabama, and south to the Keys. Food: sassafras, spicebush, sweetbay, prickly ash, redbud, DPI; camphor (Bates, 1923b, p. 42).

21 P. PALAMEDES Drury  
Palamedes swallowtail.  
III. Exot. Ent. 1:19. 1773.

Palamedes is abundant throughout the state from March to December. Food: Persae, sassafras, Magnolia virginiana [glaucus], J. & H. Comstock (1902, p. 75); camphor, UFES.
GRAPHIUM Scopoli

22 G. MARCELLUS (Cramer)
Zebra swallowtail.
Pop. Exot. 2; Pl. 8, Figs. F, G. 1779.

This has been known as Papilio ajax Linnaeus, a name which, as has been noted, has also been used for P. asterius. This species is abundant throughout the state from March to December. Morgan wrote in his notes: “Of the three sub-species described as differing slightly in size, hairiness, color, pattern, and length of tails, and supposed to be restricted to certain seasons or regions, all may be matched by Hillsborough County specimens throughout the year. While it is convenient to follow the line of least resistance and call all our Florida specimens floridensis (Holland), it is perhaps more accurate to separate them by color pattern into three series corresponding to marcellus, telamonides (Felder), and floridensis. The rest will be found to vary in all sorts of ways between these. Fuller, on the other hand, states that around Cassadaga the species occurs in the three forms in their usually recognized sequence, marcellus, February, walaht (Edwards), March, and lecontei (Rothschild & Jordan), June and July. King has seen only tala-
monides and lecontei, and has seen only one specimen in the Keys, at Key Largo. These ob-
servations by various collectors are quoted for what they are worth, since the whole subject of subspeciation in marcellus needs to be worked out. The larva feeds on Asimina triloba, and wherever this grows the adult is readily found in season.

[23 G. celadon (Lucas)]
Rev. Zool., p. 130. 1852.

This is certainly not an indigenous species. Strays from Cuba will account for the valid records, if any. Grossbeck (1917, p. 8) cast doubt on Skinner’s record for southern Florida, a record which I have been unable to locate. The “Syn-
optic table of the genus Papilio Linn.” (Anon., 1878b, p. 37) lists it in Florida under the syno-
nym sion (Fabricius). Edwards (1877, p. 9) listed sion as “occasional.” Perhaps all these “records” can be traced back to Boisduval & Le-
conte (1839, p. 13) where the habitat was given as “la Floride, la Jamaique et l’ile de Cuba.” Florida: ex Doll collection, CCM; April, LACM.
V. Chokoloskee: Feb., dosP. Dos Passos noted that the locality may be false; Nov., GSDA, for which the locality may also be false. VIII. Key West: “Immediately after a hurricane,” Cher-
mock (letter cited under 12,1).

Family PIERIDAE

COLIAS Fabricius

41 C. EURYTHEME Boisduval
Orange sulphur. Pl. I, Fig. 10, 5; Fig. 11, 9.
Fig. 12, form a alba Strkr. Klots believes that Figs. 10 and 11 represent hybrids with philodice
godt.
I. Pensacola: VFG; June, SSN. Tallahassee: se-
veral eriphyle Edwards, April 7, 1950, JPK;
May, 1954, LH. North of Tallahassee: in con-
siderable numbers, May 1954, LH and HLK.
Monticello: April 1938, UM; May 1954, com-
297). Sarasota: April 24, 1960, HLK. Fruitville: five June 1961, HLK. King believes it is in-
creasing in numbers in the Sarasota area. VIII.
Key Largo: July 9, 1955, UM. Dry Tortugas: two July 1960, WMD, GWR. Food: chiefly alfalfa, also white clover, other clovers, Astrag-
alus, Lupinus.

42 C. PHIOLIDAE Godart
Clouded sulphur, common sulphur.
Enc. Méth. 9:100. 1819.

ZERENE Hübner

54 Z. EURYDICE (Boisduval)
Western dog face.
A specimen of this species was taken in Port Tampa by U. C. Zeluff, according to Morgan, who commented that it was evidently imported by rail or on shipboard. Since Zeluff was in the Customs service, the latter seems more likely. In any event, it was an accidental visitor.

55 Z. CESONIA (Stoll)
Dog face. Pl. I, Fig. 20, 5; Fig. 21, form rosa
McNeill, 9, underside; Fig. 22, an albino, 9.
Pop. Exot. Suppl.; Pl. 41. 1793.
Cesonia is common over most of the state during most of the year. Morgan (1933) listed rosa McNeill as present in late fall and winter, and Fuller has taken a white form occasionally in August. King has never seen it south of Homestead. Food: Amorpha fruticosa and Trifolium.

ANTEOS Hübner

55.1 A. MAERULA LACORDAIREI (Boisdouval)
Maerula.
The few records are for strays. IV. Port Sewall: (Carolyn Ponsonby), Sanford (1945, p. 136) Miami: July 8, 1935, (Young), MCZ; (Grishawhe), Young (1938, p. 115).

PHOEBS Hübner

57. P. SENNAE EUBULE (Linnaeus)
Cloudless sulphur.
Syst. Nat., p. 748. 1768.
The cloudless sulphur is abundant throughout the state the year around. As Klots (1951, p. 191) said, "The subspecific classification is extremely complex and largely statistical," there is no need to enter into the subject here. Food: clover, preferably Cassia, as noted by a number of observers in Florida. The larvae vary considerably in color. Klots and the writer have done some work on the early stages of the genus and hope to publish on them later.

58. P. PHILEA (Linnaeus)
Orange-barred sulphur. Pl. I, Fig. 13; Fig. 14, 9; Fig. 15, form albaritha Brown, 9.
Philea is common in the southern half of the state all year. There are a few records as far north as Jacksonville, with one at Warrington in June 1960, and perhaps it is spreading north as Fuller reports that there were none in the Cassadaga region in 1850, but that by 1855 it was common. Weems also reared it in Gainesville in 1855. Unlike eubule, it is not a wanderer, though Harris has taken it at Montezuma, Ga., and Jones took a specimen on Martha’s Vineyard, Mass. The form obsolete Nielpelt is not common and seems to be present only in the summer. Fuller says the males are the same in any brood, but females emerging from September to November are all very brightly colored, while spring females are pearly white with just a tinge of yellow. Food: Cassia; C. bicapsulatius, SVF.

59. P. ARGANTE (Fabricius)
Syst. Ent., p. 470. 1775.
III. St. Petersburg: a pair, April 4, 1924, dosP, from the Sternitsky collection. Dos Passos does not vouch for the validity of the localities of this, nor the Chokoloskee specimen below. Lakeland: two Sept. 8-10, 1912, UM. These two are labeled as having been acquired with a collection purchased from Ramstedt about 1917. However, as Ramstedt was not in Florida between 1904, when he collected at Egmont Key, and 1930, when he first went to Punta Gorda, and as he did not remember obtaining any Florida specimens from any source except his own collecting, there must be some error in labeling. It is possible, of course, that these were taken at Lakeland, but unless we can find out more about their source, the record must remain questionable. V. Chokoloskee: one male, dosP. Edwards (1881b, p. 9) said, "Argante Fabr. is not a North American species (Edward’s italics), but the species found within the United States and taken for argante is argithe Netr.", In view of Edward’s emphatic statement, it is difficult to understand why the rumor of the presence of this species still persists, except in Texas.

60. P. AGARITHE MAXIMA (Neumoegen)
Large orange sulphur. Pl. I, Fig. 27, 8; Fig. 28. 8.
Can. Ent. 23:122. 1891.
Maxima is a common species from March to December, south of the line from Tampa to Port Sewall, including the Dry Tortugas, the only records north of this being pre-freeze specimens, namely, III. Indian River: Neumoegen (1891), and Upper Indian River: AMNH. The record in the “Season Summary for 1959,” News of the Lepidopterists’ Society, Number 3, p. 11, which infers a Jacksonville capture, is misleading. Zeiger has informed me that the specimen was taken in West Palm Beach. Food: Cassia, (Lennox), ABK, NSMS; Pithicellobium guadalupense, Dyar (1900a, p. 618); P. dulce, CPK. The larvae are reddish in all stages, and feed only on the tender young leaves, at least so far as the last plant is concerned. I have found the rearing of these very difficult and have succeeded in getting only one through to the adult stage. When about one-fourth grown they stop eating in captivity and simply die. This needs further study, for even under natural conditions they mysteriously disappear at about the same stage of development. This curiosity was first called to my attention by George Dillman; since that time I have frequently observed the same thing. P. dulce may be acceptable only in the early instars or else
only the tender new growth is acceptable. My supply of the latter was very limited. Perhaps either the new or old leaves of P. guadalupense are acceptable. The records on Cassia may refer to only one acceptable host species. Certainly the larvae will not eat Cassia Bicoapulalis in the Bradenton-Sarasota area, nor have Dillman or I ever seen the females ovipositing on the latter.

62 P. STATIRA FLORIDENSIS (Neumoegen) Statira.
Can. Ent. 23:122. 1891.

This is a relatively uncommon species which definitely seems to be working its way northward. Most of the records are from Palm C. Homestead, and Key Largo. King has found it from Pompano to Miami, but never south of the latter, and considered it primarily coastal. Morgan took two in Tampa in the 1890's. Heineman took one at Jupiter, 1932. Roever took it on Merritt Island, August 1951. One specimen turned up on Siesta Key, January 1952, a few in December 1953; but in November 1954, the writer found several dozen at the blossoms of Hamelia patens in Oneco. J. D. Smith also took it in St. Petersburg in the fall of 1954, and observed females ovipositing on some shrub which was not Cassia. Kamp found it in Bradenton, August 1955. King reported that the food plant was either Dalbergia ecastophyllum, det. West, or something very similar, and that it is double brooded. Davidson reported females ovipositing on Callandara, November 1957. The dates, from June to September and from November to February, confirm this.

KRICOCONIA Reaktir

63 K. LYSIDE Godart Lyside.
Enc. Méth. 9:98. 1819.


EUREMA Hübner

64 E. Daira (Godart) Barred sulphur. Pl. I, Fig. 23, ?; Fig. 24, form jucunda (Bdv. & Lec.) ♂; Fig. 25, ♀, underside; Fig. 26, form jucunda ♂, underside.
Enc. Méth. 9:137. 1819.

Daira is an abundant, variable species, sometimes rather local and found nearly all the year. The summer form is jucunda (Boisduval & Leconte), with the intermediate deliola Haskin occurring in spring and fall. See Haskin's paper (1938b, p. 120). Down in the Keys confusing forms are occasionally taken. Edwards (1877, p. 60) recorded elathrea (Cramer). In March 1954, Harris took two males of "a rather pallid form that occurs in south Florida representing perhaps some Antillean influence," according to Klots, and one female which the latter determined as ebriola (Poey), the first authentic record for the United States, though he found certain differences from the typical Cuban specimens. J. & H. Comstock (1902, p. 76) listed elathrea from Avon Park. For palmira (Poey) there are several records: I. Santa Rosa County: adult taken on peanuts, July 28, 1961, (R. W. Albritton), CPK. It is possible that this is a chemical changing as it was received in alcohol in which case it would be nothing more than jucunda. It is in poor condition, but there is no trace of yellow present. Morgan listed "jucunda albina (elathrea)" from Tampa, but there is no specimen of this in collection TU. IV. Useppa: April 1913, "acquired from a dealer, differing slightly from Cuban specimens in having less orange beneath marginal band of forewing." BH. Coconut Grove: five, one on Bidens, July 1945, HLK. Homestead: Aug. 1951, KR. Miami area and the Keys: July 1933, (Forsyth), Klots (1951, p. 196); Aug. 1906, Wood (1939, p. 131). VIII. Tom Harbor: a pair, July 1936, (Chermock?), DLB. The life history was given by Haskin (1938c, p. 153). Food: Aeschynomene viscidula, Stylosanthes biforma, and probably other related Fabaceae.


Bates (1934, p. 166) said: "E. messalina blakei is a Bahaman race. The only Florida specimen seen is the type labeled Sanford, Fla., Oct. 1, 1887, described in 1891 by Maynard." Forbes noted that the spelling on the label is "Sandford" and the date "Oct. 18." In view of the effects of the freeze of 1899, together with the possibility of a stray from the Bahamas, there is no reason for not considering this a valid record, although there is no reason to think that the insect is present now. As for the Chokoloskee records, four of which were mentioned by Grossbeck (1917, p. 12) and two of which are in dos
Passos' hands, there is every reason to be suspicious, as the latter readily agrees.

67 E. NICIPPE (Cramer)
Sleepy orange. Pl. 1, Fig. 8, 2, underside; Fig. 9, 2; Fig. 18, form flavo (Stkr.) 2, underside; Fig. 19, form flavo, 2.

There is great variation in the abundance of this species, as well as in its coloration both above and beneath, though most specimens are not so bright an orange as those taken farther north. It may be found in any month but is most common in July. Howe found it "incredibly numerous" in Leon County in August 1858. The form flavo (Strecker) is rare, the following being the only records. III. Daytona Beach, H.L.K. DeLeon Springs: Feb., SVF. DeLand: Feb., SVF. Cassadaga: May, Dec., SVF. Lake Helen: Feb., SVF. Tampa: June, (Morgan), UT. VI. Florida City: May, CGM. VII. Dry Tortugas: July, WMD. Food: clover and other Fabaceae; Cassia, CFK.

68 E. BOISDUVALIANA (Felder)
Boisduval's sulphur.
Reise Nov. 2:200. 1865.
Paradise Key: Two males, one female, May 25-June 4, OB.

72 E. LISA (Boisduval & Leconte)
Little sulphur.
Lisa is abundant throughout the state, including the Dry Tortugas, especially from March to December, but flying almost every sunny day. The form alba (Strecker) is not rare. The form clappii (Maynard) with the black on the forewing much reduced, was taken at Lakeland, May, FMJ. A specimen which Klots believes may be form euterpe Ménétrìes, was taken on Key Biscayne, July, CFK. It is orange rather than the usual yellow. Food: Cassia, Trifolium, Amphicarpa.

73,1 E. DINA HELIOS M. Bates
IV. Fairchild Gardens, Matheson Hammock: Aug. 23, 1962, (Plomley), det. Klots, AMNH. A Bahaman subspecies which may be an accidental introduction or stray. Collectors should be on the watch for it.

74 E. NISE (Cramer)
Pap. Exot. 1; Pl. 20, Figs. K, L. 1775.

There has been confusion over this species, it having been reported as both perimedes (Pritt-witz) and nedà (Godart). Dos Passos states that what we have is probably the subspecies neiphe (Felder). Klots (1931, p. 193) recorded: "first found in Florida by Mrs. Margaret Forsyth in 1933, nedà was common both in Royal Palm State Park [Paradise Key] and on Key Largo in 1947 (July 12-15), absent in 1948. . . . Possibly the Florida population results from a recent introduction. In Florida it flies in the bushy and scrubby margins of woods and flies when alarmed; it definitely does not fly out in the open as does the similar lisa." Because of the close resemblance to lisa and its retiring nature, it may be overlooked. The only other records are: VI. Paradise Key: many in May and June, OB. VIII. Key Largo: Aug. 1, 1947, CGM. Food: Mimosa pudica.

NATHALIS Boisduval

75 N. IOLE Boisduval
Dainty sulphur.
Iole is abundant practically the year around all over the state, including the Dry Tortugas. In view of this it is surprising that Grossbeck had but a single record for it, unless it has suddenly and rapidly multiplied in the past forty years. Forbes wrote that a Coconut Grove, 1924 specimen in the Museum of Comparative Zoology looks suspicious but that the collection contains a series dated 1933-1934. Perhaps the species began to establish itself during the late 1920's. It might be of interest to assemble all records prior to 1930. Food: Dyssodia, Tagetes, Stellarium, Helium, Bidens pilosa.

APPIAS Hübner

78 A. DRUSILLA NEUMOGENII (Skinner)
Florida white.
The Florida white is found almost exclusively in Dade and Monroe Counties, the dates including every month except November. It is, nevertheless, apparently rare, although Howe found it "quite common" in extreme south Florida, August 1958. There are a few, mostly older records from more northerly localities. II. Gainesville: late fall, WJP. This is a modern record. III. Indian River: SDM. Dunedin: Feb., 1921, Blatchley (1931, p. 243). IV. Sarasota: Feb. 14, 1911, Blatchley (1932, p. 66). I suspect both of Blatchley's records of being misidentifications for Ascia monuste philota (Fabricius), for he spoke of the specimens as being "only faintly tinged above with black," comparing them with
THE LEPIDOPTERA OF FLORIDA

Pieris rapae. Fort Lauderdale: March, April, CU. Food: Capparis; Drypetes lateriflora, Cher- mack & Chermock (1947, p. 142). These authors also give the life history.

PIERIS Schrank

82 P. PROTODICE Boisduval & Leconte

Checkerboard white.


86 P. RAPAE (Linnaeus)

European cabbage butterfly.

Syst. Nat., p. 488. 1758.

Though recorded from most of the state, even Key West, this species is by no means common in Florida, with the exception of the northern and western counties, where it does a good deal of injury to late cabbage and collards, but not to winter grown cabbage because it is not active at that season. Though Morgan, in his Notes, called it abundant at Tampa throughout the year, other records are primarily from March to May, with a few from October to December, and one in July at Miami, LSP. Fuller reported seeing thousands in a collard patch at Florida City in May 1954. Outbreaks on cabbage and collards are recorded in the Insect Pest Surv. Bull. 12: 107; 14: 85; 16: 15.

ASCIA Scopoli

88 A. MONUSTE PHILETA (Fabricius)

Mustard white.

Syst. Ent., p. 471. 1775.

Phileta is found throughout the state, including the Dry Tortugas, all through the year in the southern portion and during warm weather elsewhere. At times it is present in great abundance, especially along the coasts. There is an exhaustive paper by the author on the habits, life history, and migrations by Nielsen & Nielsen (1950). "This is by far the most common and troublesome caterpillar on cabbage and collards grown during the late spring and summer in the southern part of the state," according to Watson (1931, p. 39). Other foods: Lepidium, Cakile maritima, Cleome rufulosperma [ciliata], Batis maritima, nasturtium, all recorded by Nielsen & Nielsen; to this I can add Calendula. Pease is preparing a paper on the effect of the length of daylight on the color forms of this and Eucrema daira (Godart).

Family DANAIDAE

DANAUS Kluk

89 D. PLEXIPPUS (Linnaeus)

Monarch, or milkweed butterfly.

Syst. Nat., p. 471. 1758.

Plexippus is all over the state, occasionally abundant, but generally far from common, probably every month, but most of the records in early spring or late fall. Subspecies megalispe (Hübner). Key West: Dec. 18, 1936, det. Austin Clark, L.H. Klots took a specimen close to megalispe, Key Largo, July 16, 1947. Thaxter (1880, p. 75), reported an overwintering swarm near Apalachicola 1875-76, with the trees festooned in an area of about an acre. In January 1958, Urquhart & Harris found a large overwintering population also in the vicinity of Apalachicola. According to Harris, this locality had been used for many years and may even be that recorded by Thaxter. Unfortunately by 1958 it was being engulfed by real estate developers. Urquhart wrote of similar populations near Sarasota, Cedar Key, Lighthouse Point, East Point, St. Joseph's Bay, and a peninsula near Springfield. Harris wrote of a colony at Alligator Point, Wakulla County, and of finding many detached wings directly beneath bird perches in myrtle bushes. Bromley (1928, p. 96) recorded a flight in numbers in January, in the Everglades. King tells of seeing an assemblage of thousands hanging from a punk tree near Lejeune Road and West Flagler Street, in Miami. Two were seen by Rawson and Davidson on Garden Key, Dry Tor-
tugas, 1960. Though the usual food plant is *Asclepias* or *Apocynum*, the Division of Plant Industry has recorded the larvae on citrus and sweet potato.

90 D. GILLIPUS BERENICE (Cramer) 
Queen.
Pap. Exot. 3; Pl. 205, Fig. E. 1782.
The queen is much more abundant than *plexippus*, and found the year around. *Strigosa* Bates has been taken at Miami, (Harris), EÜ; Hebard (1904, p. 40), and there are specimens which have a suggestion of gray on the veins, but King states that these intermediates with grayish bordered veins are not uncommon in the Everglades, though the ground color never tends to the pale brown of typical *strigosa* of the Southwest. The white markings on the upper side of the primaries vary to a considerable degree, as does the size. Food: *Asclepias*, *Nerium*, *Gonolobus*, *Sarcostemma*, *Stapelia*.

91 D. ERESIMUS TETHYS Forbes 
J. N. Y. Ent. Soc. 51: 301. 1943.
VI. Near Paradise Key: (Cheromack), Klots (1951, p. 79). VIII. Lower Matecumbe: Feb. 8, 1932, (F. E. Church), AMNH. Both are undoubtedly strays from the West Indies.

91, 2 D. JAMAICENSIS Bates 
Ent. Monthly Mag. 1: 32. 1864.
Florida: (Thaxter), USNM. This will also be a stray, unless, as Forbes commented, it is a case of mislabeling since Thaxter collected in Jamaica as well as Florida.

**LYCORELLA** Hemming

92 L. CERES DEMETER (Felder) 
Reise Nov. 2: 352. 1867.
The two following records presumably result from strays. IV. Miami: Jan. 19, 1899, as form *atergatis* (Doubleday), (S. N. Rhoades), Skinner (1899, p. 112); April 21, 1941. This specimen in Mrs. Grimshawe’s collection “emerged from pupa found in Miami (B.M.G.),” according to Klots (1951, p. 276).

Family SATYRIDAE

**LETHE** Hübner

96 L. PORTLANDIA (Fabricius) 
Pearly eye.
Spec. Ins. 2: 82. 1781.

97 L. CREOLA (Skinner) 
Creole pearly eye.
Ent. News 8: 236. 1897.

106 L. EURYDICE APPALACHIA 
R. L. Cheromack
Eyed brown.

**EUPTYCHIA** Hübner

98 E. GEMMA (Hübner) 
Gemmed satyr.
Pl. I, Fig. 7, 2, underside. Zutr. exot. Schmett. 1; Fig. 4. 1818.

100 E. AREOLATA (Abbot & Smith) 
Georgia satyr.
Pl. I, Fig. 16, 6; Fig. 17, 2, underside. Lep. Ins. Ga. 1; Pl. 13. 1797.
There are a number of records from all over the state with the exception of the Keys whence there is only one, Big Pine Key: HLK. It is present practically every month. However, it is probably local in habit. Morgan noted that it was found “in damp, grassy or weedy places.” Food: grasses.

102 E. HERMES SOSYBIA (Fabricius) 
Carolina satyr.
Ent. Syst. 3: 219. 1793.
This species is found all over the state and is abundant throughout the year. Food: grasses.
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103 E. CYMELA VIOLA (Maynard)
Little wood satyr.
Pl. I, Fig. 29, d; Fig. 30, c, underside.
Man. N. Amer. Butt., p. 103. 1891.

CERCYONIS Scudder

116 C. PEGALA (Fabricius)
The wood nymph.
Pl. I, Fig. 31, 2; Fig. 32, 2, underside.
Ent. Syst., p. 494. 1793.
Florida: June, July, LACM. I. Pensacola: VFG. July, SSN. Apalachicola: (Chapman), Grsb. 18. Tallahassee: July, JAP. II. Okeefenokee Swamp: July, (Beamer), UK. Lake City: Aug., UK. Alachua Co.: July, UFES. Gainesville: UFES; July, UM. Jacksonville: July-Sept., (Ashmead), Grsb. 18; Sept., SIM. Orange Park: July, CFZ. St. Augustine: common in summer, (Johnson), Grsb. 18. III. Oviedo: (Mead), Grsb. 18. Daytona Beach: common, July, SVF. Cassadaga: July, SVF. Fuller reports that the eyespots on the primarics are very variable and often missing. Tampa: July, LHH.

Family HELICONIIDAE

ITHOMIA Doubleday

[I. phoeno (Geyer)]
Grote (1875b, p. 246) said: "Placed here (Florida) on the authority of Geyer," but this must have been an error on Geyer's part. There is no authentic record.

GRETA Hemming

[G. diaephasa (Drury)]
III. Exot. Ent. 2; Pl. 7, Fig. 3. 1773.
Florida: Edwards (1872, p. 10). Grote (1875b, p. 246) had this to say: "I cannot find any authority for the occurrence of this butterfly within our limits, excepting Edwards' Synopsis, and Mr. Edwards does not recollect upon what grounds he placed it there." Here, then, is another error.

HELICONIUS Kluk

155 H. CHARITONIIUS TUCKERI
Comstock & Brown
Zebra.
Amer. Mus. Nov. 1467: 15. 1950.
The zebra is general and common though perhaps not so abundant in the northern counties, but present at all times except during the coldest weather. There is an interesting description of the habits of charitonius by W. H. Edwards (1881e, pp. 209-215). Food: various Passiflora.

DRYAS Hübner

156 D. JULIA CILLEN (Cramer)
Julia.
Pap. Exot. 3; Pl. 215, Figs. D, E. 1782.
This species is common from Miami down through the Keys, principally in summer, but the records include all months. King says that it is most common on Key Largo, but he has not seen it in the Everglades or below Marathon. Dyar took it at Palm Beach (1901a, p. 447). Plumley reported two in Broward County, July 1961. A specimen labeled "Arlington, May," LHH, would seem to be in error, as Arlington is close to Jacksonville. There has been much disagreement and debate over the form or forms found here, but I am content to follow Klotz and leave the problem to others. The life history is given by Schneider (1933, p. 2). Food: Passiflora.

DRYADULA Michener

[157 D. phaetusa (Linnaeus)]
Syst. Nat. 1: 486. 1758.
The records for this species do not appear sound, although they may be perfectly valid. The fact that a total of fourteen specimens were collected at two different localities on two different dates, but that no other collector has ever seen the insect, indicates the need for more substantiation.
IV. Miami: Feb. 21, 1932 (Grimshaw), LACM. VIII. Key Largo: Feb. 10, 1932, (Grimshaw), LACM. This data was supplied by Martin; Martin & Truxal (1955, p. 11) list simply, Florida: Jan.-May.
AGRAULIS Boisduval & Leconte

158 A. VANILLAE NIGRIO RID Michener
Gulf fritillary.

The Gulf fritillary is abundant everywhere the entire year. The form comstocki Gundlach was taken on Key Largo, March 30, 1932, det. Schaus, Forsyth (1933, p. 2). Food: Passiflora. I have also seen the larvae on grasses, and a chrysalis on Agave, fifty feet from the nearest Passiflora, which indicates how far a larva will travel to select a spot for pupation.

Family NYMPHALIDAE

EUPTOIOETA Doubleday

159 E. CLAUDIA (Cramer)
Variegated fritillary.
Pap. Exot. i; Pl. 69, Fig. E. 1779.

Claudia is found throughout the state, though according to King it is not common on Key Largo, and probably does not occur much below that point; at least there are no records from anywhere southwest of it. It is present March-Dec., but mostly in the late summer and autumn. The ab. alba claudia was described from Miami, Field (1936, p. 23). Food: Passiflora, Podophyllum, Sedum, Desmodium [Melobesia], Portulaca, Menispernum, violet and pansy.

[160 E. hegesia (Cramer)]
Mexican fritillary.
Pap. Exot. 3; Pl. 209, Fig. E. 1782.

Florida: four, MCZ. Forbes commented that these are definitely "Antillian," not Mexican, but that he is very suspicious of them and believes that Thaxter took them in Jamaica. V. Chokoloskee: Dec. 1902, GSDA. While the species occurs in Cuba, we need something more substantial than a Chokoloskee specimen and four others that are equally doubtful before accepting the record.

SPEYERIA Scudder

[162 S. diana (Cramer)]
Diana.
Pap. Exot.; Pl. 98, Fig. D. 1779.

Diana was reported from Florida (Grossbeck, 1917, p. 14) on the authority of Skinner. H. J. Grant, Assistant Curator of the Academy of Natural Sciences, Philadelphia, informs me that there is no Florida specimen of diana in the Skinner collection. The nearest record known is that of L. Harris, Jr., at Atlanta, Ga., nearly three hundred miles north of the Florida border. Mather reports two other southern records: northern Mississippi and Tallulah, La. There would appear to be no reason for retaining this species on the Florida list.

166 S. CYBELE (Fabricius)
Great spangled fritillary.
Syst. Ent., p. 516. 1775.

Grant informed me that in this instance there is a specimen in the Academy of Natural Sciences collection labeled "Florida, SM. No. 18, det. Skinner, collected Skinner." There are two Gainesville records: Grsb. 14, and one in Watson's hand, "June 11, 1941." Though neither of these last two is to be found in the University of Florida Experiment Station collection today, there is every reason to believe that they are valid records. I had assumed that all these were strays, but a fourth specimen was taken at Gainesville by Denmark in a black light trap, June 6, 1956, and is in too fresh a condition to have strayed from any great distance. It is in the Florida State Collection of Arthropods. There is one other record: Dec. 10, 1821, UM. The label also bears the word "cherry," but the significance is anyone's guess. Food: violets.

PHYCIODES Hübner

264 P. GORGONE (Hübner)
Gorgone crescent.
Samm exot. Schmett.; Pl. 41. 1824.

Here we have another case where collectors will be confused with the changes in nomenclature. Ismeria (Boisduval & Leconte) instead of being a synonym of gorgone has recently been restored to specific status but phaon (Edwards) has been sunk as a synonym of gorgone. The latter is common during most of the year all over the state, including the Dry Tortugas, the winter form himalis Edwards occurring into the late spring. Plomley has taken in Broward County, an aberration in which the black margin of the hind wing is solid and covers the outer third of the wing. Food: in California, Lippia lanceolata and L. nodiflora. King suspects that here it may feed on Bidsens.

265 P. THAROS (Drury)
Pearl crescent.
Ill. Exot. Ent. 1: 43. 1770.

This species is equally common and flying with gorgone through the year. It also has a winter form, marcia (Edwards), but is perhaps even more variable than gorgone and plagued with more intermediates. Food: asters, Verbesina helianthoides.
ERESIA Boisduval

273 E. FRISIA (Poey)
Cuban crescent.
Fairly common during most of the year in Dade and Monroe Counties, but there are very few records further north. II. Gainesville: (Watson), UFES. III. L. Crange: Sept. 9, (Sleight), Grsb. 14; (Davis), SIM. IV. South Bay: May 1, 2, (Davis), AMNH, SIM. V. Everglades: Dec., WMD. The life history was described by Chermock & Chermock (1947, p. 142).

[275 E. leucodesma Felder]
Wien. ent. Monat. 5: 103. 1861.
Holland (1831, p. 141) wrote that Edwards (1864, p. 502) in describing Anthisnassa cincta, which does not tell me is a synonym of this, attributed it to Texas and Florida. However, there was no specimen labeled cincta in the Edwards collection, nor in any other, so far as he could discover. He thought that Edwards was probably deceived as to the origin of the Florida specimen.

TRITANASSA Forbes

274 T. TEXANA SEMINOLE (Skinner)
Seminole crescent.
PL. I, Fig. 6, 2.
I. Five miles south of Clarksville: Aug. 26, 1932, BLM. Tallahassee: one March 17, 1951, JPK; two May 1954, LH. These were all in fresh condition. III. Levy Co.: May 7, 1935, (Weems), DPI, in fresh condition. L. Crange: Sept. 9, 19; (Sleight), Grsb. 18; (Davis), SIM. There are also three “Florida” references in the older literature. Grote (1875b, p. 268), “Synopsis of butterflies” (Anon., 1883, p. 26); Edwards (1877, p. 27).

MESTRA Hübner

[283 M. cana floridana (Strecker)]
Wyatt kindly checked the Strecker collection for me and reported that there is in it a specimen labeled “original type, Florida, from L. W. Mengel.” There is also one labeled “Fla.” in the Cornell University collection. However, there is something very curious about this form floridana. Fox (1942, p. 14) gives a very interesting account of the history of the type specimens. Apparently these specimens, presumably including the one on which the form was erected, all came from Cedar Key, not the Everglades as Strecker claimed. Forbes reports one in the Weeks collection, MCZ, labeled “Crystal River,” which is not far from Cedar Key. It is also labeled “floridana Stkr.” Since these specimens were taken before the freeze of 1899, there would appear to be two possible explanations. The first, and most tenable, is that they were not taken in Florida in the first place. Second, and less likely, is the possibility that the species may have represented an isolated colony along the relatively inaccessible northern third of the west coast of the peninsula, where they could have been wiped out by the freeze. It is remotely possible that they may still survive in this largely unexplored region. However, against the case for the species ever having been in Florida, is the fact that cana with its form floridana is found only in Trinidad and Venezuela whereas even the southern Antilles have a different subspecies, cana var. Butler, and no form of the species is known north of St. Lucia and Dominica. The record looks more than dubious.

HYPOLIMNAS Hübner

284 H. MISIPUS (Linneaus)
Mus. Ulr., p. 264. 1764.
This species is without doubt a stray of very infrequent appearance in Florida. For illuminating comment on misipus the reader is referred to a paragraph under Lois loria (Drude) in Barnes & Benjamin (1926, p. 20). III. Oak Hill: Sept. 1916, (Mrs. L. Walsh), AMNH. Banana River: Dec. 1, 1895, Cory (1896, p. 140). Indiana River: Nov., (Wittfeld), Edwards (1888, p. 128). IV. Miami: in a grove. April 1934, (Young), MCZ; larva on parsley, Klots (1951, p. 276). Klots believes this may have been reported to him erroneously, instead of purslane, as Romm (1937, p. 53) listed the larva as feeding on the latter plant. In the copy of the earlier Lepidopterists’ News 1(1):2, which I have examined, in the paper by James S. Haeger which is the apparent source of the paper by Klots, the words “parsley (Petroselinum posteritimum)” are crossed out and written above is the word “pulse.” The paper describes the larva from which Haeger reared an adult, the latter emerging in late April or early May. V. Chokoloskee: June 11, 1902, June 4, 1904, CMNH. The validity of the last two is open to question. VII. Everglades National Park: Nov. 10, 1960, (H. B. Muller), ENP.

POLYCONIA Hübner

285 P. INTERROGATIONIS (Fabricius)
Question mark.
THE LEPIDOPTERA OF FLORIDA


301 V. CARDUI (Linnaeus)
Painted lady.
Syst. Nat., p. 475. 1758.

NYMPHALIS Kluk

298 N. ANTIOPA (Linnaeus)
Mourning cloak.
Syst. Nat., p. 476. 1758.

VANESSA Fabricius

299 V. ATALANTA (Linnaeus)
Red admiral.
The red admiral is common throughout, even to Key West and on the Dry Tortugas, appearing in every month. Harris saw thousands of freshly emerged specimens along a two mile stretch of road near South Bay, May 13, 1953, not migrating but hovering over flowers. Fuller saw similar swarms over Cephalanthus at Florida City, May 1954, and April 1955. Food: Urtica, Humulus, Boehmeria, Parietaria.

300 V. VIRGINIENSIS (Drury)
American painted lady.
Ill. Exot. Ent. 1; Fig. 5. 1770.
Virginis is not common but probably found all over the state, though there are no records south of Fort Myers, except the Dry Tortugas, WMD. Morgan called it abundant the year around at Tampa. Most records are for the spring and late fall, but they do cover the year. Food: everlastings and other composites.

PRECIS Hübner

303 P. ORITHYA EVARETE (Cramer)
Buckeye.
Pap. Exot. 3:18; Pl. 203, Figs. C, D. 1779.
This species has been bandied about so in the past few years as regards name, that it would not be surprising were its oldest friends to fail to recognize it. We have all known it as Junonia coenia (Hübner). Under how many and what aliases it has paraded recently I leave to the historian of curiosities. The subspecies evarete is general and common throughout the state, probably in every month, except that in the Keys, including the Dry Tortugas, it may be entirely replaced by the subspecies zonalis (Felder), which ranges north as far as Fort Myers on the west coast and Orange County on the east. The dates for zonalis also cover most of the year, but how much the two subspecies overlap geographically I cannot say; it is another problem for research. There is one record for the form rosa Whittaker & Stallings from Titusville, Oct. 17, 1945, (Berry), LACM; one from Longboat Key, Jan. 3, 1956, (Remington), YU; and King reports that it is occasionally taken in the Port Orange region in the fall months. Food: Plantago, Linaria, Antirrhinum, Ludwigia, Sedum; Gerardia, DPI. The larva of zonalis feeds on Lippia in Cuba.

ANARTIA Hübner

305 A. JATROPHAE GUANTANAMO Munroe
White peacock.
Common in the southern half of the state except in cold weather. King believes it is essen-
THE LEPIDOPTERA OF FLORIDA


310 E. TATILA TATILISTA Kaye
Florida purple wing.
Pl. I, Fig. 33, 9.

IV. Lake Worth: Schaus, (1894, p. 17). Fort Myers: “Eunica sp.” Walker, (1918, p. 78) is surely this species. Relatively common in Dade and Monroe Counties, especially in dense hammocks along the coast, with records for every month except June, but none of them sufficiently clustered to say what the proper season might be.

DIAETHRIA Billberg

314 D. CLYMENA (Cramer)
Pap. Exot. 1; Pl. 24, Fig. E. 1775.

Some of the records for this species are undoubtedly questionable, but there is no question about its being a very rare strays, or accidental visitor. III. Steper: March 30, 1918, CM. Crench reports that this is a different race from the two “Key West” specimens in the Carnegie Museum collection, and he believes that all three are undoubtedly fakes. IV. In Dobleday & Hewitson (1849, p. 238) appears this statement: “The only evidence I have obtained of the occurrence of any species so far north as East Florida is a drawing shown to me by Dr. Bachman of Charleston, S. C., of a species, which, as far as can be determined without comparison of specimens, is Callcore clymene.” This drawing was made by Dr. Letten from a specimen which he took during his journey to the southern parts of East Florida, in 1836.” Fort Lauderdale: obtained from a very old collection, CGM. VI. Paradise Key: Feb. 26, 1944, (P. G. Hawes), Klots (1951, p. 279) VIII. Key West: July 1895, July 1897, CM. Bates (1925b, p. 43) gave the food plant in Brazil as Trema micrantha and noted that T. micrantha [Florida] grows in southern Floridas, to which it might be added that West & Arnold (1932, p. 158) also listed T. laricifolia.

MARPESSIA Billberg

317 M. CORESIA (Godart)
Walter.
Enc. Méth. 9: 359. [1824].
LIMENITIS Fabricius

322 L. ASTYANAX (Fabricius)
Red-spotted purple.
Syst. Ent., p. 447. 1794.


325 L. ARCHIPPUS (Cramer)
Viceroy.
Pap. Exot. 1; Pl. 16, Fig. A. 1779.

The species is abundant all through the state except during cold weather. The vast majority of specimens are in the form floridens Strecker. Some may be typical archippus, but it is probable that those reported as such may be the intermediate watsoni (dos Passos), which I have seen as far south as Bradenton. King believes the clinal area is essentially in northern Florida. Ab. halli (Cook & Watsoon) taken at Miami, July 8, 1920, (Grimshawe), LACM. Food: willow, poplar, and a number of other trees.

ASTEROCAMPA Roeber

There is a paper by Davidson, 1958, on the habits of the two species of Asterocampa in Florida which is too long to quote here, but to which the interested reader should refer. Zeiger wrote of finding hundreds of both species of Asterocampa revelling on rotten persimmons lying on the ground at Newman's Lake in Alachua County in October 1962. He described it as a true "bonanza."

327 A. CELTIS (Boisduval & Leconte)
Hackberry butterfly.

All of the records probably belong to the subspecies Alicia (Edwards), except one from Century, July 17, 1837, FRA. Century is close to the Georgia border. Florida: MCZ; April-June, LACM. I. Warrington: VFG. Tallahassee:

329 A. CLYTTON (Boisdouval & Leconte) Tawny emperor. Lep. Amer. Sept., p. 208; Pl. 56. [1834].


HISTORIS Hübner

Both species listed are possible as strays, but the records need further confirmation.

331 H. ODIOUS (Fabricius)

Syst. Ent., p. 457. 1794.

Florida: as orion (Fabricius), “occasional,” Edwards (1877, p. 62); in the “Synopsis of Butterflies” (Anon., 1883, p. 116) the habitat is given as “Fla.(?)” (Note: these synopses were usually checked by Edwards.); Kaye, (1925, p. 470). This last may merely refer to the older references; Ziemer has one dated June 24, 1940, but does not know the name of the collector nor whence came the specimen originally. Forbes reported a specimen of the mainland race in the Museum of Comparative Zoology but he believed the label “Fla.” to be false. Klots (1951, p. 280) spoke of one authentic record.

332 H. ACHERONTA (Fabricius)


Florida: one female, obtained from a very old collection, CCM. Holland (1931, p. 171) reported that it had been taken in southern Florida.

ANAEEA Hübner

333 A. ANDRIA Scudder


334 A. AIDEA FLORIDALIS Johnson & Comstock


II. Gainesville: JRW; Feb. 25, 1962, April 15, 1959, July 5, 1955, WJP. Platt’s records for the two species of Anaea suggest that their range overlaps in the Gainesville-Ocala area. The implied Jacksonville record in the “Season Summary for 1959,” News of the Lepidopterists’ Society, Number 3, p. 11, is an error. Zeiger informs me that it was a misdetermination for Andria above. IV. West Palm Beach: HLK. Boynton Beach: Feb., March, CPK. Dade Co.: common, the records covering every month. VIII. Big Pine Key: April, OA. Food: Croton linearis, Klots (1951, p. 188). For description of the early stages, see Matteson (1930, pp. 7-9).

Family LIBYTHEIDAE

LIBYTHEANA Michener

336 L. BACHMANII (Kirtland)

Snout butterfly. The Family Visitor 5: 189. 1851.

THE LEPIDOPTERA OF FLORIDA

Family RIODINIDAE

LEPHELISCA Barnes & Lindsey

345 L. VIRGINIENSIS (Guérin-Méneville)

Little metalmark.
Icon. Régne Anim., p. 489; Pl. 81. 1844.
The little metalmark is general but very local in grassy places. Not rare where found, mostly in April and May and again from August to October, but appearing occasionally in other months.

Family LYCAENIDAE

Subfamily THECLINAE

EUMAEUS Hübner

354 E. ATALA FLORIDA Roeber

Atala.
Pl. I, Fig. 34, ♀.
Ent. Mitt. 15: 373. 1926.

It had been feared that this once common and beautiful butterfly was extinct, but two recent records testify to its having survived the ravages of collectors and real estate developers, or perhaps having re-established itself. Curiously, the recent records, August 20 and September 5, 1958, (G. & B. Klopfer), and March 22, 1959, (C. J. Dempfer), were both from Broward County, whereas all the earlier ones were limited to Dade and Monroe Counties. Dempfer reported his colony was flourishing as of March 15, 1960. As records exist for every month except October, this species probably flew all year. Harris said that it was abundant thirty years ago at what is now 7th Ave., N.W. and about 152nd St. in Miami. The last record prior to the two given above is from a Works Progress Administration file card in the University of Florida Agricultural Experiment Station, Gainesville, which reads: “Miami, April, 1940, June Hawthorne,” but the source of the data is not given. In view of some of the W.P.A. cards, “June Hawthorne” may be a tree or a person.

Food: Zamia integrifolia. For more detailed information, the reader should refer to Klots (1951, pp. 132-133). The life history was described by Schwarz (1888) and Rawson has written one in 1962, telling of the attempts that are being made to establish a colony at the Visitors’ Center of the Everglades National Park, where, of course, it will be well protected.

ATLIDES Hübner

355 A. HALESUS (Cramer)

Great purple hairstreak.
Pl. I, Fig. 35, ♂; Fig. 39, ♀; Fig. 40, ♀, underside.
Pap. Exot., 2; Pl. 98, Fig. 3. 1779.

Probably to be found wherever its food plant, mistletoe, grows. While the records include every month, April, May, September, October, appear to be the more abundant seasons. The adults frequent flowers, the favorites being Bidens and star jasmine, Klots (1951, p. 133); saw palmetto, Haskin (1933a, p. 72); wild plum, Watson (1919a, p. 114); poinsettia, SVF. The life history was described by Haskin.

STRYMON Hübner

[357 S. endymion (Fabricius)]

Syst. Ent., p. 519. 1794.

The only reference for this in Florida is under the synonym hugon (Godaert), Dyar (1902, p. 36). Until it is possible to trace his authority, it would seem advisable to omit the species. Holland (1931, p. 242) said that it might occur in the Florida Keys. However, Comstock & Huntington (1943, p. 54) expressed the belief the name had been introduced erroneously in North American lists by Herrich-Schaeffer.

361 S. MARTIALIS (Herrich-Schaeffer)

Martial hairstreak.
Pl. I, Fig. 45, ♂.


362 S. ACIS BARTRAMI (Comstock & Huntington)

Bartram’s hairstreak.

Dade and Monroe Counties only, except for four specimens from Lake Worth, Palm Beach, and Jupiter, see Comstock & Huntington; common but very local, the dates covering Feb.-May, July, Aug. and Oct.-Dec. Klots (1951, p. 139) gave the food as “wild croton (?).”

365 S. CECROPS (Fabricius)

Red-banded hairstreak.
Ent. Syst. 3(1): 270. 1793.
Cecrops is common throughout the state, recorded in every month but July. There is some variation in the width and color of the transverse band of the hind wing beneath, but no specimen that could be called beon (Cramer) has turned up. Food: croton.

365. 1 S. MAEITES Herrick-Schaeffer
Maetes hairstreak.
Pl. I, Fig. 41, a; Fig. 42, b.

Maetes is very rare, but the reader should refer to Young’s paper (1937) for notes on the habitat of the species. IV. North Miami Beach: June, FMC. Miami: between Jan. 28 and Feb. 8, Hebard (1903, p. 253); Feb., July, OB; April, FMC, PSR, HAF, dosP, FMC; Dec., Schaus (1898a, p. 96). Brickell Hammock: June, July, BHP. Buchholz had one specimen—Florida: Slosson, which is form telea (Hewitson).

366. S. COLUMELLA MODESTA (Maynard)
Columella hairstreak.

This is a common species in the southern part of the state including the Dry Tortugas, the northern limits being Tampa and Delray Beach. This is a curious reversal of the usual situation of the east coast records extending farther north than those for the west coast. Perhaps when the food plant is discovered, the anomaly may be explained. It has been taken in every month but October.

366. 1 S. CTIBIRA Hewitson
Ill. Diur. Lep. 158; Pl. 62, Fig. 427. 1874.

Comstock & Huntington (1943, p. 81) made this a subspecies of columella above. They placed here the series taken in the Dry Tortugas in June which were reported by Forbes (1941, p. 147) as columella modesta. The only other record is a single specimen from the Dry Tortugas: March 20, 1927, OB. Buchholz did not recall the source of this.

372. S. M-ALBUM (Boisdruval & Leconte)
White M hairstreak.
Pl. I, Fig. 57, a; Fig. 58, b.
Lép. Amér. Sept., p. 80; Pl. 29. 1833.

M-album is common all over the state, with most records from March to May, but also scattered ones from June-October and December. Food: oak. Zeluff found the adults abundant around rubber trees at Fort Pierce in summer, and Fuller reports it abundant at poinsettia in April.

373. S. MELINUS Hübner
Gray hairstreak.
Zutr. exot. Schmett.; Fig. 121. 1818.

Melinus is common everywhere in the state March-August, and again in October, with occasional records for other months. The larva feeds on a number of plants, preferably hops and beans; okra, cotton, loquat, Watson (1931, p. 73); blossoms of scrub palmetto, FMJ; hibiscus, DPI; Lupinus diffusus, CPK; Echites, (Craighead), ENP.

374. S. FAVONIUS (Abbot & Smith)
Southern hairstreak.

Though this species is common in Georgia, and from Alachua County south, there is only one record from the northern or western parts of the state—Tallahassee: May 1954, HLK. The species is distinctly limited to one brood, flying only from the middle of March to early May, though there are specimens dated June and July, LACM. Fuller reports it common but quite local about DeLand at Bidens blossoms. Food: Quercus spp.

375. S. ONTARIO (Edwards)
Northern hairstreak.

H. A. Freeman is describing the Florida race as a new subspecies from material taken in Grady County, Georgia, by E. V. Komarek, now in the collection of Lucien Harris, Jr., Escambia Co.: May 13, 1961, May 15, 1962, SMH. Warrington: June 15, 1960, VFG. Pensacola: April, SNN. Tallahassee: May 6, 1951, det. Klots, JPK. The last was taken by Knudsen at light at 11 P.M.

[380 S. titus mopsus Hübner]
Coral hairstreak.
The record, Florida: (Hübner), Grsb. 25, is probably attributable to one of those mixed “Florida in Georgia” and “Georgia in Florida” records, all of which seem to boil down to Abbot’s collecting in Screven County, Georgia. Probably Holland (1931, p. 250) has also attributed it to Florida for the same reason. Harris has not taken it south of Macon, Georgia. Food: wild cherry, plum.

385. S. EDWARDSII (Grote & Robinson)
Edwards’ hairstreak.
The following are in the American Museum of
Natural History, were collected by Palm, and the data supplied by dos Passos: one male, one female, each with "324 Fla Ac 5409" on label; the third, a female, is labeled "Kissimeme." Food: oak, especially Quercus ilicifolia.

386 S. CALANUS (Hübner)
Florida hairstreak.
Sammel. exot. Schmett., 1. 1824.
Florida: April, May, LACM. I. Escambia Co.: May, SMH. St. Marks: May, HLK. Tallahassee: May, HLK. II. Alachua Co.: April, DPI. Gainesville: wittfeldi, two on chinquapin blossom April, JCS. Island Grove: May, Comstock (1913, p. 261). Jacksonville: May, Skinner (1907, p. 48); CFZ. III. Cassadaga: April, SVF. Lake George: Skinner. Apopka: Feb., HAF; April, OB; May, JWT. Rock Springs: April, PRA, LHH, SDM, SSN; May, HLK, SSN, HEW. Ocoee: April, OB, LHH, SDM, JWT. Orlando: June, Berry. Georgiana: June, ANSP. Indian River: type of wittfeldi, Edwards (1883, p. 130). St. Petersburg: CGM. Tampa: Morgan (1933). Lakeland: May, SIM. Grossbeck (1917, p. 24) noted that the Lakeland specimens "differ from the typical by their smaller size and by the presence of a clearly marked inner white line to the transverse row of spots beneath." Berry (1914, p. 13) described a new form found at Ocoee in the Spring, but gave it no name. Food: Quercus, Comstock.

387 S. [FALACER] Codart
Banded hairstreak.
Enc. Méth. 9:683. [1824].
The status of the relationship of this to calanus is uncertain; the only possible record, that from Tallahassee, has been included under calanus on Klots' advice.

389 S. LIPAROPS (Leconte)
Striped hairstreak.
I. Escambia Co.: May 6, 1961, SMH. Tallahassee: one female, May 20, 1954, HLK. Taken on the University campus. King says it is impossible to say whether this is typical liparops or the form striigus Harris.

388, 1 S. KINGI Klots & Crench
King's hairstreak.
I. Escambia Co.: June 3, 1962, SMH. Tallahassee: two females, June 3, 1951, det. Klots, JPK.

MITOURA Scudder

398 M. nelsoni Boisdruval
Through a mixup in check-list numbers or other clerical error, a record for this was published (Coop. Ins. Pest Surv. 3(23): 4). Denmark assures me that this is completely erroneous.

401 M. GRYNEUS SWEADNERI
F. H. Chermock
Olive hairstreak.
Can. Ent. 76: 216. 1944.
This subspecies is evidently very local, and usually very rare. North Florida: Scudder (1876, p. 109). II. Jacksonville; two June, (Chermock), HAF. St. Augustine: seventy-five June, (Sweadner), types and paratypes, Chermock. Two miles south of St. Augustine: on red cedar in sand dunes, GWR. III. Guntown: April, BJZ. Citrus Co.: reported abundant on cedar near the coast below Crystal River, March, HLK. Lake Helen: occasional, end of March, around juniper, SVF. Port Orange: June, HLK. Food: red cedar, at least for typical gryneus.

INCISALIA Scudder

403 I. augustinus (Westwood)
Brown elfin.
Recorded by Morgan (1933), but he wrote that this was an error and that the records correctly belong under the next species.

407 I. HENRICI MARGARETAE dos Passos
Henry's elfin.

413 I. NIPHON (Hübner)
Pine elfin.
Zutr. exot. Schmett.; Fig. 203. 1823.
I. Pensacola: March, SSN. Klots (1951, p. 149) quoted Florida as the type locality, though he has told me this may be part of the "Florida in Georgia" mix-up. Food: pine of several species, Packard (1890a, p. 767).
THE LEPIDOPTERA OF FLORIDA

Subfamily CERYDINAE

FENISECA Grote

419 F. TARQUINIUS (Fabricius)
Harvester.
Pl. I, Fig. 38, 9.
Eut. Syst. 3: 319. 1793.

Subfamily LYCAENINAE

LYCAENA Fabricius

424 L. THOE (Guérin-Méneville)
Bronze copper.
Icon. Règne Anim. Ins.; Pl. 81, Fig. 4. 1844.
II. Gainesville: June 26, 1922, (Walker), UM. This is unquestionably a stray from the north. Food: curly dock.

435 L. PHILAEAS AMERICANA Harris
American copper.
Treatise Ins. Inj. Veg., p. 273; Fig. 104. 1862.
The ab, fasciata was described from Florida by Streeker (1878, p. 101) but there is no other Florida record. Food: Rumex.

Subfamily PLEBEIINAE

LEPTOTES Scudder

488 L. CASSIUS THEONUS (Lucas)
Cassius blue. Pl. I, Fig. 43, 9; Fig. 44, 9.
Hist. Cuba 7: 611. 1858.
I. Escambia Co.: July 10, 1961, VFG. Abundant from Orlando and Tampa south, practically whenever the sun shines. Food: Galactia solubilis [pilosa], Haskin (1933c, p. 154); Plumbago, SVF. Morgan noted that it was "sometimes swarming around poison ivy as though that were the food plant."

[439 L. marinus Reakirt]
Marine blue.
IV. Fort Myers: Walker (1918, p. 78). This is unquestionably an error for theonus.

BREPHIDIUM Scudder

441 B. PSEUDOFEA (Morrison)
Eastern pigmy blue.
This species is very closely limited to the southern coastal regions from New Smyrma on the east to Cedar Key on the west. King reports that its presence is very spasmodic. He has gone for years without seeing it, and then it will suddenly be plentiful, often on the palmetto blossoms in June. The majority of records are from March to July; in the extreme south they cover all months except August and November. Rawson (1961) has described the early stages, rearing it from Salicornia bigelovii. He believes it also feeds on Batis maritima.

CYCLARGUS Nabokov

442 C. THOMASI BETHUNE-BAKERI (Comstock & Huntington)
Miami blue. Pl. I, Fig. 46, 9; Fig. 47, 9.
The Miami blue was previously known as catilina (Fabricius). It is not rare in the area from Gainesville and Tampa south, and is common in Dade and Monroe Counties. It has been taken in the Dry Tortugas. The records include all months. Food: Pithocellobium and Caesalpinia [Guilandina].

HEMIARGUS Hübner

443 H. CERANUS ANTIBUBASTUS Hübner
Ceranus blue.
Zurtr. exot. Schmett.; Figs. 99, 100. 1818.
An abundant species found all through the peninsula, the Dry Tortugas, and as far west as Wakulla, the dates covering every month. Buchholz collection had one specimen, Bonita Springs: Nov. 29, 1934, (Blitcher) — which has much larger and more prominent markings on the hind wings than usual. Haskin (1933, p. 155) discussed the life history. Food: Cassia [Chamaecrista], Phaseolus, Abrus.

ECHINARGUS Nabokov

[446 E. isolus (Reakirt)]
Reakirt's blue.
V. Chokoloskee: May 10, 1919, CMNH. This is either a misidentification or a false locality label.

EVERES Hübner

447 E. COMYNTAS Godart
Eastern tailed blue.
Enc. Méth. 9: 660. 1824.
THE LEPIDOPTERA OF FLORIDA

I. Pensacola: Feb., March, SSN, Sept., VFG. Florida Caverns State Park; three April 14, 1960. DPI. Apalachicola: (Chapman), Scudder (1859, p. 911). Tallahassee: three March 8, 1851, JFK, “common,” (Harris). II. Jacksonville: Sept. 26, 1869, CFZ. IV. Siesta Key: May 24, 1946, CPK. This specimen was discarded, as the rarity of the species in southern Florida was not realized at the time. To the best of my memory, the determination was checked by Forbes. Miami: two March 23, 1945, CGM.

PHILOTES Scudder

[471 P. sonorenscis (Felder)]
Reise Nov. 2: 281. 1865.

IV. Miami: one female, March 3, 1907, CM. This one came from the Cleveland Museum. Whatever its origin prior to that, there is grave doubt that it ever saw Florida, even as a stray.

CELASTRINA Tutt

475 C. ARGIOLA PSEUDARGIOLA
(Boisdual & Leconte)
Spring azure.
Pl. I, Fig. 48, #; Fig. 49, #.
Lép. Amér. Sept., p. 118; Pl. 36. [1833]...
I. Florida Caverns State Park: April 14, 1962. (Weems), DPI. II. Jacksonville: seen but not captured, March 24, two taken, April 2, 1961, CFZ. South of Jacksonville: three March 18, 1961, CFZ. Gold Head Branch State Park: April 2, 1961, CFZ. Zeiger reported that all of these were apparently form neglecta (Edwards). III. Lakeland: one male, May 9, 1945, (Neddham), CU. Holland (1888, p. 202) said that in the Edwards collection there were specimens of this species from “Alaska to southern Florida.”

Sewall to Tampa from November to May. In the southern part of its range it also flies from June to August. There is one Tampa record for August, UT. Food: Rhizophora mangle. Early stages described by Strohecker (1938, p. 295).

POLYGONUS Hübner

481 P. LEO (Gmelin)
Hammock skipper.

Leo was previously referred to as lycopod savignyi (Lateille). IV. Boca Grande: PMJ. Palmetto Island: ex pupa, Dec, CPK. Dade and Monroe Counties: common, with records including all months. Food: Piscidia piscipula; Pongamia pinnata, DPI; Jamaica dogwood, (Stegmaier), DPI.

481.1 P. MANUELI Bell & Comstock
Manuel’s skipper.


PROTEIDES Hübner

492 P. MERCURIUS SANANTONIO (Lucas)

II. A single stray of this Cuban species was taken at Gainesville, May 24, 1920, (Fattig), det. Klots, AMNH.

EPARGYREUS Hübner

493 E. ZESTOS Geyer
Zestos skipper.
Zutr. exot. Schmett. 4; Pl. 106, Figs. 615, 616. 1832.

Florida: BM. III. Sanford: (Skinner), GrSB. 27. IV. Miami: Jan. 28-Feb. 8, Hebard (1903, p. 253); April, (King), LH; June, LH; June, July, Aug., dosP; July, JWT; Aug., (Strohecker), LH; Skinner (1899, p. 112). Biscayne Bay: (Slosson), GrSB. 27. V. Marco: types of oberon Worthington (1881, p. 132). May, (Worthington), BM. VI. Florida City: July, OB. Paradise Key: March, OB; March, April, FMJ; April, HAF. Southwest of Paradise Key: Sept., HAF. VIII. Key Largo: March-May, OB; common, May 1954, SVF; June, JRM, JWT; Aug., LWG; Aug., Sept., LHH. Upper Matecumbe: June, MCZ. Key West: (Skinner), GrSB. 27.
484 E. CLARUS (Cramer)
Silver-spotted skipper.
Pap. Exot. 1; Pl. 41, Figs. E, F. 1776.
Clarus is commonly known as E. titurus (Fabricius), and is common throughout but with no record for January. Larva on various Leguminosae, locust, and wisteria.

GONIURUS Hübner

486 G. PROTEUS (Linnaeus)
Long-tailed skipper.
Pl. II, Fig. 5, §. Syst. Nat., p. 484. 1758.
Proteus is abundant throughout whenever the sun shines, though not as common in late spring and early summer. The larvae are a pest on beans, Watson (1931, p. 28). Also recorded on turnips and cabbage (Fla. Agr. Exp. Sta. Bull. 45:55) and on wild plum and catnip, Fla. Buglist 2:114.

[487 G. dorantes (Stoll)]
Dorantes skipper.
Pap. Exot. Suppl.; Pl. 39, Fig. 6. 1791.
This is another suspicious record from the Cleveland Museum. It bears two labels—Miami: Oct. 11, 1916, and Tampa: June, 1908. Both labels are open to question, though there is the possibility of a stray from Cuba, in which case it should be the subspecies santiago (Lucas).

ACHALARUS Scudder

496 A. LYCIADES (Hübner)
Hoary edge.
Zutr. exot. Schmett.; Figs. 621, 622. 1832.
Florida: two males, one female, (Strecker?), BM; three, MCZ. I. Monticello: one old specimen, Oct. 5, Grsb. 27. II. Gainesville: one old specimen, Sept. 27, Grsb. 27. III. Central Florida: three, 1884, (Morrison), MCZ. Food: Desmodium.

AUTOCHTON Hübner

500 A. CELLUS (Boisduval & Leconte)
Golden-banded skipper.
Lep. Amér. Sept.; Pl. 73. [1834].

THORYBES Scudder

Because of the close similarity of the three species, it is more than probable that the records are confused.

508 T. BATHYLLUS (Abbot & Smith)
Southern cloudy wing.

504 T. CONFUSIS Bell
Confused cloudy wing.

505 T. PYLADES (Scudder)
Northern cloudy wing.
THE LEPIDOPTERA OF FLORIDA

PYRGUS Hübner

519 P. OILEUS (Linnaeus)
Tropical checkered skipper.

Oileus is more familiarly known under the synonym syrichtus (Fabricius). It is common from Tampa and Gainesville south, principally as montivagus Reakirt. Fuller reports it scarce at DeLand, which would suggest that this is about its northern limit. However, two recent specimens from Escambia County, taken by Hills, extend the range. It flies all year. Food: Malvaceae.

521 P. COMMUNIS (Grote)
Checkered skipper.
Can. Ent. 4: 69. 1872.


STAPHYLUS Godman & Salvin

534 S. MAZANS HAYHURSTII (Edwards)
Southern sooty wing.

The records follow the coast quite closely from St. Augustine on the east around to Sanibel Island on the west, but with only a few records from the Keys. The only inland records are: II. East Gainesville: Sept., AMNH. Gainesville: Sept., AMNH. Island Grove: July, SDM. III. Ocala: Feb., YU. DeLeon Springs: March, SVF. Ocoe: March, Aug., Sept., JWT. Eggs were found on pigweed, July 25, Scudder (1899, p. 1857). VI. Paradise Key: Aug., (Matteson) Jones’ ms.

EPHYRIADES Hübner

539 E. BRUNNEA FLORIDENSIS Bell & Comstock
Florida dusky wing.

Outside the Keys this species has been taken only in the Florida City area and once at Miami: Feb. 28, 1929, (Kruger), AKW. The dates cover all months except November. It is not rare. A recent paper (Tamburo & Butcher, 1955) describes the life history and gives the food plan as Malpighia glabra. Baranowski has reared it from a leaf-tier on Byrsonima.

ERYNNIS Schrank

541 E. icelus (Scudder & Burgess)
Dreamy dusky wing.

I am very much in doubt as to whether this species is really native to Florida, in spite of certain apparently valid records. Lindsey, Bell and Williams (1931, p. 60) did not consider the range to extend below North Carolina, in which they are followed by Klots (1951, p. 222). Harris has taken it in Georgia, but not south of Atlanta. Florida: one male, det. Evans, BM. The late Brigadier Evans informed me that there was nothing to indicate the source of this specimen; Scudder (1889, p. 1507) on the authority of Edwards. I. Millview; March 26, 1961, det. Forbes as “apparently this,” VFG. III. Ormond: March, April 1899, det. Skinner, Blatchley (1902, p. 231).

542 E. BRIZO SOMNUS (Lintner)
Sleepy dusky wing.
Papilio 1: 73. 1881.

Somnus is relatively common throughout the state February-April. Evans listed one specimen, of thirteen in the British Museum, as typical brizo (Boisduval & Leconte). Food: Quercus ilicifolia.

546 E. persius (Scudder)
Persius’ dusky wing.

III. Dunedin: April. IV. Osprey: March. Both are attributed to Blatchley by Skinner and Williams (1924b, p. 197), though I do not find any reference to them in Blatchley’s books. In any event they undoubtedly belong under the next species.

547.1 E. BAPTISIAE (Forbes)
Wild indigo dusky wing.
Psyche 43: 111. 1936.

Evans (1953, p. 205) makes this a subspecies of lucitus (Scudder & Burgess). It was described from Florida among other localities by Forbes, but this and sixteen specimens in the British Museum constitute the entire local record, unless we include the persius records above. The food plant, Baptisia tinctoria, is not found in Florida, though other species of the genus are present.

550 E. MARTIALIS (Scudder)
Mottled dusky wing.
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Florida: Skinner (1914a, p. 208). I. Escambia Co.: July 1 and Aug. 15, 1962, SMH. A specimen taken by Grant at Warrington is probably this, but it is not fresh enough to be sure.

551 E. JUVENALIS (Fabricius)
Juvenal’s dusky wing.
Ent. Syst. 3: 339. 1793.
This is a common species all over the state January-May, but mostly in March. Food: oak and hazelnut.

554 E. HORATIUS (Scudder & Burgess)
Horace’s dusky wing.
Horatius is abundant throughout the state except in cold weather. The food plants have been given as wisteria and oak, but Klots (1951, p. 223) thought these might not be correct.

555 E. ZARUCCO (Lucas)
Zarucco dusky wing.
Zarucco is likewise general and abundant. It is apparently absent from the Keys, though Skinner (1914a, p. 213) credited it to Key West. The records include all months. Food: Baptisia, and in Cuba, Sesbania grandiflora.

560 E. FUNERALIS (Scudder & Burgess)
Funereal dusky wing.
According to Evans (1953, p. 209) this is a subspecies of zarucco. Quite possibly these records belong there. I. Bayou Chico: three males, Oct. 12, 1914, AMNH. Big Bayou: one male, Oct. 14, 1914, AMNH. All taken by F. E. Watson. Food: Medicago sativa and M. hispida.

Subfamily HESPERIINAE

ANCYLOXYPHA Felder

567 A. NUMITOR (Fabricius)
Least skipper.
Ent. Syst. 3: 324. 1793.
Numitor is probably common throughout the state but is overlooked because of its small size. The records cover February-July and September-December. Food: grasses.

COPAEODES Edwards

574 C. MINIMA (Edwards)
Southern skippering.
This was not listed by Grossbeck but is common everywhere except in the Keys from which there are no records. Morgan (1933) noted it as abundant everywhere around Tampa, March-December. Elsewhere in the state dates cover the year.

HESPERIA Fabricius

579 H. unca Edwards
Uncas’ skipper.
Florida: (W. W. Hill), NYSM. Since this is a western species, there must be a misdetermination.

581 H. METEZA Scudder
Cobweb skipper.
Florida: Skinner & Williams (1924b, p. 183); May 17, LACM. III. Orlando: April 20, 1940, HAF. Food: grasses.

591 H. leonardus Harris
Leonardus skipper.
The present status of this species is uncertain. There are two old records: I. Northeastern Florida: March, April, Scudder (1889, p. 1673). III. Indian River: Edwards (1884, p. 311). However, Skinner and Williams (1924b, p. 181) made North Carolina the southern limit of its range, though Klots (1951, p. 238) said, “to Florida.” Klots has seen no recent material and based the range on the authority of Scudder and Edwards. Harris (1950, p. 21) reported no captures in Georgia, and Mather (1958, p. 105) said there were no records for Mississippi, but did quote one record each for Louisiana and Alabama. If present, it would be in the form stallingi H. A. Freeman.

595 H. ATTALUS SEMINOLE (Scudder)
Dotted skipper.
This is a variable species, often very difficult to determine. It is found in pine flats, according to Nicolay. Florida: Feb.-May, LACM. I. Escambia Co.: April, SMH. Pensacola: Feb.-April, Aug., SSN; Oct., AMNH. Crestview: Oct., AMNH. Lake Stanley: common, Oct., AMNH. Defuniak Springs: Oct., AMNH. III. Dunellan: July, UK. Orlando: April, JWT; Oct., WMD, HAF; Lockhart: April, HAF. Tarpon Springs: Jan., Skinner and Williams (1924b, p. 179); Feb., JLC. Gulfport: March, UM. Tampa: March, Bell (1923, p. 27); “formerly common in woods along Hillsborough River, now scarce or absent.

596 H. MESKEI (Edwards)
Meske’s skipper.
Can. Ent. 9: 58. 1877.


[593 H. sassacus Harris]
Indian skipper.
Treatise Ins. Inj. Veg., p. 315. 1862.

Florida: Klots (1851, p. 238). II. Jacksonville: (Slosson), Grsb. 32. Since dos Passos has not seen this south of Virginia and Tennessee, and it is very rare in Tennessee, the Florida record needs to be duplicated. Food: grasses.

HYLEPHILA Billberg

601 H. PHYLEUS (Drury)
Fiery skipper.
Ill. Exot. Ent. 1; Pl. 13, Fig. 4. 1770.

Phyleus is abundant and state-wide, including the Dry Tortugas, primarily in spring and fall, but it has been taken in every month. Food: grasses.

ATALOPEDES Scudder

602 A. CAMPESTRIS (Boisduval)
Sachem.

This is a common species, probably found throughout the state, but because of its commonness I did not ask for data and ended up with records only along the west coast from Fort Myers to Cedar Key, and very few others. Fuller says it is abundant around Cassadaga. Food: Bermuda grass.

POLITES Scudder

611 P. THEMISTOCLES (Latreille)
Tawny-edged skipper.
Enc. Mét. 9: 769. [1824].

Themistocles is relatively common throughout the state, though there are no records from the Keys. It is on the wing practically all the year. Food: grasses.

612 P. BARACOA (Lucas)
Baracoa skipper.

This species is common and generally distributed March-October, with a January record. III. Dade City: Bell (1926, p. 27). Food: grasses.

[614 P. peckius (Kirby)]
Peck’s skipper.
Faun. Bor.-Amer. 4: 300. 1837.

Field (1938, p. 252) wrote: “southern to Florida.” However, Field told me that his statement was one of those unfortunate ambiguities which may be interpreted as meaning either “up to the Florida border,” or “including Florida.” There are no Florida specimens in the U. S. National Museum, nor have any Florida records turned up. Food: grasses.

619 P. BRETTUS (Boisduval & Leconte)

620 P. VIBEX (Geyer)
Whirlabout.

These two have been considered separate species, but I am following Klots (1851, p. 247) who lumped them together under vibex on the authority of specialists. It would be hopeless to try to separate the records, which cover the state and include every month. Food: grasses.

WALLENGRENIA Berg

621 W. OTHO (Abbot & Smith)
Broken dash.

The species is common and is found state-wide, probably all the year. There is an overlapping of typical otho with the form egeremet (Scudder), but I have made no attempt to locate that zone. Forbes thinks it is very wide.

POANES Scudder

622 P. VIATOR (Edwards)
Broad-winged skipper.

Florida: Scudder (1889, p. 1604); (23rd NY. Rpt., 1908, p. 78). II. Gainesville: April 3 and 10, 1946, JCS. Duval Co.: Aug. 11, 1962, HLK. This last was reported in the “News of the Lepidopterists’ Society” No. 4, June 1963, p. 11, as
having been taken by Symmes, "13 August, Trout River." It was taken by King Aug. 11, on U. S. highway 17 north of Jacksonville near the Trout River Bridge. III. Central Florida: (Morrison), Skinner and Williams (1924a, p. 57).

625 P. ZABULON (Boisduval & Leconte) Zabulon skipper.
Lép. Amér. Sept.; Pl. 76, Fig. 8. [1834].
I. Florida Caverns State Park: April 14, 1960, (Denmark), DPI. III. Ormond: March 1899, Blatchley (1902, p. 231). As Blatchley reported taking several specimens, and as no one else has taken it in Florida since then until 1960, it would appear as though there might be some error in determination, especially in view of the fact that collecting in the general neighborhood of Ormond has been thorough.

628 P. AARONI HOWARDI (Skinner) Aaron's skipper.
III. Orlando: Aug., Oct., LHH; Sept., Oct., OB, HAF; Oct., FSR, JTW. Titusville: April, JTW; Oct., GWR. Merritt Island: Sept., LGW. All the foregoing were probably taken by Berry, Georgiana: type, Skinner. VI. Paradise Key: March 20-April 9, 1933, on Pontederia flowers at edge of glade, FMJ.

629 P. YEHL (Skinner) Yehl skipper.
L. Tallahassee: May 29, 1954, (E. V. Komarck), L.H. Although described from Florida, this species seems to be very rare here, the principal habitat being somewhat more northerly.

[630 P. radulans (Lucas)]

Skinner (1920, p. 156) wrote: "I described the species as streckeri in Entomological News 4, p. 211, the specimen having been said to be from Florida." Skinner (1917a, p. 82) also cast doubt on the origin of his type of streckeri. Unless there is some other, and more valid record, the name should not be retained on the Florida list.

Haïtènensis is of rare occurrence, presumably only as a stray. III. Gunton: types, one male, one female, April 3-8, 1901, (Laurent), Skinner.

PROBLEMA Skinner & Williams

632 P. BYSSUS (Edwards) Byssus skipper.


ATRYTONE Scudder

634 A. AROGOS (Boisduval & Leconte) Arogos skipper.
Lép. Amér. Sept.; Pl. 76, Fig. 3. [1834].

635 A. LOGAN (Edwards) Delaware skipper.
Proc. Ent. Soc. Phila. 2: 18; Pl. 1, Fig. 5. 1883.
This species is never common, but is found everywhere except on the Keys, February-October. Food: grasses.

EUPHYES Scudder

636 E. ARPA (Boisduval & Leconte) Arpa skipper.
Lép. Amér. Sept.; Pl. 63. [1834].
The records are confined almost exclusively to the peninsula where it is not rare, March-November. The other records are: I. Apalachicola: Sept., 1869, ex Scudder collection, MCZ; larva on Serenoa, Edwards (1879, p. 191). VIII. Big Pine Key: March, LH; Dec., JCS.

637 E. PALATKA (Edwards) Palatka skipper.
Pl. II, Fig. 3, 6; Fig. 7, 9.
Palatka is more common than the other species of the genus, and is found over the entire state. While collection dates include all months except May and December, there seem to be two fairly well defined broods in spring and fall. Klotz thinks one very dark specimen (VIII. Sugarloaf Key: Nov., CPK.) may represent a subspecies.
More material is needed from the lower Keys in order to prove it, but as Symmes has a series from Big Pine Key which are all definitely typical, it may have been merely a slight aberration. Food: *Cladum jamicensis* [*Mariscus jamicenis*].

638 E. DION ALABAMAE (Lindsey) 
Dion skipper. 
I. Pensacola: May, SSN.

641, 1 E. BERRYI (Bell) 
Berry's skipper. 
HLK. Miami: Bell. According to Nicolay and Symmes, *berryi* is taken primarily in swamps, especially on pickerel-weed.

642 E. VESTRIS (Boisduval) 
Dun skipper. 

ATRYTONOPSIS Godman

643 A. LOAMMI (Whitney) 
Loammi skipper. 
Can. Ent. 8: 76. 1876. 

OLIGORIA Scudder

652 O. MACULATA (Edwards) 
Twin spot skipper. 
This species is quite common all over the state, especially in the spring. Food: presumably grass.

LEREMA Scudder

653 L. ACCIUS (Abbot & Smith) 
Clouded skipper. 

Accitus is common throughout the state, in every month in the southern part of the state, probably with spring and fall broods in the northern part. Food: grasses.

AMBLYSIRITES Scudder

659 A. [celia Skinner] 
Celia's roadside skipper. 

Florida: (Skinner), Grsb. 33. Since I have not been able to trace Grossbeck's reference to Skinner, and since the species is not usually found east of Texas, I believe this must be an error. H. A. Freeman believes the record may belong to A. bellii Freeman, which has been found in several areas in Georgia. A specimen, I. Escambia Co.: March 1961, SMH, is placed here tentatively by Klots.

660 A. VIALIS (Edwards) 
Roadside skipper. 

I. Apalachicola: (Chapman), Scudder (1889, p. 1552). II. Gainesville: March 20, 1913, (Davis), Watson's record in the University of Florida Agricultural Experiment Station copy of Holland (p. 340). III. Cassadaga: March, SVF. Tampa: common, March, Bell (1923, p. 27). Since Morgan never took it, and in view of the paucity of records elsewhere in the state, this observation by Bell is astounding. Food: grasses.

663 A. ALTERNATA (Grote & Robinson) 
Least Florida skipper. 

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666  A. AESCULAPIUS (Fabricius) Textor skipper. 
Ent. Syst. 3(1): 347. 1793.
Aesculapius is generally known as textor (Hübner). I. Apalachicola: type of coakulla, Edwards (1869, p. 311). II. Gainesville: two Jan. 31, 1959, DPI; Sept. 27, 1914, AMNH. III. Central Florida: (Morrison), Skinner & Williams (1923, p. 141). Orange Co.: dosP; April, JWT. Rock Springs: March, LWG; March, April, HAF, dosP; April, WMD.

NASTRA Evans

671  N. L’HERMINIERI (Latreille) Swarthy skipper. 
Enc. Méth. 9: 777. [1824].
L’herminieri is common March-June and August-October, but as there are no records south of the line Naples-Archipel Biological Station-Titusville, it appears to avoid the subtropical regions of the state.

672  N. NEAMATHLA (Skinner & Williams) Neamathla skipper. 

LERODEA Scudder

674  L. EUFALA (Edwards) Eufala skipper. 

CYMAENES Scudder

675  C. TRIPUNCTUS (Herrich-Schaeffer) Three spotted skipper. 

THESPEIUS Godman

V. Marco Island: “I have seen lately in the collection of Mr. George Franck the following species of Hesperiidae caught within the limits of the United States and heretofore unrecorded: Thespeius macareus, Panoquina nero,” (Skinner, 1902, p. 183). This is a record that should be viewed with suspicion.

CALPODES Hübner

677. C. ETHLIUS (Stoll) Brazilian skipper. Pl. II, Fig. 6, 3. Pap. Exot. 4; Pl. 382, Fig. A. 1782.
Ethlius is often abundant where its favorite food, canna, grows. It flies principally in the heat of the day. While the records cover all months, it is probably commonest in the summer. The larvae have also been reported on celery, Bare (1935, p. 804) and Phyllanthus, DPI.

PANOQUINA Hemming

678  P. [sylvicola (Herrich-Schaeffer)] Sylvicola skipper. 
V. Marco Island: See the quotation from Skinner under 678 above where nero is used as a synonym for sylvicola. VIII. Key Largo: July 19, 1939, (Beamer), UK. Bell, as quoted by Klots (1951, p. 270), believed that these records might be referable to hecebolus (Scudder) below.

678, 1  P. [hecebolus (Scudder)] Hecebolus skipper. 
Rept. Peabody Acad. 4: 81. 1872.
I find no actual record of this in Florida, but if Bell’s theory that sylvicola has been misidentified, is correct, the Key Largo record for that would belong here. What one would do with the Marco record is anyone’s guess.

680  P. PANOQUIN (Scudder) Salt-marsh skipper. 
Panoquin is relatively common and limited to the coastal strip, though there are three specimens from Winter Park (April, SDM) and one from Lakeland (May, AMNH). The dates run February-December, but a spring and fall brood seem to be indicated, with possibly a small one in summer.
681 P. PANOOINOIDES (Skinner)
Obsture skipper.
Ent. News 2: 175. 1891.
This species not common. I. Apalachicola: Feb.,
MCZ. II. Rock Point: May, Aug., Oct., CWR.
III. Titusville: May, Sept., JWT, LHH; Sept,
WMD, HAF; Oct., FSR, AKW. Merritt Island:
March, Sept., JWT; April, Sept., Oct., OB; Sept,
HAF, LWG. Tampa: scarce March-Dec., Morgan
(1933). IV. Siesta Key: March, CPK. Punta
Gorda: April, CPK; Nov., AMNH. Boca Grande:
April, CPK. Miami: Feb., March, Skinner &
Williams (1923, p. 148); Feb., May, Sept., Oct.,
LHH. V. Marco Island: April, SIM. VIII. Big
Pine Key: April, OA. Key West: June, JRM;
Sept., SIM. Dry Tortugas: summer, Forbes
(1941, p. 147); July, WMD.
683 P. OCOLA (Edwards)
Ocola skipper.
Ocola is wide spread in Florida and not rare,
but there are no records from the Keys. It flies
in all months of the year.
ASBOLIS Mabille
683, 1 A. CAPUCINUS (Lucas)
Monk. Pl. II, Fig. 4, &; Fig. 8, 9.
Capucinus is a recent introduction, first taken
in Miami, Sept. 1947, by Grimshawe; it has
spread north to Hobe Sound on the east coast
and Pinellas County on the west. Platt took it
at Lake Helen in 1953. Davidson took a pair
May 10, 1961, three miles northwest of Oviedo,
and Rawson took one in New Smyrna Beach
on July 2, 1961, and again on April 10, 1962. At
Siesta Key there are two broods at least, March-
April and November-December; but, as it has
been taken in Pinellas County in August, (BLM),
there may be a third in that area. Farther south
it has been taken in every month. I have taken
it at light. Franclmont found the larva on a
species of Sabal at Oneco in March. The deter-
mination of this species has baffled a number of
collectors, perhaps because it has so few out-
standing characteristics. Yet Klot's description
(1951, p. 271) should leave no one in doubt.
Food: Cocos nucifera, Phoenix and Paurotis
palms, DPI.

Family MEGATHYMIDAE
So much has been discovered recently, and is
still being discovered, about this elusive family of
highly localized species that the records may
be in hopeless confusion. I give them as re-
ceived. Such order as may have been achieved
for the Florida species is due to the kindness of
Mr. H. A. Freeman, who has revised this sec-
ton, as well as reviewing the entire Hesperiidae
text.

MEGATHYMUS Scudder
684 M. YUCCAE BUCHHOLZI Freeman
Florida yucca skipper. Pl. II, Fig. 9, 9.
Field and Laboratory 20: 31. 1952.
Florida: NYSM. I. Crestview: frass-tubes and
tunnels in Yucca smalliana [filamentosa], May,
no adults reared, FMJ. Apalachicola: March
1876, (Thaxter), MCZ. Freeman noted that this
might be another species. III. Marineland: pu-
pal cases and adults, March, LH, JCS. Enter-
prise: May, Castle (1916, p. 380). Orlando:
March, LC. Indian River: April 1880, MCZ.
Melbourne: LACM; March, Castle. Georgi-
a: March, Skinner & Williams (1924b, p. 206).
Lisbon: May, DPI. Tarpon Springs: at light,
Feb., JLC. St. Petersburg: April, CMNH. Gulport:
(Ludwig), Grub. 35. Lutz: March, LACM. IV.
Avon Park: J. & H. Comstock (1902, p. 77); March,
LACM. Port Sewall: March, HAF. Jupiter: Feb.,
BH; March, April, OB, LH; larvae reared on Yucca
gloriosa, (Buchholz), HAF; April, AKW; May, LH.
Sarasota: March, HAF. Venice: April, Skinner &
Williams (1924b). Palm Beach: Dyar (1901a, p. 449);
DPI. Boynton Beach: Larva on Spanish bayonet,
Aug., DPI.
686 M. COFAQUI (Strecker)
Cofaqui skipper.
II. St. Augustine: Skinner (1911, p. 204). III.
Georgiana: Aug., Skinner & Williams (1924b,
p. 207). St. Petersburg: LACM; on Yucca aloi-
folia, Bonniwell (1916, p. 372). Lutz: March,
LACM. Lake Thomotosassa: March, Skinner &
Williams. Tampa: March, Bell (1923, pp.
25 and 27); Sept., Morgan (1933). Port Tampa:
Morgan (1933). IV. Bradenton: April, OB.
Longboat Key: March, HLK; March, Nov., LH.
Sarasota: March, LACM. Siesta Key: March,
Oct., Nov., CPK; Nov., LH. Venice: March,
April, LACM; April, Skinner (1917b, p. 490), OB.
Boca Grande: SIM. A great deal has been done
on the life history of the species by Harris, King,
and Knudsen, some of which has been published
(Harris, 1935, and H. A. Freeman, 1955).
THE LEPIDOPTERA OF FLORIDA

SUPERFAMILY

SPHINGOIDEA

Family SPHINGIDAE

I am greatly indebted to Mrs. Margaret M. Cary for various comments and for many of the food plant records, which, except for those documented for Florida, are taken from her "Distribution of Sphingidae in the Antillean-Caribbean Region" (1951). She also notes that in Florida she has had the greatest success in collecting Sphingidae over petunias in the early dusk, and to a lesser extent at the blossoms of night blooming jasmine and phlox. The punk tree, Melaleuca leucadendra, periwinkle, Vinca rosea, and azalea might be added to the latter.

Because Sphingidae are so wont to stray and are popular with collectors, many of whom may have bought specimens from unscrupulous dealers, it is almost impossible to assess satisfactorily most of the records for the rarer species. Many are valid but far too many are either doubtful or very probably out and out frauds.

Subfamily ACHERONTINAE

HERSE Oken

693 H. CINGULATA (Fabricius)
Sweetpotato worm. Pl. VII, Fig. 1, 9, Fig. 2, 9. Syst. Ent., p. 545. 1775.
Cingulata is state wide and relatively common. It has been recorded for all months except February, although it is probably present all year. Var. decolorata (Henry Edwards), described from Indian River (1882a, p. 11), which lacks the pink of the hind wing, also occurs, together with intermediates. Food: sweet potato, Coop. Econ. Ins. Rept. 4: 407; morning-glory and moonflower vine, (Cary).

COCTIUS Hübner

694 C. ANTAEUS MEDOR (Cramer)
Giant sphinx. Pl. VII, Fig. 10, 9. Pap. Exot. 4, T: 394; Fig. A. 1782.

[695 C. duponchel (Poey)]
Cent. Lep. Cuba; Fig. 4. 1832.
Florida: Grote (1886, p. 134) determined this with "P". Smith (1888, p. 154) speaking of antaeus medor, said only: "there is a closely allied, but smaller species in Cuba, differing from the present by a decided mossy green powdering. It is a Poey's A. duponchel." The record would hardly seem valid. Food: Annonaceae.

PHLEGETHONTIUS Hübner

696 P. SEXTA (Johannsen)
Tobacco hornworm. Pl. VII, Fig. 3, 9. Cent. Ins. Rar. 27, No. 81. 1789.
This species is found throughout the state, probably all year. Larvae have been found on tomatoes, potatoes, and tobacco, DPI.

697 P. QUINQUEMACULATA (Haworth)
Quinquemaculata probably occurs throughout the state but is not nearly as common as sexta: Feb., April, May, July-Sept. Food: tobacco and tomato, DPI.

698 P. RUSTICA (Fabricius)
Six-spotted sphinx, or rustic sphinx. Pl. VII, Fig. 5, 9. Syst. Ent., p. 340. 1775.

699 P. BRONTES CUBENSIS (Grote)
III. Indian River: AMNH. Brooksville: June
PARATREA Crote

711 P. PLEBEIA (Fabricius)

Plebeian sphinx. Pl. VIII, Fig. 5, s. Gen. Ins., p. 27. 1777.


SPHINX Linnaeus

719 S. CHERIS (Hübner)


II. Macclenny: larva on evergreen ash, Sept. 27, 1927, (Betts), DPI. III. Tampa: imago, (Kilman), WES. Bartow: larva on gardenia, Sept. 8, 1949, (Poucher), DPI. Cary comments that this is a most surprising food plant. It is also reported on Ligustrum, DPI. Usual food: ash, lilac.


This is an example of another mixup in checklist numbers or some other clerical error, which resulted in a record appearing in the Coop. Ins. Pest Surv. 3(27): 6. It is quite incorrect.

728 S. GORDIUS Cramer

Apple sphinx. Pap. Exot. 3; Pl. 247, Fig. B. 1780.

II. Welaka: April 8, 1962, (Ferguson), NSMS. IV. Archbold Biological Station: Feb. 23 and March 26, 1963, March 20, 1962, April 4, 1959, (Frost), PSU.


Packard (1899a, p. 609) wrote, "occurring from Florida to Canada." The occurrence in Florida seems questionable. Food: Prunus, and occasionally Celtis.

LAPARA Walker

734 L. HALICARNIAE (Strecker)

Pl. VIII, Fig. 4, s. Bull. Brook. Ent. Soc. 3: 35. 1880.

The records for this genus are probably mixed as all three species are quite similar in appearance.

735 L. CONIFERARUM (Abbot & Smith)

Pine sphinx. Pl. VIII, Fig. 2, s; Fig. 3, s. Lep. Ins. Ga. 1: 83. 1797.


Currently this species is believed to be too northern in its range to reach Florida. Certainly there is no clear-cut record of it here; in fact the only one is "Florida" (Rothschild & Jordan, 1903, p. 152), unless we accept Seitz (1913, p. 860) which is probably nothing more than a quotation from Rothschild & Jordan.
THE LEPIDOPTERA OF FLORIDA

Subfamily AMBULICINAE

PROTAMBULYX Rothschild & Jordan


The validity of most of the following records is questioned. Cary believes that the one from Palm Beach is valid, and it probably is that of a wind blown stray. She has also seen a record from Chokoloskee dated in the early 1940's, a relatively safe date, but she cannot place the record. It is her belief that the species, if ever present and established, may have been replaced by carteri. However, a specimen has been taken recently by Howe, which is very fresh and may indicate a new colony. On the basis of a very detailed sketch and description, Cary has determined it as typical strigilis. III. St. Petersburg: Aug. 30, 1919, CMNH. The source of this, like so many of the Cleveland Museum specimens, is not known. IV. Palm Beach; form rubripennis (Butler), "cannot vouch for the correctness of the locality label," Barnes & McDunnough (1910, p. 197). Miami: Feb. 2, Skinner (1914b, p. 477), but the note added that this was the form called carteri, which would place it below. The date, which was not given in this original reference, was supplied by Grossbeck (1917, p. 38). VIII. Plantation Key: Aug. 13, 1958, WHH. Food: Anacardiaceae.

738 P. CARTERI Rothschild & Jordan Pl. II, Fig. 14, 5; Fig. 15, 5. Nov. Zool. 9, Suppl. 180; Pl. 66, Fig. 3; Pl. 67, Fig. 12. 1903.

The hind wing varies from brick red to dusky yellow, and there is also some variation in the forewing. It has been taken over night-blooming jessamine in April by Cary and Cadbury. IV & VI. Dade Co.: many records, taken in every month, OB, JWC, MMC, CMNH, LH, DPI, CPK, ENP, HFS, WES. VIII. Key Largo: Dec., including a variety (?) with greenish forewings and purplish hind wings, (Munroe), CNC. Tavernier: Aug., Nov., DPI, CPK.

SMERINTHUS Latreille

739 S. JAMAICENSIS GEMINATUS (Say) Twin spotted sphinx. Pl. III, Fig. 8, 5. Amer. Ent. 1: 25; Pl. 12. 1824.


PAONIAS Hübnner

741 P. EXCAECATUS (Abbot & Smith) Blind-eyed sphinx. Pl. VII, Fig. 8, 5; Fig. 9, 9. Lep. Ins. Ga. 1: 49. 1797.


742 P. MYOPS (Abbot & Smith) Small-eyed sphinx. Pl. VIII, Fig. 11, 5. Lep. Ins. Ga. 1: 51. 1797.


743 P. ASTYLUS (Drury) Huckleberry sphinx. Pl. II, Fig. 19, 5. III. Exot. Ent. 2: 45. 1773.


CRESSONIA Grote & Robinson

744 C. JUGLANDIS (Abbot & Smith) Walnut sphinx. Pl. VII, Fig. 6, 5; Fig. 7, 9. Lep. Ins. Ga. 1: 57. 1797.

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Punta Gorda: March, CPK; March, AKW. Food: walnut, hickory.

PACHYSPHINX Rothschild & Jordan

745 P. MODESTA (Harris)
Amer. J. Sci. 36: 292. 1839.
I. Warrington: two, which are the pale western form, WP; rare, summer. VFG. Quincy: May 2 and July 8, 1962, July 17, 1960, (Tappan), CPK.

Subfamily SESIINAE

PSEUDOSPINX Burmeister

746 P. TETRIO (Linnaeus)
Giant gray sphinx. Pl. VII, Fig. 15, 5. Mant. Plant., p. 538. 1771.
Although recorded in Florida primarily from extreme southern localities, a stray has been taken in Connecticut (Britten, 1934, p. 43). IV. Archbold Biological Station: March, PSU. Sarasota: larvae on Plumeria sp., Aug. 28, 1960, Coop. Ins. Pest Surv. 7: 87. Canal Point: reared from fragipani, Nov., EES. V. Everglades: one, over petunias, April, MCC. IV, VI. Dade Co.: not rare, March, June, July, Sept., Nov., OB, SVF, CMNH, LH, DPI, CPK, CGM, HFS, UFES. Food: Plumeria rubra, DPI.

ERINNYIS Hübner

747 E. ALOPE (Drury)
Pl. II, Fig. 16, 9. Ill. Exot. Ent. 1, Pl. 27, Fig. 1. 1773.
Alope is common throughout the southern portion of the state, including the Dry Tortugas, the northern Florida records being: III. Leesburg and Orlando (despite the fact that strays have been taken as far north as Massachusetts, CPK). Indian River: type of edwardsi Butler (1881, p. 105). There are no records for July or September but it is probably on the wing all year. Food: Iatropha, Ins. Pest Surv. Bull. 14: 14; papaya, DPI, Allamanda, Cary (1951, p. 102).

748 E. LASSAUXII MERIANAE Grote
This species is present only as a stray from Cuba. Florida: (Slosson), Grsb. 39; Barnes & McDunnough (1910, p. 199). IV. Myakkta: two Sept. 4-6, 1918, CMNH. It would be interesting to learn the origin of these two. Food: Morenia.

749 E. ELLO (Linnaeus)
Ello sphinx. Pl. II, Fig. 17, 9. Syst. Nat., p. 139. 1758.
Ello is probably the commonest sphingid throughout the peninsula. It has also been taken on the Dry Tortugas. Food: Yucca; papaya, DPI; poineettia, SVF, CPK; Euphorbia heterophylla, Holland (1886, p. 103); E. busifolia, det. West, CPK; Cnidoscolus, Cary (1951, p. 103).

750 E. CENOTRUS (Stoll)
Pap. Exot. 4; Pl. 301, Fig. C. 1780.
Cenotrus is rare, and possibly is present only as a stray. Florida: Slosson, Grsb. 39; Schaus (1898b, p. 136); Rothschild & Jordan (1903, p. 368). IV. Miami: July 25, 1916, July 20, 1918, CMNH. Smith (1888, p. 160) speaking of Dillophonita melanochila (Grote), said: "Fla. This species is very confusedly marked and difficult to describe except by comparison with its allies E. meriana and E. cenotrus," but he makes no mention of Florida in connection with either of these last two. Rothschild & Jordan stated that Grote's "melanochila" was true cenotrus, while his "cenotrus" was crameri (Schaus). Food: oleanders.

751 E. CRAMERI (Schaus)

752 E. OBSCURA (Fabricius)
Pl. II, Fig. 18, 9. Syst. Ent., p. 538. 1775.
One specimen has been recorded from I. Myrtle Grove: Aug., WJJ. There are occasional records from Jacksonville south, but it is common in Dade and Monroe Counties where it flies all year. Also taken in the Dry Tortugas. According to Cary the favorite food in Florida is Gonolobus and in Jamaica it feeds on papaya. Larva on Sarcocestma clausum [Philibertia siminalis] and Gomanchum [Vincetoxicum] palustris, Dyar (1901a, p. 450).

753 E. DOMINGONIS (Butler)
Domingonis is rare, possibly only a stray. IV. Miami: June 10, 1908, CMNH; July 10, 1927, (Strohecker), LH. V. Everglades: two April, over petunias, MCC. VI. Florida City: over “four o’clock,” May 2, 1955, SVF; July 16, 1933, CMNH; Aug. 7, 1937, (Forsyth), HEW.
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PHRYXUS Hübner

755 P. CAICUS (Cramer)
Pl. II, Fig. 10, 2.
Pap. Exot. 2; Pl. 125, Fig. F. 1779.

PACHYLIA Walker

756 P. FICUS (Linnaeus)
Fig sphinx. Pl. VII, Fig. 14, 2.
Syst. Nat., p. 491. 1758.

P. RESUMENS Walker
Florida: Rothschild & Jordan (1903, p. 373); Seitz (1913, p. 389), probably quoting from Rothschild & Jordan. III. Tampa: Oct. 30, 1921, CMNH. We really need more proof for the presence of this species in Florida, even as a stray. Food: Echites umbellata [echites].

MADORYX Boisdruval

758 M. PSEUDOTHYREUS (Grote)
Pl. III, Fig. 18, 2.

CALLIOMMA Walker

759 C. PARCE (Fabricius)
Syst. Ent., p. 543. 1775.
Florida: four, OB; Barnes & McDunnough (1910, p. 199). IV. Myakka: OB. Biscayne Bay: (Holland), Grsb. 40. Miami: April 4, 1913, CMNH; Aug. 12, 1943, DHK.

ENYO Hübner

760 E. LUGUBRIS (Linnaeus)
Mourning sphinx. Pl. III, Fig. 2, 2.
Mant. Plant., p. 537. 1771.
Lugubris is probably common throughout the state, all the year, in the southern half of the state at least. Food: Ampelopsis, Cissus; grape, rose, DPI.

[761 E. occypete (Linnaeus)]
Syst. Nat., p. 489. 1758.
III. Stetmer: May 23, CMNH. Until more can be learned about the source of this specimen, its acceptance as a valid record should be held in abeyance. Barnes & McDunnough (1910, p. 199) mentioned a female in the Barnes collection labeled Florida, but "refrain from adding this species to the list until more authentic data can be secured," Grote (1886, p. 131) said: " Fla. northward," which must be an error.

CAUTETHIA Grote

762 C. GROTEI (Henry Edwards)
Pl. III, Fig. 6, 2.
Papilio 2: 10. 1882.
At times grotei is abundant in the twilight at blossoms, and it also comes freely to light. All year. It is subject to wide variation. Siesta Key and Indian River are the most northerly Florida records. It is common, especially in Dade and Monroe Counties. VI. Homestead: Feb., April-Nov., with peak abundance in May gradually falling off. Food: Chiococca alba [racemosa], Dyar (1901b, p. 255).
PERIGONIA Herrich-Schaeffer

763 P. LUSCA BAHAMENSIS Clark


AELLOPUS Hübner

The three species in this genus are very apt to be confused.

764 A. TANTALUS ZONATA (Drury)
Pl. VIII, Fig. 12, 6. Ill. Exot. Ent., p. 57; Pl. 26, Fig. 5. 1776.


765 A. TITAN (Cramer)
Pap. Exot. 2: 73. 1779.

Florida: CU. III. Indian River: four June, July, OB. IV. Miami: two July 31, 1933, (Grimshawe), PSR; three July 9-26, OB. VI. Homestead: June 6, 1932, CMNH. Food: Rubiaceae.

766 A. FADUS (Cramer)
Pap. Exot. 1: 95. 1775.

Florida: OB; Barnes & McDunnough (1910, p. 200); Smith (1888, p. 119). VI. Florida City: Nov. 3, 1933, CMNH. Food: Genipa clausiae-folia [american].

HEMARIS Dalman

767 H. THYSBE (Fabricius)
Hummingbird moth. Pl. VIII, Fig. 13, 6. Syst. Ent., p. 548. 1775.

Thysbe is not common, but present in several forms. I agree with Grossbeck’s statement (1917, p. 41) that floridensis (Grote & Robinson) and fuscaudis (Walker) are not synonymous, that it is “larger than thysbe and cimbiciformis” and has “the dark chestnut abdomen” of fuscaudis. These are probably seasonal forms of two races, either summer and winter or wet and dry, but I do not have sufficient information to suggest the seasonal or geographic limitations, both of which might easily overlap. I. Warrington: fairly common, Aug., VFG. II. Gainesville: several, including fuscaudis, UFES; larva on Abelia, DPI. Hastings: both typical and cimbiciformis (Stephens), June, Rothschild & Jordan (1908, p. 445). III. Sanford: fuscaudis, June, Rothschild & Jordan. Melonville: floridensis, Rothschild & Jordan. Orlando: March, Oct., WMD. Port Orange: fuscaudis, May, CPK. Tampa: Oct., UT. Bartow: FMJ. IV. Bradenton: GCES. Oneo: floridensis, March, CPK. Arcadia: fuscaudis, July, CPK. Punta Gorda: floridensis, April, WRB; fuscaudis, April, May, AKW. Food: Viburnum, snowberry.

768 H. GRACILIS Grote & Robinson

IV. Archbold Biological Station: March 26, 1962, (Ferguson), NSMS. Ferguson writes that so far as he knows, this is the first record south of the Philadelphia region.

770 H. DIFFINIS (Boisdouval)
Bumble bee moth. Pl. VIII, Fig. 9, 6. Spec. Gén. Hét. 1; Pl. 15, Fig. 2. 1836.


Subfamily PHILAMPELINAEE

PHOLUS Hübner

772 P. SATELLITIA (Drury)
Satellite sphinx. Pl. II, Fig. 20, pandorus (Hübner). 6. Ill. Exot. Ent.; Pl. 29, Figs. 1, 2. 1770.

Satellitia is normally found in Florida as race pandorus (Hübner). Cary doubts the earlier records for race posticatus Grote, unless as a wind-blown stray from Cuba. The only positive record is the one determined by her, from Miami. Several specimens exhibit unusual coloring, even an extreme, bright orange. There is every reason to believe that these are chemical changelings due to the use of ethyl acetate as a killing agent. Florida: Rothschild & Jor-
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773 P. ACHEMON

Aechemon sphinx. Pl. II, Fig. 21, 9.
Ill. Exot. Ent. 2: 51. 1773.

II. Lake City:UFES. III. Cassadaga:April,
SVF. Leesburg:larva on Jatropha and Coricac,
July 5, 1934. UFES file card. Tampa: (Reed),
UT. IV. Bradenton: March 30, 1935. CPK.
Oneco: May 24, 1953, (Dillman), CPK. Archbold
Biological Station: March, JFG. Food: grape,
Ambelopus.

775 P. VITIS (Linnaeus); P. HORNBECKI-
ANA (Harris)

Vine sphinx. Pl. II, Fig. 12, 9.
1839.

There is disagreement as to the name that is
applicable to this insect. The crux of the mat-
ter rests on the interpretation of the illustra-
tions in Madame Merian’s “Insects of the Suriname,”
which vary in different editions. Florida: CU;
Henry Edwards (1877b, p. 165); Smith, (1888,
p. 141, 143). II. St. Augustine: (Johnson), Grsb.
42. III. Gulf Hammock: Castle & Laurent (1897,
p. 9). Stemper: Aug. 3, 1915, CMNH. IV. Bis-
cayne Bay: (Slosston), Grsb. 42. V. Chokoloskee:
USNM. VI. Florida City: six May 11-26, OB;
Aug. 9, Oct. 9, 1933, (Forysth), WES; Nov. 15,
1933, CMNH. VII. Flamingo: April, DPI.
VIII. Tavernier: Sept., Oct., CPK. Food: Vitis,
Cissus.

776 P. FASCIATUS (Sulzer)

Pl. II, Fig. 3, 5.
Gesch. Ins., p. 151. 1778.

Fasciatus is unquestionably commoner and more
widespread than the records indicate. Florida:
CU. I. Warrington: occasional to common,
summer, VFG. Quincy: April, July-Oct., CPK.
Monticello: March, autumn, UM. II. Gaines-
ville: May, Oct., UM; Sept, UFES. Jackson-
ville: Aug., WHH. III. Cassadaga: common,
reared on grape and Ambelopus, May, SVF.
Sanford: April, DPI. Orlando: June-Aug., Oct.,
WRB; Aug., WMD, PSR. La Grange: larvae,
Sept., (Davis), Grsb. 42. Mango: Sept., DPI.
Lutz: June, CMNH. Tamps: April, LHH. IV.
Bradenton: GCES; April, CPK; Oct., DPI. On-
ceo: Oct., CPK. Archbold Biological Station:
April, Sept., YU. Siesta Key: Feb., April, CPK;
Nov., YU. Fort Myers: Sept., DPI. Fort Lau-
derdale: June-Aug., UM. Miami: 1925, LH;
April, WES; Oct., Dec., CGM. Dade Co.: HFS.
V. Everglades: four over petunias, April, MCC.
VI. Gould: Aug., WHH. Florida City: Jan.,
FRA; May, CPK; Sept., AKW; Nov., CMNH.
VIII. Tavernier: Oct., DPI. Craig: Sept., DPI.
Food: Onagraceae, especially Jussiaea angusti-
folia.

777 P. LABRUSCAE (Linnaeus)

Gaudy sphinx. Pl. III, Fig. 11, 5.
Syst. Nat., p. 491. 1758.

Florida: Smith (1888, p. 137). II. Gainesville:
larva found under a rubber tree, Dec. 5, 1935;
pupated Dec. 10, and emerged Dec. 19, UFES;
no date, UFES. High Springs: larvae on Cissus
incisa, DPI. IV. Punta Gorda: (Slosston), Grsb.
42. Lehigh Acres: Nov., CPK. South Bay: April,
SIM. Belle Glade: Sept., DPI. Fort Lauderdale:
Aug., Sept., UM. Miami: Jan., Slosston (1899,
p. 96); Nov., RCC; Dec., CGM. Coral Gables:
July, WES. Dade Co.: UFES; Jan., Nov.,
CPK. Coconut Grove: Dec. MZX. V. Chokoloskee:
CMZ. VI. Florida City: Jan., OB; Jan., Feb.,
Nov., HFS; April, Sept., Oct., CMNH. Homestead:
Feb., DPI. Paradise Key: Dec., CNC.
VIII. Key Largo: Dec., CNC. Food: Eupatorium
odoratum, Vitis, Ambelopus.

AMPELOECA Rothschild & Jordan

778 A. VERSICOLOR (Harris)

Hydrangea sphinx. Pl. II, Fig. 11, 5.

I. Warrington: rare, summer, WP. III. Sanford:
June 6, 1962, (Desin), DPI. IV. Archbold Bio-
 logical Station: March 6, 1959 (Frost), PSU.
Moore Haven: on a screen door, March 31, 1941,
JWC. Miami: at blossoms, March, Slosston (1901,
p. 238). VI. Paradise Key: at bait. late Feb.,
FMJ. Food: Hydrangea arborescens, Cepha-
lanthus, Decodon.

779 A. MYRON (Cramer)

Virginia creeper sphinx. Pl. III, Fig. 3, 5.
A Florida form, 5.
Pap. Exot. 3: 91. 1779.

The form commonly found in Florida has pale
fawn, uniformly colored forewings with the mac-
ulation reduced. This form appears to be char-
agestic of the southern two-thirds of the state.
In the northern third an occasional specimen turns up with darker brown forewings, the postmedian area lighter, somewhat reddish, and the subterminal area much darker and strongly contrasting. Presumably one of these is the subspecies cnotus (Hübner), but no one seems to be sure just what that is. The pale form may be texana Clark, but that is supposedly limited to southwestern Texas. Wyatt took several specimens at the Aribolding Biological Station with the primaries uniformly green. He believes these to be cnotus. The only conclusion that one can reach is that the species as found in Florida needs study to establish the status of the forms or races present. A common species all over the state, probably in every month. Food: grape, Ampelopsis.

DARAPSA Walker

780 D. PHOLUS (Cramer)
Azalea sphinx. Pl. III, Fig. 4, δ.
Pap. Exot. 1:137; Pl. 87, Fig. B. 1776.
I. Warrington: occasional, summer, VFG, WP.
Quincy: June, Sept., CPK. Monticello: April, DPI; June, UM. II. Gainesville; March, July, UM. III. Cassadaga: occasional, May, SVF.
Orlando: May, LHH; Oct., WMD. Food: azalea, Viburnum.

SPHECODINA Blanchard

781 S. ABBOTTII Swainson
Abbott's sphinx.
Zool. Ill. 3; Pl. 60. 1821.
I. Quincy: July 7, 1961, (Tappan), DPI. This is a little abnormal in that the black of the secondaries is more extended than usual.

DEIDAMIA Clemens

782 D. INSCRIPTUM (Harris)
Pl. III, Fig. 5, φ.
I. Escambia Co.: one Feb., March 1, 1961, SMH.
Quincy: March 31, 1963, (Tappan), CPK. Monticello: two April 4, 1961 (Phillips), CPK.

AMPHION Hübner

785 A. NESSUS (Cramer)
Nessus sphinx. Pl. VIII, Fig. 6, δ.
Pap. Exot. 2; Pl. 107, Fig. D. 1777.
Nessus is probably general throughout and on the wing February-September. The form floridensis, described from Farrish, Clark (1920, p. 73), is supposed to be the summer form, but it or intermediates are present in the spring as well. It is characterized by the more solidly dark hind wing. Food: grape and pepper, Sept., UFES; citrus. Dec., DPI.

PROSERPINUS Hübner

786 P. GAURAE (Abbot & Smith) Pl. VIII, Fig. 8, δ.
I. Escambia Co.: Aug. 3, 1955 (Mead), det. Cary, DPI. Warrington: one, VFG. Pensacola: on flowers of Amsomia ciliata, April 14, Slosson (1898, p. 148). Food: Gaura, and in Missouri it was reported on Oenothera biennis by O'Byrne (1935, p. 160).

Subfamily CHOEROCAMPINAE

XYLOPHANES Hübner

794 X. PLUTO (Fabricius) Pl. III, Fig. 7, δ.
Gen. Ins., p. 274. 1777.

795 X. PORCUS (Hübner) Zutr. exot. Schmett. 2 T. 162. 1818-1825.
Cary states that there is no authenticated record for the race continentalis Rothschild & Jordan in the United States, and that the only three more or less authentic records for porcus are those of Dyar, Slosson, and Laurent. Florida: (Thaxter), MCZ. IV. South Florida: (Dyar), USNM. Punta Gorda: Feb., (Slosson), Grsb. 43. The last specimen is not in the AMNH at present. Miami: one April or May, Laurent (1903b, p. 305). VI. Paradise Key: Aug. 31, 1825, UM.

[795, I. X. chiron nuchus (Cramer)] Pap. Exot. 2, Pl. 177, Fig. B. 1779.
Florida: Rothschild & Jordan (1903, p. 699). It would be interesting to find out who supposedly collected this specimen. Until there is something more substantial, the record should be viewed with suspicion.
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707 X. TERESA (Linnaeus)
Teresa sphinx. Pl. III, Fig. 10, 9.
Mant. Plant. 2: 538. 1771.
Teresa is generally common, February-November.
Food: Spermacoce, Rubiaceae.

CELERIO Oken

709 C. LINEATA (Fabricius)
White-lined sphinx. Pl. III, Fig. 9, 9.
Syst. Ent., p. 541. 1775.

SUPERFAMILY SATURNIOIDEA

Family SATURNIIDAE

PLATYSAMIA Grote

804 P. CECROPIA (Linnaeus)
Cecropia moth. Pl. III, Fig. 12, 9.
Syst. Nat. 1: 447. 1758.
This moth is apparently rare in Florida and limited to the northern border region. I. Escambia Co.: March, SMH. Ensley: larva on plum, March, DPI. Warrington: one ex cocoon, VFG. Pensacola: larva on pecan, Oct., DPI; on hickory, adult emerging July 1950, WJP. Mulat: Nov., DPI. Freeport: Packard (1914, p. 213). De Funiak Springs: (Fisher), Grsb. 43. Quincy: March, CPK. II. Macclenny: April, DPI. Gainesville: May 10, 1958, WJP.

CALLOSAMIA Packard

809 C. PROMETHEA (Drury)
Promethea moth. Pl. II, Fig. 23, 9.
III. Exot. Ent. 2; Pl. 11, Fig. 1. 1773.

810 C. ANGULIFERA (Walker)
Tulip tree silk worm. Pl. II, Fig. 24, 9.

810, 1 C. CAROLINA Jones
Pl. II, Fig. 25, 9; Fig. 26, 9.
There is some question as to the exact status of this insect. Although described originally as a “variety of angulifera (Walker),” the constant differences from that species as shown especially by the cocoons and adults, the underside of the latter being quite distinct, make it fairly evident that it is not a form of angulifera. That it may possibly be a subspecies of the Central American C. securifera Maassen is Forbes’ thought, but it will require a thorough study to work out the relationships. I. Escambia Co.: Sept. 8, 1962, SMH. Warrington: two May 1, 1962, VFG. Quincy: Feb. 27, 1962, July 19 and Sept. 13, 1960, (Tappan), CPK. Monticello: Sept. 4, 1923, UM. II. Gainesville: Sept., (Hetrick), CPK. III. Winter Park: Packard (1914; Pl. 14, Fig. 5), as a “variety of angulifera.” Tampa: (Reed), UT. IV. Onecco: two March 22-25, 1954, JGF. Archbold Biological Station: sixty or more, reared from cocoons, March, April, 1958 (Pease), YU. Fruitville: male in daylight flight, March 4, 1952, CPK. Food: Magnolia virginiana [glauca].

ACTIAS Leach

811 A. LUNA (Linnaeus)
Luna moth. Pl. II, Fig. 22, form mariae Benj., 9, a dwarf.
Syst. Nat., p. 496. 1758.
Probably most Florida specimens are of the subspecies dictynna (Walker), or the spring form thereof, mariae (Benjamin), with the possible exception of some from the northern counties where there may be an overlapping of the subspecies. Nevertheless, it should be borne in mind that in describing mariae, Benjamin (1922, p. 192) noted that the exact status of dictynna was questionable and that it was quite possible it might prove to be a valid species. I. Escambia Co.: March, SMH. Warrington: fairly common, late summer and fall, VFG. De Funiak Springs: (Fisher), Grsb. 43. Wewahitchka: DPI. Quincy: March, June-Sept., CPK. Tallahassee: AMNH, March, Aug., JPK. Monticello: Feb., form rubromarginata (Davis), (Fairchild), MCZ; May, MCZ; June, CPK; larva on pecan, July,
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TELEA Hübner

812 T. POLYPHEMUS (Cramer) Polyphemus moth. Pl. X, Fig. 11, δ. Pap. Exot. 1; Pl. 5, Figs. A, B. 1775. Polyphemus is probably found throughout the state, though the records from southern counties are few, with none from Monroe. Mostly in February, but struggling on into July, and again October-December. IV. Bradenton: Feb.-April, Oct. Food: live oak, FMJ; maple, SVF.

AUTOMERIS Hübner

818 A. IO LILITH (Strecker) Io moth. Pl. III, Fig. 19, δ; Fig. 20, θ. Lep. Rhop. Het., p. 139; Pl. 15, Fig. 17. 1878. Common and state-wide, Feb.-Dec. In the northern part of the state it occurs mostly as typical to (Fabricius), though both appear concurrently at Quincy. I. Quincy: April, July, Aug. IV. Bradenton: Feb., March, April, Sept., Oct. Food: black oak, bean, rose, redbud, corn, azalea, saw palmetto, lychee, wild cotton, Hibiscus tilicaceus [elatus], Rhapis sp., ornamentals, all DPI; Turnera ulmifolia, Coop. sp., Pest Surv. 6: 35; Tabebuia argentea, ibid. 7: 10; larvae on Galactia sp., Sept., and eggs and larvae on Amorpha fruticosa, Nov., (Pease), YU.

HEMILEUCA Walker

830 H. MAIA (Drury) Buck moth. Pl. X, Fig. 2, δ. Ill. Exot. Ent. 2; Pl. 24, Fig. 3. 1773. In Florida maia is smaller and darker than northern specimens with the white bands greatly reduced, sometimes to spots; in this respect they approach or may even be ab. Ulnerti Cockrell. II. Archer: April 11, 1929. (Tissot), UFES. Gold Head Branch State Park: Dec. 1955, UM. St. Augustine: (Johnson), Grsb. 44. III. Daytona Beach: Dec. 31, 1936, LH. Cassadaga: larva on oak, adult emerged Jan. 9, 1932, SVF. IV. Vero Beach: Oct. 15, 1935, (Baker), DPI. Palm Beach: Dec. 1898, (Thaxter), MCZ.

Family CITHERONITIDAE

ANISOTA Hübner


845 A. CONSULARIS Dyar Pl. III, Fig. 23, δ; Figs. 24, 25, θ. J. N. Y. Ent. Soc. 4: 166. 1896. My understanding of consularis Dyar has been in error and certain of the records hereunder belong to virginiensis (Drury). It is presently impossible to sort out the errors. However, individuals and institutions may be able to rectify these by reference to the illustrations. Consularis is characterized by the total absence of, or at most very faint transverse lines. I. Escambia Co.: July, SMH. Quincy: Aug., Sept., CPF. Tallahassee: July, JPK. Monticello: (Fairchild), MCZ. II. Alachua Co.: July, DPI. Gainesville: July, Aug., UFES; Aug., CPF; Sept., DPI; Oct., det. Francemont, CPF, the last a very dark specimen. III. Orlando: Aug., JGF. IV. Bradenton: GCES. Oneo Co.: Oct., CPF. Stuart: larva on live oak, Oct., UM. West Palm Beach: larva on live oak, type, Jan., Dyar. Miami: AMNH.
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846 A. VIRGINIENSIS (Drury)
Pl. III, Fig. 27, ‡; Figs. 26, 28, ‡. III. Exot. Ent. 2; Pl. 13, Fig. 2. 1773.

848 A. RUBICUNDA (Fabricius)
Green-striped mapleworm. Pl. III, Fig. 29, ‡; Fig. 30, ‡. Ent. Syst. iii (1): 429, No. 69. 1793.
In view of its present commonness where found, it is surprising that there were no records when Grossbeck prepared his list. I. Escambia Co.: April, SMH. Warrington: April, occasional, summer, VFG. Quincy: April, Aug., CPK. Tallahassee: March, Aug., JPK. Monticello: June, Sept., DPI. II. Glen St. Mary: April, DPI. Gainesville: May, June, UFA, UFES; Aug., DPI. Lake Alice: larvae very abundant on swamp maple, Oct. 1, Dozier (1920, p. 376). III. Marion Co.: Feb., DPI. Crystal River: Feb., CPK. Cassadaga: occasional, July, Aug., SVF. Weekiawachee Springs: June, CPK. Sanford: Feb., DPI. Hillsborough Co.: Aug., UM. St. Petersburg: March, AKW. IV. Bradenton: Feb., DPI. Myakka City: Feb., CU. Oneco: May, CPK. Archbold Biological Station: Jan., PSU; Feb., May, YU; June, AKW. Okeechobee: Jan., CPK. Indian River Co.: Oct., UM. Siesta Key: Feb., May, CPK. Dade Co.: June, HFS. Ochopee: April, DPI, CPK. From the last locality the yellow median area on both wings is greatly reduced, and in some specimens it is strongly suffused with pink.

CITHERONIA Hübner

856 C. REGALIS (Fabricius)
Royal walnut moth. Pl. III, Fig. 14, ‡; Fig. 15, ‡. Ent. Syst. iii (1): 436, No. 93. 1793.

858 C. SEPULCHRALIS Grote & Robinson
Fine devil moth. Pl. X, Fig. 4, ‡; Fig. 12, ‡. Proc. Ent. Soc. Phila. 4: 222. 1865.

EACLES Hübner

860 E. IMPERIALIS (Drury)
Imperial moth. Pl. III, Fig. 16, form didyma (Beauv.), ‡; Fig. 17, ‡. III. Exot. Ent. 1: 17 (App. ii); Pl. 9, Figs. 1, 2. 1770.
The imperial moth probably occurs mostly in the form didyma (Beauvois). I have seen one typical imperialis, I. Quincy: July. The records cover the state except for the Keys, with the dates running from late August to early November, with a few from April through July. Food: many kinds of trees.

SUPERFAMILY NOCTUOIDEA

In addition to making many determinations, Dr. John G. Franclemont has untangled numerous knotty problems, read the manuscript, brought the nomenclature up to date, and made valuable suggestions in connection with the entire Noctuoidea, for which I am deeply indebted.

Family AMATIDAE

COSMOSOMA Hübner

861 C. MYRODORA Dyar
Pl. III, Fig. 43, ‡. J. N. Y. Ent. Soc. 15: 226. 1907.
Myrodora is not infrequent from Callahan and Gainesville south to Long Pine Key. It has been taken in every month. Food: Mikania scandens, Dyar (1896d, p. 414).
THE LEPIDOPTERA OF FLORIDA

SYNOTOMEOIDA Harris

863 S. IPOMOEAE Harris
Pl. VIII, Fig. 15, 3.
Amer. J. Sci. 36: 316. 1839.

Ipomoeae occurs rather infrequently from Escambia County to Long Pine Key, with records for every month except November and December. VI. Homestead: Feb., July, Sept., Oct., with a small peak in May. In some specimens the white spots are much reduced, sometimes there being but a single small spot on each wing. Food: thistle, grapefruit, and bloom of morning glory, DPI.

864 S. EPILAIJS JUCUNDISSIMA Dyar
Oleander caterpillar. Pl. VIII, Fig. 16, 3.
J. Y. N. Ent. Soc. 15: 227. 1907.

The subspecies is common through the peninsula and Keys, including the Dry Tortugas, but the only record from the western counties is Warrington, where it is reported to be rare. On the wing in every month. Larva are often a pest on oleander, as frequently reported in the Ins. Pest Surv. Bull. and Dyar (1890b, p. 360, and 1898a, p. 73). It has been reported on Echites umbellata.

PSEUDOCHARIS Drury

866 P. MINIMA (Grote)
Pl. VIII, Fig. 10, 3.

IV. Fort Lauderdale: June 16, 1933, (Bates), MCZ. Dade Co., and VIII. Monroe Co.: not common, but taken in every month, AMNH, DPI, FMJ, CPK, HFS, EU, AKW, HEW. Food: Clossopetalum floridanum [Myginda ilicifolia].

DIDASYS Grote

867 D. BELAE (Grote)
Pl. III, Fig. 13, 9.
Can. Ent. 7: 145. 1875.

Type locality, Cedar Key. Usually uncommon but found throughout the state, probably more commonly around marshy areas. There are no records south of Coconut Grove and Flamingo. It has been taken in every month except March, Sept., Dec.

EUCEREON Hübner

869 E. CAROLINA (Henry Edwards)
Pl. VIII, Fig. 14, 3.
Ent. Amer. 2: 166. 1886.


LYMIRE Walker

870 L. EDWARDSII (Grote)
Pl. III, Fig. 31, 3.
Papilio 1: 4. 1881.

I. Monticello: reared, (Fairchild), MCZ. III. Orlando: Feb., Oct., WRB. Indian River: (Thaxter), MCZ. It is abundant from St. Petersburg and Vero Beach south and may be found flying in all parts of the year. Food: Ficus spp., DPI, Dyar (1890b, p. 361), Brayley (1929, p. 44) and (Cary), MCZ; Nectandra coricea, DPI.

CISSEPS Franclemont

871 C. FULVICOLLIS (Hübner)
Pl. VIII, Fig. 7, 9.
Samml. exot. Schmett. 1: 164. 1827.

Fulvicollis is found all over Florida, but it is not nearly so common as it is in the northern states. The records cover from January through November. I have seen only a few examples that might be called form pallens (Henry Edwards), the form with the yellow collar. These were all taken in November 1959, at Siesta Key, and the color appeared not to be due to fading, for at the same time, a few fresh specimens were taken, and in every instance, the collar of these was bright red.

DAHANA Grote

885 D. ATRIPENNIS Grote
Can. Ent. 7: 175. 1875.

Type locality, Enterprise. Atripennis is fairly common in areas III and IV, with a few records in I: Escambia Co., Quincy, and Monticello, and II: Gainesville, Green Cove Springs, and Putnam Co. Found every month. The moth often comes to blossoms at dusk. Food: Spanish moss, Bonnivell (1918, p. 59); Jan., Hillsborough Co.: fruitfly trap.
Family NOLIDAE

CELAMA Walker

888 C. [CILICOIDES (Grote)]
SMH. This is small and not strictly typical of
cilicoides but is certainly very close to it, if it
is not. More material is needed.

889 C. SORGHIELLA (Riley)
Pl. IX, Fig. 14, 8.
Rept. Dept. Agr., p. 188. 1882.
I. Escambia Co.: April, SMH. Quincy: July,
Aug., CPK. II. Gainesville: May, DPI; June,
Aug., UFES. Hastings: Aug., AMNH; Aug.,
Sept., UFES. III. Weekiawachee Springs: June,
CPK. IV. Bradenton: March, DPI; June, July,
CPK. Oneco: May, June, CPK. Archbold Bio-
logical Station: March, PSU; June, AKW; Dec.,
CU. Siesta Key: April, May, CPK, LRR. Fort
Myers: AMNH. V. Everglades: April, AMNH.
VI. Homestead: Feb.-Nov., CPK. Florida City:
April-June, OB. Paradise Key: March, CU.
Food: Sorghum vulgare.

890 C. TRIQUETRANA (Fitch)
1st & 2nd Rept. Insects N. Y., p. 244. 1856.
I. Escambia Co.: Feb., SMH. Warrington: VFG.
Florida Caverns State Park: April 13, 1960, (Den-
mark), DPI. III. Cassadaga: April 28, 1962,
SVF.

892 C. OVILLA (Grote)
Can. Ent. 7: 221. 1875.
I. Pensacola: March 16, 1961, VFG. II. Old
Town: April, AKW. Food: oak.

NOLA Leach

[894 N. opera Druce]
Dyar (1901a, p. 465, and also 1902, p. 351), re-
ported this from Palm Beach, but later decided
it was a new species to which he gave the name,
lagunculariae, q.v.

895 N. LAGUNCULARIAE Dyar
III. Volusia Co.: Aug., DPI. IV. Bradenton:
May, Nov., CPK. Oneco: March, JGF. Long-
boat Key: Dec., CPK. Port Sewall: Dec.,
AMNH. Stuart: July, AMNH. Siesta Key: Jan.,
Feb., May, Nov., CPK. Fort Myers: April, Crsb.
47. Palm Beach: type, and larvae on Lagunc-
laria racemosa, Dyar (1901a, p. 465). V. Ever-
grades: April, type of oiliquata Barnes & Mc-
Dunnough (1913c, p. 116). Marco: April,
AMNH. VI. Florida City: March, AKW. Para-
mise Key: Dec., AMNH. VII. Flamingo: Feb.,
DPI.

NIGETIA Walker

Franclemont (Forbes, 1960, p. 55) places the
genus in Acontiinae, following Eublemma Hübb-
ner.

896 N. FORMOSALIS Walker
Pl. IX, Fig. 3, 8.
I. Escambia Co.: May, July, SMH. II. Gaines-
ville: June, UFES. III. Anthony: July, DPI.
DelLand: March, AKW. Cassadaga: April, July,
Sept., Oct., SVF. Orange Co.: Feb., March, DPI.
Winter Park: April, DPI, May, AMNH. Tarpon
Springs: Feb., JLC. IV. Oneco: March, JGF;
May, June, Oct., CPK. Archbold Biological
Station: Dec.-March, YU; Feb., Nov., Dec., PSU.
Siesta Key: one April, CPK. Punta Gorda:
Feb., WRB; March, April, AKW. South Bay:
April, Grsb. 47. V. Everglades: April, AMNH.

MEGANOLA Dyar

Franclemont (Forbes, 1960, p. 53) separates
minuscula and phylila and discusses a third spe-
cies. I believe all are present in Florida but can
be sure only of minuscula as determined by
Franclemont. Earlier determinations should be
reviewed. They are given as received at the
time or as made by myself prior to Franclemont's
separation.

897 M. MINUSCULA (Zeller)
All det. Franclemont. I. Warrington: April,
VFG. West Pensacola: July, Sept., VFG. II.
Gainesville: Feb., CPK. III. Cassadaga: Aug.,
SVF. Weekiawachee Springs: May, Aug., CPK.
IV. Siesta Key: Jan., Feb., CPK.

[897, 1 M. phylila Dyar]
J. N. Y. Ent. Soc. 6: 43. 1898.
All specimens reported as this were believed
to be the new species below and so recorded.
However, they are more likely to be phylila, as
Franclemont recorded the latter from Alabama.
It is interesting to note that Grossbeck (1917, p.
47) raised the question of a possible new species.

[897, 2 M. sp.]
As mentioned above all these determinations
should be reviewed, and it is possible that none
of them actually belong here. I. Escambia Co:

Family ARCTIIDAE

Subfamily LITHOSIINAE

CRAMBIIDIA Packard

906 C. [PALLIDA Packard]

Francelmont is of the opinion that none of the following records belong under this name. Furthermore, he also believes that there are perhaps three species hiding under the name pallida, and that at least one of them occurs in Florida. Grossbeck (1917, p. 47) noted that the specimens he had seen were smaller than northern ones. I. Quincy: Oct., CPK. II. Lake Geneva: March, HEW. III. Cassadaga: Feb., Dec., SVF. Winter Park: May, AMNH. IV. Archbold Biological Station: April, PSU; July, Nov., AMNH. Port Sewall: March, Dec., AMNH. Miami: Nov., DPI. V. Marco: April, AMNH. Everglades: April, AMNH.

906, 1 C.? SP.
This is very similar to pallida, but smaller. Some at least of the records for that species belong here, and possibly the one for uniformis below. I. Myrtle Grove: June, WW, III. Cassadaga: Sept., Nov., SVF. Weekiawachee Springs: April, May, (May), CPK. IV. Siesta Key: Nov., det. Field, CPK. Two specimens, Archbold Biological Station: Jan., (Remington), YU; Feb., (Frost), PSU, are also placed here tentatively.

907 C. LITHOSIOIDES Dyar
Pl. IX, Fig. 1,  8; Fig. 2, 2. J. N. Y. Ent. Soc. 6: 83. 1898.

I. Escambia Co.: May, SMH. II. Alachua Co.: June, DPI. Gainesville: April, DPI. III. Levy Co.: Sept., DPI, CPK. DeLand: March, AKW. Cassadaga: Feb., March, Nov., SVF. Weekiawachee Springs: Feb.-April, June, CPK. IV. Bradenton: March, DPI; April, Sept-Nov., CPK. Oneco: March, April, JGF; April, AKW; April, May, Oct., CPK. Archbold Biological Station: Jan.-April, YU; June, AKW; July, AMNH; Dec., CWK, PSU. V. Everglades: AMNH. Marco: AMNH. VI. Homestead: Jan., Feb., DPI; Jan., April, May, July, Sept., CPK.

908 C. UNIFORMIS Dyar
J. N. Y. Ent. Soc. 6: 83. 1898.

IV. Fort Myers: (McDunnough), AMNH. I do not find this in the collection.

912 C. PURA Barnes & McDunnough


916, 1 C.? SP.
There is a species resembling lithosioides but smaller, of which Field has examined the genitalia (the Sarasota specimen only), and after comparison with those of the genus on file at the U. S. National Museum, he states that this is not only unlike any species of the genus, but also exhibits characteristics differing sufficiently to make him question its being placed in the genus. It is probably not uncommon but may have been passed over as a small pallida, which it also resembles, but at the same time it is distinct from 906, 1 above. The following records seem safe. III. Cassadaga: May, July, SVF. Weekiawachee Springs: Aug., (May), CPK. IV. Oneco: March 20-31, JGF. Sarasota: March 27, 1955, CPK.

PAGARA Walker

918 P. SIMPLEX Walker
Pl. IX, Fig. 4, 8. List Lep. Ins. Br. Mus. 7: 1679. 1856.

THE LEPIDOPTERA OF FLORIDA

NEOPLYNES Hampson

920 N. EUDORA (Dyar)
Pl. IX, Fig. 16. 2.
III. DeLand: March, AKW. St. Petersburg: May, OB. IV. Oneo: March, JGF. Archbold Biological Station: Feb., PSU. Siesta Key: March, CPK. Fort Myers: April, AMNH. Bonita Springs: March, OB. Miami: June, CNC.
VI. Homestead: June, July, CPK. Florida City: Dec., CNC. VIII. Big Pine Key: April, AMNH.
Key West: March, DPI.

AFRIDA Moeschler

931 A. YDATODES Dyar
Pl. IX, Fig. 15. 2.
Undoubtedly overlooked because of its small size and superficial resemblance to an olethreutid. I believe there may be one, or possibly two additional species involved, as there is considerable, uniform variation in the transverse lines. I. Escambia Co.: Sept., SMH. II. Gainesville: Feb., April, Sept., DPI, CPK. III. Cassadaga: Feb., April, June, Sept., Nov., SFV. Winter Park: May, AMNH. IV. Bradenton: May, DPI. Oneo: March, JGF; May, CPK. Fort Pierce: March, OB. Port Sewall: Dec., AMNH. Archbold Biological Station: Jan., Feb., Nov., PSU; Dec., YU. Siesta Key: Sept.-March, May, June, OB, CPK. Fort Myers: April, Grsb. 47. V. Everglades: April, type of Aresta parae Barnes & McDunnough (1913d, p. 167). VI. Homestead: Feb.-Sept., Nov., CPK. VIII. Loggerhead Key, Dry Tortugas: June, DPI.

CISTHENE Walker

Inasmuch as Knowlton, in Forbes (1900, pp. 46–48) has made quite a revision of the genus, the names as applied heretofore are no longer tenable and all determinations should be reviewed. Since this is impossible at the present writing, I have tried to give an approximation of the records as I believe they should read.

934 C. TENUIFASCIA Harvey
Pl. IX, Fig. 5. 2.
Some of these records unquestionably belong to kentuckiensis below, but it is presently impossible to assign them. Florida: six, AMNH. I. Escambia Co.: July, SMH. Quincy: Oct., CPK. Monticello: March, DPI; April, May, CU.
II. Alachua Co.: Sept., CPK. Gainesville: Oct., UFES, CPK; Nov., DPI. Fernandina: three April, HEW; five April, Sept., OB.

947 C. PLUMBEA Stretch
Pl. IX, Fig. 8. 2.
Ent. Amer. 1: 102. 1885.
These records had been determined previously as unifascia Grote & Robinson or infecta (Dyar). Florida: co-type of unifascia, Grote & Robinson (1885, p. 175). I. Warrington: April, VFG. Monticello: April, May, CU; Sept., CPK; Oct., OB, DPI. II. Gainesville: Feb., CPK; March, April, UM; Sept., DPI; Oct., UFES.

942 C. STRIATA Ottolengui
Pl. IX, Fig. 6. 2.

945 C. PACKARDII Grote
Proc. Ent. Soc. Phila. 2: 31; Pl. 2, Fig. 5. 1883.
As I interpret Knowlton, a few of the larger specimens that may have passed for bellicula, would belong here. I am also assuming that he makes bellicula a synonym of subjecta and have so treated it. I. Escambia Co.: April, SMH. This is the larger "form." Just where this "form" stops and the smaller "bellicula" begins, I am not sure because of the earlier misapprehension as to synonymy, but they probably overlap in the middle of the state, with bellicula found as the only form in the southern part.

943 C. SUBJECTA Walker
If I am correct that bellicula is a synonym of this, subjecta is common all year through the southern half of the state.

944 C. BELLICULA Dyar
Pl. IX, Fig. 7. 2.
See statement under 945 and 943 above.
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936 C. KENTUCKIENSIS (Dyar)
Some of the records standing under *tenuniasca*
above belong here, but which?

CLEMENSIA Packard

952 C. [ALBATA Packard]
Pl. IV, Fig. 9, ; Proc. Ent. Soc. Phila. 3: 110. 1864.
According to Franclemont the specimens rep-
resent either a local race or a new species. Cer-
tainly they differ widely from typical northern
species. I. Escambia Co.: Feb., SMH. Quin-
cy: Oct., CPK. Monticello: March, CU. III.
Cassadaga: April, Oct., Dec., SVF. Lakeland:
May, Grsb. 48. IV. Oneeco: March, JGF; May,
CPK. Archbold Biological Station: Feb., PSU.
Punta Gorda: Jan., Feb., AKW. La Belle:
March, JGF; April, AMNH. Food: lichens.

PALPIDIA Dyar

953 P. PALLIDIOR Dyar
Pl. III, Fig. 32, .
J. N. Y. Ent. Soc. 6: 34. 1898.
III. Cassadaga: Nov., SVF. Weekiwachee
Springs: May, CPK. Tarpon Springs: Feb., JLC.
Egmont Key: April, UM. IV. Oneeco: March,
April, JGF. Port Sewall: Jan.-March, Nov.,
AMNH. Siesta Key: not rare, Oct.-June, CPK.
Venice: May, CU. Punta Gorda: March-May,
AKW. Fort Myers: March, AMNH; April, SIM.
Bonita Springs: OB. Biscayne Bay: (Slosson),
Gsr8. 48. Matheson Hammock: Jan., Feb.,
AMNH. Miami: April, OB. Coconut Grove:
type, Dyar. VI. Homestead: April-June, Aug.,
Oct., CPK. Florida City: March, June, Oct., OB.
Food: rachis of coconut palm.

HYPOPREPIA Hübner

958 H. MINIATA (Kirby)
Pl. IX, Fig. 10, ; Fig. 11, .
Faun. Bor. Amer. 4: 305. 1837.
I. Warrington: common in July; occasional, late
summer, VFG. II. Gainesville: Aug., DFI. IV.
Allen River to Deep Lake: April 14, AMNH. VI.
Homestead: two Aug., CPK. Florida City: three
May 23-June 4, OB. Everglades National Park:
Dec., CNC. Paradise Key: Jan., FMJ. Food:
lichens.

959 H. FUCOSA Hübner
Pl. IX, Fig. 12, ; Fig. 13, .
Zutr. exot. Schmett. 8; Pl. 21, Fig. 471. 1825.
There is only one record for typical *fucosa* in
Florida—I. Tallahassee: May, JPK. From the
middle of the peninsula south, there is a rela-
tively common insect which looks like *fucosa*
but which is orange on the forewing where *fu-
cosa* is pink. One specimen from Weekiwwachee
Springs: (May), CPK, exactly matches a speci-
men of *f. subornata* Neumoegen & Dyar from
San Antonio, Texas. In the Florida City area,
the orange is replaced by orange yellow or even
yellow. Franclemont is of the opinion that we
have either two undescribed races of *fucosa*,
or as a remote possibility two undescribed spe-
cies or a combination of the two. Whatever
they may be, they are present most of the time.
IV. Bradenton: March, Nov. VI. Homestead:
Jan., Feb., April-Nov., with peaks in May, July,
and a higher one in Sept. Food: lichens, mosses.

Subfamily ARCTIIDAE

EUPSEUDOSOMA Grote

968 E. INVOLUTUM FLORIDUM Grote
Pl. III, Fig. 33, .
There are no records north of Tarpon Springs
and Cassadaga for this species which is rela-
tively common in its southern range, probably
flying most of the year except in the cold weath-
er. IV. Bradenton: March, April, Aug.-Dec.
VI. Homestead: Feb., March, May-Nov., with
peak in July, tapering off through Sept. Food:
*Psidium guajava* var. *pyriferum*, *Eugenia myr-
toides [busifolia]*, Dyar (1901b, p. 258).

CALIDOTA Dyar

969 C. STRIGOSA (Walker)
Pl. III, Fig. 34, .
IV. Palm Beach: larva on *Guettarda elliptica*,
Dyar (1901b, p. 268). Dade Co.: common. VIII.
Monroe Co.: common. All year.

HALISIDOTA Hübner

[977 H. caryae (Harris)]
This was recorded from Miami, Coop. Ins. Pest
Surv. 4: 153, but Denmark says it was in error
for *H. tesselaris* Abbot & Smith. I suspect it
was more apt to have been *H. cinctipes*, but in
any event, it was not *caryae*.

[981, I. H. interlineata Walker]
This was reported from Florida by Neumoegen
THE LEPIDOPTERA OF FLORIDA

& Dyar (1893, p. 168). However, I am of the opinion that this was an error of determination and should be referred to cinctipes below.

982 H. CINCTIPES Grote
There is a great deal of confusion between this and tessellaris. Both are present, but they are very similar in appearance, especially in the northern range of cinctipes which apparently overlappes the southern range of tessellaris, and where a subspecies or form of the latter not unlike the aberration tessellaroides Strand, is present almost exclusively. Hampson bases the separation on the presence of black streaks in the orange-filled basal patches of the forewing in cinctipes and the absence of both the streaks and the orange filling in tessellaris. In cinctipes the lower part of the frons is black, but in tessellaris it is ochreous throughout. From Miami down through the Keys, typical cinctipes with the aberrations ata Strand and mete Strand, and probably other variations, were to be found. It is fairly common, from September to June in this region. VI. Homestead: Feb.-May, Sept., Oct.; peaks in Feb. and Oct. The northern limit would appear to be Gainesville-Cassadaga, though I suspect that all records north of Oneco, where Francelmont has taken it, need to be re-examined with great care. Food: Coccoloba diversifolia [floridana], and C. uvifera, Dyar (1901a, p. 459); hibiscus, Smith (1890, p. 206); Tremia micrantha, Slosson (1901a, p. 202).

984 H. TESSELLARIS (Abbot & Smith)
Pl. IX, Fig. 17, 2. Lep. Ins. Ga. 2: 149. 1797.

987 H. LONGA (Grote)
Pl. IX, Fig. 18, 3. Can. Ent. 12: 213. 1880.
The records cover the state, and all months except July. Food: "Wide-bladed marsh grass," Bonniwell (1918, p. 59).

CYCNIA Hübner

990 C. INSULATA (Walker)
Pl. IX, Fig. 24, 2. List Lep. Ins. Br. Mus. 3: 734. 1855.

992 C. INOPINATUS (Henry Edwards)
Paplio 2: 13. 1882.
Specimens which have been reported under the name C. tenera Hübner and Pyrgotica eglenensis (Clemens) all belong under C. inopinatus nivalis Stretch, with the color on the tegulae and costa, pale orange rather than buff yellow, this color being limited to the basal third of the costa and not extending the full length as it does in typical inopinatus. The ground color of the wing is whitish not testaceous as in typical inopinatus. All the records except for the type from Indian River belong under the form name. Florida: five, (Slosson), AMNH. I. Warrington: WP. II. Keystone Heights: March 7, 1953, HEW. Hastings: three, AMNH. III. Orlando: May 7, Oct. 6, CNC. Weekiawachee Springs: May, CPK. Indian River: type, Edwards. Oldsmar: Sept. 3, 1944, WRB. St. Petersburg: three, (Pasch), CU. Lakeland: May 5, AMNH. IV. Oneco: June 8, 1963, (Dillman), CPK. Archbold Biological Station: Jan., Feb., (Remington), YU. Siesta Key: June, CPK. Charlotte Harbor: (Slosson), AMNH. Fort Myers: April 22, (Davis), SIM. Miami: June 10, (Forshy), JGF. VI. Florida City: March 4, April 6, May 20, JGF. Food: milkweed, cissus, and low pea.

EUCHAETIAS Lyman
[994 E. albicosta (Walker)]
Denmark says that the record for this, Coop. Ins. Pest Surv. 3(14):4, was due to a mixup in check-list numbers. He does not know to what the record actually referred.

1001 E. EGLE (Drury)
III. Exot. Ent. 2; Pl. 20, Fig. 3. 1773.
Florida: (Slosson), Grsb. 51. IV. Palmetto: March 6, 1951, DPI. Bradenton: Feb. 1955, (Kelsheimer), det. Field, CPK. The last specimen is darker than northern specimens, especially the hind wings. Food: Asclepias.

PYGARGIA Grote

1007 P. ABDOMINALIS Grote

1008 P. GROSSBECKI Davis
Pl. IX, Fig. 25, 3.
Bull. Brooklyn Ent. Soc. 8:60. 1913.

[1009 P. elegensis (Clemens)]
See discussion under 992 Cymia inopinatus.

1010 P. VIVIDA (Grote)
Papilio 2:131. 1882.
Florida: Brooklyn Museum, Grsb. 51.

HOLOMELINA Herrich-Schaeffer

1016 H. LAETA (Guérin-Ménéville)
Pl. IX, Fig. 26, 9.
Icon. Règne Anim. Ins.; Pl. 88, Fig. 6. 1829.

1019 H. AURANTIACA (Hübner)
Pl. III, Fig. 42, 3.
Zutr. exot. Schmett. 4, p. 9; Pl. 206, Fig. 411. 1825.
While the usual form of this species as commonly found all over the state and all year, is rubicundaria (Hübner), or perhaps more exactly, diminutiva (Graef), a number of the other forms do turn up, and it occasionally comes close to H. ferruginosa immaculata (Reakirt) in color. I. Quincy: June-Oct. IV. Bradenton: Feb.-May, July-Sept. VI. Homestead: Feb.-Nov., tremendous peak in May, falling off through July. Food: Plantago and grasses.

1022 H. OPELLA (Grote)
Forbes (1960, p. 23) noted that Florida specimens with solid ochre forewing and solid vermillion hindwing and underside are determinable only by genitalia. I. Escambia Co.: common May, form nigricans (Reakirt), Sept. 6, SMH. III. Rockledge: NYSM. Lakeland: nigricans, May, AKW. IV. Oneoco: March, April, JGF.

1023 H. [FERRUGINOSA IMMACULATA] (Reakirt)
As these may all be merely a form of aurantiaca, the record should not be considered definite. III. Orlando: Feb., March, USNM, as reported by Marshall & Musgrave (1937, p. 103). IV. Oneoco: three March, JGF, det. with "?.

APANTHESIS Walker

1033 A. VIRGO (Linneaus)
Florida: Forbes (1960, p. 32). II. Gainesville:
Jan. 2, 1918, (Foster), det. with "p" F. F. Bibbey, DPI file; Sept. 1962, (R. A. Stuebe), DPI.

1034 A. INTERMEDIA (Stretch)
Zyg. & Bomb. N. Amer. 1: 216. 1873.
I. Escambia Co.: April 1, 1982, SMH. It is possible that the record under 1033 above might belong here.

1037 A. DORIS (Boisdual)
Pl. IX, Figs. 19, 20, 3.
All but two of the records are of the form nereus (Boisdual). I. Pensacola: AMNH. Quincy: form minea (Slosson), March, MCZ, Sept., CPK. Tallahassee: May, JFK. II. Suwanee Springs: April, Slosson (1895, p. 150). Gainesville: typical doris, Feb., CPK; nereus, Jan., April, May, Oct., UM; April, EU; May, UFES; July, UFA; Sept., DPI. III. Ormond: Grsb. 50. Cassadaga: April, SVF. Winter Park: (Slosson), Grsb. 50. Orlando: April, July, Oct., CPK. Tampa: UT; April, CU. IV. Southern Florida: Aug., CPK. Archbold Biological Station: Nov., AMNH, YU. Food: lettuce, dandelion.

1038 A. ARCE (Drury)
Pl. IX, Fig. 21, 3.
Ill. Exot. Ent. 1: 35. 1770.

1054 A. PHYLLIRA (Drury)
Pl. III, Fig. 35, 3.
Ill. Exot. Ent. 1: 15. 1770.

1057 A. PLACENTIA (Abbot & Smith)
Pl. III, Fig. 36, 3; Fig. 37, 3.
The female is an unusually beautiful moth; the male looks like a large figurata (Drury), the wing spread ranging from 1½" to 2", but both sexes are quite rare. I. Warrington: occasional, May-Sept., VFG. Quincy: May, DPI. Tallahassee: April, May, JFK. Monticello: Sept., DPI. II. Gainesville: April, UFA; April, Sept., UM. III. Cassadaga: March-June, SVF. Weekiawachee Springs: April, May, JFK. Indian River: type of flamma, (Wittfeld), Neumoegen (1881, p. 9). This last is mentioned by Ottolengui (1895, p. 288). Smith's reference (1890d, p. 32) probably refers to the same specimen. IV. Archbold Biological Station: Jan.-April, YU; Feb., April, Nov., Dec., PSU, CU. Miami: June, UM; Nov., PSU. Coral Gables: May, HFS.

1058 A. NAIS (Drury)
Pl. IX, Fig. 22, 3.
III. Exot. Ent. 1: Pl. 7, Fig. 3. 1770.
It is almost impossible to sift out the records for the nais complex in Florida. Franclemont believes that there actually exist only two species, nais and phalerata, basing his belief on extensive rearing. Nais is undoubtedly to be found throughout the state and probably at any time except in the colder weather. The larva is a general feeder.

[1059 A. vitata (Fabricius)]
Mant. Ins. 2: 127. 1787.
Vittata was described from a female of the "radians" pattern, which occurs commonly in both species, i. e., phalerata and nais. Records that have appeared under the name vittata, may belong, therefore, under either one.

[1060 A. radians Walker]
The comment under vittata above applies here equally.

1061 A. PHALERATA (Harris)
Pl. IX, Fig. 23, 3.
This species, too, is probably found everywhere in the state during the first half of the year, the only sure records after June being in October. There has been taken an aberration which is almost devoid of maculation, II. Alachua Co.: Nov. 18, 1954, (Perry), DPI.

DIACRISIA Hübner

1065 D. VIRGINICA (Fabricius)
Pl. IX, Fig. 27, 3.
Ent. Syst. Suppl., p. 437. 1798.
Virginia is relatively common and taken in every month, undoubtedly all over the state. The aberration fumosa (Strecker) taken at Gainesville, September 5, 1955, (Perry), DPI. A general feeder on low herbage; watermelon, Coop. Econ. Ins. Rept. 3: 395.

ISIA Walker


Like D. virginica, this is not rare, but neither of them are so common as they are in the southern states. The dates range from December through October. Jones found the larvae in Paradise Key with the hairs all black, not brown and black as they are familiarly seen.

ESTIGMENE Hübner

1070 E. ACRAEA (Drury) Salt marsh caterpillar. Pl. III, Figs. 39 and 40, δ; Fig. 41. δ. Ill. Exot. Ent. 1; Pl. 3, Fig. 2. 1770.

Quite common throughout, and taken October-May. Most specimens show varying degrees of darkening but Field does not believe they can be referred to form dubia (Walker) which was described from Hudson Bay. The larva, a general feeder on low plants, has been reported specifically in Florida on: watermelon, weeds, and corn, Ins. Pest Surv. Bull. 3: 64 and 12: 84; tobacco, USDA Proc. 19th Amer. Econ. Ent. Bull. 67: 109; Cucurbita okeechobeenis [Pepo okeechobeenis], Coop. Econ. Ins. Rept. 8: 319; ramie and native vegetation, ibid. 3: 469; black-eyed peas, ibid. 4: 331.

1072 E. PRIMA (Slosson) Ent. Amer. 5: 40. 1889.

This is a rather remarkable find, as the species is distinctly northern, in fact, Forbes (1960, p. 27) said: "Almost limited to the Canadian zone." Ferguson commented: "—quite unmistakable. They are much like our northern ones but less heavily spotted. E. congrua was also flying at Welaka at the same time." I. Quincy: April 3, 1962, (Tappan), CPK. II. Welaka: three March 19, 1962, (Ferguson), NSMS. Franclenont has examined the specimens and has found slight differences which may eventually prove this to be a distinct species, but more material is needed to be certain.

1073 E. CONGRUA (Walker) Pl. IX, Fig. 28, δ. List Lep. Ins. Br. Mus. 3: 669. 1856.


HYPHANTRA Harris

There has been great debate over the question of whether textor and cunea are separate species, but Franelont has recently proved on the basis of genitalia that such is the case.

1074 H. TEXTOR Harris Pl. IX, Fig. 29, δ. Rept. Ins. Mass. p. 255. 1841.

There are only a very few positive records for this species, but because of the impossibility of making the separation on superficial characters, many records for cunea may, probably do, belong here. II. Fernandina: Aug, NSMS. IV. Punta Gorda: March, CPK, AKW. VI. Florida City: May, NSMS.

1075 H. CUNEA (Drury) Fall webworm. Pl. IX, Fig. 30, δ. Ill. Exot. Ent. 1; Pl. 18, Fig. 4. 1770.

The records, which have been consistently assigned to this species, show it to be state-wide in occurrence and present most of the year. It is found not only in the immaculate form, but with spots in every degree of profusion, and with the ground color suffused with brown. Food: pecan, Ins. Pest Surv. Bull. 3: 286; sweet gum, Packard (1890a, p. 657); cypress, DPI.

EUERYTHRA Harvey

1078 E. PHASMA Harvey Pl. III, Fig. 44, δ. Can. Ent. 8: 5. 1876.

Phasma is a beautiful but rare insect. I. Escambia Co.: Feb., March, SMH. Warrington: rare, summer, VFG. Quincy: Feb., Aug. (Tappan), CPK. Tallahassee: March, June, July, JPK. Monticello: March, DPI. II. Alachua Co.: March, UFES; Aug., CPK. Waldo: June, (King), CPK. Gainesville: Feb., CPK; April, UM. III. Oronde: Grsb. 49. New Smyrna: March, JGF. Markham: March, DPI. Rockledge: (Slosson), Grsb. 49.

ARACHNIS Geyer

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IV. Palm Beach: Feb. 2, 1890, Dyar, USNM. It seems odd that Dyar did not mention this specimen in his paper (1901a) on the collections made in the Lake Worth-Palm Beach area. Perhaps he simply forgot it, or perhaps he considered it an accidental stray and not properly a part of the local fauna. Because the species is western, and too large and striking to be overlooked by subsequent collectors, the conclusion is obvious that this was an accidental introduction, whether by carrier or on imported plantings.

ECAPANTHERIA Hübner
1085 E. SCRIBONIA (Stoll)
Pl. X, Fig. 3. 1787.
Sci. Exot. Suppl., p. 177; Pl. 41, Fig. 3. 1787.
Scribonia is found commonly throughout the state, probably in every month. The male form denudata Slosson, which looks as though the scales on the apical fifth had been rubbed off, appears to be the most common and variation in the spots is considerable. IV. Sierra Key: 1 inch larva found on Plumbago May 25, taken north and fed on Lonicerata latifolia from June 7 to July 15 when pupation occurred. Imago Aug. 1, CPK. Food: Euphorbia heterophylla [cyathophora], Ricinus communis, Helianthus, Plantago, Saltis, and various other plants; magnolia, Dozier (1920, p. 376); tangerine, bougainvillea, Pyrostegia ignea [venusta], rough lemon, banana, orange, DPI.

SEIRARCTIA Packard
1091 S. ECHO (Abbot & Smith)
Pl. X, Fig. 1. 1787.
Since echo occurs in Georgia, it is probably found throughout the state, but there are no records north of Old Town and Daytona, except one for Warrington. Fuller found it moderately plentiful at Cassadaga, March 1856. It is certainly much more common in the southern part of the state, and is on the wing from February through December. VI. Homestead; Feb.-Oct., a high peak in May. Food: Sabal palmetto, Packard (1890b, p. 351); Lupine, Forbes; Zania integrifolia, Bonnier (1918, p. 59); Z. umbrosa [pumila], DPI; croton, Quercus laevia, DPI; oak, persimmon, Smith (1890e, p. 102); “tecumseh,” Wyatt.

UTETHEISA Hübner
1099 U. BELLÀ (Linnaeus)
Bella moth. Pl. III, Fig. 45. 1758.
Syst. Nat., p. 534. 1758.
Forbes (1960, p. 37) made this a form of ornatrix below. It is found all over the state the year round in all its forms and varieties. The long series in the collections of Buchholz, Frankie, and Yale show these in all their multiplicity and beauty. I. Quincy: May-Nov. IV. Bradenton: Feb.-April, Nov., Dec. VI. Homestead: Feb.-May, Oct., peak in May. Food: Crotalaria and Lepedea; native lupines, USDA, “The more important insect records for the winter and spring to March 31, 1945,” p. 5.

1100 U. ORNATRIX (Linnaeus)
Syst. Nat., p. 511. 1758.
There are relatively few records for typical ornatrix. III. Orlando: Dec., WMD. Mims: Feb., DPI. IV. Gillette: Jan., DPI. Bradenton: Jan., one typical, one form stretchii (Butler), CPK; Feb., March, DPI. Archbold Biological Station: Jan., YU. Sarasota: May, CPK. Lake Worth: (Slosson), Grub. 51. Rockdale: Jan., DPI. Kendall: Oct., DPI. VI. Homestead: July, CPK. Paradise Key: Jan., March, rare, FMJ. VIII. Key West: AKW.

HAPLOA Hübner
1101 H. CLYMENE (Brown)
III. Zool., p. 96. 1776.
Lyman (1887, p. 189), referring to interruptomarginata (Beauvois), said: “Habitat: Can. to Fla.” I. Escambia Co.: Aug., SMH. Warrington: occasional, summer, VFG, WP. Tallahassee: July 25, 1913, UM.

1102 H. COolina (Hübner)
Florida: (Thaxter), MCB. I. Escambia Co.: form carolina Harris, May 1942, SMH. Apalachicola: Chapman, Stretch (1872-1873, p. 173). II. Trenton: April 19, 1925, UM. Gainesville: June 10, 1924, UM; form fulvocosta Clemens, June 20, 1957, (Denmark), DPI.

Family AGARISTIDAE

ALYPIA Hübner
[1112 A. octomaculata (Fabricius)]
Eight-spotted forester.
Syst. Ent., p. 830. 1775.
This was reported by Grossbeck (1917, p. 52) as being in the Grote collection from Florida, but I feel it needs duplication before it should be accepted as valid, since all the other records are definitely wittfeldii. Food: Vitis, Ampelopsis.
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1114 A. WITTFELDI Henry Edwards
Pl. IX, Figs. 31, 32. 2.
Papilio 8: 34. 1883.
An occasional dayflyer recorded mostly from south of Gainesvile-St. Augustine, but as it has been taken in Escambia County: March, VFG, and Santa Rosa County: March, SMH, it is probably found throughout the state. Except for a pair taken at III. Clearwater: Aug., (Fattig), LH, the flight seems to be limited to January-April. Food: Japanese persimmon, DPI.

Family NOCTUIDAE
Subfamily PANTHEINAE
COLOCASIA Ochsenheimer
[1123] C. propinquilinea (Grote)]
Trans. Amer. Ent. Soc. 4: 238. 1873.
Grote (1874, p. 6) said: "Mass. to Fla." This is probably another case of ambiguity. Smith (1893, p. 32) made no reference to Florida, and Forbes (1954, p. 291) found no records south of Tennessee. The probability is that Grote mixed the two species of the genus, and if there is any Colocasia in Florida, it would be flavicornis (Smith), which Franclemont has taken in Alabama. Food: birch, walnut, maple, beech.

PANTHEA Hübner

1130 P. [FURCILLA (Packard)]
Most of the known Florida specimens are very dark and Franclemont is fairly certain that they represent a new species. If that is the case, he will describe it. I. Escambia Co.: Feb., SMH. West Pensacola: July, VFG. Quincy: Oct.-Jan., CPK. Monticello: Feb., DPI. II. Alachua Co.: Jan., DPI. Gainesville: Feb., March, Dec., (Ferry, Morse), CPK; March, (Hetrick), UPA. III. Cassadaga: Sept., SVF. St. Petersburg: Dec., AKW. IV. Archbold Biological Station: Jan., March, FSU; Dec., (Pease), YU. Food: larch, pine, Tilia.

CHARADRA Walker

1135 C. DERIDENS (Guenee);
1136 C. CIRCULIFERA (Walker)
Pl. IX, Fig. 33. 2.
Franclemont is of the opinion that the latter is nothing more than a Florida race of the former. Certainly they intergrade, and it is often impos-
sible to say which one has. Consequently, if there is specific difference, the records cannot be separated at present. These run from Escambia County to Florida City, but with none for the Keys. The dates cover September-April, with an occasional specimen taken May, June.

LICHNOPTERA Herrich-Schaeffer

1139 L. ILLUDENS (Walker)
Specimens in the United States National Museum collection look suspiciously like dealer material, and to my mind very much open to question. What Dyar's record was based on I do not know. Florida: Dyar (1902, p. 99); Seitz (1923, p. 28), which is probably based on Dyar's record. V. Marco: eight, USNM. Cypress Swamp: one June, USNM.

RAPHIA Hübner

1140 R. ABRUPTA Grote
I. Quincy: July 29, 1960. (Tappan), CPK. II. Old Town: March 2, 1951, det. Franclemont, CPK.

1140, 1 R. SP.
This is an unrecognized species, of which Franclemont has a specimen from Georgia. I. Quincy: June 28, 1960, (Tappan), CPK. IV. Palmetto: April 5, 1959, GWK. Bradenton: April 10, 1955, (Kelsheimer), det. Franclemont, CPK. Archbold Biological Station: Feb., YU. Siesta Key: April 29, 1956, CPK.

Subfamily ACRONICTINAE
ACRONICTA Ochsenheimer

1148 A. AMERICANA Harris
American dagger moth.

1151 A. DACTYLINA Grote
IV. Archbold Biological Station: Feb. 10, 1959, (Frost), FSU. The specimen is too rubbed for determination on maculation. Franclemont called it either dactylina or hastulifera (A. & S.), but has agreed that the only logical conclusion
is that it is the former, since the only recorded food plant for *haustuli* *e* is *Ahnus*. West has informed us that the alder that occurs in Florida, *Ahnus serrulata*, has not been recorded south of Alachua and Putnam Counties, whereas willow, one of the food plants for *dacytina*, is found in the Archbold Biological Station region. Franclemont called attention to the fact that the larvae of the two species are quite distinct.

1153 A. LEPSULCULINA Guenée
Cottonwood dagger moth.

1159 A. TRITONA (Hübner)
Pl. IX, Fig. 38, δ.
Zutr. exot. Schmett; Pl. 21, Figs. 107, 108. 1818.

1167 A. CONNECTA Grote
Pl. IX, Fig. 37, δ.
I. Quincy: Sept., Oct., CPK. II: Alachua Co.: April, DPI. Gainesville: Feb., CPK; Sept., DPI. IV. Oneco: March, April, JGF. Archbold Biological Station: Jan., PSU. Siesta Key: April, CPK. Punta Gorda: Jan., Aug., CGM; March-May, AKW. VI. Homestead: May, June, CPK. Paradise Key: occasional, March, April, det. Dyar as "not typical," PMJ. One of the Paradise Key specimens is in collection of USNM and is discussed by Todd (1898, p. 278). Todd reported subsequently that some Florida specimens are atypical in that they are lighter, and the dark shade in the median area is discontinuous. Food: willow.

1172 A. VINNULA (Grote)
Pl. IX, Fig. 35, δ.

1174 A. LAETIFICA Smith
Ent. News 8: 150. 1897.
Forbes (1954, p. 240) said: "The locality of Florida in the original description has been challenged by Dod (1913, p. 253), and I have seen no material from there." However, it is only the male type from Florida which Dod questioned, stating that it is *interrupta* Guennée. A Florida female in the Rutgers College collection, now presumably in the American Museum of Natural History, he did not question. There are five recent records, none of them seen by Forbes: I. Escambia Co.: March 1961, SMH. II. Gainesville: April 1958, (Herbrick), det. Todd, CPK. III. Cassadaga: Oct. 20, 1954, det. Todd, SVF. Brooksville: June 20, 1955, AKW. VI. Homestead: Sept. 19, 1958, (Wolfenbarger), det. Todd, CPK. All of these are more lightly marked than northern specimens.

1175 A. furcifera Guenée
Spec. Cén. 5: 44. 1852.
_Furcifera_ was recorded from Florida by Smith & Dyar (1898, p. 85), but as Forbes has seen none from south of Tennessee, we need something more definite to validate the record. It probably belongs under the next species, the two having been frequently confused and by some treated as synonyms.

1176 A. HASTA Guenée
Pl. IX, Fig. 34, δ.
Spec. Cén. 5: 45. 1852.
I. Quincy: not uncommon, March, April, July, Aug., (Tappan), CPK. II. Gainesville: April 1958, (Herbrick), det. Franclemont; May 1958, CPK.

1177 A. thoracica (Grote)
N. Amer. Ent. 1: 94. 1880.
Draudt (in Seitz, 1923, p. 24) credits this species to Florida, but as the species is found primarily in the higher parts of Arizona, he would appear to be in error.

1181 A. MORULA Grote & Robinson
Ochre dagger.
I. Escambia Co.: July, VFG. Quincy: Aug. 23, 1960, (Tappan), CPK. II. (7). Dozier (1920, p. 377) reported finding a cocoon between loose bark of a pine stump in a hammock, presumably near Gainesville, from which issued, Feb. 26, an adult that he determined as _morula_ with "a". Forbes (1954, p. 239), gave the southern limit as D. C. Food: elm, apple, linden.
1182 A. INTERRUPTA Guenée
Gray dagger.
Dod (1913, p. 252) said that the male type of laetifica from Florida was a "well-marked" interrupta. Food: elm, apple, plum.

1183 A. LOBELIAE Guenée
Spec. Gén.: 5: 44. 1852.

1184 A. PRUNI Harris
Ent. Corresp., p. 313. 1869.

1188 A. MODICA Walker
I. Florida Caverns State Park: April 13, 1960, (Denmark), DPI. Quincy: March 27, 1961, (Tappan), CPK.

1190 A. CLARESCENS Guenée
IV. South Bay: May 1, Grsb, 53. V. Marco: April 21, AMNH. Food: apple family.

1193 A. HAMAMELIS Guenée
III. Lakeland: June 24, AMNH. Food: witch hazel.

1194 A. INCRETA Morrison
I. Quincy: two June 15, 1963, (Tappan), det. Forbes, CPK.

1195 A. RETARDATA (Walker)
Pl. IX, Fig. 38, 5.

1197 A. SUBOCHREA Grote
I. Escambia Co.: July 4, 1961, det. Franclemont, SMH.

1198 A. AFFLICTA Grote
Pl. IX, Fig. 39, 5.

1199 A. BRUMOSA Guenée

1301 A. IMPLETA Walker
Pl. IX, Fig. 40, 5.

1304 A. impressa Walker

1207 A. LONGA Guenée
Pl. IX, Fig. 41, 5.
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II. 1200 A. LITHOSPILA Grote
Streaked dagger.

1214 A. AROICH Streck
Pl. XI, Fig. 1, 9. Lep. Rhop. Het. Suppl. 1:5. 1898.
As this is considered by Franclemont to be merely a larger, more yellowish southern race of obliqua (Abbot & Smith), it is probable that the records for the two are mixed, and also that both are present, whatever their status. Wyatt believes the two are distinct. The only certain records for arioch are: I. Escambia Co.: Sept., SMH. Pensacola: Feb., VFG. Quincy: Feb., Oct., CPK. II. Jacksonville: USNM. Gainesville: Sept., DPL. III. Cassadaga: March, det. Dodd, SVF. Orlando: May, OB. St. Petersburg: USNM. IV. Bradenton: Nov., CPK. Archbold Biological Station: Jan., YU; Feb., April, PSU. Siesta Key: March, Nov., CPK. Miami: March, OB. VI. Florida City: March, OB.

1215 A. OBLINUTA (Abbot & Smith)
Smeared dagger. Pl. XI, Fig. 2, 3; Fig. 3, 9. Lep. Ins. Ga. 2:187; Pl. 94. 1797.

1216 A. LANCEOLARIA (Grote)
III. Cassadaga: March, April, SVF. IV. Archbold Biological Station: Feb., March, YU; ten March 4-8, 1959, (Frost), FSU. Port Sewall: Feb., AMNH. Food: low bushes, willow, popular, wild cherry, blueberry, sweet fern.

SIMYRA Oechslenheimer

1222 S. HENRICI (Grote)

HARRISIMEMNA Grote

1223 H. TRISIGNATA (Walker)


Subfamily AGROSCINAE

EUXOA Hübner

[1310 E. messorta (Harris)]
Dark-sided cutworm.

Florida: (Slosson), Grs. 58. I feel that this must be an error, as Forbes (1954, p. 39) has seen none from below southern New Jersey.

[1341 E. tessellata (Harris)]

Florida: (Slosson), Grs. 58. This looks like another error, though in this case Forbes has seen material from Virginia.

EUCOPTOCNEMIS Grote

1410 E. FIMBRIARIS (Guenée)
Pl. XI, Fig. 6, 9. Spec. Gén. 5:172. 1852.
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1411 E. TRIPARS (Walker)
There is some question as to whether this is actually distinct from *fimbriatis*, and the type should be examined and compared. Florida: Forbes (1954, p. 31). I. Escambia Co.: Oct. 27, 1961, SMH. II. Gainesville: Nov. 14, 1925, UM.

1412 E. DAPSILIS (Grote)
Pl. XI, Fig. 7, d.; Fig. 8, 9. Bull. U. S. Geol. Geograph. Surv. Territ. 6: 552. 1893.


AGROTIS Ochsenheimer

1416, 1 A. SP.
I. Escambia Co.: March 10, 1962, SMH. Franchmont places this very close to *vetusta* Walker and believes that it may be a dark, southern form of the latter. He has another specimen from Mississippi, but as both are females, more exact determination is not possible.

1422 A. GLADIARIA Morrison
I. Quincy: Crumb (1929, p. 68). Food: grasses and many other plants.

1425 A. VENERABILIS Walker


[1432 A. volubilis Harvey]
An error in my determination was responsible for a record of this being published in Coop. Ins. Pest Surv. 3(5): 6. The record is included under *venerabilis* above, where it properly belongs.

1434 A. MALEFIDA Guenée
Pale-sided cutworm. Pl. XI, Fig. 16, 9. Spec. Gén. 5: 267. 1852.

*Malefida* is found throughout the entire state, including the Dry Tortugas, January-October, and is spasmodically common. Larva a general feeder; sugar cane, Ingram & Jaynes (1938, pp. 89-99).

1435 A. YPSILON Rottenberg
Greasy cutworm. Pl. XI, Fig. 18, 9. Naturforscher, Noct., XI; p. 141. 1776.

*Ypsilon* is not such a pest as it is in the North, but is relatively common all year. I. Quincy: Aug.-May, a large peak in mid-Sept. IV. Bradenton: Jan., Feb. VI. Homestead: Jan., April-Oct., with one peak in May. Larva a general feeder; sugar cane, Ingram & Jaynes (1938, pp. 89-99); celery, UFES; cabbage, Coop. Econ. Ins. Rept. 4: 217.

1435, 1 A. SP.
This was determined by Franchmont as a distinct, undescribed species close to but smaller and darker than *ypsilon*. He will describe it. III. St. Petersburg: five, March, April, 1960, AKW. IV. Archbold Biological Station: Jan. 5, 1960, Nov. 1958, (Frost), PSU; April 19, 1958, (Pease), YU. Miami: May 28, 1935, (Forth), OB. Miami Beach: three April 15-19, JGF. VI. Homestead: Jan., March, May, July-Oct., (Wolfenbarger), CPK. Florida City: June 5, 1947, OB; June 11, JGF.

1450 A. SUBTERRANEA (Fabricius)
Granulate cutworm. Pl. XI, Fig. 17, 9. Ent. Syst. 3(2): 70. 1794.

*Subterranea* is more familiarly known under the name *Felitta annexa* (Treitschke); it is of statewide occurrence and is probably on the wing throughout the year. I. Quincy: all year, peaks in July and Sept. IV. Bradenton: Oct.-Aug. VI. Homestead: Jan.-Oct., peak in May, falling off through July and rising again through Oct. It is certainly one of the most abundant Florida noctuids. It is a general feeder.

FELTIA Walker

1442 F. DUCENS Walker
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I. Quincy: seven Sept. 27-Oct. 26, 1960, (Tappan), DPI, CPK. The one female is slightly aberrant in that the hind wing is heavily infuscated only as a broad border on the outer margin.

1446 F. HERILIS Grote
I. Escambia Co.: Oct. 25, 1961, SMH.

1450, 1 F. REPLETA Walker

Repleta looks much like a large subterranea, and may have been overlooked by many collectors. IV. Biscayne Bay: (Slusson), Mcdunnough (1949a, p. 12). VI. Homestead: Jan. 28, 1955, (Wolfenbarger), det. Franclemont, CPK.

1451 F. GENICULATA (Grote & Robinson)
Pl. XI, Fig. 10, ω.


CHOEPHORA Grote

1474 C. Fungorum Grote & Robinson

I. Quincy: Nov. 16, 1960, two Nov. 14, 1961, five Nov. 3-Dec. 4, 1962 (Tappan), CPK. Larva a cutworm.

EUROIS Hübner

1475 E. OCCULTA (Linnaeus)
Great brocade.
Syst. Nat. 1: 514. 1757.

Here is a very surprising record; the species being distinctly northern. It makes one wonder about the propriety of questioning some of the records for other northern species. III. Cassadaga: July 4, 1952, det. Todd, SVF.

ANICLIA Grote

1481 A. INFECTA (Ochsenheimer)
Pl. XI, Fig. 19, ω.

Infecta is one of the commonest noctuids in the state, probably all year. I. Quincy: Feb.-Dec., with small peak in Sept. IV. Bradenton: Dec.-June, Oct. VI. Homestead: Feb.-Nov., peaks in May, Sept., and Oct. Food: grasses; Cenchrus tribuloides, Dyar (1894a, pp. 18-20); beets, tobacco, plantain, purslane, Crumb (1929, p. 103); lawns, Coop. Econ. Ins. Rept. 4: 301.

1481, 1 A. SP.
This is a new species which is being described by Franclemont. VII. Flamingo: May 8, 1963, (Kimball), ENP. VIII. Tavernier, Witsley Key, and Craig: July-Nov. 1955, (J. N. Todd), JG, CPK. Big Pine Key: May 12, 1961, (Mead), DPI.

EUACROTIS Mcdunnough

1482 E. LUBRICANS (Guenée)
Pl. XI, Fig. 12, ω.
Spec. Gén. 5: 323. 1852.


1483 E. [ILLAPSA (Walker)]
Pl. XI, Fig. 11, ω; Fig. 13, ω.

Franclemont thinks this may be a species distinct from northern illapoa, or a subspecies thereof. I. Escambia Co.: Feb., SMH. West Pensacola: March, VFG. III. Egmont Key: April 30, 1904, UM. IV. Oneceo: March, JGF. Archbold Biological Station: Jan., PSU; Jan., Feb., YU. Siesta Key: March 1, 1952, CPK. Punta Gorda: Feb., March, AKW. VI. Homestead: May, CPK.

1488 E. DIGNA (Morrison)
IV. Charlotte Harbor: (Slusson), Grsb. 58.

PERIDROMA Hübner

1496 P. MARGARITOSA (Haworth)
Variegated cutworm. Pl. XI, Fig. 20, ω.

Although margaritosa has been recorded from
almost every part of the state, including the Dry Tortugas, it does not seem to be especially common, as it is in the North. The dates include October-August. The form saucia (Hübner) is infrequent. Larva a general feeder; tomatoes, Watson (1914, pp. 57-78); Nicotiana tabacum, Coop. Ins. Pest Surv. 8: 28.

**GRAPHIPHORA Ochsheimer**

1511 **G. C-NIGRUM** (Linnaeus)
Syst. Nat. 10: 516. 1758.

**ANOMOGYNA Staudeinger**

1561 **A. ELIMATA** Guenée
Pl. XI, Fig. 21, 9.
Spec. Gén. 5: 333. 1852.

1562 **A. JANUALIS** (Grote)

**ABAGROTIS Smith**

1601 **A. ALTERNATA** (Grote)
III. Juniper Springs: July 28, 1933, (Hubbell & Friauf), UM.

Subfamily **HADENINAE**

**TRICHOCLEA Grote**

1647 **T. FLORIDA** (Smith)
Pl. XI, Fig. 22, 9.
III. Cassadaga: March, SVF. IV. Biscayne Bay: type, (Slonoson), Smith. VI. Florida City: March 30, Oct. 7, OB. VII. Flamingo: April, DPI, CPK. VIII. Key Largo: March, SVF; Oct., CPK. Tavernier: Aug.-Dec., CPK. Windley Key: March, CPK. Big Pine Key: Feb., AMNH.

1657 **T. VINDEMIALIS** (Guenée)
Pl. XI, Fig. 23, 9.
Spec. Gén. 5: 344. 1852.
There has been some confusion between this species and *vindeumialis* Grote which is a synonym of *Sideritis marxii* (Guenée). The latter is not found in Florida, and I have transferred all records for it to this species. I. Escambia Co.: May, SMH. West Pensacola: April, VFG. II. East Florida: (Doubleday), Smith (1891b, p. 230). III. DeLand: March, OB, AKW. Cassadaga: March, SVF. Weekiawacoe Springs: March, CPK. Elfers: April, JCF. Stempfer: Feb., AKW; April, Dec., OB. Lutz: March, USNM, HEW. IV. Rye: USNM. Archbold Biological Station: Feb., YU, March, JCF. Punta Corda: Feb., March, AKW. Sanibel Island: March, OB. Bonita Springs: March, OB. VIII. Tavernier: Nov., CPK.

**POLIA Ochsheimer**

1671 **P. DISTINCTA** (Hübner)
Samml. exot. Schmett. 1; Pl. 194. 1810.

1683 **P. LEGITIMA** (Grote)
Striped garden caterpillar. Pl. XI, Fig. 24, 9.
Proc. Ent. Soc. Phila. 3: 82; Pl. 2, Fig. 4. 1864.

1710 **P. GOODELLI** Grote
Can. Ent. 7: 223. 1875.
I. Florida Caverns State Park: April 14, 1960, (Denmark), det. Todd, DPI.

1712 **P. MEDITATA** (Grote)
I. Myrtle Grove: Sept. 26, 1961, WJW.

**LACINIPOLIA McDunnough**

[1714 **L. iustralis** (Grote)]
Can. Ent. 7: 223. 1875.
This was reported from Biscayne Bay: (Slonoson), Grsb. 59, but Franclemont believes it must have been an error for *L. parvula* below.

1743 **L. ERECTA** (Walker)
Pl. XI, Fig. 14, 9.
THE LEPIDOPTERA OF FLORIDA


[1745 *L. olibacea* (Morrison)]

IV. Myakka: Smith (1891b, p. 231). Smith gave the range as “Eastern U.S. to Florida.” Draudt (in Seitz, 1923, p. 108) also listed Florida, but was probably copying Smith. Forbes (1954, p. 91) placed the southern limit of range in North Carolina. The record needs confirmation. What Smith saw might have been a specimen of *L. explica* McDunnough below.

1747 L. PARVULA (Herrich-Schaeffer)
Pl. XI, Fig. 15, ♀.


1748 L. LAUDABILIS (Gueneée)
Pl. IV, Fig. 1, ♀.

*Laudabilis* is generally present throughout the state as the records include Escambia County to Florida City, January-June, August, October, and November. It is quite variable, being found as typical *laudabilis*, as well as *rufiorrata* (Strand), *mediosuffusa* (Strand), and in various other, unfortunately unnamed, color forms.

1750 L. EXPLICATA McDunnough

I. Monticello: March 24, 1955, (Phillips), det. Franclemont, CPK. Inasmuch as the determination of this specimen was made by genitalic dissection, it is conclusive. However, there are several other specimens listed below which had been determined previously on superficial characters as *L. implicata* McDunnough. These will have to be re-examined critically to be certain which species they are, but in order not to introduce another name in view of the uncertainty, I am putting them here on a tentative basis. Furthermore, *implicata* was figured by Holland (1906, Pl. 24, Fig. 1) under the name *laudabilis*, and it is possible that some of the records for that species actually belong under one or other of the McDunnough species. I. Quincy: Oct. 15, 1956, Coop. Ins. Pest Surv. 5(42): 5. Tallahassee: MCZ. II. Gainesville: April, DPI. IV. Rye: MCZ.

**SIDERIDIS** Hübner

[1802 *S. marx* (Gueneée)]
Spec. Gén. 5: 344. 1852.

Smith (1893b, p. 120) stated that Grote’s reference of *vinidemialis* Gueneée to this species is incorrect, a point which has been mentioned under that species. As I have not located Grote’s reference, I do not know whether it has a Florida citation, but the point should be stressed in order to emphasize the fact that records for *vinidemialis* (Gueneée) do not belong to *S. marx*, nor do those for *vinidemialis* (Grote), a synonym for *marx*, belong in Florida.

**ANEPIA** Hampson

1804 A. CAPSULARIS (Gueneée)
Pl. XI, Fig. 27, ♀.

I. Quincy: March-May, CPK. Monticello: March, (Phillips), DPI, CPK. II. Gainesville: April, CPK. Fernandina: April, OB. St. Johns Bluff: (Doubleday), BM. VI. Florida City: April, OB.

**TRICHLOLITA** Grote

1821 T. SIGNATA SEMITROPICAE
(Barnes & Benjamin)
Pl. XII, Fig. 1, ♀.

The few specimens taken have all been of this form. I. Warrington: summer, WP. Quincy: Oct. 12, 1960, (Tappan), CPK. III. St. Petersburg: types, one male, two females, Oct. 15-20, 1914, (Ludwig), Barnes & Benjamin. IV. Bradenton: two Nov. 12-17, 1955, (Kelsheimer), CPK. Siesta Key: seven mid-Nov., CPK.

1827 T. LUTINA (Smith)
Pl. XII, Fig. 2, ♀.

ULOLONCHE Smith

1831 U. CULEA (Guénée)
Spec. Gén. 5: 404. 1852.

ORTHODES Guénée

1855 O. OVIDUCU (Guénée)
Pl. XII, Fig. 3, 9.
Spec. Gén. 5: 357. 1852.

1871 O. CRENULATA (Butler)
Pl. XII, Fig. 4, 9.

MORRISONIA Grote

1901 M. MUCENS (Hübner)
Pl. XII, Fig. 5, form sectilis, 9.
Mucens is fairly common down the peninsula as far as Punta Gorda-Port Sewall, flying January-March, with one record each for July and August. Besides typical mucens, sectilis (Guénée), sectilana Strand, and various intermediate forms occur. Rileyana was described from Florida, Smith (1890b, p. 212).

1904 M. CONFUSA (Hübner)
Pl. XII, Fig. 6, 9.

1904, 1 M. SP.
A new species which is being described by Franclemont. I. Escambia Co.: four April 9, 1961, one May 6, 1962, SMH.

XYLOMYGES Guénée

1917 X. ALTERNANS (Walker)
Pl. XII, Fig. 7, 9.

ORTHOSIA Ochsenheimer

1941 O. ALURINA Smith
J. N. Y. Ent. Soc. 10: 47. 1902.

1943 O. HIBISCI (Guénée)
Green fruitworm.
Spec. Gén. 5: 352. 1852.

CERAMICA Guénée

[1951 C. picta (Harris)]
Felt (1898, p. 204) said: "reported from most of the eastern states from Mass. to Fla." S. A. Forbes (1900, p. 153) said: "distributed from Canada to Florida." However, W. T. M. Forbes (1954, p. 106) had seen no material from south of Virginia. This is another case where confirmation is needed before accepting such a very indefinite record.

XANTHOPASTIS Hübner

1954 X. [TIMAIS] (Cramer)
Spanish moth.
Pap. Entot. 3:148; Pl. 275, Fig. B. 1782.
Though Dyar (1913d, p. 50) provided a key for the separation of the larvae in this complex and assigned specific names to each, it will need much further larval study in order to be sure which species are found in Florida, or indeed to be sure which are valid species and which are mere forms. At present we can report two from Florida, regnatrix (Grote), below, and a single specimen of the timais complex, from St. Peters-
burg in the Pasch collection now at Cornell. In the latter the colors are dull, not bright as in regnatrix, and this is a characteristic feature, not the effect of fading. The black area along the lower side of the outer half of the cell is a solid triangle in regnatrix, but broken up and spurred in the Pasch specimen, which is characteristic of Antillian and South American species. In addition to timais, names given to the latter include amaryllis Sepp and antillium Dyar. The food plant of at least one of the three is Ficus.

1954, 1  X. REGNATRIX (Grote)  
Pl. IV, Fig. 2, 5.  

This was described from a Pennsylvania specimen, is apparently a valid species, and is the only one commonly found in Florida November-May and in September. The larvae were abundant at Cape Romano, November and December 1955, on Hymenocallis keyensis. Many of them were reared by Denmark and Weems, the adults emerging during January, DPI. Denmark found larvae on H. keyensis on Loggerhead Key, May 1961, and took larvae and adults in January 1962. Phillips likewise reared it at Monticello on Amaryllis sp., in September. Hetrick has reported larvae on Amaryllis in mid-April at Biven's Arm Lake, with larvae entering partially decayed wood of live oak, with some excavating pupal cells in the corky bark of living live oak on the lake margin at levels four to five feet above ground. Other food plant records, all of which are presumably for this species are: Hymenocallis rotatum [Pancratium rotatum], Slosson (1894b, p. 107); Chinese lily, Ins. Pest Surv. Bull. 7: 51; Narcissus, Hymenocallis, ibid. 22: 57.

FARONTA Smith

1960  F. QUADRANNULATA (Morrison)  
III. Stemper: Aug. 12-Oct. 2, (Engel), CNC.

1969  F. RUBRIPENNIS (Grote & Robinson)  
I. Escambia Co.: two Sept. 13, 1961, SMH.  
Warrington: two, VFG, WP. Myrtle Grove:  
Sept. 12, 1961, WJW. III. St. Petersburg: CU;  
Sept., OB; Sept., Oct., AEB. VI. Florida City:  
Aug., OB.

LEUCANIA Ochsenheimer

1966  L. EXTINCTA Guenée  
Pl. XII, Fig. 8, 9.  
Spec. Gén. 5: 79.  1852.

Extincta is relatively common the length of the peninsula and is also found in the western counties where the form flabila (Grote) has been taken, but there are no records from the Keys. Every month except December. There is one other record for flabila, III. Egmont Key: April 20, 1904 (Ramstedt), det. Dyar, UM.

1970  L. LINITA Guenée  
II. Fernandina: April, AEB, OB. St. Johns  
Bluff: (Doubleday), BM. III. New Smyrna: Feb.,  
AEB. IV. South Bay: April, AMNH.

[——- L. ebriosa Guenée]  
Spec. Gén. 5: 74.  1852.

This was reported by Smith (1893, p. 190) as: "Am. Sept., a curious species to be an American insect—if from America at all, it is probably from Florida, of Doubleday material." Hampson (1905, p. 479) said: "Tasmania (not U. S. A.)." The Florida, in fact the North American record, is of course an error.

1972  L. PILIPALPIS (Grote)  
Pl. XII, Fig. 9, 5.  
I. West Pensacola: Feb., VFG. Apalachicola:  
type, MCZ. III. Cassadaga: Feb, SVF. Stemper:  
June, July, CNC; July, Aug., OB. Lutz: Jan.,  
OB; March, AEB. IV. Bradenton: Feb., CPK.  
Oneco: April, JCF. Archbold Biological  
Station: Jan., March, PSU. Port Sewall: Jan.,  
AMNH. Siesta Key: occasional, Nov.-May,  
CPK. Punta Gorda: Jan., Feb., AKW, Feb.,  
AEB, OB. Palm Beach: MCZ. VI. Florida  
City: Feb., April, Aug., OB. Larva on grasses—  
reared at Ithaca, N. Y. from Florida material, by  
Franclemont on Doctylis glomerata.

1977  L. COMMIOIDES Guenée  
Spec. Gén. 5: 86.  1852.  
Florida: March, Smith (1902, p. 197).  
[1978 L. phragmatidicola Guenée]  
Spec. Gén. 5: 89.  1852.

Franclemont believes that the several records  
given by Grossbeck (1917, p. 60) refer to one of  
the undescribed species below.

1979  L. SCIRPICOLA Guenée  
Pl. XII, Fig. 10, 9.  
Spec. Gén. 5: 84.  1852.  
I. Escambia Co.: Feb., SMH. Quincy: Feb.-  
June, Aug.-Nov., CPK. Monticello: June, DPI.  
II. Alachua Co.: reared from St. Augustine grass  
roots, May, DPI. Gainesville: Feb., CPI. III.
THE LEPIDOPTERA OF FLORIDA


1950, 1 L. SP.
This is a new species being described by Franclemont, close to but definitely not incognita Barnes & McDunnough. It is apparently relatively common in the Homestead-Florida City area all year, OB, WBB, CPK, AKW. There is one record from Clewiston: April, JGF.

1981 L. PENDENS Smith
Cam. Ent. 37: 66. 1905.
McDunnough (1943, p. 56) made this, which was reported by Grossbeck (1917, p. 60) a synonym of scripicola, q. v.

1982 L. MULTILINEA Walker
Reported from Palm Beach and Miami: Grsb. 60, but Franclemont believes that these belong under solita which follows, to juncicola, or to adjuta below.

1982, 1 L. SOLITA Walker
The determination made by Franclemont, has been verified by Fletcher on comparison of the genitalia with that of the type at the British Museum. III. Tampa: April 5, 1959, GWK. IV. Siesta Key: seventeen Dec.-May, JGF, CPK. VII. Flamingo: Feb. DPL. VIII. Dry Tortugas: July 13, 1960, WMD.

1889 L. JUNCICOLA Guenée
Pl. XII, Fig. 11, . Spec. Gén. 5: 83. 1882.
The commonest species of the genus in Florida, and being variable, is troublesome to determine; there is also confusion with the next species which superficially is difficult to separate, but quite distinct in both male and female genitalia, according to Franclemont. It is found through the peninsula and Keys all year, but there are no records for the western counties.

1989, 1 L. ADJUTA (Grote)
Franclemont has specimens from Oneco, and wrote that there are also specimens in CU and USNM. He thought that it was probably to be found in the southern two-thirds of the state, but until all the material now placed under juncicola can be reviewed, the localities, dates, and depositories must remain uncatalogued.

1991 L. LATIUSCULA Herrich-Schaeffer
Pl. XII, Fig. 12, . Corresp. Blatt. Regensb. 22: 148. 1868.
The records for latiuscula are scattered but cover the state, and every month. Food: sugarcane, Ingram & Jaynes, 1938, Coop. Econ. Ins. Rept. 4: 214.

1991, 1 L. SP.
This species is close to latiuscula, with which it is easily confused, and is described by Franclemont. L. Quincy: July, CPK. IV. Bradenton: Feb., March, (Kelsheimer), CPK. Belle Glade: Feb., (Genum), CPK. VI. Homestead: March, May, (Wolfenbarger), CPK.

1991, 2 L. SP.
This species is also near latiuscula, but not so readily confused with it. Possibly it is inconspicua Herrich-Schaeffer, but it will need further study to decide the point. If new, Franclemont will describe it. VI. Homestead: Feb., April, Oct., Nov., (Wolfenbarger), CPK. VII. Flamingo: Feb., DPL.

PSEUDALETIA Franclemont
1994 P. UNIPUNCTA (Haworth)
The armyworm. Pl. XII, Fig. 13, . Lep. Birt., p. 174. 1809.
Though Grossbeck was unable to find any record for this in Florida, it now seems to be quite common all over the state, but never a serious pest, with the exception of Quincy, where there is a record of 796 specimens, September 13, 1960. It has been taken in every month except November. Food: grasses, cereals, milletgrass Coop. Econ. Ins. Rept. 4: 593, 625.

ALETIA Hübner
[1995 A. oxygala luteopallens (Smith)]
There is something mysterious about the Florida record of this species. Among Smith's types for the species was a co-type female, Archer: March 1882, AMNH. The species is definitely northern in its range, and Franclemont does not think it occurs in Florida. However, the Archer specimen has the clear, uniform collar characteristic of luteopallens, with no suggestion of the violaceous collar of juncicola. Perhaps it is a case of mislabeling.
THE LEPIDOPTERA OF FLORIDA

Subfamily CUCULLIINAE

Rancora Smith

[2016 R. albicinearea Smith]
Can. Ent. 35: 137. 1903.

Due to confusion of check-list number or other clerical error, a record of this was published Coop. Ins. Pest Surv. 3: 4. Like several other errors, it is untraceable according to Denmark.

CUCULLIA Schrank

2036 C. ALFARATA Strecker
Pl. XII, Fig. 14, 5.

COPANARTA Grote

[2059 C. aurea (Grote)]

The occurrence of this in Florida seems very questionable and needs confirmation before it should be accepted as valid. There is no Florida specimen in the American Museum of Natural History collection, though there may be one elsewhere. Florida: (Slosson), Grb. 57.

LEPIPOLYS Guenée

2063 L. PERSSCRIPTA Guenée
Pl. XII, Fig. 15, 5.

ONOCNEMIS Lederer

2093 O. SAUNDERSIANA Grote
Can. Ent. 8: 29. 1876.

HOMOHADENA Grote

2153 H. INFIXA (Walker)
Florida: type, (Doubleday), BM. I. Escambia Co.: June 2, 1962, SMH.

FERALIA Grote

2185 F. MAJOR Smith
Pl. XII, Fig. 16, 5.
Ent. Amer. 6: 28. 1890.

PSAPHIDA Walker

2190 P. RESUMENS Walker
Pl. XII, Fig. 17, 5.


EUTOLYPE Grote

2196 E. ROLANDI Grote
Pl. XII, Fig. 18, 5.

COPIPANOLIS Grote

2198 C. STYRACIS Guenée
Pl. IV, Fig. 3, form stigma (Slosson), 9.
Spec. Gén. 5: 357. 1852.
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Rindge, J.L.C. IV. Archbold Biological Station: Feb. 6, 1962, (Frost), PSU.

LEMMERIA Barnes & Benjamin
2214 L. DIGITALIS (Grote)

III. Cassadaga: Sept. 4, 1951, SVF.

LITHOPHANE Hübner
2258, 1 L. SP.
Franclement has found that this is a new species and is describing it. I. Escambia Co.: March 1961, SMH. Monticello: Jan. 14, 1958, (Phillips). CPK. II. Gainesville: Dec. 27, 1961, (Perry). JGF. III. Lutz: Jan. 1, March 5 and 25, 1916, (Friday), LACM.

CHAETAGLAEA Franclement
2259 C. SERICEA (Morrison)
I. Escambia Co.: Feb., 1961, SMH. II. Gainesville: May 4, 1956, (Denmark), det. Franclement, DPI. Also reported from Florida: (Slosson), Grsb. 61, but I suspect that this may be an error in determination for one of the many varieties of tremula. I have examined the American Museum of Natural History collection in this and the next genus and find only one Florida specimen in this group taken by Slosson. Though the maculation on the forewings of this is practically obsolete, I would certainly suture it as tremula rather than sericea or Epiglæa apiata, below.

2290 C. TREMULA (Harvey)
Pl. XII, Fig. 19, 2.; Fig. 20, aberrant 3. Bull. Buffalo Soc. Nat. Sci. 2: 276. 1874.
It is odd that the records are so limited as it is so abundant at Titusville, Siesta Key, and Punta Gorda. It exhibits a bewildering range of variation. I. Escambia Co.: Jan., Feb., Nov., SMH. Warrington: VFG. II. Alachua Co.: Jan., DPI. Gainesville: Feb., March, DPI. III. Cassadaga: Jan., Feb., SVF. Weekiawachee Springs: April, CPK. Titusville: Jan., Feb., JGF; Nov.-Feb., CNC. IV. Bradenton: Feb., CPK. Archbold Biological Station: Jan., Feb., YU; Dec., PSU. Siesta Key: Jan., Feb., CPK. Punta Gorda: Jan-March, CPK, AKW.

EPIGLÆA Grote
[2294 E. apiata (Grote)]

Florida: (Slosson), Grsb. 61. This looks like another misdetermination for C. tremula, as it is primarily a cranberry feeder, though reported from blueberry. Forbes (1854, p. 158) limits the southern range to Washington, D. C. See also the note on C. sericea above.

METAAGLÆA Franclement
2297 M. [VIATICA (Grote)]
Pl. XII, Fig. 21, 9.

PYRÆFERRA Franclement
2299 P. HESPERIDAGO (Guenée)

2302 P. CEROMATICA (Grote)
I. Escambia Co.: Jan. 30, 1962, SMH.

XYSTOÆPLUS Franclement
2308 X. RUFAGO (Hübner)
Pl. XII, Fig. 22, 2. Zuhr. extot. Schmelt. 1, Pl. 15, Figs. 61, 62. 1818.

SUNIRA Franclement
2312 S. BICOLORAGO (Guenée)
Spec. Gén. 5: 397. 1852.
All are the form ferrugineoides (Guenée). I. Escambia Co.: Nov. 11, 1961, SMH. Quincy: six Nov. 19-Dec. 1, 1962, (Tappan), CPK.

EUCIRRHÖEDIA Grote
2321 E. PAMPINA (Guenée)

Subfamily AMPHIPYRINAE

OLICIA Hübner

2426 O. FRAGMENTA (Grote)
Lined stalk borer.
Can. Ent. 6: 15. 1874.

III. Stemper: AEB. Lutz: Feb. 21, 1916 (Friday), HEW. IV. Oneco: June 13, 1954, (Dillman), CPK. VI. Florida City: June 14, 1935, AEB. The Lutz and Oneco specimens are a red brown form or subspecies close to una (Strecker), according to Franclemont. Food: coarse grasses, timothy, corn.

ARCHANARA Walker

2439 A. OBLONGA (Grote)
Papilio 2: 96. 1882.


[2440 A. subflava (Grote)]
Papilio 2: 95. 1882.

Larvae reported tying leaves of *Typha latifolia*, with 100% infestation near Everglades, Feb. 28, 1930, Cole (1931, p. 10). I suspect some error in the determination of the larvae as the species is not supposed to range south of New Jersey, nor is it supposed to feed on cattail.

HYPOCOENA Hampson

[2452, 1 H.] SP.
I. Escambia Co.: May 25, 1962, det. Todd as this genus with a "?", SMH.

PAPAIPEMA Smith

2480 P. STENOSCELIS (Dyar)
J. N. Y. Ent. Soc. 15: 52. 1907.

II. Fernandina: Aug. 28, OB. Food: Woodwardia.

2482 P. SPECIOSISSIMA (Grote & Robinson)


2499 P. POLYMNIAE Bird


EUPLEXIA Stephens

2533 E. BENESIMILIS McDunnough
Can. Ent. 54: 238. 1922.

IV. Archbold Biological Station: Sept. 18, 1960, (Pease), det. Franclemont, ABS.

CALLOPISTRIA Hübner

2538 C. FLORIDENSIS (Guenée)
Florida fern caterpillar. Pl. XII, Fig. 23, 9. Spec. Gén. 6: 292. 1852.

*Floridensis* occurs all over the state, and is on the wing all year. Food: ferns, DPI.

HAPLOOLOPHUS Butler

2539 H. MOLLISSIMA (Guenée)
Pl. XII, Fig. 24, 9. Spec. Gén. 6: 294. 1852.


EUHERRICHA Grote

2540 E. MONETIFERA (Guenée)
Pl. IV, Fig. 4, 9. Spec. Gén. 6: 295. 1852.

This occurs as typical *monetifera* and *cordata* (Ljung), with intergrades, the hind wing varying in shades of red. I. Escambia Co.: May, SMH. Myrtle Grove: June, WJW. II. Gainesville: April, UFA. III. Cassadaga: March, SVF. Weeki-wachee Springs: May, CPK. Finecastle: June, AMNH. Lutz: March, CWK; March-May, HEW. Steenberg: June-Sept., CNC. St. Petersburg: March, AKW. Lakeland: May, AMNH. IV. Oneco: March, JGF. Archbold Biological Station: Feb., PSU; March, April, YU. Siesta Key: April, CPK. Punta Gorda: March, CPK, AKW. Food: fern.
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2542 E. GRANITOSA (Guenée)
Pl. IV, Fig. 5, 9.
These are all probably the southern subspecies argentilina (Walker), with the chocolate brown hind wing. I. Escambia Co.: May, SMH. Myrtle Grove: June, WJW. Apalachicola: (Chapman), Grote (1876, p. 415). II. Fernandina: Aug., OB. III. Cassadaga: July, Aug., SVF. Weekiwachee Springs: April, CKP. Stember: AEB; Aug., CNC; Sept., Nov., AKW. Lutz: AEB. St. Petersburg: March, AKW. Lakeland: May, AMNH. IV. Oneco: March, JGF. Archbold Biological Station: March, PSU; April, YU; June, AKW; July, AMNH. Port Sewall: March, AMNH. Siesta Key: March, CPK. Hillsboro: Aug., AEB.

FACITANA Walker

2543 F. LITTERA (Guenée)
Pl. XII, Fig. 25, 9.
Spec. Gén. 5: 71. 1852.
Florida: (Slosson), AMNH; (Doubleday), BM; (Maynard), Morrison (1875, p. 65). I. Myrtle Grove: May 26, 1963, WJW. IV. Oneco: March 20, 1957, JGF. This does not match typical northern specimens in coloration. Archbold Biological Station: March 17, 1961, (Frost), FSM; March 27, 1959, JGF; May 17, 1959, (Pease), YU. Food: marsh fern.

PHUPHENA Walker

2544 P. U-ALBUM (Guenée)
Pl. IV, Fig. 6, 9.
Spec. Gén. 5: 345. 1852.

2544, 1 P. TURA (Druce)
There is some question as to whether this and obliqua (Smith) are distinct species. Franeclmont has been unable to find any differences between the two. If that is correct, then all records for obliqua belong here. The "complex" is fairly common south of the line Stember-Port Sewall, with the records covering every month except November.

2545 P. OBLIQUA (Smith)
Pl. XII, Fig. 25, 9.
J. N. Y. Ent. Soc. 8: 174. 1900.
As noted under tura above, this is probably no more than a synonym of that species, and is so treated here. For records refer to tura.

PHOSPHILA Hübner

2548 P. TURBULENTA Hübner
Pl. XII, Fig. 27, 9.
Zutr. exot. Schmett.; Pl. 15, Figs. 67, 68. 1820.

2549 P. MISELIOIDES (Guenée)
Pl. XII, Fig. 23, 9.
Spec. Gén. 6: 89. 1852.

SPEOCROPIA Hampson

2550, 1 S. TRICHROMA (Herrich-Schaeffer)
VIII. Tavernier: five Oct. 21-24, 1955, (J. N. Todd), det. Franeclmont, JGF, CPK.
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CHYTTONIX Grote

2554 C. PALLIATRICULA IASPIS (Guenee)
Pl. XII, Fig. 29, normal ♀; Fig. 30, form iaspis, ♂.

2555 C. SENSILIS Grote
Pl. XII, Fig. 31, ♀. Papilio 1: 49. 1881.

CERMA Hübner

2559 C. CORA Hübner
Zutr. exot. Schmett. 1: 14; Figs. 59, 60. 1818.
I. Escambia Co.: two April, 1961, SMH. Food: pin cherry.

2569 C. [C.] SP.
I. Escambia Co.: Oct. 7, 1961, det. Todd as a new species in either Cerma or Paramiana Barnes & McDunnough, SMH.

CYATHISSA Grote

2571 C. PERCARA (Morrison)
Pl. IV, Fig. 7, ♂.

POLYGRAMMATE Hübner

2574 P. HEBRAEICUM Hübner
Pl. XII, Fig. 32, ♂.
Zutr. exot. Schmett. 1: 10; Figs. 25, 26. 1818.

LEUCONYCETA Hampson

2576 L. DIPHTEROIDES (Guenee)
Pl. XII, Fig. 33, ♂.
Spec. Gén. 5: 34. 1852.

AGRIPODES Hampson

2578 A. FALLAX (Herrich-Schaeffer)
Pl. XII, Fig. 34, ♀.
Samml. ausserer. Schmett., p. 80; Fig. 211. 1853.

2582 A. TERATOPHORA (Herrich-Schaeffer)
Samml. ausserer. Schmett., p. 80, Fig. 213. 1853.
Florida: (Doubleday), BM. Food: Monarda, Mentha.

AMPHIPYRA Ochsenheimer

[2585 A. tragopoginis (Linnaeus)]
Faun. Suec., p. 316. 1761.
IV. Lake Worth: (Sloson), Dyar (1901a, p. 456). As Dyar did not see the specimen, and as Forbes (1954, p. 265) gave the southern limit of range as Pennsylvania, this needs confirmation. There is no Florida specimen in the American Museum of Natural History, though there are two Sloson specimens from New Hampshire. Food: hawthorn, plantain, columbine.

DIPTERYGIA Stephens

2587 D. SCABRIUSCULA (Linnaeus)
Pl. XII, Fig. 35, ♀.
Syst. Nat. 1: 516. 1758.
III. Egmont Key: "6.1," (Ramstedt), CNS. Food: Rumex, Polygonum.
2588 D. PATINA (Harvey)
Pl. XII, Fig. 36, 3. Bull. Buffalo Soc. Nat. Sci. 3: 7. 1875.
Florida: Slosson, Grsb. 56, which is probably the same specimen mentioned by Dyar, (1908a, p. 32), I. Escambia Co.: July, SMH. Quincy: Feb., June-Nov., CPK. Monticello: Feb., March, Sept., CPK. II. Gainesville: Nov., DPI. III. Cassadaga: April, Oct., SVF. Stemper: Sept., CNC. Egmont Key: May, CNC. IV. Bradenton: March, Oct., CPK. Archbold Biological Station: Feb., FSU; Sept., YU. Port Sewall: Feb., AMNH. Siesta Key: Jan.-March, CPK. VI. Homestead: Jan., Dec., DPI; May, Sept., Oct., CPK. Florida City: May-Aug., OB. Paradise Key: March, FMJ; June, HFS. It is possible that some of the records under VI belong to the undescribed species below, but patina is certainly found at Homestead and is the commoner of the two. Forbes (1954, p. 222) says Needham found the larva feeding on Polygala cumulicola [Asemetra cumulicola].

2588, 1 D. SP.
Very close to patina but distinct. Franclemont is describing it. VI. Homestead: Sept. 25, 1958, (Wollenbarger), CPK. Florida City: May 8, 1937, June 17, 1938, (Forsyth), AMNH; June 1, Aug. 12, 1937 (Forsyth), JGF.

NEDRA Clarke

2589 N. RAMOSULA (Guenée)
Pl. XII, Fig. 37, 3. Spec. Gén. 6: 114. 1852.
I. Escambia Co.: Feb., SMH. Warrington: April, VFG. Quincy: three Feb., one each June, July, Sept., (Tappan), CPK. Monticello: two Feb., March, (Phillips), DPI, CPK. II. Gainesville: March 15, 1929, (Bates), Clarke (1940b, p. 49); four March, UM. III. DeLand: March, AKW.

ANDROPOLIA Grote

[2596 A. contacta (Walker)]
Reported from Florida: (Slosson), Grsb. 55 as form pulvulenta (Smith), but since this is essentially a western species with the eastern records only from the Adirondacks and White Mountains, the record should be duplicated before being validated. There is no Florida specimen, in fact no Slosson specimen in the American Museum of Natural History.

PERICEA Guénée

2610 P. XANTHIOIDES Guénée
Pied groundling. Pl. XIII, Fig. 4, 3. Spec. Gén. 5: 227. 1852.

CONDICA Walker

2611 C. CUPENTIA (Cramer)
Pl. XIII, Fig. 1, 3. Pap. Exot. 3: 103; Pl. 252, Fig. E. 1782.
Two species have been confused under the name cupentia. The only sure records for this species, which is more or less uniformly dark, follow, but it is probable there are many more mixed with those for the next species. I. Quincy: one each, Oct., Nov., CPK. II. Gainesville: Feb., Dec., DPI. Callahan: Aug., GWK. III. Cassada: Oct., SVF. Sanford: Feb., CPK. Weeki-wachee Springs: Aug., CPK. Lutz: Nov., HEW. IV. Bradenton: Sept., CPK. Oneoce: April, JGF; June-Aug., CPK. Archbold Biological Station: Jan., FSU. Siesta Key: Feb., Nov., CPK. Sanibel Island: March, OB. VI. Homestead: Dec.-Feb., CPK. VIII. Tavernier: Oct., DPI.

2611, 1 C. SP.
Pl. XIII, Fig. 2, 3. Franclemont thinks the name confederata (Grote) applies to this species which is more contrasting in color and is relatively common, both in Florida and northward. Inasmuch as there are good records from Pensacola to Homestead, it is probably found throughout the state, flying nearly the whole year. Food: Bidens.

PLATYSENTA Grote

There has been a lot of confusion in this genus as far as Florida is concerned and it is a long way from being straightened out.

2613 P. VIDENS (Guénée)
Pl. XIII, Fig. 3, 3. Spec. Gén. 5: 78. 1852.
Fairly common through the peninsula and western counties. Most specimens could be referred
to the form *albipuncta* Smith. Taken January-November. Food: *Solidago*.

2617. P. APAMEOIDES (Guenée)
Pl. XIII, Fig. 5, δ.
Spec. Gén. 5: 239. 1852.

*Apameoides* is a very common and variable species, the color ranging from brick red, *icole* (Grote), to the typical coppery bronze, to greenish bronze, all with or without the white in the reniform. It is found all over the state the year round. I. Quincy: May-Dec., no peak. IV. Bradenton: Dec.-Oct. VI. Homestead: Feb.-Nov., abundant April-June and again Aug.-Oct.

[2619, 1 P. punctifera (Walker)]

Recorded from Florida: Dyar (1902, p. 111), but Hampson (1908, p. 341) said, "The locality U. S. A. is a mistake." However, as he does record it from the Bahamas, it should be looked for.

2619, 2 P. HYPOCRITICA (Dyar)

V. Marco: AMNH. This may be one of those suspect Chokoloskee specimens, or it may refer to *selenosa* (Guenée) below. It was described from Bolivia and Mexico.

[2619, 3 P. selenosa (Guenée)]
Spec. Gén. 5: 228. 1852.

Reported from: IV. Lake Worth: (Slosson), Grsb. 55, but inasmuch as Grossbeck called *vecors* (Guenée) a synonym of this, the record may belong under the latter, or in Franclemont's opinion possibly to *albiger* (Guenée). In *selenosa*, the white discal spot is large; in *vecors* it is almost obsolete.

2620. P. VECORS (Guenée)
Pl. XIII, Fig. 6, δ.


2623 P. CONCISA (Walker)
Pl. XIII, Fig. 7, δ.

This is not uncommon south of Bradenton-Vero Beach. Taken every month. Food: *Bidens pilosa*, DPI.

2623 P. SUTOR (Guenée)
Pl. IV, Fig. 8, θ.
Spec. Gén. 5: 231. 1852.


2623, 1 P. CERVINA (Smith)
Pl. IV, Fig. 9, δ.

Franclemont found this to be a good species. It is slightly larger and redder than *sutor*; the male has a white hind wing with infuscate margin. Some of the records may be confused with the commoner *sutor*, but only one valid record has come to light from north of St. Petersburg, none from the east coast. Florida: type, Smith. I. Quincy: Feb., det. Franclemont, CPK. III. St. Petersburg: April, AKW. IV. Bradenton: April, July, CPK. Oneco: March, April, JGF; Aug., CPK. Siesta Key: occasional, Nov.-April, CPK. VI. Homestead: Feb., March-Sept., CPK. Florida City: April, June, AKW; March-Aug., OB; July, HEW. Paradise Key: Jan.-April, FMJ.

2625 P. ALBIGERA (Guenée)
Pl. XIII, Fig. 8, θ.
Spec. Gén. 5: 228. 1852.

IV. Ochoppee: April, CPK. VI. Homestead: April, CPK. Florida City: JGF. VIII. Key Largo: Jan., SVF; March, OB; May, (Weems), DPI. Tavernier: four Aug.-Oct., det. Franclemont, DPI, CPK. Plantation Key: Nov., DPI.

2625, 1 P. SP.
IV. Biscayne Bay: (Slosson), det. Smith as "Not of our fauna," AMNH. The specimen looks to me very much like *albiger* above.

NEPERIGECA McDunnough

2635. N. TAPETA (Smith)
Pl. XIII, Fig. 15, δ.

ELAPHRIA Hübner

2642 E. Fuscimacula (Grote)
PL XIII, Fig. 9, 5.
I. Warrington: WP. Quincy: not rare, Aug.-Nov. Not uncommon from Stember-Rockledge south, in all months, but no records between Quincy and Stember.

2643 E. Nucicolora (Guenée)
PL XIII, Fig. 10, 6.
Nucicolora is perhaps more common than the last species and ranges slightly farther north, to Weekiawachee Springs and Hastings, but again there is a gap until we get back to Quincy where it is frequent, March, June, August-December. There is one September record from Myrtle Grove, WJW. The paler form clara (Harvey) also occurs. This species is present throughout the year. IV. Bradenton: Jan., April-July, Sept., Oct., Dec. VI. Homestead: March, May-Nov., peak in Oct. Food: sugarcane, Ingram & Jaynes, 1938.

2644 E. Agrotina (Guenée)
PL XIII, Fig. 11, 6.
Spec. Gén. 5: 221. 1852.
Agrotina is probably quite common in Dade and Monroe Counties, but some of the records may be mixed among those for chalcedonia with which it might be confused. The records include all months except November. It has been taken on the Dry Tortugas. Outside of these two counties, there are only two locality records: IV. Bradenton: April, Dec., CPK. Archbold Biological Station: Dec., PSU. VI. Homestead: April-Oct., very abundant May-July 1958, scarce throughout 1959.

2645 E. Versicolor (Grote)
PL XIII, Fig. 12, 6.

2646 E. Chalcedonia (Hübner)
PL XIII, Fig. 13, 6.
Samml. eur. Schmett.; Fig. 404. 1808.
Chalcedonia is common all over the state the entire year. I. Quincy: June-Nov., but not common. IV. Bradenton: Jan., March, April, Aug., Sept. VI. Homestead: April-June, Aug.-Oct., peaks in May, June, and Oct.

2647 E. Festivoideos (Guenée)
PL XIII, Fig. 14, 6.
Spec. Gén. 5: 220. 1852.
The form varia (Walker) and the ab. albocaria-gata (Strand), along with intergrades, are also present. I. Escambia Co.: March, SMH. Quincy: March, April, Oct., Nov., CPK. II. Old Town: March, CPK. Lake Geneva: March, HEW. III. Cassadaga: March, SVF. Weekiawachee Springs: March, Aug., CPK. Stember: June, July, HEW. IV. Archbold Biological Station: Jan., March, Nov., PSU. Vero Beach: April, DPI. Punta Gorda: Feb., March, CPK, AKW. VI. Homestead: Jan., DPI; May-Oct., CPK. Florida City: June, HEW.

2647, 1 E. Georgei Moore & Rawson
This is another surprising record, the species being distinctly northern. I. Escambia Co.: March 25, 1962, SMH. II. Boulogne: April 1, 1936, JGF.

2648 E. Exesa (Guenée)
PL XIII, Fig. 16, 6.
Spec. Gén. 5: 222. 1852.

2650 E. Grata Hübner
PL XIII, Fig. 17, 6.
Zutr. exot. Schmett.; Pl. 16, Figs. 71, 72. 1827.
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ANORTHODES Smith

2651 A. TARDA (Guénon)
Pl. XIII, Fig. 18, δ. Spec. Gén. 5: 243. 1852.

GONODES Hampson

2665 G. LIQUIDA (Moeschler)
Pl. XIII, Fig. 19, δ. Abhandl. Senck. Naturf. 14: 48. 1886.

CALCULA Guénon

2666 G. PARTITA Guénon
Pl. IV, Fig. 10, δ; Fig. 11, φ. Spec. Gén. 6: 239. 1852.
Partita is common throughout the state, showing the full range of color variation from the light, liver colored males to the dark red, almost black, females. It is present every month. I. Quincy: Feb.-Dec. IV. Bradenton: Jan.-May, Aug.-Oct. VI. Homestead: Jan.-Nov., always common, but with high peak in May.

MICRATHETIS Hampson

2667 M. TRIPLEX (Walker)
Pl. XIII, Fig. 20, δ. List Lep. Ins. Br. Mus. 11: 721. 1837.
Listed by Grossbeck (1917, p. 54), as Caradrina spilomela (Walker). Outside of Dade and Monroe Counties (including the Dry Tortugas), in both of which it is common and taken in every month, the only records are: IV. Port Sewall: Jan., Feb., (Sanford), AMNH. Siesta Key: rare, May, June, Nov., CPK. It is quite variable and all the named forms, plus intergrades, occur.

BALSA Walker

2669 B. MALANA (Fitch)
1st & 2nd Rept. Insects N. Y., p. 244; Pl. 3, Fig. 5. 1856.

I. Quincy: June 30, 1958, April 2, 1959, (Tappan), DPI. Food: apple.

2671 B. LABECULA (Grote)
I. Escambia Co.: April 6, 1962, SMH.

PRODENIA Guénon

2677 P. DOLICHOS (Fabricius)
Ent. Syst. 3(2): 95. 1794.
Dolichos is quite common, probably throughout the state, certainly throughout the year. A general feeder; strawberry plants, Coop. Econ. Ins. Rept. 4: 100; sweet potatoes, Ins. Pest Surv. Bull. 5: 193.

2677, 1 P. PULCHELLA (Herrich-Schaeffer)

2678 P. ORNITHOGALLI Guénon
Yellow-striped armyworm, cotton cutworm.
Pl. IV, Fig. 18, δ. Spec. Gén. 5: 163. 1852.

2680 P. LATIFASCIA Walker
Pl. IV, Fig. 17, φ; Fig. 19, δ. List Lep. Ins. Br. Mus. 9: 195. 1856.
Although not recorded in Florida until 1922, Mason (1922, p. 48), it is now common from Pensacola to the Dry Tortugas, and is on the wing all year. I. Quincy: Feb., Aug.-Dec., not common. IV. Bradenton: Jan., March, Dec. VI. Homestead: March-Nov., high peak in May, smaller one in Oct. Food: citrus; grapefruit, Mason; Plumbago capensis, CPK.

2681 P. ERIDANIA (Cramer)
Southern armyworm. Pl. IV, Fig. 15, δ. Pap. Exot. 4: 133; Pl. 358, Figs. É, F. 1782.
Common from Escambia County south, especially in the Bradenton area, probably all year. I. Quincy: July-Dec., infrequent. IV. Bradenton:
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Jan., Feb., April, May, Aug.-Nov. VI. Homestead: Feb.-Nov., small peak in May building up to a mammoth one in September. It is very variable and occurs in several forms. Food: celery, Stoner & Wisecup (1930, p. 844); sweet potatoes, Coop. Econ. Ins. Rept. 4: 515, 793; tomatoes, ibid., p. 969; grass, Watson (1931, p. 45); corn, ibid., p. 59; castor bean, Watson (1919c).

2681. 1 P. SUNIA (Gueneé)
Pl. IV. Fig. 16, k.
Spec. Gém. 5: 149. 1852.

LAPHYGMA Gueneé

2682. 1 A. FRUGIPERDA (Abbot & Smith)
Fall armyworm. Pl. XIII, Fig. 21, k; Fig. 22, o.
Lep. Ins. Ga. 2: 191; Pl. 96. 1797.

Frugiperda is common throughout and probably the year. I. Quincy: Feb., April-Dec., peak in Sept. IV. Bradenton: Feb., April, June-Nov. VI. Homestead: May-Nov., common July-Oct., the peak in Sept. The larvae are most destructive during July and August according to Watson (1931, p. 55). Food: beans, ibid., p. 26; onions, ibid., p. 76; sweet potatoes, ibid., p. 94; sugarcane, Ingram & Jaynes (1938); pasture grass, Coop. Econ. Ins. Rept. 2: 305; crabgrass, ibid. 3: 583; cotton, ibid., p. 635; corn, ibid. 4: 7; Zoysta sp., DPI; Acalypha sp., Ins. Pest Surv. Bull. 9: 4. In Georgia it has been reported on peanuts.

SPODOPTERA Gueneé

2683. 3 S. EXIGUA (Hübner)
Asparagus fern caterpillar. Pl. IV, Fig. 14, o.
Samml. eur. Schmett. Notc. Fig. 362. 1808.

MAGUSA Walker

2684. 1 M. ORBIFERA (Walker)
Pl. XIII, Fig. 23, k.
The forms of this species overlap so much that I would not attempt to say which ones are found in Florida—probably all, with perhaps a few that are not named. I. Quincy: one Sept., CPK. IV. Vero Beach: April, CPK. Port Sewall: Jan., AMNH. Siesta Key: Jan., Feb., CNC, CPK. Palm Beach: Dyar (1901a, p. 458). Biscayne Bay: (Slosson), Grsb. 57. South Miami: May, OB. VI. Homestead: July-Oct., CPK. VIII. Tavernier: July-Oct., DPI, including over 1000 specimens taken in one night in late August. Craig: Jan.-March, DPI. Windley Key: Jan., July, Aug., CPK. Key West: July, DPI. Food: Karwinskia; Krugiodendron ferre [Condallia ferre], Dyar.

COSMIA Ochsenheimer

2687. C. CALAMI (Harvey)
Can. Ent. 8: 54. 1876.
I. Escambia Co.: May 10, 1961, det. Francheumont, SMH.

ATETHMIA Hübner

2688. A. SUBUSTA Hübner
Pl. XIII, Fig. 24, o.
Samml. exot. Schmett. 2: 8; Figs. 205, 206. 1818.
Subusta is fairly common throughout the entire state, flying all year. I. Quincy: three only, Sept.-Nov., CPK. IV. Bradenton: July-April. VI. Homestead: Feb.-Nov., peak, May-July, tapering off slowly. Besides the typical form, it occurs as the dark insta Gueneé and incidunt (Walker) which has a single large reniform dot instead of two small dots.

2689. A. RECTIFASCIA (Grote)
There is some question about the determination of this species. It does not look quite like typical specimens, and Francheumont thinks it may possibly be a distinct species. II. Gainesville: Jan. 5, 1922, UM; Oct. 5, 1938, UFES. III. Cassadaga: Oct. 22, 1962, SVF. IV. Bradenton:
Nov. 1955, (Kelsheimer), CPK. Food: *Hibiscus*, *Malvaviscus*.

[2690, 1 A.] SP.

I. Escambia Co.: Aug. 21, 1961, det. Todd as a new species in this genus or *Elydra* Walker, SMH; Sept. 16, 1962, (Hills), CPK.

**AMOLITA** Grote

2694 A. FESSA Grote


2695 A. OBLIQUA Smith

Pl. IV, Fig. 20, δ; Fig. 21, θ.

Trans. Amer. Ent. Soc. 29: 222. 1903.


2695, 1 A. SENTALIS (Kaye)


There is a difference of opinion as to whether this and *obliqua* are synonymous, Hampson (1901a, p. 309) maintaining that they are, Draudt that they are not. The latter (in Seitz, 1923, p. 320) said that *sentalis* is only half the size of *obliqua* and that there is a slight difference in the maculation. Whatever the merits for or against the separation, there is one Florida specimen which fits this description for *sentalis*, to wit: III. St. Petersburg: March 13, 1914, AMNH. It should be noted that Grossbeck (1917, p. 66) listed several records for *sentalis* but none for *obliqua*. I am loath to believe that they were anything but *obliqua* and have included them in the records for that species. I also assume that Hampson’s records refer to *obliqua*.

2696 A. ROSEOLLA Smith

Pl. IV, Fig. 22, θ; Fig. 23, θ.


**CILLA** Grote

2699 [C.] DISTEMA Grote

N. Amer. Ent. 1: 99. 1880.

Richards (1942, p. 8) transferred this to the genus *Gabra*, q.v.

**SENTA** Stephens

2700 S. ENERVATA (Guenée)

Spec. Gén. 5: 105. 1852.

Florida: five, (Doubleday), BM.

**ARZAMA** Walker

A difficult genus, the species all being very similar in appearance.

2703 A. OBLIQUA (Walker)

Pl. IV, Fig. 13, δ.

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2704 A. [BREHMELI] Barnes & McDunnough
Pl. IV, Fig. 24, 9; Fig. 25, 9.
Contrib. 3: 168. 1918.
IV. Oneo: two March, JGF. Archbold Biological Station: Feb. 27, 1955, (Remington), YU. All determined as "probably this." Food: Typha angustifolia.

2705 A. DENSA Walker
Pl. IV, Fig. 12, 9.

2707 A. ANOA (Dyar)
II. Fernandina: three April 21-24, OB. III. Cassadaga: March 7, 1961, SVF. IV. Bradenton: March 5, 1955, (Kelsheimer), det. Franclemont, CPK. Archbold Biological Station: Jan., March, Sept., Dec., YU; Jan, Feb., April, FSU. Miami: type, 1901, (Hegen & Hendrickson), USNM. VI. Florida City: JGF; April 1, OB.

BELLURA Walker

2708 B. GORTYNOIDES Walker;
2709 B. MELANOPYGA (Grote)
Pl. IV, Fig. 28, 9.

PHRAGMATOPHILA Hampson

2710 P. INTERROGANs (Walker)
The habitat of the type is unknown. Franclemont has one specimen from Alabama. The determination was made by him on comparison with a photograph of the type. I. Escambia Co.: April 6, 1962, SMH.

ACHATODES Guenée

2711 A. ZEAJE Harris
Elder shoot borer. Pl. XIII, Fig. 25, 9.
I. Escambia Co.: May, SMH. Quincy: June, CPK. II. Gainesville: May, DPI. Jacksonville: April, HEW. III. Oviedo: April, DPI. Tildenville: March, DPI. IV. Bradenton: April, CPK. Oneo: April, JGF; May, CPK. Fort Myers: AMNH. Miami: Feb., DPI. VI. Florida City: April, May, JGF. Food: boring in elder shoots, occasionally in corn.

RHODOECIA Hampson

2716 R. AURANTIAGO (Guenée)
Pl. XIII, Fig. 29, 9.
Spec. Gén. 5: 394. 1852.

DERRIMA Walker

2719 D. STELLATA Walker
Pl. XIII, Fig. 26, 9.
Florida specimens are typical stellata. I. Escambia Co.: May, SMH. Warrington: May, VFG.

CATABENA Walker

2740 C. VITRINA (Walker)
Todd has found two species, this and ditissa below. It is presently impossible to sort the records as some of the material has been discarded. IV. Siesta Key: March 22, 1953, det. Franclemont, May 15, 1957; May 8, 1959; May 5, 1960; CPK. VIII. Key Largo: twelve May, DPI; Sept.-Dec., DPI, CPK. Windley Key: one Dec.-Feb., CPK.

2740, 1 C. DIVISA (Herrich-Schaeffer)
See comment under vitrina above.

2741 C. ESULA (Druce)

[2741, 1 C.] SP.
Franclemont has not had an opportunity to verify the genus, but believes it may not belong here. III. Lutz: four March 2-April 5, 1918, (Friday), LACM.

OXCYNEMIS Grote

2752 O. GRACILLIMA (Grote)
An essentially western species, perhaps an accidental visitor. IV. Loxahatchee: one Oct 26-29, 1934, (Hubbell), det. Forbes, UM.

OGDOCONTA Butler

2773 O. CINEREOLA (Guenée)
Pl. XIII, Fig. 27, 9. Spec. Gén. 6:816. 1852.

2777 O. TACNA (Barnes)
While this is distinguished from cinerea primarily by being dark grayish brown rather than reddish brown and by lacking the pink subterminal space of the latter, the lines are sufficiently distinct so that it should not be easily confused with that species, even though specimens of the latter in Florida are often darker than northern examples. Florida: July 14, CNC. III. Cassadaga: Aug. 4, 1962, SVF.

STIBADIUM Grote

2779 S. SPUMOSUM Grote
I. Quincy: May 3 and 26, 1961, May 13, 1963, (Tappan), CPK.

PLAGIOMIMICUS Grote

2789 P. PITYOCHROMUS Grote

POLENTA Morrison

2799, 1 P. RICHII Grote
Whether this is synonymous with P. tepperi Morrison as it is listed by McDunnough (1938, p. 100), I am not sure. Certainly in the West there are two species with similar but uniformly distinct maculation. Be that as it may, Grote listed Florida among other localities in the original description of richii.

STIRIA Grote

2808 S. RUGIFRONS Grote

BASILODES Gueneé

2810 B. PEPTA Gueneé
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Florida: (Snow), Grsb. 63. III. Cassadaga: Oct. 29, 1959, SVF. Food: Verbesina.

CIRRHOPLANUS Grote

2813 C. TRIANGULIFER Grote

STIRIODES Hampson

2832 S. OBTUSA (Herrich-Schaeffer)
Pl. XIII, Fig. 28, δ.
Samml. aussereur. Schmett, p. 68; Fig. 210. 1853.
I. Escambia Co.: April, SMH. Quincy: May, July, Aug., CFK. Monticello: June, Oct., CFK. II. Alachua Co.: Aug. DPI. Gainesville: June, DPI; June, July, CU. III. Cassadaga: April-June, SVF. Sanford: April, DPI. New Smyrna: (Slosson), Grsb. 63. Weekiwachee Springs: April, May, DPI. IV. Bradforden: May, ABB, CFK. Oneco: March, JGF; April-June, CFK. Archbold Biological Station: March, PSU; June, AKW. Siesta Key: March, April, CFK. Fort Myers: AMNH. LaBelle: April, SIM. Biscayne Bay: (Slosson), Grsb. 69. VI. Florida City: May, June, OB. Paradise Key: March, FMJ.

2835, 1 [S.] SP.
Unlike anything in the USNM collection. It probably does not belong in this genus, though superficially it looks like obtusa above. I. Escambia Co.: Sept. 4, 1962, SMH.

PSEUDACONTIA Smith

2854 P. LOUISA Smith
Ann. N. Y. Acad. Sci. 18: 120. 1903.
I. Warrington: May 5, 1961, det. Forbes, VFG.

EUTHISANOTIA Hübner

Much confusion has arisen over these two species because the illustrations of them in Holland (1903; Pl. 17, Figs. 23, 24) are reversed.

2858 E. GRATA (Fabricius)
Beautiful wood nymph. Pl. XIII, Fig. 30, δ.
Ent. Syst. iii, p. 457. 1793.

2860 E. UNIO Hübner
Pearly wood nymph. Pl. XIII, Fig. 31, δ.
Zutr. exot. Schmett. 3: 12; Figs. 839, 840. 1825.
Unto is fairly common throughout the peninsula and western counties, but there are no records from the Keys. It flies all year. I. Quincy: April, July, Aug. IV. Bradenton: May, Sept., Nov. VI. Homestead: May, June, Oct., plentiful in May only. Food: Epilobium, Oenothera, Lythrum.

CAULARIS Walker

2860, 1 C. LUNATA Hampson
VIII. Stock Island: a short series, June 20, 1962, (Buchanan), DPI, CFK. Forbes determines this as an unrecognized race of lunata which was described from the Bahamas.

PSYCHOMORPHA Harris

2864 P. EPIMENIS (Drury)
Pl. XIII, Fig. 32, δ.
III. Exot. Ent. 3: 40; Pl. 29, Fig. 2. 1780.
I. Monticello: det. Franclemont, CU. As the specimen for the Charlotte Harbor record (Slossen), Grsb. 63, is not in the American Museum of Natural History collection, I do not know which species or form this represented, though presumably it would have been epimenis since Crossbeck listed both. Food: grape.

2865 P. EURYRHODA Hampson
Franclemont believes this is merely a form or race of epimenis. Superficially, the only difference is that in eurypoda the red area of the hind wing is more extensive. Florida: (Doubleday), BM. II. Gainesville: Feb. 2, 1938, (Murrell), DPI; Feb., (Fattig, Watson), UFES; Feb., April, (Harris), EU. III. Marion Co.: Feb. 6, 1957, (Weems), DPI. IV. Punta Gorda: March, April, AKW.

ACHERDOA Walker

2866 A. FERRARIA Walker
Pl. IV, Fig. 27, δ.
Florida: type, (Doubleday), BM. I. Escambia Co.: May, Aug., SMH. West Pensacola: July, VFG. Liberty Co.: March, UM. II. Gainesville: Feb., July, Nov., DPI; April, UFA. We-
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MEROPLEON Dyar

2867 M. COSMIAN Dyar
Pl. XIV, Fig. 1, ②.

Subfamily HELIOTHINAE

Mr. Rowland R. McElvare has kindly examined the records in this subfamily and supplied various notes and comments. I am also indebted to him for many determinations.

HELIOPHANA Grote

2895 H. BINA (Guenée)

2897 H. MITIS (Grote)
Pl. IV, Fig. 41, ②.
II. Alachua Co.: June, DPI. Gainesville: March, UFES; May, DPI, CPK. Waldo: March, OB, CU, April, RRM. Orange Park: April, (King), CPK. III. Ocala: April, RRM. Cassadaga: abundant, late March to early May, on false sunflower bloom, SVF. Orange Co.: March, DPI. Orlando: March, OB, April, USNM. 10 miles east of Orlando: seven on flowers of Pyrrhopappus carolinianus, WMD, CPK.

MELICLEPTRIA Hübner

2902 M. SCISSA (Grote)
I. Apalachicola: type, Grote.

MELAPORPHYRIA Grote

2916 M. IMMORTUA Grote
Pl. XIII, Fig. 33, ②.
III. Orlando: June 14-16, 1927, at light, (McBrade), CU.

EUPANYCHIS Grote

2925 E. SPINOSAE (Guenée)
Pl. XIII, Fig. 34, ②.
IV. Archbold Biological Station: Nov. 8, 1958, (Frost), det. McElvare, PSU.

2926 E. SCISSOIDES Benjamin
Pl. IV, Fig. 44, ②.

HELIOTHIS Ochsenheimer

2927 H. LUPATA Grote
Pl. IV, Fig. 43, ②.
Can. Ent. 7: 224. 1875.

2928 H. TURBATA (Walker)
Apparently a lost species. Dyar (1902, p. 235) listed it as a Poaphila. Forbes wrote that Grote thought it a Perigea and that Hampson omitted it altogether. It was described from East Flor-
ida, being one of Doubleday's specimens. Mc-
Dunnough (1938, p. 104) made albidentina
(Walker) a synonym. This was a female, also a
Doubleday specimen described from East Flor-
da. What is needed is more material to straight-
then out the situation, to find out whether there
are two species, two forms, or sexual dimorph-
ism.

2929 H. PARADOXA (Grote)
Pl. XIII, Fig. 35, ♀.
I. Escambia Co.: Sept., SMH. II. Jacksonville:
(Slosson), Smith (1882, p. 220). III. Cassadaga:
including form hyperfusca Strand, Feb., April,
May, SVF. Weekiawachee Springs: hyperfusca,
March, det. McElvare, CPK. Stemper: Sept.,
AKW. Lutz: Sept., Oct., HEW; Oct., CNC.
IV. Siesta Key: hyperfusca, March 2, 1952, det.
McElvare, CPK. Coconut Grove: hyperfusca,
USNM.

2932 H. ZEA (Boddie)
Bollworm, corn earworm, tomato fruitworm.
Pl. XIII, Fig. 58, ♀.
Southern Cultivator 8: 132. 1850.
Zeä is more familiarly, but incorrectly, known
as armigera Hübner or obsolata (Fabricius),
the former name being applicable to an Old World
species as pointed out by Common (1953, p. 321);
the latter name is a primary homonym of Bom-
byx obsolata Fabricius (1775, p. 579), an Australi-
an lymnanthid. For the application of the name
presently used see Todd (1955, pp. 600, 602-603).
Zeä is common throughout, probably the year
round. Food: many kinds of plants; cotton,
corn, tomatoes, beggarweed, Watson (1938, p.
50); beans, ibid., p. 31; okra, ibid., p. 73; roselle,
ibid., p. 83; peas, ibid., p. 79; peppers, ibid.,
p. 80; snap beans Coop. Econ. Ins. Rept. 2: 321;
sorghum, ibid., 3: 605; gladiolus stems, Coop.
Ins. Pest Surv. 21: 29; citrus, hibiscus, DPI.

2933 H. VIRESCENS (Fabricius)
Tobacco budworm. Pl. XIII, Fig. 37, ♂.
Vireshape occurs throughout the state, probably
all the year. Food: Rhezia (?), Solanum, Physa-
lis; tobacco (Coop. Econ. Ins. Rept. 3: 351).
The larvae infesting roses in the Boynton Beach
area, May 1963, (Wolfenbarger), STES.

2934 H. SUBILEX (Guenée)
Pl. XIII, Fig. 88, ♂.
Distinguished from vireshape by the pure white
hind wings. Some of the records for the latter
undoubtedly belong here. I. Escambia Co.:
June, SMH. Quincy: Sept., Oct., CPK. Quincy
is one locality where subilex is relatively com-
mon, but not nearly so common as vireshape.
II. Alachua Co.: April, CPK. Gainesville: April,
CNC; June, Aug., DPI. III. Sanford: Dec., DPI.
Stemper: July, HEW. Tampa: Oct., WRB. IV.
Archbold Biological Station: May, YU; July,
ABS. Siesta Key: June, CPK. The larvae infes-
ting roses in the Boynton Beach area, May 1963,
(Wolfenbarger), STES. Fort Lauderdale: July,
UM. VIII. Craig: Oct., CPK. Food: Rhezia
(?), Solanum nigrum, Physalis.

DASYSPUDEAEN Smith

2935 D. LUCENS (Morrison)
III. St. Petersburg: ab. luxuriosus (Grote), May,
USNM. Tampa: April 17-22, 1950, DPI.

RHODOPHORA Guenée

2940 R. GAURAE (Abbot & Smith)
Clouded crimson. Pl. IV, Fig. 45, ♀.
I. Escambia Co.: Sept., SMH. Myrtle Grove:
Oct., WJW. Monticello: June, Sept., DPI. II.
Alachua Co.: May, Sept., DPI. Gainesville:
June, CPK. Fernandina: Aug., CNC; Aug,
Sept., HEW; Sept., JGF. III. Cassadaga: June,
SVF. Orlando: May, WMD. Elfers: April,
CNC. Crystal Beach: May, CNC. St. Peters-
burg: June, OB. Temple Terrace: July, WRB.
IV. Sarasota: May, July, CPK. Myakka State
Park: June, CPK. Siesta Key: April, CPK.
Lee Co.: March, RRM. La Belle: April, AMNH.
Coral Gables: June, DPI. Coconut Grove:
March, USNM; MCZ. VI. Homestead: July,
Aug., CPK. Florida City: May, JGF; May, July,
HEW. Food: Gaura biennis.

2941 R. FLORIDA Guenée
I. Escambia Co.: Sept. 6, 1901, SMH.

RHODODIPSA Grote

2948, 1 R. FULLERI McElvare
Pl. IV, Fig. 46, ♂.
III. Cassadaga: Sept. 10, 1955, Oct. 4 and 6,
1961, SVF; Oct. 28, 1954, (Fuller), CPK. St.
Petersburg: two, USNM. IV. Two miles east
of Lake Jocassee: four at blossoms of Actinospa-
rum angustifolium, Nov. 3 and 4, 1960, RRM.
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Archbold Biological Station: six at blossoms of A. angustifolium, Oct. 3-9, 1960, one at light, (Pease), YU; one Nov. 1958, one Nov. 4, 1959, at light, (Frost), PSU; eleven Oct. 13-15, 1961, RRM.

PIPPONA Grote

2954 P. CAROLINENSIS (Barnes & McDunnough)
Pl. IV, Fig. 42, 9.
J. N. Y. Ent. Soc. 19: 152. 1911.
II. Gainesville: Sept. 3, 1956, (Denmark), det. McElvare, DPI. III. St. Petersburg: one female, (Pasch), CU; two, USNM.

SCHINIA Hübner

2963 S. GRACILENTA Hübner
Zutr. exot. Schmett. 1: 8, Figs. 5, 6. 1818.

2965 S. IMPERSICUA (Strecker)
Pl. XIII, Fig. 39, 9.
I. Escambia Co.: Sept. 27 and 28, 1961, det. McElvare, SMH, USNM. Quincey: two Sept. 21, 1960, (Tappan), CPK.

2966 S. TRIFASICA Hübner
Pl. XIII, Fig. 40, 9.
Zutr. exot. Schmett. 1, p. 11; Figs. 33, 34. 1818.

2977 S. ESPEA Smith
V. Marco: type, Sept., AMNH. The type locality was given erroneously in both the original description and by Grossbeck (1917, p. 62) as "Misco." The type is apparently the only specimen known.

2990 S. NUNDINA (Drury)
Pl. XIII, Fig. 41, 9.
III. Exot. Ent. 1: 35; Pl. 18, Fig. 5. 1770.

2991 S. AREFACTA (Henry Edwards)
Pl. IV, Fig. 5, 6.
Papilio 4: 123. 1894.

3003 S. GLORIOSEA (Strecker)
Pl. IV, Fig. 47, 6.

3004 S. SANGUINEA (Geyer)
Zutr. exot. Schmett. 4: 9; Figs. 613, 614. 1832.
This has been taken a number of times between Jacksonville and Miami, Sept.-Nov., OB, WRB, CNC, CMNH, CPK, CWK, CM, RRM, USNM, CU, AKW, HEW. The type of carmosina Neumogen, from Central Florida, was in the Neumogen collection, Ottolengui (1897, p. 240). It was described by Neumogen (1893, p. 142).

3005 S. SATURATA (Grote)
Pl. XIII, Fig. 42, 9.
Saturata is probably the commonest Schinia in Florida despite the paucity of records which only cover from Escambia County and Fernandina to Lee County, July-November. It is a variable species.

3006 S. THOREAU (Grote & Robinson)
3007 S. MARGINATA (Haworth)
Pl. XIII, Fig. 43, 9.

3009 S. NUBILIA (Streecker)

3014 S. JAGUARINA (Guenée)
III. Cassadaga: June, SVF. St. Petersburg: USNM. Fort Meade: USNM.

3016 S. LYNX (Guenée)

3017 S. OBSCURATA Streecker

3018 S. ARCIGERA (Guenée)
Pl. XIII, Fig. 44, 9.

3020 S. PARMELIANA (Henry Edwards)
Papilio 2: 14. 1882.

3024 S. LABE Streecker
III. Cassadaga: Sept. 16, 1962, det. McElvare, SVF.

3030 S. SEPTENTRIONALIS (Walker)
Pl. XIII, Fig. 45, 9.
This has usually been known as S. brevis (Grote). The synonymy was pointed out by Banks (1952, p. 28). Florida: USNM. I. Escambia Co.: Oct. 19, 1961, SMH. III. Winter Park: Sept. 1, 1942, (Fernald), DPI. Food: Aster novaeangliae.

3031 S. SORDIDA Smith
Pl. XIII, Fig. 46, 9.

3032 S. PETULANS (Henry Edwards)
Papilio 4: 123. 1884.

3033 S. AR Streecker
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Sept. 13, 1958, (Denmark), det. McElvare, DPI, CPK. Gainesville: Sept., USNM.

3035 S. MESKEANA (Grote)
Pl. IV, Fig. 50, 9.
Can. Ent. 7: 224. 1875.
See note under Helio phana bina (Guenée). Florida: Smith (1832, p. 235). III. St. Petersburg: two, (Pasch), CU.

3036 S. RUFIMEDIA (Grote)

3037 S. SIREN (Strecker)
Pl. IV, Fig. 48, 9.

3038 S. TUBERCULUM (Hübner)
Pl. IV, Fig. 49, 9.
Zutr. exot. Schmett. 3: 29; Figs. 517, 518. 1837.

3038 S. SP.
I. Escambia Co.: Sept. 23, 1962, det. McElvare as "near tuberculum. It does not appear to be any of the described heliothids," SMH.

3039 S. ROSEITINCTA (Harvey)

Subfamily ACONTINAE

EUBLEMMIA Hübner

3061 E. MINIMA (Guenée)
Pl. XIV, Fig. 23, 9.
This occurs in several forms, which probably include carmelita (Morrison) and pallida (Schaus). I. Escambia Co.: one Feb., SMH. Quincy: two June, Oct., CPK. It is common from Gainesville-Hastings south, and has been taken in every month. Food: flower heads of Gnaphalium obtusifolium [G. polycephalum], and Anaphalis; Pterocaulon undulatum, JGF, flower heads of Pulchra odorata, (Stegmaier), DPI.

3062 E. CINNAMOMEA (Herrick-Schaeffer)
Pl. XIV, Fig. 5, 9.
This and the next species, obliqualis (Fabricius), are very much alike. Grossbeck (1817, p. 88) quoting McDunnough, says, "Close to obliqualis but with the median line much less oblique." Some of the records for the latter may belong here. III. Cassadaga: Sept. SVF. IV. Archbold Biological Station: Jan., Dec., YU. Siesta Key: Dec., CPK. V. Everglades: (McDunnough), USNM. VI. Florida City: Jan., March-May, July, Oct., OB; April, AMNH; May, AKW. VIII. Tavernier: Oct., CPK. Plantation Key: Nov., CPK.

3063 E. OBLIQUALIS (Fabricius)
Pl. XIV, Fig. 6, 9.
Ent. Syst. 3: 2, p. 224. 1794.
I. Escambia Co.: one Sept., SMH. Quincy: two Oct., fourteen Nov., CPK. Obliqualis is quite common from Weekiawachee Springs and Orange County south, and has been recorded from the Dry Tortugas. It is variable, including at least the forms patula Morrison and brunneochraces Strand. It flies September-June.

PROROBLEMMMA Hampson

3064 P. TESTA Barnes & McDunnough
Contrib. 2: 168. 1913.
Because this and the next five species in the list are all very small, especially the next five, they are undoubtedly overlooked by most collectors who mistake them for microlep idoptera. III. DeLand: March, AKW. Cassadaga: Feb., Sept., SVF. IV. Oneco: March, April, JGF; Aug., Oct., CPK. Punta Gorda: March, April, Dec., AKW; Dec., OB. V. Everglades: type, April, Barnes & McDunnough. VI. Paradise Key: March, CU. VIII. Tavernier: Sept., CPK.
ACIDALIODES Hampson

3065 A. EOIDES Barnes & McDunnough
Pl. XIV, Fig. 3, 9.  Contrib. 2: 186.  1913.
This species has a buff ground color; that of Sigela penumbra Hustl is dark grayish, and that of S. basipunctaria Walker is pinkish. III. Cassadaga: June, SVF. Stemper: Barnes & McDunnough (1914b, p. 28). IV. Bradenton: March, April, July, Oct., Nov., CPK. Oneco: March, April, JGF; May, CPK. Siesta Key: not rare, Nov.-May, CPK; Nov., Dec., CNC. Punta Gorda: April, AKW. V. Everglades: type, Barnes & McDunnough. VI. Homestead: March, CPK.

ARAOPTERA Hampson

3066, 1 A. SP.
The specimens have been determined by Todd as agreeing with Hampson's section I of the genus, which contains but a single species, from Jamaica. Since all other species of the genus treated by Hampson are Asiatic, it is possible that our species and that from Jamaica belong to a separate genus, distinct from Aaraoptera. IV. Vero Beach: Oct., (Malloch), USNM. Oneco: May 28, 1954, (Dillman), CPK.

3066, 2 A. VILHELMINA Dyar
All det. Todd. IV. Archbold Biological Station: Jan. 27, 1961, (Frost), FSU. Punta Gorda: March, April, (Ramstedt), USNM. VI. Paradise Key: Jan. 27, 1930, (Jones), USNM.

SICELLA Hustl

3067 S. PENUMBRATA Hustl

3068 S. BASIPUNCTARIA (Walker)

3068, 1 S. SP.
I. Escambia Co.: two July 14, 1961, det. Todd as probably a new species in this genus or one close to it, SMH.

PHOBOLOSIA Dyar

3070 P. ANFRACIKA (Henry Edwards)
Papilio 1: 12.  1881.
Anfracta is a western species, which may not be an established part of our fauna. IV. Fort Lauderdale: March 27, 1928, (Bates), det. Forbes, UM.

3071 P. BRILLEYANA Dyar
Pl. XIV, Fig. 4, 9.  Ins. Insc. Mens. 2: 10.  1914.

3071, 1 P. SP.
This species is similar to brilleyana but considerably smaller. Buchholz had taken it in Screven County, Georgia. It is being described by Francemont. III. Cassadaga: Dec. 4, 1955, SVF. IV. Oneco: March 27, 1954, JGF; three May, June, (Dillman), CPK.

ORUZA Walker

3074 O. ALBOSOSTALIATA (Packard)
Pl. XIV, Fig. 8, 9.  Mono. Geom. Moths. p. 336.  1876.

COBUWATHIA Walker

3078, 1 C. OLIVACEA Grossbeck
III. Weekiawachee Springs: one female Feb. 24, 1955, (J. F. May), det. Todd, CPK. V. Marco:
type, April 17, AMNH. VI. Homestead: May 8, 1959, (Wolfenbarger), CPK. VIII. Windley Key: one male April 30-May 4, 1955, (J. N. Todd), det. E. L. Todd by genitalia dissection (slide No. 513 ELT), USNM, compared with drawing of genitalia of the type in AMNH supplied by Knidge.

3078 C. SP.
III. St. Petersburg; USNM. Todd thinks this is possibly *metaspiralis*, (Walker), but as the abdomen is missing no definitive determination can be made. VIII. Tavernier: Nov. 29, 1955, (J. N. Todd), det. E. L. Todd as near *metaspiralis*, CPK.

3079 C. FLAVOFASCIATA (Grote) Can. Ent. 9: 70. 1877.
I. Escambia Co.: Aug. 18, 1961, SMH. Myrtle Grove: July 17, 1962, WJW.
3079, 1 C. NUMA (Drume) Biol. Cent. Amer. Nat. 1: 312. 1881.
IV. South Bay: May 1, AMNH; May 2, (Davis), SIM. VIII. Tavernier: Sept.-Nov., DPI, CPK. Islamorada: April 24, 1933, CPK.

There is a complex of species involved, and there may be more than one in Florida. Todd is making a study of the genus which should eventually clear up the situation. I. Escambia Co.: July 3 and 24, 1961, SMH. III. Volusia Co.: Aug. 2, 1956, (Denmark), DPI. Enterprise: (Slosson), Grsb. 69. DeLand: April, AKW. Cassadaga: Apr., June, Aug., SVF. Weekiawachee Springs: May 1955, (May), CPK. IV. Bradenton: Aug., CPK. Oneco: May 19, 1953, (Dillman), det. Franclemont, CPK. Archbold Biological Station: March, FSU. Fort Lauderdale: July 19, 1953, (Bates), UM. VI. Homestead: April, May, CPK.

3086 O. AERIA Grote Papilio 1: 11. 1888.
I. Escambia Co.: two July 14, three Aug. 8-14, Oct. 10, 1961, SMH.

3087 O. NEBULA Barnes & McDunnough Pl. XIV, Fig. 7, 8. Contrib. 4: 111; Pl. 18, Fig. 5. 1918.

3098 C. NANA Hübner Pl. XIV, Fig. 9, 9. Zttr. exot. Schmett. 1, 14; Figs. 53, 54. 1827.
Two species have been confused under this name in collections. This is the smaller and apparently the commoner, occurring throughout the northern two-thirds of the state. The only certain records are those from Oneco, Siesta Key, and Weekiawachee Springs: the other records will belong here for the most part, but they should all be reviewed in the light of the current understanding of the genus. I. Escambia Co.: April, SMH. DeFuniak Springs: March, DPI. III. Enterprise: Hampson (1910b, p. 550). DeLand: March, AKW. Cassadaga: April, May, SVF. Weekiawachee Springs: common, March, April, Aug., CPK. Orange Co.: Aug., DPI. Winter Park: May, AMNH. Orlando: March, OB. Tampa: Hampson. IV. Oneco: March, April, JGF; April-July, Oct., CPK. Archbold Biological Station: March, FSU. Siesta Key: May, CPK. Punta Gorda: April, OB, AMNH; April-June, AKW.

3098, 1 C. SP. Slightly larger than *nana*, and apparently occurring with it. The following records are sure but as noted above some of those given under *nana* may easily belong here. I. Myrtle Grove: Aug., WJW. III. Weekiawachee Springs: April-June, Aug., CPK. IV. Oneco: March, JGF. Archbold Biological Station: May, CU; March, JGF, FSU, YU.

3099 C. PERVERTENS Barnes & McDunnough Contrib. 4: 113. 1918.
I. Escambia Co.: Aug. 8, 1961, det. Franclemont, SMH.

PROTOCRYPHIA Barnes & McDunnough

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EXYRA Grote

3107 E. FAX (Grote)
Jones said that this is merely the dark, southern female form of rolandiana Grote, to which this record properly should be transferred. Florida: larvae in Sarracenia flava, (Glover), Grote.

3108 E. RIDINGSI (Riley)

3109 E. SEMICROCEA (Guenée)
Pl. XIV, Fig. 10, ∞.
Jones stated that this is found in Florida in the three forms, typical semicrcea, hubbardiana Dyar, and immaculata Benjamin, also that its food plant is Sarracenia minor. The species should be found wherever this occurs, which means about halfway down the peninsula. Actual records are few. I. Warrington: hubbardiana, May 11, 1962, VFG. Myrtle Grove: April 3, 1963, WJW. DeFuniak Springs: Hubbard (1896b, p. 314); April, FMJ. II. Trenton: May, UFES. III. Cassadaga: July, Aug., SVF. Orlando: April, DPI. IV. Highland Hammock State Park: Feb., YU.

XANTHOPTERA Guenée

3113 X. NIGROFIMPRIA Guenée
Nigrofimbria is common from Escambia County to Paradise Key and probably in all parts of the state, March-November. Food: Digiaria ischaenum [Syntherisma impomoea].

3113, 1 X. SP.
This is apparently a new species, close to aurifera Walker. Because it can be confused easily with nigrofimbria, many records may be lost amongst those for the latter. The only sure ones are: IV. Bradenton: May, June, CPK. Oneco: April, JGF; May-Aug., CPK. Sarasota: May, (King), CPK. Siesta Key: May, CPK.

CYDOSIA Westwood

3114 C. NOBILITELLA (Cramer)
Pl. IV, Fig. 28, ∞.
In this species the reniform is divided vertically only, and the hind wings of the male are white.

VIII. Key Largo: ten March 15, 1946, OB; June, Oct. 18, 1955, (Weems), DPI; July 15, 1956, GWK. Islamorada: two Nov. 27, 1955, (Denmark), DPI. Tavernier: Aug., Sept., (J. N. Todd), CPK; two Nov. 27, 1955, (Denmark), DPI. Craig: Aug., (J. N. Todd), CPK. Key Vaca: March 26, 1957, SVF. Big Pine Key: one April 1-5, 1951, (Sanford), AMNH.

3114, 1 C. PHAEDRA Druce
In addition to vertical division, the outer half of the reniform is divided horizontally, and the hind wings of the male are black. VIII. Key West: USNM.

3115 C. auricotta Grote & Robinson
IV. Miami: Aug. 5, 1912, CMNH. Welling reports that the specimen is labeled imitella Stretch, but that it looks more like auricotta. However, Francesmont thinks the locality is deliberately open to question. Since the collector is unknown, the record should not be considered conclusive.

3116 C. majuscula (Henry Edwards)
Papilio 1: 80. 1881.
This species has been reported erroneously probably more often than any other from Florida. All the records which have been found have proven to be the yponomeutid Urodus parcula (Henry Edwards), q.v., from which it is separated by the bluish rather than black forewings and the less translucent hind wings. In the female the tip of the abdomen of majuscula is orange, in parcula, black. It is very doubtful that the species occurs in Florida.

LITHACODIA Hübner

3117 L. BELLICULA Hübner
Pl. XIV, Fig. 11, 9.
Zuttr. exot. Schmett. 18; Figs. 85, 86. 1818.
Florida: (Slosson), Grsb. 67. IV. Port Sewall: three Feb. 19-March 18, (Sanford), AMNH. Archbold Biological Station: Feb. 3, March 2, 1962, (Frost), FSU.

3118 L. MUSCOSULA (Guenée)
I. Escambia Co.: April 23, July 5, 1961, SMH.

3123 L. MUSTA (Grote & Robinson)
I. Escambia Co.: May 24, 1961, SMH.
3124 L. CARNEOLA (Gueneé)
Spec. Gén. 6: 228. 1852.
Forbes (1854, p. 277), wrote: "The Gueneé specimens labelled 'Florida' doubtless came from what is now southern Georgia." He said that he based his conclusion on the assumption that they were from Abbot. I. Escambia Co.: Aug. 18, 1961, SMH. Quincy: Aug. 23, 1960, (Tappan), CPK.

3125 L. INDETERMINATA Barnes & McDunnough
Constr. 4: 114. 1918.

3125, 1 L. SP.
I. Escambia Co.: May 13, July 5, 1961, det. Todd as probably a new species, SMH. Hills saw others.

NEOERASTRIA McDunnough

3126 N. APICOSA (Haworth)
Pl. XIV, Fig. 12, d.
Apicosa is relatively common through the peninsula, but there are no records from west of Quincy nor the Keys. It has been taken in every month except December. I. Quincy: June-Oct., but never common. IV. Bradenton: March-Aug., Oct., VI. Homestead: April-Oct., small peak in Aug. Food: Polygonum.

3127 N. CADUCA (Grote)
Pl. XIV, Fig. 13, d.
Can. Ent. 8: 207. 1876.

CHAMYRIS Gueneé

3131 C. CERINTHA (Treitschke)
Pl. XIV, Fig. 14, d.

DIASTEMA Gueneé

3134 D. TIGRIS Gueneé
Pl. V, Fig. 10, q.

AMYNA Gueneé

3135 A. BULLULA (Grote)
Pl. XIV., Fig. 15, d.
Records for bullula may have been missed because of its close resemblance in the female to octo below. The secondary of bullula has a distinct median line, whereas the secondary of octo is unmarked. Male bullula has a prominent fovea. In both species the reniform may be either white or concolorous. I. Escambia Co: Nov. 29, 1962, SMH. Quincy: Nov. 17, 1961, (Tappan), CPK. III. Central Florida: Nov. 1957, WMD. Winter Park: Oct. 12, 1942, (Fernald), DPI. IV. Loxahatchee: Oct. 29-30, 1934, UM. South Miami: typical, Oct. 28, OB. VI. Florida City: form concolorata Barnes & Benjamin, Oct. 29, OB.

3136 A. OCTO (Gueneé)
Pl. XIV, Fig. 16, q.

HELIOCONTIA Hampson

3141 H. APICELLA (Grote)
Pl. IV, Fig. 29, d; Fig. 35, q.
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3142 H. MARGANA (Fabricius)
Pl. IV, Fig. 30, 8; Fig. 38, 2.
Ent. Syst. 3, 2, p. 257. 1794.

3142.1 H. PERSTRUCTANA (Walker)
Pl. IV, Fig. 31, 8; Fig. 37, 2.

SPRAGUEIA Grote

3144 S. GUTTATA Grote
Pl. IV, Fig. 32, 8.
Can. Ent. 7: 225. 1875.
I. West Pensacola: May 14, 1961, VFG. Quincy: July 7, 1961, (Tappan), DPI.

3147 S. ONAGRUS (Guenée)
Pl. IV, Fig. 33, 2.
As onagrus is quite common from Pensacola to Florida City, it is doubtless to be found throughout the state. It flies March-November. Food: chinquapin, Dozier (1920, p. 877), field corn, (Tissot), UFES acc. No. 9831.

3148 S. LEO (Guenée)
Pl. IV, Fig. 39, 2.
Because Holland's figure (1903; Pl. 29, Fig. 27), which is actually of leo, is labeled onagrus, some of the onagrus records may belong here. Florida: Hampson (1910b, p. 672). I. Myrtle Grove:


3149 S. DAMA (Guenée)
Pl. IV, Fig. 34, 8; Fig. 40, 2.

3150 S. JAGUARALIS Hampson

PONOMETIA Herrich-Schaeffer

3152 P. COSTALIS (Walker)
I. Myrtle Grove: July 21, 1962, WJW.

3159 P. INDUBITANS (Walker)
I. Escambia Co.: Sept. 9, 1962, SMH.

FRUVA Grote

3161 F. FASCIATELLA (Grote)
Pl. IV, Fig. 38, 8.
Can. Ent. 7: 225. 1875.

TARACHIDIA Hampson

3167 T. PARVULA (Walker)
I. Escambia Co.: April, SMH. Myrtle Grove: April, WJW. III. DeLand: March, AKW. Weekiawachee Springs: March, CPK. IV. Bradenton: March, CPK. Oneoco: one April, JGF. Archbold Biological Station: March, YU. Sara-
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sota: May 20, 1951, (King), CPK. Siesta Key: May 12, 1946, CPK. Fort Myers: (McDunnough), AMNH.

3172 T. EUSTROPIODES (Guenée)
Spec. Gén. 6: 218. 1852.

3176 T. CANDEFACTA (Hübner)
Pl. XIV, Fig. 17, ?, Zutр. exot. Schmett. 3: 89; Figs. 587, 588. 1827.
Candefacta is common, probably all over the state, and present from January to November. I. Quincy: May-Aug., uncommon. IV. Bradenton: Feb., April, June, Aug., Sept. VI. Homestead: April-Aug., Oct., Nov., peak in May falling off in June. Also taken on the Dry Tortugas. The gray form deblis (Walker) is equally common. Food: Ambrosia artemisiifolia [elator].

3180 T. TENUESCENS (Smith)
J. N. Y. Ent. Soc. 10: 53. 1902.
II. St. Johns Co.: Sept., DPI, CPK. III. Flagler Beach: May, AMNH. IV. Port Sewall: Jan., AMNH. Lake Worth: type, AMNH. Miami: Nov., AMNH.

3185 T. SEMIFLAVA (Guenée)
Pl. XIV, Fig. 18, ?. Spec. Gén. 6: 241. 1852.

ACONTIA Ochsenheimer

3197 A. TETRAGONA Walker
IV. Biscayne Bay: (Slosson), Grsb. 70. VI. Homestead: May, CPK. VIII. Key Largo: April, SVF. May, DPI. Tavernier: June, Aug., Sept., CPK. Big Pine Key: five April 4-9, (Sanford), AMNH.

3203 A. APRICA (Hübner)
Pl. XIV, Fig. 19, ?. Samml. eur. Schmett. Noct.; Fig. 371. 1802.
Florida: (Slosson), Grsb. 70; CU. I. Warring-
ton: occasional, VFG, WP. Quincy: May-Sept., CPK. Monticello: March, April, June, CPK. II. Gainesville: March, UM; April, CPK; June, DPI, July, UFES. III. Cassadaga: May, June, SVF. IV. Coral Gables: June, DPI. VII. Flamingo: form ceyvestensis Dyar, May 7, 1903, ENP. VIII. Tavernier: ceyvestensis, Sept., CPK. Windley Key: Sept. 19-23, 1955, (J. N. Todd), CPK. Key West: type of ceyvestensis, five, Dyar (1904b, p. 63). Loggerhead Key, Dry Tortugas: ceyvestensis, June 5, 1962, (Mead and Weems), CPK.

3210 A. TERMINIMACULA (Grote)
Pl. XIV, Fig. 20, ?. Bull. Buffalo Soc. Nat. Sci. 1: 153. 1873.
Terminimacula is probably general but not common. The records are mostly from the southern part of the state and include February through September.

3213 A. DELECTA Walker
Florida: Smith (1893, p. 301).

Subfamily EUTELINIINAE

EUTELIA Hübner

3220 E. PULCHERRIMA (Grote)
Pl. XIV, Fig. 21, ?. Proc. Ent. Soc. Phila. 4: 326. 1865.
A rare moth. Florida: (Slosson), Grsb. 65. I. Escambia Co.: April 2, May 17, 1961, SMH. Pensacola: one early summer 1959, three April 20-25, 1963, VFG. Warrington: April 28, 1961, VFG. The food is thought to be Toxicodendron vernix [Rhus vernix].

3231 A E. PYRASTIS Hampson
Although pyrastis was described from the Bahamas, there is a distinct possibility that it is the same as furcata (Walker) from San Domingo, redescribed as disticta (Walker) from Haiti, and again as nattereri (Drue) from Mexico. Genitalic studies are needed. Florida: USNM. III. Stetem: May 14, USNM. IV. Miami: (Schaus), Hampson, USNM. VI. Homestead: April 15, 1958, (Baranowski), CPK. VIII. Key Largo: May 2, 1957, (Weems), DPI. Stock Island: four May 12, 1962, (Buchanan), DPI, CPK.

MARATHYSSA Walker

3232 M. BASALIS Walker
Pl. XIV, Fig. 22, ?. List Lep. Ins. Br. Mus. 34: 1034. 1865.
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Food: Rhus.

3223 M. INFICITA (Walker)
Pl. XIV, Fig. 23, δ.

PAECTES Hübner

Florida records for this genus have been in a state of great confusion, due primarily to the similarity of most of the species and to the fact that some are subject to a certain degree of variation. Thanks to the efforts of Dr. Franeclmont, I believe we have arrived at a fair understanding of those species which are present and of those which have been erroneously credited to the state.

3225 P. OCUULATRIX (Guénée)
Pl. XIV, Fig. 24, δ.
Spec. Gén. 6: 313. 1852.

3227 P. BURSERAE (Dyar)
Pl. XIV, Fig. 25, δ.
Hampson (1912, p. 140) made this a synonym of lunodes (Guénée), but Franeclmont says it is distinct. I. Escambia Co.: June, VFG. IV. Oneco: May, CPK. Port Sewall: Jan., AMNH. Siesta Key: Nov.-April, CPK. Palm Beach: type, larva on Burera simaruba [gummiifera], Dyar. VI. Florida City: April, June-Oct., OB; June, AMNH; July, Sept., AKW. Paradise Key: Jan., March, FMJ. VIII. Tavernier: Aug., DPI.

[3227, 1 P. devinceta (Walker)]
This was listed by Grossbeck (1917, p. 65), but Franeclmont says the record belongs under nubifera Hampson, q. v.

3228 P. PYGMAEA Hübner
Zutr. exot. Schmett. 21; Figs. 109, 110. 1827.
Franeclmont makes flabella of authors, not Grote, a synonym of this. This fact is mentioned because some of the records were submitted under the latter name. I. Escambia Co.: April, SMH. Quincy: May, CPK. III. DeLand: March, AKW. IV. Siesta Key: Feb., CPK. Lake Worth: Grsb. 65. Biscayne Bay: (Slossen), Grsb. 65. South Florida: Forsyth sale list. Food: Liquidambar.

3230 P. ABROSTOLOIDES (Guénée)
Pl. XIV, Fig. 26, δ.

[3231, 1 P. lunodes (Guénée)]
Spec. Gén. 6: 310. 1852.
Lunodes was reported by Grossbeck (1917, p. 65) but since the larva was on Burera simaruba [gummiifera], the record presumably belongs to P. burserae, whether it has been transferred.

3233 P. ACUTANGULA Hampson
VI. Homestead: June 25, 1959, (Wolfenbarger), CPK. Florida City: ten April 27-Aug, 14, OB; May, AKW; three June, Sept., Nov., JGF; July, AEB.
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3332, 1 P. ARCIGERA (Guenée)
Spec. Gén. 6: 312. 1852.
III. Central Florida: June, July, WMD. IV. Archbold Biological Station: Jan., PSU. Siesta Key: Jan.-April, JGF. CPK. Matheson Hammock: April, JGF. VI. Florida City: June-Aug., OB.

3332, 2 P. OBROTUNDA (Guenée)
Spec. Gén. 6: 312. 1852.

3333 P. [NUBIFERA] Hampson
Pl. XIV, Fig. 27, 5.

There is a very good possibility that this name does not apply and that what we have in Florida is unnamed. II. Gainesville: March, CPK; Aug., DPI. III. Cassadaga: Sept., Dec., SVF. Winter Park: July, AMNH. Orlando: April, AEB. Oldsmar: Aug., WRB. St. Petersburg: Aug., OB; Aug., Sept, AEB, AKW; Sept, as distincta (Walker), (Marllo), Grsh. 65. Tampa: June, OB. St. Petersburg: March, AKW. IV. Bradenton: Oct., CPK. Okeechobee: JGF. Lake Placid: Nov., CPK. Archbold Biological Station: March, PSU; April, YU. Siesta Key: April, May, CPK. Punta Gorda: Dec., AKW. Miami: Oct., OB. VI. Florida City: June, July, OB. VIII. Tavernier: Oct., CPK.

Subfamily SARROTHRIPINAE
CHARACOMA Walker

3334 C. PROTEella (Walsh)
in Dyar, J. N. Y. Ent. Soc. 6: 40. 1898.
Proteella is probably more common than the infrequent records would indicate for because of its small size it might be overlooked easily. It occurs as typical proteella, as nigrinacuta Warren, nigrinacuta Warren, and probably in other forms. I. Escambia Co.: June, SMH. Quincy: July, Sept., CPK. II. Weekiawachee Springs: March, June, (May), CPK. IV. Bradenton: March, (Kelsheimer), CPK. Sarasota: July, (King), CPK. Siesta Key: March, CPK. VI. Homestead: Feb., April-Nov., CPK. Paradise Key: FMI. VIII. Tavernier: Sept., DPI. Craig: May-Sept., DPI, CPK. Key West: May, July, DPI. Dry Tortugas: May, June, DPI.

COMACHARA Franclemont
3334, 1 C. CADBURYI Franclemont
I. Escambia Co.: Feb., April, SMH. Myrtle Grove: April 4, 1963, WJW. II. Boulogne: two April 1, 1936, JGF.

SARROTHRIPUS Curtis
3335 S. FRIGIDANA (Walker)
Pl. XIV, Fig. 28, 9.
I. Escambia Co.: Jan., Feb., SMH. Quincy: March 24 and 27, 1961, (Tappan), CPK.

CASANDRIA Walker
3336 C. ABSEUZALIS (Walker)
Pl. XIV, Fig. 29, 9.
Abseuzalis is relatively common from Tampa on the west and Indian River on the east, south through the Keys. The records cover the year. VI. Homestead: Feb.-Nov., peak in July.

3337 C. FILIFERA (Walker)
Pl. XIV, Fig. 30, 9.

BAILEYA Grote
3338 B. DOUBLEDAYI (Guenée)
Spec. Gén. 5: 15. 1852.
I. Escambia Co.: one March, April 9, July 4, 1961, SMH.

3339 B. OPHTHALMICA (Guenée)
Spec. Gén. 5: 15. 1852.
I. Escambia Co.: one March, April 9, 1961, SMH.

3340 B. AUSTRALIS (Grote)
Florida: Holland (1903, p. 162). I. West Pensacola: July 6, 1961, VFG.
3242. B. LEVITANS (Smith)
I. Escambia Co.: July 1, 1962, SMH. Myrtle
Grove: May 22, 1963, WJW. Quincy: May 3,
1962, (Tappan), CPK. This last is a poor speci-
mens which Franclemont determines as probably
levitans.

Subfamily PLUSINAE

ANACRAPH A McDunnough

3252. A. FALCIFERA (Kirby)
Celery looper. Pl. XIV, Fig. 32, 3.
Faun. Bor. Amer. 4: 308. 1837.
The distribution of this is probably general, but
it is certainly common in the celery sections
where it does much damage. Reports of its ac-
and 259: 17. It also feeds on low plants.

AUTOPLUSIA McDunnough

3267. A. EGANA (Guenee)
Bean leaf skeletonizer. Pl. XIV, Fig. 33, 3.
I. Warrington: May, VFG. Quincy: Nov., CPK.
III. Cassadaga: July, SVF. Orlando: June, CNC.
July, WBR. Indian River: Grote (1888a, p. 26).
IV. Bradenton: March, Sept., Oct., CPK. Oneco:
June, CPK. Vero Beach: Dec., WBR. Port
Sewall: March, AMNH. Siesta Key: Feb., CPK.
Belle Glade: Genung has kindly supplied data
on the occurrence of the larvae at Belle Glade.
May and June 1957: serious infestation on snap
beans during May. 1958: late April to mid-June,
serious infestation on snap beans during May,
with a single larva on soy beans in July. 1959:
late April to early June, again with a serious in-
festation on snap beans during May. Miami:
Jan., WBR. VI. Homestead: March, May, CPK.
Florida City: April, SVF; May, JGF, AKW,
HEW; "5. 11", CNC.

3267.1. [A.] ILLUSTRATA (Guenee)
Pl. XIV, Fig. 34, 3.
The placement of illustrata in this genus is pure-
ly tentative and is in no way established. I in-
terpulate it here simply because it has always
been listed next to egana. This species, though
still rare, is apparently established. III. Cassa-
daga: one March, Nov. 8, 1962, SVF. St. Peters-
burg: Nov., AKW. IV. Bradenton: one each
month, March, Aug., Sept., Oct., Nov. (Kelshe-
mer), CPK. Oneco: four May, June, Aug., Oct.,
(Dillman), JGF, CPK. Vero Beach: one April,
(Wagner), CPK. Siesta Key: rare, Jan.-April,
Nov., CPK. Casey Key: Jan. 30, 1963, (Tappan),
DPI. VI. Homestead: March, Oct. (Wolfen-
barger), CPK.

TRICHOPLUSIA McDunnough

3269. T. NI BRASSICAE (Ridley)
Cabbage looper. Pl. XIV, Fig. 37, 3.
Rept. Ins. Mo. 2: 110. 1870.
Throughout the state, including the Dry Tortu-
gas, probably all year. I. Quincy: Feb., May-
July, Sept., Nov., with peak at end of July. IV.
Bradenton: Jan., Aug., Oct. VI. Homestead:
March-Oct., common in May only. Food: low
plants, but especially the cabbage family to
which it is often injurious. In the latter con-
nection, see the following: Fla. Agr. Exp. Sta. 
Bull.: 134: 62; 151: 136, 176; and 232: 57. Other
food plant records: collards, Coop. Econ. Ins.
Rept. 4: 83; tobacco, ibid. 3: 397; Bibb lettuce,
CPK; Spathophyllum, DPI.

3276. T. ABROTA (Druce)
67). The specimen is in AMNH collection.

3277. T. OXYGRAMMA (Geyer)
Pl. XIV, Fig. 38, 3.
Zutr. exot. Schmett. 4; Figs. 769, 770. 1832.
I. Escambia Co.: July, SMH. Lake Stanley:
Oct., AMNH. Warrington: one, summer, VFG.
Quincy: July-Oct., CPK. Monticello: Aug., DFI.
II. South Florida: SVF, AMNH. Palatka: Sept., 
DFI. III. Cassadaga: Aug., Nov., SVF. Weeki
wachee Springs: April, CPK. Orange Co.: Aug.,
Nov., WMD. Some of Davidson's specimens are
distinctly brownish. Orlando: June, CNC; July,
WBR. IV. Oneco: May, June, CPK. Siesta
Key: June, CPK. VI. Homestead: June-Oct.,
CPK. Florida City: May, Aug., Nov., OB; May,
Nov., Dec., JGF; July, WBR. Food: aster, Sol-
dago.

ARGYROGRAMMA Hübner

3288. A. VERRUCA (Fabricius)
Pl. XIV, Fig. 35, 3.
Ent. Syst. 5, 2, p. 81. 1794.
Verruca is probably state-wide, the records run-
ning from Escambia County to Florida City. It
has been taken in every month. I. Quincy: July-
Oct., no peak. IV. Bradenton: Aug., Sept. VI.
Dodzi (1920, p. 577) found it abundant at cat-
nip blooms. Food: Sagittaria; field corn, UFES
acc. No. 9331; Calendula, CPK.
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3270 A. BASIGERA (Walker)
Pl. XIV, Fig. 31, δ.
This likewise is probably found throughout the state, down to Florida City and is taken in every month but December.

PSEUDOPLUSIA McDunnough

3280 P. INCLUDENS (Walker)
Pl. XIV, Fig. 39, φ.

Includens is better known as oo (Cramer). Like the last two, this is doubtless general. The form oonana (Strand) also occurs. The dates include January through November. Food: low plants; Irish potato foliage, DPI.

RACHIPLUSIA Hampson

3289 R. OU (Guenée)
Pl. XIV, Fig. 40, δ.

Ou is taken also as forms pedalis (Grote) and ouana (Strand). In this case the records do cover the state and every month. Food: field corn, UFES acc. No. 9331; and weed, UFES, acc. No. 10769, Cestrum diurnum leaves, (Nakahara), DPI.

AUTOGRAPHA Hübner

3279 A. BILOBA (Stephens)
Pl. XIV, Fig. 36, φ.


[3290 A. pasiphaea (Grote)]
The record is unquestionably an error, possibly for egena, abrota, or illustrata. The specimen should be re-determined. III. Rockledge: (Hill), NYSM.

PLUSIA Ochsenheimer

3295 P. aereoides Grote
In the original description cited above, Grote says: "I believe to cite here M. Guenee's 'A', which that entomologist refers to as a variety of P. aerea on account of an intermediate individual which he has seen from Florida." Inasmuch as Forbes (1954, p. 307) stated that he had not seen aereoides from the southeast, the species cannot be accepted in the Florida list merely on the basis of Grote's guess. Since aerea does have a pale form, even paler than aereoides, a much more likely guess would seem to place Guenee's "A" with that species.

3296 P. AEREA (Hübner)
Samml. eur. Schmett. Noct.; Fig. 271. 1802.
Florida: Grote (1863, p. 83). To which we should perhaps add Guenee's "A" mentioned above. I. West Pensacola: July 15, 1951, VFG. Quincy: June 16, 1963, Sept. 21, 1966, (Teppan), AMNH, CPK.

3297 P. BALLUCA Geyer
Zutr. exot. Schmett.; Fig. 681. 1835.
I. Old Camp Torreya: May 30, 1924, (Hubbell), UM. Because this is so far from its known range, the southern limit of which Forbes (1954, p. 308) gave as Long Island, I asked Dr. Hubbell to verify the determination and received his reply that there was no doubt of its being correct. He added the information that the food plants listed by Forbes, aspen and hops, were not present in the general locality of capture.

MOURALIA Walker

3310 M. TINCTORIDES (Guenée)
Pl. XIV, Fig. 41, φ.

Subfamily CATOCALINAE

CATOCALA Schrank

I am indebted to Dr. A. E. Brower for looking over the subject matter on this genus, and for
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supplying a good deal of data as well as comments. Among the latter, he observes that food plant records for *Catocala* are to be looked upon with caution. Fuller points out that the food plant of the oak feeders will invariably be a deciduous oak, with the exception of *micronymphla*, and he questions even this, though Koebele's record seems positive.

3311 C. INNUBENS Guenée
Pl. X, Fig. 5, δ.
Spec. Gén. 7: 98. 1852.

III. St. Petersburg; USNM. Lakeland; Sept. 15, 1941, AKW. Food: *Gleditsia*, probably other legumes.

3312 C. PIATRIX Grote


3313 C. CONSORS (Abbot & Smith)
Pl. X, Fig. 10, δ.
Lep. Ins. Ga. 2: 177; Pl. 89. 1797.


3314 C. EPIONE (Drury)
Pl. X, Fig. 13, δ.
III. Exot. Ent. 1: 47; Pl. 32, Fig. 2. 1773.


3315 C. MULIERCULA Guenée
Pl. X, Fig. 9, δ.
Spec. Gén. 7: 97. 1852.

*Muliercula* is quite common April-July, but mostly in May. It has been taken only three times below the Oneco-Lakeland-Georgiana line, namely: IV. Archbold Biological Station: May 24, 1960, ABS. Fort Lauderdale: May 1922; May 24, 1925, UM. Food: *Myrica*.

3318 C. badia Grote & Robinson

Forbes (1954, p. 322) mentioned a specimen labeled Stemper, but added that it was "probably mislabelled." This is presumably the specimen in the Canadian National Collection. Food: *Myrica*.

3327 C. SAPPHO Strecker

*Sappho* is common, both the typical form and the form *cleis* Cassino, through the central part of the state but apparently is scarce north of Gainesville and south of Rye, there being only one record for Tallahassee and one for Miami. The dates cover April-July, but are mostly in May and June. There is one for January, but I suspect it refers to the larvae. Food: pecan; hickory, Watson (1919b, p. 10).

3328 C. AGrippina Strecker
Pl. X, Fig. 15, δ.


3330 C. ULALUMA Strecker


3332 C. INSOLABILIS Guenée
Spec. Gén. 7: 94. 1852.

Forbes (1954, p. 325), Brower strongly doubts the presence of *insolabilis* in Florida, or anywhere south of the Fall Line. Forbes' record was based on a specimen formerly in the Rutgers
collection, now in the American Museum of Natural History. The specimen bears a large handwritten label which reads, in addition to the species name, “12.6.1890 Florida.” There is always the very remote possibility that this actually meant Florida, N. Y., a small town in the lower Catskills. However, its presence is now established. I. West Pensacola: July 10, Aug. 10, 1962, VFG. Food: Hickory.

3333 C. VIDUA (Abbot & Smith)  
Pl. X, Fig. 16, δ.  
Lep. Ins. Ga. 2: 181; Pl. 91. 1797.


3334 C. MAESTOSA Hulst  
Pl. X, Fig. 16, δ.  
Bull. Brooklyn Ent. Soc. 7: 53. 1884.


3335 C. LACHRYMOSA Guenée  
Spec. Gén. 7: 93. 1852.


[3339 C. neogama (Abbot & Smith)]  
Pl. X, Fig. 14, δ.  

Neogama has not been recorded from Florida. It was illustrated here by mistake.

3342 C. ILIA (Cramer)  
Pl. X, Fig. 19, δ; Fig. 20, 9.  

Ilia is found sparingly in various forms from Warrington to La Belle, from March 31-July 7. Food: Oak.

3369, 1 C. SP.  
This is an unrecognized species, near functura Walker and texanae French. More material is needed. III. Cassadaga: May 12, 1950, SVF.

3372 C. CARA Guenée  
Pl. X, Fig. 21, δ.  
Spec. Gén. 7: 87. 1852.


3374 C. AMATRIX (Hübner)  
Samml. eur. Schmett.; Fig. 457. 1818.


3375 C. DELILAH Strecker  


3380 C. ABBREVIATELLA Grote  

III. Cassadaga: three at bait, May 1959, SVF.

3383 C. AMESTRIS Strecker  


3384 C. MESSALINA Guenée  

I. Pensacola: May 15, AEB.

3386 C. CRACILIS Edwards  
Pl. XIV, Fig. 42, δ.  


3387 C. ANDROMEDA (Guenée)  
Pl. XIV, Fig. 43, form tristis, 9.  
Spec. Gén. 7: 96. 1852.

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3339 C. COCCINATA Grote
Pl. X, Fig. 22, 9.

3395 C. ULTRONIA (Hübner)
Pl. X, Fig. 7, 9; Fig. 8, 9; Pl. XV, Fig. 1, form cella, 9.
Zutr. exot. Schmett. 26; Figs. 347, 348. 1823.
Though this is found in Florida primarily in the form cella Henry Edwards, Knudsen reports having taken it as typical ultronia and in several other forms at Tallahassee. It is not uncommon from Escambia County as far south as Punta Gorda, and has been taken March-June, and in October. Food: cherry; plum, UFES acc. No. 8148; wild cherry, Koebele (1878, p. 44).

3396 C. CRATAEGI Saunders
Pl. XV, Fig. 2, 9.
Can. Ent. 8: 72. 1876.
Florida: AMNH, USNM. Food: Crataegus.

3397 C. MIRA Grote
Pl. XV, Fig. 3, 9.
Can. Ent. 8: 230. 1876.

3398 C. GRYNEA (Cramer)
Pap. Exot. iii, p. 29; Pl. 208, Fig. H. 1782.
I. Quincy: four May 12-23, 1963, (Tappan), CPK. These are not dull green like northern specimens, but the lines and underside match. Forbes thinks they may represent a local race.

3399 C. PRAECLARA Grote & Robinson
South Florida: one male, June, AMNH. Brower writes: "Since this is the only record I have on the Atlantic Coast Plain south of Lakehurst, N. J., it may be incorrect." It needs confirmation. Confirmation for south Florida is still needed, but there are several valid records for north Florida. I. Escambia Co.: May 13-27, 1961, SMH, USNM. Food: thorn.

3403 C. ALABAMAE Grote

3406 C. CLINTONI Grote
Pl. X, Fig. 18, 9.

3407 C. SIMILIS Edwards
Pl. XV, Fig. 4, 9.

3408 C. MINUTA Edwards

3409 C. CRISATRA Brower
Florida: female paratype in Strecker collection, CNHM.

3410 C. MICRONYMPHA Guenée
Pl. X, Fig. 6, form hero, 9; Pl. XV, Fig. 5, 9; Fig. 6, form gisela, 9.
Spec. Gén. 7: 102. 1852.
Micronympha is quite common and present in many of its forms and intermediates. Recorded from Pensacola to Punta Gorda, April-June. Food: oak; live oak, Koebele (1879, p. 44).

3411 C. CONNUBIALIS Guenée
Pl. XV, Fig. 7, form cordeila, 9.
Spec. Gén. 7: 105. 1852.
Florida: type of cordeila Henry Edwards (1880,
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3412 C. AMICA (Hübner) Pl. XV, Fig. 8, $. Zutr. exot. Schmett. 14; Figs. 57, 58. 1818.

Amica occurs in several forms, including curvifascia, which was described from Florida, Brower (1936, p. 97). It is abundant from Escambia County to South Bay and La Belle, April-July. Food: burr oak.


Jaïr was described from the Indian River region where it was common in 1896 (Strecker). Otherwise it is far from common. III. Cassadaga: May, June, SVF. Enterprise: AMNH. Ocoee: Brower letter of Oct. 7, 1954. St. Petersburg: Brower. IV. Port Sewall: (Sanford), AMNH.

EUPARTHENOS Grote

3414 E. NUBILIS Hübner Samml. exot. Schmett., ii: 428; Fig. 3. 1816.

I. Warrington: WP. Food: Robinia.

ALLOTRIA Hübner

3415 A. ELONYMPHA (Hübner) Pl. XV, Fig. 9, $. Zutr. exot. Schmett. 1; Fig. 29. 1818.


OPHIDERES Boisduval

3416 O. MATERN A (Limaucus) Pl. X, Fig. 23, $. Syst. Nat. 2: 840. 1767.

Materna is a stray from the tropics. Florida: (Slosson), Ors. 77. I. Escambia Co.: seen but not taken, March 29, 1963, SMH. IV. Belle Glade: April 30, 1958, (Selner), DPI.

PARALLELIA Hübner

3420 P. SIMILIS (Guenée) Pl. XV, Fig. 11, form apiicalis, $. Spec. Gén. 7: 267. 1852.


3421 P. SMITHI (Guenée) Pl. XV, Fig. 10, $. Spec. Gén. 7: 266. 1852.

I. Escambia Co.: March, Aug., SMH. Quincy: June 12, 1956, (Tappan), DPI. IV. Punta Gorda: relatively common, Dec.-April, (Ramstedt), AEB, OB, CPK, CGM, AKW.

3422 P. BISTRIARIS Hübner Zutr. exot. Schmett. 1: 15; Figs. 63, 64. 1818.

I. Warrington: common, all summer, VFG, WP. II. Gainesville: June, UM. III. Cassadaga: June, SVF. Lakeland: (McDunnough), AMNH. IV. Bradenton: Feb., CPK. Oneco: April, JGF. June, (Dillman), CPK. Food: maple.

EUCLIDINA McDunnough

3426 E. CUSPIDEA (Hübner) Zutr. exot. Schmett. 1: 16; Figs. 67, 70. 1818.

It is strange that the only specimen of this essentially northern species should have been taken at the southern end of the state. VI. Florida City: April 22, 1941, (Forsyth), OB. Food: clover, grass.

CAENURGINA McDunnough

3431 C. ERECITEA (Cramer) Pap. Exot. 3: 149; Pl. 275, Fig. E. 1782.

II. Gainesville: UFES. III. Egmont Key: April 10, 1904, (Ramstedt?), UM. IV. Miami Beach: larva on Sera grass, det. tentative, Nov. 1, 1927, DPI.

CAENURGINA Walker

3432 C. CHLOROPHA (Hübner) Pl. V, Fig. 1, $. Zutr. exot. Schmett. 1: 16. 1818.

MOCIS Hübner

Because of the close similarity of the species in this genus, many of the records may be mixed. Except for the commonest, latipes and the rarest, texana, it is impossible to make determinations without comparison with named series, and it is more than likely that records for marcida and disseverans are mixed with those for latipes. All are variable.

3434 M. MARCIDA (Guenée)
Pl. V, Fig. 2, 6.
Marcida is probably common in the southern part of the state and probably on the wing every month. I. Escambia Co.: Feb., SMH. Quincy: March, May, Aug.-Oct., CPK.

3435 M. TEXANA (Morrison)
Pl. V, Fig. 3, 6.

3436 M. DISSEVERANS (Walker)
Pl. V, Fig. 4, 6.
I. Quincy: Sept. 9, 1960, (Tappan), CPK. Disseverans is probably common through the southern half of the state the year round, the records on hand covering only from Cassadaga to Florida City. Food: Gramineae, including sugarcane.

3438 M. LATIPES (Guenée)
Pl. V, Fig. 5, 6.
Latipes is abundant everywhere throughout the year. I. Quincy: July-Dec., peak in Oct. IV. Bradenton: Aug.-April. VI. Homestead: Jan., March-Nov., a small peak in May, another in July, rising through Oct., and then dropping abruptly. Much confusion has arisen because the species at one time went under the name Remigia repanda (Fabricius). In addition to the many color varieties, the aberration indentata (Haworth) is taken on occasion. Food: grass, rice, corn, broad beans, turnips; “very important on grasses during the fall,” Coop. Econ. Ins. Rept. 4: 967.

PTICHODIS Hübner

3499 P. VINCULUM (Guenée)
Pl. XV, Fig. 13, 6.
Spec. Gén. 7: 304. 1852.
Vinculum is relatively common, the other species of the genus being quite rare. It is found throughout the state in every month.

3440 P. LIMA (Guenée); 3441 P. HERBARUM (Guenée)
Pl. XV, Fig. 12, 6.

There is no difference of opinion at the present time as to the two names both applying to the same species, but there is one point of view which favors lima being a race of herbarum, whereas the other maintains it is merely a difference of sex. I. Escambia Co.: March, SMH. Warrington: occasional, summer, VFG. Florida Caverns State Park: April 14, 1960, (Denmark), DPI. Quincy: June, Sept., CPK. II. Gainesville: two Feb. 19-22, 1955, (Perry), CPK; March 9, 1927, (Bates), det. Franclemont, UFES; March 1955, (Hetrick), CPK. Fernandina: Sept. 3, OB. III. Weekiawachee Springs: May, CPK. Cassia: type of bifasciata, common. J. E. Bates (1886, p. 94). IV. Bradenton: Dec. 21, 1955, CPK. Food: Lespedeza.

3442 P. BISTRIGATA Hübner
Zutr. exot. Schmett. 1: 21; Figs. 111, 112. 1818.

3444 P. FLAVISTRIARIA (Hübner)
Zutr. exot. Schmett. 3: 85; Figs. 555, 556. 1825.
I. Escambia Co.: one March, Aug. 8, 1961, SMH. Apalachicola: type of glans, (Thaxter), Grote (1876, p. 415). Lake Miccosukee: Oct. 8, AMNH.

3446 P. BUCETUM (Grote)
Trans. Kansas Acad. Sci. 8: 50. 1883.
V. Chokoloskee: type of campanilis, (Frank), Smith (1905, p. 68), AMNH.

CELIPTERA Guenée

3447 C. FRUSTULUM Guenée
Pl. XV, Fig. 15, 6.
Spec. Gén. 7: 308. 1852.
I. Escambia Co.: Aug., SMH. Quincy: five June, Sept., Oct., CPK. II. Gainesville: July 2, 1924,
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(Walker), UM. III. Fellowship: July 29, 1960, (Adkins), DPI. IV. Archbold Biological Station: March, YU.

ARYGROSTROTIS Hübner

The determinations in this genus are very difficult.

3449 A. PACALIS (Walker)
Pl. XV, Fig. 14, 9.
Florida: type of irrorata (Grote), (1879b, p. 36).

3451 A. HERBICOLA (Guenée)
Spec. Gén. 7: 301. 1852.
Florida: (Slosson), Grsb. 76. I. Quincy: May 21, 1963, det. Forbes, CPK.

3452 A. SYLVARUM (Guenée)
Spec. Gén. 7: 300. 1852.

3453 A. ERAZA (Guenée)
Spec. Gén. 7: 301. 1852.

3454 A. CONTEMPTA (Guenée)

3455 A. DELETA (Guenée)
Spec. Gén. 7: 300. 1852.
I. Escambia Co.: May, SMH. Millview: March, April, VFG. Myrtle Grove: June, WJW. III. Tarpon Springs: April 14, 1904, (Ramstedt?), det. Dyar, UM. IV. Charlotte Harbor: (Slosson), Grsb. 78. Fort Myers: March 30, 1981, April 1, 2, 24, Grsb. 78. La Belle: April 27, Grsb. 76. South Bay: May 2, Grsb. 76. V. Marco: April 20, (Davis), SIM; AMNH.

3456 A. OBSOLETA (Grote)
Check List, p. 42. 1876.
Franclemont says that this is a form of quadri- filaris (Hübner), q.v. Between this form, which shows no transverse lines, and typical quadri- filaris, with the two distinct lines, there are intermediates with very faint lines.

3457 A. QUADRIFILARIS (Hübner)
Pl. XV, Fig. 16, 9.
Zutr. exot. Schmett. 8: 37; Figs. 569, 570. 1825.
This has been taken from Escambia County and Fernandina to Florida City. It is more common from Hillsborough County south, and more common on the west coast than on the east. The form obsOLEta occurs in about equal numbers with typical quadri- filaris, and in the same range, though the northern records for obsOLEta are Gainesville and Cassada. Quadri- filaris has been taken March-September; obsOLEta, January-May, July, August, October. Food: Gos- sypium.

3458 A. ANILIS (Drury)
Pl. XV, Fig. 17, 9.
III. Exot. Ént. 2: 21; Pl. 12, Fig. 3. 1773.

DORYODES Guenée

There is disagreement as to the number of species involved in this genus. The distinguishing characteristics for the separation of bistria and spadaria are given by McDonough (1918, pp. 117, 118). I have made no attempt to check on the determinations, having merely accepted the information as received.

3460 D. BISTRIALIS (Geyer)
Pl. XV, Fig. 19, 9; Fig. 20, 9.
Zutr. exot. Schmett. 4: 38; Figs. 775, 776. 1832.
The records as submitted suggest that this is relatively common south of the Wacassa River-Keystone Heights line, and taken in every
month. There is also a specimen: I. Escambia Co.: March, SMH—so perhaps it is common to the north as well. The food is given as *Spartina patens* [junccea].

3461 D. SPADARIA Guenée
Pl. XV, Fig. 18, 9. Spec. Gén. 10: 234. 1857.

The records for this cover from Fernandina to Florida City, though there are not so many of them as for *bistralis*. There are no records for October or December.

**CUTINA** Walker

Because Franclemont has found several new species in this genus, the records given under *albobunctella* and *distincta* may be misplaced in some instances.

3463 C. ALBOFUNCTELLA Walker
Pl. XV, Fig. 21, 9. List Lep. Ins. Br. Mus. 35: 1735. 1866.


3463, 1 C. SP.

Franclemont is describing this new species. I. Escambia Co.: May 24, Aug. 7 and 10, 1961, SMH. Monticello: April 5, 1917, (Hoffman), CU.

3464 C. DISTINCTA (Grote)
Pl. XV, Fig. 22, 9. Papilio 2: 184. 1882.


3464, 1 C. SP.

This is near *distincta* and is being described by Franclemont. III. Elfers: April 4-5, 1937, JGF. IV. Punta Gorda: March, June, (Ramstedt), JCF; eleven March 1-June 4, (Ramstedt), AKW.

3464, 2 C. SP.

This is also being described by Franclemont. II. Old Town: March 2, 1951, CPK. IV. Punta Gorda: March, May, (Ramstedt), JGF, AKW.

**FOCILLIDIA** Hampson

3465, 1 F. SP.

This appears on Mrs. Forsyth's sale list for "southern Florida," under the name *texana* Hampson, but Franclemont says that it is definitely not that species. He is of the opinion that the following are probably *F. grenadensis* Hampson, but more material will be needed to verify the belief. There is also a possibility that they might be *F. bipunctata* Walker. VIII. Ternier: five Aug. 18-Oct. 21, 1955, (J. N. Todd), JGF, CPK.

**SALFIA** Guenée

3466 S. AMELLA (Guenée)
Pl. XV, Fig. 23, 9. Spec. Gén. 7: 25. 1852.

*Amella* is common throughout the state. Although there are no records for July, September, and October, it is probably present all the year. The form *blatchleyi* Haimbach (1928, p. 231), described from Paradise Key, is occasionally taken.

**ZALE** Hübner

A very difficult genus, many of the determinations being incorrect without doubt.

3468 Z. EXHAUSTA (Guenée)
Pl. XV, Fig. 24, 9. Spec. Gén. 7: 14. 1852.


3469 Z. [VIRIDANS] (Guenée)

3470 Z. FICTILIS (Guenée)
Pl. XVI, Fig. 1, δ.
Spec. Gén. 7: 10. 1852.

3473 Z. sexplagiata (Walker)]
This is not found in the United States according to Franclemont. The Miami record, Grsb. 78, belongs under smithi Haimbach, q.v.

3474 Z. LUNATA (Drury)
Pl. XVI, Fig. 2, δ.
III. Exot. Ent. 1: 40; Pl. 20, Fig. 8. 1770.
Lunata is quite common, probably all through the state. It flies all year. A general feeder on trees and shrubs.

3475 Z. SMITHI Haimbach
Trans. Amer. Ent. Soc. 54: 221. 1928.
Except for Schaus’ Miami specimen listed Grsb. 79 under sexplagiata, this has been taken only in Paradise Key, where Jones found it common, having captured 23 specimens during January and February. Most of these were poor and discarded, in the belief that they were lunata, which smithi resembles. Jones’ specimens are in the following collections: OB, JGF, FMJ, CPK, USNM. Haimbach’s types were taken by Blatchley in mid-April in Paradise Key.

3477 Z. DECLARANS (Walker)
Pl. XVI, Fig. 8, δ; Fig. 4, δ.

3478 Z. GALBANATA (Morrison)
Pl. XVI, Fig. 12, δ.
I. Escambia Co.: March, VFG.

[3479 Z. edusina (Harvey)]
IV. Punta Gorda: Feb., Slosson (1890c, p. 101). There is a Slosson specimen in the American Museum of Natural History now placed under lunifera (Hübner) which quite possibly might have been the one recorded here. The probability becomes greater in view of the fact there is no Slosson record in Grossbeck (1917) for either lunifera or cingulifera (Walker), which Franclemont (1950, p. 153) made synonymous. I believe edusina has no place in the Florida list.

3480 Z. AERUGINOSA (Guenée)
Pl. XVI, Fig. 5, δ.

3481 Z. UNDULARIS (Drury)
Pl. XVI, Fig. 6, δ.
III. Exot. Ent. 1: 19; Pl. 9, Fig. 4. 1770.
Florida: (Slosson), Grsb. 78. I. Escambia Co.: March 4, 1961, VFG. III. Weekiawachee Springs: May 1955, (May), CPK. Food: black and honey locust.

3482 Z. CORACIAS (Guenée)
Pl. XVI, Fig. 7, aberrant δ.
There is a possibility that another, very closely related species is involved as some specimens differ slightly but uniformly in appearance. Coracias is fairly common and probably found throughout the state. It flies February-September and in December.

3484 Z. MINEREA (Guenée)
Spec. Gén. 7: 15. 1852.
3485 Z. LUNIFERA Hübner
Pl. XVI, Fig. 8, ?. Zutr. exot. Schmett. p. 19; Figs. 97, 98. 1818.
See note under edusa above and cingulifera below. I. Escambia Co.: Feb., March, SMH.

3487 Z. OBLIQUA Guenée
Pl. XVI, Fig. 9, ?. Spec. Gén. 7: 16. 1852.
McDunnough (1943b, p. 147) said: "Smith records 'N. Y. to Fla. and probably throughout the Atlantic Coast region to Canada and westward to the Mississippi'; but this needs checking: the Missouri record is referable to confusa McDunnough. I have only seen the species from the Lakehurst, N. J. region and from Mountain Lake, Va." Nevertheless, a specimen taken at Gainesville, April 8, 1947, by Weems, and now in the Florida State Collection of Arthropods, has been determined as obliqua by Franclemont, who has also taken the species in southwestern Alabama. Food: pine.

3487, 1 Z. CONFUSA McDunnough
Can. Ent. 72: 201. 1940.
III. Cassadaga: May 15, 1954, det. Franclemont, SVF.

3488 Z. SQUAMULARIS (Drury)
III. Exot. Ent. 1: 13; Pl. 9, Fig. 3. 1770.

[3489 Z. benestignata (Harvey)]
The two records given by Grossbeck (1917, p. 78): III. Indian River: Smith, (1908, p. 256) and IV. Punta Gorda: Slosson (1890, p. 101) are obviously incorrect on the basis of what McDunnough said (1934b, p. 150) namely: "Benestignata proves to be merely a form of duplicata with heavier and more decided maculation." He gives the range of the two as northern. What, therefore, these two specimens actually represent, must remain a mystery until they can be located and re-determined.

[3490 Z. duplicata (Bethune)]
Haimbach (1928, p. 229) wrote: "One specimen. 'From Mrs. A. T. Slosson, from Florida or N. H.' in Dr. Skinner's handwriting." In view of the doubt as to the locality and in view of what McDunnough said above of the range, this species can hardly be accepted as of our fauna.

3491 HELATA (Smith)
Pl. XVI, Fig. 10, ?. Proc. U. S. Natl. Mus. 35: 252. 1908.
I. Escambia Co.: March, 1961, SMH. Quincy: April 24, 1962 (Tappan), det. Franclemont, CPK.

3491, 1 Z. BUCHHOLZI McDunnough

3493 Z. METATA (Smith)
Pl. XVI, Fig. 11, ?. Proc. U. S. Natl. Mus. 35: 248. 1908.

3494 Z. CUREMA (Smith)

[3499 Z. cingulifera (Walker)]
As already noted, this was made a synonym of lunifera, q.v., by Franclemont (1950, p. 153). However, Forbes (1954, p. 355) retains the name to obviate confusion, and gives the range "to Florida." I suspect this was based on the only Florida record under this name, which was given in Smith (1908, p. 262).

3500 Z. CALYCANTHATA (Abbot & Smith)
Lep. Ins. Ga. 2: 207; Pl. 104. 1797.
II. Gainesville: Feb. 1956. (Hetrick), CPK. III. Indian River: AMNH. Forbes (1954, p. 355) said that the larva was figured by Abbot on Calycanthus (probably in error). It has been reared from larvae on oak.

3501 Z. HORDIDA Hübner
Pl. XVI, Figs. 13, 14, ?. Zutr. exot. Schmett. 1, 11; Figs. 31, 32. 1818.
Most Florida specimens are typical horrida,
which is quite brownish, not black like the majority of northern specimens. I. Escambia Co.: March, SMH. Warrington: WP. Quincy: Aug., CPK. II. Gainesville: Feb., DFI. May, OB. East Gainesville: Sept., AMNH. III. Orlando: April, OB. St. Petersburg: OB. IV. Oconee: April, JGF; June, CPK. Archbold Biological Station: Jan., YU. Siesta Key: Feb., CPK. Punta Gorda: Jan., March-May, AKW; March, May, OB; April, CPK.

Subfamily EREBIINAE

COXINA Guenée

3502 C. CINCTIPALPIS (Smith)
Pl. XVI, Fig. 15, 8.

ZALEOPS Hampson

[3503 Z. umbrina (Grote)]
Can. Ent. 15: 3. 1883.
This name appeared on Mrs. Forsyth’s sale list, but Francelmont informs me that specimens received from under this name were Zale coractas, and that he doubts the presence of the species in Florida. It is entered here in case others have been misled by the initial misdetermination.

MATIGRAMMA Grote

3506 M. PULVERILINEA Grote
II. Gainesville: July 6, 1942, UFES.

HETERANASSA Smith

3510 H. MIMA (Harvey)
Can. Ent. 8: 155. 1876.
Florida: AMNH.

COENIPETA Hübner

3513 C. BIBITRIX (Hübner)
Pl. XVI, Fig. 18, 8.
Zutr. exot. Schmett. 2; Pl. 26, Figs. 343, 344. 1825.


SELENIS Guenée

3514 S. MONOTROPA Grote
Pl. XVI, Fig. 17, 8.
Can. Ent. 8: 207. 1876.
Monotropa is quite common and state-wide, though relatively rare in the northern counties. It has been taken in every month except May and August. Food: Trypaeus sebifer, Cassia, Para grass, Poinciana, wild locust, all DPI; senna, Chinese tallow, coffeeweed, all Coop. Econ. Ins. Rept. 4: 876; Sesbania, ibid., p. 892; Daubentonion punicea, Coop. Ins. Pest Surv. 5: 136; Pithecellobium dulce, CPK.

KAKPOUDA Smith

3516 K. CINCTA Smith
Pl. V, Fig. 9, 8.
J. N. Y. Ent. Soc. 8: 176. 1890.
IV. Port Sewall: March, AMNH. Dade Co.: Aug., HFS. Miami: June, July, JGF; July, HEW. Biscayne Bay: type (Slosson), AMNH. V. Everglades: (McDunnough), AMNH. Chokoloskee: OB, CNC, USNM. VI. Florida City: June, July, JGF; May-July, OB. Paradise Key: FMJ. VIII. Tavernier: Aug., CPK. Big Pine Key: Sept., OB.

YRIAS Guenée

[3520 Y. repentes Grote]
Repentes was erroneously reported from I. Warrington: Jan. 1961, Pensacola Ent. Soc. Bull. 3. It is something quite different and is recorded elsewhere, in its proper place.

TYRISSA Walker

3522 T. MULTILINEA Barnes & McDunnough
Pl. XVI, Fig. 18, 8.
Contrib. 2: 168. 1918.
HEMEROBLEMMA Hübner

3523 H. OPIGENA (Drury)
Pl. X, Fig. 24, δ.
Ill. Exot. Ent. 2: 39. Pl. 22, Fig. 4, App. ii. 1773.

Franclemont finds that Peosina pandrosa (Cramer) is a synonym of this. Florida: Feb., AMNH. II. Gainesville: Sept., UFES. IV. Miami: EU. Dyar (1911b, p. 20); Sept., 1922, UM. Coral Gables: Oct. 20, 1961, AB. VI. Florida City: March, Aug., CNC; April, Sept., AKW; May, Sept., OB; July, WRB, HEW. Paradise Key: March, April, FMJ. Dade Co.: May, June, HFS; Aug., CPK.

LATEBRARIA Guenée

3524 L. AMPHIPHYROIDES Guenée
Pl. X, Fig. 25, δ.
Spec. Gén. 7: 159. 1852.
Florida: AMNH. Probably a stray.

EREBUS Latreille

3525 E. ODORATA (Linnaeus)
Black witch. Pl. X, Fig. 26, δ.
Syst. Nat. p. 505. 1758.


THYSANIA Dahmen

3526 T. ZENOBIA (Cramer)
This, too, is probably of more frequent occurrence than the sparse records show. Florida: Smith (1893, p. 367). III. Egmont Key: Aug. 26, 1904, (Ramstedt?), UM. V. Chokoloskee: two July, AMNH.

3526. 1 T. AGRIFFINA (Cramer)
Pap. Exot.; Pl. 87, Fig. A, and Pl. 188, Fig. A. 1775, 1782.

There is a fine specimen of this in the University of Tampa collection, taken in Tampa by Prof. C. T. Reed, of the Biology Department. Unfortunately the body has been eaten by Dermenta. It is, of course, a stray.

BENDIS Hübner

3527 B. DETRAHENS (Walker)
Pl. XVI, Fig. 19, δ.

3529 B. HINNA (Geyer)
Pl. XVI, Fig. 20, δ.
Zutr. exot. Schmett. 5: 41; Figs. 971, 972. 1837.

Hinna is a relatively common and widespread species, though there are no records from the Keys. It has been taken every month.

3531 B. FORMULARIS (Geyer)


EPIDROMIA Guenée

3532 E. DELINQUENS (Walker)
Pl. XVI, Fig. 21, δ.

Delinquens is undoubtedly found in all parts of the state, though the records run only from
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Gainesville to Windley Key. It is quite variable, and some specimens have been determined as *suffusa* (Walker), which, however, Francke- mont thinks represents only a synonym of *delinquens*. If it is a valid species, the records will need to be re-examined in order to separate them. *Delinquens* is relatively common, and flies all year.

**MASSALA Walker**

**3353 M. OVERTENS (Walker)**

Pl. XVI, Fig. 22, 9.

IV. Archbold Biological Station: May, YU. Sarasota: May, (King). CPK. Fort Myers: April, AMNH. Miami: May, Aug., AMNH. V. Everglades: April, AMNH. Marco: April, AMNH. VI. Homestead: one May, one June, CPK. Florida City: apparently not rare, April-June, Aug., OB, JGF; May, June, AKW; May, Aug., WRR; May, Sept., CNC; Sept., AEB. Paradise Key: Jan., AEB; Jan., April, FMJ. VIII. Key Largo: May, DPI. Tavernier: Sept., CPK. The Fort Myers, Everglades, and Marco records were given in Grossbeck (1917, p. 77) under the name *M. larina* Druce. The determinations were incorrect.

[3353, 1 *M. larina* Druce]

See *obvertens* above.

**PANOPODA Guenée**

**3354 P. RUFIMARCO (Hübner)**

Pl. XVI, Fig. 23, 9.
Zutr. exot. Schmett. 1: 13; Figs. 45, 46. 1818.

*Rufimargo* is not at all common. I. Escambia Co.: April, SMH. Quincy: March, July-Sept., CPK. II. Gainesville: March, April, UFA; March, May, UM. III. Cassadaga: Aug., SVF. Orlando: April, June, CNC. IV. Oneco: March, April, JGF; June, CPK. Punta Gorda: Feb.-April, AKW. Fort Lauderdale: March, UM.

**3355 P. CARNEICOSTA Guenée**

Pl. XVI, Fig. 24, 9.
Spec. Gén. 7: 325. 1852.

*Carneicosta* is relatively common though the records are few; possibly it is local. Both typical *carneicosta* and form *combinata* (Walker) are present. Florida: July, CNC. I. Warrington: WP. Quincy: July, Aug., CPK. Monticello: Sept., DPI. II. Suwannee Springs: April, Slosson (1899, p. 150). III. Weekiawachee Springs: April, CPK. Orange Co.: DPI. Orlando: Sept., WRB. IV. Oneco: April, JGF. Archbold Biological Station: March, YU. Siesta Key: March, CPK. Punta Gorda: Feb.-April, June, CPK, AKW. Food: oak, basswood, hickory, willow.

**SIAVANA Walker**

**3356 S. REPANDA Walker**

Pl. XVI, Fig. 25, 9.

*Repanda* is quite common from Escambia County and Fernandina to Paradise Key. It is subject to some variation, and has been taken in every month except December. Food: Para grass, DPI; live oak, Dyar (1899, p. 328).

**CISSUSA Walker**

**3359 C. SPADIX (Cramer)**

Pl. XVI, Fig. 26, 9.
Pap. Exot. 3: 149; Pl. 275, Fig. F. 1780.

Here is one of the species which is occasionally quite common but in some years not seen at all. I. Escambia Co.: March, SMH. Quincy: April, CPK. II. East Florida: (Doubleday), BM. This was listed. Grsb. 72, under the name *Panula remigipila* Guenée. IV. Bradenton: Feb., DPI. Sarasota: March, AKW. Siesta Key: Jan.-March, CPK. Punta Gorda: Feb., CPK. Belle Glade: Feb., DPI. Miami: Feb., AKW.

**PHOBERIA Hübner**

**3345 P. ATOMARIS Hübner**

Pl. XVI, Fig. 27, 9.
Zutr. exot. Schmett. 1: 16; Figs. 75, 76. 1818.


**MELIOPSIS Hübner**

**3346 1 M. PERPENDICULARIS (Guenée)**

Pl. XVII, Fig. 1, 9.

I. West Pensacola: June, VFG. IV. Port Sewall:
six Jan., AMNH; three Jan. 15-March 23, OB. Captiva: March 24, 1954, CPK. Coral Gables: Jan., AKW. VI. Paradise Key: March, FMJ; Dec., AMNH.

3547 M. FASCIOLARIS (Hübner)
Pl. XVII, Fig. 5, δ; Fig. 6, ø. Zutr. exot. Schmett. 3:15, Fig. 443. 1825. IV. Port Sewall: Dec., AMNH. Siesta Key: June, CPK. Miami: Jan., WRB; April, July, AMNH. VI. Homestead: Feb., May, July-Sept., (Wolfenbarger), CPK. Paradise Key: FMJ. VIII. Key Largo: March, SVF; May, Nov., DPI, CPK.

[3548 M. stygialis Grote]
Bull. U. S. Geol. Geograph. Surv. Territ. 4:184. 1878. This name appears on Mrs. Forsyth's sale list. Richards (1899, p. 19) made it a synonym of perpendicularis, but McDunnough (1938, pp. 122, 123) made them distinct. If they are distinct, it is probable that what Mrs. Forsyth had was perpendicularis.

3549 M. INDOMITA (Walker)
Pl. XVII, Fig. 10, δ. List Lep. Br. Mus. 13:1161. 1857. III. Brooksville: June 20, 1955, AKW. IV. Sarasota: June 21, 1951, (King), det. Franclemont, CPK.

3549, 1 M. CELLARIS (Guénée)
Pl. XVII, Fig. 2, δ. Spec. Gén. 7:66. 1852. IV. Charlotte Harbor: (Slosson), Grsb. 72. This was listed by Grossbeck under the name Panula inconstantis Guénée. The correct name was pointed out by Richards (1937, p. 219). VI. Homestead: May, June, Aug., Oct., (Wolfenbarger), CPK. It was also listed from south Florida on the Forsyth sale list. VIII. Key Largo: March 27, 1957, SVF.

3549, 2 M. JANUARIUS (Guénée)
Pl. XVII, Fig. 3, δ.; Fig. 4, ø. Spec. Gén. 7:67. 1852. a very variable species which is relatively common south of the Siesta Key-Port Sewall line, but it has not been taken further north, except: III. St. Petersburg: Jan., Feb. 1960, AKW, nor has it been taken inland from the coast except at Florida City. Very common in Dade County. Also taken in the Dry Tortugas. It flies in every month.

3550 M. FAMELICA (Guénée)

3550, 1 M. CONTORTA (Guénée)
Pl. XVII, Fig. 16, δ. Spec. Gén. 7:64. 1852. III. Indian River: AMNH. Egmont Key: May, AKW. IV. Port Sewall: Jan., AMNH. Siesta Key: Feb., CPK. North Miami Beach: Feb., HEW. Biscayne Bay: (Slosson), AMNH. VI. Florida City: Dec., OB. Paradise Key: Feb., CPK. VIII. Dry Tortugas: July, WMD.

3551 M. JUCUNDA Hübner
Pl. XVII, Fig. 7, δ. Zutr. exot. Schmett. Fig. 81. 1818. Jucunda is the commonest species of the genus, and surely state-wide in occurrence. It has been taken in every month.

3551, 1 M. PROLATA (Walker)
Pl. XVII, Fig. 8, ø. List Lep. Ins. Br. Mus. 13:1169. 1857. Judging by the records this is a distinctly coastal species. IV. Port Sewall: Jan., AMNH. Siesta Key: Dec.-March, May, June, CPK. Charlotte Harbor: AMNH. Lee Co.: OB. Sanibel Island: March, OB. Fort Myers Beach: April, JGF. V. Marco: April, AMNH. VI. Homestead: July, Aug., CPK. Florida City: May, OB; Aug., JGF. VIII. Tavernier: Sept., DPI. Craig: Feb., DPI. Dry Tortugas: AMNH; May, DPI; July, WMD.

3553 M. ACONTIOIDES (Guénée)
Pl. XVII, Fig. 9, δ. Spec. Gén. 7:61. 1852. III. Tampa: Oct., WRB. IV. Port Sewall: Dec., AMNH. Sarasota: one June, DPI. Siesta Key: one Nov., CPK. Lake Worth: June, DPI. Miami: May, JGF; Aug., GWK; Sept., (Sleight), Grsb. 73. Coral Gables: Nov., HFS. Dade Co.: Jan., HFS. VI. Homestead: May, June, Oct., CPK. Florida City: May, HEW; May, June, JGF, AKW; May-Aug., AMNH. VIII. Key Largo: Jan., May, DPI; March, SVF. Key West: Sept. I believe this last was a larval record on
royal poinciana by “CBM,” but my notes are obscure. Food: Delonix regia, Coop. Ins. Pest Surv. 6: 10.

3553, 1 M. SP.

There is a very small, unplaced, and apparently distinct specimen from south Florida, (Palm), AMNH.

**PANULA** Guenée

[3554 P. inconstans Guenée]

Spec. Gén. 7: 59. 1852.

The record for this (Grsb. 72) belongs under Melipotis cellaris above.

3555 [P.] SCINDENS (Walker)


This belongs in the genus *Isogona*, q.v.

**BULLIA** Walker

3556 B. DEDUCTA (Morrison)


I. West Pensacola: June 22, 1961, det. Francelmont, VFG.

**DRASTERIA** Hübner

3563 D. GRAPHICA Hübner

Pl. XVII, Fig. 11, 3; Fig. 12, 9.

Zutr. exot Schmett., p. 3; Figs. 11, 12. 1818.

*Graphica* is a fairly common species, especially along the coasts, taken January-June. III. Indian River: type of *faceta*, Henry Edwards (1881a, p. 119). In some specimens the forewing is quite uniformly gray and occasionally the hind wing is red instead of orange.

**LOIS** Dyar

3563, 1 L. LORINA (Druce)

Pl. X, Fig. 27, 9.


VI. Homestead: two May 23, 1958, (Wolfenbarger), CPK. Paradise Key: April 12, 1927, (Blatchley), det. Benjamin, ANSP. VIII. Key West: det. Schaus, USNM. Barnes & Benjamin (1926, p. 20) questioned the authenticity of the last specimen. However, in view of the fact that Benjamin subsequently determined the Blatchley specimen, Schaus' specimen should also be all right.

**SYNEDOIDA** Henry Edwards

3565 S. GRANDIRENA (Haworth)

Pl. XVII, Fig. 18, 3.


Florida: Smith (1893, p. 327). Richards (1999, p. 48) said: "Florida, including the southern part." The following is the only locality I am able to record. I. Escambia Co.: March, April 1961, SMH. Food: *Hamamelis*.

**BORYZOPS** Richards

3584 B. PURISSIMA (Dyar)

Pl. XVII, Fig. 17, 9.


**EULEPTIDOTIS** Hübner

[3587 E. dominicata (Guenée)]


V. Chokoloskee: Sept. 1907, USNM. Todd (1961, p. 136) viewed the locality label as of extremely doubtful authenticity.

3589, 1 E. METAMORPHA Dyar


**ANTICARIS** Hübner

3590 A. GEMMATILIS Hübner

Velvetbean caterpillar. Pl. XVII, Fig. 13, 3; Figs. 14, 15, 9.

Zutr. exot Schmett.; Figs. 153, 154. 1818.


3591 A. REPUGNALIS (Hübner)

Pl. XVII, Fig. 19, 9.

Zutr. exot. Schmett. 3: 37; Figs. 575, 578. 1839.

*Repugnalis* is also prone to variation but not to such an exaggerated degree as *gemmaulis*. Florida: type of *ferruginea* Smith (1800b, p. 174); July, CNC. I. Warrington: VFG. III. Egmont Key: April, May, UM. IV. Bradenton: Feb.,
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EUTHERMISIA Butler

3598 E. ABSUMENS Walker
Absumens is better known under the name Anticlea inexacta Walker. It is a very variable, and is found in Florida in all the named forms as well as intergrades. It is probably found throughout the state as the records cover from Pensacola and St. Augustine to Florida City. It has been taken from March-September, November, and December.

ATHYRMA Hübner

3598, 1 A. GANGLIO Hübner
Zutr. exot. Schmett.; Figs. 421, 422. 1806-1824.
VI. Homestead: Feb. 8, Sept. 19, 1958 (Wolfenbarger). CPK. Florida City: not rare, May-Sept., in the following collections: OB, WRB, CNC, JCF, AMNH, CPK, AKW, HEW; also mentioned by Richards (1937, p. 219). Paradise Key: not rare at bait, Jan.-April, FMJ.

3598, 2 A. ADJUTRIX (Cramer)
Pap. Exot. 3: 144. 1782.
IV. Fort Lauderdale: two July 19-Aug. 1, 1923, (Bates), CPK, UM. VI. Paradise Key: one April 15, 1917, (Blatchley), det. Franclemont, USNM. Franclemont explains that "ganglio has moderate sized reniform with or without the tail, or stem; adjutrix has an enormous reniform."

EPHYRODES Guenée

3594 E. CACATA Guenée
Pl. V, Fig. 11, δ.
Spec. Gén. 7: 366. 1852.

STRENOLOMA Grote

3595 S. LUNILINEA Grote
Pl. X, Fig. 21, 2. Bull. Buffalo Soc. Nat. Sci. 1: 127. 1873.
I. Quincy: Nov. 17, 1956, (Tapman), DPI.

CONCANA Walker

3597, 1 C. MUNDISSIMA Walker
VI. Florida City: three May 21-June 18, (Forsyth), OB.

LITOPROSOPUS Grote

3598 L. FUTILIS (Grote & Robinson)
Pl. XVII, Fig. 24, 2. Trans. Amer. Ent. Soc. 2: 203; Pl. 3, Fig. 73. 1888.
It has been taken quite frequently from Pensacola to Paradise Key, January-July, September and November. Food: saw palmetto, Crumb (1934, p. 150); larvae boring in the flower stalks of Serenoa repens, DPI; pupating in dirt dauber's nest, DPI. The larvae incorporate any available fabric, even fiber glass, into their cocoons and are somewhat of a household pest in consequence. Vero Beach: Aug. 1959, pupating in plastic, DPI.

3598, 1 L. BAHAMENSIS Hampson
Desc. new genera & spec. (Noctuidae), p. 146. 1926.
Forbes (1941, p. 148) wrote: "... decidedly colder brown, and with a much paler hindwing than true L. futilis from Florida. The larger Texas species that passes for futilis appears to be undescribed, and matches this specimen much more closely in color." It might be added that the eye on the hind wing is larger in proportion and the line before it curves around farther over the eye. VI. Florida City: June 1, 1939, June 15, 1940, OB. VIII. Dry Tortugas: summer, 1936, (Plough), CU. This last specimen is the one which Forbes discussed above.

NOROPSIS Guenée

3591 N. HIEROGLYPHICA (Cramer)
Pl. V, Fig. 8, 2. Pap. Exot. 2: 81; Pl. 47, Fig. D. 1779.
ford: larva on pecan, Oct. 31, DPI. Alachua Co.: Aug., DPI. Gainesville: common, May, UFES. Fernandina: July, Aug., HEW; Aug., JCF; Sept., AKW. III. Daytona Beach: Oct., LH. Cassadaga: Oct., Nov., SVF. Brooksville: June, AKW. Orange Co.: Oct., DPI. Orlando: April, WMD; Sept., CNC, JGF. Tampa: June, UT; Sept., Oct., WRB. IV. Bradenton: GCES; Sept., Oct., CPK. Archbold Biological Station: Sept., YU. Sarasota: Aug., Sept., HLK. Miami: Sept., CMNH. Coral Cables: Aug., WHH. Since this is an essentially tropical species, the food plant record on pecan seems unusual, though the relative abundance of *hieroglyphica* at Quincy might substantiate this. The statement by Grossbeck (1917, p. 63) that “Cocoon of this species were common in Jamaica, attached to the trunks of coconut palms, might imply such to be their food, but certainly no evidence to support this has been adduced in Florida.

**GONODONTA** Hübner

3602 G. UNICA Neumoegen

Pl. XVII, Fig. 25, 6.
Can. Ent. 23: 125. 1891.


3604 G. NUTRIX (Cramer)

Pl. XVII, Fig. 26, 6.
Pap. Exot. 4: 48; Pl. 312, Fig. B. 1780.


3604, 1 G. INCURVA (Sepp)

Surinam. Vinders 2; Pl. 89. 1832-1840.


3604, 2 G. SICHEAS (Cramer)

Pap. Exot. 2: 86; Pl. 150, Fig. E. 1777.

IV. La Belle: Oct. 5, 1956, (Heness), det. Todd, CPK. Miami: May, AMNH.

**CAPNODES** Guenée

3606 C. RUFINANS Guenée


*Rufinans* is variable, the forms including more or less uniformly colored specimens ranging thence to others with prominent white transverse lines. In these are the forms *discerta* (Walker) and *marita* Schaus together with intergrades. IV. Siesta Key: May 15, 1963, CPK. Charlotte Harbor: type of female of *punctivnea* Smith, (Slosson), AMNH. Punta Corda: Dec.-Feb., AKW. Palm Beach: Dyar (1901a, p. 455). Miami: June, HEW. V. Everglades: April, AMNH. Marco: April, JGF. Allen River to Deep Lake: April, SIM. Chokoloskee: Barnes & McDunnough (1917a, p. 217). VI. Florida City: May, WRB, JGF. Paradise Key: abundant at bait, Jan.-April, FMJ; May, June, Dec., OB; Dec., AMNH. Jones’s specimens were determined as *marita* by Dyar, who wrote that this was probably a variety of *rufinans*. Franclemont agrees that is correct.

3607, 1 C. CONCINNULA Walker

Pl. V, Fig. 22, 6.

*Concinnula* is very similar to *rufinans*, but much smaller. The males never have the white spots on the costa; the females occur with or without these. III. Central Florida: Feb., WMD. Cassadaga: Sept., Dec., SVF. Orlando: Oct., det. Franclemont, WMD. IV. Bradenton: Sept.-Nov., det. Franclemont, CPK. Oneo: March, April, JGF; June, Aug., CPK. Archbold Biological Station: Jan., PSU. Siesta Key: Nov.-June, JGF, CPK. VI. Homestead: May, June, Oct., Nov., CPK. Florida City: Feb., May-Aug., Oct., Nov., OB; June, det. Franclemont, HEW. VIII. Tavernier: Sept., CPK.
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HYPSOROPHA Hübner

3610. H. MONILIS (Fabricius)
Pl. XVIII, Fig. 1, §.
Florida: (Slosson), Grsb. 72. I. Escambia Co.: March, SMH. Warrington: occasional, summer, VFG. Monticello: March, CPK. II. Alachua Co.: April, CPK. Gainesville: March, Oct., UM; April, (Watson), UFES. Micanopy: March, DPI.
Island Grove: larva feeding on persimmon at night, concealed on the ground during the day, (Seifert), Dyar (1903a, p. 291).

3611. H. HORMOS Hübner
Pl. XVIII, Fig. 2, §.
Zutr. exot. Schmett. 10; Figs. 27, 28. 1818.
The color of this varies from gray to yellowish brown. I. Escambia Co.: March, Aug., SMH.
West Pensacola: June, VFG. Quincy: May, July, CPK. Monticello: June, DPI. II. Alachua Co.: March, April, Sept., DPI. Gainesville: March, April, UM; April, CPK; July, CU; Aug., DPI. III. Cassadaga: March, April, SFV. Weeki-wachee Springs: May, CPK. Orange Co.: May, DPI. Orlando: April, May, CNC. Winter Park: Sept., DPI. Oldsmar: July, Aug., WRB. St. Petersburg: May, OB. St. Petersburg: Aug., Sept., CNC. Lakeland: May, AMNH. IV. Oneco: March, JGF. Archbold Biological Station: March, SU; April, May, YU. Siesta Key: April, CPK. Punta Gorda: March, April, AKW. VI. Homestead: May, CPK. Florida City: June, HEW. Paradise Key: March, FMJ. Food: persimmon, probably with the same habits as monilis. Also reported on sassafras.

PLUSIODONTA Guennée

3612. P. COMPRESSIONPALPIS Guennée

CECHARISMA Moeschler

3613. 1 C. ABARUSALIS (Walker)
Pl. XVIII, Fig. 3, 9.
Though abarusalis was originally placed in Blopina and subsequently in Matilaxis, Todd believes the species belongs in this genus. VI.
Homestead: Feb., May, July-Nov., (Wolfenbarger), det. Todd, CPK.

3613. 2 C. NECTAREA Moeschler
Abhandl. Senk. Naturf. 16: 165. 1890.
VIII. Tavernier: Oct. 17, 1955, (J. N. Todd), det. E. L. Todd, CPK.

HYPOCALA Guennée

3614. H. ANDREMONA (Cramer)
Pl. XVIII, Fig. 4, §.
Pap. Exot. 4; Pl. 352. Fig. C. 1782.

ALABAMA Crote

3615. 1 A. ARGILLACEA (Hübner)
Cotton leafworm. Pl. XVIII, Fig. 5, §.
Zutr. exot. Schmett.; Figs. 399, 400. 1823.
This is probably quite common through the entire state from mid-July to mid-October, and holding on into December. The larva feeds on cotton and is sometimes a pest. There is a large literature on the subject.

ANOMIS Hübner

Collectors have had difficulty with this genus, partly because of the similarity of certain species, partly because certain names do not apply, and partly because there is sexual dimorphism in most of the species.

3617. A. EROSA Hübner
Pl. V, Fig. 12, §.
Zutr. exot. Schmett.; Figs. 287, 288. 1818.

3618. A. FLAVA FIMBRIAGO (Stephens)
Pl. V, Fig. 13, §.
III. Brit. Ent. 9: 67. 1829.
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_Fimbriago_ is easily confused with _erosa_. It is probably quite common though the records are few. They cover May–March. Food: _Malvaoscura_, okra; _hibiscus leaves_, (Stegmaeter), DPI.

3618, 1 A. [IMPASTA Guenée]
Pl. XVIII, Fig. 6, 3.
Spec. Gén. 6: 40. 1852.

According to Francemont neither this name nor _doctorum_ Dyar applies, and the species probably has no name. In addition to sexual dimorphism, the species is complicated by forms with or without a large white reniform. III. DeLand: March, AKW. Cassada: Oct., SVF. Brooksville: June, AKW. Orange Co.: Feb., July, WMD. St. Petersburg: April, Dec., AKW. IV. Bradenton: March, May, Aug.–Dec., CPK. Onece: April, JGF; May, June, Sept., CPK. Archbold Biological Station: Dec., FSU. Sarasota: May, June, Sept., CPK. Siesta Key: Nov., April, June, CPK. Arcadia: March, JGF, Panta. Cordova: Jan., Dec., AKW. Dade Co.: June, HFS. V. Everglades: April, SIM. Grossbeck noted that this was determined as _doctorium_ by Dyar who had recently revised the genus. However, this does not agree with Francemont's view mentioned above. VI. Florida City: May, HFW; May–July, OB; May–Aug., AMNH; June, AKW. VIII. Long Key: larva on wild cotton blooms, Rainwater (1934, p. 761).

3618, 2 A. ILLITA Guenée
Pl. XVIII, Fig. 7, 9.
Spec. Gén. 6: 400. 1852.


[3620 A. texana Riley]
4th Rept. Ent. Comm., p. 350, app. 120. 1885.

V. Chokoloskee: USNM. Grossbeck (1917, p. 66) noted: "The determination of the specimens on which this record is based is somewhat doubtful." Until there is something more to go on, this species should not be credited to Florida. Furthermore, because of the variability in the species _Anomis_, especially this group and the fact that _texana_ and _editrix_ as represented in the United States National Museum collection appear to be very close, it would not be at all surprising if this specimen were not actually _editrix_ below.

3622 A. EDITRIX (Guenée)


Subfamily HYCENINAE

SCOLECOCAMPA Guenée

3623 S. LIBURNA (Geyer)
Pl. XVIII, Fig. 9, 9.
Zutr. exot. Schmett. 482; Figs. 903, 904. 1825.


GABARA Walker

The determinations in this genus are subject to question. Richards (1942) revised the eastern species, sinking a number of names to the synonymy and making others races. He credits the following to Florida: _pulvrosalis_ (Walker), _subnitovella bipuncta_ (Morrison), and _disterna humeralis_ (Smith). Since a number of names have been used in the literature in connection with Florida species, it is necessary to give them all and unravel the lot in order to knit it up again. Even so it is almost impossible to fit certain specimens into any of Richards' three species, and it looks as though further study is needed for Florida specimens.

3633 G. FULVEROSALIS (Walker)

Perhaps the Cornell specimens listed under _subnitovella bipuncta_ belong here; Forbes did not know. II. Hastings: Oct., Richards (1942, p 4).
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III. Eustis: Oct., AEB. IV. Oneco: Sept., Oct., (Dillman), CPK. These Oneco specimens are all small and would seem to fit into minorata (Smith), which Richards characterizes as atypical, dwarfish specimens of pulveroalis. Siesta Key: May, CPK.

[3631 G. subnivosella (Walker)]
Reported by Smith (1903, p. 221) from Hastings. Richards strongly doubts that this typical form is found in Florida.

3632 G. SUBNIVOSELLA BIPUNCTA
(Morrison)
Besides the Hastings record mentioned above, which presumably would go here, there is a Florida record (Smith, 1893, p. 191) and two specimens in the Cornell collection which Forbes noted are "the small dark thing often called bipuncta but I should make them pulveroalis Wilk." I. Escambia Co.: July, SMH. III. Cassadaga: Aug. 14, 1962, SVF. IV. Archbold Biological Station: June, AKW. Punta Gorda: May, June, AKW.

2699 G. DISTEMA (Grote)
N. Amer. Ent. 1: 100. 1880.
This species was transferred by Richards from the genus Cilla to Gabara. The Florida specimens fall largely to the race humeralis (Smith) according to Richards. However, some of them look very much like the description of strigata (Smith), which Richards makes a synonym of typical distema, although he does state that the longitudinal stripe is not distinctive. I am listing here all the Florida records that have appeared or have been listed under any of the names which Richards places either in the synonymy of distema or humeralis. I. Escambia Co.: July, SMH. West Pensacola: Sept., VFG. II. Jacksonville: Oct., CNC. Hastings: paratypes of umbonata (Smith) and humeralis, April, CNC; June, Sept., Oct., Richards (1942, p. 9). III. Altamonte Springs: Oct., Richards. Cassadaga: May, Aug., Oct., SVF. Weekiawachee Springs: May, Aug., CPK. St. Petersburg: Aug., Richards. Fort Meade: Richards. IV. Bradenton: Oct., CPK. Oneco: May, June, Aug., Oct., CPK. Archbold Biological Station: April, May, YU. Siesta Key: May, CPK. Punta Gorda: April-June, AKW. VI. Homestead: June, Aug.-Oct., CPK.

[3694 G. apicalis (Smith)]
Richards makes this a synonym of distema humeralis. Described from Hastings.

[3635 G. strigata (Smith)]
J. N. Y. Ent. Soc. 10: 45. 1902.
Another synonym of distema.

[3636 G. umbonata (Smith)]
Trans. Amer. Ent. Soc. 29: 221. 1903.
Also a synonym of distema humeralis, and also described from Hastings.

[3637 G. humeralis (Smith)]
Richards places this as a race of distema. It, too, was described from Hastings.

[3638 G. minorata (Smith)]
Trans. Amer. Ent. Soc. 29: 221. 1903.
Richards makes this a synonym of pulervoalis. Yet one more of the species described from Hastings.

Genus unrecognized

3638, 1 — SP.
A specimen of a genus unknown to Forbes, Franclemont, or Todd, belongs at approximately this point. There is nothing like it in the U. S. National Museum. Franclemont will describe it. III. Weekiawachee Springs: Aug. 1954, (May), CPK. IV. Bradenton: Sept., (Kelsheimer), CPK. Archbold Biological Station: Aug., (Archbold), YU.

PHYPROSOPUS Grote

3639 P. CALLITRICOIDES Grote
Pl. XVIII, Fig. 3. 1872.
Trans. Amer. Ent. Soc. 4: 90. 1782.
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ISOGONA Guenée

3555  I. SCINDENS (Walker)
Pl. V, Fig. 14, 6.
Scindens was formerly classed in the genus Panula. VI. Florida City: June 15, 1937, (Forsyth), OB.

3643  I. TENUIS Grote

GLYPHIS Walker

3648, I G. CONCORS (Hübner)
Pl. XVIII, Fig. 11, 9.
Zutr. exot. Schmett. 1 (2): 22; Figs. 315, 316. 1823.

PANCRAPTA Hübner

3650  P. DECORALIS Hübner
Pl. XVIII, Fig. 12, 9.
Zutr. exot. Schmett. 1: 18; Figs. 93, 94. 1818.

METALECTRA Hübner

3651  M. DISCALIS (Grote)
Pl. XVIII, Fig. 13, 9.
Can. Ent. 9: 206. 1876.

3652  M. QUADRISIGNATA (Walker)
Pl. XVIII, Fig. 14, 9.

3652, I M. SP.
Franclemont has taken a single male of this in Alabama, but none of the specimens are in good enough condition to warrant a description. It is probably new. III. Cassadaga: two April 14-15, 1960, JGF, SVF.

3654  M. TANTILLUS (Grote)
Pl. XVIII, Fig. 15, 9.

3655  M. [DIABOLICA Barnes & Benjamin]
II. Archer: one March 1882, (Koebele), USNM.
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The specimen has been determined by Franclemont as probably this, but he believes that the determination should be verified by examination of the genitalia before accepting it as final.

3656, 1 M. ALBILINEA Richards

3656, 2 M. [RICHARDSI] Brower
Here again Franclemont feels that final acceptance of the species as of our fauna should be reserved until genital comparison is made; the species are deceptively close in appearance. III. Egmont Key: April 25, 1904, (Ramstedt), AKW. IV. Punta Gorda: Feb.-May, AKW; April, OB.

MURSA Walker
The determinations in this genus are subject to revision.

3658, 1 M. SUBRUFA Warren
Pl. XVIII, Fig. 16, 2. Trans. Ent. Soc. London p. 235. 1889.

3658, 2 M. PHTISIALIS (Gueneé)
Spec. Gén. 8: 87. 1854.

3658, 3 M. GRACILIS (Meeschler)
IV. Riviera: Jan., det. Franclemont, MOG. Miami: Aug. 23, 1950, USNM. VI. Paradise Key: Jan. 10, 1930, (Jones), det. Franclemont, USNM. It also was intercepted by customs at Miami Aug. 1953, from Cuba.

SYLECTRA Hübner

3659 S. ERICATA (Cramer)
Pl. XVIII, Fig. 17, 2. Pap. Exot. 3; Pl. 287, Fig. D; 4, Pl. 370, Fig. E. 1782.

EGRYRLON Smith

3660 E. FILARIA Smith
Pl. V, Fig. 23, 2. J. N. Y. Ent. Soc. 8: 177. 1900.
Superficially filaria resembles Capnoderus rufinans Gueneé, but the wings have blue streaks and the palpi are quite different. IV. Biscayne Bay: type, (Slosson), AMNH. Miami: USNM. V. Chokoloskee: USNM.

ARUGISA Walker

3661 A. LATIORELLA (Walker)
Pl. V, Fig. 17, 2. List Lep. Ins. Br. Mus. 27: 29. 1883.
Latiorella is quite a common species which has been taken from Escambia County and Fernandina to Florida City, in every month except December.

3661, 1 A. WATSONI Richards
Pl. V, Fig. 18, 2. Amer. Mus. Nov. 1114: 2. 1941.
III. Weekiwahee Springs: March 20, 1955, (May), CPK. Elfers: April, JGF. IV. Oneo: March, JGF. Siesta Key: March 10, 1956, March 11 and 30, 1960, March 5, 1961, CPK. Miami: type, three, (Schaus), USNM. V. Everglades: allotype, April 8, 1912, AMNH. VI. Florida City: May, OB.

RAPARNA Moore

3662 R. MELANOSPILA (Gueneé)
Pl. XVIII, Fig. 18, 2; Fig. 19, 2. Spec. Gén. 6: 4. 1852.
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Feb.-April, July, Sept., CPK. Florida City: April, Aug., Oct., OB.

HEMEROPLANIS Hübner

3664 H. SCOPULAEPESES (Haworth)
Pl. XVIII, Fig. 21, δ; Fig. 22, form geometralis, δ.
This occurs as typical scopulaepeaces, form geometralis (Grote), and other, unnamed forms. It is probably to be found throughout the state, having been taken from Escambia County to the Dry Tortugas, in all months.

3668 H. HABITALIS (Walker)
Pl. XVIII, Fig. 20, δ.
Habitalis is quite common and unquestionably found throughout the state. It has been taken January-November. There is either an undescribed form of this or an additional species in the Keys.

PHYTOMETRA Haworth

3677 P. ERNESTINANA (Blanchard)
Pl. V, Fig. 19, δ.
This is the earliest name for what has been known as coccineifascia (Grote). In Grossbeck (1917, p. 67) the records for ernestinana were under rhodarialis (Walker). For information on this confusion of names, see Forbes (1954, pp. 378-379). Ernestinana is a fairly common species which has been taken from Warrington to Florida City, in every month. L. Quincy: one each, June, Sept. IV. Bradenton: Feb., March, June-Aug. VI. Homestead: Feb., April, May, July-Oct., small peak in May.

3678 P. RHODARIALIS (Walker)
Pl. V, Fig. 20, δ; Fig. 21, form semipurpurea (Wlk.), δ.
Both typical rhodarialis and form semipurpurea (Walker), as well as various intermediate forms are found. For the separation of the named forms, see Forbes (1954). This is commoner than ernestinana. While there are no records from the Keys, it is presumably of state-wide occurrence, and has been taken in every month.

OMMATOCYLICA Butler

3683 O. MUNDULA (Zeller)
Pl. XVIII, Fig. 31, φ.
VI. Homestead: one Feb., five Sept.-Nov., (Wolfenbarger), CPK. VIII. Tavernier: one each, Sept., Oct., (Todd), CPK.

LEGNA Walker

3685 L. PERDITALIS (Walker)
Pl. XVIII, Fig. 23, φ.

HORMOSCHISTA Moeschler

3686 H. LATIPALpis (Walker)
Pl. XVIII, Fig. 24, φ.
Latipalpis is of general and fairly common occurrence from Escambia County to Key West, and probably occurs in the western counties, though there are no records from them. Latipalpis exhibits confusing variation. It flies the year round.

BOMOLOCHA Hübner

3687 B. MANALIS (Walker)
Pl. XVIII, Fig. 25, φ.
Florida: CNC. I. Warrington: June, VFG. Monticello: June, DPI. II. Alachua Co.: Sept., DPI. Gainesville: May, U. TM. III. Brooksville: June, AKW. IV. Oneco: March, JGF; May, June, CPK. Archbold Biological Station: April, June, YU. Port Seward: Feb., AMNH. Sarasota: June, CPK. Siesta Key: June, CPK. Citrus Center: May, Grsb. 81. Fort Myers: April, AMNH. South Bay: April, May, AMNH, SIM. Palm Beach: Dyar (1901a, p. 456). Fort Lauderdale: July, UM. VI. Homestead: April, GWK; May-July, CPK. Florida City: Jan., May, WRB; April-July, AMNH. Paradise Key: April, FMJ.
3688  B. BALTIMORALIS (Guinée)
Pl. XVIII, Fig. 28, δ.  Spec. Gén. 8: 34.  1854.

3689  B. BIJUGALIS (Walker)
Pl. XVIII, Fig. 27, 9.  Spec. Gén. 8: 34.  1854.

3690  B. PALPAREA Walker
II. Gainesville: March, UM; June 15, 1945, det. Franclemont, UFES.

3691  B. ABALINEALIS (Walker)
I. West Pensacola: May 15, June 17, 1963, VFG.

3692  B. DECEPTALIS (Walker)
II. Alachua Co.: July 25, 1958, (Weems), DPI.

3696  B. SORDIDULA (Grote)
II. Escambia Co.: April, SMH.  Food: alder and butternut.

3698  B. TOREUTA (Grote)
Toreuta is now known to be δ bijugalis, q.v.

3699, 1  B. SP.
Near exolitalis (Guinée), of which there is a possibility that umbalatis Smith below may be a synonym. II. Gainesville: June 22, 1955, (Morse), det. Franclemont, CPK.  IV. Archbold Biological Station: May 18, 1958, (Pease), YU.  Punta Gorda: April 18, 1953, (Ramstedt), det. Franclemont, AKW.  VI. Homestead: July 10, 1958, (Wolfenbarger), det. Todd, CPK.

3700  B. UMBRALIS Smith

LOMANALTES Grote

3703  L. EDUCTALIS (Walker)
I. Escambia Co.: Sept. 9, 1962, SMH.  IV. Fort Myers: (McDunnough), AMNH.  Grossbeck (1917, p. 81) quoted McDunnough: "The specimen is smaller and darker than the more northern form."

OPHIUCHE Hübner

3701  O. MINUALIS (Guinée)
Pl. XVIII, Fig. 28, 9.  Spec. Gén. 8: 36.  1854.

3701, 1  O. SP.
This is near minualis but is much larger.  It is apparently the same as an unnamed species in the U. S. National Museum, represented by specimens from Jamaica and Cuba.  E. L. Todd has checked the genitalia of the latter and finds they are distinct from minualis and porrectalis (Fabricius).  IV. Siesta Key: Dec. 24, 1953, CPK.  VI. Homestead: Oct. 22, 1959, (Wolfenbarger), CPK.  VIII. Tavernier: Sept. 9 and 14, 1955, (J. N. Todd), CPK.

3704  O. ABJURALIS (Walker)
Pl. V, Fig. 27, 9.  List Lep. Ins. Br. Mus. 16: 68.  1858.
Specimens under the name labdalis (Hübner) or bipartita (Smith) belong here.  III. Central Florida: June, WMD.  Brooksville: June, AKW.  IV. Bradenton: Aug., CPK.  Okeechobee: March, JGF;
April-June, CPK. Archbold Biological Station: Dec, YU. Siesta Key: April, May, Nov., CPK. Punta Gorda: April, JGF; May, AKW. VI. Homestead: Feb., April, July, Oct., Nov., CPK; reared from Limoniaceae leaves, Nov., (Nakahara), DPI. Florida City: JGF; March, HEW; March-Aug., Oct., Dec., OB; April, May, AMNH; Oct., WRB. VIII. Key West: cotype, holotypes, three of bipartita, AMNH.


3704, 2 O. PORRECTALIS (Fabricius) Ent. Syst. 3 (2): 223. 1794. IV. Oneco: five April, Aug., Oct., (Dillman), det. Franclemont, CPK. VI. Homestead: April, July, Sept.-Nov., CPK. Florida City: March, Nov., JGF; June 17, July 3, Aug. 24, OB. Franclemont believes this may be rather common in the southern part of the state.

PLATHYPENA Grote


Subfamily RIVULINAE

DYSPYRALIS Warren

3719, 1 D. SP. This is a new species which is being described by Franclemont. I. Escambia Co.: Sept. 13, Oct. 27, 1962, SMH. III. Cassadaga: Aug. 4 and 31, 1962, SVF. IV. Oneco: ten March, JGF; nine May-July, Sept., Oct., (Dillman), CPK. Siesta Key: one Nov., CPK. Englewood: one Nov., CPK.

MELANOMMA Grote


HYPENOPSIS Dyar


HYPENODES Doubleday

3728, 5 H. SP. It is a new species to be described by Franclemont: II. Gainesville: June 3, 1927, (Rogers), CU. III. Wacassa River: one April, JGF. IV. Oneco: twelve March, April, JGF. Archbold Biological Station: Dec. 17, 1945, (Needham), CU.
PARAHYPENODES Barnes & McDunnough

3729  P. QUADRALIS Barnes & McDunnough
Conrib. 4: 124.  1918.
IV. Punta Gorda: Feb., April, (Ramstedt), det. Benjamin, AKW.

PROSOPARIA Grote

3730  P. PERFUSCARIA Grote
Ridge has made a genitalic dissection of the American Museum of Natural History specimen and finds that it is the same as others from Texas. He comments that the species becomes progressively larger and darker as it ranges across the Gulf States and into Florida. III. Cassadaga: May 13, 1950, May 24, 1962, Aug. 2 and 10, 1961, SVF. Weekiwachee Springs: May 1955, (May), CFK. July 20, 1938, (Hubbell & Frauf). U.M. IV. Oneco: one May, (Dillman), CFK. Archbold Biological Station: April, CU; Aug. 20, 1955, (Archbold), YU. Punta Gorda: two May 8, 1951, (Ramstedt), AMNH.

SALIA Hübner

3731  S. INTERPUNCTA (Grote)
Pl. XVIII, Fig. 32, 
Trans. Amer. Env. Soc. 4: 93.  1872.

RIVULA Guenée

3732  R. PROPINQUALIS Guenée
Pl. XVIII, Fig. 33, 
Spec. Gén. 8: 49.  1854.

3732 1  R. PUSILLA Moeschler
Pl. XVIII, Fig. 34, 


Subfamily HERMINIINAE

EPIZEUXIS Hübner

3734  E. AMERICANALIS (Guenée)
Pl. XVIII, Fig. 35, 
Spec. Gén. 8: 78.  1854.

3735  E. AEMULA (Hübner)
Pl. XVIII, Fig. 36, 

3737  E. ROTUNDALIS (Walker)
Pl. XVIII, Fig. 37, 

3740  E. DIMINUENDIS Barnes & McDunnough
Pl. XVIII, Fig. 38, 
Contrib. 4: 128.  1918.
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3741 E. SCOBIALIS (Grote)
N. Amer. Ent. 1: 95. 1880.
II. Hastings: AMNH.

3745 E. GOPHERI Smith
Pl. XVIII, Fig. 39, 3. Can. Ent. 31: 94. 1899.
Florida: type, (Hubbard), Smith. As I understand Hubbard’s paper (1899a), I believe the places mentioned by him all produced this moth. It is probable that gopheri will be found wherever gopher holes are present, as the larvae live in the burrows. Perhaps it should be explained that in Florida, “gopher” refers to the gopher tortoise, as well as the little rodent of the west. I. Escambia Co.: May, SMH. DeFuniak Springs: Hubbard (1899a, p. 299). II. Putnam Co.: larva, Feb., DPI. Crescent City: Hubbard. III. Cassadaga: April, May, Oct., SVF. Altamonte Springs: CU. Orlando: April, CNC. Clearwater: Hubbard. IV. Port Sewall: Jan., Nov., OB; Dec.-March, AMNH. Lake Worth: Hubbard.

3746 E. LUBRICALIS Geyer
Pl. XVIII, Fig. 40, 3. Zutr. exot. Schmett. 4: 19; Figs. 665, 666. 1832.

PHALAENOPHANA Grote

3750 P. PYRAMUSALIS (Walker)

ZANCLOGNATHA Lederer

3752 1 Z. SP.
It is highly probably that most of the specimens which have been reported under litoralis (Hubner), theralis (Walker), and minoralis Smith, are one and the same species and distinct from any of these names. Whether it is new or not, remains to be seen. If it is, Franclemont will describe it. The records are given below as they stand at present, but all of them are almost certainly incorrect.

3753 Z. LITURALIS (Hubner)
Zutr. exot. Schmett. 1, 9; Figs. 19, 20. 1818.

3754 Z. theralis (Walker)

3755 Z. minoralis Smith

3756 Z. OBSCURIPENNIS (Grote)
Pl. XVIII, Fig. 41, 3. Trans. Amer. Ent. Soc. 4: 309. 1872.

3757 Z. PEDIPALALIS (Guenée)
Spec. Gén. 8: 57. 1854.
VIII. Key Largo: June 29, 1959, SVF. Although Key Largo is a long way south of the known range, Franclemont believes the determination is correct. Food: dead leaves.

3760 Z. PROTUMNUSALIS (Walker)
Florida: Forbes (1954, p. 396). I. Quincy: April 14, 1963, (Tappan), det. Forbes, CPK. III. Rockledge: NYSM. The latter should be checked as it is not the specimen on which Forbes based his range record. Hillsborough Co.: Aug. 18, 1933, UM.

3782 Z. CRURALIS (Guenée) Spec. Gén. 8: 58. 1854.

I. Rocky Bluff: March, DPI. II. Gainesville: April, det. Franclemont, March, DPI. IV. Bradenton: March, det. Franclemont, CPK. Oneo: March, April, JCF. These specimens are somewhat darker than normal. Siesta Key: March, CPK. Punta Gorda: Feb., CGM; Feb.-April, Dec., AKW.

CHYTOLITA Grote

3787 C. PETREALIS FULICALIS Smith Trans. Amer. Ent. Soc. 33: 143. 1907.
I. Escambia Co.: June 26, 1962, SMH.

PHALÆNOSTOLA Grote

3789 P. LARENTIOIDES CITIMA Grote Pl. XVIII, Fig. 42, form normal, ⁴. Trans. Amer. Ent. Soc. 4: 303. 1873.

HORMISA Walker

This was listed by Mrs. Forsyth on her southern Florida sale list, but inasmuch as Forbes (1954, p. 399) gives the range as Nova Scotia to Virginia, one wonders if what she had was not the next species.

3773 H. SP.
This is an apparently new species near absorptalis, which is to be described by Franclemont. I. Escambia Co.: Sept. 16, 1961, SMH. III. Weekiwachee Springs: March, (May), CPK. IV. Bradenton: March, (Kelschelm), CPK. Oneo: March, April, JCF; April, May, Aug., Oct., (Dillman), CPK. VI. Homestead: Oct., (Wolfenbarger), CPK.

3776 H. ORCIFERALIS Walker Pl. XVIII, Fig. 43, ⁴.
Most of the specimens are dark, but some are pale with or without the dark dash. It is relatively common and has been taken from Warrenton to Tavernier in every month. IV. Bradenton: April, May, July, Nov., Dec. VI. Homestead: Feb.-Nov., small peaks in May and Aug.

3777 H. LOUISIANA (Forbes) Pl. V, Fig. 24, ⁴.

TETANOLITA Grote

3778 T. MYNESALIS (Walker) Pl. V, Fig. 26, ⁴.
Mynesalis is very common and presumably throughout the state though there are no records from west of Quincy. It is on the wing all year. I. Quincy: March, June, July, Sept.-Nov. IV. Bradenton: Jan.-March, May, June, Aug.-Oct. VI. Homestead: Feb.-Nov., peaks in May, Aug., Sept.

3780 T. FLORIDANA Smith Pl. V, Fig. 28, ⁴.
Floridana is probably confused to some extent with mynesalis, which it resembles, but it lacks the dark shining ground of the latter. It was listed by Grossbeck (1917, p. 80) as a synonym of palligera Smith, which is a distinct, western species. Floridana has been recorded only from Old Town and Hastings to Punta Gorda and South Bay, and has not been taken in September.

REÑIA Guenée

3782 R. SALUSALIS (Walker) Pl. XVIII, Fig. 44, ⁴.
I. Escambia Co.: May, SMH. II. Old Town:


3784 R. NEMORALIS Barnes & McDunnough Contrib. 4: 127. 1918.
II. Gainesville: Aug. 6, 1958, (Ayers), det. Todd, DPI.

3785 R. DISCOLORALIS Guenée Pl. XIX, Fig. 1, 2.
Spec. Gén. 8: 82. 1854.
There is some question as to whether the Florida specimens are this species or another which is very closely related. I. Florida Caverns State Park: one April, DPI. II. Gainesville: one April, DPI. III. St. Petersburg: one Feb., OB. IV. Okeechobee: three March, JGF. VI. Florida City: eight Feb., April-June, OB; March, JGF.

3789 R. FLAVIPUNCTALIS Geyer Pl. XIX, Fig. 2, 2.
Zutr. exot. Schmett. 4, 25; Figs. 701, 702. 1832.
II. Gainesville: April, UFES; May, DPI, UM. III. Orlando: April, CNC. IV. Bradenton: March-May, Dec., CPK. Okeechobee: March, JGF. Port Sewall: Jan., AMNH. Punta Gorda: April, AKW.

3792 R. FRATERNALIS Smith Pl. XIX, Fig. 3, 2.

3793 R. SOBRIALIS (Walker) Pl. XIX, Fig. 7, 2.


PHELYCTAIINA Moeschler

3796, 1 P. IRRIGUALIS Moeschler Pl. XIX, Fig. 8, 2.
IV. Okeechobee: April 2, 1954, JGF; one May, (Dillman), CPK. Punta Gorda: Dec. 28, 1947, AKW.

CARTERIS Dognin

3796, 2 C. OCUHALUS (Moeschler) Pl. XIX, Fig. 4, 2.

BLEPTINA Guenée

In addition to the species listed below, there is reason to believe that there are several others of the genus present, but more material and study is needed to prove the theory. Some may be seasonal forms.
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3797 B. CARADRINALIS Guenée
Pl. XIX, Fig. 6, δ.

3798 B. MEDIALIS Smith; 3799 B. INFERIOR Grote
Pl. XIX, Fig. 5, δ; Fig. 9, ω.
According to Franclemont, medialis is merely a synonym of inferior. It is a fairly common insect through the peninsula and Keys, and exhibits some variation. There are records for all months. The larva is supposed to feed on dead leaves.

3800 B. SANCAMONIA Barnes & McDunnough
Contrib. 1, pt. 5, p. 27. 1912.

3802, 2 N. SP.
III. Egmont Key: April 13, 1904, (Ramstedt), UM. IV. Siesta Key; four March-May, det. E. L. Todd as near araealis Hampson, CPK. VIII. Tavernier: six July, Sept., Oct., (J. N. Todd), CPK.

3803 H. CACUMINALIS (Walker)
Pl. XIX, Fig. 11, δ.
Cacuminalis is undoubtedly much more common than the records indicate. I. Monticello: April, CU; Aug., DPI. II. Alachua Co.: Aug., DPI. Gainesville: May, UFA; July, CU. III. Cassadaga: April, SVF. Winter Park: July, DPI. Orlando: April, CNC; June, CU. Indian River: AMNH. Oldsmar: Sept., WBR. Stetler: June, Sept., CNC. IV. Bradenton: March, AEB; Sept.-Nov., CPK. Oneco: March, April, JCG; May, Sept., CPK. Archbold Biological Station: April, Sept., YU. Okeechobee: Jan., CPI. Sierra Key: Nov.-June, CPK. Charlotte Harbor: (Slosson), Grsb. 80. Punta Gorda: March-May, AKW. Miami: Sept., (Sleight), Grsb. 80. VIII. Key Largo: May, DPI. Tavernier: Aug.-Oct., DPI.

3805 L. AMBIGUALIS (Walker)
Pl. XIX, Fig. 12, δ; Fig. 15, ω.

3805, 1 L. ALUCITALIS (Guenée)
Pl. XIX, Fig. 13, δ; Fig. 16, ω.
Spec. Gén. 8: 73. 1854.
The generic status of this and the following spe-
cies has been shifted about from time to time and is placed here on the advice of Franclemont who believes it fits *Lascoria* more closely than *Epitonymiptera* Kaye. The two species are close. The male palpi of *aluctalis* are longer than those of *orneodalis*, and the female has a dark diagonal mark from the apex of the forewing which is absent in *orneodalis*. The records are mixed, and are further complicated by the fact the determinations were first made as *aon* Druce. So far as is now known, the latter is not present in Florida and would not be expected, being western. Definite records for *aluctalis* are: III. Cassadaga: Dec., SVF. St. Petersburg: Feb., AKW. IV. Bradenton: March, Aug., Oct., CPK. Oneco: March, April, JGF. Archbold Biological Station: April, YU. Siesta Key: Feb., Nov., CPK. VI. Homestead: Feb.-April, Aug.-Nov., CPK. Florida City: JGF; USNM: Feb.-May, July, Aug., OB; June, Aug., CU. The following may belong here or to *orneodalis* below; they will all need to be reviewed. III. Cassadaga: Nov., SVF. Orlando: Jan., WMD. IV. Bradenton: March, CPK. Oneco: April-June, Aug., Sept., CPK. Okeechobee: Jan., JGF. Port Sewall: Feb., AMNH. Archbold Biological Station: Feb., YU. Siesta Key: Nov.-May, CPK. VI. Homestead: Oct.-Feb., CPK. Florida City: Feb., AMNH; Feb., April, WRB; July, HEW. VIII. Tavernier: Sept., DPL. Except for a few specimens, all my material has been distributed to other collections, and consequently is not readily reviewable.

3805, 2 a. *ORNEODALIS* (Guènéé)
Pl. XIX, Fig. 14, 9; Fig. 17, 9.
Spec. Gén. 8: 73. 1854.

Most of these have been determined by Franclemont. Florida: USNM. III. Cassadaga: Aug., SVF. Weekiawachee Springs: June, CPK. Leesburg: Nov., DPL. Tarpon Springs: Feb. 1949, det. at British Museum, JLC. IV. Bradenton: USNM; Sept., CPK. Oneco: March, April, JGF; June, Aug., CPK. Archbold Biological Station: April, YU. Siesta Key: Nov.-Feb., April, June, CPK. AKW. V. Chokoloskee: USNM. VI. Homestead: Feb., May, June, CPK. Florida City: JGF; Feb., April-Sept., OB; June, Aug., CU. VIII. Key Largo: May, DPL.

PALTHIS Hübner

3807 P. ANGULALIS Hübner
Pl. XIX, Fig. 18, 9.
Samm. eur. Schmett. Pyr.; Fig. 107. 1796.


3808 P. ASOPIALIS (Guènéé)
Pl. XIX, Fig. 19, 2.
Spec. Gén. 8: 96. 1854.

*Asopialis* is a common species throughout, except that there are no records from the Keys. It has been taken in every month. Food: reported on corn and beans; *Bidens* (Needham), Forbes (1954, p. 409); *Erechtites hieracifolia*, Marshall & Musgrove (1937, p. 103).

**DERCETIS** Grote

3810 D. VITREA Grote
Pl. XIX, Fig. 20, 2.

I. Escambia Co.: April, SMH. II. Alachua Co.: April, DPI. Gainesville: April, DPI. III. DeLand: March, AKW. Cassadaga: April, Sept., Nov., SVF. IV. Bradenton: March, Aug., Sept., CPK. Some of the Bradenton specimens are straw colored instead of the typical gray, and may be a color form. Oneco: April, JGF; April, May, CPK. Food: *Diptera* [Syntherisma].

3811 D. PYGMAEA Grote
Pl. XIX, Fig. 21, 2.


**Family PERICOPIDAE**

**COMPOSITA** Hübner

3816 C. FIDELISSIMA VAGRANS Bates
Cover.
Psyche 40: 123. 1933.

According to Bates, all Florida specimens belong to the subspecies *vagrant*. The species is relatively common in the Keys and is taken frequently in the Miami-Paradise Key region. North of Miami it is very rare, most of these records dating before the freeze of 1896. However, there are two recent records which suggest that it may be moving its range slowly north once more. III. Indian River: (Dyar), Grsb. 82. IV. Jupiter: Westcott (1894, p. 118); March 10, 1948, OB. Lake Worth: (Slosson),
Dyar (1890a, p. 105); Decl. 1952, (Capron), L.H. Palm Beach: larvae on *Echites umbellata* and cultivated oleander, eggs on *Cynanchum scoparium* [*Vincastrum scoparium*], Dyar (1901a, p. 452). Food: *Canavalia*.

**THEBRONE** Boisduval

3816 1 T. TRICOLORA (SuZer) 
Gesch. Ins.; Pl. 22. 1776.

IV. Miami: Dec. 25, 1945, (Klots), AMNH. As this was taken at the airport, it is certainly an accidental stray, probably introduced by plane.

**Family NOTODONTIDAE**

**ICHTHYURA** Hübner

3825 I. INCLUSA JOCOSA Henry Edwards 
Pl. XIX, Fig. 22, form normal, δ; Fig. 23, form *jocosa*, δ. 
Ent. Amer. 2: 10. 1836.


**DATANA** Walker

3829 D. MINISTRA (Drury) 
III. Exot. Ent. 2: 25; Pl. 14, Fig. 3. 1773.


3830 D. ANGUSI Grote & Robinson 

I. Warrington: common, spring 1961, VFG. Monticello: April 15, 1933, UM; Aug. 21, 1935, DPI. II. Gainesville: July 19, 1945, det. Franeumont, UFES. Food: linden, hickory, also reported to be walnut, birch.

3832 D. MAJOR Grote & Robinson 
Pl. XIX, Fig. 24, δ; Fig. 25, θ. 


3834 D. RANAECPS Guérin-Ménéville 
Pl. XIX, Fig. 28, θ. 
Icon. Régne Anim. Ins. 2; Pl. 87, Fig. 1. 1829-1844.


3835 D. MODESTA Beutenmueller 
Psyche 6: 297. 1890.


3837 D. [ROBUSTA] Steckner 
Pl. XIX, Fig. 27, δ. 

Here again we have a species to which the name does not apply, but for lack of one, we must list it under that by which it has been known. II.
THE LEPIDOPTERA OF FLORIDA


3838 D. PERSPICUCA Grote & Robinson

3839 D. INTEGERRIMA Grote & Robinson

3842 D. CONTRACTA Walker
Florida: det. Franclemont, CPK. This specimen was taken at either Monticello, Gainesville, or Sanford, but the label was lost. III. Mount Dora: larvae on Quercus nigra, Aug., DPI. IV. Bradenton: three, (Kelsheimer), det. Franclemont, GCES. Food: oak, chestnut, hickory, witch hazel.

HYPERAESCHRA Butler
3845 H. GEORGICA (Herrich-Schaeffer)
Pl. XIX, Fig. 28, 8; Fig. 29, 9.
Samml. ausserere Schmett. p. 66; Fig. 384. 1856.

LOPHODONTA Packard
3854 L. ANGUlosa (Abbot & Smith)
Pl. XIX, Fig. 30, 2. Lep. Ins. Ga. 2: 165; Pl. 88. 1797.

EUNYSTALEA Grote
3855 E. INDIANA (Grote)
Pl. XIX, Fig. 32, 5.
Papilio 4: 7. 1894.
III. Indian River: type, Grote, also Smith (1893, p. 231). Note that this was before the freeze. IV. Siesta Key: June 2, 1957, CPK. Fort Lauderdale: Feb. 11, Aug. 28, 1953, UM. Coral Gables: HFS. VI. Homestead: Feb., Dec., CPK. Florida City: May-July, OB, JGF. Paradise Key: March, Dyar (1921b, p. 142). VIII. Key Largo: March, SVF. Tavernier: Aug., CPK.

3856 E. EUtalANTA (Dyar)
Ins. Insc. Mens. 9: 142. 1921.
This is not rare in the Miami-Paradise Key region and a few have been taken at Fort Lauderdale, Tavernier, and on Windley Key. The dates include all months.

NADATA Walker
3857 N. GIBBOSA (Abbot & Smith)
Pl. XIX, Fig. 31, 9.
Lep. Ins. Ga. 2: 163; Pl. 82. 1797.
I. Escambia Co.: March, SMH. Warrington: occasional, summer, VFG. Quincy: April, June, DPI. July, Aug., CPK. Tallahassee: March, JPK. Monticello: March, CPK; April, UM. II. Gainesville: Feb., DPI; April, UFA, DPI. III. Weekiawachee Springs: May, CPK. IV. Bradenton:
THE LEPIDOPTERA OF FLORIDA


NERICE Walker

3858 N. BIDENTATA Walker

SYMMERISTA Neumoegen & Dyar

3859 S. ALBIFRONIS (Abbot & Smith)
Pl. XIX, Fig. 33, 9. Lep. Ins. Ga. 2: 159; Pl. 80. 1797.

According to Francelmont this is the only species of the complex which is found in Florida.

RIFARGIA Grote

3873 1 R. BICHORDA Hampson

ELLIDA Grote

3875 E. CANIPLAGA (Walker)

HYPARPAX Hübner

3865 H. AURORA (Abbot & Smith)
Lep. Ins. Ga. 2: 173; Pl. 87. 1797.

Neumoegen & Dyar (1894c, p. 180) gave the range as “N. Y. to Fla.” I. Escambia Co.: April 28, 1962, a pale color form, May 5, 1962, race venusta Walker. July 28, Aug. 8, 1961, SMH. Myrtle Grove: Sept. 10, 1962, WJW. There is an ambiguous sentence in Packard (1895, p. 187) which deserves comment. It reads: “Mrs. Slosson, who tells me she has seen in Florida hundreds of the normal H. aurora, thinks this variety (meaning perophoroides) is distinct.” Oddly enough on the previous page (186) in giving the geographical distribution of aurora, Packard does not list Florida, although Georgia is mentioned. Why, then, with this statement from Mrs. Slosson in front of him did he not credit aurora to Florida, and if Mrs. Slosson did see hundreds of normal aurora, why have only five specimens, some of them not normal, been recorded otherwise? The only reasonable answer would appear to be that Mrs. Slosson was confused, and yet from her collecting experience in New Hampshire, she must have been well acquainted with aurora.

3886 H. PEROPHOROIDES (Strecker)
Pl. XIX, Fig. 34, 5. Proc. Acad. Nat. Sci. Phila., p. 152. 1876.
Perophoroides is not an uncommon species and has been taken from Warrington to Florida City in every month. The color form tyria which was described by Slosson (1894a, p. 198) from Charlotte Harbor is a “deep Indian red.” The form is a very striking insect and is apparently very rare. An occasional specimen has the ground color golden yellow. Francelmont says that aurostriata Graef is not a form perophoroides, but the color form of another, western species.

DASYLOPHIA Packard

3889 D. ANGUINA (Abbot & Smith)
Pl. XX, Fig. 1, 9. Lep. Ins. Ga. 2: 167; Pl. 84. 1797.

In the northern part of the state typical anguina is present, but at Oneco both this and form punctagorda Slosson show up, with only the latter found farther south. II. Jacksonville: April, HEW. Lake Geneva: March, HEW. III. DeLand: March, AKW. Cassadaga: Feb., April, SVF. IV. Bradenton: Nov., CPK. Oneco: March, JGF; June, CPK. Archbold Biological Station: April, May, Aug., YU. Siesta Key: May, CPK. Punta Gorda: type of punctagorda, Slosson (1892, p. 139).

3881 D. THYATIRIOIDES (Walker)
I. Torreya State Park: April 12, 1960, (Denmark), DPI. Instead of the basal patch being reddish, as is typical, it is close to the ground color. Quiny: Sept. 9 and 27, 1960, (Tappan), CPK. Both the latter are also off color.
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LITODONTA Harvey

3888 L. HYDROMELI Harvey
Pl. XX, Fig. 3, δ.
Can. Ent. 8: 5. 1876.


HETEROCAMPA Doubleday

[3887 H. lineata (Druce)]
This was listed from Florida by Dyar (1902, p. 253) with a "?". Nothing was turned up to warrant the removal of the question mark. Whether Dyar's questioned record was based on a specimen in the USNM, is impossible to say at this point. The specimen is labeled "Sarasota, Manatee Co." which places the date before 1921, but how much before is again impossible to say. One thing is certain, that the specimen looks very suspiciously like "dealer material.

3888 H. ASTARTE Doubleday
Pl. V, Fig. 6, δ; Fig. 15, 9.
Entomologist, p. 57. 1841.


[3887, 1 H. distinguenda (Walker)]

IV. Sarasota: USNM. The label is similar to that on lineata above, and open to the same strong suspicions.

8890 H. VARIA Walker
Pl. V, Fig. 7, 9; Fig. 18, δ.

8891 H. OBLIQUA Packard

8892 H. CUBANA Grote
Pl. XX, Fig. 2, 9.

8899 H. SUBROTATA Harvey

8902 H. UMBRATA Walker
Pl XX, Fig. 4, δ; Fig. 5, 9.
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3905 H. MANTEO Doubleday
Variable oak leaf caterpillar. Pl. XX, Fig. 8, 9. Entomologist, p. 58. 1841.

3906 H. BIUNDATA Walker
Pl. XX, Fig. 6, 8; Fig. 7, 9. List Lep. Ins. Br. Mus. 5: 1025. 1855.
All Florida specimens, with the exception of those from Escambia County, are of reddish form mentioned by Packard (1895, p. 241). However, Franclemont is of the opinion that this may be a distinct race or species. I. Escambia Co.: March, April, SMH. Quincy: Sept., CPK. II. Gainesville: UFES, Feb., DPI. III. Cassadaga: Sept., SVF. Winter Park: (Slosson), Packard. IV. Oneco: March, JGF; April, May, Aug.-Oct., CPK. Archbold Biological Station: Feb., March, Aug., Sept., YU; Nov., Dec., PSU. Siesta Key: Jan., CPK. Food: maple and other trees.

3907 H. GUTTIVITTA (Walker)
Saddled prominent.
Here again Franclemont thinks that a separate species or race may be involved. I. Escambia Co.: form hugo Cermack, April, typical guttivitta, Aug., SMH. Warrington: WP. Quincy: April, CPK. II. Gainesville: Feb., CPK; Sept., UFES. St. Johns Bluff: March, April, (Doubleday), BM. III. Marion Co.: July, UM. St. Petersburg: April, AKW. IV. Bradenton: Feb., March, CPK. Oneco: March, JGF. Archbold Biological Station: Jan., YU; March, PSU. Siesta Key: June, CPK. Fort Myers: (McDunnough), AMNH. VI. Homestead: March, CPK. Food: beech, apple, maple, and other trees; lychee, DPI.

3908 H. BILINEATA EXSANGUINIS Dyar
Pl. XX, Fig. 9. Bull, Brooklyn Inst. Arts Sci. 1: 97. 1908.

MISOGADA Walker

3909 M. UNICOLOR (Packard)
I. Myrtle Grove: May 26, 1963, WJW.
3909, 1 M. PALLIDA Schaus
There is a great deal of variation in pallida, and it is almost certain that the dark form is the same thing that was described from Cuba by Torre & Alayo (1959, p. 21) as Disphragis zayasi. Franclemont also believes that the species probably belongs under Heterocampa. VI. Dade Co.: May 31, 1951, CPK. Florida City: JGF; May 31, (Strohecker), CPK. Paradise Key: JGF; March 20, 1941, (Jones), CPK. VIII. Key Largo: two Jan. 30, 1959, SVF; Jan. 31, April 10, 1959, (Weems), DPI. Tavener: Oct. 24, 1985, (J. N. Todd), CPK.

FENTONIA Butler

3910 F. MARTHESSA (Cramer)
Pl. XX, Figs. 10, 11, 2. Fap. Exot. 2: 5, Pl. 58, Fig. A. 1779.
These are decidedly atypical, but Franclemont has been unable to find any genitalic differences that would indicate another species is involved. I. Escambia Co.: March, SMH. Warrington: WP. Quincy: form nigra Cermack, Sept., CPK. Monticello: Feb., March, DPI. II. Old Town: March, CPK. Gainesville: Feb., DPI, April, UM. III. Cassadaga: April-July, SVF. Orlando: May, CNC; Nov., WMD. Indian River, opposite Micco: larva, (Jenkins), Grsl. 84. Polk Co.: Feb., DPI. IV. Bradenton: Feb., March, GCS. Oneco: March, JGF. Archbold Biological Station: Jan., March, YU. Siesta Key: Feb., March, CPK. Biscayne Bay: (Slosson), Grsl. 84. VI. Dade Co.: May, Sept., HFS. Paradise Key: March, CPK. Food: oak, maple.
DICENTRIA Herrich-Schaeffer

3912 D. LIGNICOLOR (Walker)
Pl. XX, Fig. 13, v. List Lep. Ins. Br. Mus. 5: 1101. 1855.

3919 D. SEMIRUFESCENS (Walker)
IV. Biscayne Bay: (Slosson), Grsb. 84. Food: willow, birch.

3919.1 [D.] SP.
This is the same thing as a specimen taken by Mather in Mississippi, and determined by Todd as probably new, either Dicentria, Schizura, or possibly a new genus. I. Escambia Co.: one each, April, May, 1962, SMH. Quincy: May 19, 1963, (Tappan), CPK.

SCHIZURA Doubleday

3920 S. IPOMOEAE Doubleday
Pl. XX, Fig. 12, form cinereofrons, δ. Entomologist, p. 59. 1841.

3921 S. CONCINNA (Abbot & Smith)
Red-humped caterpillar.

3923 S. BADIA (Packard)
Pl. XX, Fig. 14, δ. Proc. Ent. Soc. Phila. 3: 361. 1864.

3924 S. UNICORNIS (Abbot & Smith)
Pl. XX, Fig. 15, δ; Fig. 18, θ. Lep. Ins. Ga. 2: 170; Pl. 86. 1797.

3926 S. APICALIS (Grote & Robinson)

3927 S. LEPTINOIDES (Grote)
Pl. XX, Fig. 17, θ. Proc. Ent. Soc. Phila. 3: 323. 1864.
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[3928, 1 S.] SP.
I. Escambia Co.: Aug, 21, 1961, SMH; Sept. 4, 1962, (Hills), CPK. Todd places this as possibly Schizura, possibly Migosada, or possibly an unrecognized genus. There is nothing like it in U. S. National Museum collection.

CERURA Schrank

3929 C. SCITISCRPTA Walker
Pl. XX, Fig. 18, 3; Fig. 19, 8.

[3930 C. multicincta Riley]
As noted above, Forbes makes this a subspecies of scitiscrpta, and one whose range is probably too northern to reach Florida. The following records, then, are likely to belong under typical scitiscrpta. II. Union Co.: larvae on Salix caroliniana [longipes], March 25, 1955, (Hetrict), UFA. III. Tavares: Oct. 26, 1940, (Norris), W. P. A. Card, with no other data. Georgiana: NYSM.

3931 C. CANDIDA Limtner
Ent. Contr. 4: 87. 1978.
VI. Paradise Key: April 10, 1930, (Englehardt), OB. This was reported by Lemmer (1932, p. 177).

3933 C. BOREALIS (Boisduval)
Pl. XX, Fig. 20, 3; Fig. 21, 8.
Icon. Régne Anim. Ins. 88; Fig. 5. 1829.
I. Warrington: WP. West Pensacola: April, VFG. Quincy: March, DPI; July, Aug., CPK. Tallahassee: March, det. Francemont, JFK. II. Gainesville: March, April, UM. III. Cassadaga: April, SVF. Ormond: (Slosson), Grsb. 84. Orlando: June, WMD. Brooksville: June, AKW. Polk Co.: Feb., DPI. Food: wild cherry.

3935 C. CINEREA Walker
Pl. XX, Fig. 22, 8.

GLUPHISIA Boisduval

3939 G. SEPTENTRONIALIS Walker
I. West Pensacola: July, VFG. Quincy: two Sept. 13, 1960, (Tappan), DPI.

Family LIPARIDAE

HEMEROCAMPA Dyar

The separation of the three species is sufficiently difficult so that some of the determinations may be unreliable.

3948 H. LEUCOSTIGMA (Abbot & Smith)
White-marked tussock moth.
Lep. Ins. Ga. 2; Pl. 79. 1797.

3949 H. DETRITA (Guérin-Ménville)
THE LEPIDOPTERA OF FLORIDA

May, OB. Paradise Key: Dec., det. with "?" AMNH.

3950 H. PLAGIATA (Walker)
This is the southern race. I. Warrington: June, VFG. Quincy: Nov., (Tappan), CPK. IV. Oneco: common, March, April, JGF; April, CPK. Archbold Biological Station: Jan., YU. Franchisee has reared a specimen on oak.

OLENE Hübner
A genus which is in such a state of confusion that practically none of the determinations can be considered final. There are some Florida specimens which cannot be placed even tentatively.

[3951 O. achatina (Abbot & Smith)]
Lep. Ins. Ga. 2: 158; Pl. 77. 1797.
III. Rockledge: NYSM. Barnes & McDunnough (1913b, pp. 53-54), cast doubt as to the presence of this in Florida.

3952 O. BASIFLAVA MERIDIONALIS
Barnes & McDunnough
Pl. XXI, Fig. 1, 8.
Contrib. 2: 58. 1913.
Basiflava occurs in Florida in this form only, and is one of the few where the determinations are reasonably safe, even though the specimen illustrated may be open to question. Florida: Aug., AMNH. I. Tallahassee: April, AMNH. II. Alachua Co.: May, DPI. Gainesville: Feb., UM; April, CPK; April, May, UFES; May, DPI. Island Grove: CNC; May, AKW; May, July, Aug., Grs. 85. Hogarth Landing: Barnes & McDunnough. III. Cassadaga: Oct., SVF. Winter Park: June, AMNH. Orlando: April, June, CNC. Titusville: May, June, CNC. Lakeland: May, June, (McDunnough), AMNH. IV. Oneco: Oct., CPK. Archbold Biological Station: Jan., Feb., det. Franchisee, PSU. Port Sewall: Jan.-April, AMNH. Longboat Key: Jan., CPK. Siesta Key: Feb., April, Nov., Dec., CPK. Punta Corda: May, Dec., AKW. Bonita Springs: July, Dec., OB. Food: oak.

3956 O. LEUCOPHAEA (Abbot & Smith)
Pl. XXI, Fig. 2, 8.
Lep. Ins. Ga. 2: 155; Pl. 78. 1797.
I. Warrington: occasional, summer, VFG. II. Gainesville: Jan., UFA; June, UM. III. Cassadaga: Feb., SVF. IV. Oneco: reared from larva on live oak, April, JGF; April-July, CPK. Siesta Key: Dec.-May, CPK. Miami: Jan., WRB.

3958 O. ATOMARIA PARALLELA
(Grote & Robinson)
Barnes & McDunnough (1913b, p. 70) listed a specimen from Tallahassee, but noted that the locality required confirmation. However, Franchisee has determined two specimens from Weekiwashee Springs, May 15, 1955, (May), CPK, as unquestionably parallela. There are others which match, as well as one can match Olene, the series of atomaria and parallela in U. S. National Museum collection. III. Weekiwachee Springs: April, May, CPK. IV. Oneco: May, CPK. Archbold Biological Station: Dec., YU. Siesta Key: May, CPK. Food: oak, elm.

[3959 O. cinnamomea (Grote & Robinson)]
Dyar (1911a, p. 17) recorded it from Coconut Grove, but Barnes & McDunnough, (1913b, p. 71) believed this was possibly an error. The record needs confirmation. Food: wild cherry.

3960 O. MANTO (Strecker)
SUPERFAMILY

BOMBYCOIDEA

Family LASIOCAMPIDAE

ARTACE Walker

3977 A. CRIBRARIA (Ljung)
Pl. XXI, Fig. 3, 4.

Cribaria is a moderately common species found throughout the state. It has been taken in every month. Food: oak; laurel cherry, DP; rose, DP.

3977, 1 A. ALBICANS Walker
III. Tarpon Springs: Feb., 1949, J.L.C. Inasmuch as the determination of this, as well as of cribra-
ria, was made for Campbell by Tams at the British Museum, the record would appear to be valid, though Forbes says he knows of no record for an Artace with pink palpi being taken in the United States, and has always believed that Walker's locality record ("Georgia") was an error. Since the two species are very similar in pattern, all Artace specimens should be carefully examined for pink palpi.

TOLYPE Hübner

The more material one sees in this genus, the more apparent it is that a thorough study of Florida specimens, with rearings and genitalic dissections, is needed in order to find out how many species are actually present. The three below seem certain, but many specimens do not readily fit into them. Among specimens from the northern part of the state are some which strongly suggest laricea Pich., and in addition to what we are calling minata Dyar and Tolype sp., it is possible to sort out what appears to be a third species, all three exhibiting fairly uniformly different characteristics when arranged in a series, but the characters are still too close to venture claiming definitely the third species.

3978 T. VELLEDA (Stoll)
Pl. XXI, Fig. 7, 4.
Pap. Exot. Suppl.; Pl. 52, Fig. 4. 1791.
lemon, UFA. Food: apple, poplar and other trees.

3979 T. MINATA Dyar
Pl. V, Fig. 29, 3.

Minta has a white ground instead of gray; which is characteristic of all other Florida species. I. Escambia Co.: Dec. 6, 1961, SMH. Holmes Co.: Oct. 5, 1954, (Dickenson), DP; Jefferson Co.: three Oct. 1-18, 1932, UM. III. Cassadaga: Sept. 17, 1950, SVF. Weekiawchee Springs: April 8, 1954, (May), CPK. There are others in May's collection. Tampa: two Sept. 21-Oct. 4, 1944, WR. IV. The Archbold Biological Station records given by Frost (1923, p. 27, et seq.) are in error and belong under the complex below.

3979, 1 T. SP.
This complex which may include two, if not three species, is quite common from Quincy to Florida City. It occurs in every month. Coconns of this or minata have been reported on pine trees, Crossbeck (1917, p. 90) and Dozier (1920, p. 378). The latter found them on Pinus australis [paulestris].

MALACOSOMA Hübner

3989 M. AMERICANA (Fabricius)
Eastern tent caterpillar. Pl. XXI, Fig. 4, 3.
Ent. Syst. 5: 433. 1793.

Americana is fairly common from Gainesville and Orlando north, and west to Quincy, but there are no records south or west of these localities. Food: apple and other fruit trees, oak; pecans, Univ. of Fla. Pecan Investigations Laboratory file; wild plum, Ins. Pest. Surv. Bull. 19:9; wild crab-apple. ibid. 21:44; Prunus sero-
tina, Coop. Ins. Pest Surv. 5: 25.

3997 M. DISTRIEA Hübner
Forest tent caterpillar. Pl. XXI, Fig. 5, 3.

HETEROPACHA Harvey

3998 H. RILEYANA Harvey
EPICNAPTERA Rambur

3999 E. AMERICANA Harris
Lappet moth. Pl. XXI, Fig. 6, §.

Family ZANOLIDAE

APATELODES Packard

4001 A. TORREFACTA FLORIDANA
Henry Edwards
Pl. XXI, Fig. 8, §.
Ent. Amer. 2: 13. 1886.
Torrefacta is probably found primarily in this form. Florida: (French), Packard, (1895, p. 103); typical torrefacta, (Edwards), Packard. I. Escambia Co.: March, Aug., SMH. Warrington: fairly common, VFG, WP. Quincy: July, Aug., CPK. Monticello: March, DPI; July, UM. II. Hamilton Co.: May, UFA. Gainesville: Aug., DPI. III. Indian River: AMNH. IV. Bradenton: one, (Kelsheimer), GCES; one March, CPK. Oneo: two May, June, (Dillman), CPK. Archbold Biological Station: typical torrefacta, April 11, 1958, (Pease), YU. Food: many kinds of trees and shrubs.

4003 A. ANGELICA (Grote)
Pl. XXI, Fig. 9, §.

SUPERFAMILY DREPANOIDEA

Family THYATIRIDAE

EUTHYATIRA Smith

4011 E. CANDIDA (Smith)
Ent. Amer. 6: 179. 1890.
Candida was described from Florida, (Slosson), Smith. Rindge (1961, p. 10) placed this in the geometrid genus Stenocaris Grossbeck. However, as Franclemont believes it is a synonym of Ceratonyx satanaria Guenée, q.v., further study may be needed to clarify the situation.

Family DREPANIDAE

EUDEILINEA Packard

4018 E. LUTEIFERA Dyar
Pl. V, Fig. 30, §.
Ins. Insc. Mens. 5: 68. 1917.
I. Escambia Co.: March, SMH. Warrington: VFG. IV. Oneo: June 6, 1953, (Dillman), det. Todd, CPK. Siesta Key: May 4, 1960, CPK. Dade Co.: May 20, 1958, (Denmark), DPI.

ORETA Walker

4019 O. ROSEA (Walker)
Pl. XXI, Fig. 10, §.

[O. adona Streckecker]
This was erroneously described from Florida. The species is oriental. The record appears in Dyar (1902, p. 264) and also Grub. 88.
SUPERFAMILY

GEOMETROIDEA

Family GEOMETRIDAE

Dr. Frederick H. Rindge has generously made many determinations for me in this family and has assisted in straightening out problems which have arisen because of the long needed revision of practically the entire family.

Subfamily OENOCHROMINAE

ALSOPHILA Hübner

4026 A. POMETARIA (Harris)
Pl. XXI, Fig. 11, 6.

AMETRIS Hübner

4027 A. NITOCRIS (Cramer)
Pl. XXI, Fig. 17, 6.
This is another example of those species which are found not only in Dade County or the Keys, politically not even in the latter since there are no records from there, but which before the 1899 freeze were taken farther north on the peninsula. III. Indian River: AMNH. IV. Lake Worth: (Slosson), Dyar (1901a, p. 458). Fort Lauderdale: July, Aug., Nov., UM. V. Chokoloskee: USNM. In Dade County it has been taken in every month except October and December. Jones observed that it was often abundant on the hickory trees of Paradise Key at night. Food: Coccoloba diversifolia [floridana], Dyar (1900b, p. 70).

ALMODES Guenée

4028 A. TERRARIA Guenée
Florida: type of rivularia Grote (1883b, p. 79). IV. Dade Co.: Aug., AMNH. Miami: Sept., (Davis), SIM. Biscayne Bay: (Slosson), Grsb. 86. VI. Florida City: May, OB, WRB, CPK, HEW. The Coconut Grove record (Grsb. 86) was the type of subaustralis Hulst (1898c, p. 194) which Forbes says is actually an Epimecis, q. v. VIII. Key Largo: July 20, 1962, (Weems), DPI.

Subfamily GEOMETRINAE

RACHEOSPILA Guenée

A difficult genus, but most of the determinations have been made by Rindge or some other specialist.

4029 R. LIXARIA Guenée
Pl. XXI, Fig. 12, 6.
As a help in separating this, Franclemont has pointed out that one segment of the abdomen is green without a blister. Barnes & McDunnough (1917a, pp. 217-218) have discussed certain errors in Grossbeck's determinations of this species as well as of extremaria Walker. Not common, but taken in many places from Escambia County and Macclenny to Florida City, the dates covering every month except October.

4030 R. CATACHLOA (Hust)
Can. Ent. 30: 160. 1898.

4032 R. ABDOMINARIA Barnes & McDunnough
Contrib. 3: 218. 1917.
The abdomen has a yellowish white dorsal stripe. I. Escambia Co.: June, SMH. III. Weekiawachee Springs: April, May, CPK. Leesburg: Sept., (Englehardt), Grsb. 87. Belleair: Grsb. 86. Stempfer: type, Aug., Barnes & McDunnough. IV. Oneco: June, CPK. Archbold Biological Station: Jan., YU. Port Sewall: Jan., March, AMNH. Siesta Key: May, CPK. Fort Myers: types, April, USNM. Biscayne Bay: (Slosson), Grsb. 86.

4033 R. ASSOCIARIA Barnes & McDunnough
Barnes & McDunnough noted the "much longer palpi in female separate this species from the preceding with which it has great similarity . . . ." IV. Fort Myers: type, one female, April 15-23, USNM.

4034 R. EXTREMARIA Walker
THE LEPIDOPTERA OF FLORIDA

Barnes & McDunnough stated that the “pinkish fringes without any red marginal line seem to be characteristic.” The Crossbeck records (1917, p. 87) belong under abdominaria as pointed out by Barnes & McDunnough (1917a, p. 218). III. Weekiawachee Springs: Feb., Aug., (May), det. Rindge, AMNH, CPK. IV. Okeechobee: March, April, JCF. Archbold Biological Station: Feb.-April. YU. Port Sewall: Feb., March, Nov., Dec., AMNH.

4094. 1. R. [INTEGRA (Warren)]
II. Gainesville: Feb. 22, 1955, (Morse), det. Todd as “either this species or very close to it,” CPK. The fringes of this specimen are strongly checked.

[4096 R. KNOBELARIA Cassino;
4097 R. TEXANA (Hulst)]
Pl. XXI, Figs. 13, 15, 9.
These have been determined by Rindge as possibly knobelaria, but unfortunately the types of this could not be found in the Museum of Comparative Zoology collection. However, the specimens from Warrington matched Cassino specimens in that collection under texana. Until the types of knobelaria are located, the status of the Florida specimens will have to remain uncertain, although Rindge determines these as agreeing with what he is tentatively placing under knobelaria.

[4098 R. rubrolinearia (Packard)]
Rept. Peabody Acad. Sci. 5: 74. 1873.
Barnes & McDunnough (1917a, p. 218) cast considerable doubt on the presence of this species in Florida. All reports of rubrolinearia which were received for the current list, proved to be for laxaria when they were checked. Food: bayberry. It has also been reared on oak.

4043. R. HERBARIA HULSTIANA (Dyar)
Pl. V, Fig. 32, 9.
Herbaria is found in Florida in the form hulstiana only. III. Lake Lucy: Jan., AMNH. IV. Port Sewall: Nov.-Jan., AMNH. Siesta Key: Jan.-June, Nov., AMNH, CPK. Punta Gorda: May, AKW. Lake Worth: larva on flower head of Lantana camara, Dyar (1901a, p. 457). However, there is some question as to whether the record refers to this or the following species, as Dyar lists it under louisa Hulst, now considered a synonym of cupedinaria, but he adds: “It may be called var. hulstiana (or bon. sp.)”. Delray Beach: April, CPK. Dade Co.: March, AMNH. Biscayne Bay: (Slosson), Grasb. 87. V. Marco: April, Grasb. 87. Everglades: April, AMNH. VI. Homestead: March-May, Oct., Nov., CPK. Florida City: April, WBB; May, OB. Paradise Key: March, FMJ. VII. Key Largo: March, AMNH; Sept.-Nov., DPI. Big Pine Key: March, AMNH.

4044. R. CUPEDINARIA Grote
Pl. V, Fig. 33, 9.

[4045, 1. R. atrapes Druce]
Hainback (1916, p. 143) “recorded Racheospila atripes [sic] Druce from Homestead, May 14, (1915), collected by Dr. Castle.” This specimen is in the Academy of Natural Science collection, and Mr. H. J. Grant, Jr., Asst. Curator, kindly examined it for me. He writes: “denl. label reads on obverse 'R. atrapes,' and on reverse 'R. cupedinaria-atraperes is So. Amer., det. F. Lemmer.'” The Buchholz collection has a specimen labeled “Ulysses Id.” presumably meant to be Useppa Island, which may belong here or under the next species. In any event it does not belong to any of the usually recognized Florida species.

4045. 2. R. TENUMARGO Warren
VI. Florida City: two, (Forsyth), in San Francisco Academy of Science collection. These were obtained from Mrs. Forsyth by the Rev. Edward Guedet, who later gave them to the Academy. They were reported by him (1939, p. 29). Dr. Guedet informs me that the determination of these was made at the U. S. National Museum by comparison with named material and that Schaus agreed with the determination. The species is very close to cupedinaria. Again, Buchholz had an odd specimen from Florida City, October 12, 1938, which may fit in here. It would seem, therefore, that there is an opportunity for someone to amass material in this complex and find out just what we do have in Florida, as the evidence strongly suggests that we have more than one species.

[4045, 3 R. expulsata atropoides Prout] In Seitz, Macrolep. 8: 39. 1931.

Prout said this: "seems to be a constant local race in Central America and perhaps Florida." While not acceptable for the list on the basis of a "perhaps," it is at least something to be borne in mind.

NEMORIA Hübner


Florida: Prout (Seitz, 1931, p. 22). However, Forbes (1948, p. 113) limits the southern range to New Jersey. The Division of Plant Industry has a record of adults which emerged August 13, 1933, from ornamentals at Avon Park, but as they are no longer in existence, the record cannot be verified and must be considered highly doubtful. Food: oak, alder, hemlock, and fir.

SYNCHLORA Guenée

4070 S. AERATA (Fabricius)
Ent. Syst. Suppl. 1: 456. 1798.

A number of records for this have turned out to be denticularia below, but there are a few valid records. I. Escambia Co.: March, SMH. III. Cassadaga: April 17, 1953, SVF. IV. Punta Gorda: May 2, det. Rindge, AKW; June 6, AMNH. Bonita Springs: March 8, 1939, (Blancher), OB. Grossbeck (1917, p. 87) listed two specimens from Fort Myers. The one reported in the American Museum of Natural History cannot be located under this name, nor any other. The specimen in the Staten Island Museum has not been examined. Forbes (1941, p. 147) recorded a specimen from the Dry Tortugas. On re-examination he reports that it is denticularia. Food: Compositae.

4071 S. DENTICULARIA (Walker)

Denticularia is a common species from Warrington and Gainesville south to the Dry Tortugas, and collected in every month. IV. Bradenton: Feb., June-Dec. VI. Homestead: Feb.-Nov., small peaks in May and July. Food: chrysanthemum, DPI, CPK; blackberry, (Bratley), UFES. The larva was described by Dyar (1894b, p. 62).

4072 S. FRONDARIA AVIDARIA Pearsall

Florida: Pearsall. Prout (Seitz, 1931, p. 41). As the Florida record was included in the original description, it is a species to be looked for.

CHETEOSCELIS Prout

[4079 C. bistriaria (Packard)]

Larvae found on Thysanella robusta at Lake Hamilton, Dec. 17, 1948, were determined as this by the Division of Plant Industry. However, as the species is found only in the West and as Hulet (1898, p. 193) gives the food plant as Solidago, there is undoubtedly an error in the determination.

PHRUDOCENTRA Warren

4081 P. CENTRIFRUGARIA (Herrich-Schaeffer)
Pl. XXI, Fig. 16, 8. Corresp. Blatt. Regensb. 24: 182. 1870.

Centrifragaria is a highly variable species to which a number of names have been given. Practically all the males from Florida which I have seen are the plain green form; whereas the females usually have spots—often large, sometimes round, sometimes an irregular blotch—all of which may be white, red, or white ringed with red. II. Gainesville: Feb., Nov., DPI. St. Johns River: type of hollandaria (Hulet) (1886b, p. 192). III. Weekiwachee Springs: May, CPK. Indian River: AMNH. IV. Bradenton: March, May, CPK. Oneco: March, April, JGF; April, May, July, Aug., Oct., Nov., CPK. Archbold Biological Station: March, April, Sept., YU; April, CU. Port Sewall: March, AMNH. Sarasota: July, DPI. Siesta Key: March-May, CPK. Charlotte Harbor: types of jaspidaria (Hulet) and viridipurpurea (Hulet), AMNH. Punta Gorda: Feb., April, Dec., AKW. Fort Myers: (Matteis), Grsb. 87. Lake Worth: (Hulet), Grsb. 87. Dade Co.: March, May-July, Oct., AMNH. V. Marco: April, AMNH. Everglades: April, USNM.
VI. Homestead: May, July-Sept., CPK. Florida City: Jan., April-July, Oct., OB; May, July, WRB. Paradise Key: April, FMJ. VIII. Tavernier: Sept., Oct., DPI, AMNH, CPK.

DICORDA Warren

4082 D. IRIDARIA LATIPENNIS (Hulst) Pl. XXI, Fig. 18, 5. Can. Ent. 30: 217. 1898.

The Florida specimens are sufficiently distinct to warrant the racial name. Rindge has made genital slides and finds, however, that it is no more than a subspecies. Latipennis was described by Hulst and also listed by Dyar (1902, p. 335) under the genus Slossonia in the subfamily Ennominae. I. Escambia Co.: close to typical iridaria, April, SMH. West Pensacola: July, VFG. Florida Caverns State Park: April, DPI. Tallahassee: AMNH. Monticello: Aug., DPI. II. Alachua Co.: Sept., DPI. Gainesville: March, UM. III. Orlando: March, OB; April, WMD. Georgia: NTSN. IV. Okeechobee: April, JGF; May-July, Oct., CPK. Archbold Biological Station: Feb., FSU; Feb., Nov., Dec., YU. Port Sewall: Jan., March, AMNH. Siesta Key: Feb.-April, June, CPK. Charleston Harbor: Grsb. 88. Dade Co.: Jan., July, AMNH. Coconut Grove: type of latipennis, (Slosson), Hulst. VI. Homestead: May, July, Oct., CPK. Florida City: May, July, Sept., OB. Food: sumac.

CHLORISSA Stephens


These are currently considered to be no more than color forms of the same species, the one being green, the other orange-yellow. Florida: (Slosson), Grsb. 88, “Whitfield (Strecker),” Grsb. 88. I strongly suspect that this refers to Wittfeld, the collector, as I find no such locality as Whitfield as of Strecker’s era. I. Tallahassee: Jan. 4, det. Rindge with “?,” JPK. In view of the query involved in this determination, there may be some question as to the others and perhaps we should leave the record for the species in the tentative category. However, a recent communication from Wyatt states that Strecker’s type of auranticolorata is labeled “Fla. 1896,” although the date in the description is given as 1899. Also, in the Chicago Museum of Natural History is the Whitfield specimen, two given to Wyatt by Charles Krueger taken by the latter at Miami, February 28, 1929, and specimens reared by Seifert in 1904, from Florida material probably picked up in the fall of 1903. These were also given to Wyatt. Food: oak.

MESOTHEA Warren


Forbes (1948, p. 119) said: “two specimens seen labelled Biscayne Bay, Florida (Slosson) possibly by confusion with Franconia, New Hampshire.”

CHLOROCHLAMYS Hulst

4089 C. P. PAULARIA (Moeschler) Pl. XXI, Fig. 20, 5. Abhandl. Senck. Naturf. 14: 68. 1886.

Paularia is apparently well established and quite common. It was originally assigned to the genus Chloropteryx but Sperry placed it here. I do not know that he ever published this point. III. Weekiawachee Springs: Aug., CPI. St. Petersburg: Nov., AKW. IV. Bradenton: April, May, Oct., CPI. Oneco: May, June, CPK. Archbold Biological Station: Dec., YU. Port Sewall: Jan.-March, AMNH. Siesta Key: Oct.-June, CPK. Dade Co.: July, Nov., AMNH. VI. Homestead: April, July-Sept., CPI. Florida City: May, WRB; a series, OB. Paradise Key: March, FMJ. VIII. Tavernier: Sept., DPI. Big Pine Key: April, AMNH. Most of my material has been distributed and is in the following collections. probably others: AEB, CNR, AMNH, LIR, CU, AKW.


In the opinion of both Sperry and Rindge, it is probable that all records for this species in Florida belong to the next one. Food: blackberry.

CHLOROPTERYX Hulst

4102 C. TEPPERARIA (Hulst) Pl. XXI, Fig. 19, 5. Ent. Amer. 2: 122. 1888.

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Nov., CPK. One:co: March, April, JGF; May-July, Oct., CPK. Archbold Biological Station: January, March, YU. Sarasota: April, AKW. Siesta Key: Dec., CPK. Englewood: May, CU. Forbes notes that this last has an abnormal wing form and may be paularia. Almost certainly it is paularia. Punta Gorda: March, AKW. Bonita Springs: Feb., AMNH.

EUEANA Prout


Niveociliaria apparently is another of the species which may have been driven back to the lower end of the peninsula by the 1899 freeze. II. St. Johns River: (Holland), Grsb. 88. III. Indian River: type of saltusaria (Hulst), AMNH. IV. Lake Worth: (Slosson), OB; Dyar (1901a, p. 456). Matheson Hammock: Feb., AMNH. VIII. Tavernier: Sept., Oct., DPI, AMNH, CPK. Key Vaca: Nov., det. Rindge with "P," CPK. Big Pine Key: April, AMNH. Food: Kruglendron ferreum [Cordalia ferreum], Dyar (1900d, p. 118).

EUROSTES Hüber


VIII. Key West: (Riley), Hulst (1895a, p. 71).

Subfamily STERRHINAE

EUMACHRODES Warren

4108, 1 E. YPONOMERTARIA (Guenée) Spec. Gén. 9: 471. 1857.

VI. Homestead: June 25, 1959, (Wolfenbarger), det. Todd, CPK.

EUACALIDALIA Packard


Florida: (Slosson), Grsb. 88. There is no Slosson specimen in the American Museum of Natural History collection. What Grossbeck's record refers to is anyone's guess; it might be this, the preceding, or the next species. VIII. Key West: USNM. The Key West specimen, looks very much like Texan material, but for a conclusive answer, genitalic comparison would be essential.

4109, 1 E. SP.

This is closer to ypomoneutaria above than it is to sericearia, but it apparently belongs here in the belief of both Todd and Rindge. VI. Homestead: April, June-Aug., CPK. Florida City: March, May, June, AMNH.

METASIOPSIS Prout

4115 M. OSSULARIA (Geyer) Pl. XXI, Fig. 22, 3. Zutr. exot. Schmett.; Figs. 909, 910. 1837.

There are two species involved here, and because it is impossible to separate the records, I am lumping them all under this name. I. Escambia Co.: June, July, SMH. II. Gainesville: March, UM; July, CU. East Florida: as magnificetaria (Walker), (Doubleday), Parkard (1876, p. 356). Starke: June, AKW. III. Cassadaga: March, SVF. Weekiwachee Springs: April, CPK. Lakeland: May, AMNH. IV. Bradenton: April, May, July, CPK. One:co: March, April, JGF; May, Aug., AMNH, CPK. Archbold Biological Station: June, AKW; July, Dec., CU; AMNH. Dec., AMNH. Siesta Key: Nov.-May, CPK. Punta Gorda: March, May, AKW. Fort Myers: April, May, AMNH. La Belle: April, AMNH. Lake Worth: Dyar (1901a, p. 457). Dade Co.: March, Oct.-Dec., AMNH. Food: Callium and chickweed.

4115, 1 M. SP.

This species is very close to ossularia but darker. As yet Rindge has not been able to find out whether it has a name or is new. If new, he will describe it. As explained above the records are confused and presently inextricable. I have both species from Gainesville and Siesta Key. In the American Museum of Natural History collection there are specimens from: IV. Port Sewall: March. Dade Co.: Oct., Miami: Feb., March.


Here too the records are mixed because Rindge finds that rufescens (Hulst) is a good species, and both certainly occur. IV. Port Sewall: Jan., Feb., Nov., AMNH. Siesta Key: May, CPK. Englewood: March, CU. Punta Gorda: April, May, AKW. Fort Myers: April, AMNH. Lake Worth: Dyar (1901a, p. 457). Dade Co.: April, June, July, Oct., Dec., AMNH. VI. Modélo: April, HEW. Homestead: May, June, Sept., Oct., CPK. VIII. Tavernier: Sept., Oct., AMNH, CPK. Windley Key: May, DPI, CPK. Craig: May, DPI, CPK.

4118, 1 M. RUFESCENS (Hulst) Trans. Amer. Ent. Soc. 23: 305. 1896.

III. Winter Park: Sept., AMNH. IV. Bonita Springs: March, Nov., Dec., AMNH. Fort
Lauderdale: March, April, June, det. Rindge, UM. South Miami: June, AMNH. VI. Homestead: June, det. Rindge, CPK.

4120 M. PERIRRORATA (Packard)
Rept. Peabody Acad. Sci. 5: 71. 1873.

4122 M. LANCEOLATA (Hulst)
Florida: Dyar (1902, p. 296). VI. Paradise Key: occasional at light, FMJ. VIII. Key Vacca: Nov. 13, 1852, CPK.

4124 M. PERALBATA Packard
Pl. XXI, Fig. 23, 8.
Rept. Peabody Acad. Sci. 5: 70. 1873.

SCEOLOPHIA Hulst
There has probably been a certain amount of misdetermination in this genus as several of the species are quite similar and there is just sufficient sexual dimorphism to cause further confusion. Very roughly the species may be separated as follows: pannaria is rather pale reddish; crossiti is a purplish red; and purpurascens has a certain infusion of orange red, particularly along the costa.

4125 S. PANNARIA (Guenée)
Pl. V, Fig. 35, 2.

Pannaria is a common species from Pensacola to Big Pine Key, especially in its southern range. It has been taken in every month. Food: cowpea.

4126 S. CROSSII (Hulst)
Pl. V, Fig. 38, 9.
Can. Ent. 32: 105. 1900.

4128 S. PURPURASCENS (Hulst)
Pl. V, Fig. 36, 5.
Can. Ent. 32: 105. 1900.

4129 S. RUBROTINCTA (Hulst)
J. N. Y. Ent. Soc. 8: 216. 1900.
Dyar (1913e, p. 84) said that rubrotincta might be a suffused specimen of purpurascens. Franclemont is of the opinion that it is nothing more than the female of crossiti. Florida: (Slosson), Grsb. 89. IV. Oneco: March, JGF. Lake Worth: Dyar (1901a, p. 457). Palm Beach: type, March or April, Hulst.

4181 S. LAEVITARIA (Hübner)
Pl. V, Fig. 39, 2.
Zutr. exot. Schmett. 5: 20; Pl. 150, Figs. 873, 874. 1837.

Laevitaria is a very common and variable species, taken from Escambia County to Windley Key, throughout the year.

XYSTROTIA Hulst
4138 X. SUAVATA (Hulst)
J. N. Y. Ent. Soc. 8: 217. 1900.
IV. Lake Worth: (Slosson), Grsb. 92. Palm Beach: type, AMNH. V. Marco: April, SIM. Barnes & McDunnough (1916d, p. 219) believed that this record belonged to davisi below. Everglades: April, AMNH. Dade Co.: April-June, Nov., Dec., AMNH. VI. Homestead: May, June, CPK. Florida City: March, JGF; May, OB, WRB; July, CWK. Paradise Key: FMJ. VIII.
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Tavernier: July, Sept., Oct., AMNH, CPK. Food: Randia aculeata, Dyar (1900c, p. 106).

4137 X. DAVISI (Grossbeck)
V. Marco: types, four females, April 17 and 20, (Davis), Grsb. 90. Everglades: paratype, April, (McDunnough), USNM. F. E. Watson, the editor of Grossbeck’s Lepidoptera of Florida, noted that these specimens could not be located. The whereabouts of the first four is still a mystery, unless as suggested by Barnes & McDunnough (1916d, p. 219) they are in the Davis collection. VI. Dade Co.: May, AMNH. VIII. Big Pine Key: April 4-9, 1951, (Sanford), AMNH. Key West: two June 11-19, 1941, (Wyatt), AMNH; Aug. 19, 1944, WRB.

SCOPULA Schrank

4141 S. AEMULATA (Huls)
Pl. XXI, Fig. 24, §.
Aemulata is a fairly common species but is recorded only from Gainesville to Paradise Key, October-August. There is a specimen, I. Escambia Co.: Sept. 13, 1961, which is not typical and may represent another species.

4149 S. ENUCLEATA (Guenée)
Pl. XXI, Fig. 14, 9.

4158 S. inductata (Guenée)]
II. Alachua Co.: April 8, 1959, (Perry), det. Ründge with query, DPI.

4159 S. TIMANDRATA (Walker)
This is found as both typical timandrata and form rufilinata (Walker) which has dark patches at the inner angle of the primaries. II. Alachua Co.: Nov., DPI. Gainesville: March, taken at Phlox drummondii, UFES; April, AMNH, CPK; July, UFES. East Florida: (Doubleday), Packard (1876, p. 355). Jacksonville: (Slosson), Grsb. 89. III. Daytona: Sept., (Englehardt), Grsb. 89. Brooksville: June, AKW. Orlando: Oct., DPI. Rockledge: NYSM. IV. Bradenton: Feb., CPK. Oneco: March, JGF. Punta Gorda: Feb.-April, AKW; March, OB.

4161 S. COMPENSATA (Walker)
This was listed by Grossbeck (1917, p. 89) as Synela subquadrata Guenée. Rindge has found that oburidita (Huls) is a valid species. Consequently it is impossible to separate the records, except for the long series in the American Museum of Natural History, and a few others. Otherwise all one can say is that the complex is very common from Jacksonville to Florida City, and that specimens have been taken in all months. I. Escambia Co.: March, SMH. II. Gainesville: Feb., CPK. III. Leesburg: March, AMNH. St. Petersburg: March, AMNH. IV. Bradenton: March, CPK. Charlotte Harbor: March, AMNH.

4161, 1 S. OBLURIDATA (Huls)
Ent. Amer. 2: 185. 1857.

4162 S. INDOCTARIA (Walker)

4164 S. TAWNEATA (Cassino)
The Lepidopterist 5: 23. 1931.
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There is every probability that tauneta is nothing more than amulata (Hult). The latter was described from a male and the former from a female. Superficially Cassino's type series is indistinguishable from amulata. III. St. Petersburg: types, three July 8, MCZ. IV. Punta Gorda: five Feb., April, May, AKW; one April, OB. VI. Florida City: one April, WRB; one June, WJW.

4165 S. PLANTAGENARIA (Hult)
Ent. Amer. 2: 185. 1887.
Florida: Dyar (1902, p. 295). III. DeLand: two March 27-30, AKW. IV. Archbold Biological Station: June, AKW.

4166 S. PURATA (Guenée)
I. Escambia Co.: July 5, 1902, SMH. West Pensacola: June, VFG. Myrtle Grove: Oct. 28, 1901, WJW.

4166, 1 S. NIGROCANDIDA (Hult)
Can. Ent. 30: 189. 1898.
II. Gainesville: UFES. Jacksonville: Grsb. 89. III. Ormond: type, (Slosson), Hult.

4167 S. LAUTARIA (Hübner)
Pl. XXI, Fig. 25, 3. Zutr. exot. Schmett. 3: 33; Pl. 93, Figs. 539, 540. [1827]- [1831].

Lautaria occurs throughout the state at least as far south as Florida City, flying all year.

4168 S. ROSEOTINCTA (Hult)
It has been found that this is merely the female of Lophosis labeculata (Hult), q. v.

STERRHA Hübner

4174 S. MINUTA (Schaus)
IV. Miami: type, Schaus. VI. Modello: Nov., OB; Nov., Dec., AMNH; Dec., WRB.

4175 S. PARVULARIA (Hult)
Ent. Amer. 3: 218. 1888.
IV. Oneco: April 1, det. with "P," JGF. V. Marco: April 16-23, (McDunnaugh), AMNH.

4175, 1 S. SP.
Dyar (1915, pp. 235-236) described from Panama three closely related species of Psychoda, a genus now incorporated in Sterrha. The three—cedrica, umbrinargo, and sincerio—are also related to parularia above. The following Florida specimens are probably either cedrica or an undescribed species. In none of them is the condition sufficiently good to be certain, for though the maculation in the one from Fort Lauderdale is fairly distinct, the abdomen is missing. IV. Fort Lauderdale: Aug. 4, 1923, (Bates), U.M. VIII. Tavernier: six, Aug. 10-Sept. 17, 1955, (Todd), CPK.

4175, 2 S. SP.
The fore wing of this species is almost identical to that of the species above, but the hind wing is quite distinct. Again, unfortunately, the condition is very poor. IV. Siesta Key: May 24, 1946, CPK. VIII. Tavernier: Sept. 18, 1955, (Todd), CPK.

4178 S. MICROPHYSA (Hult)
III. Egmont Key: April 20, 1904, (Ramstedt?), det. J. B. Smith, UM.

4179 S. SCINTILLULARIA (Hult)
Ent. Amer. 3: 213. 1888.
Florida: type, female, (Beutenmueller), AMNH. IV. Oneco: March 30, 1954, JGF. Punta Gorda: April 1-20, (Ramstedt), AKW.

4180 S. DEMISSARIA (Hübner)
Pl. XXI, Fig. 26, form inclusaria (Walker), 3. Zutr. exot. Schmett. 3: 36; Pl. 97, Figs. 583, 584. [1827]-[1831].

Demissaria occurs mostly as form inclusaria (Walker) and rarely as form russata (Hult). It is quite common and has been taken from Escambia County and Fernandina to Florida City, in every month. However, as Rindge believes several species may be involved, perhaps we should speak of the complex being common, rather than the species.

4181, 1 S. FLAVESCENTS (Hult)

4184 S. HILLIATA (Hult)
Pl. XXI, Fig. 27, 2. Ent. Amer. 2: 187. 1887.
Hilliata is a very rare and striking little species which seems to have suddenly turned up after

4186 S. VIOLACEARIA (Walker)
Rindge finds two species involved, the second apparently undescribed. The following records must include both for the present. Florida: May, (Hulst), Grsb. 91. II. East Florida: (Doubleday), Packard (1876, p. 357). III. DeLand: March, AKW. Cassadaga: April-June, SVF. Orlando: March, AMNH. St. Petersburg: March, AMNH. Stemper: Oct., AMNH, AKW. Lake: May, USNM. IV. Port Sewall: Jan., Feb., AMNH. Siesta Key: March, Nov., CPK. Lake Worth: as Emilia flordata (Hulst), Dyar (1901a, p. 457). VIII. Big Pine Key: March, April, AMNH.

4186, 1 S. SP.
Some of the records for violacearia will be found to belong here.

4187 S. MICROPTERATA (Hulst)
J. N. Y. Ent. Soc. 8: 217. 1900.
Here also there may be two species involved, but further study and material will be required to settle the point. II. Hastings: type, May, AMNH. III. DeLand: March, AMNH, AKW. Cassadaga: June, SVF. Lakeland: May, AMNH. IV. Bradenton: March, CPK. Oneco: March, JGF; May, July, Nov., CPK. Siesta Key: March, May, June, Nov., CPK. Punta Gorda: April, AKW. V. Allen River to Deep Lake: April, AMNH. VI. Modello: Nov., OB.

4188 S. OSTENTARIA (Walker)
II. East Florida: (Doubleday), Packard (1876, p. 356).

4189 S. LACTEOLA Linter
Ent. Contrib. 4: 112. 1878.

4189, 1 S. SP.
This species is very close to lacteola, but with distinct genitalia. Cassino had made slides of both. In the Cassino collection at the Museum of Comparative Zoology there are three specimens, two males and one female, taken at St. Petersburg in May and June. On one is a label "type No. 21802" and on another "o. d. written Sept. 28, 1931." These are presumably in Cassino's hand, but no written or published description can be found. I have one specimen which matches these, Siesta Key, May 21, 1946, the determination having been made by Forbes. There are also two specimens in the University of Michigan collection, both determined by Cassino: IV. Fort Lauderdale: Feb. 9, 1923; May 25, 1928. Archbold Biological Station: Dec., YU.

4190 S. TACTURATA (Walker)
Pl. XXI, Fig. 28, 6.
There may be more than one species involved here too. It, or the complex, is found throughout the peninsula and has been taken in every month.

4191 S. OBATUSARIA (Walker)

4192 S. FUNTOFIMBRIATA (Packard)
Rept. Peabody Acad. Sci. 5: 70. 1873.
I. Escambia Co.: May 24, 1962, det. Rindge, SMH. VI. Biscayne Bay: one, (Slosson), OB.

4193 S. MARCEATA (Cassino)
The Lepidopterist 5: 19. 1931.
The range of color exhibited by marceata reminds one of Cosymbia pendulinaria Guenée although it does not reach the extreme dark specimens of the latter. I. Escambia Co.: April, SMH. Myrtle Grove: Sept., WJW. III. De-

4194 S. BENUBIA (Cassino)
The Lepidopterist 5: 21. 1931.
III. St. Petersburg: types, two males, Jan. 13, March, MCZ.

4196 S. REFRACTARIA (Walker)
II. East Florida: (Doubleday), Packard (1876, p. 356). IV. Archbold Biological Station: July, AMNH. Port Sewall: Nov., (Sanford), AMNH.

4196, 1 S. INSULENSIS Rindge
VIII. Tavernier: types, July-Oct., (J. N. Todd), AMNH, CPK, USNM.

4196, 2 S. SP.
Pl. XXI, Fig. 29, 3.
I. Escambia Co.: May 6, 1962, det. Rindge, as unknown to him, SMH. This specimen was illustrated by mistake as I did not intend to illustrate any unknown species.

LOBOCOLETA Warren

4196, 3 L. SP.
I. Escambia Co.: April 20 and 23, 1961, det. Todd as an unrecognized species, SMH. Hills reports seeing many more during the summer.

SYNONIIL AULUS (Hulst)
4199 S. AUSTRALIS (Hulst)
Florida: type, (Craef), AMNH.

GONIACIDALIA Hulst

4201 S. FURCIFERATA (Packard)
Pl. XXI, Fig. 30, 9. Rept. Peabody Acad. Sci. 5: 63. 1873.

LOPHOSIS Hulst

4202 L. LABECULATA (Hulst)
Ent. Amer. 2: 187. 1887.
The sexes of labeculata are dimorphic, the female, described under the name roseopecta (Hulst), having much more yellow in streaky blotches on both wings. I. Escambia Co.: March, April, SMH. Warrington: April, VFG. II. Lake City: Feb., AKW. Gainesville: June, CU. Starke: June, AKW. III. Deland: March, AKW. Cassadaga: Feb.-April, June, July, SVF. Weekiawachee Springs: Feb.-June, Aug., CPK. Winter Park: May, AMNH. St. Petersburg: April, OB, AKW. Stetler: June, July, OB. IV. Bradenton: Feb.-April, CPK. Oneo: March, April, JGF; May, Oct., CPK. Archbold Biological Station: Feb., March, Nov., FSU; Feb., Dec., YU; April, CU; June, AKW; Dec., AMNH. Port Sewall: March, AMNH. Siesta Key: Jan.-April, CPK. Punta Gorda: Feb., April, OB; Dec.-Feb., AKW. Dade Co.: March, Nov., AMNH. Biscayne Bay: (Slosson), Grsb. 90. V. Everglades: April, AMNH. VI. Homestead: Feb., CPK. Paradise Key: March, CU.

HAEMATOPsis Hübner

4204 H. CRATARIA Fabricius
Ent. Syst. Suppl. 112. 1798.
I. Escambia Co.: Aug. 11, 1962, SMH.

TIMANDRA Duponchel

4205 T. AMATURARIA (Walker)

PLEUROPRCHIA Moeschler

4206 P. INSULSARIA (Guenée)
Pl. V, Fig. 41, 5.
Besides asthenaria below, there may be still another species mixed with this as some specimens look far from normal. However, it must not be forgotten that insulsaria is a very variable insect. Insulsaria itself is common through the peninsula, though like so many other species there are no records from the western counties, except at Quincy. It flies all year and probably is a general feeder, reported from oak, Solidago, and Celastrus.

4206, 1 P. ASTHENARIA (Walker)
This is presumably a valid species, as the lines
are slightly different from those on insularis. It is most readily spotted by its greenish color, but should not be confused with the occasional green color form of insularis. II. Fernandina: Aug., AMNH. IV. Bradenton: April-June, CPK. Oneco: Aug., CPK. Sarasota: April, CPK. Siesta Key: common, May, June 1957, OB, AMNH, CPK, USNM, AKW. Miami: July, AMNH. VI. Homestead: June-Oct., CPK. Florida City: May, June, OB; June, July, AMNH. V. VII. Tavernier: Sept., CPK.

COSYMBIA Hübner

4207 C. CULICARIA (Guenée)
Florida: three, (Slosson), AMNH. I. Myrtle Grove: April, WJW. II. Lake City: June, CPK. Gainesville: Sept., AMNH. Hastings: May, AMNH. III. Weekiawachee Springs: Aug., CPK.

4209 C. MYRTARIA (Guenée)
Because this and the next two species are closely parallel in appearance and because it is practically impossible to separate the females, the records are very uncertain. Furthermore, there are the very slightly different forms triseriata Prout and ignotaria (Walker), both of which are probably present along with typical myrtaria. The latter is probably found throughout the state, as Franclemont has found it common at Oneco and there are specimens from Florida City in the American Museum of Natural History, and Hills has taken it near Pensacola. In both cases the determinations were made by genitalic dissection. Records for the species cover all months but may not have much meaning because of the largely unrecognized presence of the other two.

4209, 1 C. BENJAMINI Prout
In Seitz 8: 96. 1931.
This is the only species of the three which has a simple, unfrayed hind tibia in the male. Culcaria also has the unfrayed hind tibia, but is easily separated on general appearance. Benjami may, therefore, be determined by simple examination. Except for the types, all the determinations have been made by Rindge. II. Gainesville: Sept., AMNH. Hastings: June, AMNH. III. St. Petersburg: type, USNM; AMNH. Stemper: paratype, July, USNM, AMNH. IV. Bradenton: March, CPK. Oneco: May, June, Aug., Oct., CPK. Archbold Biological Station: Nov., PSU. Siesta Key: April, Dec., CPK. VI. Homestead: May, CPK.

4209, 2 C. PACKARDI Prout
In Seitz 8: 95. 1931.
IV. Oneco: April, JGF; May, June, Aug., Oct., (Dillman), det. Rindge, AMNH, CPK. Port Sewall: Feb., AMNH. VI. Homestead: April, CPK.

4212 C. SERRULATA (Packard)
Rept. Peabody Acad. Sci. 5: 73. 1873.

Subfamily LARENTIINAE

DYSPTERIS Hübner

4234 D. ABORTIVARIA Herrich-Schaeffer
Pl. XXI, Fig. 31, c.
Samml. aussereur. Schmett. 62, 82; Pl. 61, Fig. 346. 1855.

HYDRIA Hübner

[4237 H. undulata (Linnaeus)]
Syst. Nat. p. 324. 1758.
The larva of this was reported on melons and young corn by Watson (Ins. Pest Surv. Bull. 18: 36). However, Ferguson, who has made a recent study of this and a new species pruniflora, vide infra, strongly doubts the accuracy of the determination. He writes: "They are very selective in their feeding habits. Undulata feeds on willow, azalea, rhododendron, and syringa, but the other one seems to confine itself entirely to wild black cherry as far as is known.

4247, 1 H. PRUNIVORATA Ferguson
I. Escambia Co.: March 1961, det. Rindge by genitalic dissection, SMH, AMNH. Hills saw several others.
THE LEPIDOPTERA OF FLORIDA

CORYPHISTA Hulst

4248 C. MEADI (Packard)
III. Cassadaga: two Aug. 12-19, 1952, SVF.

EUPITHECIA Curtis

4266 E. MISERULATA Grote
Proc. Ent. Soc. Phila. 2: 32; Pl. 2, Fig. 4. 1876.
I. Escambia Co.: Sept., SMH. Quincy: Sept., NV.
Oct., CPK. Monticello: Sept., DPI. II. Perry:
March, CPK. Gainesville: March, DPI. Jacksonville:
March, HEW; Nov., AMNH. Crescent City: April, Packard (1890a, p. 190). III. Central
Florida: April, Nov., WMD. DeLand: March,
AKW. Cassadaga: Jan.-March, May, June, Sept.,
Oct., SVF. Lake Lucy: March, AMNH. Orlando:
Feb., DPI. St. Petersburg: March, Nov.,
AMNH. IV. Bradenton: March, April, DPI.
Okeechobee Biological Station: Dec., AMNH.
VI. Homestead: Jan., April, May, June,
July, July, Sept., SVF.

E. JEJUNATA McDunnough
I. Ensley: det. Rindge, VFC. II. Gainesville:
Feb., CPK. III. Central Florida: Feb., WMD.
IV. Bradenton: April, CPK. Archbold Biological
Station: March, PSU. Siesta Key: Feb., March,
Oct.-Dec., AMNH, CPK. VI. Homestead: Feb., May, June,
Aug., CPK. Florida City: June, AMNH.

4275, 1 E. SLOssonATA McDunnough
Florida: type female, (Slosson), AMNH. III.
Weekiwachee Springs: one male, Feb. 22, 1955,
(May), AMNH. The latter was described as the
male type by Rindge (1956, p. 2).

[4323 E. russeliata Swett]
III. Tarpon Springs: Feb. 1949, JLC. Although
this specimen was determined at the British
Museum, there is some question as to whether
it may have been determined before or after
McDunnough's revision, issued Aug. 22, 1949,
was actually available. Before the list went
to press, a letter was received from Campbell con-
taining additional information. "As regards E.
russeliata he (Rindge) did not think the speci-
men belonged to this species, though Fletcher
whom I saw at the British Museum on my way
to this country was firmly of the opinion that
it was.... I shall ask Fletcher if he ever made
a genitalia examination of russeliata." Since
there is a difference of opinion and as Forbes
(1949, p. 170) gave Virginia as the southern limit
of the known range, it seems wisest to list the
species only tentatively. Of course, if Fletcher
did examine the genitalia, the question would be
resolved.

HORISME Hübner

4393 H. INTESTINATA (Guenée)
Florida: Packard (1876, p. 171); Forbes (1948,
p. 159). I. Quincy: March 7, 1961, April 30,
1963, (Tappan), CPK.

LYCRIS Hübner

4401 L. DIVERSILINEATA (Hübner)
Grapevine looper. Pl. XXI, Fig. 36. 3.
Samml. exot. Schmegg. 1: 1, 2, 3, 4; Pl. 206.
1806.
Because this and the next species are apt to be
classified, the records may be in error in some
instances. I give them as received. I. Escambia
Co.: May, SMH. Warrington: WP. DeFuniak
Springs: Oct., AMNH. II. Gainesville: UFA;
May, DPI. IV. Bradenton: Oct., CPK. Oneco:
Rowland, April, JGF: May, CPK. Archbold Bio-
logical Station: Jan., April-June, YD; Nov.,
Siesta Key: May, June, CPK. In May 1960 the
species was fairly common and uniformly very
dark. Punta Gorda: April, OB. Fort Myers:
April, AMNH. VI. Florida City: HEW; July,
CWK. Food: Virginia creeper and grape.

4401, 1 L. GRACILINEATA Guenée
Pl. XXI, Fig. 37. 3.
I. Escambia Co.: July, SMH. Warrington: VFG.
II. Hastings: May, AMNH. III. Glenwood:
AMNH. Indian River: AMNH. St. Petersburg:
March, AMNH. IV. Bradenton: May, CPK. Si-
esta Key: April, CPK. Punta Gorda: April,
Dec., AKW. Miami: April, AMNH. VI. Florida City:
April-June, Nov., AMNH. Paradise Key: abun-
dant at light, April, PMJ. Food: Virginia creeper
and grape.

DIACTINIA Warren

4409 D. ATROCOLORATA (Grote &
Robinson)
I. Escambia Co.: May, SMH. Liberty Co.: May
29, 1924, (Hubbell), UM.
HYDRIONEMA Hübner

The genus is a difficult one and because so little has been known about Florida specimens, all those available have been determined by McDunnough or Rindge.

4477 H. PLUVIATA MERIDIANATA

McDunnough


I. Quincy: Jan. 13, Feb. 19, 1963, (Tappan), CPK. Monticello: four Feb. 21, 1953, (Phillips), AMNH, CPK. II. East Florida: Packard (1876, p. 93). At a time when no other Florida specimens were known, I wrote to Mr. D. S. Fletcher to inquire about the latter. Mr. Fletcher very kindly searched for it in the British Museum collection but reported that it was no longer there (Oct. 1954). III. Cassadaga: March 17, 1954, SVF.

4477.1 H. TRANSFIGURATA Swett


[4485 H. renunciata (Walker)]


Florida: Forbes (1948, p. 142). This record was based on Franclemont’s specimen from Boulogne which has since been determined as transfigurata above.

NYCTEROSEA Hulst

4535 N. OBSTIPATA (Fabricius)

Pl. XXI, Fig. 32, 5; Fig. 33, 6.


EUPHYIA Hübner

4559 E. CENTROSTRIGARIA (Wollaston)

Pl. XXI, Fig. 34, 6.


4561 E. MULTIFERATA (Walker)

Pl. XXI, Fig. 35, 6.


[4562 E. implicata grandiosa (Hulst)]

Can. Ent. 30: 118. 1898.

This was credited to Florida by Dyar (1905, p. 284). However, Sperry pointed out that this was a western species, the larva feeding on Abronia villosa, which West informs me does not grow in Florida. It is safe to assume that the species does not belong in our fauna.

PTEROCYPHA Herrich-Schaeffer

4565, 1 P. [DECERTARIA Herrich-Schaeffer]

Pl. VI, Fig. 2, 6.


HAMMAPTERA Herrich-Schaeffer

4566 H. PARINOTATA (Zeller)

Pl. XXII, Fig. 1, 6.


**ARCHIRHOE** Herbulot

4567 A. **NEOMEXICANA** (Hulst)
Pl. VI, Fig. 3, ©. Trans. Amer. Ent. Soc. 23: 285. 1896.
IV. Lake Worth: Grsb. 93. Biscayne Bay: (Slosson), Hulst.

**CAMPTOCGRAMMA** Stephens

4570 C. **FLORIDATA** (Walker)
II. East Florida: (Doubleday), BM. III. "Mangroves." Indian River Inlet: April 14, 1880, USNM.

4571 C. **AUSTRALATA** (Hulst)
Pl. VI, Fig. 1, ©. Ent. Amer. 1: 205. 1886.


**CAMPTOLINA** Schaus

4572 C. **STALLATA** (Guenée)
Pl. XXII, Fig. 2, ©. Spec. Gén. 10: 443. 1857.

*Stellata* is a common species found all through the state from Pensacola to the Dry Tortugas, flying all year. I. Quincy: June-Oct., small peak in Sept. IV. Bradenton: Feb., April, May, Aug., Sept. VI. Homestead: April, June, Oct., small peak in June. Food: *Pisonia aculeata*, Dyar (1900b, p. 59); *Amaranthus*, Russell (1910, p. 177) using the name *Gyschroa stellata* Guenée for the insect.

**EULYPE** Hübner

[4573 E. *hastata* (Linnaeus)]
Syst. Nat., p. 527. 1758.

Packard (1876, p. 165) on the authority of Walker, listed Florida. However, there must be some error here as this is primarily a northern species. Forbes (1948, p. 146), gave the southern limit of range as Pennsylvania.

**EUBAPHE** Hübner

4599 E. **MENDICA** (Walker)
Florida: one March, one n. d., AMNH. I. Quincy: April 2, 1943, (Tappan), CPK. II. Gainesville: June, (Hetrick), CPK. III. New Smyrna: April, AMNH.

4600 E. **MERIDIANA** (Slosson)
Pl. XXII, Fig. 3, ©. Ent. Amer. 5: 7. 1889.


**CYSTEOHORAS** Hulst

4604 C. **PERVERTEPIENNIS** Hulst
J. N. Y. Ent. Soc. 8: 215. 1900.
IV. Palm Beach: the type and one other specimen, March or April, (Dyar), Hulst.

Subfamily **ENNONINAE**

**BAPTA** Stephens

4606 B. **VESTALIATA** (Guenée)
Pl. XXII, Fig. 4, ©. Spec. Gén. 10: 59. 1857.
THE LEPIDOPTERA OF FLORIDA

I. Escambia Co.: Feb.-April, SMH. Florida Caverns State Park: April 13, 1960, (Denmark), DPI.

4608 B. GLOMERARIA (Grote)
Papilio 1: 41. 1881.
I. Escambia Co.: Feb., SMH.

DEILINIA Hübner

[4611 D. quadrifasciata (Packard)]

There is apparently some mix-up on the type, and it would appear that a label has been misapplied. I quote from Rindge (1955, p. 142, under elimaria Hulst, Acisada): “Type male, Florida. . . . According to the original description, the type locality is Colorado, and the species was described from four males in the Hulst collection. There is another male labelled quadrifasciata Packard, typical, from Colorado.” There is no good reason for accepting the species as valid in the Florida fauna.

4612 D. VARIOLARIA Gueneé
II. Gainesville: May 16, 1925, (Bates), det. Rindge, UM.

SYRRHODIA Hübner

The nomenclature used herein is in accordance with Rindge’s recent studies (1950 and 1953). For the separation of the species these papers should be consulted.

4642 S. COLORARIA (Fabricius)
Florida: Jan., March, USNM. I. Warrington: occasional, summer, VFG, WP. II. East Florida: (Dubleday), BM. Andrews: May, USNM. Jacksonville: (Stlosson), Grsb. 95. AMNH. III. Glenwood: USNM. Winter Park: (Fernald), DPI. Orlando: March, April, MCZ. Lutz: March, AMNH. Stempel: March, USNM. Lakeland: May, AMNH. Food: Ceanothus americanus, and reported on Trifolium and Rubus.

4643 S. CRUENTARIA (Hübner)
Samml. eur. Schmett.; Pl. 10, Fig. 48. “1796.”
Cruentaria was formerly known as sphaeromacharia (Harvey). The form perolivata (Hulst) is also found in Florida. Florida: AMNH. Quincy: June, CPK. II. Gainesville: March, UM; April, UFES. River Rise: June, UFES. Prairie Creek: June, UFES. Lake Alice: April, UFES. Hogtown Creek: moths abundant among grasses and blackberry bushes, April, Dozier (1920, p. 378); June, UFES. Hastings: April-June, USNM, AMNH. III. Levy Co.: AMNH. Enterprise: (Stlosson), AMNH. Cassadaga: Aug., SVF. Lake Apopka: April, MCZ. Lake Louise: May, UFES. St. Petersburg: April, MCZ. Bartow: FMJ. Fort Meade: April, USNM. V. Deep Lake: April, SIM. Allen River to Deep Lake: April, Grsb. 95. VI. Homestead: March, CPK.

EPISEMASIA Hulst

4650 E. MORBOSA Hulst
Pl. XXII, Fig. 6. 9.
Forbes (1948, p. 70) makes this a race of solitaria (Walker). It is found here primarily as morbosa, though some of the records have appeared under the former name. I. Escambia Co.: March, May, det. Rindge, SMH. II. East Florida: (Dubleday), BM. Gainesville: March, DPI. Hastings: type of morbosa, June, AMNH. III. Wacasssa River: JGF. DeLand: March, AKW. Cassadaga: two March, one det. Forbes as solitaria, SVF; April, AMNH. Winter Park: May, DPI. St. Petersburg: March, AMNH. Lutz: April, HEW. IV. Oneco: March, April, JGF. Archbold Biological Station: March, CU; Aug., YU. VI. Florida City: Sept., OB.

MELLILLA Grote

4656 [M.] INEXTRICATA (Walker)
This species is an Itame and the records for it will be found under that genus.

HELIOMATA Grote

4659 H. INFULATA (Grote)
Pl. XXII, Fig. 5. 8.
III. Cassadaga: April 4, 1951, SVF.

PHYSOSTEGANIA Warren

4663 P. PUSTULARIA (Gueneé)
Spec. Gén. 10: 49. 1837.

PHILOBIA Duponchel

4665 P. AEMULATARIA (Walker)
I. Escambia Co.: July, SMH. Warrington: July,

4665, 1 F. SP.


**SEMIOTHISA** Hübner

This genus is in a state of confusion and until it is thoroughly revised a large part of the records given herein must be considered tentative.

4669 S. AEOQUIFERARIA (Walker)


4669, 1 S. SP.

This specimen is near aequiferaria, but there is nothing like it in either the U. S. National Museum or American Museum of Natural History collections. IV. Siesta Key: Dec. 31, 1951, CPK.

[4672 S. inapta (Walker)]

There is an inconclusive passage by Hulst (1894, p. 309) which deserves mention, though it cannot be a basis for claiming this species for Florida. He says: "Maecra inapta Walker (type 886 in BM) is also a variety" of *E. solitaria* Walker. While he did not say that *inapta* is from Florida, he did to some extent infer it from the earlier part of the passage: "Ephyra stabilitata Walker, 632, and Antodes repugnata Walker, 1577, all from E. Florida, are, I think, the same (as solitaria) though varying somewhat in appearance." *Solitaria* is found in Florida and has been discussed on an earlier page. I have been unable to find anything about the actual status of stabilitata and repugnata.

4673 S. [BICOLORATA] (Fabricius]
Ent. Syst. Suppl., p. 454. 1798.
These are not like typical northern bicolorata, but Kirkwood has made genitalic studies and has found no differences. I. Escambia Co.: March, SMH. Torreya State Park: April, DPI. Quincy: Aug.-Oct., CPK, CWK. Monticello: Oct., AMNH. II. Gainesville: March, UFA; April, UM; Aug., CWK. Hogtown Creek: abundant, March, Dozier (1920, p. 376). III. Cassadaga: Feb.-May, Oct., SVF. Weeki-wachee Springs: March-June, Aug., CPK, CWK; Aug., AMNH. Winter Park: March, May, DPI. IV. Archbold Biological Station: Jan., FSS; June, AKW; Nov., CU; Dec., YU. Punta Gorda: April, AKW.

4673, 1 S. SP.
Close to the above but obviously distinct, the underside being quite different. III. Cassadaga: Aug., SVF.

4674 S. DISTRIBARIA (Hübner)
Pl. XXII, Fig. 9, 9. Zutr. exot. Schmett. 3: 39. 1825.
THE LEPIDOPTERA OF FLORIDA

4674 I. S. SANFORDI Rindge
Pl. XXII, Fig. 8, 3.

4677 S. MULTILINEATA Packard
Rept. Peabody Acad. Sci. 5: 65. 1873.

4679 S. PUNCTOCLINEATA (Packard)
Pl. XXII, Fig. 7, 3.
Rept. Peabody Acad. Sci. 5: 64. 1873.
The color of this does not quite match western specimens. Kirkwood very generously made a number of slides of what had been suspected to be a complex and found that in addition to punctoclineata, there are present two and possibly three additional species. Unfortunately so much of the material is in such poor condition that nothing satisfactory can be done about placing the additional species, nor can the records be untangled until the species can be named and all Florida specimens reexamined. It can be said, however, that one of the additional species has been taken only at Homestead. The following records cover the rest of the complex. II. O'Leno State Park: Oct., DPI. Hastings: May, Grsb. 94. III. Central Florida: May, WMD. Weekiwassee Springs: March, May, CWK. Sanford: Oct., DPI. St. Petersburg: Dec.-Feb., AKW. IV. Bradenton: Feb., CPK. Archbold Biological Station: June, AKW; Aug., YU. Port Sewall: Dec.-Feb., April, AMNH. Siesta Key: Nov.-June, CPK, CWK. Punta Gorda: April, AKW. Davie: April, CPK, JLP. West Hollywood: April, June, CPK. Dade Co.: Aug., CPK. South Miami: June, NSMS. V. Collier Co.: Dec., DPI. Everglades: April, AMNH. Marco: April, AMNH. Chokoloskee: USNM. VI. Homestead: Feb., DPI; April, AMNH; Feb.-Nov., CPK, CWK. Florida City: Feb., CPK; April, OB; June, NSMS; June, July, AEB; July, HEW, CWK. Paradise Key: March, April, FMJ. VIII. Tavernier: Sept.-Nov., CPK.

[4690 S. granitata (Guenée)]
Granite moth.
Florida: Chapman (Packard, 1876, p. 286), specimen said to be in the collection of the Boston Society of Natural History, which would now presumably be in the Boston University Collection. As all the species or races in this complex are supposed to be spruce feeders, there may be some error here, and the specimen, if still extant, should be re-examined. There is also a record from East Florida: (Doubleday), BM. This, too, should be checked.

4699 S. QUADRINOTARIA Herrich-Schaeffer
Pl. XXII, Fig. 15, 3.
Samml. ausserer. Schmett.; Fig. 347. 1855.
I. Escambia Co.: Feb., March, July, SMH.

[4695 S. EREMIATA (Guenée)]
I. Ocean City: April, HOH. Quincy: May 3, 1962, (Tappan), det. Rindge as probably eremiata, CPK.

4696 S. ORDINATA (Walker)
Florida: (Doll), Grsb. 94; Barnes & McDunnough (1917a, p. 220). III. Weekiwassee Springs: May 1955, AKW. IV. Sarasota: two males May 8-June 1, 1951, (King), det. Rindge, CPK.

4710 S. CONTINUATA (Walker)
Pl. XXII, Fig. 11, 3; Fig. 12, 2.
Both continuata and the form strigulosa (Walker) were described from Florida. The difference between them is small and every degree of intergrade may be found. I. Escambia Co.: March, SMH. Quincy: Sept., CPK. II. Gainesville: April, Oct., DPI; June, UFA. Fernandina: Aug., AMNH. East Florida: (Doubleday), BM. III. Central Florida: June, WMD. Ormond (Slosson), Grsb. 93. DeLand: March, AKW. Cassadaga: April, May, Aug., SVF. Weekiwassee Springs: May, CPK. Titusville: Dec., AKW. St. Petersburg: April, AKW; May, AMNH. Lakeland: May, AMNH. IV. Bradenton: April, AEB, DPI. Oneo: March, JGF; April, CPK. Siesta Key: frequent, Dec.-June, CPK. Food: perhaps Cetis, also reported to be cedar, and doubtfully boneset. It might be noted that of these three, cedar is the only one growing on Siesta Key, at least where I have taken the insect.

4729 S. OCELLINATA (Guenée)
"Hammock land" (Alachua Co.?), May 30, 1914, det. Franelmeon, accession No. 248, UFES. III.
Central Florida: Aug. 1955, det. Rindge, WMD.
Food: locust.

4733. I. INFIMATA (Guenée)
III. Wekiwahee Springs: Aug., (May), CPK. IV. Sarasota: Feb., (Regener), CU. Siesta Key: May, CPK. Fort Myers: April, (McDunnough), AMNH. V. Everglades: April, AMNH.

4738 S. GNOPHOSARIA (Guenée)
Pl. XXII, Fig. 10, d. Spec. Gén. 10: 99. 1857.
I. Escambia Co.: Feb., SMH. Warrington: April, VFG. Quincy: July, CPK. III. Cassadaga: June, Sept., SVF. Wekiwahee Springs: May, June, CPK. Orlando: March, WMD. IV. Bradenton: Sept., CPK. Oneco: March, April, JGF. Archbold Biological Station: June, AKW. Port Sewall: March, AMNH. Siesta Key: May, CPK. Punta Gorda: April, AKW. Bonita Springs: Feb., OB. Fort Lauderdale: May, July, UM. Biscayne Bay: (Slosson), AMNH. VI. Homestead: April, AMNH; April-July, Sept., CPK. Florida City: Feb., CPK; March-June, AMNH; April, OB. Paradise Key: March, JGF; (Blatchley), Jones ms. Food: willow.

4745 [S.] FLUMENATA (Pearsall)
Rindge states that this is not a Semiothisa but is unable to place it generically. IV. Punta Gorda: three March 4, April 23, June 3, (Ramstedt), det. Franclemont, AKW.

ENCONISTA Lederer
4708 E. DISLOCARIA (Packard)

ITAME Hübner
4774 I. LATIFERRUGATA BRUNNEATA
(Packard)

4656 I. INEXTRICATA (Walker)
This has gone under the genus Mellillo in the past. I. Escambia Co.: May, SMH. Ocean City: May, HOH. II. East Florida: Packard (1876, p. 235). III. Enterprise: April, AMNH, Illinois State Lab. Cassadaga: April, SVF. Weekiwahee Springs: May, CPK. Tarpon Springs: April, AKW. Egmont Key: April, UM. IV. Archbold Biological Station: April, CU, YU, Charlotte Harbor: (Slosson), Grsb. 95. Punta Gorda: April, May, AKW. Fort Myers: April, AMNH. South Florida: type male, AMNH; type female of floridensis (Hulst), AMNH.

4781 I. VARADARIA (Walker)
Pl. XXII, Fig. 16, d. List Lep. Ins. Br. Mus. 20: 251. 1860.

[4788 I. CRASSATA (Hulst)]
II. Hastings: type female, June, AMNH. Rindge (1955, p. 140) said: “According to the original description, the type locality is Colorado. However, the specimen with the type label agrees with the original description.” Since the foregoing was published, Rindge (1956, p. 8) has made a genitalic slide of the type and has found that this specimen is a Glena cognataria (Hübner), to which it will fall as a synonym.

4790 I. PARTICOLOR (Hulst)
Can. Ent. 30: 163. 1898.
IV. Lake Worth: type, (Slosson), Hulst (1898b, p. 163).
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4798 I. GUSA PARI A (Grote)
Pl. XXII, Fig. 13, 3.
Papilio I: 41. 1881.
Forbes (1948, p. 70) says that this is a northern race of intracita (Walker), which places it in the genus Thysanopogya Herrick-Schaeffer. Florida records would presumably belong under intracita. Florida: Dyar (1902, p. 312). I. Escambia Co.: Feb., April 5, 1961, SMH. Quincy; Aug., CPK. III. Cassadaga: Dec. 13, 1955, det. Rindge, SVF. IV. Oneco: April, JGF. Archbold Biological Station: March 28, 1958, (Pease), det. Rindge, YU. VI. Paradise Key: March, det. Benjamin, FMJ. The records given by Grossbeck (1917, p. 94) under Cymatophora ceroxaria Blanchard, to wit: III. Lakeland: May 6. IV. La Belle: April 27, and V. Deep Lake: April 13, (Davis). All belong here in Sperry’s opinion. He wrote, “ceroxaria was named from Chile, supposedly equals evarsaaria (Guêneé) and perhaps gausaparia (Grote) from Wisconsin.”

4794 I. NICETARIA (Guêneé)
Florida: Hult (1894, p. 305); two, AMNH. I. Escambia Co.: March 17, 1961, VFG. II. Hastings: May, AMNH. III. Central Florida: June, WMD. IV. La Belle: April, AMNH. VI. Florida City: May, Sept., AMNH. Paradise Key: Dec., AMNH.

4795 I. SOLITARIA (Walker)
See Episemaia morbosa Hult.

4796 I. NERVATA (Guêneé)
Florida: (Hult), Grsb. 94.

EUFIDONIA Packard
[4803 E. notataria (Walker)]
Forbes (1948, p. 63) wrote, “A single specimen labelled Florida is probably in error.”

HYPAGYRTIS Hübner

4807 1 H. PUSTULARIA Hübner
Pl. XXII, Fig. 18, 2.

4808 H. ESTHER Barnes
Pl. VI, Fig. 4, 2.
Pan-Pacific Ent. 5: 11. 1928.

TORNOS Morrison
This genus has been revised by Rindge (1954) and practically every record has been determined by him. The subspecies of scolopacinarius (Guêneé) and abjectarius Hult are listed separately, contrary to the normal practice in this text, because in spite of some overlapping, their ranges are primarily distinct.

4812 T. SCOLOPACINARIUS SPODIUS Rindge
Pl. XXII, Fig. 19, 2.

4812 T. SCOLOPACINARIUS FORSYTHAE Rindge


4816 T. CINCTARIUS Hulst Ent. Amer. 2: 192. 1887.

EXELIS Guenée


MELANOLOPHIA Hulst

Rindge has in preparation a paper describing new Florida subspecies of both species.

4856 M. CANADARIA (Guenée)

4857 M. SIGNATARIA (Walker)

PROTOBOARMIA McDunnough

4875 P. PORCELARIA (Guenée)

CLEORA Curtis

4876 C. SUBLUNARIA Guenée Pl. XXII. Fig. 20, 6. Spec. Gén. 9: 376. 1857.
I. Escambia Co.: three Feb. 1961, det. Rindge, SMH.

4877 C. MANITOBA Crossbeck Can. Ent. 43: 325. 1911.
I. Quincy: March 29, 1962, (Tappan), det. Rindge, CWK.

PSEUDOBOARMIA McDunnough

4880 P. UMBROSARIA (Hübner)
Samml. exot. Schmett. I. 204. 1813.
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4881 P. BUCHHOLZARIA Lemmer
Pl. VI, Fig. 5, δ.

4881 1 P. LURIDULA (Hulst)
Rindge (1956, p. 9) has established the validity of luridula and has placed it in this genus. The species closely resembles Glena cognataria but has much more heavily pectinated antennae.
Florida: type, (Slosson), AMNH. III. Cassada: Sept., SVF. Weekiawachee Springs: Aug., (May), CPK. IV. Archbold Biological Station: Feb., (Frost), PSU; March, (Pease), YU.

CLENA Hulst

4882 G. COGNATARIA (Hübner)
Zutr. exot. Schmett. 3: 34; Figs. 549, 550. 1825.

4883 G. CRIBRATARIA (Guenée)
Pl. XXII, Fig. 21, δ.
I. Escambia Co.: March, SMH. Warrington: VFG. VIII. Key Largo: Jan. 29, 1959, SVF.

[4881 G. fuliginaria (Hulst)]
Ent. Amer. 3: 215. 1888.
This false type which is in the U. S. National Museum has already been referred to under Pseudoboarmia buchholtzaria.

ANAVITRINELLA McDunnough

4908 A. PAMPINARIA (Gueneé)
Pl. XXII, Fig. 22, δ; Fig. 23, δ.
Pampinaria occurs throughout the state, though it may be absent south of Miami, and is common from February-December. The larva is a general feeder.

ANACAMPTODES McDunnough

4915 A. DEFECTARIA (Gueneé)
Pl. VI, Fig. 10, δ.
Defectaria is the commonest species of the genus, and has been taken from Pensacola to Tavernier, probably throughout the year. Food: poplar and willow.

4916 A. EPHYRARIA (Walker)
Pl. VI, Fig. 11, δ.
III. Lakeland: May 5, 1912, (Davis), AMNH. IV. Archbold Biological Station: Jan. 16, 1955, (Remington), det. Rindge, YU.

4917 A. HUMARIA (Gueneé)
Pl. VI, Fig. 15, δ.

4918 A. VELLIVOLATA (Hulst)
Pl. VI, Fig. 16, δ.
Bull. Brooklyn Ent. Soc. 4: 34. 1881.
Florida specimens are dull in color with two tones of purple brown, not contrasting like northern specimens. Florida: type, May 6, 1880, AMNH. I. West Pensacola: Dec., VFG. Quin-
II. Gainesville: March 13, 1925, U.M.; May 6, 1948, DPI. III. Marion Co.: July 24, 1938, U.M.
Weeki Wachee Springs: May, CPK. Orlando: April, AMNH. IV. Okeechobee: one April 1955, JGF.
Archbold Biological Station: Dec., PSU. Port Sewall: March, AMNH. Siesta Key: May, CPK.
Miami: June, Dec., AMNH. VI. Homestead: April-June, CPK. Florida City: May, AMNH.
Food: pine.

4919 A. PLUMOSARIA (Packard)
Pl. VI, Fig. 14, 6.
II. Hastings: McDunnough (1920, p. 31). IV.
Okeechobee: March, JGF.

4920 A. CYPRISARIA (Grossbeck)
Pl. VI, Fig. 13, 5.

In the original description Grossbeck speaks of this as being very abundant in the cypress swamps. Records other than his, however, are few.
II. Hastings: May, June 24-30, AMNH.
III. Lakeland: May 4-5, (Davis), SIM. IV. Okeechobee Co.: three on bald cypress, Coop. Econ.
Ins. Rept. 4: 890. Punta Gorda: two March 10, April 24, (Ramstedt), AKW. Fort Myers: April 21, (Jones), OB.
V. Deep Lake: April 13, Grsb. 96. Allen River to Deep Lake: April 12-14, OB, AMNH, SIM. VI. Homestead: Aug., CPK.

4921 A. PERGRACILIS (Hult)
Pl. VI, Fig. 12, 2.
Can. Ent. 32: 105. 1900.

Grossbeck (1917, pp. 98-99) refers to two forms, one "in which the two principal cross lines are very broad and conspicuous and the intervening space white"; the other "has the cross lines narrow edged with a broad deep ochreous band and the color gray." The latter has no name. I. Escambia Co.: Feb., SMH. III. Cassada: May, June, SVF. Winter Park: June, DPI.
Lakeland: April, AMNH. IV. Archbold Biological Station: Sept., AMNH, CPK, YU; Nov., Dec., PSU. Port Sewall: March, AMNH. Siesta Key: Jan., CPK. Punta Gorda: April, Dec., AKW. Fort Myers: April, AMNH. South Bay: April, AMNH. Biscayne Bay: (Slosson), AMNH.
Miami: April, AMNH. South Florida: type, Hult. V. Allen River to Deep Lake: April, AMNH. Everglades: April, AMNH, SIM. VIII. Big Pine Key: April, AMNH.

IV. Punta Gorda: April 5, 1941, AMNH. Biscayne Bay: (Slosson), AMNH.

ECTROPIS Hübner

4946 E. CREPUSCULARIA (Dennis & Schiffermueller)
Florida: (Slosson), Grsb. 99. I. Quincy: April, CPK. Monticello: Oct. 7, AMNH. II. Alachua Co.: June, July, DPI. III. Winter Park: April, DPI. Food: according to Forbes (1948, p. 59), hemlock in Canada, with none other indicated. Grossbeck, on the other hand, gives a long list of purported food plants.

GLENIOIDES McDunnough

4948 G. TExANARIA (Hult)
Ent. Amer. 3: 216. 1888.

4950 P. SPARSARIA (Walker)
Pl. XXII, Fig. 17, 5.
VI. Florida City: June, July, AMNH. VIII. Tavernier: July-Oct., AMNH, CPK. Big Pine Key: March, AMNH.

PIMAPHERA Cassino & Swett

EPIMECIS Hübner

As there are several species of the genus found in the Florida City region, it is quite possible that the records may be mixed and even that there may be additional names involved.
4951 E. HORTARIA (Fabricius)
Pl. XXII, Fig. 24, 5
Ent. Syst. 5(2): 138. 1794.
This has been taken as both typical hortaria and form dendraria (Guenée). L. Escambia Co.:
March, May, SMH. Myrtle Grove: Aug., WJW.
Quincy: Sept., CPK. Tallahassee: March, JPK.
II. Lake City: CU. III. Gulf Hammock: Lari-
rent (1897, p. 47). Daytona: March, CPK. Or-
mond Beach: Feb., CPK. Enterprise: Slosson
(1917, p. 94). Cassadaga: March, May, SVF.
Brooksville: June, HEW. Winter Park: Sept.,
DPI. Indian River: AMNH. Plant City: March,
UM. IV. Rye: July, OB. Archbold Biological
Station: March, Nov., PSU. Stuart: Jan., UM.
Port Sewall: March, AMNH. Punta Gorda:
March, OB. Port Lauderdale: July, UM. VI.
Florida City: April, AMNH. Food: tulip tree,
sassafras; Nectandra cornicata [Persea catesby-
ana], Slosson (1905, p. 70).

4951, 1 E. SUBAUSTRALIS (Hust) Can. Ent. 30: 194. 1898.
This is the species which was erroneously as-
nigned to the genus Almodes. It is placed here
on the authority of Forbes, who with Capps,
examined the type. Forbes notes that it is close
to jamaicaria (Oberthür) but much smaller and
hardly angled. IV. Coconut Grove: type, USNM.

4951, 2 E. MATRONARIA (Guenée)
Pl. VI, Fig. 21, 5
IV. Biscayne Bay: (Slosson), AMNH. Miami:
USNM. South Florida: Aug., OB. V. Cypress
1, 1959, (Wolfenbarger), CPK. Paradise Key:
March, (Barber), USNM.

4951, 3 E. ANONARIA (Felder)
Reise Nov. 2; Pl. 125, Fig. 20. 1874.
V. Cypress Swamp: one male, AMNH. Choko-
loskee: one female, AMNH.

4951, 4 E. FRATERNARIA (Guenée)
Pl. VI, Fig. 20, 5
IV. Matheson Hammock: two March, JGF.
Coral Gables: Jan. 9, 1949, Oct., (Strohecker),
CPK; one Feb., JGF.

4951, 5 E. DETEXTA (Walker)
Pl. VI, Fig. 22, 5.
IV. Archbold Biological Station: June 24, ABS.

South Miami: June 17, 1944, (Forsyth), AMNH.
VI. Homestead: Dec.-Feb., May-Oct., (Wolfen-
barger), AMNH, CPK; reared from larva col-
lected by Wolfenbarger on avocado, June 16,
CPK. Florida City: Aug. 14, OB.

PHAEOURA Hulst

4953 P. QUERNARIA (Abbot & Smith)
Pl. XXII, Fig. 26, 5; Fig. 27, 5.
This and Lycia ypsilon below are both variable
and are quite similar in appearance. The males
are readily separable by the antennae, which in
quernaria are evenly pectinate, gradually taper-
ing; in ypsilon they are somewhat shaggy. Flor-
da: (Slosson), Grs. 100. L. Escambia Co.: 
March, VFG. Quincy: May, CPK. II. Old
Town: March, CPK. Gainesville: Jan., UFA; 
Feb., DPI. III. Cassadaga: March, SVF. Win-
ter Park: March, DPI. IV. Archbold Biological
Station: Feb., FSU. Siesta Key: Jan., Feb., DPI,
AMNH, CPK. Punta Gorda: Feb., AMNH.
Food: oak.

PHICALIA Duponchel

4956 P. OLIVACEARIA (Morrison)
I. Long Beach: det. Ferguson, HEW. II. Gaines-
14, AKW.

I. Escambia Co.: Feb. 15, 1981, VFG. Quincy:
five Feb. 1-22, 1961, (Tappan), AMNH. CPK.
II. Gainesville: two Feb. 1-19, 1955, (Morse),
AMNH, CPK.

4958 P. TITEA (Cramer)
Pl. XXII, Fig. 29, 5.
Pap. Exot. 3: 148; Pl. 275, Fig. C. 1782.
I. West Pensacola: Feb. 14, 1961, (Grant), AMNH,
Wright: March, HOH. Quincy: Feb. 25, 1961,
(Tappan), AMNH. Monticello: Feb., March,
(Phillips), det. Franclemont, CPK. II. Gain-
sville: Feb., (Perry), DPI, CPK. III. Cassadaga:
Feb. 20, 1953, det. Franclemont, SVF. IV. Si-
esta Key: March 12, 1961, det. Ringde, CPK.
Larva a general feeder.

LYCIA Hübner

4952 L. YPSILON (S. A. Forbes)
Pl. XXII, Fig. 25, form carlotta Hulst, 5.
Rept. State of Ill. Ent. 14: 95; Pl. 10, Fig. 4.
1885.

**CERATONYX** Guenée

4594 **C. SATANARIA** Guenée

Pl. XXII, Fig. 28, Ξ. Spec. Gén. 9: 194. 1857.

Forbes says the type of this is lost. It was described by Guenée from a drawing by Abbot, evidently unpublished. Forbes also tells us that *Euthyatra candida* Smith, q.v., is a synonym of this. These determinations are based on some larval studies by Franclemont on a congeneric Arizona species. I. Escambia Co.: three Feb. 1961, SMH, CPK, USNM.

**STENOTRACHELYS** Guenée

4978 **S. APPROXIMARIA** (Hübner)

Pl. XXII, Fig. 30, δ; Fig. 31, Ξ. Samml. exot. Schmett. I; Pl. 205, Figs. 1-4. 1812.


**SERICOPTERA** Herrich-Schaeffer

4950 **S. VIRGINARIA** (Hulst)

Pl. XXIII, Fig. 1, δ. Ent. Amer. 1: 205. 1886.


**LYTROSIS** Hulst

4998 **L. UNITARIA** (Herrich-Schaeffer)

Samml. ausserere. Schmett., pp. 65, 80; Pl. 41, Fig. 204. 1854.


4993, 1 **L. SP.**

An apparently new species which Knudsen has also taken in Georgia and Franclemont in New Jersey. The latter will describe it. I. Escambia Co.: April 29, 1962, SMH. Tallahassee: May 1, 1951, det. Franclemont, JPK.

**EUCHLAENA** Hübner

Rindge (1956, pp. 16-19) made a revision of the genus inssofar as it applies to Florida. Since it has not been possible to re-examine all the specimens in the light of his findings, the following records must be considered as subject to error and review. Collectors and institutions holding material in the genus should refer to his paper. All that may be said at the present writing is that records for certain species as listed here will probably belong under certain other names, to wit: those under *obtusaria* (Hübner) will probably be correct; the specimens of *muzaria* (Walker) should be re-examined; *amoenaria* (Guenée) is probably all right; records for *vinulentaria* (Crote & Robinson) and *tivaria* (Walker) will probably belong under *madusaria* (Walker); records for *astylusaria* (Walker) will probably belong under that name which is a subspecies of *amoenaria* (Guenée); 5001, E. sp., is probably *deplanaria* (Walker); and records for *pectinaria* (Dennis & Schiffermueller), with its synonym *deductaria* (Walker), are probably correct.

4965 **E. OBTSUSARIA** (Hübner)

Pl. XXIII, Fig. 2, δ. Samml. eur. Schmett.; Pl. 75, Fig. 390. 1809-1820.

I. Escambia Co.: July, SMH. Warrington: VFG.
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4995.1 E. MUZARIA (Walker)
I. Monticello: April 8, 1919, (Hoffman), CU.

4999 E. AMOENARIA (Guenée)
Pl. XXIII, Fig. 3, form astylusaria (Wlk.), δ.; Spec. Gén. 9: 124. 1857.

4999.1 E. MADUSARIA (Walker)

5000 E. VINULENTARIA (Grote & Robinson)
As noted above, the records for this belong under madusaria.

5001 E. ASTYLUSARIA (Walker)
Inasmuch as Rindge (1956, p. 18) believes this to be the southern subspecies of amoenaaria the records should go under that name, but since both subspecies may be present, I am leaving them separate. I. Escambia Co.: March, SMH.


5001.1 E. DEPLANARIA (Walker)
Pl. XXIII, Fig. 4, δ.; List Lep. Ins. Br. Mus. 26: 1510. 1862.

5003 E. PECTINARIA (Denis & Schiffermueller)
Syst. Verz. Wien., p. 103; Fig. 6. 1776.

XANTHOTYPE Warren
[5007 X. crocataria (Fabricius)]
Ent. Syst. Suppl., p. 146. 1794.
Grossbeck (1917, p. 100) listed several records under this name. Mrs. Forsyth had it on her sale list, and Beebe reported a specimen in the University of Michigan collection, which he was unable to re-examine. However, I believe all of these belong under the next species as it seems to be the consensus that Rufaria Swett is the only species of the genus present in Florida.

5009 X. RUFARIA Swett
The Lepidopterist 2: 88. 1918.
Rufaria is not uncommon from Warrington to Venice and the Archbold Biological Station, taken February-June, August-October, and in December.
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APOLEMA Hulst

5018 A. CARATA (Hulst)
Ent. Amer. 2: 211. 1887.
Florida: type, (Franck), AMNH. IV. Myakka: July 3, (Grossbeck), OB.

HOMOCHLODES Hulst

5022 H. FRISSILLARIA (Guenée)

TACPARIA Walker

5023 T. DETERSATA (Guenée)

5024 T. ZALISSARIA Walker

LOXOGRAMMA Stephens

5025 L. SUBEAQUARIA Walker

5026 L. DIVISATA (Hübner)
Sammel. exot. Schmett. 1; Pl. 207. 1818.
East Florida: ( Doubleday), BM. I. Escambia Co.: March 18, 1962, SMH.

PRIOCYCLIA Guenée

5029 P. DECOLORARIA (Hulst)
Ent. Amer. 1: 107. 1886.

PLAGODIS Hübner

5036 P. FERVERIDARIA Herrich-Schaeffer
Sammel. ausserceur. Schmett. p. 63; Pl. 41, Fig. 203. 1854.
I. Tallahassee: March 10, 1951, det. Francelmont, JPK. Monticello: March 29, 1960, (Phillips), CPK. II. Gainesville: form arrogaria (Hulst), May 23, 1945, (Bates), UM.

HYPERETIS Guenée

5043 H. ALIENARIA (Herrich-Schaeffer)
Sammel. ausserceur. Schmett. pp. 63, 82; Pl. 64, Fig. 364. 1855.

5043, 1 H. AMICARIA Herrich-Schaeffer
Pl. XXIII, Fig. 5, 6.
Sammel. ausserceur. Schmett. 63; Fig. 361. 1855.

NUMIA Guenée

5043, 3 N. TEREBINHERIA Guenée
VIII. Tavernier: Sept. 18, 1955, (J. N. Todd), det. E. L. Todd, CPK.

NEMATOCAMPA Guenée

5044 N. FILAMENTARIA Guenée
Pl. XXIII, Fig. 6, 7.
I. Myrtle Grove: May, WJW. II. Gainesville: one April, one June, the latter with a curious greenish tint, (Hetrick), UFA. Hastings: (Hulst), Grsb. 101. Larva a general feeder.

5151 N. BRUNNEOLINEATA (Hulst)
J. N. Y. Ent. Soc. 8: 218. 1900.
I. Escambia Co.: April 29, 1961, det. Rindge as probably this, SMH. There is also a possibility that this may be expunctata Grote. West Pensacola: May 13, 1963, VFG. II. Gainesville: reared from sweetgum, April 11, 1948, (Weems), DPI. This specimen does not agree entirely with the type, with which it has been compared, but is closer to it than to filamentaria in the opinion of Rindge. The type shows only the two principle lines, whereas in this the wings above show some faint reticulations or mottling. Unfortunately, the abdomen has been gutted by pests. Hastings: type, May, AMNH.

METARRANTHIS Warren

5046, 2 M. HOMURARIA (Grote & Robinson)
Pl. XXIII, Fig. 7, 8.
Contrary to Grossbeck's belief (1917, p. 101)
that the typical form, by which he actually meant the distinct species *hypochraria* (Herrich-Schaeffer), occurs in Florida, there is no evidence thereof. Florida: (Slosson), AMNH. This specimen is labeled, presumably by Crossbeck, "(homuraria typical)." Florida: type of *amethystaria* (Strecker), Rupert (1943, p. 148). I. Escambia Co.: March, SMH. Florida Caverns State Park: April, DPI. Quincy: July, CPK. II. Gainesville: April, DPI. III. Cassadaga: Aug., SVF. Brookslyle: June 12, 1940, VGS. Winter Park: Sept. 2, (Fernald), DPI.

[5049 M. PILOSARIA (Packard)]

I. West Pensacola: May 10, 1962, det. Rindge with "?", VFG. The specimen is a female and is fairly close to a female from North Carolina in the collection of the American Museum of Natural History, placed tentatively under this name.

5052 M. OFIRRIRARIA (Hübner)
Pl. XXIII, Fig. 16, 9.
Samml. exot. Schmett. 2: 219; Pl. 432, Figs. 1-4. 1806.


ENNOMOS Treitschke

5059 E. SUBSIGNARIUS (Hübner)


STENASPLATE Packard

5053 S. ANTIDISCARIA (Walker)

*Antidiscaria* is easily separable from the other species of the genus by its red brown color with a violaceous tinge. Florida: type of *lentaria* (Hulst), AMNH. II. East Florida: (Doubleday), BM. III. Central Florida: (Neumoegen), Grub. 101. Marion Co.: June, July, UM. Dunmellon: Aug., UM. Cassadaga: Jan., SVF. Weekiwachee Springs: April, CPK; Aug., UM. St. Petersburg: March, AMNH. IV. Oneoce: March, April, JGF; April, AKW; April, June, CPK. Archbold Biological Station: Jan.-March, YU; June, AKW. Port Sewall: Feb., AMNH.

5061 S. ZALISSARIA (Walker)
Pl. XXIII, Fig. 9, 9.

This is not to be confused with *Tucaria zalisariza* Walker, which has been more generally known as *Apirasia atropunctata* (Packard). However, there is every possibility of confusion with the next three species, all of which are quite similar. *S. zalisariza* has a relatively smooth t.p. line, at least if this is the true *zalisariza*, about which there is some question. Florida: AMNH, USNM. I. Myrtle Grove: Nov., WJW. II. Fernandina: April, OB. East Florida: (Doubleday), BM. III. Ormond: March, AMNH. Cassadaga: Oct., SVF. Umatilla: June, DPI. IV. Indian River: AMNH. St. Petersburg: March, AMNH. March, Oct., USNM; April, AKW. IV. Giller: Feb., DPI. Bradenton: Feb.-May, DPI; March, AMNH. Oneoce: March, JGF. Archbold Biological Station: Jan., March, PSU. Vero Beach: April, DPI. Port Sewall: Feb., March, AMNH. III. Siesta Key: Jan.-April, CPK. Charlotte Harbor: (Slosson), OB, AMNH. VI. Homestead: Feb., DPI. Florida City: April, May, OB. Paradise Key: March, USNM.

5071 S. ATROCOLORATA (Hulst)
Ent. Amer. 1: 205. 1886.

The t.p. line has a prominent tooth near the inner margin. Florida: type female, AMNH. III. Titusville: Jan. 15, AKW.

[5071, S. rectissima Dyar]

Crossbeck (1917, p. 101) listed specimens from: II. Jacksonville: Sept. 23, (Davis), SIM. IV. Charlotte Harbor: Biscayne Bay: (Slosson). However, as the species was described from the mountains of Mexico and as no Florida specimen has been located, there must be some error. The species is much paler than *zalisariza* or *atrocolorata*, though of the same general pattern. It is possible that the records belong under the next species, which is a shade lighter in tone but not so pale as *rectissima*. The latter name should not stand in our fauna until we have better proof of the presence of the species.

5071, 2 S. SP.
So far this must stand without a name, though it may be one of the tropical species. Florida:
as "Azelina hubnerata atrocolorata," AMNH. III. Ormond: (Slosson), AMNH. Indian River: two, AMNH. IV. Biscayne Bay: (Slosson), OB. VIII. Tavernier: nine April, July, Aug., Oct., Dec., AMNH, CPK.

PERO Herrich-Schaeffer

5072 P. HONESTARIUS (Walker)
Florida: (Slosson), Grsb. 102. In view of the recent separation of barnesi and the fact that it is present in Florida, the foregoing might belong under either name. III. St. Petersburg: type of dyari Cassino & Swett, MCZ. Forbes examined the genital slide of this at my request, and states that it is honestarius without the slightest question.

5082, 1 P. BARNESI Cassino & Swett
Pl. VI, Fig. 6, 3.
The Lepidopterist 3: 143. 1922.

NEPTIA Hulst

5111 N. SEMICLUSARIA (Walker)
Pl. VI, Fig. 23, 3.
Florida: (Koebele), Grsb. 95. I. Warrington: fairly common, summer, VFG, WP. II. Gainesville: April, May, UFA; May, DPI; May, June, UFES. III. Cassadaga: May, SVF. Holly Hill: May, DPI. Brooksville: June, VGS. Eustis: reared from Pinus clausa, May, (Hetrick), UFA, CPK. Orlando: April, WMD. St. Petersburg: April, OB; May, AEB; Sept., AMNH. Tampa: AMNH. Lakeland: May, AMNH. The life history was reported by Hetrick (1960, p. 205).

CARIPETA Walker

5125 C. DIVISTATA Walker
Florida: Packard (1876, p. 238) wrote, "The Floridian example, though in bad condition, does not differ from northern ones, except that the margin of the wing is clearer and the adjoining white band wider." Food: hemlock, balsam, and white pine.

5129 C. LATIORATA Walker
II. East Florida: (Doubleday), BM. Food: white pine or pitch pine.

5130 C. ARETARIA (Walker)
Florida: (Slosson), OB; pupa found on Pinus resinosa. I. Ocean City: March, Oct., OHG. Monticello: March 1, 1955, March 8, 1960, (Phillips), CPK. III. Cassadaga: Jan., SVF.

LAMBINDA Capps

[5149 L. fervidaria (Hübner)]
Zutr. exot. Schmett. 3: 8; Figs. 409, 410. 1831.
Capps (1943, p. 122) said, "I have seen no example of any species of Lambinda that agrees in detail with Hübner's figure, nor any specimens of Lambinda from the type locality (Georgia) except a few examples of pellucidaria, which is evidently not what Hübner had." However, Franclemont (1950a, p. 90) identified the species. What the following records may refer to is conjectural; they may be fervidaria, pellucidaria, or what is more likely, pulitaria, but until we have a record for fervidaria of which we can be sure, it is best to leave the name off our list. II. East Florida: (Doubleday), BM. III. Ocala: April, OA. Indian River: AMNH. Lakeland: May, Grsb. 100. IV. La Belle: April, AMNH, SIM. Chamberlain (1931, p. 1036) said it was, "reported to range from Florida to Montreal . . .", but that, of course, was prior to the date of Capps' and Franclemont's papers.

5150 L. FISCELLARIA PULTARIA (Gueneé)
Pl. XXIII, Fig. 11, 3
This appears to be the only form of the species found in Florida. It is not uncommon and occurs as far south as Florida City, and has been taken December-May and in October. The life history was described by Dyar (1903d). Food: Quercus virginiana.

5142 L. ATHASARIARIA PELLUCIDARIA
(Crote & Robinson)

BESMA Capps

5145 B. QUERCIVORARIA (Gueneé)
Pl. XXIII, Fig. 10, 3
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I. Monticello: March, June, Aug., DPI. II. Alachua Co.: May, DPI. Gainesville: March, UFA; April, DPI. East Florida: (Doubleday). BM. III. DeLand: March, OB; March, April, AKW. Cassadaga: April, May, SVF. IV. Oneco: April, JGF; April-June, Oct., CPK. Food: oak.

LYCHNOSEA Grote

5154 L. INTERMICATA (Walker)

DEUTERONOMOS Prout

5170 D. MAGNARIUS (Guenee)
I. Escambia Co., near Alabama line: WP. Food: maple and many other trees.

APICIA Guenee

5180 A. FUNDARIA Guenee
Pl. XXIII, Fig. 12, 2; Fig. 13, 2.

5184 A. CONFUSARIA (Hübner)
Pl. XXIII, Fig. 14, 2; Fig. 15, 2.
Samml. ext. Schmeltz I; Pl. 199, Figs. 1-4. 1813.

SYSSAURA Hübner

5185 S. HAMULATA (Guenee)
Characterized in the male by the simple antennae. IV. Archbold Biological Station: two females, April, Dec., CU. Forbes notes that though these were verified at the U. S. National Museum, they are a little off and may possibly be only very dark olyzonaria. Port Sewall: Jan., OB. Bonita Springs: March, OB. VI. Florida City: Jan., May, June, OB.

5186 S. OLYZONARIA (Walker)
Pl. XXIII, Fig. 8, 2.
Olyzonaria is very variable and fairly common, probably found throughout the state, though the records are scattered. It has been taken in every month. Florida: type of syzygiaria Hulst (1886b, p. 121).

5187, 1 S. HORTULARIA (Hulst)
Ent. Amer. 1: 205. 1886.
This was described by Hulst from New Jersey and Florida, but there is no further mention of the species in the literature, nor are the types in the American Museum of Natural History.

TETRACIS Guenee

[5197 T. CROCALLATA Guenee]
I. Quincy: June 16, 1963, (Tappan), CPK. This is way out of range, according to Forbes, (1948, p. 107), who gives New Jersey and Kansas as the southern limits. It is quite heavily speckled, which is more characteristic of Canadian specimens, but there does not seem to be anything else this could be.

ABBOTTANA Hulst

5199 A. CLEMATARIA (Abbot & Smith)
The maculation of most Florida specimens is brighter and more pronounced than in northern examples. Florida: (Slosson), AMNH. I. Escambia Co.: four Feb., SMH. Warrington: a form that matches Holland's illustration (1908,
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Pl. XLV, Fig. 33), WP. Quincy: March, July, CPK. Tallahassee: May, JFK. Monticello: Feb., Nov., DPI; Aug., UM. II. Gainesville: March, DPI; April, CPK; May, UFA; July, UFES, CU. St. Johns Bluff (Doubleday), BM. IV. Archbold Biological Station: a very dark specimen, Feb. 24, 1958, (Pease), YU. The larva is a general feeder.

PROCHOERODES Grote

5211 P. TRANSVERSATA (Drury)
Pl. XXIII, Fig. 17, form incursoata (Guenée), ♂. Ill. Exot. Ent. I: 16; Pl. 8, Fig. 2. 1770.
Transversata is quite common and somewhat variable, though most specimens seen run rather small and pale. Walker described both transvertens (1800, p. 16) and transmutens (1800, p. 17) from St. Johns Bluff. Barnes & Benjamin (1927, p. 10) stated that the name incursoata (Guenée) “should be used for the Gulf strip race of transversata with transvertens (Walker) as a color form, slightly paler but with more heavily marked lines.” Both incursoata and transvertens are certainly present, as is probably transmutens, another color form, but typical transversata does not seem to occur. The dates cover September-July. VI. Homestead: May, June, Sept., peak in May. Larvae are general feeders, common on oak and maple.

NEPHELOLEUCA Butler

5212 N. POLITIA (Cramer)
Pap. Exot. 2: 65; Pl. 139, Fig. E. 1779.
This is the large, more brightly colored species, which according to Sperry is found primarily in the Miami region, but because most of the records for Florida have been under this name, it is only possible to list the few specimens which I know belong here. IV. Bradenton: one n.d., one Dec. 1955, (Kelsheimer), CPK. Oneco: one April, (Dillman), CPK. Miami: June, HFS; July, AMNH. V. Chokoloskee: AMNH. VI. Homestead: Oct., CPK.

5212, 1 N. FLORIDATA (Grote)
Pl. XXIII, Fig. 18, ♂.
Floridata is a smaller, duller species. It is quite common from Daytona south and has been taken in every month.

OXIDIA Guenée

This genus has been reviewed recently by Rindge (1957) and the arrangement follows his paper.

5214 O. VESULIA TRANSPONENS (Walker)
Pl. XXIII, Fig. 22, form transponens (Wilk.), ♂. List Lep. Ins. Br. Mus. 20: 20. 1860.
It is found all over the peninsula and flies throughout most, if not all of the year. The specimen listed by Forbes (1941, p. 149) as peosina Guenée from Dry Tortugas is almost certainly a female vesulia. The species shows a wide range of color variation, as first noted by Slosson (1890c, p. 102), with more or less uniformly gray specimens, gray with yellowish median area, gray with dark green median area, and gray mottled with brownish yellow, all intergrading. The basal and posterior lines may vary from quite sharp and distinct to obsolete. One valid larval record is on oak, the pupal case and adult being in the American Museum of Natural History collection. The larva, presumably of this species, has been found on citrus (DPI, and Bates, 1924a, p. 22). It has been reported on Croton (DPI), but both of these should be confirmed to be sure it is this species, although the citrus record is probably correct. It also has been reared from Triplanis sp., (Pease), ABS.

5214, 1 O. CUBANA W. Warren
Cubana is a rare species which was described from Cuba. The color is reddish. There are some specimens without data from the Slosson collection in the American Museum of Natural History which Rindge suspects are the “very dark purple brown” specimens mentioned by her in the note referred to under vesulia, and presumably they came from Florida. IV. Oneco: March, JGF. Archbold Biological Station: Feb. 28, 1900, (Prost), PSU. Siesta Key: Nov.-March, May, AMNH, CPK, BM. Venice: USNM. Bonita Springs: March, OB. Matheson Hammock: reared from cocoon found under loose bark of mangrove, November, HFS. Strohecker reports that there was very little else in the vicinity on which the larva could have fed. V. Everglades: April, AMNH; Nov., CPK. VIII. Tavernier: Oct., CPK.

[O. guenéei (W. Warren)]
Rindge (1957, p. 16) called this “of dubious authenticity, so it should not be accepted as occurring in Florida. . . .” He gives the following “Florida” records: IV. Manatee Co.: USNM. Miakka [sic]: two CM. Miami (?): AMNH. V. Chokoloskee: June, Oct. 12, 1901, AMNH.
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[O. nimbata Guenée]

Rindge noted (1857, p. 17), that the label "Chokoloskee, Fla., June," is in the same hand as that of the Chokoloskee, June, specimen of guenée above, and that Forbes had added a label, "Probably false locality," a suspicion in which Rindge concurred. Rindge also mentioned two male specimens in the Streek Collection, CHNM, labeled "Florida" which are similar in appearance but he is doubtful that they are nimbata, and in any event, he feels the locality data may be disregarded.

[5218 O. mundata Guenée]

Rindge (1857, p. 17) made zonulata Hulst a synonym of this. However, all Florida specimens of it are of very dubious validity, and, in fact, Rindge determined them as masthala Druce below.

[O. masthala Druce]

V. Everglades: one, AMNH; thirteen, USNM; one, CU. Chokoloskee: "A. E. Co., Big Cypress Swamp," Feb. 1900, AMNH; Dec., OB. Rindge (1857, p. 18) said, "it seems doubtful that the above really were taken in Florida, and it would be highly advisable not to accept this name at this time."

PALSAS Guenée

5216 P. Auriferaria (Hulst)
Pl. XXIII, Fig. 19. 3. Ent. Amer. 2: 183. 1887.

This species exhibits a fine range of color variation from a brilliant golden yellow to mignonne green, sometimes with large brownish patches on the inner angle of the forewing. I have often disturbed it in the daytime around palmettos, but have no reason to think that that is the food plant. III. Indian River: AMNH. IV. Fort Sewall: Feb., AMNH. Siesta Key: Nov.-June, CPK. Charlotte Harbor: (Slosson), Grsb. 102. Fort Myers: April, AMNH, AKW. Biscayne Bay: (Slosson), Grsb. 102. Coral Gables: Nov., HFS. V. Marco: April, AMNH. Deep Lake: April, SIM. Everglades: April, AMNH, SIM. VI. Florida City: Feb., March, May, June, July, Sept., OB; March-May, AMNH; May, CWK: June, AKW; Sept., HEW. Paradise Key: March, April, FMJ. VIII. Tavernier: Sept., DPI.

PHRYGIONIS Hübner

5217 P. Argentata (Drury)
Pl. XXIII, Fig. 20, 9. III. Exot. Ent. 2: 25; Pl. 14, Fig. 2. 1773.


MELANCHROIA Hübner

[5218 M. regnatrix Grote & Robinson]
Ann. Lyceum Nat. Hist. 8: 441; Pl. 16, Fig. 15. 1867.

"This is questioned recorded from Florida by Hulst," Grsb. 103.

5219 M. Chephise (Cramer)
Pl. XXIII, Fig. 21, 3. Pap. Exot. 4: 182; Pl. 381, Fig. E. 1782.

Chephise is a common and sometimes abundant day flyer, found throughout the state and recorded in every month. In some specimens the white, apical patch is greatly reduced and in others there are certain undefinable characteristics that make one suspect that a second species may be involved. In three specimens from Key West, two of them reared from Phyllanthus acidus, Jan. (Knowles), the white is entirely absent, but genitalia dissection made by Rindge places them as chephise. Food: Phyllanthus spp., DPI, Ins. Pest Surv. Bull. 10: 187, and Wickwire (1932, p. 16); Brevica niooapa, DPI; ornamentals, DPI.

5220 M. Geometridoides Walker

The status of this in Florida is probably that of a very rare stray. Florida: AMNH. VIII. Key West: several, (Morrison), Edwards (1886, p. 9); two, AMNH; one, OB. Food: Phyllanthus acidus [Cicca disticha] in Cuba.
SPHACELODES Gueneé

5221 S. VULNERARIA (Hubner)
Zutr. exot. Schmett. 2: 23; Figs. 319, 320. 1823.

5221. 1 S. SP.
VI. Homestead: May 14, 1959, (Wolfenbarger), det. Forbes as not vulneraria, CPK. The specimen, which is a male, lacks the contrasting costal triangle, which in this is concordous with the rest of the wing, and the color of the antennae is quite different. There is every reason to believe that it is distinct from vulneraria and not just an aberration, as I am informed by Sr. Ing. Fernando de Zayas, of the Estacion Exp. Agronomic, Santiago de Las Vegas, Cuba, that he has three aberrant vulneraria in which the ground color is light brown instead of grayish and the coastal triangle is white.

SUPERFAMILY URANIOIDEA
Family EPIPLEMIDAE
PHILAGRAULIA Hulst

5222 P. SLOSSONIAE Hulst
IV. Port Sewall: Feb., AMNH. Siesta Key: Jan., March-June, Dec., CPK. Punta Gorda: Feb., AKW. South Florida: type, AMNH. V. Everglades: April, (McDunnough), AMNH. VI. Homestead: May, June, CPK. Florida City: May, AMNH; May, July, Ob. Paradise Key: April, (Jones), USNM. VIII. Tavernier: Aug.; (J. N. Todd), CPK. The Jones specimen was originally determined by Dyar as Epiplema brevifrons Dognin, which is very similar, but a larger species.

CALLIZIA Packard

5223 C. AMORATA Packard

5224 1 C. SP.
This is not amorata; it may be Antillean or new. IV. Siesta Key: April 6, 1954, April 22, 1959, June 13, 1957, det. Forbes, CPK.

SCHIDAX Hubner

5226 S. CORONARIA Strecker
Florida: type, (Koebele), CNHM. I am indebted to Mr. A. K. Wyatt for supplying not only the data on this apparently unique specimen, but also a sketch and photographs, which unfortunately could not be used as part of a plate for technical reasons. The shape of the wings is so unusual that no collector would pass the species by, and it makes one wonder if this might not be another case of locality error on Strecker's part, like Oreta adona.

DIRADES Walker

5226. 1 D. INFANS Warren

Family LACOSOMIDAE
LACOSOMA Grote

5227 L. CHIRIDOTA Grote
Pl. XXIV, Fig. 1, 8; Fig. 2, 9.

CICINNUS Blanchard

5229 C. MELSHEIMERI (Harris)
Pl. XXIV, Fig. 3, 9.
Florida specimens are usually smaller and a rosier pink than those from northern states. Florida: AMNH. I. Escambia Co.: April, SMH. Warrington: rare, summer, WP. Monticello: March, Sept., DPI; April, UM. II. Alachua Co.: Aug., DPI. St. Augustine: (Johnson), Grsl. 104. III. Old Town: April, AKW. Weekiwachee
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SUPERFAMILY
ZYGAENOIDEA

Family LIMACODIDAE

SIBINE Herrich-Schaeffer

5230 S. STIMULEA (Clemens)
Pl. XXIV, Fig. 4, 8; Fig. 5, 8.

Stimulea is found all over the state, the Division of Plant Industry having a long list of records. It has been taken in every month except December. Food: various kinds of trees; corn and citrus, Pla. Agr. Exp. Sta. Bull. 148: 246; Ixora coccinea, Coop. Econ. Ins. Rept. 4: 1043.

5230, 1 S. EXTENSA Schaus
J. N. Y. Ent. Soc. 4: 55. 1896.

V. Chokoloskee: two, det. Dyar, USNM. The origin of these specimens is open to the usual skepticism, but as I have seen other specimens which might belong under this name, it would be advisable to check any not readily recognized as stimulea. VI. Paradise Key: Seitz (1913, p. 1110).

PARASA Moore

5232 P. CHLORIS (Herrich-Schaeffer)
Samml. aussereur. Schmett. 1, Fig. 176. 1854.

III. Hillsborough Co.: Aug. 18, 1938, (Friauf), UM.

EUCLEA Hübner

5233 E. NANINA Dyar
Pl. XXIV, Fig. 6, 8.
Ent. News 2: 61. 1891.

Nanina was reported by Grant as fairly common in summer in the Pensacola area and is not rare from Levy and St. Johns Counties to the Keys. It has been taken in every month except July and December. It is variable in the size of the green spots, though not to the same extent as delphinii below, from which it may be separated by the round discal dot, the latter being elongated in delphinii. Because of the similarity, the records are probably mixed. Clench is of the opinion that there may be an unrecognized species involved in Euclea in Florida. The point should be investigated.

5234 E. DELPHINII (Boisduval)
Cuvier An. King. (Griffith), Pl. 103, Fig. 6. 1832.


MONOLEUA Grote & Robinson

The species are all very similar and there is a great question as to whether some, if not most, may not be simply forms of a single species. The genus should be revised.

5238 M. SUBDENTOSA Dyar
Trans. Amer. Ent. Soc. 18: 156. 1891.

In subdentosa, the band is narrow and preceded by a ferruginous shade; in semifascia, below the band is wider and the shade is lacking. Florida: type, Dyar. I. Warrington: WP. II. Gainesville: Aug., DPI. Crescent Beach: April, May, CM. III. Levy Co.: Sept., DPI. Marion Co.: July, Sept., UM. Pellicer Creek: May, June, CM. Cassadaga: July 17 and 18, 1961, Sept., SVF, CPK. In the July specimens the fascia is reduced to a hairline. Weekiwachee Springs: Aug., CPK. The fascia on these is reduced to a very fine, clear-cut line, and they may represent still another species or form. In the Cassadaga July specimens the ground color is pale.

5239 M. ANGUSTILINEA Dyar
Capron: type, March 23, (Hubbard), USNM.

5240 M. SEMIFASCIA (Walker)
Pl. XXIV, Fig. 7, 9. 
This occurs as both semifascia and form sulfatea Grote, the latter having the fascia yellow instead of white. Florida: Neumogen and Dyar (1894, p. 69). I. Escambia Co.: July, SMH. III. Levy Co.: Sept., DFI. Marion Co.: July, UM. Cassadaga: Aug., SVF. Stember: Sept., AKW. IV. Archbold Biological Station: June, AKW, July, YU. Port Sewall: March, AMNH. Miami: Oct., AMNH. VI. Florida City: May, June, AMNH; Oct., HEW.

5241 M. OBLIQUA Henry Edwards
Ent. Amer. 2: 10. 1886.
III. Indian River: type, Edwards.

5242 M. ERECTIFASCIA Dyar

ADONETA Clemens

5246 A. SPINULOIDES Herrich-Schaeffer
Samml. ausseruce. Schmett.; Figs. 187, 188. 1854.
Florida: Seitz (1918, p. 1120). This record may belong here or to the species below. I. Escambia Co.: April 29, 1962, det. Davis, SMH.

5248 1 A. SP.
According to Carps, who has examined some of my specimens, this is not pygmaea Grote and Robinson, and is either an unrecognized tropical species or new. I. Escambia Co.: SMH. Warrington: May 16, 1961, VFG. Myrtle Grove: July, WJW. Monticello: April, (Phillips), CPK. III. Pellicer Creek: April, CM. IV. Bradenton: two April, Sept., (Kelsheimer), CPK. Oneco: three May, June, Aug., (Dillman), CPK. Punta Gorda: April, (Ramstedt), MOG, AKW.

SISYROSEA Grote

5250 S. TEXTULA (Herrich-Schaeffer)

NATADA Walker

5252 N. NASONI (Grote)
Can. Ent. 8: 112. 1876.

PHOBETRON Hübner

5254 P. PITHECIUM (Abbot & Smith)
Hag moth. Pl. XXIV, Fig. 8, 9. 
Lep. Ins. Ga. 2; Pl. 74. 1797.

ISOCHAETES Dyar

5256 I. BEUTENMUELLERI
(Henry Edwards)
Pl. XXIV, Fig. 9, 5.
I. Escambia Co.: April, May, July-Sept., SMH. III. 5-8 ml. S. of Marineland: May, CM. Enterprise: type, March 31, 1887, (Beutenmueller),
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AMNH. DeLand: March 27, AKW. Titusville: Sept., CM. There are several Florida references in the literature but I suspect they all refer to the type specimen. Food: swamp oak.

ALARODIA Moeschler

5258 A. SLOSSONIAE (Packard)
Pl. XXIV, Fig. 10. 9. Ent. News 4: 169. 1893.

Slossoniae is quite common, especially along the coast in the vicinity of its food plant, red mangrove, from Onoco and Plant Sewall south. There is only one record north of this line, namely: III. Casadaga: May, Aug., SVF. Other food plants are given as Myrina floridana, Ardisia pickeringii, Myrica cerifera, Hypepate paniculata, and Chrysobalanus icaco. The dates for the adults cover August-May.

PROLIMACODES Schaus

5260 P. BADIA (Hübner)
Pl. XXIV, Fig. 11, form argentinacula, 9. Samml. eur. Schmett.; Pl. 150, Figs. 696, 697. 1822.

Badia presumably occurs here only as the form argentinacula Barnes & Dunmough, but some specimens, especially from Quincy, suggest typical badia. It is quite common from Escambia County to Paradise Key and has been taken in every month but December. One specimen from Escambia County is almost black instead of brown. Food: various trees and shrubs, Rhododendron sp., DPI.

LIMACODES Latreille

5262 L. BIGUTTATA Packard

5263 L. RECTILINEA (Grote & Robinson)
Pl. XXIV, Fig. 13. 9.

The strongly colored typical form is predominant, but some specimens, if not faded, might be classified as the form latomia Harvey. I. Escambia Co.: some of these are oddly marked and may represent a new subspecies, April, July, Aug., SMH. Myrtle Grove: Aug., WJJ. Ocean City: Aug., HOH. II. Gainesville: May, DPI, UM; July, CU. Moonroe: June, CM. Crescent Beach: April, CM. III. 5-8 mi. S. of Marine-land: April, CM. Pellicer Creek: April, CM. DeLand: April, AKW. Cassadaga: April, May, July, Sept., SVF. Weekiawkee Springs: April-June, Aug., CPK. Titusville: Sept., CM. Winter Park: Aug., DPI. Stempel: April, Oct., CM. IV. Oneco: March, April, JGF, May-Sept., CPK. Archbold Biological Station: March, PSU; April, YU. Sarasota: May, CPK. Siesta Key: April, CPK. Punta Gorda: March, April, AKW; April, MOG. Fort Lauderdale: April, UM. Miami: April, OB, AMNH; Oct., CM. VI. Florida City: Oct., OB.

5264 L. Y-INVERSA Packard

Occurs in Florida as both typical y-inversa and form parallela Henry Edwards. I. Escambia Co.: April, May, SMH. Quincy: April, DPI. III. Cassadaga: April, Sept., SVF. Weekiawkee Springs: April, May, CPK. Indian River: typical, Grb. 106; type of parallela, AMNH. IV. Oneco: March, JGF. Archbold Biological Station: March, April, Sept., YU. Punta Gorda: April, MOG, CPK; April, May, AKW. Food: hickory and blue beech.

LITHACODES Packard

The more one tries to unravel the relationships of fasciola (Herrich-Schaeffer), laticlavia (Clemens), beifragei Dyar, and gracea Dyar, as separated by Dyar (1925, p. 16), the more confusing it becomes. Northern specimens are a jumble of the first three, with intergrading and overlapping of the characters; in some the indentation of the median line is so slight as to approach gracea. In Florida specimens, this line is either straight or slightly indented, but the width of the dark border beyond varies greatly, and the transverse subapical line is often present and distinct. In fasciola and its forms, the hind wings are usually dark but there are specimens where they are pale, though perhaps always with a slightly darker shade near the inner angle. In gracea, the hind wing is always pale. Fasciola has been reported a number of times from Florida, but I am inclined to believe that only gracea is present, except in the extreme western or southern counties. Whether it is a distinct species or merely a geographical subspecies of fasciola, I would not care to say. Beebe reported that the genitalia were similar to those of fasciola, but there is need for much further study of the subject.

5266 L. FASCIOLA (Herrich-Schaeffer)
Samml. ausser. Schmett. 1: Fig. 186. 1854.
I. Escambia Co.: April 2, 1961, SMH. Warring-


ton: May, VFG. I believe these two are correct, but they could be wrong. See the comment above and also the records for gracce below, which may include some actual records for fasciola.

5287 L. GRACEA Dyar
Pl. XXIV, Fig. 12, 9.
Ins. Insc. Mens. 9: 144. 1921.

HETEROGENEAE Knoch

5274 H. SHURTLEFFI Packard
I. Quincy: May 3, 1861, (Tappan), CPK. II.
Alachua Co.: May 9, 1958, (Denmark), DPI. Gainesville: April 20, 1960, (Denmark), CPK.

SLOSSONELLA Dyar

5276 S. TENEBSROSA Dyar
II. Jacksonville: type, USNM. III. Cassadaga: April 28, 1960, SVF. IV. Archbold Biological Station: March 5, 1958, (Pease), YU; April 1, 1948, (Needham), CU. Hobe Sound: March 3, 1956, (Mrs. Wible), CM. Punta Gorda: three April 10-12, (Ramstedt), AKW.

Family MEGALOPYCIDA

NORAPE Walker

5280 N. OVINA Sepp
II. Alachua Co.: June 21, 1935, (Cantrell), UM. IV. Broward Co.: May 1928, (Bates), UM. Biscayne Bay: (Slosson), Grsb. 106. Food: Cerato canadensis; Lavandula sp., DPI.

MEGALOPYCE Hübner

5288 M. OPERCULARIS (Abbot & Smith)
Pl. XXIV, Fig. 14, 9.
Lep. Ins. Ga. 2; Pl. 53. 1797.
Opercularis is of state-wide occurrence and has been taken in every month. Food: orange, Fla. Agr. Exp. Sta. Bull. 148: 245; pecan, Pecan Investigations Laboratory file; almond, DPI; Brazilian pepper, DPI; persimmon, DPI; moonflower vine, DPI. Reported annoying to persons coming in contact with it, Ins. Pest Surv. Bull. 20: 517.

5288 M. PYXIDIFERA (Abbot & Smith)
Pl. XXIV, Fig. 15, 9.
Lep. Ins. Ga. 2; Pl. 53. 1797.
Pyxidifera is fairly common and probably found throughout the state. It has been taken in every month. Food: Vaccinium, oak; young shoots of live oak, Dyar (1897b, p. 160).

LAGOA Harris

5286 L. CRISPATA Packard
See discussion in text of 5287 below. I. Escambia Co.: WJW. This specimen has the "kinky hair" on the forewings like crista and may be a very pale race. II. Gainesville: May 23, 1933, UM; June 7, 1937, Coop. Ins. Pest Surv. 4: (24): 5. III. Marion Co.: four July 24-28, 1938, UM. IV. Archbold Biological Station: June, AKW. Food: various kinds of shrubs and trees.

5287 L. [LACYI Barnes & McDunnough]
The determination of these specimens is tentative and needs more critical study. In the long series in the University of Michigan collection, the six males all have a yellow tone and there is a more or less distinct discal dot. The nineteen females vary from a somewhat paler yellow to a dirty cream color, the discal dot being fainter and in the cream colored specimens, obsolete. With this long series before one with small, indescribable features hinted at, one is tempted to guess that this might be an unrecognized subspecies of crista Packard rather than lacyi. However, none of these have "kinky hair" as has the Escambia specimen of crista mentioned above. II. Gainesville: July, CPK, CU. III. Ocala National Forest: July, UM. Cassadaga: Aug., SVF, CPK. Orlando: July, WMD. Lakeland: June, UM. IV. Oneco: April, JGF; May, June, CPK. VI. Paradise Key: July, CU.
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Family EPITYROPIDAE

EPITYROPS Westwood


Family ZYGAENIDAE

MALTHACA Clemens

5293 M. DIMIDIATA (Herrich-Schaeffer) Pl. XXIV, Fig. 16, 5. Samml. ausserer. Schmett.; Pl. 43, Fig. 222. 1855.

Florida: (Barnes), Grsb. 107. Grossbeck added, "A Mexican species of doubtful occurrence in Florida, according to Dyar" (1903c, p. 329).

5297 M. SP.
I. Dade City: Oct. 13, 1961, (Wade), det. Francelmont as in this genus, but it does not fit into any of the described species, CPK.

ACOLOITHUS Clemens


5304 A. RECTARIUS Dyar J. N. Y. Ent. Soc. 6: 44. 1898.

HARRISINA Packard

5307 H. AMERICANA (Guérin-Ménéville) Grape leaf skeletonizer. Icon. Régne Anim. Ins. p. 500; Pl. 84bis, Fig. 11. 1829.

Americana is common throughout the state with the possible exception of the Keys whence there are no records. It is on the wing March-September. It probably occurs only as the form australis Stretch, but most of the records read simply americana. There is also one report for form texana Stretch: III. Hernando Co.: Aug., UM. Food: Ampelopsis; grapevine, Coop. Econ. Ins. Rept. 4: 850. Grossbeck (1917, p. 107), gave a long quotation from McDunnough relative to the larva on an unrecognized vine.

SUPERFAMILY

PYRALIDOIDEA

Family THYRIDIDAE

THYRIS Laspeyres

5315 T. LUGUBRIS Boisduval Pl. XXIV, Fig. 19, 5. Spec. Gén.; Pl. 14, Fig. 11. 1852; Spec. Gén. Het. 1: 490. 1874.
Florida: type of margaritana Clemens (1862, p. 137). I. Escambia Co.: March, SMH. Florida Caverns State Park: April, DPI. II. Alachua Co.: March, DPI. Gainesville: March, April, UFES. St. Augustine: (Johnson), Grsb. 107. III. Orange Co.: (Fernald), DPI. Food: grape.

DYSODIA Clemens

[5319 D. speculifera (Sepp)] Surinam. Vlinders 3; Pl. 135. 1890.
Florida: (Hampson), Grsb. 107. Dyar (1913b, p. 45) said that the type of aequalis (Walker) was, "presumably from Florida." This is insufficient evidence to accept the record as valid. I have not located the Hampson reference quoted by Grossbeck.

Florida: type of floridana (Hulst) (1886c, p. 182). Dyar's record (1913b, p. 43) probably referred to this same specimen.

HEXERIS Grote

5321 H. ENHYDRIS Grote Seagrave borer. Pl. XXV, Fig. 20, 5; Fig. 19a, gall formed by larva. Can. Ent. 7: 176. 1875.
The common name is not officially recognized but is in general usage in Florida. Fort Capron: type, Grote. III. Volusia Co.: two Aug. 1956,
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(Denmark), DPI. IV. Fairly common from St. Petersburg and Wabasso Beach south, March-May, July-September, December. Food: larva found boring in the stem of Coccoloba uvifera, DPI; pigeon plum and dove plum, DPI.

**MESKEA** Grote

5323 M. DYSPTERARIA Grote
Pl. XXIV, Fig. 21, 8.
Can. Ent. 9: 115. 1877.
Florida: NYSN. I. Escambia Co.: May, SMH. IV. Bradenton: May, CPK. Siesta Key: April 26, 1936, CPK. Punta Gorda: April 25, 1941, AKW. Fort Lauderdale: April, UM. Opa Locka: emerged from galls, March, DPI. Biscayne Bay: (Slosson), Crsb. 108. VI. Paradise Key: three March 20-April 5, (Jones), FMJ, CPK. Food: Malvacoccus arboreus var. drummondii.

[5323, 1 M. SUBAPICULA Dyar]
This is a synonym of the next species, Rhodoneura terminalis (Walker), q.v. IV. Useppa Island: (Erb), USNM; Lemmer (1932, p. 177).

**RHODONEURA** Guenée

5323, 1 R. TERMINALIS (Walker)
Pl. XXIV, Fig. 22, 8.
Terminalis was first found in the United States, March 24, 1932, on Ulysses (Useppa?) Island, by H. J. Erb. It was originally determined as M. subapicula Dyar but the latter was subsequently found to be a synonym of this species. Rainwater (1934, p. 757), stated that it is found throughout Florida wherever wild cotton grows, which he calls roughly the Cape Sable region and along the rivers and creek banks from there up to Tampa. However, I have found no specific records for it except for the first one.

5323, 2 R. MYRSUSALIS (Walker)

**THRYIDOPYRALIS** Dyar

5324 T. CALLAERANDIALIS Dyar
Pl. VI, Fig. 38, type, 8.
J. N. Y. Ent. Soc. 9: 23. 1901.
IV. Palm Beach: galls in old wood of Randia aculeata, Dyar (1901, and 1901a, p. 464). VI. Paradise Key: galls plentiful but rearing so far unsuccessful, (Craighead). VIII. Key West: larva, (Schwarz), Dyar.

**Family HYBLAEIDAE**

The family is placed here on the authority of Comstock, 1920 (1924), p. 655.

**HYBLAEA** Fabricius

3814 H. FUERA (Cramer)
Pl. XXIV, Fig. 23, 8.
Pap. Exot.; Pl. 103, Fig. D. 1779.
III. Cassadaga: fifteen June, July, Sept., Oct., SVE. IV. Archbold Biological Station: Nov. 29, 1959, FSU. Siesta Key: five, mostly in the daytime on Cestrum diurnum blossoms Nov. 21-24, 1959, CPK; one Feb. 2, one March 6, 1960, CPK. Miami: imago in Jan., from larva on tulip tree, DPI; imago in April, from larva on Kigela pinnata, DPI; one Dec., HEW. Coral Gables: found pupating on Tecoma capenstis, DPI. VI. Homestead: reared on Tabebuia acclimated, emerging May 17, 1960, (Baranowski), STES. Florida City: one Nov., OB. VII. Tavernier: six Aug.-Sept., (J. N. Todd), CPK. Key West: one Aug., WRB.

**Family PYRALIDAE**

Dr. Eugene G. Munroe has rendered me great assistance with the Pyralidae, having not only made many determinations but also by bringing the nomenclature and arrangement into the currently accepted pattern. He was kind enough to list all pyralid specimens from Florida in the Canadian National Collection as well. Inasmuch as this family was the last one drawn up, and as a result of a conference with Munroe just before the last typing, a number of new combinations or even new synonymies may appear in the following pages. Many of these new combinations and synonymies were either in press or in papers by Munroe which would be published before the appearance of the present work, or shortly thereafter. For discussion of these changes, then, the reader should refer to papers by Munroe as they appear. I am also deeply indebted to Mr. Hahn W. Capps for many determinations and clarifications of the nomenclature.

Munroe's "Synopsis of Odontiinae" (1961) was received too late to permit the bringing together of the Florida species under this subfamily heading.
Subfamily GLAPHYRIINAE

GLAPHYRIA Hübner

5325 G. GLAPHYRALIS (Gueneé)

5326 G. SESQUISTRIALIS Hübner

5327 G. INVISALIS Guenée

5328 G. [PSYCHIALIS (Halst)]
Munroe believes there is a possibility that these are not psychialis, especially the specimens from Tavernier. I. Escambia Co.: May, July, SMH. Quincy: May, CPK. II. Gainesville: May, UM; July, CU. III. Volusia Co.: Aug., DPI. Cassadaoga: June, SVF. Egmont Key: April, det. Dyar, UM. IV. Siesta Key: March, May, CNC, CPK. VIII. Tavernier: Sept., DPI, CPK.

5330 G. FULMINALIS (Lederer)
Wien. ent. Monat. 7: 487. 1888.
Grossbeck (1917, p. 110) quoted an observation by McDunnough that there are two color forms, one with the ground color of the primaries a deep brown, the other with pale yellow ground suffused with purple-brown in the median area. I. Escambia Co.: May, SMH. Myrtle Grove: June, WJW. Ocean City: April, HOH. III. Cassadaoga: July, SVF. IV. Bradenton: April, June, Aug., CPK. Oneco: March, JGF; May, July, Oct., CPK. Siesta Key: Feb.-June, Nov., CPK. The Oneco and Siesta Key specimens include both forms. Fort Myers: the pale form, Grossbeck. V. Everglades: the dark form, USNM.

5332 G. BASIFLAVALLIS Barnes & McDunnough
Contrib. 2: 172. 1913.

LIPOCOSMA Lederer

5340 L. SICALIS (Walker)
III. Hernando Co.: Aug. 20, 1938, (Hubbell & Friauf), UM. IV. Punta Gorda: May, MOG.

5341 L. DIABATA Dyar
Ins. Insc. Mens. 5: 70. 1917.

5341, 1 L. SP.

5342 L. FULGINOSALIS Fernald
Ent. Amer. 4: 37. 1888.

5343 L. INTERMEDIALIS
Barnes & McDunnough
Contrib. 1: 5: 32. 1912.
IV. Punta Gorda: three April 19-May 1, (Jones), det. Munroe, CPK. VI. Florida City: March 3, 1946, (Buchholz), det. Munroe, CPK.
CHALCOELA Zeller

[5346] C. IPIHTALIS (Walker)]
Munroe believes that these may very possibly be D. pegasalis below. The specimens should be located, if possible, and re-examined. IV. Charlotte Harbor: Grsb. 127. Biscayne Bay: (Slosson), Grsb. 127.

DICYMOLUMIA Zeller

5347 D. JULIANALIS (Walker)

5350 D. PEGASALIS (Walker)

5350, 1 D. METALOPHOTA (Hampson)

5350, 2 D. SP.
This species is probably new according to Munroe. IV. Archbold Biological Station: April, YU. Siesta Key: four Feb. 24-April 22, 1956; ten Feb., April-June 1957, one Nov. 15, 1958, CPK.

Subfamily PYRAUSTINAE

SUFETULA Walker

5351 S. DIMINUTALIS (Walker)

V. Everglades: (McDunnough), USNM; April 6, AMNH.

5352 S. PHILEGELOS Dyar
Ins. Insc. Mens. 10: 15. 1922.
IV. Miami: type, (Schaus). USNM. VI. Homestead: June 11, 1963, (Wolfenbarger), det. Munroe, CPK.

5352, 1 [S.] SP.
This and the next species were erroneously believed to be the two named Sulphula, but Munroe has found that they are probably undescribed, and possibly not Sulphula. Determinations made by me as 5351 and 5352 should be changed to 5352,1 and 5352,2, respectively. Other determinations may or may not be correct. III. Stemper: CM. IV. Oneco: April 1, 1954, JGF; May 5, 1953, det. Munroe, CPK. Siesta Key: Feb. 26, 1951, Nov. 10, 1952, CPK. VI. Homestead: April, May, Nov., CPK. Paradise Key: March 18, 1959, (Bradley), CU; July, Aug., CM.

5352, 2 [S.] SP.
To the unaided eye this bears a strong resemblance to small males of Synclita obliteralis (Walker), a resemblance that is immediately dispelled under magnification. IV. Lake Okeechobee: June, CM. Oneco: May 1, May 28, July 15, Nov. 2, 1953, CPK. Siesta Key: two Feb. 14-15, 1954, April 8, 1953, May 1, 1956, Nov. 1, Dec. 1, 1952, CPK. VI. Paradise Key: two April 2, 1952, (Wallen), CNC.

HYMENIA Hübnern

5353 H. PERSPECTALIS (Hübnner)
Spotted beet webworm. Pl. XXIV, Fig. 24, , . Samml. eur. Schmett.; Fig. 101. 1796.
There are two very slightly different color forms of this which are found in both the northern states and in Florida, but Forbes says that he is unable to find any points for separating them into two species. The species is common throughout the state, including the Dry Tortugas, probably the whole year. I. Quincy: July-Dec., no peak. IV. Bradenton: April: July, Aug. VI. Homestead: Feb., May-Nov., peak in June and a small one in Nov. Food: chard, Lilium canadense, in greenhouses Alternanthera; beets, amaranth, Fla. Agr. Exp. Sta. Bull. 323: 34; Irish potatoes, Ins. Pest Surv. Bull. 8: 321.

5354 H. RECURAVLIS (Fabricius)
Pl. XXIV, Fig. 25, .
Ent. Syst., p. 644. 1775.
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There are two slightly varying forms of recurvalis based on size, and again both are found in the North as well as in Florida, and again Forbes finds no basis for separation into species. It is common through the state, including the Dry Tortugas, and flies all year. I. Quincy: June-Nov., high plateau, Sept., Oct. IV. Bradenton: July-Sept. VI. Homestead: June-Oct., peak July-Sept. Food: chard, mangels, Amaranthus, and various weeds; "beets, and wild plants. During July the moths collect about the blossoms of catnip and other flowers in great numbers." Watson (1931, p. 34); grey beard, DPI.

DESMIA Westwood

All names except funeralis and tages must be considered tentative at present. Both Capps and Munroe have done a certain amount of reviewing of the specimens in their respective custodies, but neither has reached the stage of making genitalic slides, nor attempted to assign names authoritatively. I am indebted to both of them for very recent assistance with the genus.

5355 D. FUNERALIS (Hübner)
Grape leaf folder. Pl. XXIV, Fig. 26, $\delta$; Fig. 27, $\varphi$.
Samml. eur. Schmett., Pyr.; Fig. 103. 1796.
Funeralis is another common species with state-wide distribution. The records cover February-October, and December. I. Quincy: June-Sept., infrequent. IV. Bradenton: April, May, July-Oct. VI. Homestead: April, May, July-Sept., small peaks May and July. Food: wild grape, more rarely on Oenothera and Cercis; wild grape, Coop. Econ. Ins. Rept. 4: 717.

5355, 1 D. SUBDIVISALIS Grote
Can. Ent. 3: 126. 1871.
Florida: USNM. IV. Siesta Key: April 27, 1957, April 30, 1959, det. Munroe, CPK.

5355, 2 D. DIVISALIS Walker

5355, 3 D. DEPLORALIS Hampson
IV. Siesta Key: two March 8-21, 1953, det. Munroe, CPK. Miami: USNM. The latter is provisionally classed by Capps as ploralis (Guenée), but in order to keep together specimens of the same species, whatever be its real name, I am listing it here.

5355, 4 D. [PLORALIS (Guenée)]
Pl. XXIV, Fig. 28. 8.
The species was determined by Munroe as "probably ploralis," but in the U. S. National Museum collection, it stands simply as "ex tages." Some of the U. S. National Museum specimens were determined at one time as something else, as noted below. III. Enterprise: USNM, at one time det. as geminalis Snellen. IV. Oneco: March 20, 1957, (Dillman), CPK. Lake Placid: reared from Psychotria nerosa, USNM. Also previously det. as geminalis. Archbold Biological Station: Feb. 15, 1961, Nov. 10, 1958, (Frost), PSU. Siesta Key: March 12, 1952, March 7, 1953, Nov. 22, 1959, CPK. Palm Beach: USNM. V. Everglades: April 11, AMNH. I have not examined this specimen since being straightened out by Munroe on the probable nomenclature of the genus, but inasmuch as it was, or is, determined as geminalis, and is so listed by Grossbeck (1917, p. 111), I would hazard a guess that it belongs here. VI. Homestead: reared from leafier on Psychotria undata, emerged April 8, 1959, (Baranowski) STES. Paradise Key: a series, Jan., (Jones), USNM. Most of these were determined originally by Heinrich as repandalis Schaus, but one he determined as "nr. stenizonalis Hamp." VIII. Key Largo: Jan. 29, 1959, SVF; Dec. 5, 1961, CNC.

5355, 5 D. UFEUS (Cramer)
Pap. Exot. 2: 2; Pl. 97, Fig. E. 1779.
VII. Flamingo: Dec. 2, 1961, CNC.

5356 D. TAGES (Cramer)
Pap. Exot. 2: 2. 1777.

SYNCLERA Lederer

5357 S. TRADUCALIS (Zeller)
Pl. XXIV, Fig. 29. $\varphi$.
Lep. Cafr., p. 54. 1852.

ANTIERCTA Amsel

5358 A. ORNATALIS (Duponchel)
Pl. XXIV, Fig. 30, 9.

ERICA Walker

5359, 1 E. VITTATA (Fabricius)
Ent. Syst. 3 (2): 217. 1794.

MARSAMIA Lederer

5360 M. COCHRUSALIS (Walker)
Pl. XXIV, Fig. 31, 9.

5361 M. TRAPEZALIS (Guenée)
Pl. XXIV, Fig. 32, 9.

TRAPEZALIS is slightly larger with slightly different maculation, but close to cochrusalis. There are some specimens that do not quite match either species; they may represent only an aberration, or may be another closely related species. More material is needed. I. Escambia Co.: July, SMH. III. Orange Co.: Oct., Nov., DPI. Stemer: AEB. IV. Bradenton: Dec., CPK. Oneco: Aug., CPK. Ona: Oct., UFES. Siesta Key: Jan., Dec., CPK. Punta Gorda: April, MOG. Fort Myers: April, AMNH. Belle Glade: emerged from pupae on Carib grass, Sept. 18, 1956, (Genuin), DPI. Palm Beach: Dyar (1901a, p. 462). Delray Beach: Nov., CPK. Fort Lauderdale: Aug., UM. V. Everglades: USNM. VI. Homestead: DPI; July-Oct., CPI. Paradise Key: FMJ.

5362 M. FLORIDALIS Fernald
J. N. Y. Ent. Soc. 9: 49. 1901.
IV. Bradenton: March, Nov., CPK. Siesta Key: Jan., May, CPK. Palm Beach: type, (Dyar), Fernald; Dyar (1901a, p. 462). Coral Gables: Oct., DPI. VIII. Pine Key (Big Pine Key?): July, CNC. Key West: (Fernald), Grsb. 112. Food: Gonolobus palustre [Vincetoxicum palustre], Dyar.

LEUCOCHROMA Guenée

5362, 1 L. COROPE (Cramer)
Pap. Exot. 4: 190; Pl. 387, Fig. 1. 1781.

ANANIA Hübner

5363 A. FLORELLA (Cramer)
Pl. XXIV, Fig. 33, 9.
Pap. Exot. 4; Pl. 348, Fig. 1. 1781.
I. Escambia Co.: Sept., Oct., SMH. Florella is relatively common from Gainesville south with records for every month.

5363, 1 A. TYTITUSALIS (Walker)

5363, 2 A. MIZARALIS Druce
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IV. Lake Okeechobee: July, CM, CNC. Northeast corner of Monroe County: Aug, CM, CNC. VI. Everglades National Park: Dec, CNC.

5366, 3 A. HAEMORRHOIDALIS (Guenée) Spec. Gén.: 8: 201. 1854.

EÚRRHYPARODES Snellen

I. Escambia Co.: April, SMH. II. Gainesville: May, DPI. III. Cassadaga: April, SVF. Weekiwachee Springs: May, CPK. IV. Bradenton: March, April, CPK. Oneco: March, JGF; May, CPK. Siesta Key: March, CPK. Riviera: April, MOG. Northeast corner of Monroe County: Aug., CM. VIII. Key Largo: Dec., CNC.

SAMEA Guenée

5365 S. ECCLESIALIS Guenée Pl. XXIV, Fig. 34, 9.
Spec. Gén. 8: 194. 1854.
Of the two species of Samea present this is the larger and more heavily marked. Ecclesialis is found all over the state, is very common and is flying all the year. I. Quincy, Oct. IV. Bradenton: Nov.-Jan., Aug., Sept. VI. Homestead: March-May, July-Nov., small peak in Oct. It is somewhat variable in the extent of the ground color.

5366 S. MULTIPILICALIS (Guenée) Pl. XXIV, Fig. 35, 9.
This is likewise common all over the state throughout the year. I. Quincy: Aug.-Oct. IV. Bradenton: March-Oct., Dec. VI. Homestead: May-Nov., steady, but low plateau June-Oct. Food: water hyacinth, CNC.

DIASTICTIS Hübner

5367 D. ARGYRALIS Hübner Zutr. exot. Schmett. 1, 21; Fig. 113. 1818.

III. Lutz: Munroe. Stemper: Munroe. Lakeland: May, AMNH. IV. Punta Gorda: March, AKW. Biscayne Bay: (Slosson), Grsb. 112. The last specimen probably belongs under holguinalis below.


III. Avon Park: Munroe (1956a, p. 212). IV. Fort Lauderdale: April 15, 1928, (Bates), UM.

IV. Biscayne Bay: two, paratypes, (Slosson), AMNH.

COLOMYCHUS Munroe

5370 C. TALIS (Grote) Pl. XXIV, Fig. 36.
I. Escambia Co.: May 18, 1961, SMH. IV. Punta Gorda: April, MOG.

FILOCROCIS Lederer

5371 P. RAMENTALIS Lederer Pl. XXIV, Fig. 37, 9.
Wien. ent. Monat. 7: 480. 1883.

5372 P. TRIFUNCIATA (Fabricius) Sweetpotato leaf roller.
Ent. Syst. 3, 2, 217. 1794.
I. Escambia Co.: Sept., SMH. West Pensacola: June, July, VFG. Crestview: Oct., AMNH.

5373 P. PLUMBICOSTALIS (Grote)
Pl. XXIV, Fig. 38, 3. Can. Ent. 8: 103. 1871.
I. Warrington: WP. III. Winter Park: (Slosson), AMNH. This was listed by Grossbeck (1917, p. 112) as "West Park," but since there is no such place in Florida, and as Slosson did collect at Winter Park, I prefer my interpretation of the label "W. Park." Rockledge: NYSM. IV. Biscayne Bay: (Slosson), Grsb. 112. V. Chokoloskee: USNM. VI. Florida City: May, CNC.

5374 P. INGUINALIS (Gueneé)
Spec. Gén. 8: 34. 1854.
These specimens should all be checked to be sure they are not 5404, 1 below, q.v. I. Escambia Co.: April 22, July 11, Aug. 2, 1961, SMH. Monticello: Oct. 4, AMNH. III. Orlando: April, CNC. Indian River: type of levalis (Halst), AMNH. Stemper: Sept., CNC. CPK. VI. Homestead: Sept., CPK. Paradise Key: Sept., UM.

5375 P. TRISTICMALIS Hampson
IV. Siesta Key: infrequent, Nov.-March, CNC, CPK. Lee Co.: Nov., DPI. Miami: (Schaus), Grsb. 112. VI. Florida City: April, CNC. Paradise Key: March, JGF; not rare, March, April, FMJ. VIII. Key Largo: Dec., CNC.

5375, 1 P. RUFESCENS Hampson
IV. Miami: type of Sylepta miamialis Dyar, which Munroe makes a synonym of this, (Schaus), USNM. Coconut Grove: Dec. 1897, (Thaxter), AEB. VI. Homestead: May, Sept., Oct., CPK. Paradise Key: Jan., March, FMJ. VIII. Key Largo: Jan., April, SVF; Dec., CNC. Tavernier: common, Sept., Oct., CNC, CPK. Plantation Key: May, DPI. Winding Key: April, CPK. Key West: June, DPI.

5376 C. DIPHTERALIS (Geyer)
Pl. XXIV, Fig. 41, 3. Zutr. exot. Schmett. 4, 24; Fig. 691. 1832.
II. Gainesville: Oct., DPI. Jacksonville: (Slosson), Grsb. 112. VIII. Key Largo: March, SVF; Aug., Sept., Nov., DPI, CPK, Dec., CNC.

5378, 1 C. CONCAINALIS Hampson
The following records may include some for ovulalis Guénéé which is a distinct species according to Munroe. I. Escambia Co.: May, SMH. Warrington: WP. Quincy: April, Aug., Sept., CPK. Tallahassee: May, JFK. II. Gainesville: UFES; June, July, CU; Aug., DPI. Fernandina: April, CPK; April, May, Aug., Sept., CNC. III. Deland: March, MOG. Cassadaga: April, May, July-Sept., SFV. Weekiwachee Springs: April, Aug., CPK. Fern Park: Aug., DPI. Altamonte Springs: Aug., DPI. Orange Co.: March, DPI. Winter Park: May, July, Sept., AMNH. Orlando: April, AMNH; Aug., CNC. Tampa: April, AEB. Lakeland: AEB; May, AMNH; June, AKW. IV. Archbold Biological Station: March, April, Aug., YU.

DICHOGRAMA Lederer
5379 D. REDTENBACHERI Lederer
Pl. XXIV, Fig. 42, 9. Wien. ent. Monat. 7: 396. 1863.
IV. Palm Beach: Dyar (1901a, p. 460). V. Chokoloskee: USNM. VIII. Key Largo: Dec., DPI, CPK, CNC, CPK. Food: Capparis cynthiaomalphora, Dyar (1900f, p. 271).

5380 D. AMABILIS Moeschler
Amabilis occurs with and without the red dot in the apex of the forewing. IV. Siesta Key: rare, March-May, CNC, CPK. Palm Beach: Dyar (1901a, p. 460). VIII. Tavernier: Oct., CNC, CPK. Food: Capparis cynthiaomalphora [jamaicensis], Dyar (1901c, p. 20).

ALATUNCUSIA Amsel
5381 A. BERGII (Moeschler)
Pl. XXIV, Fig. 43, 9. Abhandl. Senck. Naturf. 16: 297. 1890.
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PHOSTRIA Hübner

5381, 1 P. SIMIALIS (Guenée)
Pl. VI, Fig. 7, δ.
Spec. Gén. 8: 357. 1854.
IV. Oneco: Aug. 25, 1953, (Dillman), det. Munro, CPK. Siesta Key: March 31, 1957, two Nov. 11-12, 1955, CPK. Fort Lauderdale: two Aug. 9, 1925, (Bates), UM. Coconut Grove: Nov. 1897, (Thaxter), AEB.

MICROTHYRIS Lederer

5381, 2 M. PROLONGALIS (Guenée)
Spec. Gén. 8: 358. 1854.
VIII. Tavernier: Oct. 17, 1955, (J. N. Todd), det. Munroe, CPK.

5396 M. ANORMALIS (Guenée)
Pl. VI, Fig. 8, δ.
Spec. Gén. 8: 352. 1854.

Food: Ipomoea, Dyar (1901c, p. 20).

LAMPROSEMA Hübner

5392, 1 L. IARCHASALIS (Walker)

5384, 1 L. [SCHISTISEMALIS (Hampson)]
Pl. XXIV, Fig. 44, δ.
Although schistisemalis was described from Panama, Munroe believes the specimens fit more closely the type of strigivenalis Hampson from Ecuador. Either name, therefore, is tentative. III. Cassadaga: June, SVF. IV. Bradenton: May, June, Aug., CPK. Oneco: March, JGF; June, CPK. Siesta Key: rare, Nov.-Jan., March-May, CNC, CPK.

CRYPTOBOTYS Munroe

5384, 2 C. ZOILUSALIS (Walker)

Munroe (1956b, p. 123) made Sylepta masculalis Barnes & McDunnough, a synonym of this. The records for the latter are accordingly transferred hither. V. Marco: April, (McDunnough), USNM. Chokoloskee: type of masculalis (McDunnough), USNM. VI. Florida City: July, CNC. VII. Egmont: Dec., CNC. VIII. Craig: Feb. 1955, (J. N. Todd), det. Munroe, CPK.

HEDYLEPTA Lederer

5385 H. INDICATA (Fabricius)
Pl. VI, Fig. 37, δ.
Syst. Ent. 3(2): 218. 1794.

BLEPHAROMASTIX Lederer

5387 B. EBULEALIS (Guenée)
Pl. VI, Fig. 35, δ.
Spec. Gén. 8: 196. 1854.

5387, 1 B. DIFFERENTIALIS (Dyar)
II. Gainesville: March 9, 1927, (Bates), UM. IV. Siesta Key: Dec. 28, 1953, CPK. VI. Homestead: not rare, July-Nov., CPK. Paradise Key: taken on Baccharis, April, (Jones), USNM; Dec., CNC. VIII. Tavernier: three Sept. 6-9, 1955, (J. N. Todd), CPK.

5390 B. [ACUTANGULARIS (Snellen)]
Tids. Ent. 19: 201. 1875.
Munroe thinks this name may not apply. If it does apply, it should be moved to the genus

5391 B. MAGUALIS (Guénée)

5392 B. RANALIS (Guénée)
Ranalis in Florida is a small, dark subspecies which may or may not have a name. I. Escambia Co.: May, SMH. Myrtle Grove: July, WJW. III. Sea Horse Key: Sept., DPI. Cassadaga: March-May, SVF. Weekiwachee Springs: May, Aug., CPK. Lakeland: May 6, AMNH. IV. Bradenton: Aug., CPK. Archbold Biological Station: April, YU. Siesta Key: May, Dec., CPK. Punta Gorda: March-June, MOG.

Pterygicus Butler
5393 P. APLICALIS (Guénée)
Spec. Gén. 8: 229. 1854.
Apicalis was placed in this genus by Amsel, 1958. I. Escambia Co.: Aug., SMH. II. Gainesville: six July, (Rogers), CU. III. Orlando: April, CNC. IV. Bradenton: one March, (Kelsheimer), CPK. Siesta Key: one May, CPK. VI. Homestead: May, Aug., CPK.

5393 P. STENIALIS (Guénée)
Pl. VI, Fig. 36, 6.
Spec. Gén. 8: 231. 1854.
Florida: type of Hydrocampa australis Hulst. May, AMNH. Munroe thinks that in Florida there is a subspecies, but the application of some earlier names is in doubt. I. Escambia Co.: April, SMH. Myrtle Grove: April, WJW. Torreya State Park: April, May, CNC. III. Cassadaga: March, SVF. Enterprise: April, Castle & Lauret (1896, p. 302). Weekiwachee Springs: March, May, CPK. Indian River: AMNH. IV. Oneco: Oct., CPK. Siesta Key: April, May, CPK. Punta Gorda: March, MOG. Fort Myers: April, Grsb. 113. Biscayne Bay: (Slosson), Grsb. 113. V. Everglades: April, AMNH. VI. Paradise Key: March, April, CNC; April, FMJ.

NACOLEIA Walker

Asciodes Guénée
5395 A. GORDIALIS Guénée
Pl. XXIV, Fig. 45, 6.
Spec. Gén. 8: 374. 1854.
Gordialis is quite common from Cassadaga south. It has been taken in every month except June. Food: Pisonia aculeata, Dyar (1901c, p. 20); bougainvillea, Coop. Econ. Ins. Rept. 4: 890.

Pantographa Lederer
5397 P. LIMATA Grote & Robinson
Florida: HEW; (Slosson), Grsb. 114. I. Quincy: June, DPI; July, CPK. Torreya State Park: April, DPI; May, CNC. Leon Co.: April, UM. Tallahassee: May, JPK. II. Gainesville: May, UM; Oct., UFES. Food: oak; basswood, Dozier (1920, p. 378).

Leptotygris Marion
5397, 1 L. REGINALIS (Cramer)
Pl. VI, Fig. 9, 6.
Pap. Exot. 4: 163; Pl. 372, Fig. C. 1782.
IV. Matheson Hammock: March 27, 1957, (Fuller), CPK. VIII. Key Largo: in daytime flight, March 27, 1957, det. Capps, SVF.

Sylepta Hübner
5398 S. [PENUMBRALIS (Grote)]
Can. Ent. 9: 106. 1877.
Munroe believes this may be the same as silicallis (Guénée) below. I. Escambia Co.: July, Oct,
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SMH. Warrington: VFG. Myrtle Grove: Sept., WJJW. Quincy: Sept., CPK. IV. Fort Myers: April, AMNH.

5399 S. [FLUCTUOSALIS] (Lederer)
Wien. ent. Monat. 7: 473. 1883.
IV. Palm Beach: larva on Boehmeria cylindrica, Dyar (1901a, p. 486). Grossbeck (1917, p. 114), noted that “The specimen on which this record is based was determined for Dyar by Fernald with a query.”

5400 S. SILICALIS (Guémée)
Spec. Gén. 8: 349. 1854.

5401 S. OBSCURIALIS (Lederer)
Pl. XXIV, Fig. 47, . Wien. ent. Monat. 7: 472. 1883.

5402 S. MASCULINALIS Barnes & McDunnough)
Contrib. 2: 172. 1913.
Munroe makes this a synonym of Cryptobotys zollusalis (Walker), to which the records have been transferred.

5404, 1 S. SP.
Tropical specimens of this are classified in the collection of the U. S. National Museum as “species A.” There is a close similarity to Pilocrosis inguinalis (Guémée), from which it may be separated by the uniformly dark discal spot of the forewing; whereas in inguinalis there is a light center, and also by the absence of the fuscous patch of inguinalis at the apex of the secondary. VI. Homestead: June 25, 1959, (Wolkenburger), det. Capps, CPK.

5405 S. MIAMIALIS Schaus
In Dyar, Ins. Ins. Mens. 5: 71. 1917.
See Pilocrosis rufescens Hampson, of which this is a synonym.

LYGROPIA Lederer

5408 L. STICTICGRAMMA (Hampson)

5409 L. [CHROMALIS (Guémée)]
Spec. Gén. 8: 204. 1854.
Munroe is of the opinion that the following records may be misidentifications for the above species. They should all be re-examined. IV. Miami: Sept. 23, SIM. Biscayne Bay: (Fernald), DPI. V. Everglades: (McDunnough), USNM; April 11, AMNH.

AGATHODES Guémée

5410 A. DESIGNALIS Guémée
PL. XXIV, Fig. 49, . Spec. Gén. 8: 209. 1854.
I. Escambia Co.: March, SMH. Warrington: summer, WP. II. Alachua Co.: Sept., DPI. High Springs: Aug., GWK. III. Volusia Co.: Ang, DPI. Cassadaga: April, July, Sept., SVF. From Siesta Key and Indian River southward it is relatively common, and has been taken January-September. Food: Erythrina glauca, Citharexylum fruticosum, Inga vera, all in Puerto Rico; Erythrina herbacea, Dyar (1901a, p. 463).

5411 A. monstralis Guémée
Capps has made an extensive study of designalis and monstralis, and reports that all specimens he has seen from Florida, Arizona, South America, etc., are the same, and in his opinion are designalis. He adds that monstralis becomes a species inquirendum. I have accordingly transferred all records for the latter to designalis.

GLYPHODES Guémée

The two species, puleolus and sibilalis, are easily confused but readily separable. The former is
the smaller, with more modest coloration and with one large translucent patch on the forewing which is open on the costa. *Sibillalis* is larger, of a richer color, and with two large patches both of which are more or less closed on the costa.

5412 G. PYLOALIS Walker
Pl. XXIV, Fig. 50. 1859

[G. *biottralis* Gueneé]
Spec. Gén. 8: 293. 1854.
The larva of this was reported by Dyar (1901c, p. 20) and then he noted: "This should be *Glyphodes sibilalis*," q.v.

5420 G. SIBILLALIS Walker
Pl. XXIV, Fig. 51. 1859

PALPITA Hübner

5418 P. FLEGIA (Cramer)
Pl. XXV, Fig. 1. 1777.
*Flegia* is not uncommon from Daytona Beach and Tarpon Springs to Key West, the records including all months. Food: *Thevetia peruviana* [nerifolia], DPI.

5419 P. QUADRISTICMALIS (Gueneé)
Pl. XXV, Fig. 2. 1854.
Spec. Gén. 8: 304. 1854.
Because Munroe has found two other species involved with this, the records are mixed. True *quadristicmalis* has a yellowish tinge, the others being gleaming white. It is probably more common than indicated, but I have been able to find only a few definite records. I. Escambia Co.: Feb., SMH. Warrington: WP. West Pensacola: June, VFG. II. Alachua Co.: May, DPI. Gainesville: April, CNC; May, CPK. III. Weekiawachee Springs: April, May, CPK. IV. Archbold Biological Station: Feb., April, YU; March, PSU. Siesta Key: March, May, CPK.

5419, 1 P. KIMBALLI Munroe
Pl. XXV, Fig. 3. 1859.

559 P. ILLIBALIS (Hübner)
Zutr. exot. Schmett. 1, 19; Figs. 95, 96. 1818.
This and the next species were placed in *Palpita* by Munroe, 1952. Ocean City: Aug. 17, 1963, HOH. III. Dade City: Munroe (1952, p. 49).
Lakeland: larva on plant with *ficus*like leaf, (McDunnough), USNM. IV. Siesta Key: May 1, 1953, CPK. Punta Gorda: May, AKW.

5590, 1 P. EUPHAESALIS (Walter)

5590, 3 P. MAGNIFERALIS (Walker)

5590, 4 P. CINCINNATALIS Munroe
Can. Ent. 84: 44. 1952.
DIAPHANIA Hübner

5414 D. OLEALIS (Felder)
Reise Nov.; Pl. 135, Fig. 95. 1874.
Fort Myers: (McDunnough), USNM. South Bay: April 30, Grsb. 114. V. Everglades: April 9, AMNH. VIII. Craig: July, DPI. This last should be re-examined as it is probably lataalis below.

5415 D. NITIDALIS (Stoll)
Pickle worm. Pl. XXV, Fig. 4, s.
Pap. Exot. 4:160. 1781.

Nitidalis is common throughout the state, flying every month. Food: cucumbers, melons, squash, and gourds, Watson (1931, p. 83); summer squash, Coop. Econ. Ins. Rept. 4:450; watermelon, Ins. Pest Surv. Bull. 15:300.

5416 D. MODALIS (Dyar)
Pl. XXV, Fig. 5, 6.
Fomona College J. Ent. 4:749. 1912.

Capps has called my attention to the fact that North American specimens have been erroneously called infimaalis (Guenee). The latter looks like a small hyalinata (Linnaeus) with narrow black borders, whereas in modalis the borders are much wider, and in some specimens the white is reduced to a narrow ribbon. II. Alachua Co.: Sept., DPI. III. Shepard Lake: Oct., DPI. Orange Co.: June, DPI. Orlando: July, CU. IV. Bradenton: March, Aug., Oct., Nov., CP. Okeechobee: May, June, Oct., CPK. Arkhald Biological Station: Sept., Dec., YU. Nov., PSU. Fort Seward: Dec.-Feb., AMNH. Sarasota: June, CPK. Siesta Key: Nov.-April, June, CPK. Fort Myers: USNM. April, AMNH, South Bay: April, AMNH, SIM. Fort Lauderdale: Dec., det. Capps, UM. V. Marco: Grsb. 114. Everglades: USNM. VI. Homestead: Aug.-Oct., CPK. Paradise Key: March, April, FMJ. VIII. Key Largo: Dec., CNC. Tavernier: Sept.-Nov., DPI. Windley Key: Sept., CPK. Food: Melothria pendula [grendala], Dyar (1901c, p. 20).

5418 D. HYALINATA (Linnaeus)
Melonworm. Pl. XXV, Fig. 6, 9.
Syst. Nat., p. 1874. 1758.

Hyalinata is common all over the state, but with no records for February or December. It has also been reported as ab. niticoecilia (Hampton). Food: cucumbers, melons, squash, and gourds, Watson (1931, pp. 69-69); squash, Ins. Pest Surv. Bull. 5:387; watermelon, ibid, 15:300; wild cucumbers, Coop. Econ. Ins. Rept. 4:577; chayote, ibid, 3:463.

5418, 1 D. INDICA (Saunders)
Exotic pumpkin caterpillar. Pl. XXV, Fig. 7, s.
The first records for this in the United States were published in 1859 (Coop. Ins. Pest Surv. 6:90). Very close to hyalinata, but the latter has a white abdomen, whereas indica has the next to last segment banded in black. Furthermore, in hyalinata the black band along the outer margin of the forewing is of uniform width, but in indica it is slightly elongated in the lower half of its course. II. Gainesville: Oct. 11, 1946, (Weems), DPI. III. Cassadaga: Sept. 2, 1952, SVF. IV. Bradenton: Aug. 23, Oct. 14, 1955, (Kelsheter), det. Munroe, CPK, USNM. Avon Park: Jan. 12, 1960, DPI. Archbold Biological Station: Dec. 26, 1959, (Frost), PSU. Three miles south of Childs: Jan. 22, 1960, DPI. Siesta Key: Nov. 25, 1957, CPK. VI. Homestead: six Oct. 14-23, 1958, two Aug. 19-Sept. 1, 1959, (Wolfenbarger), CPK. VIII. Dry Tortugas: July 13, 1960, WMD.

5419, 2 D. SP.
This is superficially very close to the new species of Palpita, No. 5419,1, but it has a very prominent, black abdominal tuft. Munroe believes it may be D. innata (Druce). VI. Florida City: one male, June (Forsyth), HEW.

5420, 1 D. IMPULSALIS (Herrich-Schaeffer)
VI. Paradise Key: Feb., March, det. Heinrich, FMJ.

5420, 2 D. LUALIS (Herrich-Schaeffer)
Pl. XXV, Fig. 8, 9.

NEOLEUCINODES Capps

5420, 3 N. PROPHETICA (Dyar)
Pl. XXV, Fig. 9, 9.
IV. Siesta Key: Dec. 18, 1959, det. Capps, CPK.

OMMATOSPILA Lederer

5422 O. NARCAEUSALIS (Walker)
VIII. Tavernier: two Oct. 10-17, 1955, (J. N. Todd), det. Munroe, CPK.
HELLULA Guenée

5423 H. ROGATALIS (Hulst)
Cabbage webworm. Pl. XXV, Fig. 10, 3.  

Rogatalis is a fairly common species probably occurring throughout the state, with records in every month. Food: corn; collards, Coop. Econ. Ins. Rept. 4: 405; cabbage, Ibid. 4: 1026.

5424 H. PHIDILEALIS (Walker)

Phidilealis is distinguished from the foregoing by the iridescence in the cell. It does not seem to be very common. III. Cassadaga: May, SVF. Weekiawachee Springs: Aug., CPK. IV. Siesta Key: May, CPK. Miami: Dyar (1917a, p. 44); reared from pepper grass, Feb., DPI. V. Everglades: April, Dyar. VI. Homestead: Feb., March, May, July, Sept., Nov., CPK. VII. Monroe Co.: April, CPK. VIII. Key Largo: Dec., CNC. Craig: March, April, DPI. Windley Key: Feb., April, Dec., CPK. Dry Tortugas: June, DPI.

CERYSOBOTEY Munroe

5425 C. CAMBOGIALIS (Guenée)
Spec. Gén. 8: 331. 1854.

Cambogialis was placed in this genus by Munroe (1956b, p. 125). VIII. Dry Tortugas: summer 1936, (Flough), CU.

SAMEODES Snellen

There is a good deal of difficulty in separating the species of this genus and some of the records may not be reliable. Munroe has supplied notes on characters which should make the separation much simpler.

5427 S. ELEALIS (Walker)
Pl. VI, Fig. 20, 3.  


5427 S. ADIPALOIDES (Grote & Robinson)
Pl. VI, Fig. 50, 3.  

I. Escambia Co.: Feb., SMH. Portland: Feb., CM. II. Gainesville: Feb., June, det. Munroe, CPK. VI. Homestead: July, det. Munroe, CPK. There are several specimens under this name in the University of Michigan collection, but as I have not seen them, I am not sure where they belong.

5427 P. PHYLISALIS (Walker)
Pl. VI, Fig. 31, 3; Fig. 32, aberrant 3.  

Hind wings paler than forewings, with fleshy tints on the forewings. There is an aberration which is darker above. III. Egmont Key: April, UM. IV. Siesta Key: Nov.-March, det. Munroe, CPK. VI. Homestead: May, CPK. VII. Flamingo: April, DPI.

5429 S. MOPSAALIS (Walker)
Pl. VI, Fig. 33, 3; Fig. 34, aber. griescinctus Hamp., 3.  

The minute orbicular spot is not joined to the spot behind the cell in mopsalis. The species is normally yellow, but there is a brown and gray aberration described by Hampson as Parataleta griescinctus. Both are present. I. Escambia Co.: Feb., SMH. II. Old Town: March, CPK. IV. Siesta Key: Jan.-April, CPK. Dade Co.: HFS. VI. Homestead: Feb.-Nov., CPK. Florida City: May, CNC. Paradise Key: Jan., March, USNM; April, Dec., CNC. VIII. Tavernier: Aug.-Oct., CPK.

TERASTIA Guenée

5431 T. METICULOSALIS Guenée
Pl. XXV, Fig. 11, 3.  
Spec. Gén. 8: 212. 1854.

Meticulosalis is not uncommon through the peninsula and Keys, but there are only two records from the western counties, both from Warrington. The dates include all months. The larva bores in young stems of Erythrina herbacea, Dyar (1901c, p. 21) and in the seed pods of Erythrina spp.; it has been “taken in a number of localities in Florida on Erythrina spp.,” DPI.
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CYBALOMIA Lederer

5432, 1 C. EVINCALIS (Moeschler)
Pl. XXV, Fig. 17, δ.

EVERESTIS Hübner

5442 E. RIMOSALIS Guénéé
Cross-striped cabbage worm. Pl. XXV, Fig. 16, δ.

5843 E. UNIMACULA Grote & Robinson
Unimacula was removed from Pyrausta by Munroe. Florida: Forbes (1923, p. 571).

TRISCHISTOGNATHA Warren

5450 T. PALINDIALIS (Guénéé)

AZOCHIS Walker

5447 A. RUFIDISCALIS Hampson
Pl. XXV, Fig. 12, 9.
Some specimens have been reported as cubanalis Hampson, but Munroe believes they are the same thing. IV. Miami: Dyar (1917b, p. 73). VI. Florida City: Feb., MOG; May, HEW; May, July, Sept., CNC. Paradise Key: Jan., Feb., CPK; Feb., March, AEB; March, JGF.

CROCIDOPHORA Lederer

5449 C. PUSTULIFERALIS Lederer

C. TUBERCULALIS Lederer
Wien. ent. Monat. 7: 476. 1863.

EPIPACIS Hübner

5451, 1 E. FORSYTHAE Munroe

5452 E. HURONALIS (Guénéé)
Pl. XXV, Fig. 13, 9.

POLYGRAMMIDES Guénéé

5404 P. ELEVATA (Fabricius)
Ent. Syst. 3(2): 216. 1794.
Elevata was placed here by Munroe (1956b, p. 122). IV. Port Sewall: Nov.–Feb., AMNH. Lee Co.: Nov., DPI. Lake Worth: Grsb. 114. Biscayne Bay: (Slosston), Grsb. 114. Coconut Grove:
AEB. VI. Florida City: Jan., April-June, CNC; May, DPI. Paradise Key: (Blatchley), Jones ms; Dec., CNC. VIII. Key Largo: Dec., CNC. Tavernier: Sept., CPK.

5583 P. OXYDALIS Guenée Spec. Gén. 8: 328. 1854.
This species is very close to flavidalis below, but smaller and darker. At Homestead it becomes even smaller. Munroe is of the opinion that the latter may be a subspecies, in which case oxydalis would take priority by page. II. Gainesville: Aug., UFES. Devil's Mill Hopper: Sept., AMNH. III. Weekiwachee Springs: May, CPK. Fort Orange: June, CPK. Rockledge: NYSM. IV. Bradenton: Oct., CPK. Oneco: two May, Oct., CPK. VI. Homestead: May-July, Sept., CPK. Florida City: June, CNC.


COMPACTA Amsel

Florida: locality of female type, Barnes & McDunnough (1914a, p. 214).

NOMOPHILA Hübner

5455 N. NOCTUELLA (Denis and Schiffermüller) Pl. XXV, Fig. 14, 3. Syst. Verz. Wien.; Pl. 136. 1776.
Noctella is undoubtedly found throughout the state and is probably common. It has been taken in every month.

PILEMIA Moeschler


HERPETOGRAMMA Lederer

5457 H. BIPUNCTALIS (Fabricius) Southern beet webworm. Pl. XXV, Fig. 19, 9. Ent. Syst. 3(2): 232. 1794.
Bipunctalis is generally distributed, including the Dry Tortugas and very common. It has been taken in every month. I. Quincy: July-Nov., not abundant. IV. Bradenton: July-October. VI. Homestead: Feb., April-July, Sept., peak in July, another small one in September. Food: Amaranthus, Achyranthes indica, Borreria octimoles, eggplant, and Swiss chard; beet, DPI; weed, DPI; shrub, DPI; greybeard, DPI.

PACHYZANIA Meyrick

5459 P. PHAEOPTERALIS (Guenée) Pl. XXV, Fig. 20, 3. Spec. Gén. 8: 349. 1854.
Phaepopteralis is likewise common through the peninsula and Keys, although there are no records from the western counties, except Quincy where it is not common, and one from Escambia County. It flies all year. I. Quincy: Oct.-Dec. IV. Bradenton: July-Dec. VI. Homestead: Feb.-Nov., peak in July, falling in Aug. and rising again to a high peak in Sept. and Oct. Food: Stenotaphrum secundatum; St. Augustine grass, Coop. Econ. Ins. Rept. 4: 788, 828, 903; centipedegrass, ibid. 4: 957.

5459, 1 P. SP.

This and the two following species are placed here on the authority of Munroe. I. Quincy: Aug. 9, 1960, (Tappan), CPK. Leon Co.: April 15, 1945, (Hubbell), UM. III. Weekiwachee Springs: May 24, 1960, (M. May), CPK. V. Marco: Nov. 4, AMNH.
5579 P. THESTEALIS (Walker)
IV. South Bay: April 30, AMNH; May 1, SIM.
Fort Lauderdale: Aug. 9, 1925, (Bates), UM.

5581 P. [THESEUSAALIS (Walker)]
Munroe's is of the opinion that this name is applied incorrectly and that the species that we have should probably be called feudalis (Grote).

LOXOSTEGE Hübner
Capps has been working on this genus, and I am indebted to him for information on certain Florida species.

5460 L. DASCONALIS Walker
I. Escambia Co.: April, SMH. II. Jacksonville: (Slosson), Grsb. 118. III. Weekiawachee Springs: May 20, 1960, (Mrs. May), CPK.

5464 L. OBLITERALIS (Walker)
I. Escambia Co.: April 26, 1962, SMH.

5467 L. MANCALIS (Lederer)
Pl. XXV, Fig. 21, 8.

5467, 1 L. SP.
A new species close to mancalis, which Capps is describing. The only certain records are: II. Gainesville: July 11, 1945, UFIES. III. Lake-land: two May 1-11, USNM.

5468 L. HELVIALIS Walker
I. Monticello: March, DPI. II. Gainesville: June, DPI; July, CU. III. Tampa: Sept., AEB. Egmont Key: April, UM. Lakeland: USNM; May, AMNH, SIM. IV. Archbold Biological Station: April, CU. Siesta Key: Feb.-June, CNC, CPK. Punta Gorda: April, MOG. Fort Myers: April, AMNH. VI. Homestead: May, CPK. VIII. Tavernier: Sept., Oct., DPI.

5471 L. SIMILALIS (Guenée)
Pl. XXV, Fig. 22, 9.
Spec. Gén. 8: 405. 1854.

5483 L. ALBICERALIS FLORIDALIS
Barnes & McDunnough
Pl. XXV, Fig. 15, 9.
Contriv. 2: 173. 1913.
Albiceralis is probably found only in this form, though there is one old report of typical albiceralis Grote. III. Weekiawachee Springs: Feb., CPK. Titusville: Feb., April, CM. IV. Siesta Key: infrequent, Jan.-April, CPI. Charlotte Harbor: albiceralis, (Slosson), Grsb. 116. V. Everglades: types, eight April 26-30, USNM. VII. Flamingo: Feb., April, DPI; Dec, CNC. VIII. Tavernier: Sept.-Nov., CPI. Big Pine Key: May, DPI. Larva on "Florida cranberry," Barnes & McDunnough.

MICROTHEORIS Meyrick

5492 M. OPHIONALIS (Walker)
Assigned to this genus by Munroe. Florida specimens are not typical. I. Escambia Co.: Sept., SMH. Ocean City: May, HOH. II. Gainesville: April, DPI; June, CNC, CPK; June, July, CU. III. Cassadaga: July, SVF. Weekiawachee Springs: May, CPK. Lakeland: USNM. VIII. Windley Key: Sept., CPK.
SERICOPLAGA Warren

5497 S. MACLURAEE Riley
Ins. Life 5: 155. 1893.
I. Escambia Co.: July, SMH. Quincy: Oct., CPK. Monticello: one April, (Hoffman), CU.
II. Gainesville: April, DPI. IV. Bradenton: one Feb., (Kelsheimer), CPK. VI. Homestead: one Dec., (Wolfenbarger), CPK.

DIASEMOPSIS Munroe

5498, 1 D. LEODOCUSALIS (Walker)
Pl. XXV, Fig. 24, 2.

DIASEMOIDES Munroe

5499 D. NIGRALIS (Fernald)
Pl. XXV, Fig. 25, 2.
I. Escambia Co.: May, July, Aug., Oct., SMH. Warrington: WP. Cold Harbor: types, two March, Fernald. Cold Harbor is one of the localities which has not been possible to place. The question arises as to whether this may be in error for Charlotte Harbor or whether it may be some inlet off Charlotte Harbor, because Rindge in listing the type material in the Hulst collection (1955, p. 166) gives the locality for the type male as Charlotte Harbor. The second of the type specimens from Florida was stated by Fernald in the original description as being in his collection. III. Cassadaga: Sept., Nov., det. Munroe, SVF. Weekiwassee Springs: Feb.-May, det. Munroe, CPK. IV. Bradenton: April, CPK. Archbold Biological Station: Feb., March, Nov., PSU; July, AMNH. Charlotte Harbor: type, March (Stosson), AMNH. Punta Gorda: April, MOG. Fort Myers: USNM. V. Everglades: April 8-19, USNM; April, AMNH. VI. Paradise Key: Jan., March, FMJ.

5500 D. JANASSIALIS (Walker)
Pl. XXV, Fig. 28, 2.

DAULIA Walker

5504 D. MAGDALENA (Fernald)
Can. Ent. 24: 122. 1892.

GONOCAUSTA Lederer

5505 D. SABINALIS Dyar
VIII. Tavernier: three Aug. 18-Sept. 21, 1955, (J. N. Todt), det. Munroe, CPK.

ISCHNURGES Lederer

5509 I. EUDAMIDASALIS Druce
VI. Paradise Key: (Jones), USNM. VIII. Tavernier: May, Sept., Oct., (J. N. Todt), det. Munroe, CPK.

PORTENTOMORPHA Amsel

5511, 1 P. XANTHIALIS (Guenée)
Spec. Gén. 8: 943. 1854.
VIII. Tavernier: Aug. 25, 1955, (Todd), det. Munroe, CPK.

CONDYLORHZZA Lederer

5512 C. VESTIGIALIS (Guenée)
MICROCAUSTA Hampson

5513 M. FLAVIPUNCTALIS
Barnes & McDunnough
Contrib. 2: 174. 1913.

IV. Siesta Key: rare, Dec.-March, CPK. Fort Myers: type, April 1-7, USNM. VI. Homestead: March, April, CPK. Paradise Key: April, CNC. VII. Mahogany Hammock: Dec. 3, 1961, CNC.

THOLERIA Hübner

5515 T. REVERSALIS (Guenée)
Genista caterpillar. Pl. XXV, Fig. 31, β.
Spec. Gén. 8: 409. 1854.


5516 T. PYRAUSTALIS Dyar
Pl. XXV, Fig. 30, β.


BOEOTARCHA Meyrick

5519 B. STIGMOSALIS (Warren)

IV. Miami: (Schaus), Dyar (1917b, p. 73); June, CNC. South Miami: Oct., CNC. VIII. Key Largo: March, Dec., CNC; SVF.

PERISPASTA Zeller

5545 P. CAECULALIS Zeller
Pl. XXV, Fig. 23, β.

I. Escambia Co.: Feb., May, June, SMH. IV. Oneco: June 4, 1954, (Dillman), det. Munroe, CPK.

UDEA Guenée

5546 U. RUBIGALIS (Guenée)
Celery leaf tier, Greenhouse leaf tier.
Pl. XXV, Fig. 28, β.

Rubigalis is sometimes erroneously known as Phlyctaenia ferrugalis (Hübner). It is surely common throughout the state, especially in the celery districts, the records covering September-April. Food: celery, Ins. Pest Surv. Bull. 15: 46.

PHLYCTAENIA Hübner

5548, 1 P. VINOTINCTALIS (Hampson)
Pl. XXV, Fig. 27, β.

There has been confusion over this species, most of the records having passed under the name desistalis Walker. Munroe has examined the type of vinotinctalis, which definitely is our species, whereas the application of the name desistalis is doubtful. The species is common and often abundant from Jacksonville, Gainesville, and Bradenton to the Keys, all year. Reared from Eupatorium sp., DPL.

5560 P. ACUTELLA Walker

II. Gainesville: Aug. 8, 1957, (Denmark), DPL.

5562 P. EXTRICALIS (Guenée)
Spec. Gén. 8: 338. 1854.

I. Escambia Co.: July 5, 1961, SMH.

5564 P. CORONATA TERTIALIS (Guenée)
Spec. Gén. 8: 364. 1854.


FRAMINGHAMIA Strand

5563 F. HELVALIS (Walker)
Florida: (Hulst), Grsb. 117. IV. Bradenton: April 10, 1955, (Kelsheimer), det. Munroe, CPK.

CINDAPHIA Lederer

5565 C. BICOLORALIS (Guenée)
Pl. XXV, Fig. 32, 9. Spec. Gén. 8: 205. 1854.


EPICORSIA Hübner

5567, 1 E. OEDIPODALIS Guenée
Pl. VI, Fig. 17, 9. Spec. Gén. 8: 336. 1854.

Munroe has resurrected this name from the synonymy to replace the species commonly known as mellinalis Hübner. Florida: (Fernald), DPI. IV. Charlotte Harbor: Grsb. 117. Palm Beach: Dyar (1901a, p. 461). Biscayne Bay: April, May, Sept., Nov., AMNH. Miami: larva on Cherokee bean, April, DPI; larva on Florida fiddlewood, March, DPI; May, CPK; reared from Citharexylum sp., Dec., DPI. Brickell Hammock: March, HFS. Coral Cables: larva on Citharexylum berlandieri, Feb., DPI. Matheson Hammock: reared from Coccoloba diversifolia and Nectandra coriacea emerging in Sept.-Oct., DPI. VI. Homestead: Sept., CPK. Florida City: May, CPK; May, Sept., Nov., AMNH. Paradise Key: March, FMJ. Everglades National Park: reared from Citharexylum fruticosum, March, (Craighead), ENP. The larva has also been reported on Citharexylum fruticosum villosum, Dyar (1901c, p. 21).

MECyna Doubleday

5586 M. SUBMEDIALIS (Grote)
Can. Ent. 8: 111. 1876.

III. Indian River: type of pilalis (Hulst), AMNH.

HAPALIA Hübner

5606, 1 H. SP.


PYRAUSTA Schrank

5593, 1 P. NUBILALIS Hübner
European corn borer.
Samml. eur. Schmett. Pyr.; Pl. 14, Fig. 94. 1796.

Fortunately this pest does not seem to have established a foothold in Florida. I. Warrington: WP. Quincy: Oct. 2, 1960, (Tappan), CPK. IV. Sebring: larva in Italian broomstraw (presumably imported), May 2, 1951, det. Capps, DPI. Boynton: July 29, 1930, det. Wilson, DPI. Miami: Aug. 6, 1917, det. Wilson, DPI. In addition, there are three quarantine interceptions, all of larvae: Jacksonville, Sept. 6, 1941 ex Center Square, Pa.; July 18, 1948 ex Martinsburg, W. Va.; and Oct. 14, 1936 ex Boston, Mass.

5594 P. PENITALIS (Grote)
Can. Ent. 8: 99. 1876.


[5595 P. ainslei Heinrich]
Smartweed borer.

The presence of this needs to be confirmed as the determination is far from easy. IV. Vero Beach: larva on goldenrod, May 18, 1946, DPI.

5598 P. FUMALIS (Guenée)
Pl. XXV, Fig. 29, 9. Spec. Gén. 8: 358. 1854.


5611 P. ACHROALIS Hampson


5613 P. PHOENICEALIS (Hübner)
Zutrz. exot. Schmett. 1, 22; Figs. 115, 116. 1818.

5613, 1 P. SP.
Det. Munroe as probably new. III. Stempel: March 1, 1911, (Krautwurm), CNC. IV. Oconto: two May 2, 1953, (Dillman), det. Munroe, CPK.

5612, 2 P. SP.
I. West Pensacola: May 26, 1963, det. Munroe as undescribed, VFG.

5615, 1 P. INSIGNALIS (Guenée) Spec. Gén. 8: 173. 1854.
Most of the determinations have been made by Munroe. Some of the records were reported originally in error as onythesalis, which is very closely related to insignialis with identical genitalia but Munroe doubts the presence of onythesalis in Florida. I. Escambia Co.: Sept., SMH. Quincy: July, Sept., CPK. Monticello: Aug., DPI. II. Gainesville: April, CNC. IV. Bradenton: March, April, June-Oct., CPK. Oconto: March, JGF; May, CNC, CPK. Archbold Biological Station: April, YU. Punta Gorda: April, MOG. VI. Homestead: Feb., March, May-Aug., Nov., Dec., CPK.

5615, 2 P. SP.
I. Quincy: July 29, 1959, (Tappan), det. Munroe as probably new, CPK. IV. Highland Hammock State Park: Sept. 4, 1959, (Weems), DPI.

5616 P. ACRIONALIS (Walker)
I. Escambia Co.: form Rufus imbricalis Grote, Feb., typical actritionalis, Aug., SMH. II. Gainesville: June 2, 1927, (Rogers), CU. Forbes notes that the specimen is dark. III. Cassadaga: Dec. 19, 1955, SVF. This, too, is dark. Lakeland: May 4, AMNH. Fort Myers: (McDunnough), USNM.

5622 P. SUBSEQUALIS (Guenée)
Pl. XXV, Fig. 33, 8. Spec. Gén. 8: 177. 1854.

5623 P. ORPHISALIS Walker

5624 P. GENEROSA (Grote & Robinson)
IV. Punta Gorda: May, det. Munroe, MOG.

5624, 1 P. SUBMARGINALIS (Walker)
III. Stempel (?): June 22-30, CNC, CM.

5628 P. LATICLAVIA (Grote & Robinson)
Pl. XXV, Fig. 34, 8. Trans. Amer. Ent. Soc. 1: 17. 1887.

5629 P. TYRALIS (Guenée)
Pl. VI, Fig. 28, 8. Spec. Gén. 8: 169. 1854.
*Tyralis* is a common species taken all year. I. Escambia Co.: one only, Sept. Quincy: one only, Nov. IV. Bradenton: Feb., April, June-Dec. VI. Homestead: April-Sept., Nov., peak in May. The normal form is dark red with yellow patches, but there are all manner of intergrading variations from this to the form erosialis Walker which is darker, almost a purple red, with the patches reduced and their color pinkish red instead of yellow. Food: *Psychotaria undata*. 
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5631 P. COSTIMACULALIS Fernald
J. N. Y. Ent. Soc. 9: 50. 1901.

5632 P. INORNATATLIS (Fernald)
Can. Ent. 17: 57. 1885.
Florida: two, (Slosson), USNM, AMNH. Rindge (1955, p. 106) wrote: "A female type from Texas labelled 'type'. According to the original description, this specimen was collected in Florida and sent to Fernald by Hulst." III. Cassadaga: Aug. 3, 1962, SVF. Orlando: March 29, 1899, USNM.

5633 P. SIGNATATLIS (Walker)

5633, 1 P. SP.
I. Pensacola: March 1961, det. Munroe as probably new, SMH.

5646 P. NIVECILIALIS Grote
I. Escambia Co.: Sept. 21, 1961, SMH.

MIMOBETRON Munroe

5637 M. LIOPASIALIS (Dyar)
IV. Coconut Grove: AEB. VI. Homestead: Feb., DPI. Florida City: April-July, CNC; July, HEW. Paradise Key: March, FMJ; March, (Schwarz & Barber), Dyar (1921b, p. 143). VIII. Key Largo: May, DPI; common, Sept.-Dec., DPI, CNC, CPK.

LOXOSTEGOPSIS Dyar

5649 L. MERRICKALIS (Barnes & McDunnough)
Contrib. 4: 185. 1918.

EUSTITIA Hübner

5653 E. PUPULA Hübner
Pl. XXV, Fig. 35, e. Zutr. exot. Schmett. 2, 24; Figs. 327, 328. 1823.
I. Escambia Co.: May, SMH. Myrtle Grove: June, WJW. Torreya State Park: May, CNC. II. Gainesville: April, DPI. III. DeLand: March, MOG. Cassadaga: April, June, July, SVF. Orange Co.: April, May, DPI. Winter Park: AMNH. Orlando: June, WMD. IV. Oneco: May, CPK. Siesta Key: March-May, CPK.

NOCTUELIA Guenée

5659 N. RUFOFASIALIS (Stephens)
Ill. Brit. Ent. 4: 33. 1834.

LINEODES Guenée

As the four species are very similar in maculation, determinations are only possible by comparison with known material.

5673, 1 L. FONTELLA Walsingham
North American specimens have commonly gone under the name contortalis Guenée, which according to Munroe, does not apply. Florida: (Doubleday), Hampson. III. Cassadaga: Aug., SVF. Orange Co.: Feb., May, DPI. Egmont Key: April, AKW; April, May, UM. IV. Bradenton: Oct., CPK. Oneco: April, June, CPK. Siesta Key: common, Nov.-May, CNC, CPK. Palm Beach: Dyar (1901a, p. 463). VI. Homestead: May, CPK.

5674 L. INTEGRA (Zeller)
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5675 L. INTERRUPTA (Zeller)
IV. Biscayne Bay: (Slosson), Crsb. 119.

5676 L. TRIANGULARIS Moescher

STENOPTYCHA Zeller

5677 S. SOLANALIS Barnes & McDunnough
Contrib. 2: 174. 1913.
Solanalis resembles the species of Lineodes, but is of a uniform dark color. Florida: as pterophorialis Walker, (Dyar, 1916f, p 104); Barnes & McDunnough (1914b, p. 31). V. Everglades: type, reared from Solanum sp., April, USNM.

The following genera with their included species were removed from Nymphalinae by Lange (1958) and in lieu of making any attempt to place them in the approximate sequence in Pyraustinae where, according to Munroe, they belong, they are placed here in a temporary status.

GESHNA Dyar

5717 G. CANNALIS (Quaintance)
Lesser canna leaf roller.

5718 G. PRIMORDIALIS Dyar

DIATHRAUSTA Lederer

5719, 1 D. HARLIQUINALIS LAUTA Munroe

STENIODES Snellen
[5721 S. Gellassalis (Walker)]

Munroe believes that the records for gellasalis may be in error and may refer to indialis below. Capps agrees with this. II. Archer: Dec. 3, (Koebele), Crsb. 122. IV. Punta Gorda: March, AKW. Lake Worth: (Slosson), Dyar (1906, p. 99). V. Marco: (McDunnough), USNM.

5721, 1 S. INDIANALIS (Dyar)
Pl. XXV, Fig. 36, $ .
IV. Bradenton: July, Sept., CPK. Siesta Key: abundant, Oct-June, CPK. This material has been deposited in a number of other collections as well. V. Marco: April 17, 1919, AMNH. VI. Homestead: April, Aug., Sept., CPK. VIII. Key Largo: Dec., CNC.

SOMATICIA Moescher

5721, 2 S. PELLUCIDALIS Moescher

PILEOCERA Lederer

5722 P. BUFALIS (Guenée)
Pl. XXV, Fig. 37, 9 .
Spec. Gén. 8: 245. 1854.

5723 P. SIMPLICIALIS Barnes & McDunnough
Construb. 2: 175. 1913.

Subfamily NYMPHALINAE

The arrangement in the Nymphalinae follows that set up by Lange in his revision (1956). I am indebted to Dr. Lange for many determinations in the subfamily, and for additional data, the latter in his letter of Sept. 8, 1955, and hereinafter cited as "Lange (1955)."

UNDULAMBIA Lange

5698 U. STRIATALIS (Dyar)
III. Orlando: May, CNC. St. Petersburg: March, Lange (1935). Stermer: April, CM. IV. Okeechobee: March, April, JCF, CPK. Archbold Biological Station: March, YU. Charlotte Harbor: type, March, (Slosson), USNM. A specimen labeled "co-type," without data, in the Fernald collection at the Division of Plant Industry Florida State Collection of Arthropods. Franclemont has observed that all his captures have been made near the bottom of the sheet used in light trapping. Perhaps this habit of flying close to the ground accounts for the great rarity of the insect in collections. Where he took over twenty specimens, Dillman never took any in a light trap run within a hundred yards of his.

AMBIA Walker

None of the following specimens reached Lange's hands, and the determinations were all made by Munroe subsequent to the appearance of Lange's revision.

5699 1 A. SP.
This species is near but not albitesis Hampson. VI. Florida City: March, (Forsyth), CNC.

5699 2 A. SP.
This and the three following "species" are probably all nothing but forms of one variable species and are all probably the leatherleaf fern pest which Capps is describing. Much more material will be needed to solve the problem.IV. Oneco: two Oct., (Dillman), CPK. Siesta Key: four Jan., Feb., CPK.

5699 3 A. SP.
IV. Siesta Key: two Feb. 16-22, 1951, CPK.

5699 4 A. SP.
II. Gainesville: Dec. 1949, (Walley), CNC.

5699 5 A. SP.
There are two reports for this: II. Jacksonville: Oct. 16. III. Maitland: Oct. 29. Both are from Coop. Ins. Pest Surv. 4: 267, where they are named as "near fulvifrontella Hampson." Denmark states that this is an error for which there is no explanation, and the mystery is further compounded as Munroe tells me there is no such species.

OLIGOSTIMA Gueneé

[O. juncalis Gueneé]
Spec. Gén. 8: 261. 1854.

This name appeared in the Dyar list (1902, p. 396). Later, Dyar (1906, p. 89) pointed out that this name was being used erroneously for the North American Paraponyx seminealis (Walker) below. True juncalis is probably restricted to South America.

NEOCATACLYSTA Lange

5699 N. MAGNIFICALIS (Hübner)
Pl. XXV, Fig. 43, 3.
Samml. eur. Schmett., Pyr.; Pl. 16; Fig. 104. 1794.
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PARAPONYX Hübner

5680 P. MACULALIS (Clemens)
Pl. XXV, Fig. 38, 6.

5681 P. ALLIONEALIS (Walker)
Pl. XXV, Fig. 48, 6.
An abundant species, undoubtedly found throughout the state, and taken in every month. It is quite variable and ranges somewhat in color, but in Florida does not seem to reach the extreme white of italica (Walker), except very rarely; in fact, I have seen only one specimen of this latter form.

5682 P. OBSCURALIS (Grote)
Pl. XXV, Fig. 41, 6.
Papilio 1: 18. 1881.

5683 P. SEMINEALIS (Walker)
Pl. XXV, Fig. 42, 6.

CHRYSENDETON Grote

5697, 1 C. MEDICINALIS Grote
Papilio 1: 15. 1881.
Because of the similarity between medicinalis, which has been known as claudialis Walker, and the next two species, one of which has been described only recently, there is sure to be a mixing of the records. They are given as received or as in the literature. II. Gainesville: July, CU. Hastings: June, Dyar (1906, p. 92). III. Marion Co.: July, UM. Lake Co.: Aug., UM. Winter Park: Sept., AMNH. Orlando: Sept., AMNH. Hillsborough Co.: Aug., UM. IV. Oneco: July, CPK. Archbold Biological Station: March, April, Nov., Dec., CU; July, AMNH. Fort Drum: Dyar. Wauchula: June, UM. Punta Gorda: April, MOG. Fort Myers: USNM. Fort Lauderdale: Feb., UM. V. Chokoloskee: USNM. VI. Paradise Key: Jan., CPK.

5707 C. IMITABILIS (Dyar)
Ins. Insc. Mens. 5: 78. 1917.
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VI. Homestead: Sept.-Nov., CPK. Paradise Key: Jan., Feb., FMJ; April, CPK; Aug., UM.

5707, 1 C. KIMBALLI Lange.- Pl. XXV, Fig. 47, 3. Wasmann J. Biol. 14: 97. 1956.


MUNROESSA Lange

5691 M. ICCIUASALIS (Walker)


5691, 1 M. FAULALIS (Walker)

II. Hatchett Creek: April 24, 1952, det. Munroe, CPK. IV. Siesta Key: Dec. 9, 1952, det. Munroe, CPK. Paradise Key: April, CNC.

5688 M. GYRALIS (Hulst)
Pl. XXV, Fig. 40, 9. Trans. Amer. Ent. Soc. 13: 159. 1886.


5688, 1 M. SP.
Among the specimens sent to Lange in connection with his revision, were three females close to gyralis which were apparently an unrecognized species, but with such limited material and with no males, further study was indicated before any conclusion could be reached. III. Weekiwachee Springs: Aug. 15, 1954, (May), CPK. IV. Bradenton: Sept. 10, 1955, (Kelsheimer), CPK. Siesta Key: March 20, 1955, CPK.

5690 M. NEBULOSALIS (Fernald)
Pl. XXV, Fig. 44, 9. Ent. Amer. 3: 127. 1887.

Nebulosalis is not rare from Monticello to Paradise Key. It is probably to be found in the western counties, as there is a specimen in the Cornell collection from the Sabine River, between Louisiana and Texas. The dates cover all months but September.

NYMPHULA Schrank

5687 [N.] NOMOPHILALIS Dyar
Pl. XXV, Fig. 45, 8. J. N. Y. Ent. Soc. 14: 84. 1906.

Lange removed this species not only from the genus Nymphula but from the subfamily as well. However, as no one has made any suggestion as to where it belongs, I am perforce required to leave it here as it cannot be left dangling in mid-air. It is probably found all over the state though there are no records from the Keys, November-August. IV. Bradenton: Nov. VI. Homestead: Feb., April-June, small peak in May.

SYNCLITA Lederer

5686 S. OBLITERALIS (Walker)

Obliteralis is common throughout the state the entire year.

CONTICER Lange

5685 C. VITTATALIS (Dyar)
J. N. Y. Ent. Soc. 14: 89. 1906.

I. Escambia Co.: Sept. 12, 1961, SMH. Quincy:
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April 22, 1963, (Tappan), CPK. II. Hastings: type, April, (Kearfott), Dyar. There is a specimen labeled "co-type" in the Fernald collection at the Division of Plant Industry, but without data. III. Cassadaaga: June 30, 1952, July 2, 1962, SVF. Stemper: CNC. IV. Biscayne Bay: (Slosson), USNM.

NEARYCTRACIS Lange

5696, 1 N. MONILIGERALIS (Lederer) Wien. ent. Monat. 7: 454; Pl. 18; Fig. 10. 1863. IV. Punta Corda: May, det. Capps, MOG. VI. Paradise Key: Feb., det. Heinrich, FMJ.


PARARYCTA ACTIS Lange


5701, 1 P. [OPULENTALIS (Lederer)] Wien. ent. Monat. 7; Pl. 18, Fig. 7. 1863. As Lange has not seen the type of opulentalis, and as there is confusion and belief on the part of others that it may be the same as fulicalis (Clemens), pletie Dyar, or confusalis (Walker), the name should not be accepted as definite. III. Juniper Springs: Sept. 3-13, 1938, (Hubbell & Friauf), UM; Nov. 5, 1960, (Adkins), CPK. Silver Springs: Dec. 8, 1960, (Adkins), CPK. Weekiwassee Springs: Aug. 20, 1938, (Hubbell & Friauf), Lange. All but author's specimens det. Lange.


EOPARARYCTRACIS Lange


5712 E. PLEVIE (Dyar) Ins. Insc. Mens. 5: 78. 1917. I. Quincy: April 24, 1963, (Tappan), CPK.

Subfamily SCOPARIIINAE

EUDORIA Chapman

5735 E. STRIGALIS (Dyar) Pl. XXV, Fig. 49, 9. J. N. Y. Ent. Soc. 14: 104. 1906. I. Escambia Co.: Feb. 5, 1962, July 11 and Sept. 14, 1961, SMH. V. Everglades: April 17, (Davis), SIM.
SCOPARIA Haworth

[5747 S. BASALIS Walker]
As Munroe has recently found that basalis and biplagialis are distinct species, this determination should be reviewed. II. Archer: Dec. 3, 1882, (Koebele), Dyar (1906, p. 106).

5747. 1 S. BIPLAGALIS Walker
II. Gainesville: Feb. 22, 1955, (Morse), det. Munroe, CPK.

Subfamily PYRALINAE

AGLOSSA Latreille

5752 A. CUPREALIS Hübner

5753 A. CUPRINA Zeller

PYRALIS Linnaeus

5758 P. FARINALIS Linnaeus
Meal Moth. Pl. XXV, Fig. 39, 2. Syst. Nat. 1: 533. 1758.

5760 P. DISCIFERALIS Dyar
Pl. XXV, Fig. 50, 2. Proc. Ent. Soc. Wash. 10: 98. 1908.
I. Escambia Co.: April, May, July, Aug., SMH. Torreya State Park: May, CNC. IV. Bradenton: March, det. Munroe, CPK. Punta Gorda: April, MOG.

5763 P. MANIHOTALIS Guenée
Spec. Gén. 8: 121. 1854.
IV. Siesta Key: rare, Nov.-Jan., March, CPK.

Fort Myers: (McDunnough), USNM. Miami: (Schaus), Dyar (1908c, p. 99). VI. Paradise Key: Jan., FMJ. VIII. Plantation Key: May, DPI.

HERCULIA Walker

5766 H. INTERMEDIALIS (Walker)
Florida: as squamealis (Grote), (Slosson), AMNH. I. Escambia Co.: April, Aug., SMH. Monticello: April, CU. IV. Bradenton: March, Aug., Sept., CPK. Archbold Biological Station: April, YU.

5771 H. BINODULALIS (Zeller)

5772 H. SORDIDALIS Barnes & McDunnough
Pl. XXV, Fig. 51, 2. Contrib. 2: 175. 1913.
There has been some confusion of this with psammiozantha Dyar, but Munroe has studied the question and believes that even if psammiozantha is distinct, all the records are for sordidalis. I. Quincy: July, Oct., CPK. II. Gainesville: reared from larvae on peanut hay, Jan., UFES; June, CU; Nov., DPI. III. Marion Co.: Feb., DPI. Volusia Co.: Aug., DPI. Weeki-wachee Springs: March, Aug., CPK. St. Petersburg: March, Oct., AKW. IV. Bradenton: Feb., March, May, Aug., Sept., Nov., Dec, CPK. Archbold Biological Station: April, PSU; June, MOG, AKW. Siesta Key: Jan.-June, Oct., Nov., CPK. Punta Gorda: April, CNC. Fort Myers: type, April 1-7, (McDunnough), USNM. Naples: MOG. South Miami: Jan., CNC. VI. Homestead: Feb., April, May, July-Oct., CPK; Dec., DPI. VIII. Key Largo: Dec., CNC. Tavernier: Sept.-Nov., CPK. Lower Matecumbe: Dec., DPI. Craig: Jan., Feb., DPI. Windley Key: Feb.-April, DPI. Key West: May, DPI.

5774 H. OLINALIS (Guenée)
Spec. Gén. 8: 118. 1854.
I. Escambia Co.: Aug., SMH. West Pensacola: April, VFG. Warrington: one April, two summer, VFG. Pensacola: July, WJW. II. Gainesville: April, CNC. III. DeLand: March, AKW. Cassadaga: April, July, Aug., SVF. Weeki-
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wachee Springs: May, Aug., CFK. IV. Archbold Biological Station: June, AKW. Punta Gorda: March, MOG; March, April, AKW.

OMPHALOCERA Lederer

My understanding of the species has been faulty, and I am sure that I am guilty of several misdeterminations. Certain records, in consequence, will be interchanged, but with the illustrations, there should be no difficulty for collectors in rectifying my errors.

5777 O. MUNROEI Martin
Pl. VI, Fig. 18, δ.
Eutomologist 89(1118). 1956.

Munroei was formerly known as cariosa Lederer. II. Jacksonville: (Slisson), Grsb. 122. III. Cassadaga: March, Oct., SVF. Stemper: AEB; March, AKW. Tampa: Aug., AEB. Windermere: larvae on papaw, April, June, DPI. Lakeland: May, SIM. IV. Port Sewall: Feb., AMNH. Archbold Biological Station: June, AKW. Sarasota: June, CFK. Fort Ogden: reared from Asimina reticulata, June 15, 1952, (Valley), CNC. Charlotte Harbor: (Slisson), Grsb. 122. Punta Gorda: March, June, AKW; June, MOG. Port Myers: larvae common on Asimina trifolia, (McDunnough), USNM. There is a long note by McDunnough on the larvae, Grsb. 122. Lake Park: larva, Sept., DPI. Hypoluxo: May, DPI. V. Marco: larva, April, AMNH; USNM.

5778 O. DENTOSA Grote
Pl. VI, Fig. 19, δ.

Dentosa is very close to munroei but the wings are narrower and not quite so dark a red. II. Putnam Co.: April, CFK. III. Central Florida: Oct., WMD. Cassadaga: April, SVF. Weekiawachee Springs: March, CFK. IV. Archbold Biological Station: Aug., Sept., YU. Sarasota: June, July, CFK. Siesta Key: May, CFK. Arcadia: March, JGF. West Palm Beach: larva on sourcups, Sept., DPI.

Subfamily CHRYSIAUCINAE

GALASA Walker

5780 G. NICRINODIS Zeller

There is something curious about this species in Florida. Beebe made some genital dissections and reported that they did not agree with northern specimens. However, Munro believes that what we have is probably a southern subspecies. Certainly the color is a richer, darker red. There would seem to be room for further study of the subject. I. Escambia Co.: May, SMH. Warrington: WP; April, VFG. Quincy: May, CFK. II. Gainesville: May, UM. III. Cassadaga: May, Sept., SVF. IV. Bradenton: March, April, July-Oct., CFK. Archbold Biological Station: Jan., Feb., Nov., PSU; March, April, YU. Siesta Key: Jan., April, June, Oct., Nov., CFK. Englewood: April, CU. Punta Gorda: April, MOG. Fort Myers: April, AMNH. Palm Beach: as rubidana Walker, Dyar (1901a, p. 468). V. Everglades: April, USNM, AMNH. VI. Homestead: Feb., July, CFK.

TOSALE Walker

5784 T. OVIPLAGALIS (Walker)

LEPIDOMYS Guenée

5787 L. IRRENOSA Guenée
Pl. XXV, Fig. 52, δ; Fig. 53, ♀.
Florida: as oesalis (Ragonot), Dyar (1902, p. 401); DPI; UFES: (Koebele), Van Duzee (1930, p. 8). I. Escambia Co.: April, May, SMH. Warrington: WP. West Pensacola: Sept., VFG. II. Gainesville: larva on Osmanthus americana [floridanus], UFES, USNM. III. Cassadaga: June-Nov., SVF. Weekiwachee Springs: March-May, CFK. IV. Oneco: March. JGF. Archbold Biological Station: March, PSU; March, April, YU.

EPITAMYRA Ragonot

5787, 1 E. MINUSCULARIS (Moeschler)
Pl. VI, Fig. 39, δ.
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Nov., Dec., CPK. Oneeco: May, June, det. Munroe, CPK. Siesta Key: rare, Oct.-June, CPK. Delray Beach: April, CPK. South Miami: larvae on Tabebuia pallida, April, (Dowling), DPI. VI. Homestead: Dec., CPK.

5787. 2 E. BIRECTALIS Hampson
Pl. VI, Fig. 41, 8.

BONCHIS Walker

5787. 3 B. MUNITALIS (Lederer)
Wien. ent. Monat. 7: 345; Pl. 6, Fig. 13. 1863.
VI. Redlands: reared from Parmentiera ceratophylla fruit, Oct. 16, 1961, (Nakahara), USNM.

CLYDONOPTERON Riley

5793 C. TECOMAE Riley
Pl. XXV, Fig. 54, 8.
Amer. Ent. 3: 288. 1880.

ARTA Grote

[5795 A. statalis Grote]
The following records have been reported under this name but I strongly suspect that they belong under the unnamed Xantippe below. Florida: (Hults), Grb. 123. III. Lake Co.: Aug., UM. IV. Englewood: March, CU. Forbes notes that this is undersized, which would fit in with my theory. Punta Gorda: April, MOG.

XANTIPPE Ragonot

5801 X. URANIDES Dyar
Ins. Insc. Mens. 9: 144. 1921.

5801. 1 X. SP.

5801. 2 X. SP.
This is another unrecognized species distinct from 5801. 1. IV. Oneco: May, (Dillman), det. Munroe, CPK.

5801. 3 (X.) SP.
An unrecognized species which Caps places as either Xantippe, Parachora, or a closely related genus. I. Escambia Co.: April 20, Aug. 20, 1961, SMH, CPK.

PARACHORA Walker

5903 P. OCHRACEALIS Walker
Pl. XXV, Fig. 55, 8.
Ochracealis occurs also in the form culiculalis (Hults), and there is a note in the Jones manuscript to the effect that Dyar says that his nua is not a synonym of ochracealis. Dyar (1914, p. 164) said that nua was like ochracealis but larger and with deeper color. Dyar (1921b, p. 144) also said that the hind wing of culiculalis was fuscous ochreous, whereas in nua it was distinctly red. There is no question about the variation in color, as well as size, but it is difficult, if not impossible, to fit specimens into the named

5999. 1 T. LEUCOGRAMMA Hampson
IV. Miami: three Feb. 15-March 1, 1949, DPI. Food: Duranta repens (plumier), DPI.

PENTHESILEA Ragonot

5810 P. SACCUALIS Ragonot
II. Gainesville: June, CU. Cross Creek: Nov., CPK. III. Cassadaga: June, SVF. IV. Siesta Key: June, CPK. Fort Lauderdale: April, UM. Miami: Oct., DPI. VI. Homestead: Sept., CPK. Paradise Key: March, JGF, HFS, USNM. VIII. Monroe Co.: Nov., (Denmark), DPI. Key Largo: May, DPI.

5810, 1 P. SP.

IV. Hialeah: two Sept. 24, 1962, reared from Stachytarpheta jamaicensis, (Stegmaier), det. Munroe as new, DPI, CPK.

Subfamily SCHOENOBIINAE

PATISSA Moore

5811 P. XANTHOLEUCALIS (Guenée)
Pl. XXV, Fig. 50, δ Spec. Gén. 8: 253. 1854.

5811, 1 P. SP.
Near xantholeucalis, of which it may be only a form according to Munroe. VI. Modello: CNC.

5812 P. FLAVICOSTELLA (Fernald)
Ent. Amer. 3: 98. 1887.

5813 P. FLAVIFASCIALIS Barnes & McDunnough
Contrib. 2: 176. 1913.
III. Elfers: one April, CU. IV. Oneco: May, CPK; June, CNC. Archbold Biological Station: one Dec., CU. Lake Okeechobee: July, CM. Punta Gorda: April, MOG. Fort Myers: type, one May 1-7, USNM.

5814 P. PARTHENIALIS Dyar
Ins. Insc. Mens. 5: 82. 1917.
IV. Tamiami Trail: four July, CNC, CM.

5816 P. SORDIDALIS Barnes & McDunnough
Contrib. 2: 176. 1913.
I. Escambia Co.: three July, SMH. IV. Oneco: three May, June, Sept., CPK. Archbold Biological Station: April 6, 1937, CU. V. Everglades: type, one April 8-15, USNM.

5817 P. VESTALIELLA (Zeller)
Munroe states that the white Patissa need critical study. Therefore the records should be considered tentative. II. Gainesville: July, CU. III. Cassadaga: June, SVF. IV. Bradenton: Aug., Sept., CPK. Oneco: May, CPK. St. Lucie Co.: June, CM. Siesta Key: May, CPK. Punta Gorda: May, MOG. Fort Myers: not rare, (McDunnough), USNM.

5817, 1 P. SP.
Munroe has been unable to place this. III. Stember: Aug.-Oct., CNC, CM.

SCIROPHAGA Treitschke

5818 S. PERSTRIALIS (Hübner)
Pl. XXVI, Fig. 7, δ. Zutr. exot. Schmett. 3: 18. 1825.
Pertrialis is fairly common from Pensacola and Gainesville to Paradise Key at least, but surely
will be found elsewhere in the state as strays have been taken as far north as Massachusetts and Michigan, March–December.

5818. 1 S. SP.
This species is unlike anything in the U. S. National Museum. I. Escambia Co.: July 3, 1961, Sept. 8, 1962, det. Capps, SMH. These two differ sufficiently, so that they may represent two distinct species, or they may be only one sexually dimorphic species.

5819. S. REPUGNATALIS (Walker)
Pl. XXVI, Fig. 8, δ.

RUPELA Walker
[5820. R. nivea Walker]
Nivea was listed from Florida by Dyar (1902, p. 409) and by Barnes & McDunnough: V. Everglades: Barnes & McDunnough (1914a, p. 216). The last was subsequently described as sejuncta Heinrich, q. v. What the Dyar record was we do not know, but it was certainly not nivea, which Heinrich (1937, p. 370) does not credit to North America.

5821. R. TINCTIONELLA (Walker)

5822. R. SEGREGA Heinrich
II. Gainesville: May, UFES; July, CU. III. Marion Co.: July, UM. Glenwood: Heinrich. Cassadaga: June, SVF. Weekiawee Springs: May, CPK. Dade City: Sept., Heinrich. Elfers: April, CNC. Orlando: June, CNC. Fort Meade: April, Heinrich. IV. Highland Hammock State Park: April, CU. Siesta Key: May, CPK. Punta Gorda: April, MOG. Fort Myers: as albinella (Cramer), SIM. The last may not belong here. South Bay: April, May, Heinrich. Miami: April, May, CNC. Biscayne Bay: Heinrich. Coral Gables: June, DPI. Coconut Grove: Heinrich. V. Collier Co.: April, CNC. Everglades: April, AMNH, SIM. The latter of these two may also not belong here. VI. Florida City: May, CNC; Oct., GU. Paradise Key: Heinrich.

5823. R. SEJUNCTA Heinrich
V. Everglades: paratypes, (Schwarz), Sept. 1889, USNM. Allen River to Deep Lake: paratypes, April 12, 1912, USNM.

SCHOENOBIUS Duponchel
With the possible exception of sordidillus and maximellus, the determinations in this genus are hopelessly confused. Several investigators have undertaken a revision and given up the unequal struggle. I have several hundred specimens representing several species but any determinations are purely tentative and highly speculative. All the records must be looked upon in much the same way.

5824. S. SORDIDELLUS (Zincken)
Pl. XXV, Fig. 57, δ; Fig. 58, θ.
Germ. Mag. 4: 247. 1821.

5825. S. UNIPUNCTELLUS Robinson
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5826 S. TRIPUNCTELLUS Robinson

5827 S. MELINELLUS (Clemens)
Specimens that apparently belong under this name show a narrow range of color variation, being mostly rather dark. They may belong under _uxorialis_ Dyar below. I. West Pensacola: July, VFG. III. Rockledge: NYSN. Indian River: AMNH. Punta Gorda: April, MOG. V. Everglades: USNM. VI. Paradise Key: Jan., March, FMJ.

[5831 S. amblyptepennis Dyar]
I. Escambia Co.: June 2, 1962, SMH. This is different from any other Florida _Schoenobius_ I have seen, and it fits in with northern specimens tentatively determined as _amphlyptepennis_.

5832 S. ROSCIDEILLUS Dyar
I. Escambia Co.: July, SMH. Quincy: June, CPK. III. Cassadaga: April, SVF. Weeki-wachee Springs: March, May, Aug., CPK. Fort Meade: types, April, USNM. IV. Bradenton: May, June, CPK. Oneco: April, CPK. Archbold Biological Station: March, YU. Sierra Key: Feb.-June, Nov., CPK. Punta Gorda: April, MOG. Miami: paratypes, April, USNM.

5834 S. UXORIALIS Dyar
Ins. Insc. Mens. 9: 143. 1921.

5835 S. MAXIMELLUS Fernald
Pl. XXV, Fig. 59, 8; Fig. 60, 9. Can. Ent. 23: 30. 1891.
I. West Pensacola: March, VFG. Myrtle Grove: June, July, WJW. Cassadaga: Jan., SVF. IV. Archbold Biological Station: March, April, YU. Siesta Key: March, May, CPK. Fort Lauderdale: June, UM.

Subfamily ANCYLOMIIINAE

PRIONAPTERIX Stephens

5841 P. NEBULIFERA Stephens
I. Quincy: May 12, 1963, (Tappan), CPK. Jacksonville: (Slosson), Grsb. 125. IV. Archbold Biological Station: May 1962, (Evans), MCZ. Fort Lauderdale: May, (Bates), UM.

5842 P. ACHATINA Zeller
I. Escambia Co.: Aug. 30, 1961, SMH. Myrtle Grove: June, WJW. II. Gainesville: July 8, 1927, (Rogers), CU. Forbes notes: "much too small (distinct?)" III. Cassadaga: June 5, 1961, four Sept. 9-27, 1962, SVF. These males are also undersized. IV. Biscayne Bay: (Slosson), Grsb. 125.

5844 P. SERPENTELLA Kearfott
Pl. XXVI, Fig. 1, 9.
As this varies in size and also in the extent of contrasting light and dark areas, there is a possibility of two species being involved. I. Warrington: summer, WP. II. Gainesville: July, CU. III. Cassadaga: May, July, SVF. Egmont Key: USNM; April, AKW. IV. Oneco: Aug., CPK. Archbold Biological Station: Jan., March, Sept., Dec., YU. Sierra Key: Dec.-May, CPK. Coconut Grove: type, USNM. VI. Homestead: Feb., DPI.

5844, 1 P. SP.
This species is unlike anything in the U. S. National Museum. III. Cassadaga: Feb. 15, 1950, May 16, 1953, det. Capps, SVF.

EUGROTEA Fernald

5845 E. INCERTELLA (Zincken)
Germ. Mag. 4: 253. 1821.
June, UM. Archbold Biological Station: June, AKW. Siesta Key: June, CPK. Punta Gorda: June, MOG. Fort Myers: USNM. Fort Lauderdale: April, July, UM.

Subfamily CRAMBINAe

Because this subfamily is undergoing extensive revision by Klots at the present time, the nomenclature, as well as some of the determinations may be subject to change when the revision appears. The following covers the situation as well as it can under the circumstances, and I am indebted to Dr. Klots for looking it over and adding comments.

The larvae of some of the species are injurious to grass and to young corn (Watson, 1931, p. 232).

RAPHiptera Hampson

5849 R. MINIMELLA (Robinson)
V. Homestead: Oct., CPK. Everglades National Park: Dec., CNC.

CRAMBUS Fabricius

5851 C. SATRAPELLUS (Zincken)
Pl. XXVI, Fig. 4, 9. Germ. Mag. 4: 247. 1821.

5853 C. QUINQUAREATUS Zeller
Pl. XXVI, Fig. 2, 3. Hor. Soc. Ent. Ross. 13: 38. 1877.
Quinquareatus is common all over the state and is taken in every month. The species was also listed by Grossbeck (1917, pp. 125-126) as exotovalls Hulst and extornalls Walker. The former was described from Florida and Louisiana (Hulst, 1886d, p. 165). The latter name was not used by Walker, at least not in this subfamily, and must be a lapsus calami on Grossbeck's part.

5861 C. LEACHELLUS (Zincken)
Germ. Mag. 3: 114. 1818.

5861, C. WATSONELLUS Klots
Amer. Mus. Nov. 1181: 5. 1942.
I. Pensacola: types, nine Oct. 10-14, 1914, (F. E. Watson), AMNH; Dec., CNC.

5863 C. PRAEFFECTELLUS (Zincken)
Germ. Mag. 4: 249. 1821.

5863, C. SANFORDELLUS Klots
IV. Port Sawall: type, Nov. 26, 1938, (Sanford), AMNH.

5888 C. MULTILINEELLUS Fernald
Ent. Amer. 3: 37. 1887.
5874, I C. BRAUNELLUS Klots
North American Crambus I, pp. 65-66; Figs. 4 and 11. 1940.
I. Escambia Co.: May 13, 1963, det. Klots, SMH.

5886 C. BIGUTTELLUS Forbes

5889 C. ELEGANS Clemens

5890, I C. MINOR Forbes
II. Gainesville: July 31, 1961, (Ferry), det. Klots, CPK.

5891, I C. SP.
In the polingi Kearfott group Klots has distinguished several species, one of which is found in Florida: I. Monticello: Oct, AMNH. II. Perry: March, CPK. III. Weekiawachee Springs: Aug., CPK. Winter Park: May, AMNH. IV. Archbold Biological Station: Jan., PSU; July, AMNH. Siesta Key: March, May, CPK. VI. Homestead: March, April, Nov., CPK. Paradise Key: Dec.-Feb., AMNH.

5891, 2 C. DISCLUDELLUS Moeschler
VI. Paradise Key: Jan., (Jones), det. Heinrich as "probably this." The specimen is presumably in the U. S. National Museum; although I have not been able to locate it. When located, it will undoubtedly fall into the species of the polingi group discussed above.

5892 C. VULGIVAGELLUS Clemens
Vagabond crambus.

5896 C. TETERELLIUS (Zincken)
Bluegrass webworm.
Germ. Mag. 4: 252. 1821.
Teterellus is probably abundant throughout the state, and flying every month.

5897 C. DECORELLUS (Zincken)
Pl. XXVI, Fig. 3, ?. Germ. Mag. 4: 250. 1821.

5910 C. MUTABILIS Clemens
Mutabilis is abundant on the peninsula but there are no records from west of Quincy. It flies all year. There is the possibility of a new closely related species in addition to mutabilis.

5912, I C. SP.

5913 C. HAYTIELLLUS (Zincken)
Germ. Mag. 4: 254. 1821.
It is possible that some of these records belong under 5912,1 or under one of the other unplaced species which Klots has found in this group. 
5913.1 C. MINUELLUS Walker
The determinations of this species have been made by Klots, who has resurrected the name from the synonymy in which it had been subsumed. III. Cassadaga: May, Oct., SVF. IV. Bradenton: two Aug., Nov., CPK. Port Sewall: Nov. 13-14, Dec. 13-17, 1938, (Sanford), AMNH. Siesta Key: abundant, Oct.-June, CNC, AMNH, CPK, USNM, CU. Fort Lauderdale: Feb., April, May, Dec., UM. VI. Homestead: July, Aug., CPK. VIII. Tavernier: Sept., Oct., DPI, CPK. Garden Key, Dry Tortugas: May, DPI. Perhaps it is extremely local, for in spite of its abundance on Siesta Key, only two specimens have turned up in the trap when run at Oneco or Bradenton, neither of them more than twenty miles away, but inland. Only four were taken in the trap at Homestead.

[5919 C. trisectus (Walker)]
IV. Miami: USNM. Ainslie (1923, p. 52) questioned the correctness of the locality label.

5925 C. CALICINOSELLUS Clemens
Corn root webworm.
This and the next species, zeelus Fernald, are part of a complex which Klots has not unraveled as yet. They may or may not be one species, but for the present we may keep them separated. I. Escambia Co.: April, SMH. II. Gainesville: Oct., AMNH. Hastings: USNM. III. Weekiawachee Springs: March 20, 1955, det. Klots with "?", CPK. Winter Park: May, July, AMNH. IV. Siesta Key: March 4, 1952, det. Klots, CPK. VI. Homestead: Feb., March, July, Sept.-Nov., CPK.

5927 C. ZEELUS Fernald
Can. Ent. 17: 55. 1885.

5932 C. TRIPSACAS Dyar
Pl. XXVI, Fig. 9, ?.
III. De Bary: Feb. 28, 1962, CPK. St. Petersburg: USNM. IV. Archbold Biological Station: April 6, 1958, (Pease), YU. Siesta Key: May 1, 1956, CPK. Miami: type, USNM. VI. Homestead: one Feb., two May, CPK. Paradise Key: March, April, FMJ, CPK, USNM. VIII. Big Pine Key: two March 17-April 9, 1951, (Sanford), AMNH.

THAUMATOPSIS Morrison

5934 T. PEXELLUS (Zeller)
Chil. et Cramb. p. 48. 1863.
VII. Flamingo: Dec. 1, 1961, CNC.

5936 T. EDONIS Grote

5937 T. FERNALDELLUS Kearfott
I. Escambia Co.: Oct. 11, 1961, SMH. See also under 5938 below.

5938 T. FLORIDELUS Barnes & McDonnough
Contrb. 2: 177. 1913.
IV. Siesta Key: infrequent, Jan.-May, CPK. Punta Gorda: Nov., AMNH. V. Everglades: types, April, USNM. Marco: types, USNM. VIII. Tavernier: Sept., CPK. Windley Key: one Dec.-Feb., DPI. Key West: Grossbeck (1917, p. 126) said: "in describing T. fernaldelia (from N. J. and the West) Kearfott included a specimen from Key West with a query, which Barnes & McDonnough say is probably floridella."

5946 T.PECTINIFER (Zeller)

5947 T. ACTUELLUS Barnes & McDonnough
Contrb. 4: 172. 1918.
The following is all type material. III. Steemper: July, USNM. St. Petersburg: Nov., USNM. Lakeland: May, USNM. This last specimen is the one listed by Grossbeck as pectinifer.
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5947, 1 T. SP.
This specimen is of an unapparently undescribed species. IV. Sarasota: Nov. 11, 1951, (King), det. Klots, CPK.

5947, 2 T. SP.
This specimen is unlike 5947,1, and unnamed in the U. S. National Museum collection. III. St. Petersburg: April 21-22, 1915, (Ludwig), USNM. IV. Siesta Key: Jan. 26, May 24, 1957, April 2, 1953, CPK.

LOXOCRAMBUS Forbes

5948 L. CANELLUS Forbes

EUCHROMIUS Guenée

5952 E. TEXANA (Robinson)
Pl. XXVI, Fig. 10, 8.
I. Myrtle Grove: June, WJW. Quincy: March, April, Oct., CPK. II. Gainesville: April, CPK. III. Sanford: April, DPI. IV. Bradenton: April, AEB, AMNH; Oct., CPK. Oneco: March 22, 1954, JCF. Archbold Biological Station: March, YU. Siesta Key: Feb., CPK; March, CU.

ARGYRIA Hübner

Munroe believes there may be other closely related species involved with both rivalis (Drury) and argentana (Martyn). Collectors should save all material in this complex.

5954 A. NIVALIS (Drury)
III. Exot. Ent. 2: 25. 1773.

5955 A. ARGENTANA (Martyn)
Psyche: Pl. 32, Fig. 95. 1797.

5956 A. RILEYELLA Dyar
I. Myrtle Grove: May 26, 1963, WJW.

5957 A. AURATELLA (Clemens)

5957, 1 A. CRITICA Forbes
I. Escambia Co.: May, SMH. II. Hastings: paratype, April, USNM. IV. Oneco: July 15, 1953, (Dillman), CPK. Archbold Biological Station: March, PSU. V. Everglades: paratype, April, (McDunnough), USNM.

5958 A. LACTEELLA (Fabricius)
Ent. Syst. iii, 2: 313. 1794.
The head of this is white and the wings are usually pure, shining white. The next species, diplomochalis Dyar, if actually distinct, a point on which Klots has an open mind, is supposed to have a yellow head and the wings slightly enfuscated. Many of the records may be mixed because of the similarity. It is reportedly abundant in several localities. I. Escambia Co.: Sept., SMH. Warrington: May, VFG. Quincy: June, Oct., Nov., CPK. II. Alachua Co.: Nov., UM. Archer: USNM. Gainesville: USNM; May,
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5958.1 A. DIPLOMOCHALIS Dyar

The type locality is Puerto Rico. Whether the following records are actually this species, whether they are merely dark specimens of lacteella, or finally whether there are two really distinct species are all open to question. I. Escambia Co.: Nov., SMH. II. Gainesville: Feb., DPI; June-Aug., (Rogers), CU. III. Cassadaga: March, SVF. IV. Bradenton: March, AEB. Archbold Biological Station: Jan., Dec., YU; Nov., Dec., (Needham), CU. Siesta Key: Feb., May, June, Dec., CPK.

IESTA Dyar

5959 I. LISETTA Dyar

Lisetta is apparently common all year as far up the peninsula as Quincy, Gainesville, and Glenwood, but the only records north of these localities are: I. Escambia Co.: July, SMH. Quincy: Oct., Nov., CPK, and an Alabama specimen in the Cornell collection.

DIATRAEA Gulding

5960 D. SACCHARALIS (Fabricius)
Sugarcane borer. Pl. XXVI, Fig. 5, 9. Ent. Syst. iii, 2: 238. 1794.

In addition to a confusion of determinations, there is the further complication of nomenclature and synonymy. McDunnough (1899, p. 24) makes crambidoides (Grote) a valid species with zeacolella Dyar as a synonym. Dyar and Heinrich (1927, p. 19) sink crambidoides as a synonym of saccharalis and make zeacolella valid. Klots follows the latter tentatively, awaiting confirmation by genitalia comparison with the type of crambidoides. In any event, saccharalis has a whiter hind wing than zeacolella, and the genitalia, both male and female, are very different.

The range of infestation by saccharalis as given in the U. S. Dept. Agr. Tech. Bull. 41 (1928) was roughly south of the line Floral City to Daytona. There is one record for Monticello: Sept. 1934, DPI. Its favorite food plants are sugarcane and corn, but it has also been reported from sycamore (Ins. Pest Surv. Bull. 15: 125) and Napier grass, DPI. There are many customs interception records. In one stage or another, the insect has been reported in every month but February.

5961 D. EVANESCENS Dyar
Ins. Insc. Mens. 5: 84. 1917.


5962 D. ZEACOLELLA Dyar
Southern cornstalk borer. Pl. XXVI, Fig. 6, 9. Ent. News 22: 203. 1911.

The records cover about the same territory as those for saccharalis, but in addition there are a number of records, with corn as the food plant, from the western counties. The dates are for all months except July and September.

HAIMBACHIA Dyar

5967 H. SQUAMULELLA (Zeller)
Hor. Soc. Ent. Ross. 16: 5. 1881.

III. Marion Co.: July, UM. IV. Fort Myers: April 1, AMNH. V. Everglades: USNM. VI. Paradise Key: March, CPK. VIII. Tavernier: Sept., Oct., CPK.

DIATRAENOPSIS Dyar & Heinrich

5970 D. DIFFERENTIALIS (Fernald)
Ent. Amer. 4: 120. 1888.

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CHILO Zincken

5976 C. PLEJADELLUS Zincken
Rice stalk borer.
Germ. Mag. 4: 251. 1821.
I. Escambia Co.: May 24, 1962, SMH. II. Hastings: one, USNM.

5976, 1 C. SP.
VI. Paradise Key: det. Heinrich as not like anything in USNM, FMJ.

PLATYTES Guenée

Many of the determinations in this genus may be open to question because of the great similarity of the species.

5980 P. PUNCTILENELLAE Barnes & McDunnough
Contrib. 2: 177. 1913.
IV. Bradenton: July, CPK. Vero Beach: April, DPI. Siesta Key: Jan., Feb., April, May, det. Capps, CPK. Fort Myers: USNM. V. Marco: USNM. Everglades: type, April, USNM. VI. Homestead: April, July, CPK. VIII. Tavernier: Sept., DPI. Dry Tortugas: June, DPI.

5981 P. MULTILINEATELLAE (Hulst)
Ent. Amer. 8: 134. 1887.

5982 P. ACERATA Dyar
Ins. Insc. Mens. 5: 86. 1917.

5983 P. PANALOPE Dyar
Ins. Insc. Mens. 5: 86. 1917.

5983, 1 P. SP.
This species has been determined by Klots as apparently new. I. Escambia Co.: July 1, Aug. 13, 1961, SMH. III. Winter Park: Sept., AMNH. IV. Bradenton: June, Aug., CPK. Oneco: June, Aug., CPK. Archbold Biological Station: July, AMNH; Jan., YU. Siesta Key: May, CPK. VI. Homestead: July, CPK. Paradise Key: March, CPK. VIII. Tavernier: Sept., Oct., CPK.

EOREUMA Ely

5987 E. DENSELLA (Zeller)
Hor. Soc. Ent. Ross. 18: 5. 1881.

Subfamily GALLERIIDAE

GALLERIA Fabricius

5989 G. MELLONELLA (Linnaeus)
Greater wax moth. Pl. XXVI, Fig. 11, δ; Fig. 12, δ.
Syst. Nat., p. 537. 1758.
Since the larva of this species feeds on beeswax in the hives, it will probably be found wherever bees are kept, but actual records are few. I. Myrtle Grove: May, WJW. II. Gainesville: Feb., March, UFA; June, CU. St. Augustine (Johnson), Grsb. 127. III. Cassadaga: June, Oct., CPK. Eustis: Aug., DPI. Indian River: AMNH. IV. Bradenton: March, CPK. Oneco: Sept., CPK. Archbold Biological Station: March, April, Aug., YU. Sarasota: June, CPK. Siesta Key: Nov., CPK. Delray Beach: Aug., DPI. Miami: June, HEW. Biscayne Bay: (Slusson), Grsb. 127. V. Chokoloskee: USNM. VI. Homestead: May, June, Aug., CPK.
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PARALISPA Butler
5993 P. DECORELLA Hults
Can. Ent. 24: 63. 1892.
I. Escambia Co.: May 6, 1962, SMH.
599 P. SP.
The specimen is too rubbed to show any maculation that might give a hint of the species. VI. Homestead: May 1, 1959, (Wolfenbarger), CPK.

AGANACTESIS Dyar
5996, 1 A. INDECORA Dyar

Subfamily MACROTHECINAE

MACROTHECEA Ragonot
6000 M. UNICOLORALIS Barnes & McDunnough
Constr. 2: 176. 1913.

6001 M. UNIPUNCTA Dyar

Subfamily EPIPIASCHINAE

MACALLA Walker
6013 M. THRYSISALIS Walker
Pl. XXVI, Fig. 20, 9. List Lep. Ins. Br. Mus. 16: 156. 1858.
IV. Miami: March, CNC. South Miami: April, CNC. Coral Gables: May, June, Nov., HFS. Matheson Hammock: March, CNC. VI. Princeton: April, CNC. Homestead: April, CNC; May, WMD; April, May, July, Sept., CPK. Florida City: March, CNC. Paradise Key: April, CNC. VIII. Key Largo: March, SVF; May, DPI, CPK. Key West: May, DPI. Food: mahogany, DPI.

6013, 1 M. PHAEOBASALIS Hampson

EPIPIASCHIA Clemens
6014 E. SUPERATALIS Clemens
Pl. XXVI, Fig. 14, 6; Fig. 15, 9. Proc. Acad. Nat. Sci. Phila. 12: 14. 1860.
I. Escambia Co.: May, SMH. Torreya State Park: April, CNC. III. Cassadaga: Sept., SVF. Indian River: AMNH. IV. Archbold Biological Station: Sept., ABS. Siesta Key: May, CPK. Punta Gorda: May, MOG. VI. Florida City: June, CNC.

6016 E. ZELLERI (Grote)
Pl. XXVI, Fig. 16, 6. Can. Ent. 8: 157. 1878.
I. Escambia Co.: July, SMH. IV. Archbold Biological Station: Nov., Dec., PSU. Vero Beach: April, DPI. Siesta Key: April, May, CPK. Fort Myers: USNM. Fort Lauderdale: April, UM. Miami: May, June, CNC. Biscayne Bay: (Slosson), Grsb. 127. VI. Homestead: DPI. Florida City: April, CNC.

JOCARA Walker
6019 J. INCRUSTALIS (Hulst)
Ent. Amer. 3: 130. 1887.

6020 J. PERSEELLA Barnes & McDunnough
Constr. 2: 180. 1913.
Florida: Dyar (1913f, p. 105). III. Weekiawachee Springs: Aug. 1954, CPK. V. Everglades: type, larva on Persea americana, April 16-23, (McDun-
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ough), USNM. VI. Homestead: June, Aug.-Oct., (Wolfenbarger), CPK. VIII. Tavernier: Sept 20, 1955, (Todd), CPK.

6021 J. BREVIORNATALIS Grote

6023 J. INTERRUPTELLA (Ragonot)
IV. Fort Myers: March 31, AMNH.

ONEIDA Hulst

6025 O. LUNULALIS (Hulst)
Ent. Amer. 3: 130. 1887.
III. Central Florida: two May 1957, WMD. IV. Fort Lauderdale: April 19, 1928, (Bates), UM.

TALLULA Hulst

There are two species which are very close and are best separated by referring to Barnes & McDunnough (1917a, p. 220).

6027 T. ATRIFASCALIS (Hulst)
It is my impression that atrifascialis is found only in the northern and western parts of the state, watsoni, below, in the southern two-thirds, with some overlapping of the zones. However, a recent capture of atrifascialis by Munroe in the Everglades National Park may cause a reversion of this impression. Atrifascialis varies widely in size, but apparently is always larger than watsoni, although the latter varies as well. The older records are quite probably mixed. I. West Pensacola: May, VFG. Warrington: June, VFG. Myrtle Grove: Oct., WJW. Avalon: larva on citrus, Feb., det. Heinrich & Capps, DPI; larva on huckleberry, March, det. Capps as "near," DPI. Quincy: Oct., CPK. II. Gainesville: April, CNC. III. Cassadaga: Sept. 24, 1961, SVF. Winter Park (not "West Park"): (Slosson), Grsb. 128; June, det. Munroe, DPI. Doctor Phillips: larva on lemon, June, det. Dekle, DPI. Groveland: larva on orange, Dec., det. Dekle, DPI. Silver Glen Springs: larva on grapefruit, May, det. Dekle, DPI. Indian River: AMNH. IV. Charlotte Harbor: (Slosson), Grsb. 198. VII. Mahogany Hammock: Dec. 3, 1961, (Munroe), CNC.

6028 T. WATSONI Barnes & McDunnough
Contrib. 3: 220. 1917.

TETRALOPHA Zeller
The determinations in this genus are very difficult and many of them unreliable. There is great need for a thorough revision.

6031 T. ROBUSTELLA Zeller
Pine webworm. Pl. XXVI, Fig. 19, 9. Isis 11: 881. 1848.

6032 T. SCORTEALIS (Lederer);
6033 T. SLOSSONI (Hulst)
Lespedeza webworm. Pl. XXVI, Fig. 18, 9. Wien. ent. Monat. 7: 347. 1863; Can. Ent. 27:53. 1895.
Poos & Hetrick (1945, p. 319) on the authority of Heinrich, made slossoni (Hulst) a synonym of scortalis. It should be added that there is an error in the original description of the for-

6034 T. MELANOCRANOS Zeller

6037 T. SPECIOSELLA (Hult)
J. N. Y. Ent. Soc. 8: 222. 1901.
Florida: (Dyar), Grsb. 128. II. Gainesville: March 21, 1925, det. Moore, UM.

6038 T. FLORIDEILLA (Hult)
J. N. Y. Ent. Soc. 8: 221. 1901.
IV. Archbold Biological Station: March, PSU. Siesta Key: May 25, 1946, det. Forbes, CPK. Lake Worth: type, AMNH. V. Marco: (McDunnough), USNM. Food: Caesalpinia crista [Guil- andina bondicella], Dyar (1901a, p. 464); “nick- erbean,” Grsb. 128. VIII. Loggerhead Key, Dry Tortugas: June, DPI.

6039 T. SUBCANALIS (Walker)
Pl. XXVI, Fig. 17, 9.
I. Myrtle Grove: April, WJW. Quincy: Aug., CPK. Monticello: larva on pecan, April, Pe- can Investigations Laboratory. II. Gainesville: March, UM; April, UFA; May, DPI. III. Cas- sadaga: March, April, SVF. Weekiawchee Springs: March, April, Aug., CPK. Orlando: April, CNC. Winter Park: March, DPI. IV. Bradenton: March, CPK. Highlands Co.: Aug., UM. Archbold Biological Station: Feb., March, PSU; March, April, YU. Sarasota: May, July, CPK. Siesta Key: April, May, CPK. V. Marco: May 15-31, type of querciella Barnes & McDunnough (1913d, p. 180), the larvae webbing the terminal twigs of scrub oak. VI. Homestead: July, CPK.

6040 T. MILITELLA Zeller
Isis 11: 880. 1848.
I. Warrington: May 9, 1962, det. Munroe, VFG. II. Alachua Co.: a series reared from Platanus occidentalis, emerging May 1959, (Denmark), DPI, CPK. Gainesville: May, DPI.

6041 T. ASPERATELLA (Clemens)

6042 T. APLASTELLA (Hult)
Ent. Amer. 4: 113. 1888.
Florida: (Dyar), Grsb. 128.

6053 T. BAPTISIELLA Fernald
Ent. Amer. 3: 128. 1887.

6053, 1 T. SP.
This is an unplaced species. I. Torreyia State Park: April, CNC. II. Gainesville: April, CNC. III. Elfers: April, CNC.

6053, 2 T. SP.
A second unplaced species. II. Gainesville: April, CNC. III. Elfers: April, CNC.

6053, 3 T. [JOVITA Schaus]
VI. Cutler: reared from webbed leaves of nicker nut, April 30, 1961, (Nakahara), det. as near or jovita, USNM.

POCOCERA Zeller

6054, 1 P. ATRAMENTALIS Lederer
Pl. XXVI, Fig. 13, 9.
Wien. ent. Monat. 7: 347; Pl. 7, Fig. 14. 1883.
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Subfamily ENDOTRICHINAE

NEODAVISIA Barnes & McDunnough

6056 N. SINGULARIS Barnes & McDunnough
Conrib. 2: 179. 1913.
V. Marco: April 17, AMNH. Everglades: type, April 6, AMNH; April 8-15, (McDunnough), USNM. VIII. Tavernier: two Aug. 16-Sept. 18, 1955, (J. N. Todd), CPK. Fine Key: July 1-7, CNC.

Family PHYCITIDAE

Subfamily PHYCITINAE

A very difficult subfamily, which even with Heinrich's recent revision will still require genitalic dissection for many of the determinations. However, on the basis of his monumental work, order has been established out of the chaos in which the phycitids have wallowed. Needless to say, I have followed his arrangement and synonymy, and included all his Florida records. On the other hand the older records become quite a problem. In the case of those which are paralleled by specimens seen by Heinrich, it is not unreasonable to assume that they are generally correct. However, certain species are not credited by Heinrich to Florida, some of which may be perfectly valid, some may not be. Heinrich points out that in view of the difficulties of the determinations, he has limited the range of distribution to those localities from which he has examined specimens. Therefore, when Heinrich does not give a Florida locality, it has been necessary to study carefully the localities he does list, together with his comment, if any, as regards similar species. When such study suggests doubt, the old record is included on a tentative basis. Of course, if the determination has been made by Forbes, or Munroe, or by one of the staff at the U.S. National Museum within the past few years, there is no question about accepting it.

The general food plant records, as well as some specific Florida ones, are taken almost verbatim from Heinrich, the latter, as usual, being documented.

Any attempt to interpolate numbers based on the McDunnough list in the Phycitinae is meaningless because of the many shifts in arrangement. Where applicable, the McDunnough numbers are used, but for all additions to his list, Heinrich's numbers are used with the prefix "H."

ACROBASIS Zeller

[6115 A. indigenella (Zeller)]
Leaf crumper.
Isis, p. 867. 1848.
It is probable that the two records belong under grossbecki (Barnes & McDunnough) below. Certainly that is where Heinrich (1956, p. 13) placed the record given by Grossbeck (1917, p. 129) and he commented that grossbecki may be nothing more than a Florida race of indigenella. III. Plymouth: Dec. 16, 1946, DPI. Winter Garden: March 29, 1948, DPI. Food: apple, crabapple, plum, prune, cherry, quince, Crataegus, Cotoneaster, and Pyracantha coccinea. Larvae have been found feeding on leaves and forming a serpentine resting and hibernating case of silk and frass. There are many records for nebulella Riley from Bonifay to Homestead, which Gill (U. S. Dept. Agr. Farmers Bull. 843:16) calls one of the worst pests affecting the culture of pecans. According to Heinrich (1956, pp. 12, 13, 16, and 112) the name nebulella has been used for at least four different species, including indigenella. However, in this instance I suspect the reports refer to juglandis below, though there is no way of proving it.

6116 A. GROSSBECKI (Barnes & McDunnough)
Conrib. 3: 221. 1917.
I. Escambia Co.: May, SMH. II. Alachua Co.: reared from Pyracantha, Sept., DPI, CPK. III. Cassadaga: April, SVF. Lakeland: type, reared from larva feeding on the leaves of Crataegus, May, USNM. IV. Okeechobee: April, May, CPK. Siesta Key: Feb., CPK.

6114 A. VACCINI Riley
Cranberry fruitworm.
Can. Ent. 16: 237. 1884.

[6112 A. amplexella Ragonot]
N. Amer. Phycitinae, p. 3. 1887.
Except for the type locality, North Carolina, all Heinrich's records (1956, p. 14) are from Pennsylvania northward. I. Escambia Co.: May 14, 1961, SMH; apparently this species. Jefferson
Co.: May 2, 1927, (Walker), det. Beebe, UM. IV. Fort Lauderdale: March 26, 1928, (Bates), det. Beebe, UM.

6088 A. MINIMELLA Ragonot
Ent. Amer. 5: 113. 1889.

[6082, 1 A. palliolella Ragonot]
N. Amer. Phyctidae, p. 4. 1887.
Heinrich (1956), p. 19) said, "The name palliolella has been variously misapplied and has appeared frequently in economic literature for the 'pecan leaf casebearer' (juglandis LeBaron)." Since all Heinrich's records run from Pennsylvania northward, the larval records on pecan in the Division of Plant Industry files probably belong under the latter name. Food: presumably hickory.

6082 A. JUGLANDIS (LeBaron)
Pecan leaf casebearer.
I. Tallahassee: May, Heinrich (1956, p. 16). Monticello: larva, March, Coop. Ins. Pest Surv. 7: 33; May, June, Heinrich. II. Palatka: May, Heinrich. III. Orlando: May, Heinrich. The Division of Plant Industry has a number of records for larvae on pecan from Santa Rosa to Zephyrhills, sometimes under this name, sometimes under palliolella. Food: hickory, pecan, walnut, and butternut, (larvae feeding on leaves, buds, and flowers).

6079 A. KEARFOTTIELLA Dyar

6100 A. CARYAE Grote
Pecan nut casebearer.
Papilio 1: 13. 1881.

6089 A. STIGMELLA Dyar
I. Escambia Co.: July 28, 1961, det. Munroe, SMH.

6086 A. EVANESCENTELLA Dyar
Florida: larva on pecan, 1917, Pecan Investigations Laboratory file. III. Orlando: type, April 28, 1908, USNM.

6106 A. PEPLIFERA Dyar
I. Monticello: Heinrich (1956, p. 19). IV. Archbold Biological Station: four March 23, April 6, 1958, (Pease), CPK, YU. Punta Gorda: March 25, 1951, (Ramstedt), AKW; April, det. Capps, MOG.

6076 A. EXSULELLA (Zeller)
Isis, p. 868. 1848.
Florida: type of septentrionella Dyar, April 8, USNM. I. Escambia Co.: May 21, 1962, SMH. Warrington: May 9, 1961, VFG. Food: hickory and pecan.

[6097 A. normella Dyar]
As Heinrich (1956, p. 20) knew only the type series, from Connecticut, the following record would appear to be in error. I. Jefferson Co.: May 28, 1927, (Walker), UM. Food: presumably hickory.

[6085 A. hebecella Hulst]
The few "records" for this have been transferred to caryae, that being the most likely species for the misdeterminations. Food: oak.

6102 A. CUNULAE Dyar & Heinrich
Heinrich (1956, p. 22) stated that this "is close to but apparently distinct from carvirella." I. Monticello: May, Heinrich. Food: pecan.

6087 A. CARYIVORELUNA Ragonot
N. Amer. Phyctidae, p. 4. 1887.
Florida: Hill (1938, p. 12), I. Monticello: May 1943 (U. S. Dept. Agr. "The more important insect records for May 1943," p. 2); July, Hein-

[6104 A. comptoniella Hulst]
The record for this given by Grossbeck (1917, p. 129) was found to be in error for the next species by Barnes & McDunnough, who made the specimens listed by Grossbeck as types thereof. Food: Comptonia and Myrica.

6105 A. MYRICELLA Barnes & McDunnough
Contrib. 3: 221. 1917.
IV. Bradenton: May, CPK. Okeechobee: May, CPK. Archbold Biological Station: April, YU. Fort Myers: types, April, May, USNM. VI. Paradise Key: April 5, 1929, (Jones), Heinrich (1956, p. 23). VIII. Tavernier: Oct., CPK. Food: Myrica.

6321 A. TUMIDULELLA (Ragonot)
N. Amer. Phycitidae, p. 13. 1887.
Heinrich (1956, p. 24) believed this might be no more than an abnormal specimen of Caryotorella. Florida: type, Paris Museum.

6109, 1 A. SP.
This was determined by Heinrich as a new species, but as there were only females on hand at the time, he did not wish to describe it. II. Gainesville: one April 27, 1925, (Bates), UM. IV. Bradenton: May 2, 1945, CPK. Siesta Key: five May 1948, CPK, USNM; six April-June 1957, two May 14, 15, 1956, CPK.

ANABASIS Heinrich

H44 A. OCHRODESMa (Zeller)
sia siamea]; C. nodosa, C. tora (U. S. Dept. Agr. Florida rears; larva a leaf folder).

HYPSTIPAyla Ragonot

H48 H. GRANDELLA (Zeller)
Isis, p. 861. 1848.
IV. Miami: Nov. 19, 1943, det. Heinrich, (DPI?). The species has been intercepted frequently at quarantine. Food: Cedrela and Swietenia (larva bores in fruit and branches).

HYPERGYRIA Ragonot

6108 H. SLOSSONELLA (Hulst)
IV. Fort Myers: April 16-23, Barnes & McDunnough (1913d, p. 181). Miami: type, Feb., March, (Slosson), AMNH. V. Everglades: type of tenella, April 8-15, Barnes & McDunnough. Reference is also made to tenella by Barnes & McDunnough (1916c, p. 195) where it is sunk as a synonym of slossonella.

CHARARICA Heinrich

6073 C. HYSTRICULELLA (Hulst)
Ent. Amer. 3: 135. 1887.

MYELOPSIS Heinrich

[6062 M. SUBTETRIGELLA (Ragonot)]
Ent. Amer. 5: 113. 1889.
Florida: Hulst (1890, p. 118). Barnes & McDunnough (1916c, p. 198) writing of the synonymous obnupella Hulst said, "The specimen is not to be found and in any case it is doubtful if it would be conspecific." It was also reported as obnupella, Forbes (1923, p. 613) and Ragonot (1893, p. 48) who listed the species for Florida, but presumably on the basis of the original Hulst record. Heinrich (1956, p. 41) said, "The Florida record cited above is from a spurious 'type' (male) of Myelopsis immunda Hulst, originally in the Fernald collection and now in the U. S. National Museum. It is not immunda, and in genitalia, color and markings agrees perfectly with other males of subtetrigella." Heinrich gave the date as March.

APOMYEOLOS Heinrich

6067 A. BISTRATIPELLO (Hulst)
Ent. Amer. 3: 136. 1887.
Florida: Hulst (1890, p. 117); March, Heinrich.
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(1956, p. 49). IV. Fort Lauderdale: May 17, 1928, (Bates), UM.

ECTOMYEOLOIS Heinrich

[E. decolor (Zeller)]
Hor. Soc. Ent. Ross. 16: 222. 1881.

Heinrich (1956, p. 44) pointed out that "presumably the species has much the same hosts and habits as the closely related Ectomyelois ceratoniae," and that the larvae are very difficult to separate from those of ceratoniae. Inasmuch as he quoted no Florida,nor North American distribution, it would seem well to await further, critical determinations before definitely placing the species on our list. III. Mount Dora: larva on loquat, Dec., DPI. IV. Miami: larva on tamarind, Sept., DPI. VIII. Key West: larva on pomegranate, May, DPI. Heinrich listed the following food plants: Annona muricata [squamosa], Ceratonia siliqua, and Hymenaea courbaril.

6085 E. CERATONIAE (Zeller)
Isis, p. 176. 1839.

IV. Siesta Key: Jan.-April, det. Munroe, CPK. Hallandale: larva on tamarind, June, DPI. Miami: May, July, Aug., Nov., Heinrich (1956, p. 45); larva on tamarind, March, det. Capps, DPI; intercepted at customs, July 1946, from Nassau. May 1948, on dates from Iraq; type of Myelois oporedestella Dyar, larva bred from dried loquat fruits, (Busck), USNM. VI. Homestead: May, Heinrich; larva on tamarind, June, DPI. VIII. Summitland Key: larva on tamarind, June, DPI. Key West: April, Heinrich. Food: Carissa grandiflora, Cassia bicapsularis, Ceratonia siliqua, Eriobotrya japonica, (chiefly in mummified fruits), Litchi chinensis, Robinia, Tamarindus indica, and Vachellia insularis. It has also been found on dried figs, dates, raisins, and nuts in storage and is primarily a leguminous feeder. The favored host seems to be the pods and seeds of carob, Ceratonia siliqua.

PANAMYEOLOIS Heinrich

6088 P. TRANSITELLA (Walker)


FUNDELLA Zeller

H119 F. PELLUCENS Zeller
Caribbean pod borer.
Isis 41: 806. 1948.

There are a number of records, all larval, from Orange and Manatee Counties south to Coconut Grove. IV. Siesta Key: adults, Dec.-March, May, CPK. Food: lima nuts, cowpeas, Ins. Pest Surv. Bull. Spec. Suppl. 1947 (1): 5; Bauhinia carlota, B. alba, B. purpurea, black-eyed peas, Vigna sp., V. repens, Canavalia gladiata, C. lutea, C. fasciculata, mistletoe, dwarf poinciana, and Acacia, all DPI. Other food plants: Canavalia ensiformis, C. maritima, Cajanus indicus [cajan], and Cassia occidentalis.

H120 F. ARGENTINA Dyar
Ins. Insc. Mens. 7: 40. 1919.


ANADELOSEMIA Dyar

6143 A. TEXANELLA (Hulst)
Can. Ent. 24: 60. 1892.

II. Hastings: type of dulciella Hulst, Oct. 28, (Kearfott), AMNH. III. DeLand: two March 27, 1954, (Wyatt), det. Clarke, MOG, USNM.

DAVARA Walker

6119 D. CARICAE (Dyar)

and *Lotus*, DPI; April, Dec., Heinrich. Coral Gables: larva on papaya, det. with "P," DPI.

VI. Homestead: April, May, July, Sept., CPK. Florida City: DPI; April, May, Heinrich. Paradise Key: Heinrich.

[D. *columnella* (Zeller)]


In the Jones material taken at Paradise Key was a specimen reared from papaya determined some years ago by Heinrich as *columnella*. However, in this revision (1956, p. 74), Heinrich apparently placed the specimen as *caricae* above. Furthermore he cast doubt as to the distinctness of the two species. In the event they are the same, *columnella* would, of course take precedence.

SARASOTA Hulst

6120  S. PLUMIGERELLA Hulst

J. N. Y. Ent. Soc. 8: 222. 1900.


ATHEOLOCA Heinrich

6121  A. SUBRUFELLA (Hulst)

Ent. Amer. 3: 132. 1887.

Reported both as *subrufella* and *filiolella* (Hulst). I. Escambia Co., and from II. Hastings, relatively common to VII. Craig, Jan.-Sept. Larva on cabbage palm, Feb., and saw palmetto, March, DPI.

MONOPTILOTA Hulst

6141  M. PERGRATIALIS (Hulst)

Lima-bean vine borer.


Florida: type, July 6, AMNH; Barnes & McDun- nough (1916c, p. 195); type of *nubilella* Hulst, AMNH (USNM?); larva on lima beans, Chittenden (1900, p. 9). IV. Miami: April, Heinrich (1956, p. 90). Coconut Grove: April, May, Heinrich. Food: lima bean (larva a borer in the stems).

ZAMAGIRIA Dyar

6232  Z. AUSTRALELLA (Hulst)


H196  Z. LAIDION (Zeller)

Hor. Soc. Ent. Ross. 16: 211. 1881.


ANECEPHALESI Dyar

6176  A. ARCTELLA (Ragonot)

N. Amer. Phycitidae, p. 4. 1887.


ANCYLOSTOMIA Ragonot

H200  A. STERCOREA (Zeller)

Pl. XXVI, Fig. 26, 2. 1848.

Isis, p. 873. 1848.


CARISTANIUS Heinrich

6228  C. DECOLORALIS (Walker)

Pl. VI, Fig. 24, 5. 1883.


Florida: type of *fururellus* Hulst, AMNH;

ETIELLA Zeller

6274 E. ZINCKENELLA (Treitschke) Pl. VI, Fig. 26, f. Schmett. Eur. 9, Pt. 1, p. 201. 1832. Zinckenella is common throughout the state all year, in all its named forms. Food: pods and seeds of various Leguminosae (Astragalus, Cajanus, Colutea, Dolichos, Glycine, Pisum, Vicia, Vigna); lima beans, Crotalaria, DPI; beans, UFES.

GLYPTOCERA Ragonot

6148 G. CONSOBRINELLA (Zeller) Verh. zool.-botan. Ges. Wien 22:543. 1872. Though not recorded from Florida by Heinrich (1956, p. 101), he presumed that the species was generally distributed over the eastern section of the country, therefore, the following records are probably valid. Florida: Hulst, (1950, p. 40). IV. Punta Gorda: April, MOG. Fort Lauderdale: May 24, 1923, (Bates), U.M. Food: V. burnum, maple.

SALEGRIARIA Heinrich


6190 S. PUMILIELLA (Ragonot) N. Amer. Phycitidae, p. 8. 1887. IV. Charlotte Harbor: type of georgiella Hulst, March, (Slosson), AMNH.


NEPHOPTERYX Hübner

6213 N. SUBFUSCELLA (Ragonot) N. Amer. Phycitidae, p. 8. 1887. III. Cassadaga: May, SVF. Sanford: April, DPI. Lake Alfred: July, Heinrich (1956, p. 124). IV. Oneco: May, CPK. Archbold Biological Station: March, PSU. Siesta Key: March, CPK. Fort Myers: May, Heinrich. This is unquestionably the record given in Grossbeck (1917, p. 130) under the name Meroperta pravella Grote, and about which Barnes & McDunnough (1917a, p. 221) wrote: "This record was based on three females which further examination convinces us would be better referred to Saleibia subfuscella Ragonot, or S. semidobscurella Hulst. . . . ; pravella scarcely occurs in Florida." VI. Homestead: Feb., May-Sept., CPK. Food: Rhus, locust (?). Larva a leaf folder.


6183 N. UVINELLA (Ragonot) N. Amer. Phycitidae, p. 8. 1887.

6206 N. CELTIDELLA (Hulst)

6170 N. CRASSIFASCIELLA Ragonot
III. Lakeland: type of crataegella Barnes & McDonnough, May, USNM. Food: Vaccinium, Crataegus.

TULSA Heinrich

6177 T. FINITELLA (Walker)

6129 D. ABIEITIORELLA (Denis & Schiffermueller)

6128 1 D. ABIEITIORELLA (Grote)

6131 1 D. RENICULELLA (Grote)]
Spruce coneworm.
N. Amer. Ent. 1: 67. 1880.

Forbes' distribution record including Florida (1923, p. 620) is unquestionably in error, as Heinrich (1956, p. 151) listed New York as the southernmost range, and noted that the species had been frequently confused with abietella which is essentially a pine feeder, whereas reniculella favors spruce.

[6312 D. DISCLUSA Heinrich]

A specimen taken at Gainesville, May 24, 1945, and now in the University of Florida Agricultural Experiment Station collection was determined by Heinrich as one of his new species. It is similar in appearance to disclusa and aurantiella (Grote), but as the latter is western and as Heinrich (1956, p. 153) recorded the former from North Carolina, it is presumably that species, but until it is examined and compared with Heinrich's description, it must remain in a tentative status as far as the Florida list is concerned. Another, Alachua Co.: May 28, 1857, (Denmark), DPI, has the abdomen missing and is faded, but it also is probably disclusa. Food: Pinus spp., larva feeding in the cones.

6156 D. PYGMAELLA Ragonot
Pl. XXVI, Fig. 25, $. N. Amer. Phyctidae, p. 5. 1857.

6185 D. AMATELLA (Hulst)
[Pl. XXVI, Fig. 22, $; Fig. 23, $]. Ent. Amer. 8: 131. 1887.
Florida: type, AMNH; CNC; reared series, CU. Alton: June, Heinrich (1956, p. 156). Camp Finchot: June, Heinrich. I. Escambia Co.; Nov., SMH. Warrington: VFG. Ocean City: May, HOH. Monticello: Sept., Heinrich. II. Lake

6125 D. CLARIONALIS (Walker)  
Pl. XXVI, Fig. 24, 9.  

ADELPHIA Heinrich  

6229 A. PETRELLA (Zeller)  
Pl. VI, Fig. 23, 9.  
Isis, p. 771. 1846.  

UFA Walker  

H359 U. RUBEDINELLA (Zeller)  
Pl. VI, Fig. 40, 9.  
Isis, p. 885. 1848.  

ELASMOULUS Blanchard  

6231 E. LIGNOSELLUS (Zeller)  
Lesser cornstalk borer. Pl. VI, Fig. 27, 9.  
Isis, p. 885. 1848.  
Lignosellus occurs all over the state including the Dry Tortugas, in all months in all its forms. Food: Cyperus esculentus, crabgrass, sudangrass, Johnsongrass, Japanese cane, milo maize, sugar cane, sorghum, peanuts, turnips, wheat, strawberry plants, flax, cotton, and black locust; the larvae boring into the stems of growing plants, and to a lesser extent feeding on the leaves; corn, beans, Watson (1931, p. 30) cowpeas, ibid., p. 63; beans, Coop. Econ. Ins. Rept. 4: 99; lupine, ibid., p. 1023.

ULOPOHRAGNONOT  

6117 U. GROTEII Ragonot  

DIVIACIA Barnes & McDunnough  

6357 D. OCHRELLA Barnes & McDunnough  
Constr. 2: 183. 1913.  
II. Gainesville: April, CPK. IV. Siesta Key: Feb., March, Dec., CPK. V. Marco: April 17,
USNM. Everglades: type, April 8-15; USNM; April 11, AMNH.

6356 D. SIMULELLA Barnes & McDunnough
Contrib. 2: 183. 1913.


6355 D. PARVULELLA Barnes & McDunnough
Contrib. 2: 183. 1913.

IV. Oneco: May 11, 1953, CPK. Vero Beach: April, Heinrich (1958, p. 190). V. Marco: type, April 16-23; USNM; April 17, AMNH. VIII. Tavernier: July, Sept., Oct., CPK. Key West: four reared, April 7, 1945, from larvae feeding on the flowers of Achyrantes ramosissima, Heinrich.

OCALA Hulst

6359 O. DRYADELLA Hulst


HULSTIA Ragonot

6341 H. UNDULATELLA (Clemens)


HONORA Grote

6343 H. MELLINELLA Grote


6349 H. DULCIELLUS Hulst
J. N. Y. Ent. Soc. 8: 223. 1900.

Heinrich (1956, p. 313) doubts that dulciella belongs in Honora, but until such time as it can be placed, it is as well off here as anywhere. It is known only from the female type. IV. Palm Beach: type, USNM.

WUNDERIA Grossbeck

6361 W. NEAERATELLA Grossbeck

IV. Fort Lauderdale: May 24, 1928 (Bates), UM. V. Everglades: type female, April 6, AMNH.

DIVIANA Ragonot

6358 D. EUDOREELLA Ragonot
Nouv. Gen., p. 27. 1888.

The Everglades record, Grsb. 132, was in error as pointed out by Barnes & McDunnough (1917a, p. 222). It belongs under Palaita nymphaeella (Hulst), below. I. Escambia Co.: Sept. 8, 1962, det. Munroe, SMH. II. Orlando: two Feb., USNM. IV. South Florida: type of edentella Hulst, April, AMNH.

PALATKA Hulst

6360 P. NYMPHAEELLA (Hulst)

I. Myrtle Grove: WJW. IV. Bradenton: Sept., Oct., CPK. Siesta Key: Jan., March, CPK; May, det. Heinrich, CPK, USNM. Charlotte Harbor: type, April, (Slosson), AMNH. Fort Myers: type of verecuntella Grossbeck, April, AMNH. V. Everglades: co-types of verecuntella, April, AMNH, SIM, USNM. VIII. Tavernier: Oct., CPK.

MESCLINIA Ragonot

6322 M. ESTRELLA Barnes & McDunnough
Contrib. 2: 182. 1913.


HOMOEOSOMA Curtis

6374 H. ELECTELLUM (Hulst)
Ent. Amer. 3: 137. 1887.

enton: Nov., CPK. Sebring: June, UM. Siesta Key: Feb., June, CPK. Fort Myers: as differ-
tellum Barnes & McDunnough (1913d, p. 184) and (1914d, p. 31). Fort Lauderdale: April, UM. V.
Eversglades: type of differtellum, April, USNM. Miami: April, Heinrich. VI. Homestead: April, July, CPK. Food: flower heads
of Anthemis, Aster, Bidens, Echinacea, [Brau-
neria], Chrysanthemum, Coreopsis, Dahlia, Hel-
tanthis, Heliotropis, Rudbeckia, Tagetes, Vi-
guiera, Verbena [Ximenesia], flowers of Opun-
tia and cotton, and fruit of orange, with sun-
flower the most favored.

[6371 H. stypticum Grote]
1878.

Since Heinrich (1956, p. 221) placed the distribu-
tion of the species no nearer than Pennsy-
lavania, Arkansas and Texas, the following records
may be in error. Certainly until they are con-
Tirned on the basis of his diagnosis, they should
not be considered valid. Florida: as uncinate
Hulst, Dyar (1902, p. 434). III. Cassadaga: May,
Dec., SVF. IV. Archbold Biological Station:
Jan., PSU. Siesta Key: May, det. Brower, CPK.
Fort Lauderdale: March, UM. V. Marco: April,
Crsp. 138. Eversglades: April, AMNH. VII.
Flamingo: April, DPI.

ROTRUDA Heinrich

6370 R. MUCIDELLA (Ragonot)
N. Amer. Phytophita, p. 15. 1887.

Although Heinrich (1956, p. 226) believed that the range of distribution for the species covers
the United States, with typical mucidella found
west of the Rocky Mountains and the darker race reliquella (Dyar), in the east, with other races in the West Indies, Central, and South America, he considered that the races at best are dubious entities. Theoretically, therefore, we should find only reliquella in Florida, but I list it as reported. Florida: mucidella, Forbes (1923, p. 634): I. Escambia Co.: Feb., SMH. II.
Gainesville: four Nov. 10, 1940, det. Heinrich as mucidella, UFES. III. DeLand: mucidella,
March, MOG. Cassadaga: July, SVF. Lake Alfred: reliquella, July, Heinrich. IV. Braden-
ton: April, Oct., Nov., CPK. Oneco: May, June,
CPK. Siesta Key: three May 14-24, det. Brower
as mucidella, CPK. Fort Myers: reliquella,
April, Heinrich. Pompano: reliquella, March,
Heinrich. Miami: Feb. 24, 1949, det. Capps, as reliquella, DPI; April, Heinrich. V.
Eversglades: reliquella, April, Heinrich. Chokoloskee: reli-
quella, Heinrich. VI. Homestead: April, CPK.
VIII. Big Pine Key: reliquella, April, Heinrich.

Food: Aster, Cirsium hortidulum [spinossis-
mum], Pyrrhopappus caroliniana [Sittilia caro-
liniana], Sonchus asper, lettuce.

UNADILLA Hulst
H472 U. FLORIDENSIS Heinrich

VIII. Key West: types, reared April 23-May 1,
1945, from larvae feeding in the blossoms and
seed pods of Pulchea odorata and Melanthera
radiata, USNM.

LAETILIA Ragonot

6328 L. COCCIDIVORA (Comstock)
N. Amer. Ent. 1: 26. 1879.

Coccidivora is common, probably all over the
state, although there are no records from the
Keys. Heinrich (1956, p. 233) listed cardini
Dyar as a race described from Santiago de las
Vegas, Cuba. He had seen specimens from Or-
lando, reared from larvae feeding on mealy bugs
on grapefruit. Without referring specifically to
Florida, Heinrich listed the following Coccidae
as food: Pulvinaria vittis, P. amygdali, P. bigelo-
viae, Tomewyella numismaticum, T. spp., Coc-
cus hesperidum, Eriococcus quercus, Saissetia
oleae, Lecanidiaspis sp., Cerococcus quercus,
Lecanium arizonensis, Dactylolius sp., D. con-
fusus, D. tomentosus, Neolecanium cornipar-
vum, Pseudococcus sp., and also flowers of
Opuntia [Platyopuntia] spp. Actual Florida
records include: Ceroplastes, USNM; satsuma,
black Lecanium, cottony cushion scales on citrus,
Kermes, DPI.

ZOPHODIA Hübner

[6303 Z. consolatella (Hübner)]
Samml. eur. Schmett. Lep. 8, Tineae, 2; Pl. 5,
Fig. 34. 1796.

Gooseberry fruit-worm.

On the basis of Heinrich's records for distribu-
tion the species should not be expected in Flor-
da. The record here should be confirmed. IV.
Fort Lauderdale: April 8, 1928, (Bates), UM.
Food: Ribes grossularia and other Ribes species,
the larva feeding in the fruit.

MELITARA Walker

6277 M. PRODENIALIS Walker
Pl. XXVI, Fig. 21, 5.
Prodentialis is common throughout the peninsula
and Keys, and probably in the western counties
as well, March-October. Food: *Opuntia*, Hubbard (1895, p. 129).

**RUMATHA** Heinrich

6311 R. GLAUCATELLA (Hulst)
Ent. Amer. 4: 117. 1888.
Florida: one female ex Fernald collection, USNM. Food: *Opuntia leptocaulis*.

**METEPHESTIA** Ragonot

H547 M. SIMPLICULA (Zeller)

**EUZOPHERA** Zeller

6317 E. SEMIFUNERALIS (Walker)

6319 E. OSTRICOLORELLA Hulst

**EULOCIA** Heinrich

6318 E. OCHRIFRONTELLA (Zeller)

**EPHESTIOIDES** Ragonot

6380 E. INFIMELLA Ragonot
N. Amer. Phyctidae, p. 16. 1887.

H576 E. ERAEA Heinrich
II. Gainesville: April, (Bates), Heinrich. III. Winter Park: July 23, 1939, (Fernald), Heinrich. Lake Alfred: types, May 6 and July 2, 1929, (Bottimer), USNM.

**MOODNA** Hulst

6396 M. OSTRINELLA (Clemens)

**VITULA** Ragonot

6323 V. EDMANDSAE (Packard)
Proc. Essex Inst. 4: 120. 1864.
PLODIA Guenée
6408 P. INTERPUNCTELLA (Hübner)
Indian-meal moth.
Samml. eur. Schmett. Lep. 8, Tineae 5; Pl. 45, Fig. 310. [1810]-[1813].
Interpunctella is probably much more common than the records suggest. I. Escambia Co.: Sept., SMH. Monticello: April, CU. II. Gainesville: Sept., DPI. III. Plymouth: July, UFES. Dover: June, DPI. IV. Siesta Key: March, April, CPK. Food: all kinds of stored grain and dried vegetable products.

ANAGASTA Heinrich
6899 A. KUEHNIELLA (Zeller)
Mediterranean flour moth.
Like the previous species, kuehniella is undoubtedly relatively common, though there are only four strictly Floridian records: I. Escambia Co.: Oct. 19, 1961, SMH. IV. Archbold Biological Station: March 13, 1960, PSU. Siesta Key: Feb., CPK. Punta Gorda: March, MOG. Two customs interceptions are recorded: Jacksonville, May 1937, from Argentina and Key West, June 1919, and from Havana. Food: wheat and grain, flour especially, but many other dried and stored vegetable products are attacked by the larvae.

EPHESTIA Guenée
6403 E. CAUTELLA (Walker)
Almond moth, dried currant moth, or fig moth.

VARNERIA Dyar
6407 V. ARTIFASCIELLA Barnes & McDunnough
Contrib. 2: 184. 1913.
V. Everglades: type and one paratype, both females, April 8-15, USNM.

EURYTHMIA Ragonot
6385 E. HOSPITELLA (Zeller)
III. Winter Park: July, Heinrich (1856, p. 307). IV. Siesta Key: Nov., CPK.

CABNIA Dyar
6427 C. MYRONELLA Dyar

Subfamily ANERASTINAE
The subfamily is in need of revision.

AURORA Ragonot
6411 A. LONGIPALPELLA Ragonot
N. Amer. Phycitidae, p. 13. 1887.
IV. Siesta Key: May 13, 1946, CPK.

TOLIMA Ragonot
6412 T. ROSEOPENELLA (Hulst)
III. Volusia Co.: type, AMNH.

PECTINIGERIA Ragonot
6419 P. BISTRIATELLA (Hulst)
Florida: Hampson (1918b, p. 106).

POUJADIA Ragonot
6423 P. QUADRICOLORELLA (Dyar)
IV. Miami: three larvae feeding beneath waxy covering of cocchineal clumps of soft bodied coccids, Hamlin (1926, p. 102).

OLLIA Dyar
6426 O. PARVELLA Dyar
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ALAMOSA Ragonot

6435 A. BIPUNCTELLA Barnes & McDunnough
Contrib. 2: 184. 1913.


HYPSOTROPA Zeller

6436 H. LUTEICOSTELLA Ragonot
Florida: Hulst (1890, p. 212); type of nodosella (Hulst), April, AMNH. V. Marco: April 17, AMNH.

PEORIA Ragonot

6438 P. BIPARTITELLA Ragonot
II. Gainesville: three July, (Rogers), CU. III. Cassadaga: April, SVF. IV. Oneco: April, May, CPK. Siesta Key: Feb., CPK. Fort Lauderdale: March, UM.

6439 P. APPROXIMELLA (Walker)
IV. Martin Co.: May 19, 28, (Bates), UM. Biscayne Bay: (Slosson), Crsb. 134. The Everglades record, Crsb. 134, belongs under 6439,1 below, according to Barnes & McDunnough (1917a, p. 222).

6439, 1 P. ALBICOSTELLA (Grossbeck)
IV. Fort Myers: co-type, April 23, Grossbeck. V. Everglades: co-type, April 7, Grossbeck; Barnes & McDunnough (1917a, p. 222).

ANERASTIA Hübner

6442 A. ELLA (Hulst)
Ent. Amer. 3: 138. 1887.

BANDERA Ragonot

6446 B. CARNEELLA Barnes & McDunnough
Contrib. 2: 184. 1913.
IV. Bradenton: March, Aug., CPK. Siesta Key: Nov. 9, 1952, det. Munroe, CPK. V. Everglades: type, one April 8-15, USNM.

TAMPA Ragonot

6450 T. DIMEDICATELLA Ragonot
N. Amer. Phycitidae, p. 20. 1887.

STATINA Ragonot

6452 S. ROSEOTINELLA Ragonot
Florida: Hulst (1890, p. 216). II. Gainesville: July, CNC, CU. III. Orlando: June, CU.

CHIPETA Hulst

6458 C. PERLEPIDELLA Hulst
Florida: type, AMNH.

PSAMMIA Hampson

6234 P. FLAVIPICTA Hampson
Flavipicta was moved from Phycitinae to Aemerastinae by Heinrich (1856, p. 315). Florida: type, BM.

Family PTEROPHORIDAE

Davidson called my attention to an odd habit of the Pterophorids. For some years he had used black nylon nets, of approximately ¾" mesh for the purpose of capturing birds for banding. He had observed that the Pterophorids were very fond of settling on these nets, and that in Florida the smaller species oviposited on the nets. He reported further observing Olidaeomatoporus balanotes (Meyrick) resting on the nets in considerable numbers at Claiborne, Maryland, in September 1958.
TRICHOPTILUS Walsingham

6459 T. PARVULUS Barnes & Lindsey
Contrib. 4: 289. 1921.

6460 T. DEFECTALIS (Walker)

6461 T. CALIFORNICUS (Walsingham)

[6463 T. lobidactylus (Fitch)]
The Lakeland, Fort Myers, and Chokoloskee records given by Grossbeck (1917, p. 135) were transferred to californicus by Barnes & Lindsey (1921, p. 295), where they also strongly suspected the following Everglades record belonged: April 9, AMNH. I have a record from Oneco: June 9, 1954, (Dillman), but cannot find the specimen. I suspect it too belongs under californicus.

PLATYPTILIA Hübner

6471 1 P. PUSILLIDACTYLA (Walker)
Lantana plume moth
Pusillidactyla is characterized by the very short third feather of the hind wing. IV. Oneco: May, (Dillman), CPK. Archbold Biological Station: Dec., YU. Siesta Key: Nov.-April, June, CPK. Food: Lantana, Caperonia.

6472 1 P. BREVIPENNIS Zeller

6483 P. BRACHYMORPHA Meyrick
I. Warrington: rare, late fall, VFG. III. St. Petersburg: Barnes & Lindsey (1921, Pl. 41, Fig. 15). IV. Oneco: June, Oct., CPK. Siesta Key: March, May, Dec., CPK. Fort Myers: April, May, co-types of crenulata Barnes & McDunnough (1913d, p. 185); May, CNC. Hialeah: reared from seed heads of Phyla lanceolata, Oct. 20, 1962, (Stegmaier), DPI. V. Everglades: co-types of crenulata, April, Barnes & McDunnough, April, AMNH. Chokoloskee: USNM. VI. Homestead: April, Nov., CPK.

6489, 1 P. TAPROBANES Felder
Reise No.; Pl. 140, Fig. 54. 1875.
VI. Florida City: three Feb. 1954, det. Clarke, MOG.

6488 P. CAROLINA Kearfott
Bull. Amer. Mus. Nat. Hist. 23: 155; Pl. 8, Fig. 17. 1907.
Apparently this species. I. Escambia Co.: May 9, Sept. 3, 1961, SMH. Myrtle Grove: Sept. 12, 1961, WJW.

6490 P. EDWARDSSII Fish

EXELASTIS Meyrick

6503 E. CERVINICOLOR (Barnes & McDunnough)
Contrib. 2: 185. 1913.
I. Escambia Co.: Jan., SMH. IV. Siesta Key: May, CPK. South Bay: May, AMNH. V. Chokoloskee: USNM. Everglades: types, April, USNM. VI. Homestead: April, CPK. VIII. Key Vaca: Nov., CPK.

MARASMARCHA Meyrick

6504 M. PUMILIO (Zeller)
6521 A. BUSCKI Barnes & Lindsey
Contrib. 4: 370. 1921.

6522 A. AMBROSIAE (Murtfeldt)
Amer. Ent. 3: 236. 1880.

OIDAEMATOPHORUS Wallengren
6546 O. INQUINATUS Zeller

6554 1 O. SP.
This specimen is closer to linus Barnes & Lindsey than anything else, but it is not that. I. Escambia Co.: May 24, 1962, SMH.

6563 O. STRAINEUS (Walsingham)
Pteroph. Calif. Ore., p. 41; Pl. 3, Fig. 3. 1880.
II. Gainesville: three June 21, 1935, (Cantrell), UM.

6566 O. VENAPUNCTATUS Barnes & Lindsey
IV. Oneco: three May 19-June 8, 1953, (Dillman), CPK. There are two other specimens with similar maculation, Central Florida: Sept. 1955, WMD and Siesta Key: Feb. 18, 1956, CPK, but because of their size, 24 mm, as against the normal wing spread of 15-18 mm, I hesitate to include them as definite records.

6568 O. LACTEODACTYLUS (Chambers)
Can. Ent. 5: 72. 1873.
I. Escambia Co.: form kelliottii (Fish), Sept., SMH. III. Blanton: larva on groundsel, Oct., det. Dekle as “probably this,” DPI. IV. Archbold Biological Station: March, Dec., YU. Siesta Key: May, CPK. Fort Lauderdale: form kelliottii, April-June, UM. V. Everglades: kelliottii, April, AMNH. VI. Modello: Jan., det. Capps, DPI. Paradise Key: larvae abundant in stems of Baccharis in March, adults emerging April, FMJ.
6569 O. BALANOTES (Meyrick)
Pl. XXVI, Fig. 29, d.
I. Escambia Co.: April, SMH. Monticello: Oct.,
DPI. II. Alachua Co.: Oct., DPI. Gainesville:
March. UM; March, Nov., DPI. III. Titusville:
type, Aug., Meyrick. St. Petersburg; Barnes &
Lindsey (1921; Pl. 44, Fig. 12). IV. Archbold
Biological Station: March, Sept., YU. Siesta
Key: Dec.-Feb., May, CPK. Englewood: Nov.,
CPK. Fort Lauderdale: Jan., UM. VI. Homestead:
May, CPK.

[6570 O. grandis (Fish)]
The following record is undoubtedly an error
for *balanotes* which had not been described in
1884. Florida: 1884, (Morrison), Walsingham
(1909-1915, p. 441).

6581 O. UNICOLOR (Barnes &
McDunnough)
Contrib. 2: 185. 1913.
II. Alachua Co.: Oct., DPI. Gainesville: May,
UM. III. St. Petersburg: Oct., USNM. IV. Oneco:
eight April-June, Aug., Oct., CPK. Archbold
Biological Station: Sept., Dec., YU. Siesta Key:
Feb., CPK. Englewood: Feb., CPK. Fort Lau-
derdale: Sept., UM. V. Marco: type, female, from
larva boring in stem of *Eupatorium* sp., April,
USNM; April, AMNH. VI. Homestead: Oct.,
CPK; a small specimen, but the faintly evident
maculation matches.

6588 O. MONODACTYLUS (Linnaeus)
Syst. Nat., p. 542. 1758.
I. Escambia Co.: Feb., SMH. II. Gainesville:
Feb., CPK. IV. Bradenton: Feb., Dec., CPK.
Archbold Biological Station: Jan., YU. Indian
River Co.: Oct., UM. Siesta Key: Jan., Feb.,
CPK. South Bay: May, AMNH. Palm Beach:
Dyar (1901a, p. 466).

**Family ALUCITIDAE**

**ALUCITA Linnaeus**

6591, 1 A. SP.
This is probably an undescribed species near
*Ormeodes spilodesma* Meyrick. IV. Oneco: six
May, June, (Dilliman), CPK.

6591, 2 A. SP.
This species is distinct from the above, and
also quite probably undescribed. VI. Homestead:
April 10, 1959, (Wolfenbarger), CPK.

Grossbeck's records for the balance of the
microlepidoptera were woefully few. Our
knowledge of these smaller species in Florida
is still meager, but the advance which has been
made is largely due to the efforts of Dr. J. F.
Gates Clarke.

I am far more indebted to Dr. Clarke for
determinations and assistance with microlepidop-
tera than the occasional reference to him in the
following pages would suggest. There has been
generous help from others in limited fields as
will be noted at the appropriate place, but it
is primarily due to Dr. Clarke that we are able
to point to the wealth of microlepidopterous
fauna in Florida. It is not so much the addi-
tions to the list that his determinations have
made possible, but it is the vast number of un-
recognized species which he has noted. In most
instances their status is too uncertain to warrant
reporting them here, but I do not think it would
be an exaggeration to say that for every deter-
mixed species from this point to the end of the
list, we probably now have in Florida collections
one or more valid but unnamed species, many,
perhaps most, of which will prove to be unde-
scribed. In short, we have reached a point in
the list where there are more problems than
facts.

**SUPERFAMILY TORTRICOIDEA**

**Family OLETHRUTIDAE**

The food plants in this family have been
listed largely on the basis of Heinrich's two pa-
pers (1928a and 1929).

**Subfamily OLETHRUTINAE**

**EPISIMUS** Walsingham

6592 E. ARGUTANUS (Clemens)
I. Escambia Co.: Sept., SMH. II. Gainesville:
July, CU. III. Deland: March, MOG. IV.
Bradenton: Nov., CPK. Archbold Biological Sta-
tion: March, April, CU. Siesta Key: emerged
from pupa on mangrove, June, CPK; common,
Nov.-May, CPK. Fort Myers: USNM. Palm
Beach: Dyar (1901a, p. 469). Dade Co.: reared
from *Euphorbia [Poinsettia] heterophylla*, and
*Sumac* sp., April, DPI. VI. Homestead: May,
Sept., CPK. Food: *Euphorbia heterophylla*,
*Rhus, Hamamelis, Crataegus, Ulmus*, and So-
idago.
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6593  E. AUGMENTUS (Zeller)
IV. Lake Worth: (Fernald), DPI; larvae webbing together leaves of Metopium [Rhus metopium] toxiferum, Dyar (1901a, p. 468). Palm Beach: USNM.

6594  E. TYRIUS Heinrich

CACOCARIS Walsingham

6594, 1 C. CYMOTOMA Meyrick

BACTRA Stephens

There is either tremendous variation in the species present or else there are additional species. In any event, the complex is very common and very difficult to determine short of genitalic dissection.

6595  B. lanceolata (Hübner)]
Samml. eur. Schmett. Tort. Fig. 80. 1800.
As the only North American specimen reported by Heinrich (1926, p. 83) was from British Columbia, the following records would appear to be erroneous. IV. Fort Myers: Grsb. 137. Palm Beach: Dyar (1901a, p. 468). V. Everglades: (McDunnough), Grsb. 137. Food: Juncus.

6596  B. FURFURANA (Haworth)
II. Gainesville: three July 1927, CU. Forbes notes that the genitalia were not verified, but that the specimens seem to be this species. Food: Juncus.

6597  B. VERUTANA Zeller
This is the commonest species of the genus and is probably the one which varies so greatly. It has been reported from Monticello to the Dry Tortugas, and has been taken in every month. IV. Bradenton: Nov.-Jan., April-Sept., VI. Homestead: Feb.-Nov., small peak in May, a very high one in July. Food: Cyperus.

6599  B. PRIAPELA Heinrich

LOBESIA Guenée

6601  L. LIRIODENDRANA (Kearfott)
Trans. Amer. Ent. Soc. 30: 293. 1904.
II. Gainesville: reared from larvae mining leaves of Magnolia grandiflora, emerging in May, (Peterson), det. Clarke, DPI, CPK. Peterson made a thorough study of the life history which was reported by him (1960, pp. 105-114). The original determination is wrongly credited to me in this paper. It was made by Clarke. III. Cassadaga: Sept. 16, 1962, SVF.

6611  L. [VERNONIANA Kearfott]
I. Brent: March 12, 1961, det. Powell with "?", VFG.

6617, 1 L. SP.
A new species according to Clarke and quite distinct from 6601 above. I am indebted to Dr. Tissot for the life history, as follows: "Larvae feed on tender leaves and in buds and blossoms of Magnolia grandiflora. Apparently the partly grown larvae go from the leaves and enter the buds where they feed among the stamens and bore into the young 'cones.' Some small larvae found in buds also. Small larvae are pale, half grown ones and larger are a deep, dark, purplish-red." This is taken from the University of Florida Agricultural Experiment Station Insect Record Ledger No. 9632 II. Gainesville: Jan. 25, 1949, UFES. Brooksville: May 11, 1949, UFES.

ENDOTHENIA Stephens

6625  E. HEBESANA (Walker)
Verbena budmoth.
I. Escambia Co.: Oct., Nov., SMH. Myrtle
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6629 E. DAECKEANA Kearfott
IV. Archbold Biological Station: Dec. 18, 1957, (Pease), det. Clarke, YU.

TANIVA Heinrich

6630 T. ALBOLINEANA (Kearfott)
I. Escambia Co.: May 1, 1962, det. Davis, SMH.

EUMAROZIA Heinrich

6634 E. MALACHITANA (Zeller)

ZOMARIA Heinrich

6635 Z. INTERRUPTULINEANA Fernald
Trans. Amer. Ent. Soc. 10: 70. 1882.

6636 Z. ROSAOCHEREANA (Kearfott)
In the original description the name is written "rosaocherana." Florida: type, AMNH. I. Escambia Co.: March, SMH. Myrtle Grove: Aug., WJW. III. Cassada: May, July-Sept., VF. Weekiawachee Springs: June, Aug., CPK, UM. IV. Oneco: March, JGF; May, CPK. Archbold Biological Station: Jan., PSU; May, YU; June, AKW; Dec., CU, YU. Punta Gorda: March, MOG.

6637 Z. ANDROMEDANA (Barnes & McDunnough)
Contrib. 3: 223. 1917.

APHANIA Hübner

6652 A. REMOVANA Kearfott
IV. Siesta Key: Jan. 9, 1951, det. Clarke as probably this, but without genitalic dissection, April 30, 1961, CPK.

BADEBECIA Heinrich

6654 B. URTICANA (Hübner)
Schmett. Eur. Tort. Fig. 65. 1800.
I. Escambia Co.: July, det. Freeman, SMH. Myrtle Grove: June, WJW. Quincy: common, March-June, Oct., (Tappan), CPK. Havana: April, CPK.

PHAECASIOPHORA Grote

[6655 P. confixa (Walker)]
Since Heinrich (1926, p. 127) did not list Florida as a habitat for this species, nor in fact anything closer than Virginia and Texas, the probability of a misdetermination exists, and the record needs confirmation before placing the species on our list. III. Enterprise: April, Castle & Laurent (1896, p. 303).

6656 P. NIVEIGUTTANA Grote
Florida: Heinrich (1926, p. 127). II. Nassau Co.: April, CU. III. Cassada: Jan., March, April, Sept., VF. IV. Archbold Biological Station: Feb., March, PSU; March, CU, YU. Siesta Key: Jan., CPK. The color of this last is brighter than in northern specimens. VI. Homestead: July, JAP. Food: Sassafras and perhaps Hamamelis.

6657 P. INSPESSA Heinrich
III. Vero Beach: April, (Malloch), USNM. St.
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Petersburg: types, three March 3, 1915, (Ludwig), USNM. IV. Siesta Key: May 16, 1946, CPK.

**EXARTEMA** Clemens

**6684** E. **HIPPOCASTANUM** Kearfott

All but the Myrtle Grove and Gainesville specimens, which he did not see, were determined by Powell with "p". I. Myrtle Grove: April 20, 1963, WJ. Quincy: July 13, 1960, (Tappan), JAP. II. Gainesville: USNM; two, (Watson), UFES. IV. Bradenton: Sept. 25, 1955, (Kelshheimer), CPK. Oneco: Sept. 27, 1954, (Dillman), CPK. Archbold Biological Station: Nov. 11, 1958, PSU. Food: *Aesculus*.

**6686** E. **PERMUNDANUM** Clemens
Raspberry leaf roller.

I. Escambia Co.: May 2, 1961, det. Freeman as this or close to it, SMH.

**HEDIA** Hübner

**6710** H. **CYANANA** Murtfeldt
Amer. Ent. 3: 14. 1880.

I. Escambia Co.: July, Sept., SMH. IV. Archbold Biological Station: three March 2-17, 1958, (Pease), CPK, YU. Food: rose.

**TSINILLA** Heinrich

**6711** T. **LINEANA** (Fernald)


**OLETHREUTES** Hübner

**6741** O. **DEVOTANA** Kearfott
Pl. XXVI, Fig. 27, 9.

When the wings are folded over the abdomen, a perfect white circle is formed against the black background. Other oletreutids exhibit a similar maculation, but no other has this perfect circle. II. Hastings: paratype, June, USNM. III. Marion Co.: July, UM. Volusia Co.: Aug., UM. Cassadaga: June-Aug., SVF. Weekiawachee Springs: Aug., CPK. Lake Co.: Aug., UM. IV. Archbold Biological Station: Feb., March, Nov., PSU; March, Aug., Sept., YU. Siesta Key: Jan., May, CPK. Charlotte Harbor: type, March, AMNH. VIII. Long Pine Key: reared from ripe seeds on spike of *Coccothrinax argentata* webbed together, (Craighead), ENP.

Subfamily **EUCOSMINAE**

**PSEUDOGALLERIA** Ragonot

**6744, 1** P. **SP.**


**RHYACIONIA** Hübner

**6745** R. **BUOLLANA** (Denis & Schiffermueller)

European pine shoot moth.


**6751** R. **RIGIDANA** (Fernald)

I. Leon Co.: one female, at *Pinus*, Dec. 10, 1958, (Cowan), det. Miller by genital slide, DPI. This specimen was received too late to be included in Miller's paper (1959b), on the distribution of *rigidana*. Food: *Pinus* spp.

**6751, 1** R. **SUBTROPICA** Miller
Pl. XXVI, Fig. 30, 8.

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Palmetto Key: emerged from pupae in tips of pine, Jan., Dec., CPK. Fort Myers: May, UFES. VI. Homestead: Feb.-May, Sept., CPK.

6752 R. FRUSTRANA (Comstock)
Nantucket pine moth.


PETROVA Heinrich

6762 P. GEMISTRICULANA (Kearfott)


SPILOTOTA Stephens

6768 S. OCELLANA (Denis & Schiffermüller)
Syst. Verz. Wien, p. 130. 1776.

STREPSICRATES Meyrick

6769 S. SMITHIANA INDENTANA (Dyar)

This is probably a common species through most of the state, as the records run from Escambia County to Tavernier, December-July, October. It shows a great range of color, which makes it difficult to determine. Food: Eugenia; Myrica cerifera, DPI; larvae abundant on Myrica at St. Augustine, July, AFB; leaf-tier on guava, Jan., DPI.

THIODIA Hübner

6781 2 T. SP.
I. Escambia Co.: May 17, 1961, det. Freeman as near scotiana McDunnough and annetteana Kearfott, SMH. It is quite distinct from the next species.

6782 1 T. SP.

6788 T. RARACANA Kearfott
Trans. Amer. Ent. Soc. 33: 44. 1907.

6808 T. ORNATULA Heinrich

[6826 T. dorsiatomana Kearfott]

IV. Archbold Biological Station: the records for this, Frost (1963, p. 38), are in error for 6228 Caristatus decoloralis (Walker), due to a typographical transposition.

6832 1 T. SP.
VI. Homestead: Nov. 4, 1958, (Wolfenbarger), det. Clarke as "pallidarcis group," CPK.

6855 T. VERNIOCHREANA Heinrich
II. Gainesville: twelve Aug. 1927, (Rogers), CU.

6861 T. OFFECTALIS (Hulst)

EUCOSMA Hübner

6864 E. QUINQUEMACULANA (Robinson)
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PSU. Sarasota: April, AKW. Biscayne Bay: (Slosson), Grsb. 1937.

6985 E. ROBINSONANA (Grote)
Fl. XXVI, Fig. 31, 2.

Robinsonana is very similar to the foregoing but separated from it by having the small basal spot followed by two transverse bands instead of one as in quinquemaculana. It is a common species from the Georgia line to Homestead, January-August, November.

6976 E. ADAMANTANA (Guenée)


6908 E. CIRCULANA Hübner

Heinrich (1923a, p. 96) wrote: "Hübner described circulana as from Pennsylvania, but I have seen specimens only from Florida and Louisiana. It is not common and the usual references to it in literature apply to scintillana Clemens. In Florida itself there appear to be two species or at least two distinct races on the east and west coasts, hardly to be distinguished in color or pattern, but with so much difference in the genitalia that I do not feel justified in including them under the same name. The name gemellana is proposed for the west coast specimens." I. Escambia Co.: April 9, May 25, 1961, SMH. II. Hastings: USNM. III. Cessadaga: July 7, 1962, det. Powell, SVF. St. Petersburg: type of gemellana, 1884. (Morrison), ex. Walsingham collection, USNM; paratype, "4-11-14." (Ludwig), USNM. IV. Oneco: gemellana, Sept. 27, 1984, (Dillman), det. Clarke, CPK. Fort Myers: April 22, AMNH. This last would presumably also be gemellana.

6910 E. FRATRUELIS Heinrich

I. Escambia Co.: det. Powell, WJW, VFG.

6926 E. COCANA Kearfott

III. Cessadaga: April 15, 1956, SVF. I have compared this with the type, which is from North Carolina and although the Florida specimen is slightly rubbed, it matches the distinctive maculation of the type.

6957 E. GIGANTEANA MINORATA Heinrich
Pl. XXVI, Fig. 28, 2.

Florida: Heinrich (1923a, p. 115). III. Cessadaga: April, June, SVF. The June specimen, which is the one illustrated, is typical giganteana (Riley), as det. Davis. Orlando: April, WMD; April, May, CNC; June, (Fernald), DPL. IV. South Bay: May, AMNH. Food: Siphium perfoliatum.

6967 E. [COMONANA] Kearfott
Can. Ent. 39: 78. 1907.

All det. Powell with "?" I. Havana: April 18, 1961, CPK. Quincy: March 27, 1961, (Tappan), CPK. IV. Archbold Biological Station: March 2, 1958, (Pease), ABS; one no date, JAP.

[6972 E. dorsisignatana diffusa] Kearfott

I. Quincy: Nov. 16, 1960, (Tappan), CPK. The specimen is badly rubbed and lacks the abdomen, but there is enough maculation to suggest strongly this form, a very tentative determination with which Forbes tentatively concurs. As Louisiana was the type locality the record is not unreasonable, but needs confirmation.

[6974 E. junctilitiana] (Walsingham)

Junctilitiana was recorded from Florida by Forbes (1923, p. 425) and by Heinrich (1923a, p. 123), but Heinrich's later studies (1929, p. 13) transferred the records to the next species.

6975 E. DERELICTA Heinrich
Proc. U. S. Natl. Mus. 75 (8): 13-14; Pl. 5, Fig. 30. 1929.

Florida: Heinrich. I. Escambia Co.: Sept. 3, 1981, SMH. Quincy: Oct. 19, 1960, (Tappan), CPK. The determination of this may be open to question as this Quincy specimen is brown rather than reddish. Food: Solidago.

7003 E. VANDANA Kearfott

II. Hastings: types, sixteenth March, April, Oct., (Brown), AMNH, USNM. III. Lakeland: June 27, 1935, (Cantrell), UM. IV. Archbold Biological Station: March 26, 1958, YU. Vero Beach: April, USNM. Siesta Key: Jan. 30, 1957, CPK.

7004 E. CATACLYSTIANA (Walker)

I. Escambia Co.: July 29, 1961, SMH. Ocean City: July, HOH.
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7006 E. FLORIDANA Kearfott
In contrast to vandana, which is one of those nondescript, blackish species, floridan a is a rather striking, burnt orange color. II. Hastings: types, seven Oct. 6-15, (Brown), AMNH, USNM.

EPIBLEMA Hübner

7014 E. STRENUANA (Walker)
Ragweed borier.
Including the so-called form minutana Kearfott, this is undoubtedly very common through a large part of the state, as it is abundant where it has been collected. The records run from Monticello to Tavernier, February-November. The larva a stem borier in Ambrosia artemisiifolia and A. trifida.

7015 E. ABRUPTANA (Walsingham)
IV. Siesta Key: March 12, 1869, CPK. Punta Gorda: March, MOG. V. Everglades: two April 6, 1912, det. Kearfott, AMNH.

7016 E. NUMEROSANA (Zeller)
I. Myrtle Grove: April, WJW. IV. Siesta Key: rare, Feb.-May, CPK. Fort Lauderdale: five March-May, UM.

7017 E. GROSSBECKI Heinrich

7018, 1 E. SEPARATIONIS Heinrich

7020 E. OCHRACEANA Fernald
J. N. Ent. Soc. 9: 51. 1901.
IV. Palm Beach: type, USNM. Lake Worth: (Dyar), Grsb. 137. Adults resting on Iva imbricata, very close to the sea, Dyar (1901a, p. 468).

7025 E. TRIPARTITANA (Zeller)
III. Weekiwachee Springs: April, May, CPK.


7027 E. SCUDDERIANA (Clemens)
Pl. XXVI, Fig. 32. 2.

7029 E. DISCRETIVANA (Heinrich)

7031 E. DESERTANA (Zeller)
Florida: USNM. I. Escambia Co.: May, SMH. II. Atlantic Beach: (Slosson), Grsb. 158. III. Cassadaga: March, July, SVF. Orlando: USNM. St. Petersburg: USNM. IV. Bradenton: April, CPK. Archbold Biological Station: Feb., PSU; March, YU. Fort Pierce: March, CPK. Siesta Key: Feb., March, CPK. Fort Lauderdale: April, UM. The larva is a gall maker in stems of Soldago.

7035 E. WALSINGHAMI (Kearfott)
Florida: Heinrich (1923a, p. 151).

7044 E. OTIOSANA (Clemens)
Bidens borier.
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[7047 E. ABLEVIATANA (Walsingham)]
IV. Siesta Key: May 3, 1948, det. Forbes with "?" CPK.

SULEIMA Heinrich

7048 S. HELIANTHANA (Riley)
I. Escambia Co.: June 7, 1962, SMH.

SONIA Heinrich

7054 S. CONSTRUCTANA (Zeller)
Constrictana is probably common throughout the state, being recorded from Escambia County and Boulogne to Fort Lauderdale, and abundant wherever collected, August-May.

GYPSONOMA Meyrick

7063 G. SALICICOLANA (Clemens)
IV. Hialeah: reared from webbed leaves of Salix sp., March 23, 1961, (Nakahara), USNM.

PSEUDEXENTERA Heinrich

7080 P. SPOLIANA (Clemens)
VI. Paradise Key: fifteen Feb. 1954, det. Clarke, MOG.

7088 P. COSTOMACULANA (Clemens)
I. Escambia Co.: very common, Feb. 1961, det. Freeman, SMH.

GRETCHENA Heinrich

[7088 G. deludana (Clemens)]
It would seem advisable to verify this before accepting the species as Florida fauna, as the only record is dated 1905, for larva on pecans, from the Pecan Investigations Laboratory file. This same record is repeated in the Fla. Agr. Exp. Sta. Bull. 79: 285. Heinrich (1923a, p. 181) said the food plant is unknown.

7089 G. CONCURBITANA Heinrich
I. Monticello: type, March 15, 1914, (Gill), USNM. IV. Archbold Biological Station: March 6, 1945, (Needham), CU; two March 22-23, 1958, (Pears), YU. Food: Coryya [Hicoria], Heinrich.

7092 G. BOLLIANA (Slingerland)
Pecan bud moth.
Rural New Yorker, p. 401. 1896.
There are a number of records for the larva on pecan at Monticello, Glen St. Mary, Macclenny, and Gainesville, DPI; Florida Agr. Exp. Sta. Bull. 21: 9-13; Coop. Econ. Ins. Rept. 3: 373; ibid. 4: 293; Ins. Pest Surv. Bull. 3: 77. The larva also feeds on hickory and walnut.

GRIZESELDA Heinrich

7098 G. PENNSYLVANIANA (Kearfott)

CROCIDOSEMA Zeller

7101 C. PLEBEIANA Zeller
Isis, p. 721. 1847.

EPINOTIA Hübner

7113 E. PERPLEXANA (Fernald)
J. N. Y. Ent. Soc. 9: 51. 1901.

7155 E. UNICA Heinrich
IV. Punta Gorda: April, det. Clarke, MOG. Food: *Centrosema virginianum* [*Bradybrya virginiana*].


ANCHYLOPERA Stephens


ANCYLLIS Hübner


HYSTRICOPHORA Walsingham


Subfamily LASPEYRESIINAE

SATRONIA Heinrich


RICULA Heinrich

7233 R. MACULANA (Fernald) J. N. Y. Ent. Soc. 9: 51. 1901. IV. Palm Beach: type series, reared from *Schoepfia arborescens*, Feb., Dyar (1901a, p. 469). Miami: larva on *S. chrysophylloides* [*Phylloides*]. April, DPI. Coral Gables: larva on same, March, DPI. VI. Homestead: larva on same, May, DPI.

TALPONIA Heinrich

HEMMINNE Hübner

7239, 1 H. SP.

ETHELGODA Heinrich

7240 E. TEXANANA (Walsingham)
IV. Fort Lauderdale: April 22, 1928, (Bates), det. Clarke, UM. Biscayne Bay: USNM.

SEREDA Heinrich

7241 S. LAUTANA (Clemens)
I. Escambia Co.: Feb. 7, 1962, SMH.

GRAPHOLITHA Treitschke

7242 G. MOLESTA (Busck)
Oriental fruit moth
There are numerous reports of *molestae* ranging from Escambia to Polk County, on nectarine, peaches, and stone and pome fruits, DPI; Fernald (1926, p. 245): Ins. Pest Surv. Bull. 4: 398; *ibid*. 10: 101; *ibid*. 19: 441; *Litchi chinensis*, Coop. Ins. Pest Surv. 6: 35.

7244 G. PACKARDI Zeller
I. Escambia Co.: Feb. 19, 1962, SMH.

7248 G. TRISTRIGANA (Clemens)

LASPEYRESIA Hübner

7274 L. PALMETUM Heinrich
VI. Homestead: May 23, 1958, (Wolfenbarger), CPK. Paradise Key: types, four, reared from small berry-like fruit, possibly *Ardisia esculentoides* [Isacorea paniculata], March 8, 1927, FMNH. VIII. Big Pine Key: April, CPK.

7280 L. CARYANA (Fitch)
Hickory shuckworm.
Third Rept. Ins. of N. Y., p. 459. 1856.

7287, 1 L. SP.
This is near *gallaesaliciana* (Riley). IV. Siesta Key: Feb. 14, 1955, det. Clarke, CPK.

7287, 2 L. SP.

7291 L. FLAVICOLLIS (Walsingham)
V. Everglades: one female April 8-15, AMNH.

7296 L. INGENS Heinrich
I. Escambia Co.: April, SMH. II. Olustee: reared from mature cones of *Pinus taeda*, Dec., (Merkel) Southeastern Forest Experiment Station. The two specimens are small, 11 mm, and the course of the subterminal band is not like *ingen*, nor *toreuta* Grote. They may represent a new species. Merkel plans to make more rearings. Gainesville: June, CU. III. Central Florida: April, WMD. Ocala National Forest: April, DPI. DeLand: MOG. Cassadaga: April, May, SVF. Weekiawachee Springs: April 8, 1955, (May), det. Clarke, CPK. St. Petersburg: type, USNM. IV. Oneco: March, det. Clarke, JGF. Punta Gorda: MOG.

7296, 1 L. ANARANJADA Miller
*Anaranjada* also has been found in Georgia, where it has been reared on *Pinus palustris* cones. I. Warrington: May 24, 1961, VFG. II. Alachua Co.: May, DPI. Gainesville: April 26, 1963, DPI. Olustee: Jan., DPI; three, reared from *Pinus elliottii*, emerging April 17, April 24,
THE LEPIDOPTERA OF FLORIDA

May 7, 1957, (Merkel), USNM. III. Cassadaga: six June, Sept., SVF. IV. Archbold Biological Station: one June 12-19, 1955, (Wyatt), USNM. Siesta Key: three May 14-19, 1956; three May 18-28, 1957, CPK, USNM. VI. Homestead: April, May, CPK. These Homestead specimens were not taken in time to be included in Miller's description.

MELISSOPUS Riley


CARPOCAPSA Treitschke

I. Gonzales: larva on quince, Oct., DPI. Blountstown: Aug., DPI. II. Lake Butler: larva on pear fruit, Aug., DPI. III. Ocala: larva in may haws, May, DPI. There are also a number of customs interception records, DPI.

III. St. Petersburg: twenty to thirty, reared from Mexican jumping beans from a local grocery, April 1960, AKW.

GYNANDROSONA Dyar


III. Cassadaga: Aug. 20, 1962, SVF. IV. Archbold Biological Station: June 1956, AKW. Siesta Key: common, Jan. 4-Feb. 27, 1951, but not seen at any other time; AEB, CPK. Miami Beach: three, reared from larvae feeding in red mangrove seed, June 30, July 21, Aug. 10, 1916, (Snyder), USNM. V. Everglades: types, five April 8-19, USNM. VIII. Tavernier: Oct. (Todd), CPK.

ECYTOLOPHA Zeller


Family TROTCICIDAE
Subfamily SPARGANOTHINAE

Dr. Robert Lambert had nearly completed a revision of the subfamily, before his untimely death, and I was indebted to him for very detailed data on many of the species, as well as for numerous determinations. Lambert made numerous changes in the arrangement, but inasmuch as the publication of his revision has been delayed, it is best to follow here the arrangement of McDunnough's Check-List (1939, pp. 54-57). Nevertheless, in order that the reader might be able to correlate the new species mentioned in the present work with the names as they will appear in his revision, Lambert had assigned numbers to them and to which he planned to refer in the revision. The revision is being completed by Dr. Jerry W. Powell, in whose hands are additional Florida specimens for determination, but they have been available to him for too short a time to add much information. For such information, reference should be made to the revision when it is published.

COELOSTATHMA Clemens

I. Escambia Co.: April 11, 1962, SMH. II. Hastings: March, April, det. Lambert, AMNH.

7307, 1 C. SP. Lambert's No. 1
I. Escambia Co.: Feb., SMH. Torreya State Park: April, CNC. III. Lake Alfred: July, Aug., USNM. St. Petersburg: USNM. IV. Oneo: March, CU. Archbold Biological Station: March, April, CU. Siesta Key: two April 22-May 14, 1956, CPK. VI. Paradise Key: March, CU; April, CNC. VI. Homestead: April, CPK.
AMORBIA Clemens

7312, 1 A. SP. Lambert's No. 4
All determinations by Lambert. IV. Port Sewall: one March 28-31, 1949, (Sanford), AMNH. Miami: March, April, USNM; on flowers of avocado, USNM.

7314 A. HUMEROSANA Clemens

SPARCANOTHIS Hübner

7317 S. PETITTANA (Robinson)

7322 S. KARACANA (Kearfott)
Pl. XXVI, Fig. 33, 8. Trans. Amer. Ent. Soc. 33: 83. 1907.
This species will be transferred by Lambert to another genus. III. Cassadaga: April 28, May 19, 1962, May 2, 1953, SVF. St. Petersburg: July 30, 1923, det. Lambert, USNM. IV. Archbold Biological Station: seventeen females, May 21, 1947, (Needham), det. Lambert, CU.

7323 S. RETICULATANA (Clemens)
I. Escambia Co.: May, July, SMH. Warrington: June 9, 1962, VFG. II. Alachua Co.: June 7, 1958, (Denmark), DPI.

7325 S. DILUTICOSTANA (Walsingham)
I. Escambia Co.: May 22, 1962, SMH.

7327 S. TESTULANA (Zeller)
I. Ocean City: May 21, 1963, HOH.

7328 S. DISTINCTA (Walsingham)
Florida: (Slosson), Grsb. 139. I. Myrtle Grove: June, WJW. Quincy: July, CPK. II. Gainesville: Sept., Oct., AMNH. III. Cassadaga: May, June, SVF. Weekiawachee Springs: May, June, CPK. Moon Lake: April, CNC. Elfers: April, CNC. Winter Park: July, AMNH. St. Petersburg: April, May, USNM. IV. Archbold Biological Station: May, CU; May, Dec., YU. Siesta Key: July, CPK. Punta Gorda: May, USNM. Biscayne Bay: AMNH. VI. Paradise Key: April, CNC.

7330 S. DEMISSANA (Walsingham)
The record, Florida: (Slosson), Grsb. 159, was transferred by Lambert to distincta, q. v. I. Escambia Co.: April 29, 1962, SMH. III. Juniper Springs: Sept. 1, 1963, (Hubbell & Frauf), UM. Cassadaga: June, SVF. Weekiawachee Springs: May, CPK. IV. Archbold Biological Station: March, Dec., YU; April, PSU. Siesta Key: March 26, 1952, det. Clarke, CPK. VI. Homestead: July, CPK.

7332 S. CANA Robinson
I. Escambia Co.: June 2, 1961, SMH.

7348 S. CARYAE (Robinson)

7349 S. SULFUREANA (Clemens)
Station: Jan., Dec., YU; March, Dec., CU; July, AMNH. Stuart: Dec.-Feb., DFI. Sarasota: Feb., CU. Siesta Key: Jan., Feb., May, CPK. Punta Gorda: April, CNC, MOG. Fort Myers: April, AMNH. Fort Lauderdale: March, UM.
16 miles west of Hialeah: March, CNC. VI. Homestead: March, DFI; March, April, CNC; March, April, July, Sept., Nov., CPK. Paradise Key: Jan.-April, Sept., USNM; April, CNC; Dec., AMNH.

7349, 1 S. BELFRAGEANA (Zeller)

7352 S. TARACANA Kearfott

7353, 1 S. calidana (Zeller)

7355 S. BISTRIATA Kearfott

7356 S. TRISTRIATA Kearfott

7356, 1 S. SP. Lambert's No. 1
I. Crestview: Oct., AMNH. II. Hastings: Feb., April, June, AMNH.

7356, 2 S. SP. Lambert's No. 3

CENOPIS Zeller

7356, 3 C. SP. Lambert's No. 3
Florida: one male, one female, AMNH.

7326 C. DIRECTANA (Walker)
III. Lake Alfred: one female, (Bottimer), USNM.

PLATYNOTA Clemens

7387 P. FLAVEDANA Clemens
Most of the determinations were made by Lambert. Florida: (Slosson), AMNH. I. Escambia Co.: April, SMH. Brent: March, VFG. Quincy: June, Oct., CPK. II. Archer: March, USNM. Gainesville: April, DFI; larva on cowpeas, June, USNM. Crescent City: larva folding cotton leaf, July, USNM. III. DeLand: March, det. Clarke, MOG; April, USNM. Cassadaga: June, Aug., Sept., SVF. Winter Park: Sept., DFI. Orlando: Feb., March, USNM. St. Petersburg: USNM. Tampa: from Sesbania sesbanica, June, USNM. IV. Archbold Biological Station: Nov., CU; Dec.-Feb., YU. Sarasota: March, USNM. Siesta Key: Jan.-April, CPK. Punta Gorda: April, USNM. Fort Myers: June, USNM. Biscayne Bay: (Slosson), Grsb. 139. VIII. Tavernier: Sept., Oct., CPK. Plantation Key: Nov., CPK.

7356 P. tinctana (Walker)
The determination of this is doubtful. IV. Biscayne Bay: (Slosson), Grsb. 139.
7361 P. ROSTRUANA (Walker)

Rostrana is abundant and probably found throughout the state the entire year although there are only two records from the western counties, namely, Avalon, DPI, and Quincy, CPK. Lambert supplied the following Florida food plant records: avocado, pepper, Cuban jessamine, chrysalis on peanut, myrtle, orange, grapefruit, loquat, Seshania vesicaria, and pecan. Dyar (1901a, p. 467) recorded it on Rivinia humilis, Randia aculeata, Gnaphalium purpureum, and Rapanoa guayanensis [Myrsine floridana] Fernald (1882, p. 22) mentioned the leaves of orange as food plant, Citrus paradisi, DPI.

7364 P. METALLICANA (Walsingham)


7365 P. IRIDANA Barnes & Busck
Contrib. 4: 212. 1920.

II. Gainesville: June 14, 1961, (Denmark), CPK. III. St. Petersburg: type, April, USNM.

7367 P. STULTANA (Walsingham)


7369 P. IDAEUSALIS (Walker)

I. Monticello: April 15, 1919, (Hoffman), det. Lambert, CU.

CHRYSOXENA Meyrick

7375 C. AURIFERANA (Busck)

According to Lambert, this is not a Sparganothinae, though a Tortricidae; but until it is placed, it is best to leave it here. Florida: Meyrick (1911, p. 685).

CAPUA Stephens

[7376 C. lentiginosana Walsingham]

IV. Palm Beach: determined with "?", Dyar (1901a, p. 468).

APHELIA Stephens

7410 A. PALLORANA (Robinson)

III. Brevard Co.: May 16, 1946, (Hubbell), UM.

ARGYROTXA Stephens

7467 A. CHIACCANA (Kearfott)

IV. Palm Beach: type, AMNH. This was originally determined as Cacoccta georgiana [Arches georgiana] Walker in Dyar (1901a, p. 466) and that record was repeated in Grsb. 140.

7469 A. ALBICOMANA (Clemens)


7470 A. SEMIPURPURANA Kearfott

I. Escambia Co.: May 3, 1962, SMH.

7471 A. CURVALANA (Kearfott)

IV. Punta Gorda: March, MOG.

Subfamily ARCHIPINAE

The nomenclature and arrangement follow that of Freeman in his recent revision, 1958.

ARCHIPS Hübner

7379 A. INFUMATANUS (Zeller)


7399 A. SEMIFERANUS (Walker)


7394 A. NEGUNDANUS (Dyar)

Florida: Freeman (1958, p. 21).
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7384 A. CERACIVORANUS RILEYANUS
(Grote)
I. Escambia Co.: May 19, 1962, SMH. Food:
Carya, Symphoricarpus, Prunus, Juglans, Ver-
nonia, Aesculus.

7388 A. ARGYROSPILUS (Walker)
Fruit-tree leaf roller.
Florida: (Slosson), Crb. 139. I. Warrington:
May, VFC. Panama City: larva common on
quince, Dec. 1930, DPI. III. Central Florida:
March 1957, WMD. IV. Punta Gorda: March,
MOG.

7385 A. GEORGIANUS (Walker)
Florida: USNM. I. Warrington: May, VFG.
Ocean City: May, HOH. II. Jacksonville: (Slos-
son), Grb. 138. Putnam Co.: reared from
Quercus laevis, April 26, 1930, (Dekle & Botti-
mer), DPI. III. Enterprise: USNM. Cassa-
daga: April, May, SVF. Weekiwachee Springs:
April, May, CPK. Winter Park: May, DPI,
USNM. Tarpon Springs: April, USNM. Eg-
mont Key: April 18, 1904, det. Dyar, UM; April
28, 1904, AKW. Lakeland: USNM. IV. Siesta
Key: April, CPK. Punta Gorda: AKW; May,
MOG. West Palm Beach: March, USNM. Palm
Beach: Dyar (1901a, p. 466). However, Kearfott
(1907, p. 73) pointed out that this last specimen
is actually Argyrotoza chiociana Kearfott, q.v.

7389 A. PURPURANUS (Clemens)

CHORISTONEURA Lederer

7408 C. FUMIFERANA (Clemens)
I. Escambia Co.: a purplish color form, Feb. 2,
1962, SMH. II. Gainesville: two April 1955,
(Hetrick), det. Obraztsov, CPK, AMNH.

7392, I C. SP.
Near houstonana (Grote). II. Gainesville: three
April, (Hetrick), det. Clarke, UFA, CPK.

7405 C. ROSACEANA (Harris)
Oblique-banded leaf roller.
I. Warrington: rare, summer, VFG. Myrtle
Grove: June, WJW. Chipola: April, CU. Quin-
cy: April, May, CPK. Jefferson Co.: April, UM.
II. Gainesville: May, UM. III. Cassadaga: May,
SVF. Weekiwachee Springs: April, May, CPK.
Winter Park: Aug., DPI. IV. Archbold Biological
Station: Jan., PSU; Dec., YU. Punta Gorda:
April, AKW. Food: celery, Bare (1934, p. 720).

7401 C. PARALLELALA (Robinson)
II. Gainesville: larva on red maple, March 24,
1898, (Tissot), UFES.

7381 C. OBSOLETANA (Walker)
Florida: as sanbornana Robinson (1869, p. 265).
I. West Pensacola: July, VFG. II. Gainesville:
April, DPI. III. Central Florida: April, WMD.
Marion Co.: Sept., UM. Altamonte Springs:
USNM. Cassadaga: July, SVF. Sanford: larva
on celery, Bare (1934, p. 721). Goldenrod: Dec.,
DPI. Winter Garden: June, DPI. Ocoee: May,
DPI. Gotha: May, DPI. Vineland: June, DPI.
Windermere: June, DPI. IV. Bradenton: larva
on celery, Bare. Archbold Biological Station:
Nov., PSU. Sarasota: Aug., CPK. Englewood:
Nov., CPK.

7382 C. SEMINOLANA (Kearfott)
Florida: types, eight, AMNH. IV. Palm Beach:
(Dyar), Grb. 140. Food: Chiococca alba [race-
mosa].

ARGYROTAENIA Stephens

The arrangement is according to Freeman's
revision (1944).

7443 A. VELUTINANA (Walker)
Red-banded leaf roller.
Florida: Forbes (1923, p. 490). It is possible
that the record belongs under the recently
described species which follows.

7443, 1 A. FLORIDANA Obraztsov
I. Escambia Co.: Feb. 2 and 7, 1962, det. Powell
and Hodges, SMH. Quincy: three Feb. 27-28,
2, 1962, det. Powell, SVF. IV. Port Sewall:
types, two Nov. 13-14, two Dec. 13-17, 1938,
(F. E. Watson), AMNH.

7443, 2 A. KIMBALLI Obraztsov
III. Cassadaga: Aug. 28, 1962, SVF. IV. Brad-
exton: May 25, 1955, (Kelsheimer), CPK. Arch-
bold Biological Station: types, Jan. 5, Feb. 10,

7445 A. PINATUBANA (Kearfott)
Pine tube moth.


7450 A. MARIANA (Fernald)

Florida: Walsingham (1884, p. 123); Dyar (1902, p. 485); Freeman (1944, p. 58).

7450, 1 A. TABULANA T. N. Freeman

I. Escambia Co.: April, SMH. Florida Caverns State Park: April, DPI. III. Cassadaga: March, April, July, SVF. Weekiawachee Springs: Feb., March, May, CPK. All determinations except that for the Escambia County specimen were made by Obraztsov.

[7414 A. CITRANA (Fernald)]
Ent. Amer. 5: 18. 1889.

As this is credited only to the Pacific Coast by Freeman, the determinations should be checked. Obraztsov also says that he has seen it only from the Pacific Coast. Florida: larva on young grapefruit and mature orange and grapefruit, Thompson (1939, pp. 146-147). II. Gainesville: larva on orange, May, Ins. Pest Surv. Bull. 8: 110; Oct., UPES. III. Polk Co.: larva abundant on orange, Ins. Pest Surv. Bull. 10: 228. Lake Alfred: larva on citrus, May, ibid. 16: 122. IV. St. Lucie Co.: larva on orange, May, ibid. 20: 167.

7452 A. QUERCICIFOLIANA (Fitch)
Rept. Ins. of N. Y. p. 826. 1858.

I. Quincy: April, CPK. II. Gainesville: April, UM. St. Augustine: larva on live oak, April, Packard (1890a, p. 191). III. Cassadaga: April, May, SVF. Egmont Key: April, UM. IV. Bradenton: March, CPK. Oneco: March, JGF. Punta Gorda: May, MOG.

7454 A. JUGLANDANA (Fernald)
Hickory leaf roller.
Can. Ent. 11: 155. 1879.


7446 A. AMATANA (Dyar)


7451 A. ALISELLANA (Robinson)

Florida: Freeman (1953, p. 52).

7419 A. IVANA (Fernald)
J. N. Y. Ent. Soc. 9: 51. 1901.


ADOXOPHYES Meyrick

7309 A. NECUNDANA (McDunnough)

Florida: Freeman (1958, p. 57). II. Gainesville: March 30, 1949, (Denmark), DPI.

PTYCHOLOMA Clemens

7420 P. PERITANA (Clemens)

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Subfamily CNEPHASIINAE

CNEPHASIA Curtis

7460 C. FERNALDANA Walsingham
IV. Siesta Key: May 26, 1946, det. Forbes, CPK.

APOTOFORMA Busck

7471, 2 A. ROTUNDIPENNIS (Walsingham)

ACLERIS Hübner

7497 A. MACULIDORSANA (Clemens)

7503 A. LOGIANA Schiffermueller
Syst. Verz. Wien, p. 130. 1776.
I. Escambia Co.: May 3, 1962, SMH.

Family PHALONIIDAE

The entire family Phaloniiidae is in such need of revision, especially the genus Phalonia, that very few of the determinations may be considered correct. Fortunately Clarke has undertaken the revision, but it will be some years yet before the task is completed. Meanwhile nearly all the names must be viewed as tentative.

LORITA Busck

7518, 1 L. ABORNANA Busck
IV. Englewood: many larvae, pupae, and imagines, January-April, 1944, (Needham), CU. The larvae were boring through the flower heads and young seed heads of Bidens.

PHALONIA Hübner

Clarke has noted at least seven unrecognized species, most of them from Siesta Key. There are undoubtedly many more, especially from other parts of the state.

7537 P. SERIATANA (Zeller)
II. Gainesville: July, CU. IV. Archbold Biological Station: March, April, CU. Siesta Key: March, Dec., CPK. VI. Paradise Key: March, CU.

7539, 1 P. DORSIMACULANA Robinson
III. Cassadaga: May 30, 1963, det. Davis, SVF.

7541 P. obliquana Kearfott
II. Hastings: two, AMNH. These have been determined by Clarke as P. ziscana Kearfott, q. v., according to Klotz (1942, p. 418).

7542 P. ANGULATANA (Robinson)
III. Orlando: June, CU. IV. Myakka City: Feb., CU. Archbold Biological Station: March, CU. V. Everglades: USNM.

7543 P. BOMONANA Kearfott
Trans. Amer. Ent. Soc. 33: 75. 1907.
II. Hastings: co-type, March 19, (Brown), Kearfott.

7545 P. ARGENTILIMITANA (Robinson)
II. Gainesville: July 7, 1929, (Rogers), CU.

7552 P. BISCANA Kearfott
Trans. Amer. Ent. Soc. 33: 75. 1907.
I. Escambia Co.: Oct. 8, Nov. 15, 1961, det. Clarke as presumably this, SMH.

7558 P. BUNTEANA (Robinson)
III. DeLand: March, MOG. Orlando: one June 14-18, 1927, CU. IV. Palm Beach: common, Dyar (1901a, p. 468).

7567 P. OENOOTHERANA (Riley)

7588 P. ZISCANA Kearfott
II. Hastings: co-types, three Feb. 26, AMNH.
Two of these were originally determined by Kearfot as *P. obliqua*na Kearfott, but were subsequently determined as *ziscana* by Clarke as noted above under the former species.

7591, 1  P. SUBOLIVACEA  Walsingham

There are two, if not three species mixed here.
IV. Archbold Biological Station: March, CU.
Siesta Key: abundant, Oct.-May, CPK. Englewood: abundant, reared from *Bidens*, Jan.-April, CU.

COMMOPHILIA Hübner

7599  C. CONTRASTANA  Kearfott
I. Myrtle Grove: May 2, 1963, WJW.  II. Gainesville: May 1, 1962, CPK.

CAROLELILLA Busck

7603, 1  C. SP.

There is one, possibly a second species close to *C. sartana* Hübner, belonging here. III. Cassadaga: Sept. 5 and 12, 1962, SVF. IV. Bradenton: April, (Kelsheimer), det. Clarke, CPK.

7603  C. SARTANA  Hübner
Zutr. exot. Schmett. 2: 111. 1833.

The separation of the preceding species, this, and the next is based on the bands, or patches, on the forewings. Since the status of the unrecognized species is uncertain, it is difficult to supply a key, but collectors should be on the watch for three, if not four distinct but closely related species. I. Escambia Co.: April, May, July, SMH. Myrtle Grove: Sept., WJW. Monticello: March, CU. II. Gainesville: May, DPI; June, July, CU. Boulogne: April, CPK. III. Levy Co.: Sept., DPI. Ocala National Forest: July, UM. III. Cassadaga: June, SVF. Weekiawachee Springs: Aug., CPK. Elfers: April, CU. IV. Oneco: April-June, Oct., CPK. Archbold Biological Station: Jan., Nov., det. Clarke, PSU; March, Nov., Dec., CU; June, AKW. Siesta Key: Jan.-March, May, CPK. Fort Lauderdale: April, UM. VI. Paradise Key: Jan.-April, FMJ.

7604  C. BIMACULANA  (Robinson)
Florida: May, UM. III. DeLand: March, MOG. Winter Park: May, AMNH. IV. Oneco: May, June, CPK. Myakka City: Feb., CU. Archbold Biological Station: March, April, CU; July, AMNH; Dec., YU. Sarasota: April, CU. Siesta Key: Jan.-March, May, CPK. Englewood: March, CU. Fort Lauderdale: April, UM. VI. Paradise Key: AMNH; March, CU.

7605  C. ERIGERONANA  (Riley)
III. Cassadaga: June, SVF. Winter Park: May, AMNH. IV. Bradenton: April, CPK. Oneco: May, June, CPK. Archbold Biological Station: July, AMNH; March, YU. Siesta Key: Feb., May, June, CPK. Fort Lauderdale: April, UM.

AETHEIS Billberg

7609, 1  A. SP.
I. Escambia Co.: Aug. 6, Nov. 15, 1961, det. Clarke, SMH.

7609, 2  [A.] SP.
I. Escambia Co.: two Dec. 1, 1961, det. Clarke as possibly in this genus, SMH.

PHARMACIS Hübner

7609, 3  P. SP.
I. Myrtle Grove: June 4, 1962, det. Davis, WJW.

HYSTEROSEI Stephens

7618  H. BIRDANA  Busck
J. N. Y. Ent. Soc. 15: 32. 1907.
I. Escambia Co.: Oct. 19, 1961, det. Clarke as probably this, SMH.

[H. inopiana (Haworth)]
The "Florida: (Slosson)" record, Grossbeck (1917, p. 140) is an error as the specimen which is in the American Museum of Natural History collection is labeled "Franconia" (N. H.). The species is confined to the old world, though there is always the possibility of a stray brought over by carrier.

Family CARPOSINIDAE

The two specimens, which are quite distinct, are determined by Clarke as in this family but the generic positions are uncertain.

7629, 1  SP.
I. Escambia Co.: Sept. 14, 1961, SMH.

7629, 2  SP.
I. Escambia Co.: July 28, 1961, SMH.

Family COSSIDAE

INGUROMORPHA Henry Edwards

7632  I. BASALIS  (Walker)
THE LEPIDOPTERA OF FLORIDA


GIVIRA Walker


There is some variation in this species, some specimens being an almost uniform purplish gray, whereas others are paler and slightly mottled. I. Escambia Co.: May, SMH. West Pensacola: May, July, VFG. Ocean City: Aug., HOH. De Funiak Springs: found emerging from trunks of large pine trees, April 29, 1919. (Jones), CPK. Quincy: July, CPK. Monticello: March, (Phillips), CPK. II. Alachua Co.: April, DPI. III. Cassadaga: April, SVF. WeekiWachee Springs: April, CPK. Titusville: June, CM. IV. Oneco: March, JGF. Archbold Biological Station: March, PSU; April, May, Aug., YU. Miami: type, (Slosson), USNM. Biscayne Bay: (Slosson), Dyar.


COSULLA Bailey

7652 C. MAGNIFICA (Strecker) Pecan carpenterworm. Pl. XXVI, Fig. 37, δ. Proc. Acad. Nat. Sci. Phil., p. 151. 1876.

While not common, *magnifica* has been taken from Easley to Punta Gorda, March-June, Food: oak, pecan, persimmon (Fla. Agr. Exp. Sta. Bull. 147: 16). The natural history of *magnifica* was discussed by Bailey (1882, pp. 93-94).

PRIONOXYSTUS Grote

7670 P. ROBINIAE (Peck) Carpenterworm. Pl. X, Fig. 29, δ; Fig. 30, 2. Mass. Agr. Rept. & Journal 5: 67. 1818.

This is relatively common from Escambia County to Paradise Key: In addition to typical *robiniae*, it is present as *reticulatus* (Lintner) and *zabolidus* (Strecker). Food: *Robinia pseudoacacia, Populus, Salix, oak and chestnut; Quercus laevis* (Coop. Econ. Ins. Rept. 4: 179).


IV. North Miami Beach: Feb. 25, HEW. Coral Gables: types, BM, USNM, Dept. Zool. U. of Miami, topotype, CM; Mar., CPK; March, April, HFS. The larva lives in the trunk of *Baccharis* and an interesting account of the life history may be found in the original description. Strohecker reports that all emergences are in March and April.

SUPERFAMILY GELECHIOIDEA

Family COSMOPTERIGIDAE

A revision of the family has recently been completed by Hodges (1962b), and almost all of the records below will be also found in his work, though not necessarily in the same form. I am indebted to Dr. Hodges for many determinations not only of my entire cosmopterigid material, but of other Florida material which was also submitted to him.

COSMOPTERYX Hübner


7674, 1 C. BENDIDIA Hodges Ent. Amer. 42: 22. 1962.

VI. Homestead: Feb. 24, 1959, (Wolfenbarger), CPK.


II. Hastings: MCZ. III. Winter Park: July, USNM. Orlando: Feb.-April, USNM; Aug.,
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ABK. IV. Archbold Biological Station: Jan., PSU; March, April, RWH. Sarasota: Feb., CU. Siesta Key: March, April, Nov., Dec., RWH, CPK. Palm Beach: Dyar (1901a, p. 478). As Hodges does not list this, it may have been a misdetermination. V. Chokoloskee: USNM. VI. Homestead: Feb.-Nov., RWH, CPK. Paradise Key: April, AMNH.

7690, 2 C. DAPIFERA Hodges
I. Escambia Co.: Feb. 27, 1962, det. Hodges, SMH.

7683 C. DELICATELLA Walsingham
Insect Life 1: 290. 1889.
IV. Archbold Biological Station: March 27, 29, 1959, RWH.

7683, 1 C. DICACULA Hodges
Ent. Amer. 42: 34. 1962.
II. Gainesville: holotype, July 7, 1927, (Rogers), CU.

7684 C. MINUTELLA Beutenmueller
Ent. Amer. 5: 10. 1889.
III. Central Florida: type, USNM. Lakeland: March, USNM. IV. Archbold Biological Station: March, RWH. V. Everglades: April, USNM. VI. Homestead: May, Nov., CPK.

7684, 1 C. ABDITA Hodges
Ent. Amer. 42: 40. 1962.
IV. Archbold Biological Station: holotype and paratypes, six March 27-April 4, 1959, RWH, CU. VI. Homestead: Feb. 8, April 24, 1959, Sept. 23, 1959, (Wolfenbarger), CPK.

7684, 2 C. INOPIS Hodges
Ent. Amer. 42: 41. 1962.
VI. Homestead: April 10, 1959, (Wolfenbarger), CPK.

7676 C. GEMMIFERELLA Clemens
II. Boulogne: April 1, 1936, (Franclemont), CU.

7676, 1 C. BACATA Hodges
Ent. Amer. 42: 45. 1962.
III. Winter Park: paratype, May 1946, ABK.

7676, 2 C. DAMNOSA Hodges
Ent. Amer. 42: 46. 1962.
IV. Archbold Biological Station: holotype, March 27, 1959, (Hodges), CU.

7675, 1 C. SCIRPCICOLA Hodges
Ent. Amer. 42: 49. 1962.
IV. Archbold Biological Station: March 27, 1959, RWH.

7675, 2 C. EBRIOILA Hodges
Ent. Amer. 42: 50. 1962.
II. Gainesville: July, CU. Hastings; three, MCZ. III. Lakeland: March, USNM. IV. Archbold Biological Station: holotype and paratypes, March 27-April 4, 1959, RWH, BM, USNM, CU. Siesta Key: April, May, RWH, CPK. Punta Gorda: March, MOG.

[7685 C. fernaldella Walsingham]
There is an old record for this: II. Hastings: USNM, but Hodges has found that it is a misdetermination for floridanella below.

7685, 1 C. FLORIDANELLA Beutenmueller
Ent. Amer. 5: 10. 1889.
II. Hastings: USNM, MCZ. III. Central Florida: type, May, USNM. Orlando: Feb., USNM. Lakeland: March, USNM. IV. Archbold Biological Station: March, April, RWH, CU. Siesta Key: Jan.-May, CPK. Palm Beach: type of nigrapunctella Busck, Jan., USNM. Delray Beach: April, CPK. VI. Homestead: April, CPK. Paradise Key: March, CU.

TANYGONA Braun

7678 T. IPOMOEA Busck
IV. Palm Beach: type, USNM. Fort Lauderdale: reared from morning glory, May 21, 1945, USNM. The larval habits were described by Dyar (1901, p. 478).

ERALEA Hodges

7692, 1 E. STRIATA Hodges
IV. Oneco: paratype, May 19, 1953, (Dillman), CPK. Siesta Key: holotype, May 13, 1960, (Kimbball), CU.

MELANOCINCLIS Hodges

7713, 1 M. LINEIGERA Hodges
Ent. Amer. 42: 64. 1962.
I. Escambia Co.: Sept., det. Hodges, SMH. II. Lake City: reared from slash pine cones, Feb., USNM. IV. Archbold Biological Station: holo-
type, March, CU. Siesta Key: Feb.-May, RWH, CPK. VI. Homestead: Feb.-April, CPK.

**ETEOBALEA** Hodges

**7710** **E. SEXNOTELLA** (Chambers)


**SATHROBROTA** Hodges

[7723 S. rileyi (Walsingham)]
Pink scavenger caterpillar,

There are a number of older records for *rileyi*, all of which Hodges believes belong under his new species below. However, as there are records from Thomasville, Georgia, there is every possibility that it might occur here. Hodges (1962b, p. 73) gave the following foods, though it should be noted that these are not Florida records: rotten cotton bolls, corn husks, milo maize, and the flower heads of castor beans and *Mesosaephorum rugosum*. Hodges also believes that *stigmatophora* (Walsingham) is probably a synonym of *rileyi*. There is a Florida record for the former: June 1943-June 1945, Ins. Pest Surv. Bull. Spec. Suppl. 1947 (1): 4.

**7723, I** **S. BADIA** Hodges
Ent. Amer. 42: 76. 1962.

I. Escambia Co.: Sept., Oct., SMH. II. Osceola National Forest: reared from rust infected cones of *Pinus elliottii*, June, USNM. III. 3 mi. S. Clarcona (I suspect this is a mistranscription by Hodges for Clermont. If not, I cannot place it); reared from grapefruit, Sept., USNM. Lake Alfred: larva in pod of *Cassia occidentalis*, Aug., USNM. IV. South Florida: holotype, in pine cones infested by *Diorctria*, emerged June, USNM. Palmetto: cabbage, June, USNM. Archbold Biological Station: April, RWH. Siesta Key: Dec.-May, RWH, CPK, BM. Miami: mummy fossil of loquat, USNM. Coconut Grove: from blossoms of coconut, May, USNM, CU. Matheson's Key (presumably Matheson Hammock): limes, May, USNM. VI. Paradise Key: USNM. Additional food sources given under the name *rileyi*: castor beans, Watson (1919c) (note this is one of the hosts quoted by Hodges above for *rileyi*, and that he states that the two species have different hosts. This means that we may have a Florida record for *rileyi*); cotton, DPI. (here again is a host which Hodges limits to *rileyi*); *Antonina* scale on bamboo, cotton cushion scale on citrus, cotton mealybug on grapefruit, mealybug on orange and orchid, pustule scale on oleander, jumping plant louse on crape myrtle, corn, orange, and fruits of *Rouystonea elata*, all DPI. Hodges (1962b, p. 73) also quoted these foods, but without Florida reference: peach mummies, grapefruit, bananas, and elm leaves.

**LYMNAECIA** Stainton

**7744** **L. FRAGMITELLA** Stainton
Cat. Brit. Tineinae Suppl. 4. 1851.

This species is not recorded from Florida by Hodges (1962b, pp. 80, 81) nor does he give any records closer than Maryland. They may possibly be in error, but it hardly seems likely that Heinrich could have been mistaken. IV. Fort Lauderdale: May 24, 1928, (Bates), UM. VI. Paradise Key: det. Heinrich, FMJ. This last specimen should now be in the YU collection and could be verified, as could the Fort Lauderdale specimen.

**TRICLONELLA** Busck

**8854** **T. PERGANDEELLA** Busck
J. N. Y. Ent. Soc. 8: 237. 1900.


**8855** **T. DETERMINATELLA** (Zeller)

II. Gainesville: May 10, June 29, 1927, (Rogers), CU. III. Weekiawaee Springs: March 14, 1955, (May), CPK. IV. Archbold Biological Station: Jan. 18, 1962, (Frost), PSU.

**Family WALSHIIDAE**

This is one of three families into which Hodges (1962b) has divided the species listed under *Cosmopterygidae* by McDunnough (1939, pp. 63-65). Of the ten genera enumerated by Hodges (op. cit. pp. 113-115), he has published the revisions of only four so far: *Periplora, Walsha, Perimedea*, and *Ithome*. There are Florida species in each of these, and in addition, there are records for one of the species in *Aeaea* which have been determined by Hodges.
I believe that of the remaining six genera none are known to be represented in Florida.

PERIPOCA Braun

7714 P. CEANOTHIIELLA (Costes)
I. Escambia Co.: March 26, 1962, det. Hodges, SMH.

7719, 4 P. LAETA Hodges
Pan-Pacific Ent. 38: 92. 1962.
I. Monticello: holotypes and paratypes, ex juniper, six Feb. 15, 18, and 24, 1961, (Miller), RWH, CPK, CU.

7719, 6 P. FESSA Hodges
Pan-Pacific Ent. 38: 95. 1962.
IV. Siesta Key: holotype, April 6, 1957, (Kimball), CU.

WALSHIA Clemens

7743, 1 W. MISCECOLORELLA Chambers
Can. Ent. 7: 51. 1875.

7743, 2 W. SIMILIS Hodges
I. Escambia Co.: Sept. 27, 1961, det. Hodges, SMH.

7721 W. PARTICORNELLA (Busck)
IV. Siesta Key: Nov. 14, 1956, det. Braun, CPK. This specimen has been misplaced. I do not have it and Hodges has no record of it, nor does he recall seeing it.

PERIMEDE Chambers

7720 P. ERRANSELLA Chambers
Can. Ent. 6: 52. 1874.

7722 P. FALCATA Braun

AEEA Chambers

7708 A. QUADRIRISTATELLA Chambers
IV. Siesta Key: June 1 and 2, 1957, det. Hodges, CPK.

ITHOME Chambers

7712 I. CONCOLORELLA (Chambers)
Can. Ent. 7: 55. 1875.
IV. Siesta Key: three March, CPK.

7712, 1 I. QUINQUEPUNCTATA (Forbes)
IV. Siesta Key: twelve Jan., Dec., RWH, CPK. VIII. Ramrod Key: reared from Coccoidea uisfera, ten March 3 and April 8, 1945, USNM.

7712, 3 I. LASSULA Hodges
VI. Homestead: March 31, 1959, (Wolfenbarger), CPK. VIII. Key West: holotype and paratypes, reared from flowers of Leucaena glauca, March 16-April 17, 1945, RWH, USNM.

7712, 4 I. FERAX Hodges
I. St. Petersburg: March 16 and 23, 1960, (Wyatt), MOG. IV. Siesta Key: holotype and paratypes, eleven Jan. 4-April 12, 1960, RWH, CPK, CU.

Family MOPHIDAE

Hodges has published nothing as yet on his revisions in this family. Some of the records below may prove incorrectly determined, and other records may result from his studies.

MOMPHA Hübner

There are undoubtedly several new species in Florida.

7748 M. BREVIVITELLA (Clemens)
IV. Siesta Key: May 2, 1946, det. Forbes, CPK.

7749 M. STELLELLA Busck
Can. Ent. 38: 123. 1906.
IV. Siesta Key: four March 31-April 2, 1952, CPK.
7750  M. CIRCUMSCRIPTELLA (Zeller)

7751, 1  M. BOTTIMERI Busck

7759  M. PASSERELLA Busck
IV. Bradenton: March 14, 1956, CPK. Siesta Key: four April, CPK. All det. Braun.

7740  M. ELOISELLA (Clemens)

7763, 1  M. SP.
I. Escambia Co.: two Oct. 27, 1961, det. Hodges, SMH, USNM.

HOMALEDRA Busck

7736  H. HEPTATALAMA Busck
Pl. XXVI, Fig. 34, á .

7737  H. SABALELLA (Chambers)
Sabaella is a common species all over the state, but since most of the records are larval, no satisfactory statement can be made as to when the adult flies. However, Bradenton records cover February-September, and Homestead, April, May, August, September, but there are no definite peak. In addition to its favorite food plant Sabal palmetto, on which it lives gregariously in a rather unsightly web mass, others have been recorded: Senecio repens [serrulata], Phoenix canariensis, and Washingtonia robusta, Dozier (1920, p. 580); P. reclinata, DPI.

BATRACHEDRA Herrick-Schaeffer

7708  B. MATHESONI Busck
IV. Siesta Key: March, April, June, Dec., det. Clarke, CPK. Coconut Grove: types, reared from blossoms of Cocos nucifera, USNM. VI. Homestead: April, May, Nov., CPK.

Family EPERMENIIDAE

EPERMENIA Hübner

7773, 1  E. SP.
IV. Siesta Key: May 11, 1960, det. Clarke as distinct from the species below, CPK.

7773, 2  [E.] SP.
Superficially close to E. cicutaella Kearfott, but with characters that place it probably in a new genus according to Clarke. IV. Siesta Key: three May 4 and 16, 1960, CPK.

Family GELECHIIDAE

Hodges has begun the revision of the Gelechiidae, a task which will require some years. One result of this will be to add many new names to the Florida list, of both known and undescribed species. It may also result in eliminating some of the names below.

NEALYDA Dietz

7775  N. PISONIAE Busck
IV. Palm Beach: types, reared from leaf miners in Pisonia aculeata, Feb., USNM.

7776  N. KINZELELLA Busck
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IV. Palm Beach: types, reared from leaf miners in *Pisonia obtusa*, USNM.

7778, 1 *PHYTOLACCAE* Clarke

VIII. Stock Island and Bone Fish Key: types, seventeen reared from *Phytolacca americana* [decandra] by C. L. Griswold, Clarke.

METZNERIA Zeller

7780 *M. LAPPPELLA* (Linnaeus)
Syst. Nat., p. 537. 1758.

IV. Punta Gorda: April, MOG.

SITROTOGA Heinemann

7801 *S. CEREALELLA* (Olivier)
Angoumois grain moth.


ARISTOTELIA Hübner

7817, 1 *A. CORALLINA* Walsingham

In many specimens, the normally pink inner margin of the forewing is white, or yellowish. This may be a color form, or fading, or it might conceivably be another species. IV. Bradenton: Feb.-Sept., Nov., CPK. Archbold Biological Station: Jan., CPK. Siesta Key: abundant, Oct.-April, June, det. Forbes, CPK, CU. VI. Redlands: reared from *Cassia nictitans* var. *aspera*, DPI. Homestead: Feb., Sept., Nov., CPK. VIII. Tavernier: Sept., DPI.

7818 *A. RUBIDELLA* (Clemens)

II. Gainesville: July, CU. IV. Archbold Biological Station: March, CU. La Belle: May 8-10, 1916, (Bradley), CU.

7825 *A. IVAE* Busck

II. Gainesville: Nov. 30, 1934, (Hubbell), UM. IV. Bradenton: Feb., CPK. Siesta Key: Jan.-April, CPK. Palm Beach: types, reared from larvae on *Iva frutescens*, the adults issuing March 10-20, USNM. VIII. Key Largo: Nov. 14, 1955, DPI.

7834 *A. [ROSEOSUUFFUSELLA* (Clemens)]

There is some question as to whether it is this species which is present in Florida or something undescribed. In fact, there may be more than one species involved. The complex, if such it be, is more common and widespread than the records suggest, because many specimens which are almost certainly not *roseosuuffuse* have not been included. I. Escambia Co.: Nov. 12, 1961, SMH. Warrington: WJJ. II. Alachua Co.: Sept., DPI. IV. Siesta Key: May, CPK. Fort Lauderdale: April, UM. VI. Paradise Key: FMJ. VIII. Tavernier: CPK.

7845 *A. MONILELLA* (Barnes & Busck)
Contrib. 4: 225. 1920.

I. Escambia Co.: April 26, 1963, det. Hodges, SMH.

GLAUCE Chambers

7859 *G. PECTENALAEELLA* Chambers
Can. Ent. 7: 12. 1875.

IV. Sarasota: Feb. 16, 1945, (Needham), CU. Siesta Key: three Feb. 16-27, 1951, CPK.

LEUCE Chambers

7860, 1 *L. SP.*

I. Myrtle Grove: Sept. 4, 1963, det. Hodges, WJJ.

EVIPPE Chambers

7867 *E. PRUNIFOLIELLA* Chambers
Can. Ent. 5: 156. 1873.


RECURVARIA Haworth

7884 *R. CITRIELLA* (Chambers)

Though this was described from Florida in 1879, I have not located a single subsequent record.

7891 *R. CONDICNELLA* Busck

I. Valparaiso: co-type, USNM. This was reared from yellow pine, and Busck expressed the opinion that the species might have been introduced from the West with nursery stock during the then recent re-forestation projects. Perhaps it has not survived the Florida environment. It would be interesting to look into this question.

EVAGORA Clemens

7888, 1 *E. SP.*

I. Escambia Co.: March 1961, det. Hodges as near *coniferella* Kearfott, SMH.
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EXOTELLEIA Wallengren

7913 E. PINIFOLIELL A Chambers
Pine needle miner.
I. Escambia Co.: May 13, 1962, det. Hodges as probably this, SMH. Warrington: May 4, 1961, VFG.

TRYPANISMA Clemens

7917 T. PRUDENS Clemens
IV. Siesta Key: three Jan. 1-Feb. 21, 1951, det. Brower, CPK.

BESCIVA Busck

7919, 1 B. SP.
Det. Clarke as near longitudinella Busck. IV. Onecoo: May 5, 1953, (Dillman), CPK. Siesta Key: common, Nov.-April, June, CPK.

EPITHELITIS Meyrick

7922 E. GALLAEGENITELLA (Clemens)
IV. Siesta Key: Feb. 25, 1951, CPK.

LEUCOGONIA Meyrick

7928, 1 L. SP.
I. Escambia Co.: Aug. 30, 1961, det. Hodges as near substimella (Clemens), SMH.

AROCALEA Walsingham

7931 A. CRISTIFASCIELLA (Chambers)

TELEFUSA Chambers

7947 T. FUSCOPUNCTELLA (Clemens)
IV. Siesta Key: May 12, 1946, det. Brower, CPK.

ADRASTEIA Chambers

7951 A. LONGIFASCIELLA (Clemens)
I. Escambia Co.: March 28, 1962, det. Hodges, SMH.
7951, 1 A. SP.
I. Escambia Co.: March 8, 1962, det. Hodges, SMH.

GNORIMOSCHEMA Busck

8153 G. GALLAESOLIDAGINIS (Riley)

8154, 1 G. SP.

8187 G. SAPHIRINELLA Chambers
Cincinnati Quart. J. Sci. 2: 250. 1875.
I. Escambia Co.: April, SMH. II. Gainesville: June, July, CU. IV. Siesta Key: Feb., April, June, CPK.

8214 G. OPERCULELLA (Zeller)
A common pest on potatoes and tobacco, recorded as far south as Pompano, at which locality it was reared on eggplant, the adult det. Clarke, DPI. The larvae are taken March-July.

8213, 1 G. GUDMANELLA (Walsingham)
The records are all for the larva on bell and hot peppers, May, June, and come from the Ins. Pest Surv. Bull. Spec. Suppl. 1947, No. 1. III. Orlando. IV. Hypoluxo, Boynton Beach, Delray Beach, Fort Lauderdale, Pompano, and Miami.

8211 G. STRIATELLA (Murtfeldt)

8174 G. TERRACOTTELLA Busck
IV. Siesta Key: Feb.-May, det. Clarke, CPK. Palm Beach: types, reared from larvae on Ipomoea imbricata, March 8-10, USNM.
KEIFERIA Busck
8215 K. LYCOPERSICELLÆA (Busck)
Tomato pinworm.
Lycopersicella is a pest on tomatoes throughout
the state (Swank, 1937). It has also been found
mining the leaves of eggplant, DPI.
8213 K. GLOGINELLA (Zeller)
Eggplant leaf miner.
II. Gainesville: seven May 12, 1941, UFES.
CHIONODES Hübner
8050 C. MACULIMARGINELLA (Clemens)
Can. Ent. 6: 241. 1874.
IV. Archbold Biological Station: April 2, 1945,
(Needham), CU.
8020 C. MEDIOFUSCELLA (Chambers)
I. Escambia Co.: March 25, 1962, det. Hodges,
SMH. Quincy: Feb. 28, March 3, 1961, (Tappan), CPH.
7981 C. DENTELLA (Busck)
VIII. Key West: CU.
8089 C. VERNELLA (Murtfeldt)
Can. Ent. 15: 139. 1883.
IV. Siesta Key: five April 24-May 15, 1960, det.
Clarke, CPH.
7985, 1 C. PEREYRA Clarke
IV. Vero Beach: types, eight April, May, (Mal-
loch), BM, USNM.
8051 C. DISCOCELLELLA (Chambers)
Can. Ent. 4: 194. 1872.
I. Quincy: Feb., Dec., CPH. III. Cassadaga:
Feb., SVF. IV. Siesta Key: Jan., Feb., CPH.
VI. Paradise Key: Jan., FMJ.
FILATIMA Busck
7979 F. ALBILORELLA (Zeller)
This species, Aroga coloradensis, Fascista cer-
cerisella, and F. quinella are all very much alike
in appearance. Quinella has a light yellow head;
cercerisella has brownish spots on the forewing;
coloradensis has a black head, and a white spot
on the fold; albilorella has a black head and
three white fasciae, two of them not reaching
the inner margin. Otherwise the markings are
quite similar. II. Jacksonville: (Slosson), AMNH.
7975 F. BIMACULELLA (Chambers)
Can. Ent. 4: 108. 1872.
I. Escambia Co.: April 20, 1962, det. Hodges,
SMH.
AROGA Busck
7976 A. COLORADENSIS (Busck)
PI. XXVI, Fig. 38, 9.
I. Myrtle Grove: Dec., WJW. Walton Co.: Feb.,
DPI. Quincy: April, CPH. Monticello: Feb.,
CPK. II. Gainesville: Jan., CPH; April, DPI.
III. Marion Co.: July, UM. Cassadaga:
Feb., June, Dec., SVF. Weekiawachee Springs:
May, CPH. IV. Bradenton: April, May, July-
sept., CPH. Oneco: May, June, Aug., CPH.
Archbold Biological Station: Dec.-Feb., YU;
Nov.-Jan., PSU. Siesta Key: Nov.-June, CPH.
La Belle: April, AMNH.
7965 A. TRIALBIMACULELLA (Chambers)
Cincinnati Quart. J. Sci. 2: 250. 1875.
I. Quincy: May, CPH. II. Gainesville: July, CU.
III. Weekiawachee Springs: Feb., Aug., CPH.
Vineyard: larva on scrub oak, June, det. Capps,
DPI. Winter Garden: larva on myrtle, April,
det. Capps, DPI. IV. Oneco: May, CPH. Siesta
Key: Feb., March, CPH. Miami: larva on myr-
tle, Dec., DPI. VI. Homestead: larva on myr-
tle, Nov., det. Capps, DPI.
8139, 1 A. ALLERIELLA Busck
III. Cassadaga: Jan. 19, 1963, det. Hodges, SVF.
PSEUDOCHELARIA Dietz
8021 P. WALSINGHAMI (Dietz)
I. Escambia Co.: June 25, 1961, SMH. Food:
Rhus typhina.
FASCISTA Busck
7971 F. CERCERISELLA (Chambers)
Can. Ent. 4: 108. 1872.
I. Monticello: reared from redbud, Oct., (Phil-
ips), DPI, CPH. II. Perry: May, DPI. Gaines-
ville: larva abundant on redbud, April, Dozier
(1920, p. 378); UFES.
7972 F. QUINELLA (Zeller)
PECTINOPHORA Busck

8147, 1 P. GOSSYPIELLA (Saunders)
Pink bollworm.


STEGASTA Meyrick

8148 S. BOSQUELLA (Chambers)
Red-necked peanut worm.
Can. Ent. 7: 92. 1875.


8149, 1 S. CAPITELLA (Fabricius)
Ent. Syst. 3(2): 380. 1794.


POLYHYMNO Chambers

8239 P. LUTEOSTRICELLA Chambers

There is a species of some other genus, as yet undetermined, which closely resembles luteostrigella. Florida: Busck (1903, p. 839). I. Escambia Co.: July, SMH. III. Volusia Co.: Aug., DPI. Orlando: June, CU. IV. Bradenton: March, June, Aug.-Oct., CPK. Oneco: May, CPK. Siesta Key: March-June, CPK. VI. Home-


STOMOPTERYX Heinrich

8250 S. CROTALERIELLA (Busck)

IV. Palm Beach: types, reared from larvae on Crotalaria pumila, imagos issuing Feb. 18- March 10, USNM.

BATTARISTIS Meyrick

8258 B. NIGRATOMELLA (Clemens)

I. Escambia Co.: April 26, 1963, det. Hodges, SMH. II. Old Town: March 2, 1951, det. with "?", CPK.

COMPSOLECHIA Meyrick

8260 C. COVERDALELLA (Kearfott)
Pl. XXVI, Fig. 40, s.
J. N. Y. Ent. Soc. 11: 162. 1903.

I. Escambia Co.: May, SMH. III. Weekiwachee Springs: Feb., CPK. IV. Bradenton: June, CPK. Oneco: May, June, CPK. Siesta Key: April, May, CPK. Punta Gorda: May, MOG.

8262 C. LEVIPEDELLA (Clemens)

I. Escambia Co.: April 28, 1963, det. Hodges, SMH.

8264 C. LAGUNCULARIELLA (Busck)

IV. Siesta Key: April 24, 1960, det. Clarke as apparently this, though the ground color is gray instead of brown and he believes it may be a color form, CPK. However, another specimen, not seen by him, May 3, 1948, does show the brown color. Palm Beach: types, reared from larvae on Laguncularia racemosa, USNM. V. Everglades: April 9, AMNH. VI. Homestead: April 16, 1959, (Wolfenbarger), CPK. The larva is a leaf tier.

8265 C. LUPINELLA (Busck)

I. Myrtle Grove: May 5, 1963, det. Hodges, WJW.

8271 C. ARGYROTHAMNELLA (Busck)

II. Anastasia Island: larva, Dyar (1901a, p. 474). IV. Palm Beach: type, from larva on Argynniopsis blodgettii, USNM. The larva sews up the leaves of its food plant.
ANACAMPSIS Curtis

8279 A. CONCLUSELLEA (Walker)
IV. Siesta Key: May 12, 1946, det. Forbes, CPK.

GELECHIA Hübner

8211, 1 [G.] SP.
Det. Clarke as probably Gelechia, but slightly atypical. He has taken what is apparently the same thing on Tortola and St. John in the Virgin Islands. IV. Bradenton: Feb., May, Sept., Oct., CPK, USNM. Onoco: May, CPK. Siesta Key: common. Nov.-April, CPK, USNM. VI. Homestead: March, April, Nov., CPK, USNM.

STROBISIA Clemens

8281 S. IRIDIPENNELLA Clemens
Florida: 1883, (Morrison), Walsingham (1900-1915, p. 79).

HOLOPHYSIS Walsingham

8283 H. EMBLEMELLA (Clemens)
I. Escambia Co.: April 25, 1963, det. Hodges, SMH.

PROSTOMEUS Busck

8286 P. BRUNNEUS Busck

8286, 1 P. SP.

ANARSIA Zeller

8288 A. LINEATELLA Zeller
Peach twig borer.
Iris, p. 190. 1839.
I. Walton Co.: Oct. 25, 1948, DPI. VI. Homestead: Oct. 11, 1947, (DPI?). There is one customs interception record: Miami, July 8, 1948, from Puerto Rico, DPI.

BRACHYACMA Meyrick

8289, 1 B. PALPIGERA (Walsingham)

DICHOMERIS Hübner

8293 D. RUSTICA (Walsingham)
IV. Range Cattle Station, Hardee Co.: larvae abundant on hairy indigo, Sept. 1904, det. Capps and Clarke, Coop. Econ. Ins. Rept. 4: 1064.

8294 D. CITRIFOLIELLA (Chambers)

8296 D. LIGULELLA (Hübner)
Zutr. exot. Schmett., p. 25; Figs. 143, 144. 1818.
I. Myrtle Grove: April 15, 1963, det. Hodges, WJW.

8299 D. MARCINELLA (Fabricius)
Juniper webworm.

8306 D. BIPUNCTELLA (Walsingham)

8308, 1 D. GLENNI Clarke

8308, 2 D. SP.
This species is similar in appearance to Brachyacma palpigera (Walsingham), but easily distinguished by the smaller palpi. VI. Homestead: March, April, July-Nov., (Wolfenbarger), det. Clarke as probably new, CPK.
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8308, 3 D. SP.
I. Myrtle Grove: April 14, 1963, det. Hodges as unrecognized, WJW.

EPICORTHYLIS Zeller

8310 E. INVERSELLA Zeller
IV. Bradenton: March, May, Aug., Sept., CPK, USNM. Oneco: April-June, CPK. Siesta Key: April, det. Clarke, CPK.

TRICHOTAPHE Clemens

8315 T. SERRATIVITELLA (Zeller)
All these records except the one determined by Clarke should be reviewed as the species is so close to simpliciella Busck, of which there is a valid record determined by Busck himself. I. Escambia Co.: April, SMH. II. Gainesville: Feb., CPK. III. Weekiawachee Springs: Aug., (May), CPK. IV. Bradenton: June, Sept., CPK. Oneco: May-July, (Dillman), CPK. Archbold Biological Station: Jan., Dec., PSU; April, YU. Siesta Key: Feb. 25, 1955, det. Clarke: May, CPK. VI. Medley: reared from ragweed leaf, July, (Nakahara), DPI. Homestead: March, May-Sept., CPK. Paradise Key: Jan., Feb., FMJ.

8317 T. SIMPLICIELLA Busck
VI. Paradise Key: det. Busck, FMJ.

8319 T. FLAVOCOSTELLA (Clemens)

8320 T. EUFORIORELLA (Chambers)
Can. Ent. 4: 221. 1872.
IV. Palm Beach: Dyar (1901a, p. 472). Bradenton: March, Aug., CPK. Oneco: May, June, CPK. Siesta Key: March, April, CPK.

8322 T. SETOSELLA Clemens

8326 T. CONDALIAVORELLA Busck
IV. Palm Beach: types, reared from Conda forrea, USNM.

8327 T. MELANTHERELLA Busck
IV. Palm Beach: types, reared from Melanthera deltoidea, March, USNM.

8328 T. TRINOTELLA Busck
Can. Ent. 38: 122. 1906.

8328, 1 T. MELISSIA (Walsingham)

8331, 1 T. SP.
IV. Bradenton: May, June, CPK, USNM. Oneco: May, June, CPK, USNM. Archbold Biological Station: Jan., YU. Siesta Key: March, Dec., CPK. VI. Homestead: Feb., CPK. VIII. Key Largo: Sept., DPI.

8331, 2 T. SP.
This species is quite unlike the preceding species, and Clarke thinks it may be West Indian. VI. Homestead: Sept. 23, 1958, (Wolfenburger), CPK.

SCEPTIA Walsingham

8341 S. ABERRATELLA (Busck)
II. Jacksonville: March 1953, det. T. N. Freeman, HEW; May, MOG.

GLYPHIDOCERA Walsingham

8342 G. LACTIFLOSELLA (Chambers)

8342, 1 G. SP.
This species is very much like lactiflessa, but Clarke determines it as distinct. IV. Siesta Key: April 10, 1955, CPK.
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8843 G. DIMORPHELLEA Busck
J. N. Y. Ent. Soc. 15: 136. 1907.
I. Escambia Co.: Sept. 2, 1961, det. Hodges, SMH.

8845 G. SPERATELLA Busck
IV. Bradenton: two May 22, 1955, Sept. 8, 1955, CPK.

8848 G. FLORIDANELLA Busck
II. Gainesville: July, CU. IV. Myakka City: Feb., CU. Archbold Biological Station: March, CU. Sarasota: Feb., CU. Forbes notes that these last three specimens are too dark and plain, but nearer than anything else. Siesta Key: Jan., CPK. Palm Beach: types, USNM.

8851 G. BARYTHYMA Meyrick
Exot. Micro. 3: 530. 1929.
III. Orlando: abundant, June, July, CU. IV. Myakka City: one Feb., CU. Englewood: one March, CU. VI. Paradise Key: seven March, CU.

Family OECOPHORIDAE
AGONOPTERIX Hübner

8425 A. AMISELLA (Busck)
III. Kissimmee: types, three, USNM.

8427 A. AMYRISSELLA (Busck)
IV. Palm Beach: types, reared from Amyris floridana, USNM.

8490, 1 A. SP.
I. Escambia Co.: two Feb., 1961, det. Clarke as close to but not clemensella Chambers, SMH.

PSILOCORSIS Clemens

8473 P. QUERCICELLA Clemens
III. DeLand: MOG.

8471 P. OBSCOLETTELLA (Zeller)
Florida: (Slosson), Grsb. 143. I. Florida Caverns State Park: April 14, 1960, (Denmark), DPI.

8472 P. FACINELLA (Chambers)
Can. Ent. 4: 131. 1872.
I. Escambia Co.: Aug. 10, 1961, SMH.

8472, 1 P. CARTAE Clarke
I. Escambia Co.: July 3, 1961, SMH. Monticello: three paratypes, reared from hickory, April, June, USNM. IV. Siesta Key: March 24, 1960, det. Clarke as this or something new, CPK. As there is no hickory in this locality, it is probably new.

INGA Busck

8466 I. SPARSICILLELLA (Clemens)
Pl. XXVI, Fig. 41, §. Proc. Ent. Soc. Phila. 2: 430. 1884.

8388 I. CRETACEA (Zeller)

MARTYRINGA Busck

8380, 1 M. RAVICAPTITIS Hodges
I. Escambia Co.: July 1, Aug. 6, 1961, SMH.

DECANTHA Busck

8388 D. BOREASELLA (Chambers)
Can. Ent. 5: 189. 1873.

EPICALLIMA Dyar

8361 E. ARGENTICINCELLELLA (Clemens)
Family BLASTOBASIDAE

Almost all determinations in this family are open to question since so many species are so similar. There is great need of revision, a task which is being undertaken by R. B. Selander. Until such time as his revision is published, most of the records below should be considered as tentative. A number of determinations were made by Brower, but inasmuch as he himself has expressed dissatisfaction with them, references to him have been omitted.

BLASTOBASIS Zeller

8477 B. GUILANDINAE Busck
IV. Siesta Key: May, CPK. Palm Beach: types, reared from larvae boring in stems of Caesalpinia crista [Guilandina bonducella], March 30, USNM.

8484 B. ERIOBOTRYAE Busck
II. Gainesville: March 9, 1927, (Bates), UM. IV. Miami: type, reared from dry “mummy” fruit of loquat, emerging in July, USNM.

8485 1 B. OCHROBATHRA Meyrick
Exot. Micro. 2: 463. 1921.
IV. Fairchild Tropical Gardens, Coral Gables: reared from decaying fruit of Bromella pingium, Jan. 14, 1961, (Nakahara), USNM.

ZENODOCHIUM Walsingham

8486 Z. CITRICOLELLA (Chambers)
II. Jacksonville: type, reared from larva in dry orange infested by beetle (Araneocerus fasciculatus), issuing March 17, 1880.

8487 Z. COCCIVORELLA (Chambers)
III. Cedar Key: type, larva in coccid scales (Kermes sp. near pallidus) on oak, March, issuing April 1-10, USNM.

VALENTINIA Walsingham

8488 V. GLANDULELLA (Riley)
Pl. XXVI, Fig. 39, 4. Can. Ent. 8: 118. 1871.

8489 V. FRACTILINEA (Zeller)
IV. Siesta Key: May 17, 1946, CPK.

8490 V. QUIANTANCELLA Dietz
IV. Siesta Key: May 3-5, 1946, CPK.

8493 V. FLORIDELLA Dietz
II. Crescent City: types, four from female cone of Zamia integrifolia, USNM. IV. Siesta Key: May 6-10, 1946, CPK. Fort Lauderdale: May 24, 1923, (Bates), UM.

CALOSIMA Dietz

8497 C. ARGYROSPLENDELLA Dietz
Among the few blastobasids of which the determination is reasonably simple, argyrospendentella may be distinguished from the next species by its narrower wings, acutely pointed hind wings, the costa of the forewing being nearly straight instead of depressed at the apex, paler color, and smaller size. I. Escambia Co.: Aug. 30, 1961, SMH. Warrington: May 4, 1961, VFG, CPK. II. Hastings: cotype, May 16, 1902, USNM. IV. Bradenton: March 22, 1855, (Kelsheimer), CPK.

8498 C. DIANELLA Dietz

HOLOCERA Clemens

8507 H. CRASSICORNELLA Dietz
Florida: unique type, USNM.

8516 H. LIVORNELLA (Zeller)
IV. Fort Lauderdale: March 24, 1938, (Bates), UM.

8520 H. FUNEBOA Dietz
IV. Fort Lauderdale: April 9, 1928, (Bates), UM.
8527 H. ELYELLA Dietz  
III. Brooksville: March 10, 1930, (Walker), UM.

8527, 1 H. LEPIDOPHAGA Clarke  

8531 H. MESSELINELLA Dietz  
II. Hastings: co-type, Dietz.

8534 H. CLEMEMSELLA Chambers  
Can. Ent. 6: 246. 1874.  
IV. Fort Lauderdale: May 23, (Bates), UM.

8538 H. SPRETELLA Dietz  
II. Gainesville: March 9, 1927, (Bates), UM.

8540 H. PUNCTIFERELLA (Clemens)  
III. Volusia Co.: Sept. 10, 1938, (Hubbell), UM.

8546 H. MELANOSTRIATELLA Dietz  
I. Escambia Co.: Aug. 4, 1961, SMH. II. Gainesville: April 13, 1925, (Bates), UM.

GERDANA Busck

8465, 1 G. SP.  
I. Escambia Co.: July 13, 1961, det. Duckworth, SMH.

Family XYLORICTIDAE

Some of the genera currently standing under Stenomidae below belong here.

PSEUDEROITIS Clarke

8578, 1 P. SP.  

Family STENOMIDAE

Dr. W. Donald Duckworth has recently finished a revision of Stenomidae, and I am indebted to him for many determinations and additional data.
UM. Cassadaga: May, SVF. Glenwood: USNM.
Weekiawachee Springs: May, June, CPK. Alta-
monte Springs: USNM. Orlando: Oct., DPI.
St. Petersburg: Oct., USNM. Lakeland: March,
USNM; May, Grsb. 143. IV. Bradenton: July,
Sept., Nov., CPK. Oneco: May, June, Nov.,
CPK. Archbold Biological Station: Jan., FSU;
April, Dec., YU; Dec., CU. Sarasota: May, Sept.,
CPK. Siesta Key: March-May, Nov., Dec., CPK.
Punta Gorda: May, MOG. Fort Myers: April,
AMNH, CU. Miami: USNM. V. Everglades:
April, USNM. Marco: April, USNM. VI. Flor-
da City: March, CU. Paradise Key: Jan.-April,
FMJ; March, CU; March, Sept., USNM.

8594 S. MISTRELLA Busck
I. Escambia Co.: May 13, 1962, det. Duckworth,
SMH. IV. Punta Gorda: March, MOG.

SETIOSTOMA Zeller

8597 S. XANTHOBASIS Zeller
Florida: Fernald (1900, p. 245). I. Myrtle Grove:
April 28, 1963, WJW. Quincy: May 3, 1961,
(Tappan), CPK. II. Gainesville: April 21, 1956,
(Denmark), DPI; Sept. 15, 1962, (Merrill), CPK.
III. Cassadaga: Aug. 7, 1933, SVF. Lakeland:
May 1-7, USNM. V. Chokoloskee: USNM.
This last was not recorded by Duckworth and
may not be there now.

DURRANTIA Busck

8600 D. OBITERELLA Busck
Proc. U. S. Natl. Mus. 55: 207. 1908. (This is
not the original description, but the first use
of the name.)
I. Escambia Co.: Feb., 1961, Nov. 4, 1961, (Hills),
USNM; Clarke places these here on a tentative
basis.

MENESTA Clemens

8602 M. TORTRICIFORMELLA Clemens
I. Quincy: June 15, 1961, (Tappan), det. Forbes,
CPK. II. Alachua Co.: June 14, 1961, (Den-
mark), det. Forbes, DPI. Food: hazel.

8603 M. MELANELLA Murtfeldt
Insect Life 2: 304. 1890.
II. Jacksonville: (Slosston), Grsb. 142. III. Cas-
adaga: July 14, 1962, SVF. Food: oak.

MENESTOMORPHA Walsingham

8579 M. OBLONGATA Walsingham
VI. Paradise Key: Jan. 18, USNM. Food: cyni-
pod gail on oak.

MOTHONICA Walsingham

8604, 1 M. SP.
A new species which has been described by
Duckworth with the name still in manuscript.
The determinations have all been made by
Duckworth or Clarke. II. Gainesville: Aug.,
UFES. IV. Oneco: May, June, Sept., CPK. Si-
esta Key: common, Nov.-June, CPK, USNM.

Family ETHMIIIDAE

ETHMIA Hübner

In the material collected by the wild cotton
survey at Tavernier and elsewhere in the Keys,
there were many specimens of Ethmia, most of
them in poor condition. There are two species
in the lot, neither of which is confusella (Walk-
er).

8619 E. CONFUSELLA (Walker)
Florida: Dyar (1902, p. 524). Grossbeck (1917,
p. 143) added the locality Key West to this refer-
ce. Busck (1933, p. 164) mentioned a series
from Key West in the U. S. National Museum.

8620 E. TRIFURCELLA Chambers
Can. Ent. 5: 12. 1873.
I. Escambia Co.: April 23, 1961, det. Powell,
SMH.

8632, 1 E. SP.
Powell says that the wing pattern is close to
hirmella Busck, but that the genitalic characters
differ and it is definitely not this species. VIII.
Tavernier: abundant, Sept. 15-Oct. 27, 1955, (J.
N. Todd), CPK.

8632, 2 E. [PAUSELLA (Walker)]
Powell places this either here or as something
very close to it. VIII. Tavernier: Sept. 14, 1955,
(J. N. Todd), CPK.
SUPERFAMILY
YPONOMEUTOIDEA

Family GLYPHIPTERYCIDAE
HILAROGRAPHA Zeller

8640 T. DIVA (Riley)

8641 T. SLOSSONIA (Fernald)
Pl. XXVI, Fig. 45, 8. Can. Ent. 32: 244. 1900.


South Bay: April, Grsb. 141. Biscayne Bay: Fernald. Miami: larva on Ficus, Jan., April, Dec., DPI. Coconut Grove: larva on Ficus, Feb., DPI. V. Marco: April, Grsb. 141. Everglades: April, AFB, AMNH. VI. Snapper Point: reared from larvae on unopened terminal leaves of Ficus sp., May, (Nakahara), DPI. Homestead: May, CPK; larva on Ficus, Dec., DPI. Paradise Key: Jan., FMJ. VIII. Key Largo: Jan., DPI. Key West: larva on Ficus, June, DPI.

8642 T. BIFERANA (Walker)

IV. Palm Beach: type of dyari Busck (1900b, p. 242).

[MACHLOTICA Meyrick]

8642.1 M. SP.
Clarke determined this as “near Machlotica”

and probably new. II. Alachua Co.: reared from Sabal palmetto, May 1959, (Peterson), DPI. III. Monte Vista: Sept. 1, 1961, (Feltshaw), DPI.

ALLOONYMA Busck
8645 A. VICARIALIS (Zeller)
Florida: Dyar (1902, p. 495).

CHOREUTIS Hübner
8649 C. INFLATELLA Clemens
I. Escambia Co.: July 31, Aug. 1, Sept. 7, 1961, SMH.

8650 C. CARDUIELLA Kearfott
Florida: Dyar (1902, p. 493). IV. Archbold Biological Station: one April 1958, (Pease), YU; April 2, 1962, (Frost), PSU. Siesta Key: three March, det. Clarke, CPK.

8657 C. BUSCHIELLA Kearfott
J. N. Y. Ent. Soc. 10: 120. 1902.
II. Hastings: March 15, (Brown), Kearfott.

8662 C. GNAPHALIELLA Kearfott
J. N. Y. Ent. Soc. 10: 113. 1902.
I. Escambia Co.: four July 13-14, two Sept. 12, 1961, det. Davis, SMH. III. DeLand: March, MOG. IV. Bradenton: April 26, 1955, (Kelsheimer), CPK. Oneo: May 28, 1953, (Dillman), CPK. This may be another species.

GLYPHIPTERYX Hübner
8670 1 G. SP.
This species is close to but not impigrita Clemens. I. Escambia Co.: Sept. 13 and 30, 1961, SMH. IV. Oneo: May 8, 1953, (Dillman), CPK. Siesta Key: April 17, 1953, det. Forbes, April 25, 1961, CPK.

HOMADAULA Lower
8683 1 H. ALBIZZIAE Clarke
Mimosa webworm.

Family AGGERIIDAE

SANNINA Walker

8765 S. UROCERIFORMIS Walker
Persimmon borers.

SANNINOIDEA Beutenmueller

8971 S. EXITIOSA (Say)
Peach tree borer.
Pl. XXVI, Fig. 42, 9; Fig. 43, 8. J. Acad. Nat. Sci. Phila. 3: 216. 1823.

CARMENIA Henry Edwards

8755 C. PYRALIDIFORMIS AURANTIS
Engelhardt

8707 C. ANTHRACIPENNIS (Boisdruval)
III. Georgiana: (Wittfeld), Engelhardt (1946, p. 48). This was not listed by Grossbeck (1917, pp. 108-110), at least not under this name.

8742 C. TEXANA (Henry Edwards)
Papilio 1: 204. 1881.
III. Georgiana: (Wittfeld), Engelhardt (1928, p. 68). This is probably the same specimen that was the type of wittfeldi Henry Edwards (1883, p. 150) for which the locality was given as Indian River. Dunedin: March, larva on Grindelia, USNM. St. Petersburg: May, USNM. IV. Lake Okeechobee: May, USNM. South Bay: May, (Davis), Grsb. 109. Archbold Biological Station: Jan., PSU. Palm Beach: June, USNM. Biscayne Bay: (Slosson), USNM. Miami: larva on Eupatorium serotinum, and fennel, March, DPI. Hialeah: reared from Ambrosia, July, DPI. VI. Florida City: reared from E. serotina, May, USNM. Paradise Key: on Flaviera linearis, March, DPI; reared from Eupatorium, May, USNM; April, May, (Jones), CPK. VII. Lower Matecumbe: reared from Melanthera deltoides, (Jones), USNM. Key West: on Flaviera linearis, Dec., DPI.

SYLVORA Engelhardt

8727 C. ACERNI BUSCHI Engelhardt
Maple callus borer.
I. Escambia Co.: for tesser (Henry Edwards) May, SMH. Myrtle Grove: tesser Aug., WJW. Torreya State Park: tesser, April, DPI. Quincy: tesser, March, April, Oct., CPK. II. Gainesville: types, reared from white and red maple, March-May, USNM; reared from Acer saccharum, emerging Sept. 15, 1960, (Hetrick), UFA, USNM. Hetrick has reported subsequently that he believes the species has continuous generations, emerging whenever the temperature is propitious.

SYNANTHEDON Hübner

8753 S. SAPHYGAIFORMIS (Walker)
As Engelhardt made floridensis (Grote) a form of this, the records are herewith combined. He stated that the proportion of borer material from cynipid galls gave 96% floridensis and only 4% typical saphygaiformis. I. Escambia Co.: floridensis, April, SMH. Monticello: March, April, floridensis, from spiny leafed scrub oak, June, Engelhardt (1946, p. 90). II. East Florida: AMNH. Gainesville: floridensis, March, CPK; from scrub oak, April, Engelhardt. Jacksonville: floridensis, (Slosson), Grsb. 109; (Ashmead), Engelhardt (1946, p. 89). III. Daytona Beach: April, Engelhardt; floridensis, Oct., Engelhardt. Coronado Beach: floridensis, March, Engelhardt. Edgewater: Sept., Oct., CPK. Enterprise: type of floridensis, March, May, AMNH. Lake Co.: floridensis on Flaviera linearis, March, DPI. Longwood: floridensis, from water oak, April, Engelhardt. Polk Co.: June, DPI. IV. Archbold Biological Station: Sept., YU. Dade Co.:
floridensis, April, May, HFS; May, CPK. Biscayne Bay: floridensis, (Slosson), Engelhardt. VI. Paradise Key: floridensis, Feb., Engelhardt; from water oak, March-May, FMJ, CPK. The reader is also referred to a paper by Morse (1957, p. 61) relative to emergence from galls of the gall wasp Callirhytis batatoidea (Ashmead).

8720 S. PICTIPES (Grote & Robinson)
The lesser peach tree borer.

ALCATHOE Henry Edwards

8685 A. CAUDA (Harris)
Amer. J. Sci. 36: 311. 1839.
Florida: April, May, Beutenmueller (1901, p. 241). Food: Clematis virginiana, C. vitalba, and Ribes americanum [floridum], boring in the roots of the first two and the stems of the last.

THAMNOSPHECIA Spuler

8731 T. SCITULA (Harris)
Dogwood borer.
Amer. J. Sci. 36: 313. 1839.

8752 T. GELIFORMIS (Walker)

8729 T. PYRI (Harris)
Apple bark borer.

8743 T. REFULGENS SEMINOLE (Beutenmueller)
J. N. Y. Ent. Soc. 7: 255. 1899.

8744 T. MARICA (Beutenmueller)
J. N. Y. Ent. Soc. 7: 254. 1899.

8715 T. RUBROFASCIA (Henry Edwards)
Papilio 1: 191. 1881.

8715 T. ALLERI Engelhardt
I. Jefferson Co.: April 20, 1930, (Walker), UM.

SIGNAPHORA Engelhardt

8757 S. RUFICORNIS (Henry Edwards)
Papilio 1: 184. 1881.
Florida: AMNH. III. La Grange: Sept. 11, (Davis), SIM.

PARANTHERE Hübner

8802 P. DOLLI CASTANEUM (Beutenmueller)
VI. Paradise Key: larva boring in young willows, det. Engelhardt, FMJ.

8799 P. PALMII (Henry Edwards)
THE LEPIDOPTERA OF FLORIDA

8800  P. ASILIPENNIS (Boisduval)  
Icon. Règne Anim. Ins. 3 (b): 496. 1839.  
I. Tallahassee: Feb. 28, USNM. II. Jacksonville:  
March, (Slosson), USNM. Food: oak.  

VITACEA Engelhardt

8801  V. POLISITIFORMIS SEMINOLE  
(Noeumoeogen)  
Grape root borer.  
Florida: type, Neomoeogen. I. Escambia Co.:  
Sept. 8, 1961, SMH. This determination is tenta- 
tive, but there appears to be nothing else that  
this can be, other than the unknown male of  
semionole. Nor is this in any way an attempt to  
name this as the type male. However, for the  
benefit and guidance of collectors, a descrip- 
tion of the strikingly marked abdomen may be use- 
ful. All segments except 3 and 4 are a rich,  
red brown; 3 and 4 are a very blackish brown.  
All are separated by yellow except 3 and 4, this  
last giving the effect of a broad, black belt. I.  
Engelhardt, UM. Ortega: Sept. 6, (Sleight),  
Grub. 110. Food: Vitis labrusca.  

8797  V. SCEPSIFORMIS (Henry Edwards)  
Papilio 1: 183. 1881.  
IV. Fort Lauderdale: April 6, 1962, (D. P. B.  
McLean), CPK. Biscayne Bay: (Slosson), Grub.  
109.  

GAEA Beutenmueller

8771  G. EMMYTFIFORMIS (Walker)  
161).  

MELITTA Hübner

[8776  M. satyriformis Hübner]  
Zutr. Exot. Schmett.: Fig. 453. 1825.  
According to Engelhardt (1946, p. 183), this spe- 
cies is not present in the United States and all  
records belong under the next one, cucurbitae.  

8777  M. CUCURBITAE (Harris)  
Squash vine borer.  
I. Escambia Co.: May-July, SMH. Pensacola:  
Aug. 13, 1962, VFG. Monticello: July 22, 1928,  
UM. II. Alachua Co.: May 2, 1951, CPK.  
Gainesville: April 2, 1935, UFES; April 24, 1924,  
UM. St. Augustine: (Johnson), Grub. 108.  

Family HELIODINIDAE

EUCLEMENSIA Grote

8806  E. BASSETTELLA (Clemens)  
Florida: Hollinger & Parks (1919, p. 94). I. Es- 
cambia Co.: May, July, SMH. Myrtle Grove:  
Aug., WJW. Ocean City: Aug., HOH. II.  
Alachua Co.: June, DPI. III. Cassadaga: June,  
SVF. Hernando Co.: Aug., UM. Brooksville:  
June, AKW. Winter Park: May, AMNH; July,  
DPI. Orlando: June, DPI. Hillsborough Co.:  
Aug., UM. IV. Bradenton: May, Sept., CPK.  
Siesta Key: April, May, CPK. Punta Gorda:  
May, MOG.  

IDIOGLOSSA Walsingham

8810  I. MIRACULOSA Frey  
Hodges, SMH.  

CYCLOPLASIS Clemens

8811  C. PANICIFOLIELLA Clemens  
IV. Palm Beach: larva in Lasiacis divaricata  
[Panicum divaricatum], Jan., Dyar (1901a, p.  
479). It also feeds in Panicum clandestinum.  

SELOTHUS Busck

8812  S. PISONIELLA Busck  
J. N. Y. Ent. Soc. 8: 239. 1900.  
IV. Palm Beach: types, reared from Torruba  
longifolia [Pisonia obtusata] and Pisonia acule- 
ata, Feb., (Dyar), Busck.  

LAMPROLOPHUS Busck

8813  L. LITHELLA Busck  
J. N. Y. Ent. Soc. 8: 241. 1900.  
IV. Palm Beach: types, reared from stems of  
Pisonia aculeata, Feb., (Dyar), USNM. V. Ever- 
glades: from stalk of P. aculeata, April 18-23,  
AFB.  

HELIODINE S Stainton

8515  H. BELLA Chambers  
Can. Ent. 7: 73. 1875.  
IV. Bradenton: four Aug, 18-Sept. 17, 1955, (Kel- 
sheimer), CPK. VI. Homestead: Aug. 26, 1958,  
(Wolfenbarger), det. Clarke, CPK; on velvet  
bean. June 14, 1958, (Baranowski), STES.
8815, I H. SP.
Near bella (Chambers). In view of the record for bella above, it would be reasonable to assume that this is actually bella. II. Gainesville: taken at chinquapin bloom, May 21, Dozier (1920, p. 379).

8824, I H. SP.
I. Escambia Co.: Oct. 20, 1961, det. Clarke as probably undescribed, SMH.

8824, 2 H. SP.
VIII. Tavernier: three Oct. 9-23, 1955, (Todd), det. Hodges, CPK.

ABEBAEA Hübner

[8839 A. nella Busck]
J. N. Y. Ent. Soc. 11: 54. 1903.
This is another of the clerical errors that plagued the Pest Survey records for a short period. However, in this case it would not be amiss to guess that the record was intended for 8839, Atexa aurea (Fitch), the error resulting from a slip in the second digit of the number. I. Quincy: July 31, 1956, Coop. Ins. Pest Surv. 3: 5.

Family HYPONOMEUTIDAE

PLUTELLA Schrank

8870 P. PORRECTIELLA (Linnaeus)

8878 P. MACULIPENNIS (Curtis)
Diamondback moth.
Brit. Ent.; Pl. 420. 1832.
Maculipennis is probably general throughout the state, November-August. It feeds on cabbage all winter at Gainesville (Fla. Agr. Exp. Sta. Bull. 232: 37); cabbage and cauliflower, ibid. 59: 496; collards (Coop. Econ. Ins. Rept. 4: 383); corn, peanuts, sugarcane, ibid. 394.

ARCYRESTHIA Hübner

8898 A. SUBRETICULELLA Walsingham
I. Escambia Co.: Dec. 6, 1961, SMH.

8900 A. EUGENIELLA Busck


8903 A. CONJUGELLA Zeller
Apple fruit moth.
Isis, p. 204. 1839.
IV. Vero Beach: Nov. 5, 1938, (Bass), det. Heinrich, DPI. Food: Sorbus aucuparia berries, fruit of apple.

PODIASA Busck

8920 P. CHIOCCOCCELLA Busck
IV. Siesta Key: Jan. 16, 1960, CPK. Palm Beach: Feb. 17 and 28, 1931, (Frost), CU; cotyple, emerged March 15, 1900, CU; types, reared from Chicococa alba [racemosa], USNM. Miami: on snowberry, Feb.-April, DPI; on stopper, March, DPI. VI. Homestead: reared from leaf miners on Chioccoca alba, Jan., (Baranowski), det. Hodges, CPK, STES.

ZELLERIA Stainton

8921, 1 Z. RETINIELLA Forbes
Forbes ascribed the authorship to Kearfott, but as the latter never published his manuscript description, Forbes himself becomes the author. The type is in the U. S. National Museum collection. I. Escambia Co.: May 21, 1961, SMH.

EUCATAGMA Busck

8929 E. AMYRISELLA Busck
J. N. Y. Ent. Soc. 8: 247. 1901.
IV. Palm Beach: types, reared from Amyris floridana, March, (Dyar), USNM.

YPONOMEUTA Latreille

8981 Y. MULTIPUNCTELLA Clemens

ATTEVA Walker

8987 A. FLORIDANA (Neumoegen)
Can. Ent. 23: 122. 1891.
Floridata is sometimes reported under the name gemnata (Grote). Florida: Aug., AMNH. II. Gainesville: May, UM. III. Upper Indian River: type, Neumoegen. IV. Lake Worth: larva on Simaruba glauca, Dyar (1897a, p. 48). Biscayne Bay: (Slosson), Grsb. 141. Miami: Dyar. VI. Homestead: April-June, Sept., Oct., CPK. Paradise Key: Jan.-April, FMJ; May, AEB.

8939 A. AUREA (Fitch)
Allanthus webworm. Pl. XXVI, Fig. 46, $. Rept. Ins. N. Y. 3:168. 1856.

LACTURA Walker

8940 L. PUPULA (Hübner)
Pl. VI, Fig. 42, $. Zutr. exot. Schmett. 3; Figs. 489, 490. 1824.
I. Quincy: one each, Sept., Oct. Pupula is a fairly common species from IV. Rye and Port Sewall to VIII. Key West, Jan.-June, Oct., Nov. Food: Bomelia celastrina [angustifolia], Grsb. 140.

URODUS Herrich-Schaeffer

8944 U. PARVULA (Henry Edwards)
Pl. XXVI, Fig. 47, $. Papillo 1:80. 1881.
Parvula is frequently taken but often reported as Cidosia majorca (Henry Edwards) because it was illustrated instead of that species, which it does closely resemble, by Holland (1903, Pl. 29, Fig. 66). It has been taken December-July. Although there are sufficient records to indicate that parvula is a relatively common species none of them suggest that it is abundant. However, figures compiled by Frost at the Archbold Biological Station and based on light trap catches from November 7, 1958 to April 1, 1959, indicate a definite abundance at that period for that locality. From November 7, to December 3, twenty or more specimens were taken on 16 nights. From January 28 to February 20, ten or more specimens were taken on 39 nights. These were the peak periods, with a single high

of 78 specimens. During the rest of the season, parvula was continuously present, though in smaller numbers, the average during March being five. The larva constructs an open-work net cocoon which is suspended by a short length of silk. It is recorded from various plants: bay tree, Dyar (1913c, p. 148); Persea, Dyar (1900e, p. 40), and DFI; P. borbonia, DFI; orange, UFES; oak, DFI, and with "?" by Bonniwell (1918, p. 59); Persea borbonia [Tomala pubescens]. DFI, Bomelia reclinata, det. Brass, CPK; and hibiscus, DFI.

Family SCYTHRIDAE

SCYTHRIS Hübner

8953 S. EBORACENSIS Zeller
Linn. Ent. 10:205. 1855.
I. Escambia Co.: April 24 and 26, 1963, det. Duckworth, SMH.

8967 S. TRIVINCENTELLA (Zeller)
V. Everglades: April 7, AMNH.

8975, 1 S. SP.

8975, 2 S. SP.
IV. Siesta Key: March 31, 1962, det. Hodges, CPK.

SUPERFAMILY CYCNODIOIDEA

Family HELIODELPHIDAE

ANTISPILA Hübner

8981 A. EUGENIELLA Busck
IV. Palm Beach: unique type, reared from Eugenia rhombea [procera], Feb. 25, (Dyar), USNM.

COPTODISCA Walsingham

8990 C. CONDALIAE Busck
IV. Palm Beach: types, reared from Krugiodendron ferreum [Condalia ferrea], Feb. 12-14, (Dyar), USNM.
THE LEPIDOPTERA OF FLORIDA

Family ELACHISTIDAE

ELACHISTA Treitschke

9044 E. CUCULATTA Braun
I. Escambia Co.: (Hills), USNM.

SUPERFAMILY TINEOIDEA

Family COLEOPHORIDAE

COLEOPHORA Hübner

In addition to the three unplaced species below, there are a number of others awaiting determination.

9085 C. CARYAEFOLIELLA Clemens Pecan cigar casebearer.
Caryaefoliella is very common on hickory and pecan trees with a number of records for March-May and in July, DPI. The records are mostly from the western counties, but include Orlando and St. Petersburg. The species will probably be found wherever its food plant grows.

I. Escambia Co.: May 21, 1962, det. Davis, SMH.

Florida: type, Walsingham.

9158, 1 C. SP.
IV. Miami: reared from flowering heads of Chenopodium ambrosoides, June, July, 1961, (Stegmaier), DPI, CPK.

9158, 2 C. SP.
III. Groveland: cases of "pistol" type on Citrus sp., Aug. 1961, (Henderson), CPK. Bereah: cases and adults, July, 1961, (Snell), DPI, CPK.

9158, 3 C. SP.
I. Escambia Co.: two Sept. 13, 1961, det. Davis as perhaps new, SMH, USNM.

Family GRACILLARIIDAE

Dr. Donald R. Davis has begun a revision of the Gracillariidae. He will describe a number of new species from Florida.

LITHOCOLLETIS Hübner

9180 L. RILEYELLA Chambers 
Cincinnati Quart. J. Sci. 2: 236. 1875.
I. Escambia Co.: March 30, 1962, SMH.

9216 L. LUCETIELLA Clemens 
II. Gainesville: numerous blotch mines in leaves of linden, May 15, adults emerging later, Dozier (1920, p. 379).

9227 L. CELTIFOLIELLA Chambers 
IV. Oneoc: three May 5-19, 1953, (Dillman), CPK. Food: Celtis.

9233 L. CARYAEOFOLIELLA Clemens 
II. Glen St. Mary: larva on pecan, Dec. 2-3, 1936, (Knight), DPI. III. Doctor Phillips: on hickory, DPI.

9239 L. [CINCINNATIELLA Chambers] 
Can. Ent. 3: 144, 149. 1871.
IV. Miami: reared from leafminer in oak, Dec. 8, 1960, (Nakahara), det. as probably new, USNM.

9243 L. CONGLOMERATELLA Zeller 

9246 L. QUERCIVORELLA Chambers 
Can. Ent. 11: 45. 1879.
IV. Oneoc: May 1954, CPK.

PORPHYROSELIA Braun

9268 P. DESMODELLA (Clemens) 
III. Brooksville: larvae mining leaves of Lespe-deza bicolor and L. thunbergii, early spring to late frost, (Root), det. Capps & Clarke, USNM. IV. Miami Beach: reared from leafminers in Desmodium tortuosum, Aug., (Stegmaier), DPI.
Hialeah: reared from D. tortuosum, Apr., (Stegmaier), DPI. Food: in Cuba Centrosema [Brad-burya].

CREMASTOBOMBICIA Braun

9274 C. VERBESINELLA (Busck) 
THE LEPIDOPTERA OF FLORIDA

IV. Palm Beach: type, reared from Verbesina virginica, (Dyar), USNM.

MARMARA Clemens

9277 M. GUILANINDELLA Busck
IV. Palm Beach: type, reared from stems of Caesalpinia crista [Guilandina bonducella], March 27, (Dyar), USNM.

9288 M. SMILACISELLA Chambers

LEUCANTHIZA Clemens

9290, 1 L. SP.
VI. Chapman Field, Dade Co.: reared from Jamaica dogwood, Aug. 1961, (Nakahara), det. Davis as new, USNM.

NEUROLIPA Ely

9291 N. RANDIELLA (Busck)
IV. Siesta Key: Feb. 25, 1957, det. Clarke, CPK. Palm Beach: types, reared from Randia aculeata, (Dyar), USNM. VI. Homestead: March 31, 1959, (Wolfenbarger), CPK.

CHILOCAMPYLA Busck

9295 C. DYARIELLA Busck
IV. Palm Beach: types, reared from Eugenia myrtoides [buxifolia] and E. rhombea [procera], Feb. 15-March 20, (Dyar), USNM.

ACROCERCOPS Wallengren

9297 A. ALBINOTELLA (Chambers)
Can. Ent. 4: 25 1872.

9298 A. QUINQUESTRIGELLA (Chambers)
Can. Ent. 7: 75. 1875.
IV. Hialeah: three reared from Sida rhombifolia, March 7, 1963, (Stegmaier), DPI, CPK.

9305 A. SIDEROXYLONIELLA (Busck)

IV. Palm Beach: type, reared from Sideroxylon pallidum, Feb. 27, (Dyar), USNM.

NEUROBATHRA Ely

9306 N. STRICIFINTELLEA (Clemens)

PHYLLOCNISTIS Zeller

9309 P. VITIFOLIELLA (Chambers)
II. Gainesville: mines abundant on wild grape leaves, July 10, adult, July 18, Dozier (1920, p. 379).

9312 P. MAGNOLIELLA Chambers
Psyche 3: 67. 1889.
II. Gainesville: serpentine ores abundant in leaves of Magnolia virginiana [glaucu] and M. grandiflora. Mines fresh from before July 15 to August 2, with imagoes issuing July 17-21 and again November 2-3, Dozier (1920, pp. 379-390). Dozier was of the opinion that mines observed in Persea borbonia were made by the same species. Here is another of the problems for someone to solve.

9314 P. INTERMEDIELLA Busck
IV. Palm Beach: type, reared from mine in Sideroxylon pallidum, early Feb., (Dyar), USNM.

9315 P. ERECHTISELLA Chambers
IV. Archbold Biological Station: reared from linear leaf miner in Erechites hieracifolia, Feb., April, (Prest), det. Hodges, PSU, CPK.

CALLISTO Stephens

9344 C. GEMINATELLA (Packard)
II. Gainesville: larvae making blotch mines in wild cherry, early Feb., adults issuing from March 3 on, Dozier (1920, p. 379).

GRACILLARIA Haworth

9352 G. SEBASTIANELLA Busck
IV. Palm Beach: types, reared from Sebastiana ligustrina [licida], (Dyar), USNM.
THE LEPIDOPTERA OF FLORIDA

9353 G. BURSERELLA Busck
IV. Palm Beach: type reared from Bursera simaruba [gummiifera], Feb. 21, (Dyar), USNM.

9354 G. PERSEAEE Busck

9362 G. BELFRAGEELLA Chambers
Can. Ent. 7: 92. 1875.
I. Escambia Co.: July 10, 1961, det. Davis, SMH.

9367 G. VIOLACEELLA Clemens

9368 G. AZALEELLA Brants
Azalea leaf miner.
Tids. Ent. 56: 72. 1913.

9371, I G. SP.
I. Escambia Co.: Jan. 15, 1963, det Davis as either glutinella Ely or close to it, SMH. Glutinella feeds on aspen.

9379 G. RHOIFOLIELLA Chambers
Can. Ent. 8: 31. 1878.

9380 G. SASAFRASELLA Chambers
Can. Ent. 8: 33. 1878.

9384 G. QUERCINICELLA Ely
Ins. Insc. Mens. 3: 60. 1915.
I. Escambia Co.: April 6, 1962, det. Davis, SMH.

Family OPOSTEGIDAE

OPOSTEGA Zeller
All of the Opostega were determined by Eyer by genitalic dissection.

9402 O. ALBOAURIELLA Clemens
I. Escambia Co.: two Sept. 27, 1961, SMH. IV. Sarasota: Feb. 23, 1954, CPK. Siesta Key: Feb. 10, 1954, Dec. 2, 1952, CPK. The Sarasota County specimens are smaller than those from Escambia County, and there is a very slight difference in the vinculum, but until more and better material is available to prove otherwise, Eyer believes they belong here.

9407, I O. SP.
VIII. Garden Key, Dry Tortugas: May 10, 1961, (Mead), DPI. This is a new species, but its condition is too poor to warrant description. This was taken on Cordia [Sebestena] sebestena, but that is not necessarily its food plant.

Family LYONETIDAE

LEUCOPtera Hübner

9408 L. ERYTHRINELLA Busck
IV. Palm Beach: types, reared from Erythrina herbacea, Feb. 10-30, (Dyar), USNM.

9409 L. GUETTARDIELLA Busck
IV. Palm Beach: type, reared from Guettarda elliptica, (Dyar), USNM.

PROLEUCOPTERA Busck

9414 P. SMILACIELLA Busck
J. N. Y. Ent. Soc. 8: 244. 1901.

EUPRODA Busck

9415, I E. ARGENTILINEELLA Busck
IV. Archbold Biological Station: March, (Frost), PSU. Siesta Key: occasional, Nov-April, June, det. Forbes, CPK. VI. Homestead: May, DPI, CPK.

METRIOCHROA Busck

9422 M. PSYCHOTRIELLA Busck
THE LEPIDOPTERA OF FLORIDA

IV. Palm Beach: types, reared from \textit{Psychotria undata}, (Dyar), USNM.

**BEDELLIA** Stainton

9424 B. MINOR Busck
IV. Palm Beach: types, reared from \textit{Ipomoea} sp., (Dyar), USNM.

**EREUNTIS** Meyrick

9424, 1 E. MINUSCULA Walsingham

**PHILONOME** Chambers

9425 P. CLEMENSELLA Chambers
Can. Ent. 6: 97. 1874.

**BUCCULATRIX** Zeller

Dr. Annette F. Braun recently has completed a revision of this genus. I am indebted to Dr. Braun for several determinations and for additional information. The numbers, other than the McDunnough numbers, refer to those appearing in her monograph.

9430 B. FUSICOLA Braun
I. Escambia Co.: April 1, 1963, det. Davis, SMH.

2 B. SOLIDAGINIELLA Braun
I. Escambia Co.: April 19, 1963, det. Davis, SMH.

9429 B. MAGNELLA Chambers
Can. Ent. 7: 54. 1875.
I. Escambia Co.: May 13, 1962, det. Davis, SMH.
III. Lakeland: March 1913, (Ainslie), USNM.

5 B. NEEDHAMI Braun
IV. Sarasota: paratype March 24, 1946, CU. Englewood: types, March 24-April 17, 1946, CU. Eight miles west of Moore Haven: paratypes, April 7-May 17, YU. All reared from stems of \textit{Helianthus agrestis}.

15 B. BICRISTATA Braun
III. St. Petersburg: type, May, USNM.

9447 B. STANTONIELLA Chambers

33 B. KIMBALLI Braun

9444 B. IVELLA Busck
IV. Siesta Key: March, April, det. Braun, CPK. Palm Beach: types, reared from \textit{Iva frutescens}, Feb. 23-March 7, 1960, (Dyar), USNM.

41 B. PLUCHEAE Braun

86 B. CERINA Braun
IV. Siesta Key: type, Jan. 5, 1951, ANSP. VIII. Key Vaca: paratype, Nov. 18, 1952, (Kimball), ANSP.

Family **TISCHERIIDAE**

**TISCHERIA** Zeller

9508 T. AMBROSIAELLA Chambers
Cincinnati Quart. J. Sci. 2: 112. 1875.
IV. Hialeah: reared from stems and roots of \textit{Ambrosia}, Aug. 14, 1962, (Stegmaier), DPI.

9509 T. AENEA Frey & Boll
Stett. Ent. Zeit. 34: 222. 1873.
9511, 1 T. SP. 
IV. Siesta Key: March 10, 1956, det. Hodges, CPK. 

COPTOTRICHE Walsingham 

9512 C. ZELLERIELLA (Clemens) 
I. Escambia Co.: April 24, 1961, det. Forbes, SMH. 

Family PSYCHIDAE 

Dr. Frank M. Jones, the authority on this family, supplied me with much of the information regarding the widespread occurrence of many of the species, together with many determinations. Dr. Davis has recently completed a revision of the family, which is not yet published. He reports that there are several changes in the status of species and generic names. When his revision appears, it will be necessary to refer to it in order to reconcile the changes with the present listing. 

OIKETICUS Guilding 

9514 O. ABBOTII Grote 
Pl. XXVI, Fig. 48, />. 
N. Amer. Ent. 1:52. 1880. 

Abbottii is generally distributed throughout the state. Jones reared a pale form from Key West, but found no anatomical differences. I have some that are apparently the same from Craig, Tavernier, and Windley Key. Davis has noted that the pale form seems limited to the Keys and perhaps the most southern part of the peninsula, as Cuban specimens are as dark as those from our more northern states. Because of the habit of the larva often crawling away from its food plant to pupate, the following host records must be viewed with some reservation, a reservation which applies to the entire family: cypress, Packard (1890a, p. 921); Kentia sp., crape myrtle, guava, Photinia serrulata, Carissa, Ilex crenata, Persea americana, all DPI; Japanese plum, citrus, Slosson (1894b, p. 106). 

THRYCIDOPTERYX Stephens 

9519 T. EPHEMERAEOFORMIS (Haworth) 
Bagworm. Pl. XXVI, Fig. 50, />. 

Jones wrote: "The relationship between ephemeraeformis and the following species (pallido-venata) needs further study, with knowledge of the early stages, sacks, more abundant adult specimens, and of the distribution throughout the state." Based on our limited present information ephemeraeformis appears to be confined largely to the northern part of the state, pallido-venata to the southern. Perhaps the latter will turn out to be something analogous to the pale form of abbotii from the Keys. Food plant "records"; oaks, willows, and shrubs, Ashmead (1858, p. 97); satsuma, apple, pear, Bauhinia, Lantana, Thuja occidentalis var. globosa [Biota globosa]; T. orientalis var. pyramidalis [Biota pyramidae]; T. orientalis var. conspicua [Aurea conspicua]; citrus, and arborvitae, all DPI; cypress, Packard (1890a, p. 909); ornamentals, Coop. Econ. Ins. Rept. 4:671; red cedar, ibid.: 775. 

9519, 1 T. PALLIDOVENATA Grossbeck 

This was described as one-third larger than average ephemeraeformis, the wings a whiter hyaline and the veins a paler tint. Davis finds that this is not a valid species. The synonymy will have to wait for his revision. He has kindly supplied some of the records. II. Moultrie: June 23, 1954, CM. Crescent Beach: June 5, 1954, CM. III. Cassadaga: Sept. 19, 1955, SVF. Orlando: Sept. 20, 1939, USNM. St. Petersburg: April, USNM. IV. Archbold Biological Station: April 2, 1958, Sept., (Pease), YU; Nov. 28, 1959, (Frost), PSU. Fort Myers: type, April 23, AMNH. Biscayne Bay: (Slosson), AMNH, USNM. Miami: March 17, 1921, ANSP. V. Florida City: March 26, 1938, USNM. VIII. Key Largo: (Jones), USNM; Sept. 27, 1955, CPK. Lower Matecumbe: (Jones), USNM. 

PLAEOECIDUS Packard 

9523 P. CLOVERI Packard 
Pl. XXVI, Fig. 49, />. 

"A common species throughout the state," wrote Jones. Food "records"; pineapple orange, Hunt (1923); orange (Ins. Pest Surv. Bull. 3:12); Pome- melo, citrus, Feijoa and avocado, DPI. 

9524 P. NIGRITA (Barnes & McDunnough) 
Contr. 2:170. 1913. 

"Common and of wide distribution in Florida," according to Jones. The only food "record" is tung oil trees (Ins. Pest Surv. Bull. 9:418). 

EURUKU TARIUS Hampson 

9528 E. CELIBATA Jones 
THE LEPIDOPTERA OF FLORIDA

I. De Funiak Springs: types, adult emergences in May and June, from sacks collected here according to Jones. VI. Paradise Key: "larval sack on pine trunk, moth not reared but determination seems safe," FMJ. Jones wrote further, "cellabata is probably widespread, but it is easily overlooked, and may be localized and of rare occurrence."

9529 E. CACOCNEMOS Jones
Ent. News 33: 133. 1922.
" Widely distributed throughout the state," Jones. I have seen very few specimens. In the type locality, De Funiak Springs, he found the sacks in open and sunny places, upon sedges, grasses, rushes, and sometimes on low growing herbaceous plants. In Paradise Key, he found empty larval cases not rare on pine trunks, with a few moths emerging in April and later.

PROCHALIA Barnes & McDunnough
9534 P. PYGMAEA Barnes & McDunnough
Contrib. 2: 171. 1913.
Type locality: Everglades. Jones found it abundant at Florida City and frequent throughout the state, northward and westward along the Gulf to New Orleans. He found it commonly feeding on lichenized tree trunks, and even on fences. Two other feeding "records" are: IV. Fort Myers: royal palm, DPI. V. Everglades: sacks on trunks of orange trees, Dyar (1923, p. 4).

Family ACROLOPHIDAE

This family has been recently revised by Dr. Frank F. Hasbrouck, who has most graciously permitted me to make full use of his paper which at present writing has not appeared, but which will be published eventually. The two new species described by Hasbrouck are herein referred to by the number of their position in his revision. When his paper appears this will enable the reader to fill in the names. Certain names have been sunk as synonyms by Hasbrouck, but in order not to confuse the authorship, I have done no more than to indicate that such is the case without stating categorically with what they are synonymous. Again the reader must await his paper to untangle the relationships. Except for those specimens mentioned as "also reported" or as being determined by someone else, all data have been taken from Hasbrouck's revision. Needless to say, the determination of specimens not seen by him may need reviewing. The undocumented records were supplied by Hasbrouck.

ACROLOPHUS Poey
9558 A. TEXANEILLUS (Chambers)
Pl. XXVI, Fig. 52, δ.

9559 A. [HULSTELLUS Beutemmueller]
Ent. Amer. 3: 139. 1887.
Hulstellus has been sunk by Hasbrouck to the status of a synonym of another species. I. Escambia Co.: July 13, 1922, det. Davis, SMH. III. Indian River: Beutemmueller.

9561 A. SIMULATUS Walsingham

9572 A. EXAPHRISTUS Meyrick
Exot. Micro. 2 (9): 279. 1919.
Exaphristus was described from one male from Florida. The identity and position of this is considered uncertain by Hasbrouck.
95— A. SP. No. 7 of the Hasbrouck revision. Hasbrouck ms.
The description is based on two males taken at III. Lake Alfred: July 13, 1928, (Bottimer), USNM.

9556 A. PLUMIFRONTELLUS (Clemens)
Pl. XXVI, Fig. 51, δ.
Plumifrontellus is the commonest species of the genus, probably found all over the state, March-October. IV. Bradenton: June, Aug., Sept. VI. Homestead: March-May, July-Oct., small peak in May, a larger one Aug., Sept.

9557 A. [CERVINUS Walsingham]
The various records for this, together with *angustipennellus*, described from Florida by Beutenmueller (1887, p. 140), belong in the synonymy of another species according to Hassbrouck.

9566 A. [MORISONI (Walsingham)]
This too has been sunk in the synonymy. It was described from Florida, but the only record I have found is that in the original description.

9570 A. POPEANELLUS (Clemens)
II. Alachua Co.: Feb., May, DPI. Gainesville: June, det. Franclemont, UFES. III. Sanford: June. Winter Park: June. VIII. Key Largo: Aug. Key West: April, CPK.

9576 A. PROPINQUUS (Walsingham)

9576 A. [TENUIS (Walsingham)]
*Tenuis* is another synonym. III. Volusia Co.: Sept., det. Beebe, UM. IV. Fort Myers: April, Grab. 147, the specimen in the American Museum of Natural History collection.

9546 A. CRESSONII (Walsingham)

9579 A. PIGER (Dyar)
Can. Ent. 32: 327. 1900.
III. Winter Park: three males, June, July, Sept., (Klots), AMNH. IV. Archbold Biological Station: one female, July 15-31, 1948, (Klots), AMNH.

9582 A. ARCANELLUS (Clemens)

9585 A. [MORA (Grote)]
I. Escambia Co.: June 24, 1962, det. Davis as "near mora," SMH.

95— A. SP. No. 33 of Hassbrouck’s revision. Hassbrouck ms.


9685, 1 A. SP.
This is not like anything in the collection of the U. S. National Museum, nor does it fit in with any of Hassbrouck’s new species. I. Escambia Co.: May 18, 1962, SMH. Warrington: four May, 1961, VFG.

**Family TINEIDAE**

9585, 2 SP.
Both the species and the genus are probably new according to Clarke. III. Central Florida: March 1957, det. Franclemont, WMD. Port Orange: April, DPI. Winter Park: June, DPI. IV. Bradenton: April, CPK. Oneco: March, JGF; April, May, CPK. Siesta Key: May, CPK.

**AMYDRIA** Clemens

9586 A. BREVIPENNELLA Dietz
Trans. Amer. Ent. Soc. 31: 5. 1905.

9587, 1 A. SP.
I. Escambia Co.: May 13, 1962, det. Davis as "nr. effrenatella Clemens," SMH.

9589, 1 A. SP.
III. Cassadaga: Aug. 12, 1961, det. Davis as near *confusella* Dietz, SVF.
THE LEPIDOPTERA OF FLORIDA

9599 A. MARGORIELLA (Dietz)

SETOMORPHA Zeller

9606 S. RUTELLA Zeller

SCARDIA Treitschke

9615 S. ANATOMELLA Grote
Pl. XXVI, Fig. 53, 2.
I. Escambia Co.: one March, Aug. 10, 1961, SMH.

9623 S. APPROXIMATELLA Dietz
Pl. XXVI, Fig. 54, 2.
I. Escambia Co.: May 3, 1961. SMH.

9624 1 S. SP.
IV. Palm Beach: many specimens at light, Dyar (1901a, p. 455). Presumably these specimens are in the U. S. National Museum.

XYLESTHIA Clemens

9626 X. PRUNIRAMIELLA Clemens

KEARFOTTIA Fernald

9629 K. ALBIFASCIELLA Fernald

MONOPSIS Hübner

9635 M. CROCIAPITELLA Clemens
IV. Belle Glade: July 26, 1956, (Denmark), DPI.

CHOROPLECA Durrant

9640 C. VISALIELLA (Chambers)
Can. Ent. 5: 113. 1873.
Florida: Dietz (1905, p. 41). IV. Siesta Key: two Jan. 24-Feb. 28, 1951, CPK.

TINEA Linnaeus

9641 T. MISIELLA Zeller
Isis, p. 154. 1839.
Florida: Dietz (1905, p. 45).

9642 T. OBSCUROSTRIGELLA Chambers
Pl. XXVI, Fig. 55, 2.
Can. Ent. 6: 232. 1874.

9645 T. APICIMACULELLA Chambers
Cincinnati Quart. J. Sci. 2: 257. 1875.

9648 T. BIMACULELLA Chambers
Can. Ent. 5: 87. 1873.

9649 T. TRIMACULELLA Chambers
Can. Ent. 5: 88. 1873.
I. Escambia Co.: Sept. 3, 1961, SMH.
THE LEPIDOPTERA OF FLORIDA

9653 T. PELLIONELLA Linnaeus
Casemaking clothes moth.
Syst. Nat., p. 536. 1758.
Florida: April 10, 1948, (Tissot), UFES. II.

9661 T. VICINELLA Dietz
III. Gotha: type, Dietz.

9662 T. UNOMACULELLA Chambers
Cincinnati Quart. J. Sci. 2: 258. 1875.

9665 T. SEMINOLELLA Beutenmueller
Ent. Amer. 5: 9. 1889.
III. Central Florida: type, Beutenmueller. Orlando: one July 2-4, 1927, (McBride), CU.

9669 T. MANDARINELLA Dietz
IV. Siesta Key: March 31, 1952, CPK.

9672 T. RILEYI Dietz

9677 T. AUROFULVELLA Chambers
Can. Ent. 5: 90. 1873.
I. Escambia Co.: Feb. 1961, SMH.

9678 T. ACAPOFENNELLA Clemens
I. Escambia Co.: Feb., Nov., det. Davis, SMH.

9686, 1 T. SP.
I. Escambia Co.: July 2 and 14, 1961, det. Davis as near granella Linnaeus, SMH.

PHEREOCA Hinton and Bradley

9695, 1 P. WALSINGHAMI (Busck)
Plaster bagworm.
Ent. Amer. 13: 188. 1934.
The cases of this species are found on wooden goods and suspended from the plaster, rafters, wooden sidings, etc., in houses all over the lower half of the state, but it is seldom taken in the adult stage. Hetrick (1957) has written at length on the feeding habits and quotes several other papers on the subject. He also notes that "there is some doubt about the validity of the specific name..." Some of these records doubtless belong under Praecedes thecophora (Walsingham) below. There is still apparently work to be done on the cases.

[9695, 2 P. uterella (Walsingham)]
Many records for walsinghami and Praecedes thecophora appear under this name because until Busck made the separation, it was taken for granted that uterella was the insect found in Florida and the West Indies. The latter species is South American. The food habits were discussed by Kea (1933, p. 17), but as Kea had probably not seen Busck's paper describing walsinghami which also appeared in 1933, it is more than likely that he was really discussing the latter species. In connection with Kea's paper, Hetrick queried (1957, p. 145), whether uterella Walsingham did not equal walsinghami Busck.

PRAEACEDES Amsel

9695, 3 P. THECOPHORA (Walsingham)
II. Gainesville: Aug., Sept., (Hetrick), det. Clarke, USNM.

HYBROMA Clemens

9697 H. SERVULELLA Clemens
I. Escambia Co.: Sept. 27, 1961, SMH. There is another species of an as yet unplaced genus which has been taken in Florida at various localities and which bears a superficial resemblance to servulella.

MEA Busck

9700 M. BIPUNCTELLA (Dietz)
I. Escambia Co.: one May, three Sept., SMH. II. Hastings: type, Dietz. The type specimen which was in the Museum of Comparative Zoology collection is no longer on its pin and apparently has been destroyed. IV. Bradenton: March, July, CPK. Okeechobee: May, June, CPK. Archbold Biological Station: Nov. 14, 1959, (Frost), PSU. Siesta Key: March-May, det. Clarke, CPK, USNM.
THE LEPIDOPTERA OF FLORIDA

9701 M. FLORIDELLA (Dietz)
II. Hastings: type, Dietz, MCZ.

HOMOSETIA Clemens

9704 H. ARGENTINOTELLA (Chambers)
Can. Ent. 8: 104. 1876.
I.Escambia Co.: three Sept. 4-12, 1961, det. Davis, SMH.
II. Hastings: Dietz (1905, p. 81).
[9707 H. chrysoadspersella Dietz]
IV. Siesta Key: Jan. 13, 1951, det. Brower with "?", CFK.

ACHANODES Meyrick

9718, 1 A. ANTI PATHETICA Forbes
IV. Miami: July 1962, (Mrs. F. Ludwig), USNM.

9718, 2 A. SP.

III. Orlando: in connection with the description of the preceding species, Forbes mentioned a specimen in his possession which was close to, if not the same, as A. sympathethica Meyrick, and which was also similar to the preceding species.

SUPERFAMILY

NEPTICULOIDEA

Family NEPTICULIDAE

NEPTICULA von Heyden

9741 N. MYRICA FOLIELLA Busck
IV. Palm Beach: types, reared from serpentine mines in Myrica cerifera, (Dyar), USNM.

9746 N. CONDIALIA FOLIELLA Busck
IV. Siesta Key: three May 28-June 5, 1957; not compared with types but they key out here and fit the description. Palm Beach: types, reared from upper surface mines in Krugiodendron ferreum (Condalia ferrea), Feb. 22, (Dyar), USNM.

9747 N. JUGLANDIFOLIELLA Clemens
I. Escambia Co.: Sept. 7, 1961, SMH.

9752 N. NYSSA EFOLIELLA Chambers
Psyche 8: 66. 1890.

9755, 1 N. GOSSYPII Forbes & Leonard
Cotton leaf miner.
IV, V, VII, VIII. Angelfish Key, Cape Sable, and numerous keys, islands, river and creek banks in the general vicinity of Fort Myers, Rainwater (1934, p. 761).

9772 N. LATIFASCIELLA Chambers
I. Escambia Co.: Oct. 1, Nov. 11, 1961, det. Davis, SMH, USNM.

ECTOEDEMIA Busck

9782 E. OBRUTELLA (Zeller)
I. Escambia Co.: March 25, 1962, SMH.
II. Lake Geneva: March 1953, det. T. N. Freeman, HEW.
IV. Bradenton: March, CFK.

9785 I. E. SP.
I. Escambia Co.: two Nov. 12, 1961, det. Davis as probably new, SMH, USNM.

SUPERFAMILY

INCURVARIOIDEA

Family INCURVARIIDAE

ISOCORYPHA Dietz

9819 I. MEDIOSTRIATELLA (Clemens)
IV. Siesta Key: April 2, 1952, CFK.

Family PRODOXIDAE

PRODOXUS Riley

9823 P. QUINQUEPUNCTELLA (Chambers)
Can. Ent. 7: 7. 1875.

Remington has suggested that there may be a second species involved not only here, but in the case of Tegeticula alba below as well, because
the food plant is sometimes *Yucca aloifolia* instead of the customary *Y. smalliana* [filamentosa].
II. Gainesville: June, DPI. III. Weekiawachee Springs: May, CPK. Lakeland: May, AMNH. IV. Sebring: May, UM. Archbold Biological Station: March, April, CU. Siesta Key: March-June, CPK.

**TEGETICULA** Zeller

9834 T. ALBA Zeller

Food: *Yucca smalliana* [filamentosa].

Family ADELIDAE

ADELA Latreille

9847 A. BELLA Chambers
Can. Ent. 5: 73. 1873.

9847, 1 A. SP.

II. Jacksonville: two, (Slosson), AMNH.
APPENDIX

Quarantine Interceptions

The following records are in no manner to be considered as forming a part of the Florida fauna. They are listed as an illustration of what might make a foothold, and to show how other, exotic species unquestionably have reached here and established themselves. From those for which the flora and climatic conditions are unfavorable, there is no danger, but there are many potential pests which are ready to pounce greedily on our vegetation and against which we must be on our guard.

ITHOMIIDAE

THYRIDIA Hübner

T. CONFUSA (Butler)
Cistula Entomologica 1: 151. 1873.
Miami: April 8, 1956, ex Venezuela, DPI.

ARCHIIDAE

ARCHITIDAE

BERTOLDIA Schaus

B. SPECULARIS (Herrich-Schaeffer)
Sammel. aussereur. Schmett.; Fig. 59. 1853.
Miami: May 5, 1956, ex Costa Rica, DPI.

MELESE Walker

M. PERUVIANA Rothschild
Miami: May 17, 1956, ex Venezuela, DPI.

NOCTUIDAE

ACRONICTIDAE

SESAMIA Guenée

S. CRETTICA Lederer
Ybor City: April 1951, ex Italy, in broom straw.
Sebring: May 1951, larvae in Italian broom-straw.

AMPHIPYRINAE

GORTYNA Ochsenheimer

G. FLAVEGO Schiffermueller
Syst. Verz. Wien., p. 86. 1776.
Tampa: April 1951, ex Italy.

PERICOPIDAE

PERICOPSIS Hübner

P. nr. MONTEZUMA Schaus
Miami: Nov. 1953, ex Venezuela.

NOTODONTIDAE

HETEROCAMPA Doubleday

H. DISTINGUENDA Walker
Miami: May 1956, ex Costa Rica. See also page 154.

BOMBYCIDAE

BOMBYX Linnaeus

4000 B. MORI Linnaeus
Syst. Nat. 1: 499. 1758.

PYRALIDAE

PYRAUSTINAE

MARUCA Walker

5451, 1 M. TESTULALIS (Geyer)
Zutr. exot. Schmett. 4; Figs. 629, 630. 1832.
Miami: May 1946, June 1948, both ex Puerto Rico.

CRABINAE

CHILCO Zinckenh

C. SUPRESALIS (Walker)
GALLERIINAЕ
CORCYRA Ragonot
5996 C. CEPHALONICA (Stainton)
Miami: April 1949, ex Haiti; July 1946, ex Brazil.

PHYCTIIDAE
EPHESTIA Guenée
6402 E. FIGULILELLA Gregson
Raisin moth.
Entomologist 5: 385. 1871.
Jacksonville: March 1950.

OLETHREUTIDAE
LASPEYRESIINAE
LASPEYRESIA Hübner
L. SPLENDANA (Hübner)
Samml. eur. Schmett., Tortrices Pl. 6, Fig. 31. 1796-1799.
Jacksonville: April 1951, ex Italy.

CARPOCAPSA Treitschke
7301, 1 C. SALTITANS Westwood

STENOMIDAE
CERCNODA Meyrick
C. ANONELLA (Sepp)
Surinaam. Vlinders 3: 279; Pl. 137. 1830.

STENOMA Zeller
S. CATENIFER Walsingham

LYONETIDAE
LEUCOPTERA Hübner
L. COFFEELLA Guérin-Méneville
Mém. Ins. Cafiers Antill, 1-32, Pl. 1, 2. 1842.
Miami: two records ex Puerto Rico, three ex Cuba, and one ex Colombia.

TINEIDAE
NEMAPOGON Schrank
9686 N. GRANELLA (Linnaeus)
European grain moth.
Syst. Nat., p. 537. 1758.
Jacksonville: July 1948, in dried mushrooms. However, Forbes is of the opinion that the mushroom feeder is actually another species.

9687 N. CLOACELLA (Haworth)
Jacksonville: May 1930, ex Switzerland.

TINEOLA Herrich-Schaeffer
9695 T. BISELLIELLA (Hummel)
Webbing clothes moth.
Ess. Ent. 3: 13. 1829.
Miami: Feb. 1947, ex Argentina. It seems rather surprising that the common clothes moth, a pest of the northern states, should be recorded in Florida only as a customs interception from a distant country.
Figure 1.—Map of Florida showing Distributional Areas approximating those of West & Arnold, together with the counties.
The Gazetteer has been set up to coincide with the distributional areas as defined in the Introduction, p. 5. Roman numerals represent the distributional areas, and the Arabic numerals designate the counties. The Arabic numerals placed beside each locality refer to the county in which that particular place is located.

I. COUNTIES

| Escambia | Paradise Beach 1 |
| Santa Rosa | Paxton 4 |
| Okaloosa | Pensacola 1 |
| Walton | Portland 4 |
| Holmes | Quincy 11 |
| Washington | Rocky Bluff 9 |
| Bay | St. Marks 15 |
| Jackson | Santa Rosa 4 |
| Calhoun | Tallahassee 14 |
| Gulf | Torreya State Park 12 |
| Gadsden | Valparaiso 9 |
| Liberty | Wakulla 15 |
| Franklin | Wakulla Springs 15 |
| Leon | Warrington 1 |
| Wakulla | West Pensacola 1 |
| Jefferson | Wright 3 |

II. COUNTIES

| Madison | Alford 8 |
| Taylor | Apalachicola 13 |
| Hamilton | Avalon 2 |
| Suwannee | Bayou Chico 1 |
| Lafayette | Big Bayou 1 |
| Dixie | Blountstown 9 |
| Columbia | Boullay 5 |
| Gilchrist | Brent 1 |
| Baker | Callaway 7 |
| Union | Carrabelle 13 |
| Bradford | Century 1 |
| Alachua | Chipley 6 |
| Nassau | Chipola 9 |
| Duval | Clarksville 9 |
| Clay | Cottage Hill 1 |
| Putnam | Crestview 3 |
| St. Johns | Dead Lake 10 |

III. COUNTRIES

| Levy | Glen St. Mary 25 |
| Marion | Gold Head Branch |
| Flagler | State Park 31 |
| Volusia | Green Cove Springs 31 |
| Citrus | Greenville 17 |
| Hernando | Hastings 33 |
| Pasco | Hatcher Creek 28 |
| Sumter | High Springs 28 |
| Lake | Hogarth Landing 33 |
| Orange | Hogtown Creek 28 |
| Pinellas | Island Grove 28 |
| Hillsborough | Jacksonville 30 |
| Polk | Keystone Heights 31 |
| Osceola | Lake Alice 28 |
| Pasco | Lake Butler 28 |
| Citrus | Lake City 23 |
| Lake Charles | Lake Geneva 31 |
| Hillsborough | Live Oak 20 |
| Manatee | Macclenny 25 |
| Baker | Madison 17 |
| Manatee | Micanopy 28 |
| Highlands | Moultrie 33 |
| Sumter | Newberry 25 |
| Highlands | Newman’s Lake 28 |
| Jefferson | Okefenokee Swamp 23 |
| Baker | Old Town 22 |
| Wilderness | O’Leno State Park 28 |
| Liberty | Okefenokee Swamp 23 |
| Baker | Orange Heights 28 |
| Gadsden | Orange Park 31 |
| Wakulla | Ortega 30 |
| Wakulla | Osceola National |
| Wakulla | Forest 23, 25 |
| Dixie | Pablo Beach 30 |
| Calhoun | Palatka 32 |
| Clay | Perry 18 |
| Hamilton | Prairie Creek 28 |
| Suwannee | Raiford 26 |
| Clay | River Rise 26 |
| Suwannee | Rochelle 26 |
| Liberty | Rocky Point 28 |
| Liberty | St. Augustine 33 |
| Wakulla | St. Johns Bluff 30 |
| Wakulla | San Mateo 32 |
| Wakulla | South Jacksonville 30 |
| Wakulla | Starke 27 |
| Wakulla | Suwannee Springs 20 |
| Dixie | Trenton 24 |
| Dixie | Waldo 28 |
| Dixie | Waldo 28 |
| Tallahassee | Welaka 32 |
| Wakulla | Yulee 29 |

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| Anthony 35 | Apopka 44 |
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Everglades  
Marco  
Royal Palm Hammock  
(See p. 8)  
Royal Palm State Park  
(See p. 8)

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Florida City  
Goulds  
Homestead  
Long Pine Key  
Mahogany Hammock  
Medley  
Modelo  
Naranja  
Paradise Key  
Perrine  
Princeton  
Redlands  
Royal Palm Hammock  
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Royal Palm State Park  
(See p. 8)

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Coot Bay  
Crocodile Point  
Flamingo
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<tr>
<th>Location</th>
<th>Location</th>
<th>Location</th>
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<tbody>
<tr>
<td>Angelfish Key</td>
<td>Garden Key</td>
<td>Stock Island</td>
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<tr>
<td>Big Pine Key</td>
<td>Loggerhead Key</td>
<td>Sugarloaf Key</td>
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<tr>
<td>Bone Fish Key</td>
<td>Islamorada</td>
<td>Summerland Key</td>
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<tr>
<td>Craig</td>
<td>Key Largo</td>
<td>Tavernier</td>
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<tr>
<td>Cudjo Key</td>
<td>Key Vaca</td>
<td>Tom Harbor</td>
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<tr>
<td>Dry Tortugas</td>
<td>Key West</td>
<td>Upper Matecumbe (Key)</td>
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<td>Long Key</td>
<td>Windley Key</td>
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<tr>
<td></td>
<td>Long Pine Key</td>
<td>UNLOCATED</td>
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<td></td>
<td>Lower Matecumbe (Key)</td>
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<td>Pine Key</td>
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<td></td>
<td>Plantation Key</td>
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<td></td>
<td>Planters Point</td>
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<td></td>
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<td>Capron, or Fort Capron</td>
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<td></td>
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<td>(This is somewhere on the Indian River, Schwarz (1888, p. 170).)</td>
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<tr>
<td></td>
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<td>Cold Harbor</td>
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<td>Fort Schuyler</td>
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<td>Lake Beach</td>
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<td>Rockdale</td>
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<td></td>
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<td>Willmington</td>
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<tr>
<td></td>
<td></td>
<td>Williamsburg</td>
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</tbody>
</table>
ANOTATED BIBLIOGRAPHY*

Though citations to original descriptions are not properly a part of the bibliography, the names of most of the periodicals and separate works in which they occur are included in order to clarify certain abbreviations. However, much of the detail is omitted because the inclusion of all the minutiae so essential to a Library of Congress index card is quite unnecessary in a bibliography of this nature and would merely be an unwarranted cluttering of these pages.

Anon.

Abbey, Kathryn Trimmer

Abbot, John and (Skr) John E. Smith
1797. The natural history of the rarer lepidopterous insects of Georgia. 2 Vols. London. Describes and illustrates many species from Screven County, Georgia, most of which will be found in Florida. For well over a century, the authorship combination Abbot & Smith, or Smith & Abbot, has been familiar to lepidopterists. Now present day purists, on technicalities, would make the author J. E. Smith. If one must be pedantic about it, it is possible to go to the opposite extreme with the blessing of no less an authority than Lowndes, 1804, 1:2, who enters the title thus: “Abbot, John. The natural history of the rarer Lepidopterous Insects of Georgia. Edited by Sir J. E. Smith, M.D.” etc. Under Smith (ibid. 4:2421) the only mention is: “See Abbot, John.” Is not this a case where custom should prevail, and instead of divorcing the twain, let them march on down the years hand in hand as they have gone so long?

Abhandlungen der Senckenbergischen Naturforschenden Gesellschaft. Frankfurt. 1854+. Of interest for two important papers by Moescher, q. v., on the Lepidoptera of Jamaica and Puerto Rico.

Ainslee, George C.

American Naturalist. Salem, Philadelphia, and Boston, 1867+.

* For list of abbreviations see page 28.

Amsel, H. G.


Annals of the New York Academy of Science. 1877+.


Ashmead, William H.


Bailey, James S.

Bailey, L. H., et al.

Banks, L.

Barnes, C. O.
1935. Some remarks concerning the egg parasite, Trichogramma minutum Riley, in Florida. J. Econ. Ent. 28: 803-815.

Barrows, William, and Foster H. Benjamin


1921a. See Heinrich (1921) for original description of Oedemetonphorus venanuncus.


1913c. New North American Lepidoptera with notes on described species. ibid. 2(3): 93-165.

1913d. Some apparently new Lepidoptera from southern Florida. ibid. 2(4): 166-196. Describes thirty-nine new species or forms from Fort Myers, Everglades, and near-by localities.


Bartram, William 1791. Travels through North and South Carolina, Georgia, East and West Florida... 522 pp. James and Johnson, Philadelphia. Description, but not in the scientific sense, of three butterflies seen in Florida.


1933. The pericopid genus Composita. Psyche 40: 121-134.


Boletin de entomologia Venezolanas. Caracas. 1941+.

THE LEPIDOPTERA OF FLORIDA


Bratley, H. E.
1929. Notes on Lymira edwardsi Crote, the rubber tree caterpillar. Fla. Ent. 13: 44.


Braun, Annette F.


Britten, W. E.

Bromley, S. W.

Brower, Auburn E.

Brown, F. Martin

Brown, Peter


Bulletin of the New York State Museum. 1887-1.


Busch, August


1901. See Dyar (1901a p. 474-76) for original description of Glyphidocera floridanella.


1933. Microlepidoptera of Cuba. Describes or discusses a number of species, some of which are, and some of which may be found in Florida. Ent. Amer. 13: 151-217.


Butler, Arthur G.


Canadian Entomologist. Toronto, 1890-1.


Canadian Naturalist and Geologist. Montreal, 1864-1.

Capps, Hahn W.

1964. Description of a new Pachyzancla species reared on sweet potato in southern United States (Lepidoptera: Pyraustidae). Fla. Ent. 47(1): 13-15. This is the description of the species, Pachyzancla ipomoea, listed in the text as 5493,1 P. sp., thereby identifying it. Capps lists a few additional records.


Cary, Margaret M.
1940. Spring collecting in the far South and the big freeze of 1940. Ent. News. 51: 165-166.
THE LEPIDOPTERA OF FLORIDA


Castle, D. M.

Castle, D. M., and Phillip Laurent

Catesby, Mark

Chamberlain, W. J.

Chermock, F. H.

Chermock, R. L., and O. D. Chermock

Chittenden, W. J.


Clark, Austin H.

Clark, Benjamin Preston

Clarke, J. F. Gates

Clemens, Brackenridge

Cole, A. C., Jr.

Common, L. F. B.

Comstock, John Henry

Comstock, John, and Hurd Comstock

Comstock, William F.

Comstock, William F., and E. L. Huntington


Cooperative Insect Pest Survey, Division of Plant Industry, Gainesville, Florida. 1954+.


Cory, Mrs. Chas. B.

Cramer, Pieter
(1775-1824) Papillons exotiques des trois parties du monde. 1789. 4 Vols. Amsterdam. Vols. 3 and 4 were edited in part by Stoll. Supplement by Stoll, q. v.

Creightman, John T.

Crumb, S. E.

Curtis, John

Davidson, W. M.
THE LEPIDOPTERA OF FLORIDA

Davis, William T.

Denis, Michael, and Ignaz Schiffermueller
See Ignaz Schiffermueller and Michael Denis.

de Pass, James P.

Dietz, W. C.

Dod, F. H. Wolley

Doubleday, Edward J. O. Westwood and William C. Hewitson
1846— The genera of diurnal Lepidoptera. London. 1852. 2 Vols.

dos Passos, Cyril F.

Dzierz, Herbert L.
1917. Life history of the okra or mallow caterpillar (Cosmophilia erosa Hübner). J. Econ. Ent. 10: 530-542.

Druce, Herbert
1897. ibid., 2: 1-622.

Drury, Dru

Duckworth, W. Donald
Revision of Stenomidae, in preparation.

Duponchel, Philogène A.
1828— Histoire naturelle des Lépidoptères de France 1842. et supplement. (Continuation of Godart’s work, q. v.) Vols. 6-11, 1829-1838; Suppl., Vols. 1-4; 1832-1842.

Dyar, Harrison C.
1890a. Two species of Lepidoptera new to our lists. Ent. News 1: 105-106.


1913g. An additional note on Calypcoothe. Ins. Ins. Mens. 1: 120.


1884. Revised catalogue of the diurnal Lepidoptera.
THE LEPIDOPTERA OF FLORIDA

of America north of Mexico. Trans. Amer. Ent. Soc. 11: 245-337.
Ehrlich, Paul R., and Anne H. Ehrlich
Englehardt, George P.
Entomologica Americana. Brooklyn. 1885+.
Entomologist. London. 1839+.
Evans, Brigadier W. H.
Fabricius, J. C.
1775. Systema entomologiae. Flensburgi et Lipsiae.
1781. Species insectorium. II. Hamburgi et Kilonii.
1787. Mantissa insectorum. II. Hafniae.
1793- Entomologia systematica emendata et aucta. 1794. 4 Vols. Hafniae.
Felder, Cajetan, Rudolph Felder, and Alois F. Rogenhofer.
Family Visitor. Cleveland; Hudson, Ohio. 1850-53.
Felt, Ephraim P.
Ferguson, Douglas C.
Fernald, Charles H.
1901. New Pyralidae and Tortricidae from Palm Beach, Florida. J. N. Y. Ent. Soc. 9: 24-25. Describes eight new species, all reared from the larval stage.
Fernald, Henry T.
Field, William D.
Field & Laboratory. Dallas, Texas. 1932+.
Fitch, Asa
1854- Reports on the noxious and beneficial and other 1858. insects in the state of New York. Albany, N. Y. LV.
Florida Agricultural Experiment Station Bulletin, University of Florida, Gainesville, Florida. 1881+.
Florida Buggist. Gainesville, Florida. 1917-1919. Continued as:
Forbes, S. A.
1885. 14th report of State of Illinois Entomologist.
Forbes, William T. M.
1940. Scientific Survey of Puerto Rico and the Virgin Islands. Noctuidae. 12(2): 177-290. New York Academy of Sciences. New York. (Note: This paper was actually by Wm. Schaus. The error was discovered too late to make the corrections in the text references.)
1960. The Lepidoptera of New York and neighboring states. Part 4. Agaristidae through Nymphe-


1963. Winter insect light-trapping at the Archbold Biological Station, Florida. Fla. Ent. 46: 23-43. Records of a number of Lepidoptera, some indicating relative frequency or actual numbers taken. Three species are incorrectly determined: Tolype muta, Rhvacolia buolana, and Thiodia dorisitomana.

1964. Insects taken in light traps at the Archbold Biological Station, Highlands County, Florida. Fla. Ent. 47. Most of the records covered in this paper have been entered in the text of this work because Dr. Frost generously submitted all his material for my examination.


German & Zincken, Magazin der Entomologie. Halle. 1813-1821.

Geyer, Carl 1825. In Jacob Hübner, Zutriges Zur Sammlung exotischer. Schmetterlinge, bestehend in Bekundung einzelner Fliegmuster neue oder rarer nichteuropäischer gattungen. The first 200 plates were by Hübner, but in there on the work was continued by Geyer.


1875. Check list of the Noctuidae of America north of Mexico. Buffalo, N. Y.


THE LEPIDOPTERA OF FLORIDA


Grote, Angustus R., and Coleman T. Robinson

Guédon, Émile

Guenée, Achille


Guérin-Ménéville, Félix Eduard
1829- Iconographie du règne animal de C. Cuvier.

Haeger, James

Hainbach, Frank


Hamblin, J. C.

Hamilton, C. E.

Hampson, Sir George F.


Harper, R. M.


Harris, Lucien Jr.


Harris, Thaddeus William


1899. Entomological Correspondence, edited by S. H. Scudder, Boston.

Hashbrouck, Frank F.
1947. (A revision of the family Acrolophidae. Unpublished manuscript.)
Haskin, J. R.

Haworth, Adrian Hardy
1802—Lepidoptera britannica, sistens digestionem novam insectorum Lepidopterorum quae in Magna Britannia reperientur, etc. London.

Hebard, Morgan

Heinrich, Carl
1921. Some Lepidoptera likely to be confused with the pink boilworm. J. Agr. Res. 20: 827.

Henderson, W. F.

Herrich-Schaeffer, Gotthlieb August Wilhelm
1843—Systematische Bearbeitung der Schmetterlinge von Europa, als Text, Revision und Supplement zu J. Hübners Sammlung europäischer Schmetterlinge. Regensburg, Manz.
1850—Sammlung ... wenig bekannter aussereuropäischer Schmetterlinge. Regensburg, Manz.
1869—Schmetterlinge der Insel Cuba, nach naturlichen Exemplaren und Notizen des Herrn Dr. Gundlach in Habana zusammengestellt von Dr. Herrich-Schaeffer. This appeared in three parts in the Correspondenz-Blatt des zoologisch-mineralogischen Vereins in Regensburg, and was also printed separately, for which reason there may be discrepancies in the paging and dates cited. It is probably a much more important work as regards Florida Lepidoptera than has been realized by most collectors.

Herrick, Glenn W.

Hetrick, L. A.

Hewiston, William C.
1846– See Doubleday, Westwood, and Hewiston. 1850.

Hill, S. O.

 Hodges, Ronald W.

Holland, William J.
1903. The moth book. Doubleday, Page & Co. New York. 479 pp. The best general work for the beginner, with its forty-eight colored plates of excellent figures, which are not so good in the later editions.
1931. The butterfly book. Revised edition. Doubleday, Duran Co. New York. 424 pp. Many of the illustrations are better than those in Klots (1951) but the latter is otherwise more useful for both the beginner and advanced student.

Holland, William J., and William Schaus
1884. Description of a new species of *Sphacelodes*. 
THE LEPIDOPTERA OF FLORIDA

Poplio 4: 72-73. Describes S. floridensis from Florida.

1925. The Epipaschinae of the western hemisphere; a synonymic catalogue of the species hitherto described, with figures of many, which have not heretofore been depicted. Ann. Carnegie Mus. 16: 49-130. The only comprehensive work on the subfamily, but still far from satisfactory.

Hollinger, Albert Harold, and Harris Bradley Parks
1919. Euclemesis bassettella Clemens, the Kermea parasite. Ent. News 30: 91-100.


Howard, L. O.

Howell, Arthur H.
1932. Florida Bird Life. Florida Dept. of Game and Fresh Water Fish, in cooperation with the Bureau of Biological Survey, U. S. Dept. of Agr. 579 pp. Of interest for discussion of life zones, phytogeographic regions and notes on ornithologists who also collected Lepidoptera, although the latter connection is not apparent in the volume.

Hubbard, H. C.

Hübner, Jacob
1837. Insekten, bestehend in Bekündigung einzelner Fliegemuster neuer oder rarer nicht europäischer Gattungen. Augsburg. The first 200 plates were by Hübner; from there on the work was continued by Geyer.

Hulst, George D.
1896c. Three new varieties, and one new species of Lepidoptera. Ent. Amer. 2: 182.
1899. The Epipaschinae of North America. Ent. Amer. 5: 61-76.

Hunt, G. M.

Hyslop, J. A.
1934. Insect findings of recent years which are or may become of interest to nursery inspectors and plant quarantine officers. J. Econ. Ent. 27: 559-568.


Ingram, J. W., and H. A. Jaynes


Johannsen, Boas
1793. Centuria insectorum rariorum.

Jones, Frank Morton


Joutel, L. H.

Kaye, W. J.

Kea, J. W.

 Kearfott, W. D.


Kimball, Charles P.

1953. A proposed revision of the check list of Florida Lepidoptera. Fla. Ent. 36: 103-107. Some of the provisional names appearing in this have been dropped.

King, John R., and W. L. Thompson

Kirby, William
1837. Fauna boreali-Americana, or the zoology of the northern parts of British America, containing descriptions of the objects of natural history collected in the late northern expeditions under the command of Sir John Franklin. Part 4, the insects.

Klots, Alexander B.
1940. The silver-striped species of California. North American Crambus 1; 65-66; Figs. 4 and 11.


Koebele, Albert


Lambert, Robert et al.
(A revision of the Sparganothinae is in preparation.)

Langen, H. Harry Jr.

Latreille, Pierre André

Laurent, Phillip


Leconte, J. E.
See Boischauval, J. A., and J. E. Leconte.

Lederer, Julius

Lemmer, Fred

Lepidopterorum Catalogus.

Lepidopterists' News.
Miami, Fla. A small, mimeographed periodical of two numbers only, published by the Florida Society of Lepidopterists. Not to be confused with the later periodical below. 1932-1933.

Lepidopterists' News,

Lepidopterists' Society Memoirs No. 1, 1964

Lever, J. W.
1892. In "Extracts from Correspondence." Insect Life 4: 327-335.
THE LEPIDOPTERA OF FLORIDA

Lindsey, A. W., Ernest L. Bell, and Roswell C. Williams, Jr.

(Linnaeus) Linné, Carl von
1758- Systema naturae per regna tria naturae secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. ed. decima reformata. Holmiae I, 1758; II, 1759. Also subsequent editions, 1767, 1790.
1761. Fauna suecica sistens animalia Sueciae regni. Quadrupedia, Aves, etc. Editio altera auctior. Stockholmiae.
1764. Museum... Ludovicæ Ulriceæ Reginae... in quo animalia rariora, exotica, imprimis insecta et conchilia descriptur et determinatur, prodromi instar editum. Holmiae.


Lintner, James Albert
1872-1878. Entomological contributions, I-IV. In the reports of the New York State Cabinet of Natural History. Albany, N. Y.

Lownkes, William Thomas

Lucas, Pierre Hypolite

Lyman, H. H.

Marshall, C. E., and L. I. Musgrave

Martin, Lloyd M., and Fred S. Truxal

Mason, Arthur C.

Mather, Bryant, and Katherine Mather

Matteson, J. Harold

Maynard, C. J.

McDunnough, James H.


Mémoires de la Société linnénienne de Paris. 1788- .


Merian, Maria Sybilla
1719. M. S. Merian over de voortelling en wonderbaerlyke veranderingen der Suurinaamsche insecten, etc. Amsterdam. There are several other editions.

Merkel, E. P.

Merriam, Clinton Hart

Mesnick, Edward

Miller, William E.

Meschler, H. B.
1890. Die Lepidopterenfauna der Insel Portorico. Abhandl. Senck. Naturf. 16: 69-360. Both these papers are of great importance to the student of Florida Lepidoptera, especially of the Keys and the southern tip of the Peninsula.

Morgan, George Duncan
1933. Check list of the butterflies found in and around Tampa, Fla. Privately printed. Tampa, Fla. 20 pp.
---. Notes made on the butterflies of Tampa. Manuscript copy in the possession of the Division of Plant Industry, Gainesville.

Morrison, H. K.

Morse, Roger A.

Monroe, Eugene G.

Naturforscher. Halle. 1774-1799.

Neumogen, Berthold
1883. Description of interesting new species of heterocera from all parts of the continent. Papilio 8: 137-144. Describes Schinia carmoxina from Florida.
1884. New heterocera from various parts of our continent. Papilio 4: 94-96.

Neumogen, Berthold, and Harrison G. Dyar


New York State Entomologist.

Nielsen, Eri Tetens, and Astrid Tetens Nielsen


Oberthur, Charles
1902.
1904–. Etudes de lépidoptérologie comparée. 22

Obraztsov, Nicholas S.

O’Byrne, Harold

Occasional papers of the Boston Society of Natural History. 1869+.

Oechselehenner, Ferdinand

Olivier, Antoine Guillaume
1789–. Encyclopédie méthodique. Dictionnaire des insectes. Paris. 10 Vols. Vol. 9 was by Latreille and Godart. Vol. 10 was by Latreille and others.

Ottolengui, R.
1897. Types in the Neumogen collection, with a few notes thereon. III. Ent. News 8: 240-244.

Packard, Alpheus S.
1895. A monograph of the bombycine moths of
THE LEPIDOPTERA OF FLORIDA


Palm, Charles
Pan-Pacific Entomologist. San Francisco. 1924-+.

Papilio, the organ of the New York Entomological Club. New York. 1881-1884.

Pearsall, R. F.

Peck, W. D.
1823. Massachusetts Agricultural Report.

Pensacola Entomology Society Bulletin
1960- A short-lived publication of four one page numbers. The author has checked all records of Lepidoptera reported in the Bulletin. Several names were in error, errors which have not been noted in the current text, but the records have been placed under the proper names.

Peterson, Alva

Poe, F.
1857. See Lucas, In Sagra.


Poos, F. W., and L. A. Hetrick
1945. Tetralo a scottaels (L.) a new insect pest of Lepedoeza. J. Econ. Ent. 38: 312-315. Points out synonymy of scottaels and T. slessoni (Hulet), and includes a good photograph of various stages.

Powell, Tate


Proceedings of the Boston Society of Natural History. Boston. 1941-+


Proceedings of the Entomological Society of Washington. Washington. 1886-+


Proceedings of the United States National Museum. Washington. 1874-+

Proceedings of the Zoological Society of London. London. 1832-+

Front, Louis B.

Psyche, Organ of the Cambridge Entomological Society. Cambridge, Mass. 1874-+

Psyche. An English periodical. London. 1797-+


Ragonot, E. L.


Rainwater, C. F.
1934. Insects and a mite of potential economic importance found on wild cotton in Fla. J. Econ. Ent. 27: 756-761.

Rawson, George W.

Rawson, G. W., and W. M. Davidson
227. Although this paper was not published in time to give citation for some of the records, the records themselves were made available to the writer through the kindness of the authors, who supplied a copy of their manuscripts.

Reiff, William, and Samuel E. Cassino
1917. Two weeks at Rockledge, Florida. Lepidopterist 1: 75-78. A record of captures.


Richards, A. Glenn, Jr.


Riley, C. V.


Rindge, Frederick H.


Robertson-Miller, Ellen

1931. The butterfly and moth book. 285 pp. New York. A few of the species discussed were reared and photographed from Florida specimens.

Robinson, Coleman T.

Romanoff, N. M.
1881- Mémoires sur les Lépidoptères. 9 Vols. St. Petersburg. Only Vols. 7 and 8 have references to North America. See Ragonot (1893, 1901).

Romn, H. J.

Rothschild, the Hon. Walter, and Karl Jordan

Rupert, Laurence R.


Russell, H. M.

Safford, W. E.

Sagra, Ramon de la

Sanford, L. J.

Schaus, William


Schifferman, Ignaz, and Michael Denis
THE LEPIDOPTERA OF FLORIDA

Schnieder, F. C.

Schwarz, E. A.
1888. The insect fauna of semitropical Florida, with special regard to the Coleoptera. Ent. Amer. 4:165-175. Primarily a discussion of the West Indian elements in the fauna.


Scudder, Samuel H.


Seitz, Adalbert
(1913) The macrolepidoptera of the world. Fauna America, Vol. 6. Bombyces, 1453 pp. Stuttgart. The dates for this and the two following volumes are given for convenience as that of the appearance of the first parts only. Vol. 6 is complete with the exception of the Errata, which is available in the German edition. Vol. 7 is better than half completed, but in Vol. 8 only the first three or four subfamilies have been treated.


Sepp, Christian


Skinner, Henry


Skinner, Henry, and Roswell C. Williams


Slosen, Annie T.

1899. Cressonina hyperbola, n. var. Ent. Amer. 6:59.


Smith, John B.


1890e. Same title. ibid. 22:100-104.


1890g. Same title. ibid. 22:204-208.


1892. Contribution toward a monograph of the insects of the lepidopterous family Noctuidae of temperate North America.—Revision of Xylomiga and Morrisonia. ibid. 15:33-98.


Smith, John E. 1797. See Abbot, John and (Sir) John E. Smith.

Southern Cultivator. Atlanta, Georgia. Vols. 1-93, 1849-1895.

Stephens, James Francis 1827. Illustrations of British entomology, etc. Haus. 1835. tellata I-IV. London.

Stettiner entomologische Zeitung. Stettin. 1840+.

Stoll, Casper 1780. Papillons exotiques des trois parties du monde. 1782. Vols. 4. These two volumes were edited in part by Cramer and in part by Stoll. 1787. Papillons exotiques des trois parties du monde. 1796. (Suppl. to Cramer’s work. Usually referred to as Vol. 5 of the latter). Amsterdam.


Strecker, Herman 1872. Lepidoptera, Rhopaloceras and Heteroceres, 1873. indigenous and exotic, with colored illustrations. Reading, Pa.

1878. Butterflies and moths of North America, etc. A complete synonymical catalogue of macro-lepidoptera, with a full bibliography, etc. Reading, Pa. 283 pp.


Swainson, W. 1820- Zoological illustrations, or figures and descriptions of new, rare, or interesting animals ... arranged on the principles of Cuvier and other modern zoologists, London. 3 Vols.


THE LEPIDOPTERA OF FLORIDA

Transactions of the Kansas Academy of Science. Topeka, Kans. 1897+.  
Transactions of the St. Louis Academy of Science. St. Louis, Mo. 1858+.  
Treitschke, F. 1825. In Ferdinand Ochsenheimer, die Schmetterlinge von Europa. Vols. 5-10. Leipzig. (Continuation of Ochsenheimer’s work.)  
Walsingham, Thomas, Lord 1879. See Illustrations of typical specimens of Lepidoptera Heterocera in the collection of the British Museum.  
1880. Pterophoridae of California and Oregon.  
1919a. A day with the wild plum. Fla. Buggist 2: 113-116. Though the name of the author of this paper is not given, there is every indication that it was by Watson, who at that date was the editor. It is an interesting paper on the insects attracted to the blossoms.  
Westcott, Dr. 1894. In “Notes and News.” Ent. News. 5: 118.  
Wyle, W. D.

Young, F. N.
1955. Notes on collecting Lepidoptera in Southern Florida. Lep. News 9: 204-213. A number of useful comments on where to collect, but the reader should beware of overoptimism in expecting to catch the rarities mentioned.

Young, F. N., and C. C. Goff

Zeller, F. C.
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