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J. BARRY LOMBARDINI: EDITOR

SCHIZURA MATHERI MILLER AND FRANCLEMONT 2021 (LEPIDOPTERA: NOTODONTIDAE) IN LOUISIANA

BY

VERNON ANTOINE BROU JR. AND CHARLOTTE DOZAR BROU

Fig. 1. ***Schizura matheri*** **a.** male, **b.** female, captured at the **Abita Entomological Study Site* near Abita Springs, St.Tammany Parish, Louisiana.

Seventeen years ago, I addressed two undescribed species of Notodontidae that occur in the state of Louisiana (Brou, 2005). Both of these are described in the recent Moths of North America (MONA) fascicle 22.1B (Miller et al., 2021). Here, I address one of those, ***Schizura matheri*** Miller and Franclemont 2021 (Fig. 1). This pretty species

has been known for over a half century, even before the dawn of the MONA publications. I first captured this species about 45 years ago in ultraviolet light traps. All subsequent adults from Louisiana were also captured in ultraviolet light traps. This species was to be described by J.G. Franclemont (1912-2004), with a proposed species name *'tatiana'* back then, honoring the wife of Richard B. Dominick, one of the two photographers responsible for the numerous plates in the first MONA fascicle 21, 1970 (published date 1971). Many entomologists honored the word-of-mouth hands off policy regarding describing this species, consequently it is just being described now, more than a half century later.

The (TYPE locality) of ***S. matheri*** is: Mississippi, Tishomingo County, J.P. Coleman State Park. The Holotype is a male captured July 19, 2004, coll. R. Patterson, same locality. The Paratype series contains: 24 males and two females from Mississippi, one male from S. Carolina, one male and two females from Florida and one male from Texas for a grand total of 28 males and four females. Brou (2005) reported 34 adults captured in St. Tammany, Natchitoches and West Feliciana parishes in Louisiana (Fig. 2).

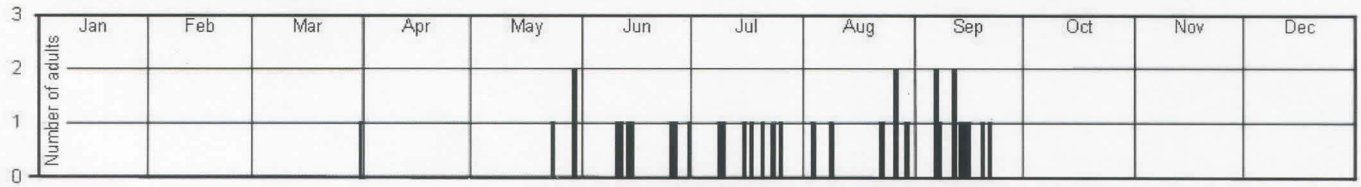

Fig. 2. Wild captured adult ***Schizura matheri*** in Louisiana. n = 34

Regarding the phenology of ***S. matheri*** based upon 34 specimens captured in Louisiana (Brou, 2005), this species flies from the end of March to late September in what apears to be four annual broods. Through Miller personally reviewed all of this very same pinned, labeled and spread Louisiana ***S. matheri*** material, nowhere are any Louisiana mentioned in the formal description. This despite more specimens existing in 2005 from Louisiana than make up the entire TYPE series from all other states combined. The three parish locations from the 2005 publication do in fact appear on Map 126' Distribution of materials examined' in the ***S. matheri*** species description. Furthermore, the 2005 publication is missing from the 'Literature' section of the 2021 MONA fascicle, even though Miller visited the *Abita Entomological Study Site* to view these materials on two occasions and was provided with this same 2005 publication on multiple occasions before and after while visiting on October 23-24, 2012. And subsequently (March 7, 2020) Miller requested another copy of the 2005 publication. These multiple oversights ignored the more informative phenology information than provided in the description, that ***S. matheri*** occurs from end of March to late September in S.E. Louisiana (Brou, 2005). I have reproduced the phenogram from the 2005 publication (Fig. 2). Adult ***S. matheri*** was observed to uniquely be on the wing only during the time period one to two hours before sunrise in Louisiana. The larval foodplants for ***S. matheri*** remain unknown.

The parish records in Louisiana are illustrated in Fig. 3

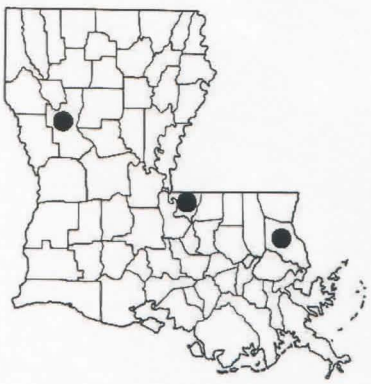

Fig. 3. Parish records for *Schizura matheri*

****Abita Springs Entomological Study Site:*** sec.24,T6S,R12E, 4.2 miles northeast of Abita Springs, Louisiana USA.

Both, the estates of Tatiana Dominick and Leon Bryant Mather Jr. are currently listed among the Patrons of the Wedge Entomological Research Foundation, publishers of the MONA series. Brou (2015) published a species account on the moth ***Dasychira matheri*** Ferguson. In that publication I briefly covered a few biographical and personal eccentricities from knowing Mather and being a lepidopterists friend for many decades. We thank Ricky Patterson for review and helpful suggestions.

Literature cited

Brou Jr., V.A., 2005. 'Two undescribed species of Notodontidae from Louisiana. *South. Lepid. News* 27:82.

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Miller, J.S., Wagner, D.L., Opler, P.A. and Lafontaine, J.D., 2021. *Noctuidae, Notodontidae (Conclusion): Heterocampinae, Nystaleinae, Dioptinae, Dicranurinae.* In Lafontaine, J.D., et al., The Moths of North America, fasc. 22.1B.

(Vernon Antoine Brou Jr. and Charlotte Dozar Brou, 74320 Jack Loyd Road, Abita Springs, Louisiana, 70420)

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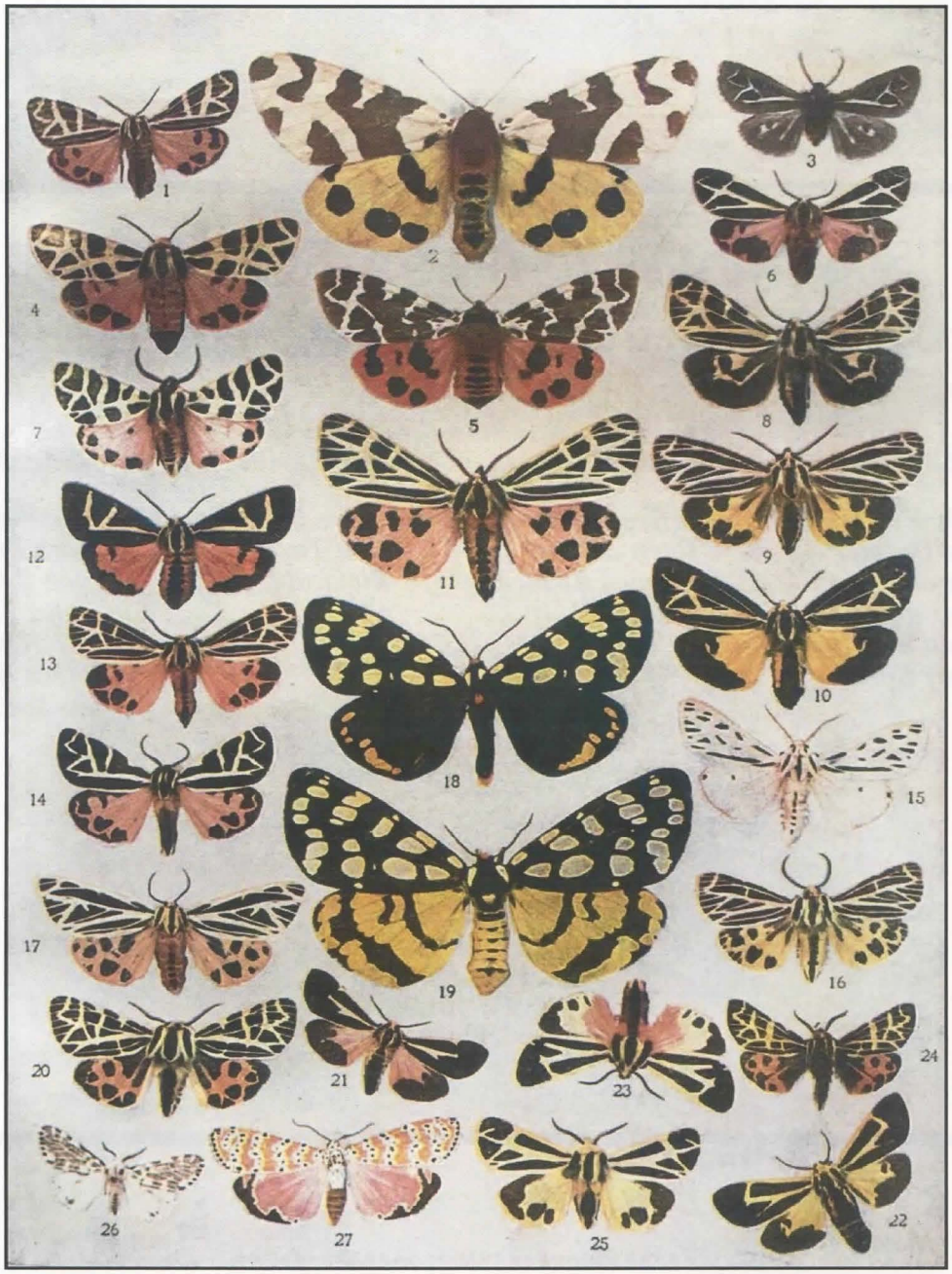
"Cover illustrations: First known drawing of a North American butterfly from the Modern Age: Eastern Tiger Swallowtail (*Papilio glaucus*) by John White, North Carolina, 1587 (original design by J.V. Calhoun, 1996)."

THE MOTH BOOK
A POPULAR GUIDE TO A KNOWLEDGE OF THE MOTHS OF NORTH AMERICA
(PLATE XV)

BY

WILLIAM J. HOLLAND, D.D., PH.D., SC.D., LL.D.



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HONORING EARTH DAY 2022: A PHOTO ESSAY

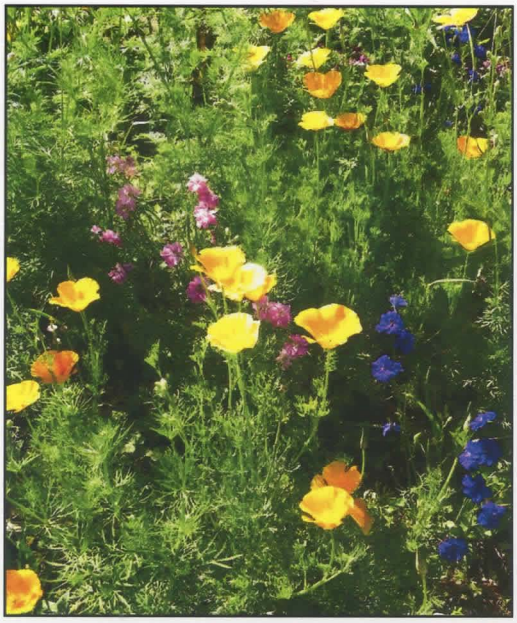
BY

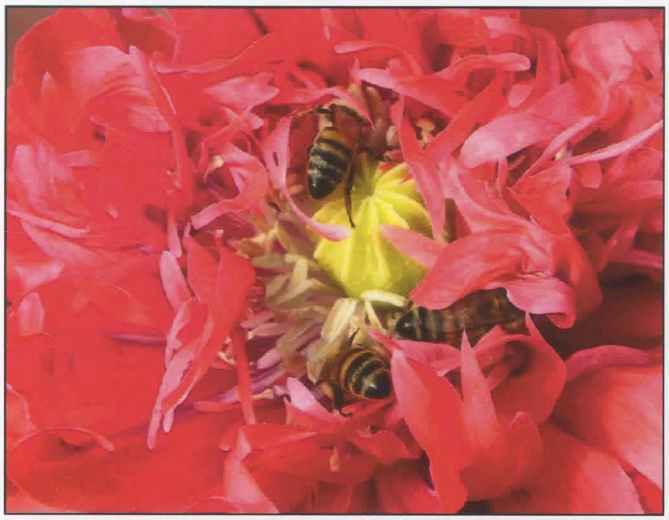
GARY NOEL ROSS

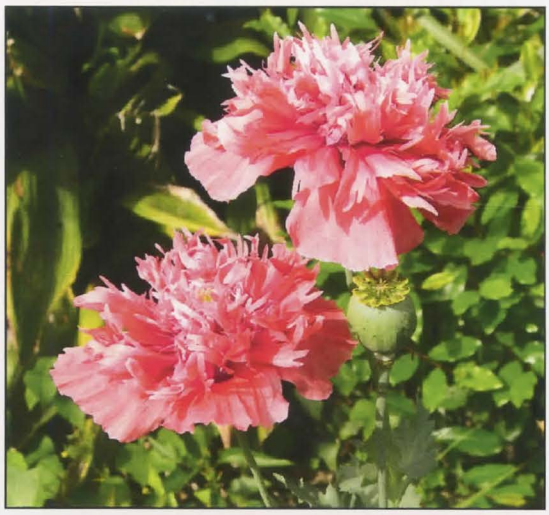
As Planet Earth seems to be spiraling rapidly toward a seemingly perilous future, I find myself feeling confounded and depressed. "How can I help?" "What can I personally do?" "How can only one individual make any difference?"

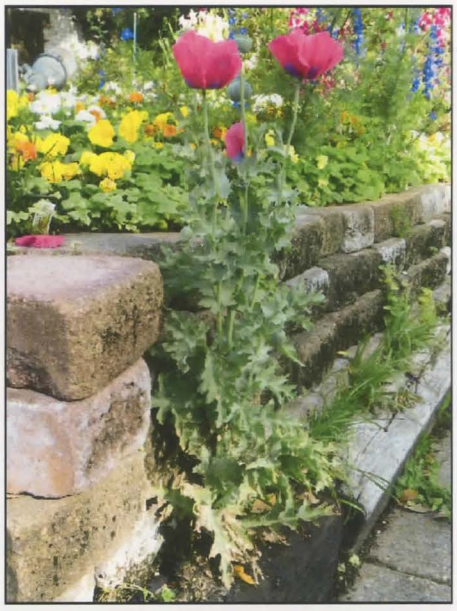
Such questions loop though my mind with increasing frequency. In response, I have turned my attention to urban wildlife gardening. My home turf now surrounds me with an aesthetic, oxygen-rich environment that nurtures a food web ranging from myriad soil microbes, to winged pollinators, to small ground-dwelling predator and prey invertebrates, and vertebrates. Turns out there is even another perk: personal stress reduction. I find that savoring my mini "Eden" each day ushers in a new-found calmness. Simply put, with urban wildlife garden, everyone and everything is a winner!

Images below depict many of the plants in flower on EARTH DAY April 22, 2022. Varieties include: petunias ("Bubblegum" and "Tidal Wave Silver"), opium/breadseed poppies—single/double varieties of lavender, purple, red, salmon, Shirley poppy (single/red), California poppy, larkspur, calendula, pansies (pastels), snapdragon (white), daylilies, spiderwort, blanket flower/Indian blanket, delphinium ("Blue Diamond"), and both dwarf and bush lantanas. In addition, the following butterflies visited: monarch (*Danaus plexippus*), black swallowtail (*Papilio polyxenes*), and red-spotted purple (*Limenitis arthemis astynax*).









(Gary Noel Ross, E-Mail: gnross40@yahoo.com)

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Following butterflies were photographed by Gary Noel Ross.

Dead spring migratory monarch washed ashore on beach due to strong headwinds from an unusual spring cold front. Johnson Bayou (Cameron Parish). April 1992.

Monarch nectaring on early summer ornamental sunflower (*Helianthus annuus*). Baton Rouge, LA. June 1998.

Two monarchs and two painted ladies (*Vanessa cardui*) nectaring on native gayfeather (*Liatris aspera*) on Mt. Magazine, AR. September 1992.

Male monarch nectaring on native gayfeather (*Liatris aspera*) on Mt. Magazine, AR. September 1992.

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BALTODONTA BROUI MILLER AND FRANCLEMONT 2021 (LEPIDOPTERA: NOTODONTIDAE) IN LOUISIANA

BY

VERNON ANTOINE BROU JR. AND CHARLOTTE DOZAR BROU

Fig. 1. ***Baltodonta broui*** Paratypes, **a.** male, **b**. female, both captured at the Type locality near Abita Springs, St. Tammany Parish, Louisiana.

Seventeen years ago, I addressed two undescribed species of Notodontidae that occur in the state of Louisiana (Brou, 2005). Both of these have now been described in the recent Moths of North America publication 22.1B (Miller et al, 2021). Here, I address one of those, ***Baltodonta broui*** Miller and Franclemont 2021 (Fig. 1). This species had a number of confusing morphological characteristics which prevented its placement into an already existing genus. Consequently, a new genus ***Baltodonta*** Miller and Franclemont 2021 was erected. I first captured this species about a half century ago in ultraviolet light traps in the town of Edgard, St. John the Baptist Parish, Louisiana and subsequent adults elsewhere were also captured in ultraviolet light traps.

The TYPE locality of ***B. broui*** is Louisiana, St. Tammany Parish, sec.24,T6, SR12E, 4.2 mi. NE of Abita Springs, the **Abita Entomological Study Site* (AESS). The Holotype is a female captured May 8-2001. The PARATYPE series contains: 179 males (March 26 to September 27) 1983-2015, 11 females (April 3 to September 28) 1984-2010 at the AESS. Additional Louisiana adults not included in the Type series exist from: St. John the Baptist Parish, Edgard 1 male August 4, 1977 and 4 females August 28, 1973 to May 29, 1978, West Feliciana Parish, Weyanoke 1 male May 22, 1982 and 1 female May 5,1978.

Miller made a number of confusing statements, e.g. concerning the phenology of ***B. broui*** "*based upon 300 specimens, indicate that* ***B. broui*** *occurs late March to September in what appears to be three or four broods (Brou 2005).*" These authors stated wording similar to that found in my 2005 publication and also correctly referenced that 2005 publication in the text of the species account. But that publication illustrated only 166 specimens 17 years ago. Despite referencing it, this 2005 publication is missing from the 'Literature' section of the 2021 MONA fascicle. Miller visited the AESS to view these materials on two occasions (Fig. 3), and on two subsequent occasions he was provided with updated tallies of all captured Louisiana specimens which included a grand total of only 202 adults (186 ♂♂and 16 ♀♀), still not 300. These oversights ignored the updated current data (Fig. 2) which indicates based upon 206 adults, ***B. broui*** has five annual broods from mid-March through the end of September in S.E. Louisiana at about 31-day intervals, first brood peaking at the end of April, not three to four broods reported by Brou 17 years ago.

Miller stated the larval foodplant for ***B. broui*** apparently is American snowbell ***Styrax americanus*** Lamb., a fairly abundant understory tree at the Type locality. The parish records are illustrated in Fig. 4.

I thank Jim Miller for honoring me with a patronym concerning this species. And we thank Ricky Patterson for helpful critique and recommendations.

**Abita Entomological Study Site*: sec.24,T6S,R12E, 4.2 miles northeast of Abita Springs, Louisiana USA.

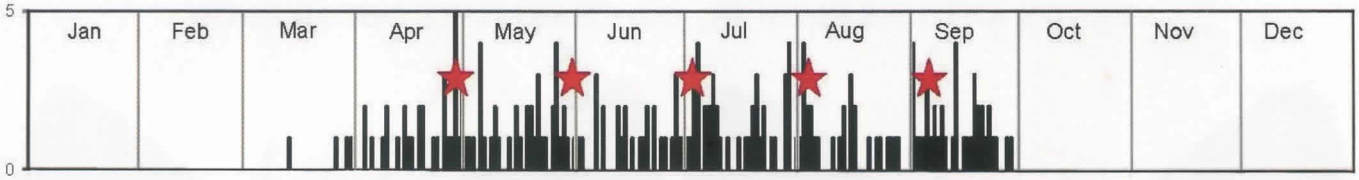

Fig. 2. Wild captured adult ***Baltodonta broui*** in Louisiana (1969-2021). n = 206

Fig 3. Jim Miller holding a pair of ***Baltodonta broui*** while visiting the AESS on October 23-24, 2012.

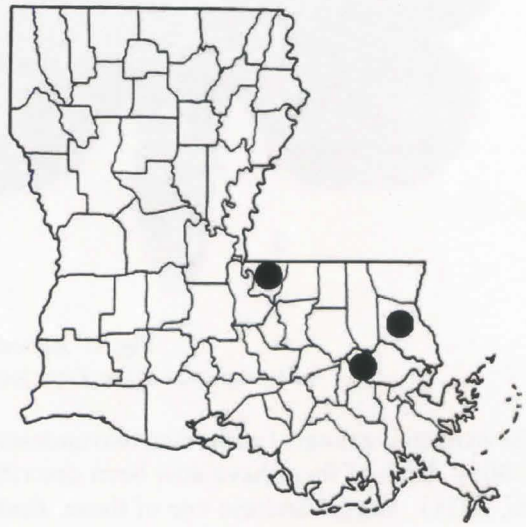

Fig. 4. Parish records for ***Baltodonta broui***

Literature cited

Brou Jr., V.A. 2005. Two undescribed species of Notodontidae from Louisiana. *South. Lepid. News* 27:82.

Miller, J.S., Wagner, D.L., Opler, P.A. and **Lafontaine, J.D.** 2021. *Noctuidae, Notodontidae (Conclusion): Heterocampinae, Nystaleinae, Dioptinae, Dicranurinae*. In Lafontaine, J.D., et al., The Moths of North America, fasc. 22.1B.

(Vernon Antoine Brou Jr. and Charlotte Dozar Brou, 74320 Jack Loyd Road, Abita Springs, Louisiana, 70420)

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ISA TEXTULA (HERRICH - SCHÄFFER 1854) LEPIDOTERA, LIMACODIDAE IN LOUISIANA

BY

VERNON ANTOINE BROU JR. AND CHARLOTTE DOZAR BROU

Fig. 1. ***Isa textula***: a-b males, c-d females (all ex St. Tammany Parish, Louisiana).

The small fawn-colored moth ***Isa textula*** (Fig. 1) was originally described as ***Limacodes textula*** in 1854 by Herrich-Schäffer. There is no text description; the species name appeared in a shortlist of six new North American species in the genus ***Limacodes***. Along with these names are corresponding colored drawings of the various species on a plate, ***I. textula*** being number 184 (Fig. 4).

Covell (1984) listed the range of ***I. textula*** to include Massachusetts and southern Ontario to Florida, west to Missouri and Mississippi in May - August. These date ranges are not inclusive of more southerly records. Heppner (1995) addressed the 25 species of urticating caterpillars in Florida including ***I. textula***. Heppner (2003) stated the range of ***I. textula*** to include Ontario to Florida and Illinois to Texas in the months of February to December. Profant et al. (2010) stated ***I. textula*** is common state wide in Ohio, and provided an untitled phenogram the reader assumes to represent the flight period of ***I. textula*** adults, to include the fourth week of May to the second week of August, representing one annual brood peaking early July.

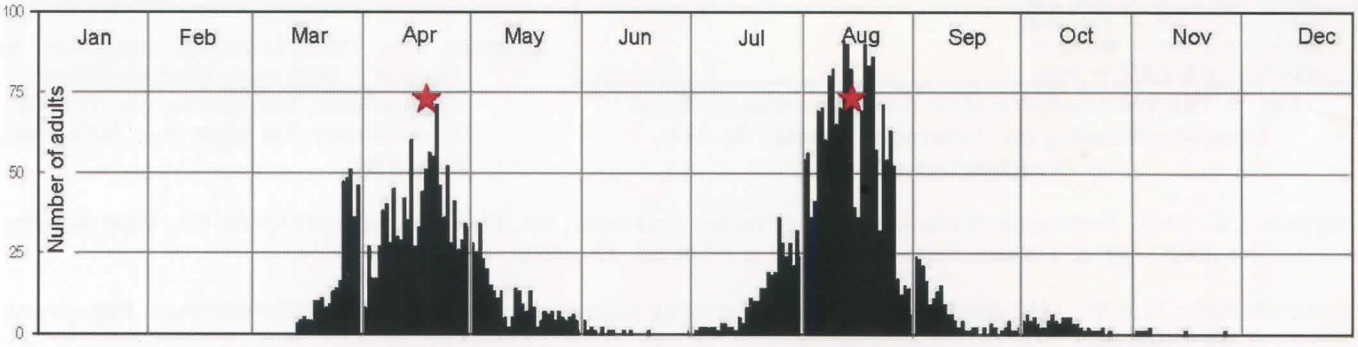

Fig. 2. Adult wild-captured ***Isa textula*** at the **Abita Entomological Study Site*, St. Tammany Parish. n = 4,181

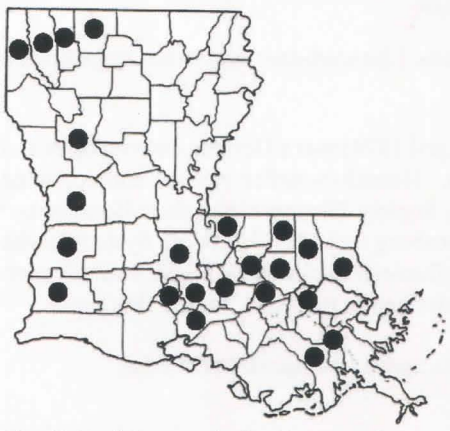

Fig. 3. Parish records for ***Isa textula***.

Murphy et al. (2011) listed 49 adults of ***I. textula*** from sites in the metropolitan Washington DC area and the eastern shore of Maryland during 7 field seasons from 2004–2010 and several museum collections from 1883 through 2009. The specific 49 adult dates of capture for ***I. textula*** ranged from June 1-1930 to August 30, 1976. The use of this data for purposes of determining phenology is flawed as nowhere are the capture locations of the museum specimens documented. Regardless, using this date span would indicate that ***I. textula*** is univoltine. Also, many of the graphs appearing in that publication are improperly prepared, depicted, and confusing to understand.

In Louisiana ***I. textula*** is a very abundant species occurring in two well populated annual broods peaking around 117 days apart, the first peaking the near mid-April and the second peaking mid-August (Fig. 2). We

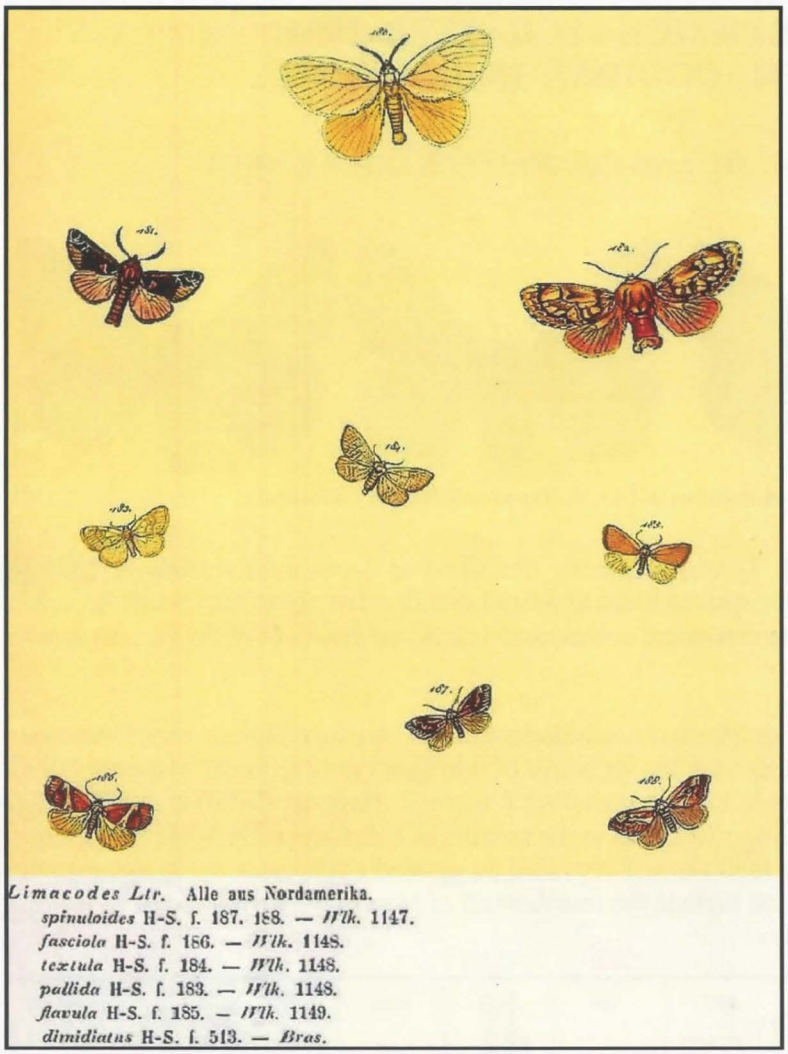

Fig. 4. Original description of six North American species of Limacodes including ***Isa (Limacodes) textula*** - fig. 184 by Herrich-Schaffer, 1854.

captured tens of thousands of adults of ***I. textula*** in Louisiana over the past 53 years in automatic-capture high-wattage ultraviolet light traps beginning in 1969 and continuing into 2022. Our light traps were operated continuously for 53 years, 10-12 hours nightly, every day of every year and the adult capture dates were logged daily.

In this study only the confirmed Louisiana parish records for ***I. textula*** are illustrated in Fig. 3.

The documented larval foodplants of ***I. textula*** in scientific literature includes a large variety of common and abundant shrubs and trees. We thank Marc Epstein, John Heppner and Eric Metzler for helpful assistance and critique.

***Abita Entomological Study Site:** sec.24,T6S,R12E, 4.2 miles northeast of Abita Springs, Louisiana USA.

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Wikipedia: 'Dr.Gottlieb August Wilhelm Herrich-Schäffer (17 December 1799 – 14 April 1874) was a German entomologist and physician, born, and died, in Regensburg (a city in eastern Free State of Bavaria). Herrich-Schäffer studied and collected especially butterflies and moths. He was chairman of the Regensburg Botanical Society (Regensburgischen Botanischen Gesellschaft) from 1861 to 1871, and was awarded an honorary citizenship of Regensburg in 1871. He wrote Systematische Bearbeitung der Schmetterlinge von Europabetween 1843 and 1856, one of the most influential works on the higher classification of Lepidoptera of the 19th century. Many of the lepidoptera recognized today were defined in this work for the first time'.

(Vernon Antoine Brou Jr. and Charlotte Dozar Brou, 74320 Jack Loyd Road, Abita Springs, Louisiana 70420 USA;
E-mail: vabrou@bellsouth.net)

HETEROCAMPA PULVEREA GROTE AND ROBINSON, 1867 (LEPIDOPTERA: NOTODONTIDAE) IN LOUISIANA

BY

VERNON ANTOINE BROU JR. AND CHARLOTTE DOZAR BROU

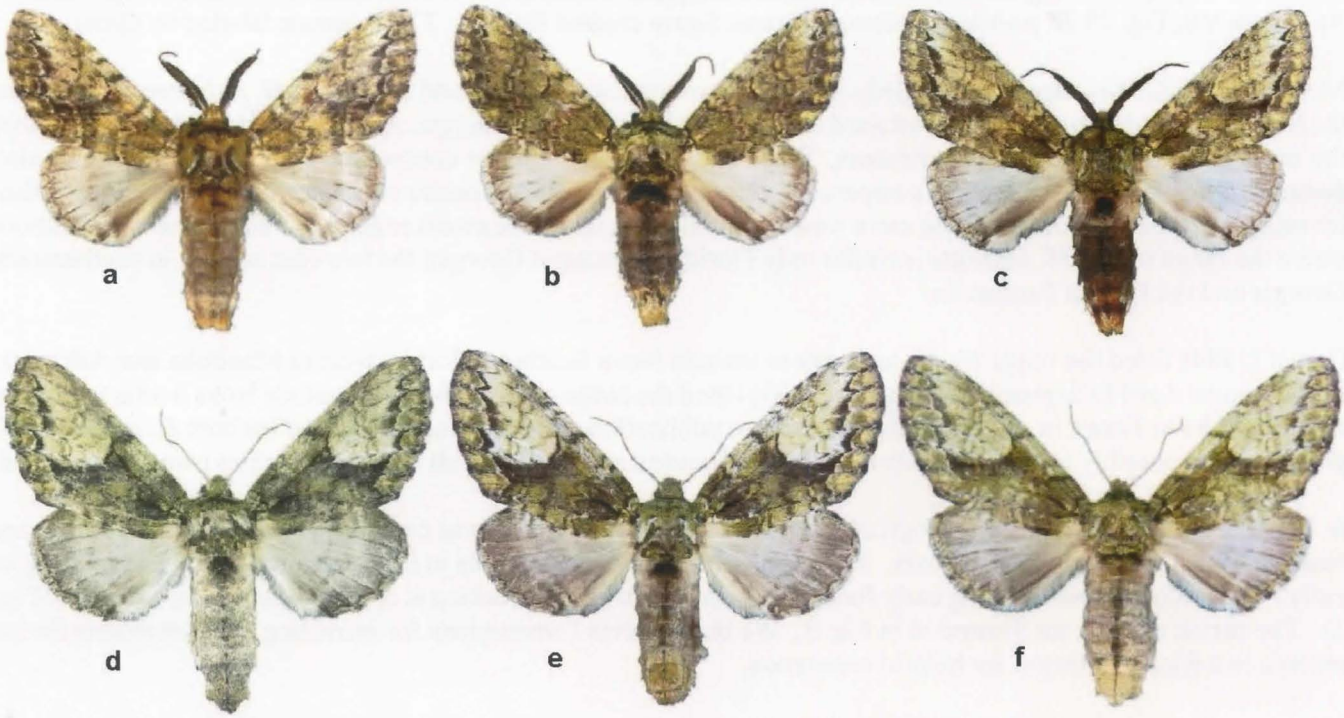

Fig. 1. Louisiana phenotypes of ***Heterocampa pulverea***: (a-c) males, (d-f) females.

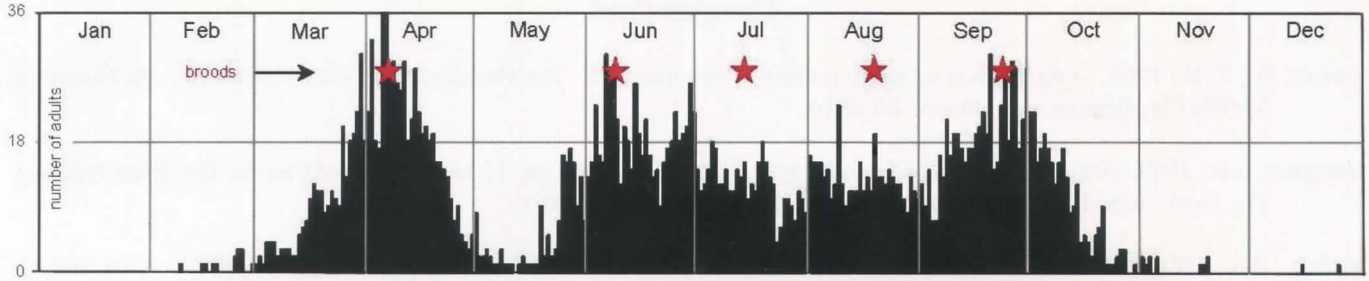

Fig. 2. ***H. pulverea*** captured at sec.24T6SR12E, 4.2 mi.NE Abita Springs, Louisiana. n = 3,162

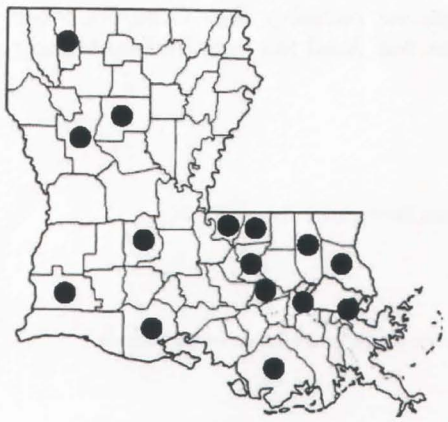

Fig. 3. Parish records for ***H. pulverea***.

The large dark mottled green in color, notodontid moth, ***Heterocampa pulverea*** Grote and Robinson, 1867 (Fig. 1) is a common species across Louisiana. Miller et al. (2021) removed ***H. pulverea*** from synonomy under ***H. umbrata*** Walker 1855, reinstating its species status. These two species were long confused and synonymized in past and recent scientific literature. It is inconsequential to list any published records from the past century because even 127 years ago (Packard,1895) ***H. umbrata*** Walker was reported to occur from Rhode Island, New York, Illinois, Pennsylvania, Florida and Georgia, and in this same publication, ***H. pulverea*** was synonymized under ***H. umbrata***.

Very high quality colored images are illustrated in Packard (1895) on Plate V, Figs. 10, 13 and 14, two males and one female labeled ***H. pulverea*** which appear very small in size compared to the other species pictured on that plate. Ironically, these same three specimens on plate V are identified

and labeled in the text treatment under the heading ***H. umbrata***, not as ***H. pulverea*** but as ***H. umbrata***. This 127 year old apparent unexplained publication error seems to have escaped exposure by past workers including Miller et al. (2022), and commingles these two names, further confusing the true and historical identities of these two species.

Also, without discussing or explaining its relevance, and adding still more confusion, in (Packard,1895) is the image attestation on plate VII, Fig. 25 ***H. pulverea*** was created from Walker's TYPE of ***H. umbrata*** in the British Museum. And plate VII, Fig. 29 ***H. pulverea*** attestation states figure created from the TYPE female labeled by Grote.

Miller et al. (2022) assessed this higgledy-piggledy taxonomical quandary and stated that ***H. pulverea*** occurs from the Maritime Provinces of Canada westward to Manitoba, southward to Georgia, Alabama and Mississippi. And that the more western material from Louisiana, Texas and Oklahoma are not conspecific with ***H. umbrata***, but also demonstrate differences in genitalia compared to ***H. pulverea***, so "a third species may be involved". Pending further investigation these authors left these more western populations under the moniker ***H. pulverea***. These same authors stated the range of true ***H. umbrata*** includes only Florida and coastal Georgia; the two species abut in southeastern Georgia and the Florida Panhandle.

Covell (1984) listed the range for ***H. umbrata*** to include Nova Scotia to Florida, west to Manitoba and Arkansas, in the months April to September. Heppner (2003) listed the range of ***H. umbrata*** to include Nova Scotia to Florida and Manitoba to Texas, in all 12 months. These two publications no doubt include ranges for both ***H. umbrata, H. pulverea,*** and possibly a third currently unrecognized/undescribed species, all under one species name ***H. umbrata***.

In Louisiana at the **Abita Entomological Study Site*, adult ***H. pulverea*** was captured in all moths except January based upon 1.3 million light trap hours. This species has five annual broods in Louisiana, the first brood peaking in early April, second brood peaking early June, with subsequent broods peaking at approximate 36-day intervals (Fig. 2). The parish records are illustrated in Fig. 3. We thank Kevin Cunningham for providing the Terrebonne Parish records and Ricky Patterson for helpful assistance.

**Abita Entomological Study Site:* sec.24,T6S,R12E, 4.2 miles northeast of Abita Springs, Louisiana USA.

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Heppner, J.B., 2003. *Arthropods of Florida and neighboring land areas*, vol. 17:Lepidoptera of Florida, Div. Plant Industry, Fla. Dept. Agr. & Consum. Serv., Gainesville. x + 670 pp., 55 plates.

Miller, J.S., Wagner, D.L., Opler, P.A. and Lafontaine, J.D., 2021. *Noctuidae, Notodontidae (Conclusion): Heterocampinae,Nystaleinae, Dioptinae, Dicranurinae*. In Lafontaine, J.D., et al., The Moths of North America, fasc. 22.1B.

Packard, A.S., 1895. *Monograph of the Bombycine Moths of America North of Mexico, including their Transformations and Origin of the Larval Markings and armature*. Pt.1. Family 1. Notodontidae. Nat. Acad. Sci. vol. VII. First Memoir on the Bombycine Moths

(Vernon Antoine Brou Jr. and Charlotte Dozar Brou; 74320 Jack Loyd Road, Abita Springs, Louisiana 70420;
E-mail: vabrou@bellsouth.net)

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BABY LEPS (PART 2)
A PHOTO ESSAY
BY
BRYAN E. REYNOLDS

Here's the next installment of photo essays about lep behavior. The last four issues of the SLS News had essays about courting leps, mating leps, ovipositing leps, and baby leps. This issue showcases a continuation of baby leps. Where possible, I always try to get the larval plants identified. Also, while I try to photograph an egg that has just been freshly laid, sometimes I opt to chase the female doing the ovipositing for more photos of *that* behavior. Because of this, I'm not always able to photograph the exact egg I witnessed being deposited. For all of the other immature life stages, I photograph those as I come upon them, sometimes while specifically looking for them, or sometimes they're just random encounters. I hope you enjoy the series.

Harvesters, *Feniseca tarquinius*, larvae feeding on Woolly Maple Aphids, *Neoprociphilus aceris*, on Bristly Greenbrier, *Smilax tamnoides*, John H. Saxon Park, Norman, Cleveland County, Oklahoma, 20 September 2017

Harvester, *Feniseca tarquinius*, larva among Woolly Maple Aphid, *Neoprociphilus aceris*, colony on Bristly Greenbrier, *Smilax tamnoides*, Lexington Wildlife Management Area, Cleveland County, Oklahoma, 16 June 2019

Viceroy, *Limenitis archippus*, larva on Cottonwood, *Populus deltoides*, Lexington Wildlife Management Area, Cleveland County, Oklahoma, 6 September 2021

Viceroy, *Limenitis archippus*, pupating at night on Black Willow, *Salix nigra*, Lexington Wildlife Management Area, Cleveland County, Oklahoma, 16 September 2017

➜

Painted Lady, *Vanessa cardui*, Caterpillar on Burdock, *Arctium* sp., Lexington Wildlife Management Area, Cleveland County, Oklahoma, 17 September 2015

Painted Lady, *Vanessa cardui*, larva on Thistle, *Cirsium* sp., Pontotoc Ridge Preserve, Pontotoc County, Oklahoma, 20 June 2015

***Pieris rapae*, larva feeding on Radish, *Raphanus* sp., leaf, Minot Air Force Base, Ward County, North Dakota, 14 August 2001**

Hayhurst's Scallopwing, *Staphylus hayhurstii*, egg on Lambsquarters, *Chenopodium album*, central Oklahoma, Cleveland County, Oklahoma, 28 April 2006

Henry's Elfin, *Callophrys henrici*, larva on Eastern Redbud, *Cercis canadensis*, central Oklahoma, Cleveland County, Oklahoma, 19 April 2006

Gray Hairstreak, *Strymon melinus*, larva tended by ant on Frostweed, *Verbesina virginica*, Oka'Yanahli Preserve, Johnston County, Oklahoma, 22 September 2012

Silver-spotted Skipper, *Epargyreus clarus*, larva, Lexington Wildlife Management Area, Cleveland County, Oklahoma, 6 September 2021

A Chrysalis of a butterfly in the genus *Limenitis* is being harassed by acrobat ants, *Crematogaster* sp., Red Slough Wildlife Management Area, McCurtain County, Oklahoma, 9 September 2019

Common Buckeye, *Junonia coenia*, larva, Pontotoc Ridge Preserve, Pontotoc County, Oklahoma, 19 May 2012

Hoary Edge, *Achalarus lyciades*, egg, central Oklahoma, Cleveland County, Oklahoma, 7 May 2014

Cloudless Sulphur, *Phoebis sennae*, larva on Partridge Pea, *Chamaecrista fasciculata*, Cherokee Wildlife Management Area, Cherokee County, Oklahoma, 1 July 2019

Red Admiral, *Vanessa atalanta*, caterpillar on Smallspike False Nettle, *Boehmeria cylindrica*, Lexington Wildlife Management Area, Cleveland County, Oklahoma, 5 August 2010

Slosser's Buckmoth, *Hemileuca slosseri*, hatched egg mass on Havard Shin-oak, *Quercus havardii*, Packsaddle Wildlife Management Area, Ellis County, Oklahoma, 30 May 2021

Slosser's Buckmoth, *Hemileuca slosseri*, hatched egg mass on Havard Shin-oak, *Quercus havardii*, Packsaddle Wildlife Management Area, Ellis County, Oklahoma, 30 May 2021

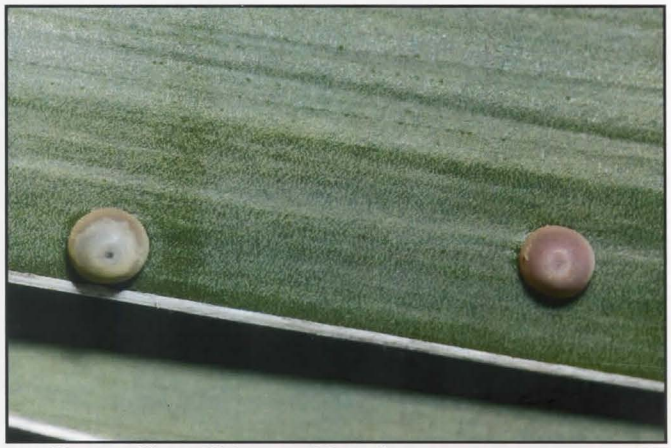
Slosser's Buckmoth, *Hemileuca slosseri*, larva on Oklahoma Plum, *Prunus gracilis*, Packsaddle Wildlife Management Area, Ellis County, Oklahoma, 30 May 2021

Slosser's Buckmoth, *Hemileuca slosseri*, larva on Havard Shin-oak, *Quercus havardii*, Packsaddle Wildlife Management Area, Ellis County, Oklahoma, 30 May 2021

Slosser's Buckmoth, *Hemileuca slosseri*, larva on Havard Shin-oak, *Quercus havardii*, Packsaddle Wildlife Management Area, Ellis County, Oklahoma, 30 May 2021

Slosser's Buckmoth, *Hemileuca slosseri*, larva on Havard Shin-oak, *Quercus havardii*, Packsaddle Wildlife Management Area, Ellis County, Oklahoma, 30 May 2021

Yucca Giant-Skipper, *Megathymus yuccae*, ovum on Arkansas Yucca, *Yucca arkansana*, Lexington Wildlife Management Area, Cleveland County, Oklahoma, 7 April 2020



Yucca Giant-Skipper, *Megathymus yuccae*, ova on Arkansas Yucca, *Yucca arkansana*, Lexington Wildlife Management Area, Cleveland County, Oklahoma, 1 May 2020

Yucca Giant-Skipper, *Megathymus yuccae*, ova (with one hatched) on Arkansas Yucca, *Yucca arkansana*, Lexington Wildlife Management Area, Cleveland County, Oklahoma, 1 May 2020

Yucca Giant-Skipper, *Megathymus yuccae*, first instar larva feeding and burrowing into Arkansas Yucca, *Yucca arkansana*, Lexington Wildlife Management Area, Cleveland County, Oklahoma, 3 May 2020

Southern Cloudywing, *Thorybes bathyllus*, freshly deposited egg on Tall Lespedeza, *Lespedeza stuevei*, Lexington Wildlife Management Area, Cleveland County, Oklahoma, 26 April 2020

Hackberry Emperor, *Asterocampa celtis*, freshly deposited egg on Hackberry, *Celtis* sp., central Oklahoma, Cleveland County, Oklahoma, 27 July 2020

Wild Indigo Duskywing, *Erynnis baptisiae*, egg on Crown Vetch, *Securigera varia*, Blue River Wildlife Management Area, Johnston County, Oklahoma, 10 April 2018

Goatweed Leafwing, *Anaea andria*, freshly deposited egg on Croton, *Croton* sp., Cherokee Wildlife Management Area, Cherokee County, Oklahoma, 3 July 2019

Geometrid Moth, *Synchlora* sp., larva camouflaged with flower debris, on Black-eyed Susan, *Rudbeckia hirta*, Blue River Wildlife Management Area, Johnston County, Oklahoma, 7 June 2013

Geometrid Moth, *Synchlora* sp., larva camouflaged with flower debris, on Black-eyed Susan, *Rudbeckia hirta*, central Oklahoma, Cleveland County, Oklahoma, 1 July 2013

Walnut Caterpillar Moth, *Datana integerrima*, larvae on Black Walnut, *Juglans nigra*, below Fort Gibson Dam, Cherokee County, Oklahoma, 18 September 2014

Walnut Caterpillar Moth, *Datana integerrima*, larva on Black Walnut, *Juglans nigra*, below Fort Gibson Dam, Cherokee County, Oklahoma, 18 September 2014

Fall Webworm Moth, *Hyphantria cunea*, central Oklahoma, Cleveland County, Oklahoma, 29 September 2017

Fall Webworm Moth, *Hyphantria cunea*, central Oklahoma, Cleveland County, Oklahoma, 29 September 2017

Fall Webworm Moth, *Hyphantria cunea*, caterpillar with attached egg from parasitic insect, Lexington Wildlife Management Area, Cleveland County, Oklahoma, 7 October 2016

Fall Webworm Moth, *Hyphantria cunea*, caterpillar, Osage Hills State Park, Osage County, Oklahoma, 3 October 2015

Tiger Moth, *Apantesis* sp., larva, Embudito Canyon, Cibola National Forest, Bernalillo County, New Mexico, 11 April 2017

Tiger Moth, *Apantesis* sp., larva, Embudito Canyon, Cibola National Forest, Bernalillo County, New Mexico, 11 April 2017

Silvered Prominent, *Didugua argentilinea*, caterpillar on Balloon Vine, *Cardiospermum* sp., Estero Llano Grande State Park, Weslaco, Hidalgo County, Texas, 6 November 2013

Silvered Prominent, *Didugua argentilinea*, caterpillar on Balloon Vine, *Cardiospermum* sp., Estero Llano Grande State Park, Weslaco, Hidalgo County, Texas, 6 November 2013

Silvered Prominent, *Didugua argentilinea*, caterpillar, Frontera Audubon, Weslaco, Hidalgo County, Texas, 3 November 2017

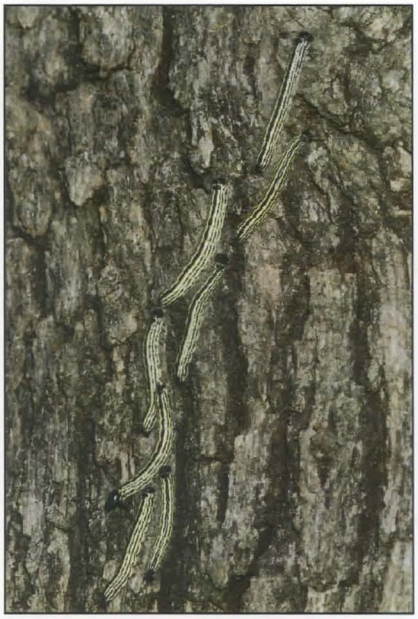
Silvered Prominent, *Didugua argentilinea*, caterpillars on Balloon Vine, *Cardiospermum* sp., Estero Llano Grande State Park, Weslaco, Hidalgo County, Texas, 6 November 2013

Oslar's Oakworm Moth, *Anisota oslari*, eggs on Gambel oak, *Quercus gambelii*, Sandia Mountain Natural History Center, Sandia Mountains, Cibola National Forest, Bernalillo County, New Mexico, 8 August 2013

Oslar's Oakworm Moth, *Anisota oslari*, larvae on Gambel oak, *Quercus gambelii*, Sandia Mountain Natural History Center, Sandia Mountains, Cibola National Forest, Bernalillo County, New Mexico, 8 August 2013

Spiny Oakworm Moth, *Anisota stigma*, larva, McGee Creek Wilife Management Area, Atoka County, Oklahoma, 6 October 2018

Prominent Moths, *Datana* sp., marching up Post Oak, *Quercus stellata*, central Oklahoma, Cleveland County, Oklahoma, 26 September 2020



Black-etched Prominent, *Tecmessa scitiscripta*, larva on Black Willow, *Salix nigra*, Lexington Wildlife Management Area, Cleveland County, Oklahoma, 22 September 2005

Prominent Moth, *Symmerista* sp., larva, Lexington Wildlife Management Area, Cleveland County, Oklahoma, 28 September 2018

Tiger Moth, *Lophocampa catenulata*, caterpillar, Estero Llano Grande State Park, Weslaco, Hidalgo County, Texas, 6 November 2013

Tiger Moth, *Lophocampa catenulata*, caterpillar, Frontera Audubon, Weslaco, Hidalgo County, Texas, 3 November 2013

Tiger Moth, *Euchaetes bolteri*, caterpillar, Santa Ana National Wildlife Refuge, Hidalgo County, Texas, 28 October 2014

Clouded Crimson Moth, *Schinia gaurae*, larva on Large Flowered Gaura, *Oenothera filiformis*, Lexington Wildlife Management Area, Cleveland County, Oklahoma, 10 September 2021

Clouded Crimson Moth, *Schinia gaurae*, larva on Large Flowered Gaura, *Oenothera filiformis*, Lexington Wildlife Management Area, Cleveland County, Oklahoma, 10 September 2021

←

Clouded Crimson moth, *Schinia gaurae*, larva on *Gaura* sp., University of Oklahoma Biological Station, Lake Texoma, Marshall County, 30 September 2016

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(Bryan Reynolds, E-Mail: nature_photo_man@hotmail.com)

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LIFE HISTORY PLATES OF REPRESENTATIVE SOUTHEASTERN BUTTERFLIES

BY

MARY JANE KROTZER AND STEVE KROTZER

In order to truly understand and appreciate any organism, one must study and document each step of its life cycle. While adult butterflies deservedly garner much of the attention of butterfly enthusiasts, the immature stages are just as beautiful and interesting. Conservation of butterflies hinges on our understanding of the complex relationships between the immature stages and their host plants that have evolved over millions of years. This photo essay is designed to provide an overview of the life cycles of southeastern butterflies with representation from the six recognized families of the Superfamily Papilionoidea (Butterflies and Skippers).

Palamedes Swallowtail, *Papilio palamedes*, and Zebra Swallowtail, *Eurytides marcellus*, represent the Subfamily **Papilioninae** (Swallowtails) of the Family **Papilionidae**.

Falcate Orangetip, *Anthocharis midea*, represents the Subfamily **Pierinae** (Whites) of the Family **Pieridae**.

Barred Yellow, *Eurema daira*, represents the Subfamily **Coliadinae** (Sulphurs) of the Family **Pieridae**.

Juniper Hairstreak, *Callophrys gryneus*, represents the Subfamily **Theclinae** (Hairstreaks) of the Family **Lycaenidae**.

Eastern Tailed-Blue, *Everes comyntas*, represents the Subfamily **Polyommatinae** (Blues) of the Family **Lycaenidae**.

Little Metalmark, *Calephelis virginiensis*, represents the Family **Riodinidae**.

Tawny Emperor, *Asterocampa clyton*, represents the Subfamily **Apaturinae** (Emperors) of the Family **Nymphalidae**.

Southern Pearly - eye, *Enodia portlandia*, represents the Subfamily **Satyrinae** (Satyrs) of the Family **Nymphalidae**.

Golden Banded-Skipper, *Autochton cellus*, represents the Subfamily **Pyrginae** (Spread-wing Skippers) of the Family **Hesperiidae**.

Least Skipper, *Ancyloxypha numitor*, represents the Subfamily **Hesperiinae** (Grass Skippers) of the Family **Hesperiidae**.

Yucca Giant-Skipper, *Megathymus yuccae*, represents the Subfamily **Megathyminae** (Giant-Skippers) of the Family **Hesperiidae**.

Figure 1. Palamedes Swallowtail, *Papilio palamedes*, Baldwin County, Alabama; Hostplant: Red Bay, *Persea borbonia*

Figure 2. Zebra Swallowtail, *Eurytides marcellus*, Bibb and Chilton counties, Alabama; Hostplants: Common Pawpaw, *Asimina triloba*, and Small Fruit Pawpaw, *Asimina parviflora*

Figure 3. Falcate Orangetip, *Anthocharis midea*, Pickens County, Alabama; Hostplant: Bulbous Bittercress, *Cardamine bulbosa*

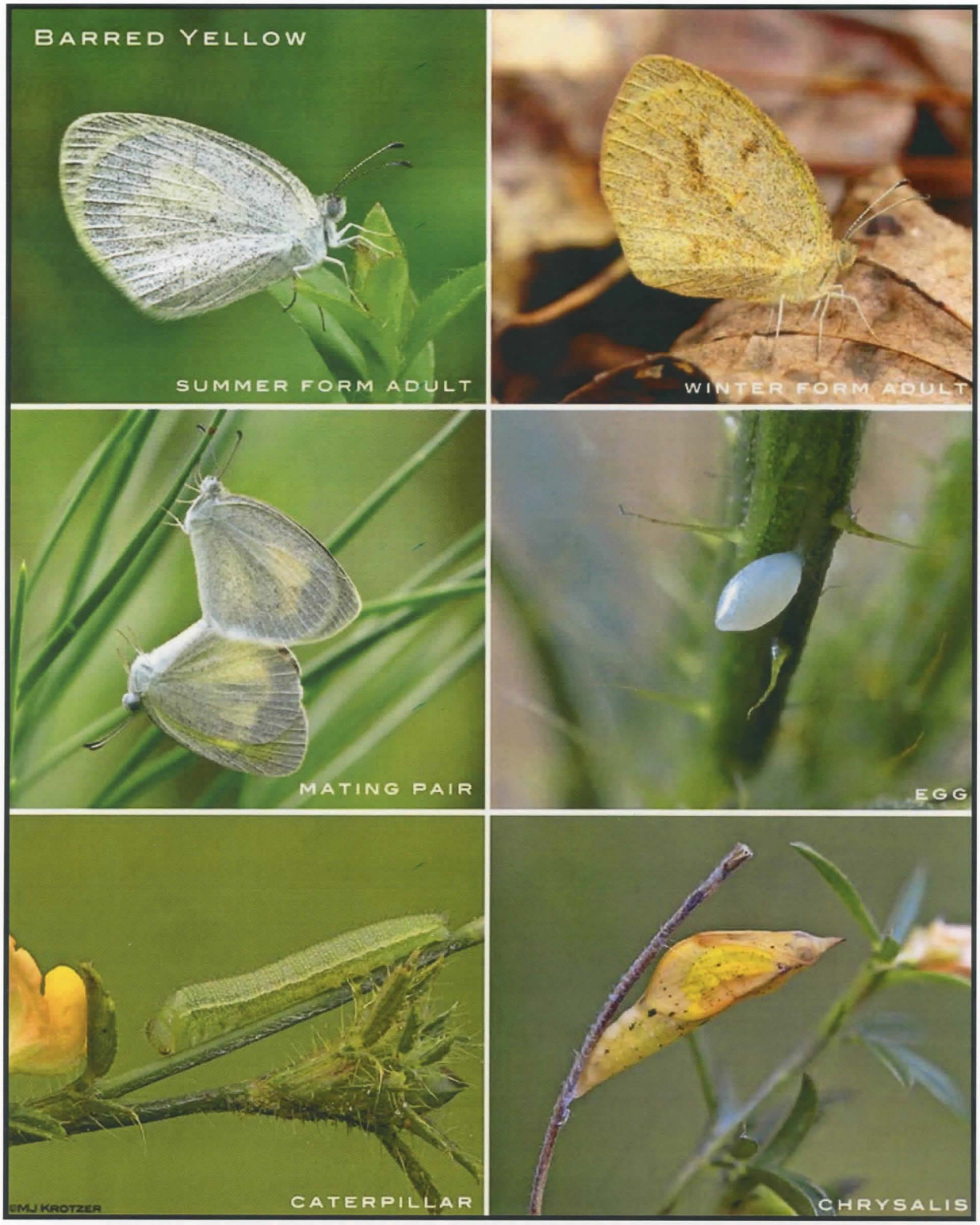


Figure 4. Barred Yellow, *Eurema daira*, Bibb County, Alabama; Hostplant: Side Beak Pencil Flower, *Stylosanthes biflora*

Figure 5. Juniper Hairstreak, *Callophrys gryneus*, Bibb and Pickens counties, Alabama; Hostplant: Eastern Red Cedar, *Juniperus virginiana*

Figure 6. Eastern Tailed-Blue, *Everes comyntas*, Bibb and Madison counties, Alabama; Hostplants: Downy Milk Pea, *Galactia volubilis*, and Clover, *Trifolium* spp.

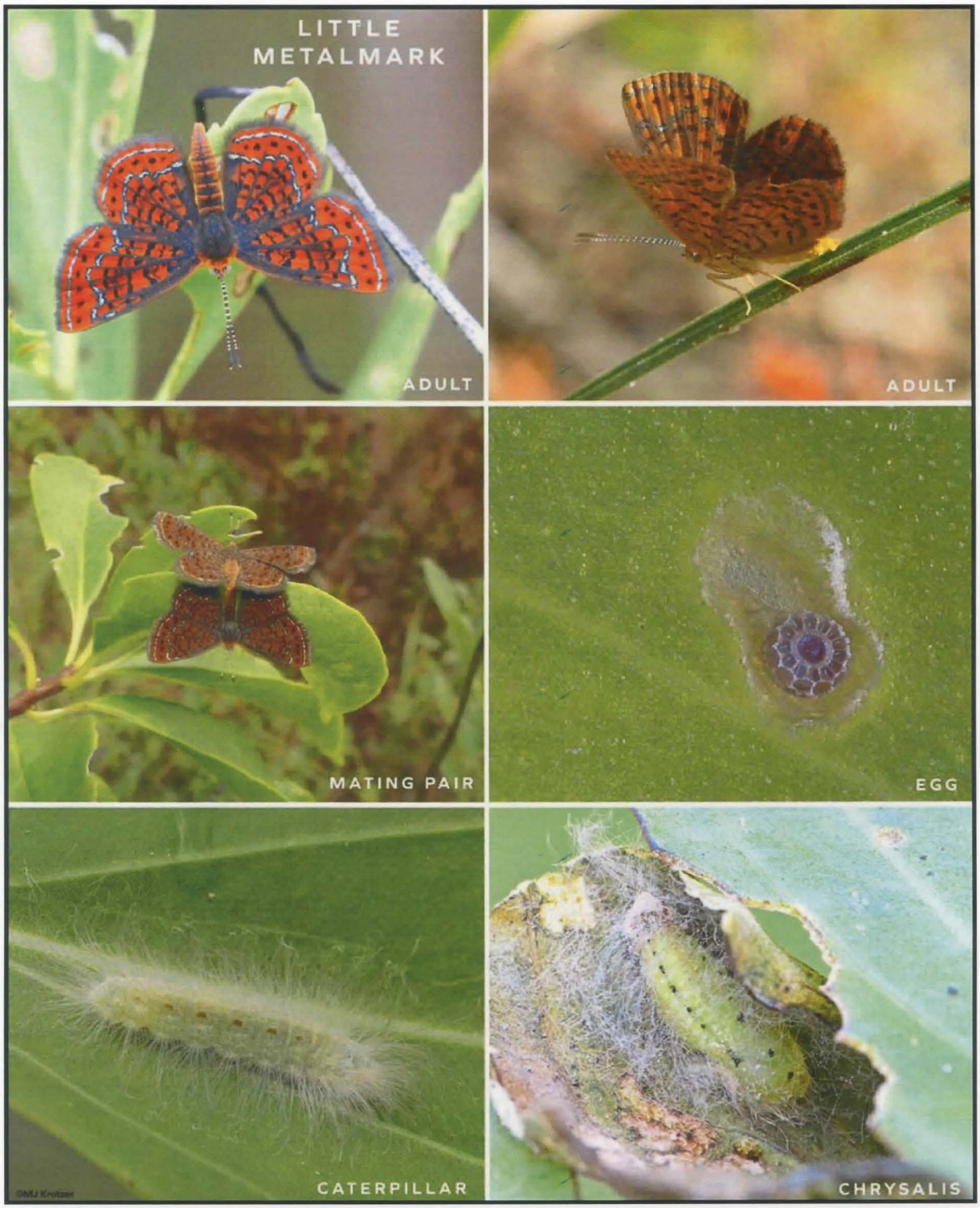


Figure 7. Little Metalmark, *Calephelis virginiensis*, Baldwin and Escambia counties, Alabama; Hostplant: Vanilla Leaf, *Trilisa odoratissima*

Figure 8. Tawny Emperor, *Asterocampa clyton*, Hale and Sumter counties, Alabama; Hostplant: Southern Hackberry, *Celtis laevigata*

Figure 9. Southern Pearly-eye, *Enodia portlandia*, Hale and Sumter counties, Alabama; Hostplant: Canes, *Arundinaria* spp.

Figure 10. Golden Banded-Skipper, *Autochton cellus*, Bibb County, Alabama; Hostplant: Thicket Bean, *Phaseolus polystachios*

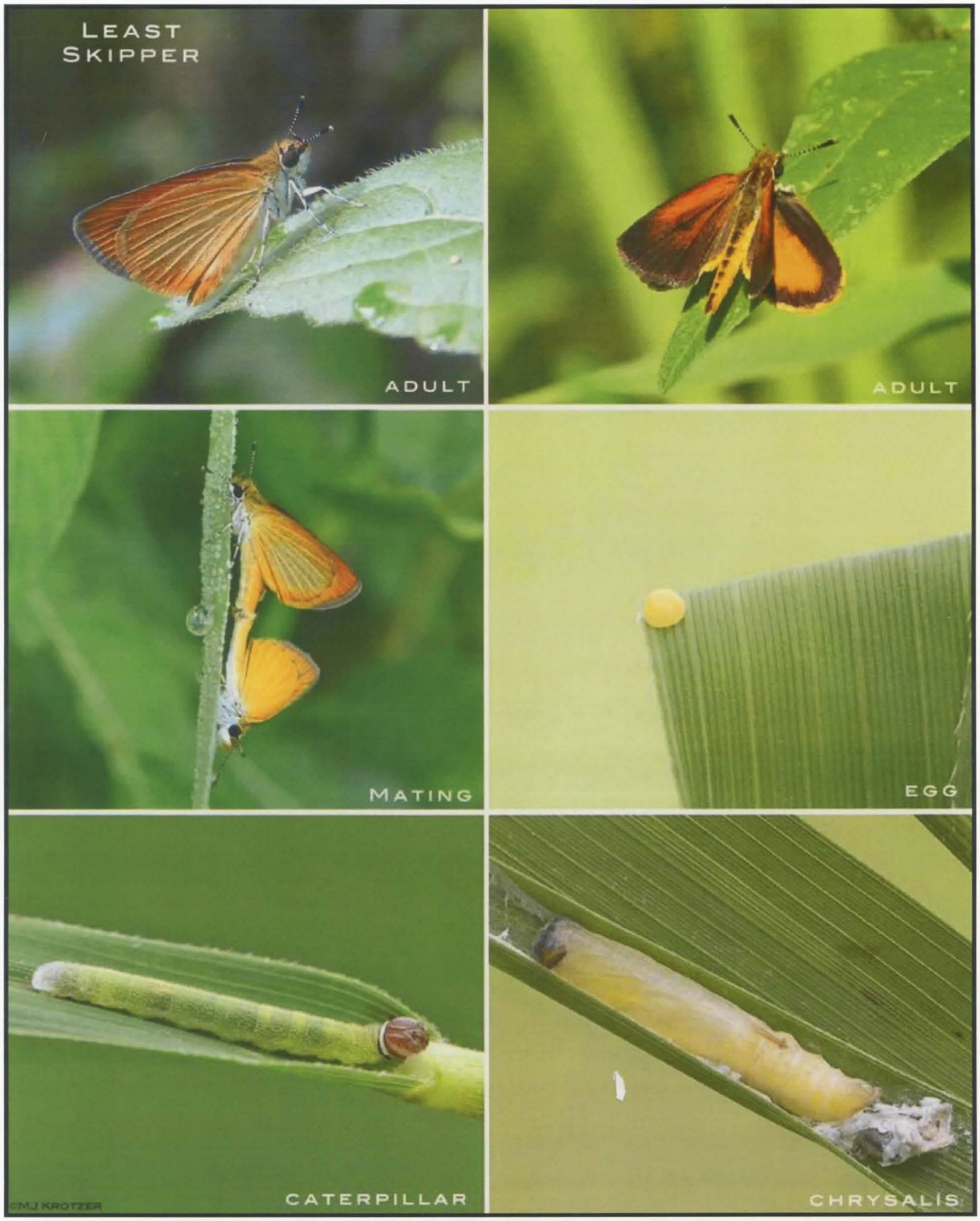


Figure 11. Least Skipper, Ancyloxypha numitor, Dallas, Perry, and Shelby counties, Alabama; Hostplant: Cutgrass, *Leersia* spp.

Figure 12. Yucca Giant-Skipper, *Megathymus yuccae*, Bibb and Chilton counties, Alabama; Hostplant: Eastern Yucca, *Yucca filamentosa*

(Mary Jane Krotzer, E-Mail: mjkrotzer@gmail.com)

NEW SPECIES OBSERVED AT TRINITY RIVER NATIONAL WILDLIFE REFUGE BETWEEN FEBRUARY 1 AND APRIL 30, 2022

BY
STUART MARCUS

Limacodidae: *Adoneta gemina*

Gracillariidae: *Crenastobycia* sp.

Gelechiidae: *Glauce pectenalaeella*

←

Noctuidae: *Pyreferra hesperidago*
Mustard Sallow Moth

→

Tortricidae: *choristoneura fractivittana*
Broken-banded Leafroller
at Knobby Knees Trial

←

Noctuidae: *Cerma cora*
Owl-eyed Bird Dropping Moth

→

THE BUTTERFLY FARM — ARUBA

BY

SCOTT D. ANDERSON

Much has been said and written about raising butterflies in captivity. In the last few years I have read any number of articles on the topic and it is even something that draws conversation in our own local butterfly chapter here in Sarasota. Raising butterflies is not a subject about which I claim much expertise. All my time with butterflies is out in the field. In short, most of the scientific articles I have read are against raising butterflies and the reasons are numerous e.g., disease, genetics, or personal philosophy. Having that in the back of my mind, on a recent trip to the island country of Aruba, I headed for The Butterfly Farm, a 23-year old attraction that is quite popular with visitors. I really didn't know what I would find or what to expect but given that I'm interested in all things butterflies, I had to go.

Aruba was discovered by Europeans in 1499. It is situated only 18 miles north of the Venezuelan coastline and is therefore part of the South American continent. The island is only 70 square miles (20 x 6 miles at its longest and widest) and is a constituent country of The Netherlands. I now know it as "One Happy Island" which is its nickname and accurately describes the place. The Butterfly Farm is located in the northwest in the Palm Beach area not far from many of the tourist hotels along the beach.

Butterfly Farm

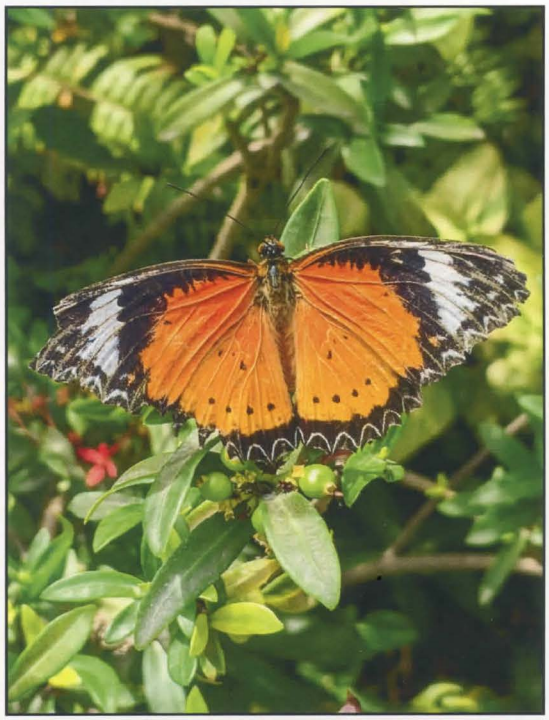
My first impression of The Butterfly Farm was that it was very laid back, a casual kind of place with a warm and welcoming staff. A small welcome center serves as a greeting point where the staff prepares you for your visit. After a brief introduction, you enter "the farm" through two layers of security, not the kind experienced at the airport, but to prevent escapees should a butterfly make a run for it. The tropical garden with its lush plants, flowers, ponds and flowing water immediately strikes you as you enter and it only takes a moment to be surrounded by butterflies – lots of them, big ones, little ones and many different colored ones. The Butterfly Farm boasts hundreds of exotic species from around the world including South America, South East Asia, The Philippines, China, Africa, North America and elsewhere. Its emphasis is on the entire life cycle of butterflies but it is the flying adults that capture imagination.

After a 15-minute presentation by one of the well-trained staff you are free to wander. I immediately spotted a Malachite, a species found here in southern Florida. To make me feel at home, it landed on my head and sat there for 5 minutes. With every step, a new butterfly appeared and a new species too. In fact, you didn't have to move, the butterflies would come to you. In abundance there were Blue Morphos, Malachites, Great Orange Tips, Giant Swallowtails, Blue Clippers, Postmans, and Zuleikas, among many others.

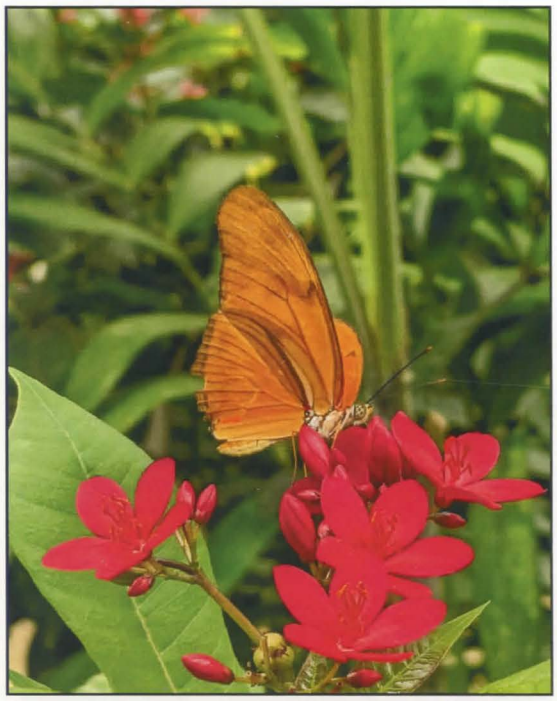
Butterflies waiting to emerge.

Tropical Garden ←

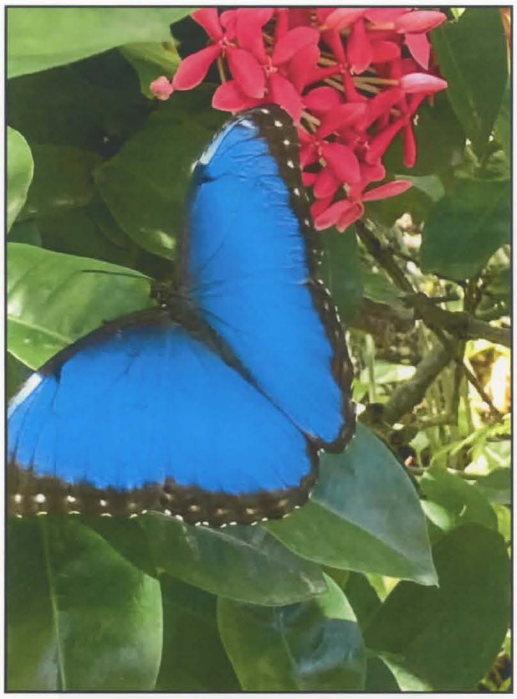
Lacewing →



Blue-frosted banner
←



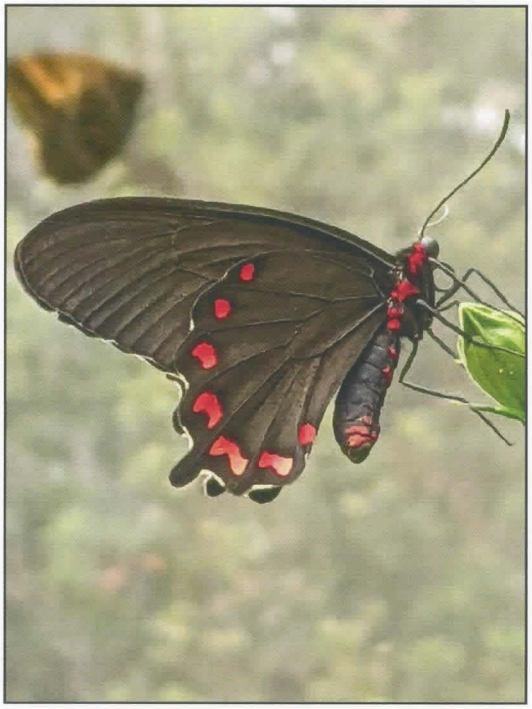
Julia Heliconian
→



Blue Morpho (Dorsal)
←

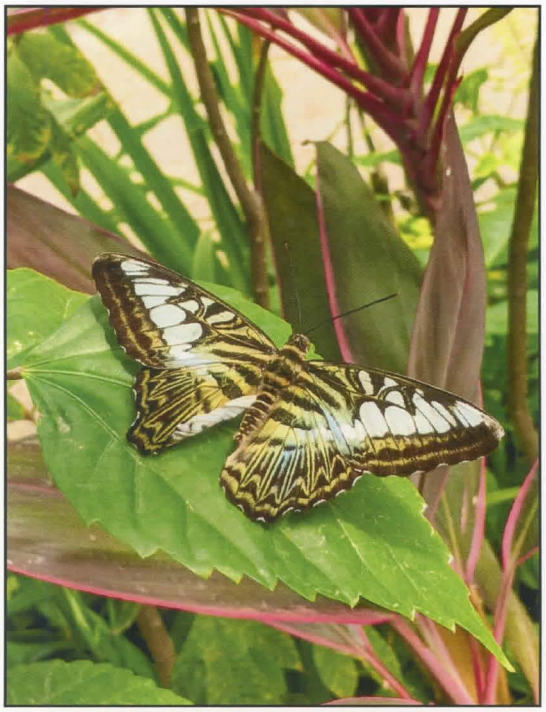
Blue Morpho (Ventral)
→

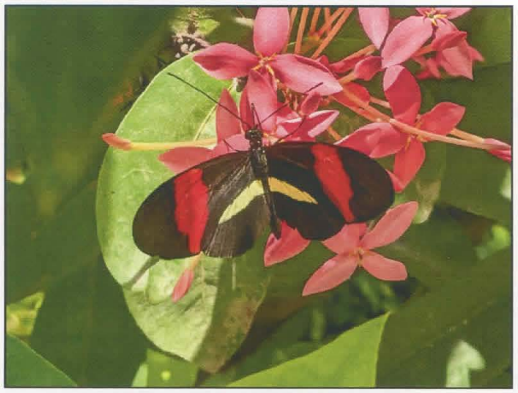
There I stood, surrounded by butterflies, and visitors to The Butterfly Farm, who otherwise probably never venture out into the wild looking for them. I kept wondering about all the arguments I've read and why raising butterflies in captivity is wrong. I decided to step aside and not enter the debate. I'm staying out of it. When I was young, I used to run after butterflies and it is those youthful encounters I so often remember as my introduction to a lifelong interest. Wild butterflies are declining so children these days may not have the same experience. However, it may be a visit to a farm where the same interest sparks. Is it good to raise butterflies in captivity? Are there risks inherent in the process? I refuse to answer these questions or even stir the debate. I won't even try to cause a conversation. What I will do is recall the smile I once had when I ran through sunshine chasing Monarchs and Swallowtails and all the similar smiles I saw on the children at The Butterfly Farm in Aruba, that One Happy Island.



Montezuma's Cattleheart ←

Blue Clipper →





Postman

Malachite

Starry night cracker ←

Author with Malachite →

(Scott Anderson, E-Mail: scottdanderson53@gmail.com)

CHASING THE MONARCH MIGRATION

BY

LINDA BARBER AULD, NOLA BUGLADY AND GINNA HOFF

On March 19, 2022, Ginna Hoff, Missy Kapsos, and I were women on a mission headed for Cameron Parish. Our planned destination was Peveto Woods, property owned by the Baton Rouge Audubon Society that is located right on the Gulf of Mexico shoreline. This tiny patch of woods provides an oasis that becomes packed with birds and butterflies during migration seasons. We expected to see various butterflies, but what we really hoped to find were the spring's first migrating monarchs. Following Journey North's website, we had calculated the large strong-winged male butterflies that typically make up the leading edge should just be arriving in Cameron. We would also search for the native green milkweed, *Asclepias viridis,* historically reputed to grow there.

Ginna Hoff, Missy Kapsos, Linda Barber Auld at Peveto woods

This was not my first trip to Peveto Woods. Back in the 1990's I participated in North American Butterfly Association survey counts lead by Dr. Gary Noel Ross. The counts were in July, but I already had become familiar with Dr. Ross's work about spring and fall monarch migrators using Gulf oil rigs as stopping points. His reports, published in Louisiana Conservation magazine, included observations that, during spring, the green milkweed "grew like a carpet" in the fields next to Peveto and also on nearby Monkey Island. There Dr. Ross observed the milkweed plants "covered with monarch and queen caterpillars". I was anxious to see for myself whether Peveto in March still fit Dr. Ross's description. My last visit to Cameron had been October 2012. How had twelve years affected the conditions at this special nature sanctuary? What butterflies would we find and would we find any monarchs?

Heading south along Highway 27 from I-10 to the beach, our first stop was Blue Goose Trail, a short meandering path that leads to a canal connecting oil and gas barges with the Gulf. The terrain is flat, wide

End of Blue Goose Trail at barge Canal

open with high grasses and sporadic clumps of bushes and trees, mostly the *Xanthoxylum americanum*, the common prickly-ash tree, a caterpillar host for giant swallowtails. I inspected the luscious freshly-sprouted young and tender leaves that would be perfect for baby caterpillars and the flower buds appeared almost ready to pop into bloom. No chewed marks were present. We did see, however, Savannah sparrows flitting back and forth from the trees to the grassy fields to eat seedheads. Dewberries bloomed profusely among the trees, where we began our butterfly count. At least half a dozen pearl crescents and common checkered skippers were darting around the assorted grasses

Gulf of Mexico

and weeds. Red-banded hairstreaks, flashing their blue upper wings, were fluttering along the winding path. Perched on a rock, a red admiral was quietly sunning itself. An orange sulphur made me spend at least five minutes chasing it around, attempting to catch a good picture to confirm the identification. Among the last few tree clumps, we came upon our first monarchs. They were uniformly large, as expected and the few we could identify were male. We decided to skip walking the mile-long raised boardwalk which, without any shade, appeared to be too long and hot.

Peveto boundary on the beach

Peveto pond

Back on the road, driving west along coast road toward Johnson Bayou, we were pleased to count ten monarchs passing us in the opposite direction—flying due east. Arriving at Peveto Woods just past lunchtime, we found my friend Dave Patton who was storing away his cutting tools and other equipment. He had just concluded a morning workday leading a team of volunteers to clear paths and to set up a water feature for thirsty migrating birds. Several dozen honey bees had already discovered the water and were hungrily slurping it up. Blooming dewberries, Brazilian verbena and lantana provided a nectar buffet for the fiery skipper, phaon crescent and long-tailed skipper spotted along the trails. Dave confirmed seeing monarchs but said it had been four years since he'd seen any milkweed.

Peveto Woods Path

After hiking a little ways along Peveto's central trail, we paused in the shade of the massive live oak trees. An adorable brown bunny was feasting on grass and was not disturbed at all by our presence. Peveto Woods is a chenier, the Louisiana French term for the oak tree belts that mark the Mississippi Delta beach ridges. The Louisiana Chenier Plain, extending roughly from Sabine Lake to Vermillion Bay along the Gulf Coast, serves critical ecosystem functions, particularly as a wildlife habitat. In the Cameron area, several sets of cheniers are separated and slightly different from each other. Some ridges have been reworked by waves and several show a blanket of peat growth. The Audubon Society acquired Peveto Woods for its special value to migrating birds.

Boardwalk

Two weathered male monarchs with their wings outstretched were absorbing the warm sunshine. Two more were lazily floating on the Gulf winds, circling

the flowers and waiting for a female monarch to appear. Though I'd hoped to see a gulf fritillary, their passion flower caterpillar host plant had not sprouted yet. By July the vine has usually grown to enormous size and is covered in caterpillars. When we reached the far border of the Woods and gazed out over its surrounding flat fields, only a lone blanketflower (*Gaillardia*) blossom stood out in the mostly dead-looking vines and wind-blown foliage. I recalled how on previous visits, in July, these areas are masses of bright colored flowers. Although we walked all along the fence line, we found not a single milkweed. It seemed severe hurricane winds had bent formerly straight and tall trees into a permanent stoop along the sanctuary's edges. Each season definitely changes the flowering plant selection and levels of insect activity.

Having made good use of our day and tallied our finds, we did a search for an eatery. Services in this area are few, so we headed to the city of Cameron. That required a pleasant ferry trip where we watched many laughing gulls and terns at the landing plus a pair of porpoises jumping out of the water. Anchors Away Grill proved to be a winner. Apparently recent hurricanes destroyed their actual building so they serve out of a trailer and provide outside picnic table seating. Lodging is also a challenge in that neck of the woods. MainStay Suites Hackberry Sportsman's Lodge, built in 2016, gets a thumbs up for being modern, clean and convenient to the coast.

Trees bend from wind

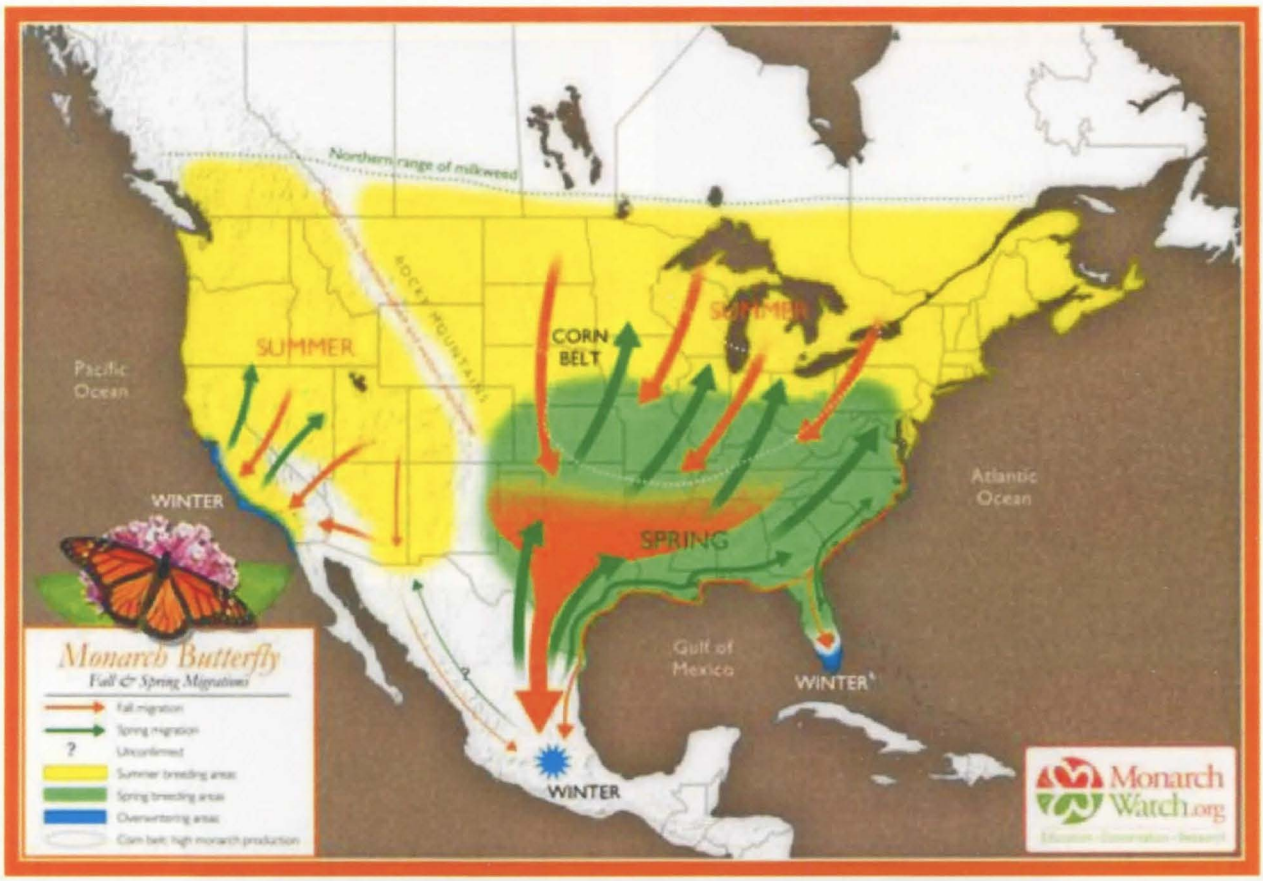
Bunny

Blanketflower

These are the results of the NABA butterfly surveys done in July from 1992 through 2006. I find it interesting that Monarchs are rarely seen in Cameron during the summer. Also the species and individuals totals vary from year to year depending on several variables: weather (rain or drought) conditions of the sanctuary plant assortment plus the number of participants to record numbers.

Year	1992	1993	1994	1995	1996	1997
# monarchs	-	-	3	-	1	-
Total species	20	8	17	26	19	24
Total individuals	367	85	263	241	254	371

Year	1998	1999	2000	2001	2002	2003	2006
# monarchs	-	-	-	-	1	-	1
Total species	19	19	17	32	37	24	15
Total individuals	178	150	417	271	206	120	99



Trip results: We three were excited to witness the early leading edge of the migration on March 19, 2022, as predicted by Journey North. We observed their flight pattern corresponded to Monarch Watch's migration map. The major migration leads north from Mexico, through Texas and northward through the Midwest while a much smaller portion—these we observed—splits off near the Texas border to fly east, following the Gulf coastline. Most of the monarchs appeared to be large and male. We did observe one mating couple.

The sad news was that, although we hiked quite a bit, we found no evidence of native milkweed. Once reportedly growing "like a carpet", 30 years later *Asclepias viridis* was nowhere in sight.

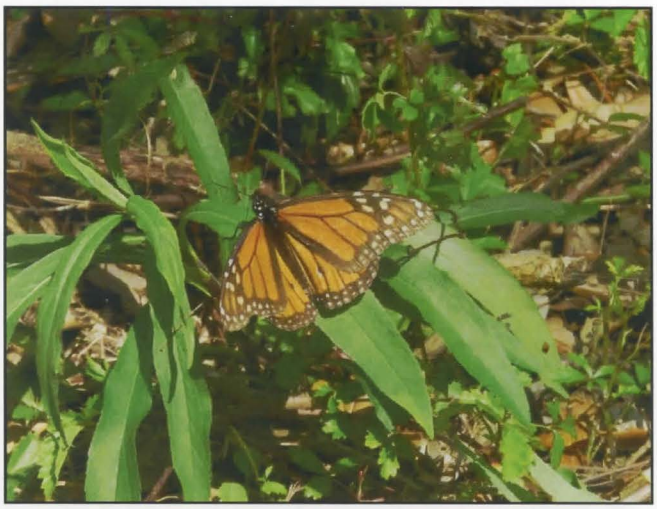
The green milkweed, when its leaves are young freshly-sprouted and tender, plays a very important role in kick-starting a healthy new generation of vigorous monarch caterpillars. We must assume the first wave of spring migrant butterflies arriving on Gulf beaches are hardy and healthy. If they were sick, they would not have the ability to make that trip

from the Mexican mountain overwintering spots. After being chewed down in spring, the green milkweed resprouts leaves. The leaves would be old and tough or would have died down due to hot, dry summer temperatures by the time monarchs return flight south through that same area during fall migration back to Mexico. Therefore, monarchs would not be using these plants again until the following spring when the new growth emerges. Fall-flying monarchs should not be stopping mid-way through their trek but should be completing their full flight to Mexico. This growth and die-down process is nature's plan, coinciding with the butterfly's annual migratory pattern.

Open field adjacent to sanctuary

Red-banded Hairstreak

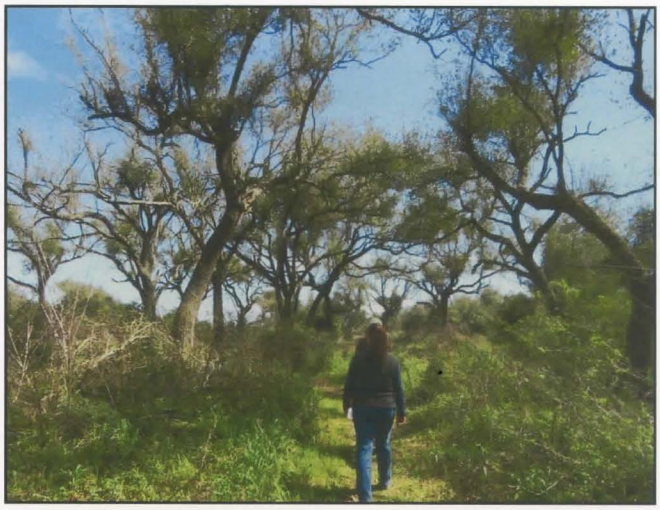
What has happened to the green milkweed? The last few years, Louisiana coastlines have suffered major damage from increased number of hurricanes. Perhaps saltwater intrusion, the invasion of coastal soils by salt water from oceans and sounds, has changed the soil content. Salts are attracted to the soil particles and accumulate in the soil, causing toxicity to non-adapted plants. Excessive salt may also cause clay dispersion and surface sealing, impeding soil drainage. Plants



Male monarch

absorb essential plant nutrients in the form of soluble salts, but excessive accumulation, called soil salinity, suppresses plant growth by inhibiting their growth and photosynthetic capabilities. All living organisms need salt and plants absorb theirs through their root system along with their water. However, in salinized soil, plants absorb too much salt.

Monarch migration is complicated. Records show that scientists have been studying this special butterfly's behavior since the 1850's and it wasn't until 1930 that they were able to deduce with confidence that the butterflies were wintering in the south and migrating north in the spring. In 1940, Dr. Fred Urquhart, an entomologist from Toronto, created the tagging program to study this extraordinary behavior. On January 2, 1975, the first sight of gossamer wings glinting in the sunlight was discovered while hiking 10,000 feet in the Trans-Mexican Volcanic Belt. The kingdom of the monarchs ethereal wintering site measured 20 by 40 miles in the mountainous forest.



Live oak chenier

As scientists at Monarch Watch and University of Georgia continue to study this special insect, it seems our planet's situations continue to change; therefore, monitoring results vary. Each year's variations, in turn, alter recommendations of best ways to help monarch migration. After completing much research, it is my opinion that folks living on the western half of Louisiana need to focus on re-establishing the monarch's host plant by providing large open fields planted with native green milkweed for the healthy spring migrants that fly northward.

Bees drinking water

(Linda Auld, E-Mail: nolabuglady@gmail.com)

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LITHACODES FASCIOLA (H.-S., 1854) (LEPIDOPTERA, LIMACODIDAE) IN LOUISIANA

BY

VERNON ANTOINE BROU JR. AND CHARLOTTE DOZAR BROU

Fig. 1. Adult Louisiana phenotypes of ***Lithacodes fasciola:*** a-b males, c-d females.
a. April 17-2002, b. April 12-2005, c. July 31-2007, d. April 10-2000, all from St. Tammany Parish (AESS).

The small moth with ochre colored wings, ***Lithacodes fasciola*** Herrich-Schäffer (Fig. 1) was originally described as ***Limacodes fasciola*** Herrich-Schäffer, 1854. There is no text description; the species name appeared in a short list of six new North American species in the genus ***Limacodes***. Along with these names are corresponding colored drawings of the various species on a single plate, ***L. fasciola*** being number 186 (Fig. 4). Covell (1984) illustrated ***L. fasciola*** and listed the range in eastern North America to include common east of the 100th meridian and flying April to early September. Heppner (1995) addressed the 25 species of urticating caterpillars in Florida including ***L. fasciola***. Heppner (2003) stated the range of ***L. fasciola*** to include Quebec to Florida and Manitoba to Texas, and in Florida in the months of March to September. Profant et al. (2010) illustrated dot-maps of the counties in the state of Ohio, and provided an untitled phenogram the reader assumes to represent the adult flight period of ***L. fasciola*** adults in Ohio to include the third week of May to the second week of August, representing one annual brood peaking late June. Murphy et al. (2011) listed 144 adults of ***L. fasciola*** from sites in the metropolitan Washington DC area

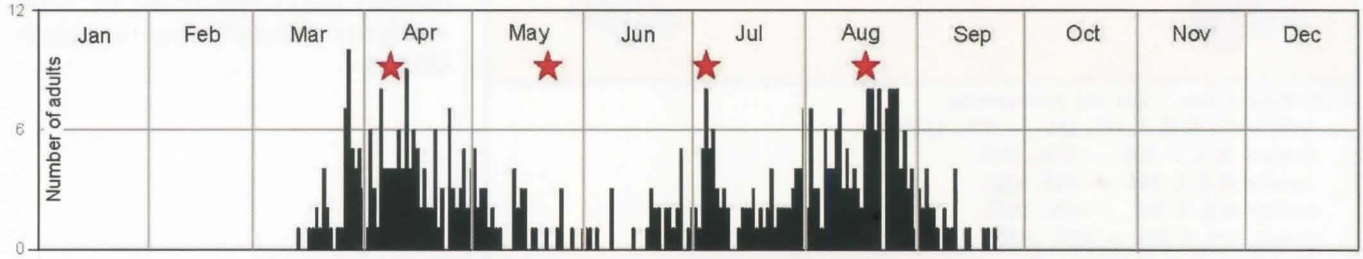

Fig. 2. Adult wild-captured ***Lithacodes fasciola*** captured in Louisiana. n = 492

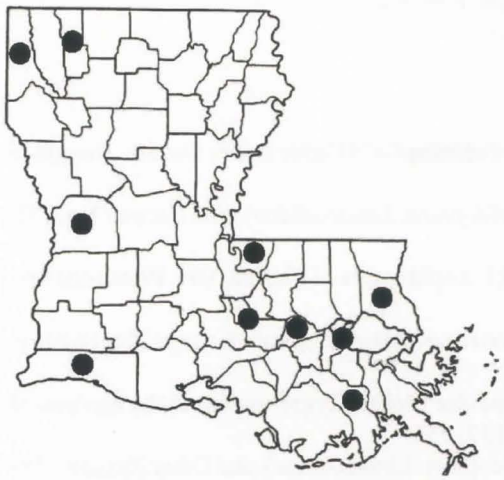

Fig. 3. Parish records for ***Lithacodes fasciola*** in Louisiana.

and the eastern shore of Maryland during 7 field seasons from 2004–2010 including non-specific museum records (1883 -2009). The 144 adult dates of capture for ***L. fasciola*** ranged from April 28 to August 26, a date span that would include two to three broods if in Louisiana.

In Murphy et al. (2011) the use of their data for purposes of assessing phenology are flawed as nowhere are the capture locations of the unknown quantities of museum specimens documented, and appears to include a corrupted hodgepodge of study population data. As a result, these authors did not actually study the phenology of ***L. fasciola*** under natural wild conditions. Also, many of the graphs appearing in that publication are improperly prepared, poorly depicted, and confusing to understand, and fails to convincingly substantiate some of the anecdotal conclusions stated by these authors.

In Louisiana ***L. fasciola*** is a very abundant species in four well populated annual broods occurring ~44-day intervals, the first peaking in early April and the second peaking late May,. the third peaking beginning of July and the fourth peaking mid-

Limacodes Ltr. Alle aus Nordamerika.
spinuloides H-S. f. 187. 188. — *Wlk.* 1147.
fasciola H-S. f. 186. — *Wlk.* 1148.
textula H-S. f. 184. — *Wlk.* 1148.
pallida H-S. f. 183. — *Wlk.* 1148.
flavula H-S. f. 185. — *Wlk.* 1149.
dimidiatus H-S. f. 513. — *Bras.*

Fig. 4. Original description of six North American species of ***Limacodes*** including ***Lithacodes* (*Limacodes*) *fasciola*** fig. 186 by Herrich-Schaffer, 1854.

August (Fig. 2). Adults were captured from mid-March to the third week of September. We captured tens of thousands of adults of ***L. fasciola*** in Louisiana over the past 53 years in automatic-capture high-wattage ultraviolet light traps beginning in 1969 and continuing into 2022. Our light traps were operated continuously for 53 years, 10-12 hours nightly, regardless of temperature or other weather phenomena every day of every year and the adult capture dates were logged daily. In this study only the confirmed Louisiana parish records for ***L. fasciola*** are illustrated in Fig. 3.

The documented larval foodplants of ***L. fasciola*** in scientific literature over the past 168 years includes a large variety of common and abundant shrubs and trees. We thank Marc Epstein, John Heppner and Eric Metzler for helpful assistance and critique.

***Abita Entomological Study Site**: **(AESS)** *sec.24,T6S,R12E, 4.2 miles northeast of Abita Springs, Louisiana* USA

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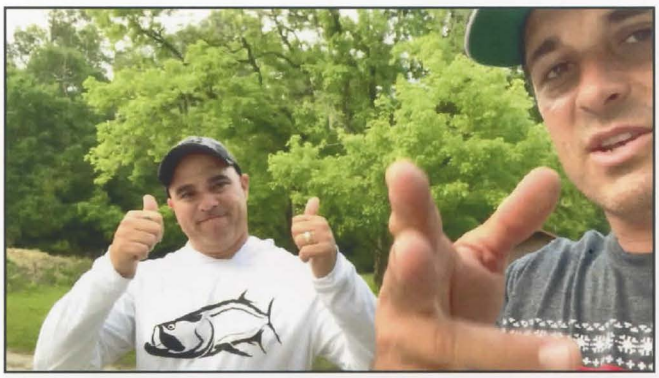
(Vernon Antoine Brou Jr. and Charlotte Dozar Brou; 74320 Jack Loyd Road, Abita Springs, Louisiana 70420 USA
E-mail: yabrou@bellsouth.net)

COLLECTING IN FLORIDA AIN'T WHAT IT USED TO BE!

BY
DAVID FINE

Don't let the title of this article imply that Florida isn't still loaded with amazing Lepidoptera, rather I'm just going to bring you through a few of the frustrations that I had on a recent trip to North Florida. Seeing your collecting spots disappear one by one is a difficult thing to watch. I was actually having a conversation with my 12-year-old son Lorenzo regarding my childhood fishing locations and how they have all gone the way of the dodo bird! As the number of people in Florida grows, our little fishing and buggin' honey holes are disappearing one by one. While North Florida still has some nice natural areas, South Florida somehow continues to be further developed and more and more people are residing year-long in the South instead of the classic "snowbird" scenario which gave South Florida Residents a breather in the summer months. No mas! The dense traffic is now indistinguishable from season to season. Smaller communities and condos are being purchased and monstrosities are now being erected up and down our coast line. Any little pockets of trees, disturbed vacant lots or patches of scrub areas are being consumed and traded for more pavement. As a South Florida resident for 43 years I am grateful for the natural areas that have been protected from development so we can have little glimpses of what South Florida used to be. Unfortunately, many of the butterflies and moths in older books labeled as "common in South Florida" are now but stories in books and collections.

It was good just a few months ago, to meet a new Lepidoptera collecting friend from South Florida. My buddy, Ricky Palmero from Miami joined me on a two-day early April trip to the Ocala National Forest / Gulf Hammock Yankeetown areas on the west coast. We began our trip north and got a good early start exiting I-75 in the town of Ocala around 7:00 AM. We made a quick pit stop at a little field in the middle of Ocala and found some *Shinia mitis* on false dandelion flowers along with some checkered whites (*Pontias protodice*) and ceraunus blues (*Hemmiargus ceraunus*). It was then onward to Ocala National Forest. We wanted to see if pine elfins (*Inciscalia niphon*) were still on the wing. While in the middle of nowhere a few miles down a dirt road in the middle of the forest, my pickup truck all of a sudden lost its power steering!



Ricky Palmero (left) and David Fine (right) filming an intro for our moth collecting video on my Keys Moths YouTube channel

***Shinia mitis* on false dandelion flowers in the town of Ocala**

Checkered White (*Pontias protodice*) waking up in the town of Ocala

There we sat for the next few hours waiting for the nearest tow truck to make its 45-mile journey to the heart of Ocala National Forest. While we waited, we wandered around looking for leps. We found no pine elfins (*I. niphon*), however we did see a few zebra swallowtails, tiger swallowtails and Palamedes swallowtails and even a few pipevine swallowtails. Finally, the tow truck arrived and hauled my Toyota Tundra up onto the flat bed. It was a tough thing to see! I've had my truck since 2008 and this is the first time it left me stranded! Unfortunately, it was about as far away from a mechanic as you can get being

inside the peninsular Florida. I became extremely grateful for my AAA membership that day!

David's Toyota Tundra being lifted onto a tow truck in the middle of Ocala National Forest

After dropping the truck off the mechanic, we jumped into a rental car, put our lighting equipment in the trunk and headed west to Gulf Hammock. As we finally pulled up to Gulf Hammock, it was so hard to see a flat piece of ground where the old Circle K gas station used to be. This was the best spot that I knew of in the state to find a ton of moths on a regular basis. The property was for sale and had a big chain link fence around it. The fence extended a few hundred yards back and there was a big cleared area which is now loaded with white sweet clover flowers which was nice to see. I couldn't wait until the morning to see what we could find on the flowers.

Flattened and fenced off location of classic Circle K gas station at Gulf Hammock

Later that night, we put our lights up at a clearing in the side of the road a little way back behind the main road. We found some great moths including a beautiful fresh specimen of *Catacola connubialis*. A few hours into the evening, we heard a loud buzzing sound and a truck with bright flashing lights appeared and turned into the clearing where we had our mercury vapor lights set up. We then saw a thick cloud shooting off the back end of the truck and we then realized that this was a truck spraying pesticides into the forest road sides. I must admit; I was about as discouraged as you can possibly be at this point! Even though we were standing right there, the truck kept on spraying away!

We wound up staying for a few more hours collecting and moths did still wind up at the sheet so it was undetermined just how the impacts of this pesticide spray effected the moths flying at that time.

Fresh *Catacola connubialis* collected at Gulf Hammock

Truck spraying pesticides right next to us as we were moth collecting in Gulf Hammock

The next day, we retrieved our bucket light traps from the area and it was a shocking thing to see a male cecropia moth resting on the side of one of the bucket light traps. It has been a long time since I have seen a cecropia! We then began walking the roadsides in Gulf Hammock looking for butterflies. This road side has always been a place to see a great diversity of butterflies in the spring time. Well, not on this day. We did see a few male *Poanes zabulon* skippers and a question mark butterfly but other than that, there was

Old male cecropia moth found on side of bucket light trap near Gulf Hammock

very little activity on the road side at Gulf Hammock. I can't help but wonder how much impact the roadside pesticide spray from the night before had on the butterfly population on the roadsides the following day. We also found that a few of my old-time trails for butterfly collecting were gated off or fenced off with "NO TRESSPASSING" signs posted. I walked through the huge field full of white sweet clover blooms behind what used to the Circle K gas station. I found very few Lepidoptera. I saw a few red banded hairstreaks (*Calycopis cecrops*), a grey hairstreak (*Strymon melinus*) and a couple gulf fritillaries (*Agraulis vanilla*).

Red Banded Hairstreak (*Calycopis cecrops*) Gulf Hammock

It was then time to head south to Yankeetown to look on the white clover for some olive hairstreaks. It had been a disappointing trip so far due to all the restrictions and changes to environment and I was looking forward greatly to this "sure thing" of a spot. Yankeetown had never let me down in the spring time! As we rolled up towards the spot, we were totally discouraged to see land moving equipment and a construction crew with the entire roadsides torn up. Literally all of the white sweet clover on the road sides had been bulldozed! We did spend some time

Road construction at Yankeetown eliminating the white sweet clover flowers that attract butterflies

wandering the roadsides anyhow and were able to find a few *Poanes aaroni* and *Panoquinius panoquin* but butterflies were few and far between. It was then time to go back to the town of Ocala and get my pickup truck from the mechanics, turn in our rental car and head for home.

***Poanes aaroni* in mid flight - Yankeetown, Florida**

***Poanes aaroni* - nectaring on frogfruit (*Lippia nodiflora*) because there's no more white sweet clover! Yankeetown, Florida**

***Panoquinius panoquin* - Yankeetown, Florida**

In summary, Ricky was thrilled with the bugs that we did find because virtually all of them were new to him! I'm happy for him and am encouraged to live vicariously through the experience of someone new to this great hobby! As for me, I had a desire to come home with some female hairstreak butterflies to try and get eggs to do some life cycle photography and

videos. It's going to have to wait until next spring because this trip was a bust! It has been about 20 years since I had collected in the Gulf Hammock/ Yankeetown area. I suppose I should expect some degree of change in that time however my heart couldn't help going through a sense of mourning as I remember the fond collecting memories in my past in these locations. This will not stop me! I will just start hunting for new spots to collect and I'll be back up in North Florida in the fall for some *Shinia* moth collecting! I have the entire trip documented on video on my 'KEYS MOTHS' YouTube channel if you'd like to see more.

(David Fine, E-Mail: vladnuts@aol.com)

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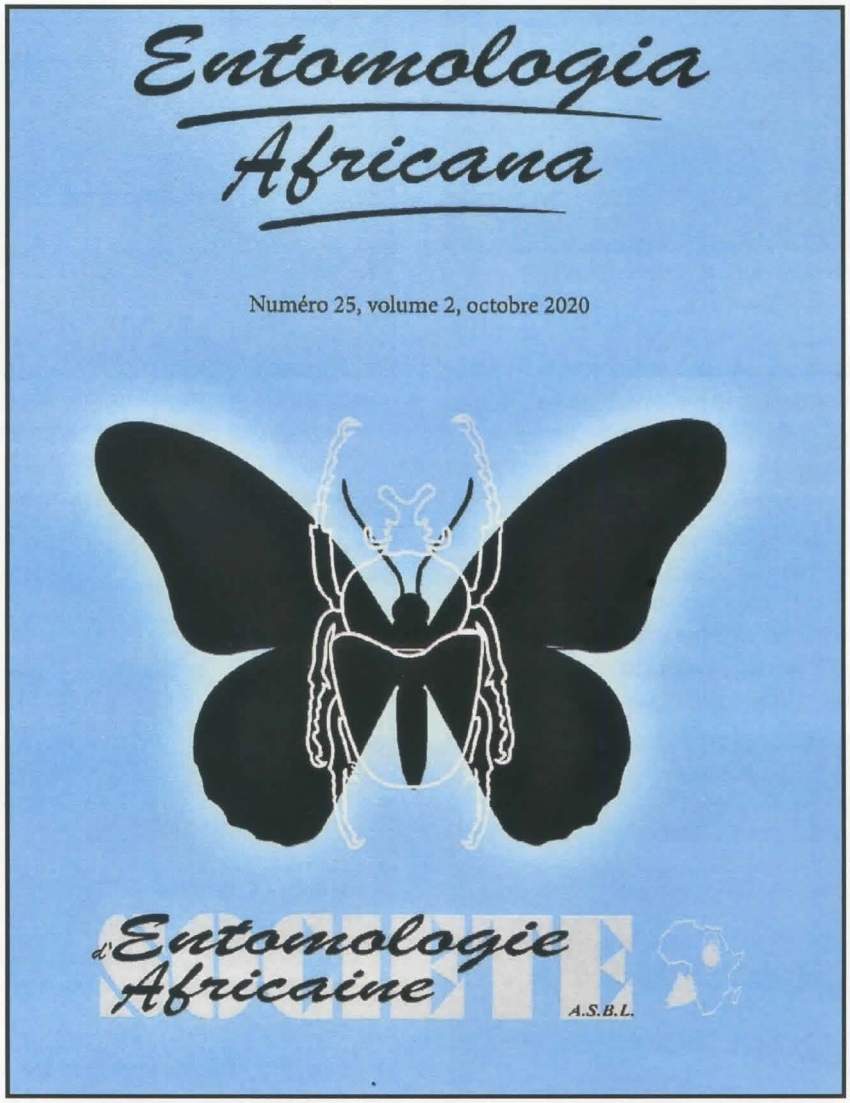


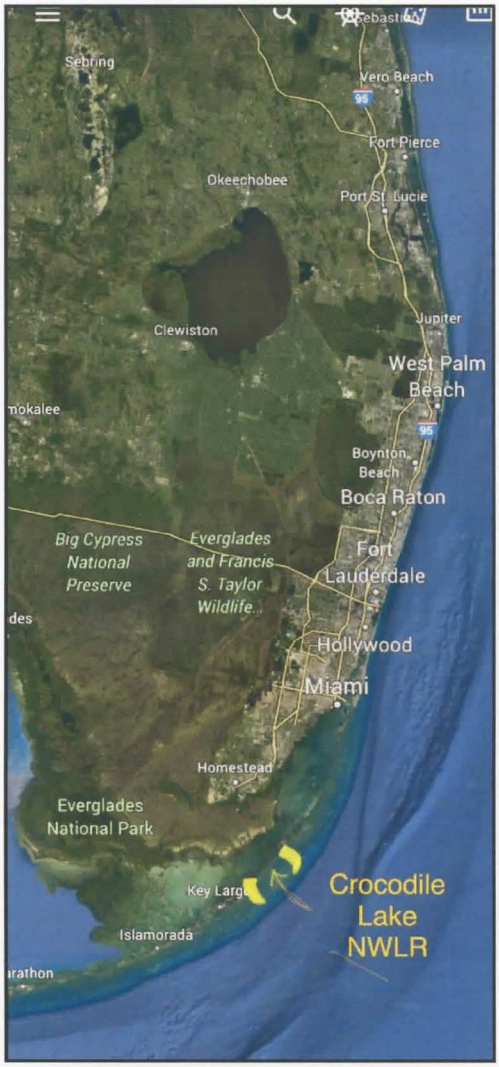
Cover Art in use by the African Entomological Society, Belgium (submitted by John Douglass).

FALL FIELD TRIP – NORTH KEY LARGO, FLORIDA OCTOBER 21-22

BY
DAVID FINE

I am so excited to invite the members of the Southern Lepidopterists' Society on a two day fall field trip to survey moths in Crocodile Lake National Wildlife Refuge in North Key Largo, Florida. Participants would be granted refuge access to help conduct a fall BIOBLITZ with a goal of identifying as many moth species as possible in the refuge on this two day survey. Since 2002, the Keys Moths project has identified over 600 species of moths from the Florida Keys alone with new species being added to the list on a regular basis. Through the pandemic, moth surveying in the Keys came to a halt thus it has been a few years since we have done any work in North Key Largo. I'm personally very excited to see what new things will have shown up in the refuge during that time and hope to get an idea how species observed in previous years are doing currently.

Crocodile Lake National Wildlife Refuge is a 10 mile stretch of tropical hardwood hammock that remains largely untouched on the west side of the 905, Card Sound Road. It is home of several endangered species including the Key Largo wood rat, Key Largo cotton mouse, the American Indigo snake, the American crocodile and of course, the Schaus' Swallowtail butterfly. We have identified 25 species of Sphinx moths there and a ton of interesting subtropical and tropical moth species including our Keys Moths mascot – The Faithful Beauty (*Composia fidelissima*) pictured below. The refuge remains closed to the public with exception to permitted researchers. If you would like to view a full photographic library of all 600 species of moths we have identified in the Florida Keys, please view the link my web site entitled "MOTHS": www.keysmoths.com



Map of South Florida – Crocodile Lake National Wildflife Refuge in North Key Largo

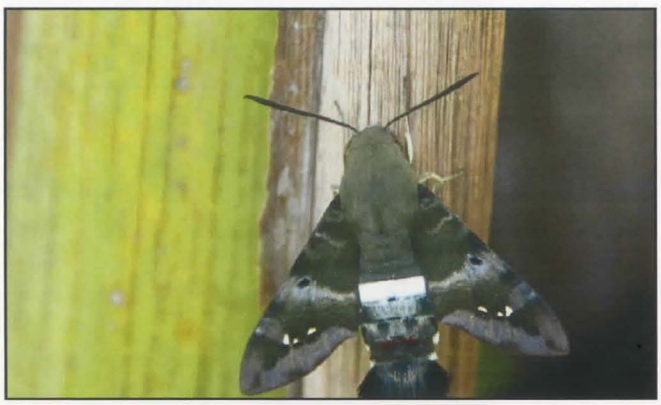
Boarders of Crocodile Lake National wildlife Refuge on west side of SR 905. The east side of the road belongs to the State of Florida

Composia fidelissima

We will meet Friday afternoon, October 21st at a location TBD to discuss location and strategy. We will collect Friday night and Saturday night. Only moths are to be collected in the refuge. My permit does not include butterflies. Day time surveying locations will be suggested to those interested later that day. We will compile a list of species photographed or collected and publish the data in various formats including a report to the refuge manager, a Southern Leps article as well as video documentation on our Keys Moths YouTube channel. Participants may take moth specimens home with them to process and identify. The ultimate destination of the specimens will be the McGuire Center for Lepidoptera Research. Participants may hold onto their specimens as long as they need to for their own research. We will disclose some hotel or Airbnb locations in the area for those that express interest.

If you are interested in participating in the field trip BIO BLITZ in North Key Largo or have any questions, please email me at DavidF@Calvaryftl.org

Thank you for your interest and I look forward to what species the 2022 BIOBLITZ will reveal.



Aellopos tantalus

Eumorpha vitis

Protambulux strigilis

Erinnyis ello

Eumorpha labruscae

Pseudosphinx tetrio

Madoryx pseudothyreus

Ascalapha odorata

Heterocampa cubana

Cocytius antaeus

Automeris io lileth (subspecies from the Florida Keys)

Phryxus caicus

Oxydia cubana

Pseudocharis minima

Calidota laquaeta

Lyrmire edwards

Eusudasoma involutum

(David Fine, E-Mail: davidf@calvaryftl.org)

LINDA BARBER AULD, NOLA BUG LADY sends the following comment:

"I was honored for my work with butterflies! It's nice to have your conservation efforts recognized. I was nominated in 2020 but Covid prevented any conventions until now. I had to wait 2 years to accept the award."

NEW AND SUPPLEMENTAL RECORDS OF LOUISIANA BUTTERFLIES (PART 3)

BY

CRAIG W. MARKS

Since the publication of my book, *Butterflies of Louisiana, A Guide to Identification and Location*, published in early 2018, I have generated two articles supplementing certain aspects of that book [See the *Southern Lepidopterist's News*, Vol. 42 No. 1 (2020) and Vol. 43, No. 1 (2021)]. Between those two articles, I reported the number of butterfly species in Louisiana has increased by three, to 157. Information provided by Vernon Brou, an experienced and respected lepidopterist here in Louisiana, indicates that number should be increased to 158.

Within my book, I had a section discussing butterflies and skippers that might eventually be found in Louisiana. I included the following entry:

"Tropical Buckeye (*Junonia evarete nigrosuffusa*): My experience with this butterfly has been in south FL and the Caribbean but it is reported to fly along the Gulf Coast in south TX. It is not reported as part of the Houston area fauna; however, it has been reported as far north and east as Galveston and Baytown in the upper Gulf Coast region of TX, so it should not be completely unexpected if it were discovered in CAM or CALC in late fall. In late September 2013, at Peveto Woods in CAM, I saw an extremely dark Buckeye. It had no white/off-white band and the forewing tips were more pointed, suggesting it was a male. It was very wary. I could not get close enough to take a picture. The third time I approached it, it flew off, not to return. I saw it well enough to state that unless it was an aberrant Common Buckeye, it was the dark or "nigra" subspecies of this butterfly."

There has been, over the past 35 years, a significant amount of confusion involving this and what is referred the Mangrove Buckeye (*J. genoveva*). In 1985, Turner and Parnell concluded that *evarete* was the species associated with Black Mangrove while *genoveva* was referenced as the Tropical Buckeye. Some sources followed this decision while others, such as Scott, reversed the species. This resulted in several instances where facts about the two species were transposed (see Smith, et al. & Minno, et al.). Neild (2008) conducted a detailed analysis of the issues and concluded that *genoveva's* host plant is Black Mangrove. Were that not enough confusion, more recent studies have suggested that the name *genoveva* should be applied to the South American buckeye that feeds on mangrove while in Florida, the appropriate name for the Mangrove Buckeye is *J. neildi*. These studies also conclude the proper name for the Tropical Buckeye found in Florida is *J. zonalis* (see Lalonde, et al., 2018).

Anyway, on 6/20/21, Vernon Brou posted the following message to the Louisiana Lep listserv,

"FYI, Back in 1971, I captured a wild *Junonia nigrosuffusa* in St. John the Baptist Parish. Never seen another one. Sent it to LACM back then. They have since lost it, probably due to pest (the two-legged variety)."

While my expectation was that this species would turn up along the southwestern boundary with Texas, as indicated, it also occurs in Florida so its presence in SE Louisiana is not completely unexpected. Stranger things have occurred, such as a Mercurial Skipper photographed in E. Baron Rouge Parish or a Milbert's Tortoiseshell caught in St. John the Baptist Parish.

As was reflected in my book and then in both articles, I have undertaken an effort to track what butterflies/skippers have been seen in which parishes. The following records are presented in furtherance of those on-going efforts:

Zebra Swallowtail:

a) Calcasieu Parish in Lake Charles area on 5/24/21. Posted on iNaturalist with photo. New parish record.

Black Swallowtail:

a) Union Parish S. of Farmerville on 7/11/20. Posted on iNaturalist with photo of caterpillar. New parish record.

b) Terrebonne Parish in Houma area on 12/27/21. On Facebook by Kerry Byrne. A male nectaring at clover. New record for December.

c) Vermilion Parish on Live Oak Road south of Abbeville on 1/09/22 by Phillip Wallace who reported seeing 3 (with photos). Not a parish record nor the first record for State in January, but first record for that month in the SW region of the State.

Spicebush Swallowtail:

a) Washington Parish b/t Pine & Sheridan in 6/2019 and N. of Franklinton on 6/18/21. Posted on iNaturalist with photos. New parish record.

Palamedes Swallowtail:

a) Livingston Parish at Albany on 6/25/21 & at Livingston Parish Library in March 2022. Posted on iNaturalist with photos. New parish record.

Giant Swallowtail:

a) Assumption Par. at Bayou L'Ourse Branch Library Nature Trail on 6/01/21 by R. Seidler (sight record). New parish record.

b) Vermilion Parish in Abbeville on 12/13/21 by P. Wallace. No picture but a solid sighting. Not a new parish record but first record of which I am aware for the month of December.

c) Cameron Parish at Peveto Woods on 12/31/21 by CWM (a fresh female). Not a new parish record but the second record for the month of December.

Checkered White:

a) Washington Parish at Bogue Chitto SP on 7/13/20. Posted on iNaturalist with photo. New parish record.

b) Iberia Parish at Marsh Island on 5/26/21. Posted on iNaturalist with photo. New parish record.

Cabbage White:

a) Tangipahoa Parish at Sandy Hollow WMA on 4/18/21 by CWM. Not a new parish record but first report from that parish in some time, consistent with recent sightings in the eastern Florida Parishes. Also, new location within that parish. A second, a female ovipositing, was photographed by Linda Auld on 4/17/22 at this location, and on 5/08/22, P. Wallace reported 4 seen there.

b) Orleans Parish at Linda Auld's home in New Orleans on 5/15/22. Not a new parish record, but further evidence that this species may be expanding its previously limited range in LA.

Cabbage White (Photo by L. Auld)

Great So. White:

a) West Feliciana Parish at Wakefield on 6/28/15. Posted on iNaturalist Posted on iNaturalist with photo. New parish record.

b) St. Tammany Parish at Fountainebleu SP and the Northlake Nature Center on 12/27/21 by Brad Moon. Not a new parish record but the first reports of this species in the month of December.

Falcate Orangetip:

a) Vernon Parish in Ft. Polk area on 3/27/22. Posted on iNaturalist with photo. New parish record. Also, there is a photo of a female at false garlic with notation, "Louisiana: Vernon Parish April 2011." Located on website, "thehibbetts.net/terry/butterflies&moths/Anthocharis.midea.html".

b) Union Parish at D'Arbonne NWR on 3/16/21 by Stephen Pagens with 3 pics (male and female). New parish record;

c) Tensas Parish in Tensas River NWR on 4/20 & 21/21. Visual sightings by John Himes. New parish record;

d) Madison Parish in Tensas River NWR on 4/20/21. Visual sightings by John Himes. New parish record;

e) Franklin Parish at provided GPS coordinates on 4/21/21. Visual sightings by John Himes. New parish record;

f) Richland Parish at provided GPS coordinates on 4/21/21. Visual sightings by John Himes. New parish record;

g) Morehouse Parish at provided GPS coordinates on 4/21/21. Visual sightings by John Himes. New parish record;

h) St. Martin Parish in Indian Bayou WMA at the St. Martin parking area/trail on 3/19/22 by CWM. Specimen taken. New parish record and first I've seen at that WMA in 22 yrs.

Cloudless Sulphur:

a) East Carroll Parish at Bayou Macon WMA on 4/20/20 by Jeff and Jean Trahan and Rosemary Seidler. New parish record.

Large Orange Sulphur:

a) Vernon Parish at Fullerton Lake along back of levee on 7/17/21 during Allen Acres count. Specimen (male) taken by CWM. New Parish record.

b) Caddo Parish within City of Shreveport at Jeff Trahan's yard on 9/18 & 20/21. Photos taken, two seen on the 18th. Not a new parish record but first record in several years.

Southern Dogface:

a) St. Martin Parish, near Cade on 2/06/22. Posted on iNaturalist with photo. The first February record for that species

Barred Yellow:

a) Tangipahoa Parish at Sandy Hollow WMA on 6/13/21. Brad and Dave Patton saw 14 Barred Yellows, indicating that species is still present at that known location despite severe winter storms during the 2021 winter;

b) St. Tammany Parish at Big Branch NWR on 11/23/21 by CWM. Not a new parish record but a new location within that NWR. On 12/05/21, CWM recorded 7, at two locations within that NWR (off of road to boat launch and along trail at Boy Scout Rd). First known records for the month of December.

c) St. Helena Parish east of Greensburg along St Rd 441S on 3/25 & 27/2022 (several seen each day). Not a new parish record but a new location.

Dainty Sulphur:

a) Jeff Davis Parish S of Welsh at Bayou Chene in 11/21. Posted on iNaturalist with photo. New parish record.

b) Richland Parish N of Delhi along Hwy 17 on 11/05/21. Posted on iNaturalist with photo. New parish record.

c) Cameron Parish at Peveto Woods on 12/31/21, very fresh, winter color form, recorded by CWM. Not a parish record or record for December, but a very late record none the less.

Harvester:

a) DeSoto Parish along LA191, 0.5 miles S of junction with US84 (E. of Logansport) on 4/05/22 by Kilian Roever (2 specimens taken). Not a new parish record, but the first report of this species in DeSoto Parish since the 1960s.

Great Purple Hairstreak:

a) Ouachita Parish in Monroe area on 10/23/21. Posted on iNaturalist with photo. New parish record.

b) St. James Parish at Lutcher on 5/01/20. Posted on iNaturalist with photo. New parish record.

c) Livingston Parish in Denham Springs area on 9/26/19, 9/28/19 & 9/17/21. Posted on iNaturalist with photos. New parish record.

d) Catahoula Parish at the Harrisonburg Boat launch/Rec Area on 4/04/22 by Phillip Wallace (with photo). New parish record.

Great Purple Hairstreak
(Photo by Philip Wallace)

Juniper Hairsreak :

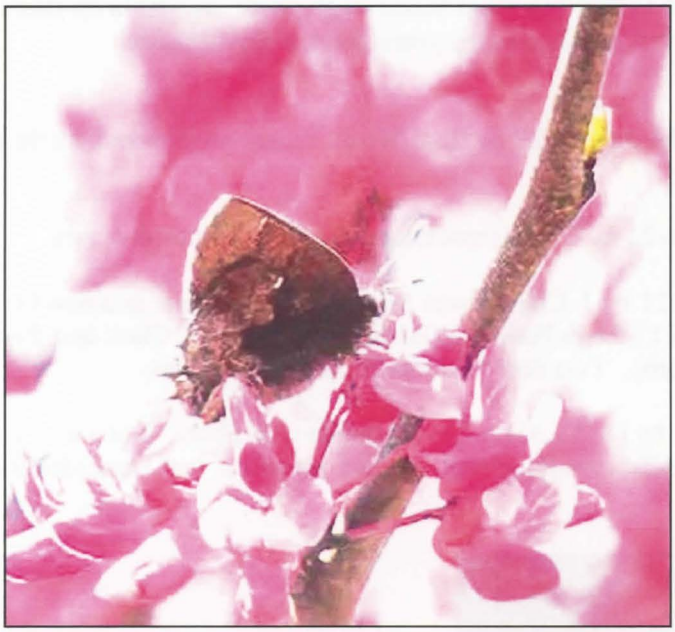
a) Vernon Parish at Allen Acres on 7/23/21 by B. Kaufman (with photo). Not a new record but another example of the 3rd brood consistently recorded at this location;

b) Grant Parish between Bentley and Colfax on 3/15/21. Posted on BAMONA with photo. New parish record.

Henry's Elfin:

a) Grant Parish at Catahoula Butterfly garden on 3/14/2021 by John Himes – he had no pictures but reported capturing specimens and examining them in his hand. Not a new parish record but first report in this parish in some time;

b) Catahoula Parish at Sisily Island Hills WMA on 3/20/22 by Brad Moon (with photo). New parish record.



Henry's Elfin
(Photo by Brad Moon)

Frosted Elfin:

a) Grant Parish, along FR 169, after turning north off of FR 120 on 4/02/22 by CWM. There was Indigo growing along the roadside and 2 fresh females (specimens taken) were each perched on the indigo. Not a new parish record but a new location/colony.

b) Winn Parish near Sanders Chapel United Methodist Church on 4/04/22 by John Hines as part of his Frosted Elfin survey conducted for the LDWF Department. Not a new parish record but a new location.

c) Sabine Parish along LA 1218, 3 mi SW of Noble on 4/05/22 by Kilian Roever. There is a reference on the BAMONA website to a previous report from Sabine Parish but there is absolutely no supporting information (who, when, where, etc).

Eastern Pine Elfin:

a) DeSoto Parish along LA191, 3 miles NW of DeSoto-Sabine Parish line. Not a new parish record, but first report of that species in DeSoto Parish since the 1960s.

Banded Hairstreak:

a) St. Martin Parish in Broussard area on 5/31/21. Posted on iNaturalist with photo. New parish record.

b) Iberville Parish at St. Gabriel on 5/06/21. Posted on iNaturalist with photo. New parish record.

c) Tangipahoa Parish at Sandy Hollow on 4/26/2020 by Brad Moon (with photo, available on iNaturalist). Not a new parish record, but first sighting in that parish in many years. A new location within the parish. Brad recorded 3 more at that location on 5/08/21.;

d) St. Tammany Parish at Lake Ramsey Savanna on 4/25/21 by CWM. Not a new parish record but a new location within that parish.

e) Lafayette Parish at Acadiana Nature Station on 4/28/21 by Dave Patton, 3 seen with a photo. Not a new parish record and not a new location, but evidence that colony is still present.

f) Catahoula Parish at Sisily Island Hills WMA on 5/08/22 by J. Clarks (with photo). Not a new parish record, but second report for this parish, both from this location.

Oak Hairstreak:

a) Tangipahoa Parish at Sandy Hollow on 4/14/2020 by Brad Moon (with photo, available on iNaturalist). Not a new parish record, but first sighting in that parish in many years. Also, a new location.

King's Hairstreak:

a) Tangipahoa Parish at Sandy Hollow WMA on 5/21/20 by Brad Moon. Posted on iNaturalist with photo. New parish record;

b) Allen Parish: CC Road Savannah on 5/16/21 by CWM (specimens taken). New parish record.

c) Grant Parish in Catahoula NWP on 5/23/21 by J. Clarks (with pictures). Second year in a row for this species at this location. Also, in that Parish on 6/13/21 in National Catahoula WMP by J. Clark and then on 6/15 in Kisatchie NF (with photos at both locations). Two new locations for this rare species;

d) Vernon Parish at Allen Acres on 5/21/22 by Dr. C. Allen. On Bugguide with photo. Not a new parish record, but a new location. During previous NABA counts at that location sweetleaf had been identified so not a surprise to find this rare hairstreak there.

King's Hairstreak
(Photo by Jonathan Clark)

Striped Hairstreak:

a) St. Tammany Parish at Lake Ramsey Savanna on 4/25/21 by CWM. Not a new parish record but a new location within that parish;

b) Tangipahoa Parish at Sandy Hollow WMA on 5/08/21 by Brad Moon and Dave Patton. Second year in a row at this location.

c) Vernon Parish off of Cooter Johnson Loop near the Blue Hole Rec Area on 5/15/21 by Brad Moon and Phillip Wallace (with picture). Not a new parish record but another 2021 sighting of this usually rarely seen hairstreak;

d) Washington Parish along Bogue Chitto south of LA 438 on 6/13/21 by Brad Moon (with photos). New parish record.

Dusky-blue Groundstreak:

a) Vermilion Parish at White Lake Wetlands Conservation Area on 11/03/21 by P. Wallace. Photo available on BAMONA website. Second record for that parish and a new location.

Gray Hairstreak:

a) Ascension Parish in Prairieville area on 9/18/20. Posted on iNaturalist with photo. New parish record.

b) Vermilion Parish on Live Oak Road south of Abbeville on 1/09/22 by Phillip Wallace (with a photo). He reported 2 more on 1/14 at the same location. First records for this species in January.

White M Hairstreak:

a) Vernon Parish at Fort Polk on 7/22/21 & Pitkin on 7/01/21. Posted on iNaturalist with photos. New parish record.

b) Bossier Parish at Red Chute on 9/23/21. Posted on iNaturalist with photo. New parish record.

c) Rapides Parish on 6/24/21 near Castor Plunge Rd in Kisatchie NF by P. Wallace (with photo). Not a new parish record but a new location for this only occasionally reported hairstreak.

d) LaSalle Parish on 7/24/21 during the Catahoula NWR count by CWM. Specimen taken. First time for that count and a new location within that parish.

e) Evangeline Parish at the Louisiana Arboretum by Brad Moon on 4/27/22 (with photo). New parish record.

Eastern Tailed-blue:

a) East Carroll Parish at Bayou Macon WMA on 4/20/20 by Jeff and Jean Trahan and Rosemary Seidler. New parish record.

b) Vermilion Parish on Live Oak Road south of Abbeville on 2/20/22 by Phillip Wallace. New parish record.

Eastern Pigmy Blue:

a) Cameron Parish at Broussard Beach on 10/08/21 by Brad Moon and Phillip Wallace. Not a new parish record nor a new location but first report of that previously existing colony in a few years;

Azure:

a) Tangipahoa Parish at Sandy Hollow WMA on 4/17/22. Not a new parish record for either Spring or Summer species. The pictures suggested it to be a Summer Azure. The date is in the gray area where it has been reported both species potentially fly. Several Azures were seen at this location that day, including a female that was ovipositing on the new flower buds of a New Jersey Tea plant;

Azure (Photo by L. Auld)

Spring Azure:

a) Catahoula Parish at Sisily Island Hills WMA on 3/20/22 by CWM, Jonathan Clark and Brad Moon. New parish record.

b) St. Helena Parish east of Greensburg along St Rd 441 N on 3/27/22 by CWM (specimen taken). New Parish record.

Summer Azure:

a) Union Parish at D'Arbonne NWR on 9/06/21. Posted on iNaturalist with photo. New parish record.

b) Iberville Parish at St. Gabriel on 9/16/20. Posted on iNaturalist with photo. New parish record.

c) E. Baton Rouge Parish in Baton Rouge on 8/29/20. Posted on iNaturalist with photo. New parish record.

Reakirt Blue:

a) Rapides Parish in Kisatchie NF along Hwy 112 on 10/31/21 by Brad Moons (photos available on BAMONA website). Second parish record for this occasional migrant into the State from Texas.

Little Metalmark:

a) Tangipahoa Parish at Sandy Hollow WMA on 3/27/21 by CWM. Not a new parish record, but second year in a row at this WMA (albeit in a different section of the WMA). Also, an early record.

b) Vernon Parish at Allen Acres on 4/29/21 by Rosemary Seidler with photos. Not a new parish record, but a new location within that parish;

c) St. Helena Parish east of Greensburg along St Rd 441 S on 3/25/22 (4 seen) & 3/27/22 (1 seen) by CWM (specimens taken). Not a new parish record, but first recorded there since G. Strickland back in 1970. Recorded in the same general area.

d) Tangipahoa Parish at Sandy Hollow WMA on 3/25/22 by CWM (6 seen, most seen at that location on one day). Not a new parish record.

e) Pointe Coupee Parish at the old ferry landing across from Bayou Sara on 3/27/22 by Phillip Wallace (with photo). New parish record.

Snout:

a) Beauregard Parish at Longville on 11/23/20. Posted on iNaturalist with photo. New parish record.

b) Ascension Parish at Gonzales on 4/21/20. Posted on iNaturalist with photo. New parish record.

Monarch:

a) Washington Parish S. of Franklinton along Hwy 16 on 8/09/20. Posted on iNaturalist with photo. New parish record.

b) East Carroll Parish at Bayou Macon WMA on 4/20/20 by Jeff and Jean Trahan and Rosemary Seidler. New parish record.

Queen:

a) Grant Parish in Kisatchie NF on 11/12/20. Posted on iNaturalist with photo. New parish record.

b) St. Tammany Parish at Big Bayou NWR on 8/07/21 by CWM. Not a new parish record but 6 were seen at a new locations within that NWR. Also, on 11/23/21 at Big Branch NWR, I found this species at the same location, a late season sighting.

c) Cameron Parish at Peveto Woods on 11/24/21, another late season sighting.

Gulf Fritillary:

a) Union Parish in the Farmerville area on 9/13/21, 11/02/19 & 10/09/18. All posted on iNaturalist with photos. New parish record.

Variegated Fritillary:

a) Washington Parish N. of Pine at state line on 5/19/21. Posted on iNaturalist with photo. New parish record.

Zebra Longwing:

a) St. Tammany Parish at Big Bayou NWR on 8/07/21 by CWM (specimen taken, a male). Not a new parish record but first in that parish in several years and at new location. NOTE: Per Linda Auld, Cheri Ben-Iesau reported to Linda that more than one Zebra Longwing was seen in the LeCombe area (which is in the immediate area of Big Branch NWR) during this same time frame. Later, in mid-Sept, Linda reported that Lorie Quinn posted a picture of this species on Facebook, taken in the Three Rivers area of Covington. On 9/25/21, Linda Auld (and 2 others) saw 2 at Honey Island Swamp, each in a different section of the WMA. Linda Auld advised that Trudy Campbell reported seeing more than one in Abita Springs on farfugium on Monday, 12/06/21. Another sighting at LaCombe on 12/12/21 was posted on iNaturalist. Charlotte Seidenberg reported one in her garden in Covington on portulaca blossoms on 12/25. On iNaturalist, Paula Flynn posted a picture of one in Mandeville on 12/26. There is another post on iNaturalist for Mandeville on 12/24 and on there is a post in area of Northlake Nature Center for 12/23/21. On Facebook, Meredith Campbell had a picture of a Zebra at salvia on 12/29/21 in Mandeville. All of these sightings were in St. Tammany Parish.

b) Orleans Parish at Bayou Sauvage NWR along the Ridge Trail on 10/16/21, by James Beck (with picture). Not a new parish record but a new location. David Muth recorded on iNaturalist seeing one at Bayou Sauvage on 11/2/21. There is also a report from NO City Park on 12/17/21. Not new parish records.

c) Ascension Parish in Gonzales on 12/16/21 by Mike Scott who posted a picture on Facebook of one in his garden on a Mexican sunflower.

Silvery Checkerspot:

a) Winn Parish at National Catahoula Wildlife Management Preserve at end of FS RD 530 (part of Kistachie NF) on 4/05/21 by J. Clark (with picture). New Parish record.

b) LaSalle Parish, 34 seen during the Catahoula NWR count on 7/24/21, all very fresh suggesting a recent hatch. Seen in the upland piney woods area of that count, including a new location, although not a new parish record.

Phaon Crescent:

a) Avoyelles Parish at Mansura on 10/18/20 & Pomme de Terre WMA on 11/14/19. Posted on iNaturalist with photos. New parish record.

b) Ascension Parish at Gonzales on 10/03/18. Posted on iNaturalist with photo. New parish record.

c) East Carroll Parish at Bayou Macon WMA on 4/20/20 by Jeff and Jean Trahan and Rosemary Seidler. New parish record.

d) Central Cameron Parish on 12/04/21 by Phillip Wallace. First known record for the month of December.

Pearl Crescent:

a) St. James Parish N of Mississippi River, along Hwy 3125 on 5/05/08. Posted on BAMONA with photo. New parish record.

Texan Crescent:

a) St. Martin Parish in Indian Bayou WMA on 6/18/21 by Brad Moon and Dave Patton. Ten plus seen. Not a new parish record or new location but confirmation that this previously recorded colony still exists;

b) Lafayette Parish at the Acadiana Nature Station on 3/22/22 by D. Patton. Not a parish record, nor the first March record for that location, but first reported after this winter's severe storms.

c) St. Mary Parish at Bayou Teche NWR, the North Bend (East) area, on 3/24 by CWM, one female. Not a parish record, but first March record for this location. Also seen by CWM at the Palmetto Trail in Bayou Teche NWR on 5/14/22. I haven't seen this species at this location in over 5 years.

Common Buckeye:

a) East Carroll Parish at Bayou Macon WMA on 4/20/20 by Jeff and Jean Trahan and Rosemary Seidler. New parish record.

White Peacock:

a) Cameron Parish at Willow island on 10/24/21 by Rosemary Seidler. Not a new parish record, but a new location within that Parish. On 12/05/21, Phillip Wallace submitted photos also from Willow Island. Not the first December record for this species but still noteworthy as a rare late season sighting.

b) Orleans Parish at Bayou Sauvage NWR on 12/12/21, by David Muth (with photo). This is a known location but represents the first sighting this year. On iNaturalist, three reports indicate the presence of a colony or colonies in eastern Orleans Parish: Venetian Isles on 9/15/13 & 12/12/21 and "Pine Island Trend" on 8/17/21. All With photo.

c) Jefferson Parish at Grand Isle during the Christmas Bird Count there on 12/22/21 by D. Muth. Grand isle is also a known location for this species, but still a very late sighting.

Question Mark:

a) Union Parish at Ouchley Farm on 2/22/17 and at Heartwood Natural Area on 1/03/18. Posted on iNaturalist with photo. New parish record.

b) Plaquemine Parish at Belle Chasse on 3/11/21 & 3/24/21. All posted on iNaturalist with photos. New parish record.

Eastern Comma:

a) Orleans Parish at City Park on 5/02/21. Posted on iNaturalist with photo. New parish record.

b) Catahoula Parish on Minnow Pond Rd on 7/24/21 during Catahoula Count by Jeff/Jean Trahan. Seen day before by J. Clark at the same location. Not a new parish record, but first for that count for this not often encountered species.

Mourning Cloak:

a) Catahoula Parish at Sicily Island Hills WMA on 5/18/21 by J. Clark. Not a new parish record (or first record for this site), but first state sighting of this species in several years. Jonathan reported a second at this location on 5/08/22.

b) Rapides Parish near community of Calcasieu on 4/27/12 & 5/06/12 (same location for both dates). Posted on BAMONA with photos. New parish record.

Red Admiral:

a) St. Helena Parish S. of Hillsdale along 441 on 2/14/20. Posted on iNaturalist with photo. New parish record.

b) W. Baton Rouge Parish (west of Lobdell), on 10/07/19. Posted on iNaturalist with photo. New parish record;

c) St. James Parish N of Mississippi River, along Hwy 3125 on 11/24/10. Posted on BAMONA with photo. New parish record.

Painted Lady:

a) Morehouse Parish E of Oak Ridge and N of Hwy 134, on 5/27/20. Posted on iNaturalist Posted on iNaturalist with photo. New parish record.

b) Ascension Parish at Gonzales on 11/03/20. Posted on iNaturalist Posted on iNaturalist with photo. New parish record.

c) St. James Parish N of Mississippi River, along Hwy 3125 on 11/16/08. Posted on BAMONA with photo. New parish record.

American Lady:

a) Pointe Coupee Parish at the old ferry landing across from Bayou Sara on 3/27/22 by Dave Patton (with photo). New parish record.

Red-spotted Purple:

a) Jeff Davis Parish at Jennings on 6/06/21. Posted on iNaturalist with photo. New parish record.

b) Plaquemines Parish along Revena Road on 5/30/21 by R. Seidler (with photo). New parish record.

c) St. James Parish N of Mississippi River, along Hwy 3125 on 7/26/07. Posted on BAMONA with photo. New parish record.

Viceroy:

a) West Carrol Parish at Epps on 7/14/1982. Posted on iNaturalist (on 10/12/20) with photo. New parish record.

b) East Carroll Parish at Bayou Macon WMA on 7/29/03. Posted on BAMONA with photo. New parish record.

Hackberry Emperor:

a) Morehouse Parish in Oak Ridge area on 5/27/20. Posted on iNaturalist with photo. New parish record.

b) Pointe Coupee Parish in Atchafalaya NWR at Krotz Springs on 7/31/21. Posted on iNaturalist with photo. New parish record. I saw 2 at Sherburne WMA in that parish on 5/14/22 for a second record.

c) Jeff Davis Parish N of Welsh on 5/16/10. Posted on BAMONA reported to have been verified by photo but there is no photo posted. New parish record.

d) Bienville Parish E of Ringgold on 6/23/17. Posted on BAMONA with photo. New parish record.

Tawny Emperor:

a) Ascension Parish at Gonzales on 8/28/21. Posted on iNaturalist with photo. New parish record.

b) Tangipahoa Parish in Hammond area on 4/11/22. Posted on iNaturalist with photo. New parish record.

c) Catahoula Parish at Archie Rec Area on 7/24/21 during the Catahoula NWR Count by CWM. New parish record.

d) Rapides Parish in Kisatchie NF near Woodworth on 9/18/15. Posted on BAMONA with photo. New parish record.

Northern Pearly-eye:

a) Grant Parish in Catahoula NWP on 5/23/21 by J. Clarks (with photo). Second year in a row for this species at this location;

Southern Pearly-eye:

a) Lincoln Parish in City of Ruston on 10/21/21. Ouachita Parish at Black Bayou Lake NWR on 3/29/18. Posted on iNaturalist with photo. New parish record.

b) Madison Parish in Tensas NWR along the Africa Lake trail on 10/10/21 by Bette Kaufman (with photo). New parish record;

Creole Pearly-eye:

a) Grant Parish near Williana in Catahoula NWP along FR 145 on 5/29/21. A visual sighting by Jason Cole. New parish record.

b) Catahoula Parish at Sisily Island on 5/08/22 by J. Clark (with photo). Second record for this species at this location and in this parish.

Appalachian Brown:

a) Lafourche Parish at Lockport on 8/01/21. Posted on iNaturalist with photo. New parish record.

b) Livingston Parish N of Denham Springs on 7/25/21. On iNaturalist with photo. Not a new parish record, but first report from Livingston Parish of this not often recorded species since the early 1980's.

c) St. Mary Parish at Bayou Teche NWR, North Bend Unit on 5/30/21 by CWM. Seventeen counted in short period of time. Many more flying back in the trees. Most seen at any location in LA. At that location, on 3/24/22, 7 were seen by CWM, the first March record for this State. On 4/15, at the Palmetto Trail area of Bayou Teche NWR, CWM counted 7 Ap Browns. This location is about 2-3 miles from North Bend as a crow flies, so this is clearly a new colony.

Appalachian Brown (Photo by CWM)

Gemmed Satyr:

a) Madison Parish at Tensas NWR on 7/09/20. Posted on iNaturalist with photo. New parish record.

b) Lincoln Parish in Ruston area on 4/02/22. Posted on iNaturalist with photo. New parish record.

c) Ouachita Parish in Monroe area on 9/23/21 & D'Arbonne NWR on 6/26/21. Posted on iNaturalist with photos. New parish record.

d) East Carroll Parish at Bayou Macon WMA on 4/20/20 by Jeff and Jean Trahan and Rosemary Seidler. New parish record.

Carolina Satyr:

a) Plaquemine Parish at Belle Chasse on 3/13/21. Posted on iNaturalist with photo. New parish record.

Little Wood Satyr:

a) Concordia Parish at Bayou Cocodrie NWR on 6/19/20. Posted on iNaturalist with photo. New parish record.

Satyrs:

a) St. Tammany Parish at Lake Ramsey Savanna on 4/25/21. I saw all 4 of Louisiana's satyrs at the same location and on same day. First time for me. The Carolina Satyrs were common that day. There were 4 Gemmed Satyrs seen, 1 Georgia Satyr and 1 Little Wood Satyr. The Georgia Satyr was out in the open savannah. The others (along with the bulk of the other butterflies and skippers seen) were in the wooded area along the creek there.

Silver-spotted Skipper:

a) Winn Parish in Kisatchie NF on 5/29/20. Posted on iNaturalist with photo. New parish record.

b) Vermilion Parish at Abbeville on 8/19/21 by Phillip Wallace (sight reporting, no picture but sufficiently described to verify identification). New parish record.

White-striped Longtail:

a) Rapides Parish off of Boy Scout Rd near Forest Hills on 10/17/21 by Phillip Wallace with a clear picture. New parish record.

Long-tailed Skipper:

a) St. Helena Parish near Hillsdale on 10/07/20. Posted on iNaturalist with photo. New parish record.

b) Tangipahoa Parish at Sandy Hollow WMA on 3/27/21 by CWM. Not a new parish record, but an early season record (second March specimen seen at this location). The specimen was extremely small, less than one half the typical size;

c) Plaquemine Parish on 1/02 by R. Seidler. Second record for State in January.

Dorantes Longtail:

a) Jefferson Parish at Marrero on 12/24/21, reported by James Beck based on two separate sightings in his yard. New parish record and first record for the month of December.

Hayhurst Scallopwing:

a) Iberville Parish in St. Gabriel on 7/06/18. Posted on iNaturalist with photo. Not a new parish record but noteworthy, particularly due to its proximity to the colony at Indian Bayou.

b) St. Martin Parish in Indian Bayou WMA at the St. Martin parking area/trail on 3/19/22 by CWM. Two were seen, they represent the second reports for the month of March.

c) Pointe Coupee Parish at Sherburne WMA east of Krotz Spring on 5/14/22. New parish record. Very similar habitat as that where a colony exists in St. Martin Parish, about 20 miles away as a crow flies.

Juvenal's Duskywing:

a) St. Landry Parish at Thistlethwaite WMA by Brad Moon on 2/23/22. Posted on iNaturalist with photo. New parish record.

b) Vermilion Parish at Abbeville in Phillip Wallace's yard on 8/18/21 by Phillip with pictures. Although out of season, the photographs confirm it is a Juvenal's. There are reports from Alabama of this species in August, and this appears to be Louisiana's second late season sighting (see below). A new parish record and a new record for August.

c) Caddo Parish at Shreveport LA, on 11/02/2011, by J. Trahan with the following picture. He and I agree this appears to be a Juvenal's well out of season. First record for November.

Juvenal's Duskywing
(Photo by J. Trahan)

Horace's Duskywing:

a) Lincoln Parish in Ruston area on 7/05/20. St. James Parish at Oak Alley Plantation on 7/01/18. Posted on iNaturalist. New parish record.

b) Plaquemine Parish at the Naval Air Station, Joint Reserve Base at Belle Chasse on 6/28/21. Posted on iNaturalist with photo. New parish record.

Zarucco Duskywing:

a) St. Helena Parish east of Greensburg along St Rd 441S by CWM (specimen taken) on 3/27/22. Not a new parish or month record, but first seen by me in that parish, and first record since the early 1970's.

Tropical Checkered-skipper:

a) Union Parish S. of Farmerville on 9/15/20. Posted on iNaturalist with photo. New parish record.

Least Skipper:

a) Morehouse Parish NE of Sterlington off of Hwy 165 on 4/18/21. Posted on iNaturalist with photo. New parish record.

b) Livingston Parish b/t Denham Springs and Watson on 5/19/20. Posted on iNaturalist Posted on iNaturalist with photo. New parish record. New parish record.

c) Union Parish at D'Arbonne NWR on 9/29/21. Posted on iNaturalist Posted on iNaturalist with photo. New parish record. New parish record.

d) Vermilion Parish at Palmetto St Pk on 12/01/21 by Phillip Wallace. First known record for the month of December.

e) St. Tammany Parish at Big Branch NWR on 12/05/21 by CWM. Second record for the month of December.

Southern Skipperling:

a) Ascension Parish N. of Dutchtown on 2/28/22. Posted on iNaturalist with photo. New parish record.

b) Catahoula Parish at Archie Rec Area on 7/24/21 during the Catahoula NWR Count by CWM. New parish record.

c) Cameron Parish at Willow Island on 12/04/22 by Phillip. Not the first known record for the month of December, but still a note-worthy last season sighting.

Clouded Skipper:

a) Lafourche Parish in Thibodeaux area, 7/20/20, reported on iNaturalist with photo. New parish record;

Whirlabout:

a) Lafayette Parish in Youngsville area on 8/20/21 and in City of Lafayette on 6/20/20. Posted on iNaturalist with photos. New parish record.

Tawny-edged Skipper:

a) St. Helena Parish east of Greensburg along St Rd 441S by CWM (specimen taken) on 3/27/22. First March record for State that I am aware of and first reported in that parish since Strickland in 1970.

b) West Feliciana Parish at Mary Ann Brown Nature Preserve on 3/27/22 by Phillip Wallace. The second March record, recorded the same day as my sighting.

Southern Broken-dash:

a) Iberville Parish S. of Plaquemine in 8/2019 and in Spanish Lake area on 9/17/20. Posted on iNaturalist with photo. New parish record.

b) Lincoln Parish N. of Ruston on 8/31/19. Posted on iNaturalist with photo. New parish record.

c) Vermilion Parish at Palmetto St Pk on 11/30/21 by Phillip Wallace (with photo). Not a new parish record, but first known records for the month of November.

d) Vermilion Parish at Palmetto St Pk on 3/25/22 by Phillip Wallace (with photo). Third State record for March, first for this location within that parish.

Little Glassywing:

a) Pointe Coupee Parish at Sherburne WMA east of Krotz spring on 5/01/22 by CWM (specimen taken). New parish record.

Meske's Skipper:

a) Vernon Parish at Cooter's Bog on 5/31/21. Caught by Jason Cole. Not a new parish record but new location in parish and first record for the month of May.

Arogos Skipper:

a) St. Tammany Parish at Abita Creek Preserve on 7/18/19 by Brad Moon. reported on iNaturalist with photo. Not a new parish record but first record of which I am aware for the month of July. There is a second sighting in that parish recorded on iNaturalist (with photo) for July 2018. The specific location and date are not included.

b) St. Tammany Parish at Lake Ramsey Preserve on 5/xx/11. Reported on iNaturalist in January of 2018 with photo. Not a new parish record but first record of which I am aware for the month of May. There is a second sighting in that parish recorded on iNaturalist (with photo) for May 2020. The specific location and date are not included.

c) St. Tammany Parish at Abita Creek Preserve on 9/06/21. Reported on iNaturalist with photo. Not a new parish record but first record of which I am aware for the month of September.

Delaware Skipper:

a) St. Mary Parish at Palmetto Trail on 4/15, by CWM. Not first record for April, but earliest April record by about 2 wks.

b) Pointe Coupee Parish at Sherburne WMA east of Krotz spring on 5/01/22 by CWM (12 seen, both males and females). New Parish record and most I've seen in one location in one day.

Delaware Skipper
(Photo by CWM)

Zabulon Skipper:

a) West Feliciana Parish in area of Lake Rosemound on 4/29/22 (a male). Also, in Wakefield area on 6/24/21 (a female). Both reported on iNaturalist with photos. Not new parish records but first reports for this skipper in several years.

Yehl Skipper:

a) St. Tammany Parish at Honey Island Swamp on 9/25/21 by Linda Auld and 2 others (with photo). Not a new parish record but sightings suggest the colony at this location survived the effects of Hurricane Ida which hit the area hard.

Yehl Skipper (Photo by L. Auld)

Broad-winged Skipper:

a) St. Martin Parish at Indian Bayou WMA on 8/01/21 (during 2021 NABA Count) by P. Wallace (with photo). New parish and count record.

b) Vermilion Parish on Live Oak Road south of Abbeville on 1/14/22 by Phillip Wallace. First January record for that skipper. Phillip then saw 3 Broad-wings on 2/20, a new record for the month of February.

Palatka Skipper:

a) St. Tammany Parish at Big Branch Marsh NWR on 5/08/21. Specimens taken by CWM. Not a new parish record but first records for month of May.

b) Vermilion Parish at pickerelweed along Hwy 690 near Bancker Grotto on 10/05/21 by Phillip Wallace with multiple pictures of a fresh male. New parish record.

Palatka Skipper (Photo by Phillip Wallace)

Duke's Skipper:

a) Lafourche Parish E of Gheens and NW of Gheens, both in 8/2021. Posted on iNaturalist with photo. New parish record.

b) Richland Parish at abandoned rest area on I-20 (westbound side, GPS: N 32.4458 W -91.5397) on 8/27/21 by Ricky Patterson (specimen taken, *carex* sedge noted in area). New parish record.

c) St. Mary Parish at Palmetto Trail on 5/14/22, by CWM. Not new parish record, but new colony at a new location.

Dion Skipper:

a) St. Tammany Parish at Big Branch Marsh NWR on 5/08/21. Specimens caught by CWM. Not a new parish record but first records for May.

b) Caddo Parish in area of Wallace Lake on 6/05/21 by Charles Lyon (with photo, a male). Not a new parish record, but first record in many years. Last report was also at Wallace Lake;

c) Reds River Parish at Red River NWR, Bayou Pierre Unit, Yates Tract on 9/10/21 by Jeff Trahan and Charlie Lyons (with picture, a female). New parish record.

d) Grant Parish in Kisatchie NF on 5/23/22 by J. Clark (with photo, a male). New parish record.

Dusted Skipper:

a) Sabine Parish at Peason Ridge, LA118, on 4/05/22 by Kilian Roever (specimen taken). New Parish record.

Dun Skipper:

a) Ouachita Parish at Black Bayou Lake NWR on 4/26/21. Posted on iNaturalist with photo. New parish record.

b) Jeff Davis Parish N. of I-10 at Laccasine on 10/08/21. Posted on iNaturalist with photo. New parish record.

c) Washington Parish at Bogue Chitto SP on 8/01/20. Posted on iNaturalist with photo. New parish record.

d) St. Helena Parish near Hillsdale on 4/22/22. Posted on iNaturalist with photo. New parish record.

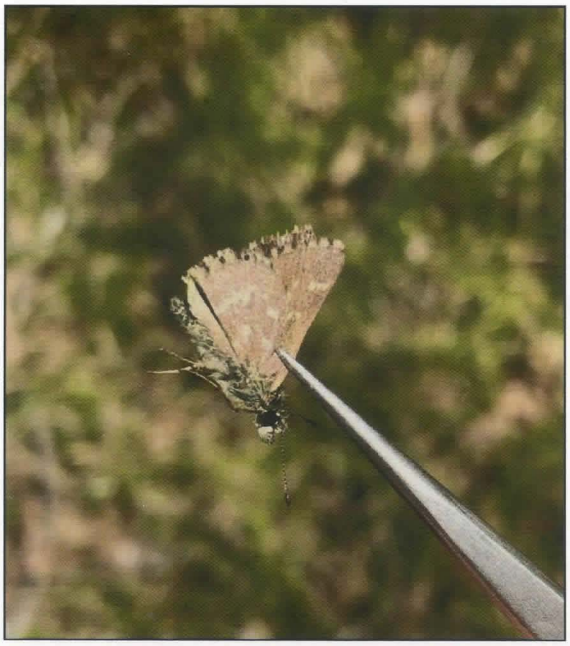
e) Jefferson Parish at Terrytown on 4/03/21. Posted on iNaturalist with photo. New parish record.

Pepper & Salt Roadside Skipper:

a) Rapides Parish in Kisatchie NF, primarily along Caster Plunge Rd, on 3/14/21, by CWM, 10 seen. Not a new parish record but not typically seen in such high numbers.

b) Grant Parish along FR 169 on 4/02/22 by CWM. In August of 2019, Jonathan Clark had submitted a picture of a skipper he took in Grant Parish. to BAMONA which identified the skipper as a Pepper & Salt Roadside Skipper. I disagreed. The time of the year and coloring was wrong. Jeff Trahan and Nick Grisham agreed with my conclusions, and I declined to accept the sighting as a new Parish record for Grant. On 4/02/22, I saw two specimens that were clearly that species (specimens taken). New parish record.

c) Catahoula Parish at Sisily Island Hills WMA on 3/20/22 found by CWM and Jonathan Clark. Not a new parish record for both, but specimen was tan colored (specimen taken) which is under current investigation at the species/subspecies level. Ricky Patterson reported also finding tan colored specimens at this location on 3/22/22;



Pepper & Salt Roadside Skipper
(Photo by CWM)

Dusky Roadside Skipper:

a) Tangipahoa Parish at Sandy Hollow WMA on 3/27/21 by CWM (4 seen). Not a new parish record but seen in a different section of the WMA.

b) Grant Parish along FR 169 on 4/02/22 by CWM. In August of 2019, Jonathan Clark had submitted a picture of a skipper he took in Grant Parish to BAMONA which identified the skipper as a Pepper & Salt Roadside Skipper. I disagreed. The skipper Jonathan submitted to BAMONA may have been a Common or Dusky RS Sk. No one was sure. New parish record.

Twin-spot: Lafayette Parish at the Acadiana Nature Center on 5/18/22 by Brad Moon (with photo). New parish

a) Lafayette Parish at the Acadiana Nature Center on 5/18/22 by Brad Moon (with photo). New parish record.

Eufala Skipper:

a) St. Martin Parish in the Cecelia area on 10/31/20. Posted on iNaturalist with photo. New parish record.

b) Cameron Parish at Oak Grove on 12/16/18 by Brad Moon. Posted on iNaturalist with photo. First state record for the month of December.

Brazilian Skipper:

a) Grant Parish on 9/18/21 as part of Catahoula Butterfly Garden NABA 2021 Count. Reported by Marty Floyd, an adult seen at Canna (no pictures). New Parish record.

Ocola Skipper:

a) Lafourche Parish in Thibodeaux area on 8/22/20. Posted on iNaturalist with photo. New parish record.

b) Plaquemine Parish on 1/02/22 by R. Seidler. First records for State in January.

c) Vermilion Parish on Live Oak Road south of Abbeville on 1/09/22 by Phillip Wallace with a photo, the second January record for this species with both occurring in 2022.

The updated numbers for species reported in each parish is as follows:

ACA	Acadia Parish (44)	ASS	Assumption Parish (16)
ALL	Allen Parish (57)	AVO	Avoyelles Parish (53)
ASC	Ascension Parish (35)	BEAU	Beauregard Parish (57)

BIEN	Bienville Parish (57)
BOS	Bossier Parish (88)
CAD	Caddo Parish (110)
CALC	Calcasieu Parish (62)
CALD	Caldwell Parish (49)
CAM	Cameron Parish (76)
CAT	Catahoula Parish (79)
CLA	Claiborne Parish (70)
CON	Concordia Parish (46)
DES	DeSoto Parish (84)
EBR	East Baton Rouge Parish (98)
ECA	East Carroll Parish (29)
EFE	East Feliciana Parish (87)
EVA	Evangeline Parish (64)
FRA	Franklin Parish (27)
GRA	Grant Parish (93)
IBE	Iberia Parish (66)
IBV	Iberville Parish (57)
JAC	Jackson Parish (36)
JEF	Jefferson Parish (53)
JFD	Jefferson Davis Parish (46)
LAFA	Lafayette Parish (82)
LAFO	Lafourche Parish (57)
LAS	LaSalle Parish (70)
LIN	Lincoln Parish (46)
LIV	Livingston Parish (66)
MAD	Madison Parish (51)
MOR	Morehouse Parish (38)
NAT	Natchitoches Parish (109)
ORL	Orleans Parish (82)
OUA	Ouachita Parish (55)
PLA	Plaquemines Parish (32)
PCP	Pointe Coupee Parish (47)
RAP	Rapides Parish (104)
RDR	Red River Parish (54)
RIC	Richland Parish (42)
SAB	Sabine Parish (90)
SBN	St. Bernard Parish (29)
SCH	St. Charles Parish (55)
SHE	St. Helena Parish (70)
SJA	St. James Parish (30)
SJB	St. John the Baptist Parish (56)
SLA	St. Landry Parish (89)
SMA	St. Mary Parish (52)
SMN	St. Martin Parish (70)
STA	St. Tammany Parish (111)
TAN	Tangipahoa Parish (90)
TEN	Tensas Parish (52)
TER	Terrebonne Parish (65)
UNI	Union Parish (50)
VER	Vernon Parish (98)
VRM	Vermilion Parish (65)
WAS	Washington Parish (61)
WBR	West Baton Rouge Parish (38)
WCA	West Carroll Parish (31)
WEB	Webster Parish (57)
WFE	West Feliciana Parish (98)
WIN	Winn Parish (69)

Even with these new records, some parishes still remain badly underreported with Assumption, East Carroll, West Carrol, Franklin, St. Bernard and St. James reporting 31 or fewer species. Five others still have fewer than 40 recorded species. Four parishes have topped 100 recorded species with St. Tammany leading at 111. Tangipohoa and Sabine Parishes have both now reached 90 species, joining W. Feliciana, Rapides and East Baton Rouge.

Louisiana now has three butterflies that have been reported from all 64 parishes, Pearl Crescent, Cloudless Sulphurs and Common Buckeyes. There are four species reported in 63 parishes, including the ubiquitous Little Yellow (lacking W. Carroll), Pipevine Swallowtail (lacking St. Bernard), Carolina Satyr (lacking St. Bernard) and Monarch (lacking only Assumption). Gulf Fritillaries have jumped up to 62 parishes (lacking Franklin and Morehouse) along with Clouded Skippers (lacking Acadia and Assumption). E. Tiger Swallowtails (lacking Plaquemine, St. Bernard and Acadia) and Question Marks (lacking St. Bernard, Morehouse and Jackson), have been reported in 61 parishes.

After adding these supplemental records to the previous records reflected in my book, 37 and 57 species have been reported in the months of January and February, respectively. By March, the total number of species recorded increased to 89. April records remained at 119 species with May's total up to 112. June records stayed at 117. As the heat and humidity of July and August reduce activity, the number of species dropped slightly to 110 and 111, respectively. September numbers (112) are the third highest month (tied with May), and October's total is only 5 species fewer at 107. By November, the total number of species dropped to 88. The total number of species reported in December jumped up to 46.

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http://www.inaturalist.org

Addendum:

My friend, Jeff Trahan, passed peacefully on Feb. 6, 2022, after a brief illness. Jeff was an instrumental part of helping me compile the sightings records and illustrate my book about Louisianna's butterflies. A large percentage of the photographs were taken by Jeff. Ever the perfectionist, as I worked on the book, Jeff continually send me "better" pictures that he suggested I substitute for previous pictures he had provided. Since the book's publication, Jeff continued to help me gather new and interesting records.

In addition to his interest in butterflies, Jeff was an avid birder and had in the last couple of years taken an interest in dragonflies. He was a great source of information and always ready for a road trip to a new location. Over the years, Jeff, and his lovely wife, Jean, helped me conduct NABA counts around Louisiana and SW Arkansas. Through Jeff I also met Rosemary Seidler and Vickie LeFevers, both of whom also helped with my book and the annual counts we have conducted as a group.

Jeff was also an expert gardener with a remarkable garden at Jean and his home. Such was Jeff's personally, if he was going to do something, he was going to research the subject and be the best at it as he could be.

There are some of Jeff's recent sightings/records in this article. I will miss Jeff, our frequent phone discussions and the road trips. Butterflying, and the counts in particular, will never be the same.

(Craig Marks, E-Mail: cwmaplc@aol.com)

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REARING RECORD KEEPING

BY
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Rearing of larvae is one of the best ways to obtain specimens of hard to capture lepidopterans. Such difficult species that readily come to mind include leafminers (mostly family Gracillariidae), buck moths (genus *Hemileuca*, Saturniidae), and yucca skippers (the Megathyminae, Hesperiidae). Some of the moths are day-fliers (like buckmoths) and come to lights to various extent, but are more easily obtained through larval rearing and also then the hostplant becomes known.

When rearing larvae, it is most important to keep accurate records: detailed field notes on original capture (date and place), and what plant is involved (this sometimes requires one to take a plant sample to have a botanist confirm the name of the hostplant). Thus, a field notebook is essential. During the rearing, a laboratory or rearing notebook is also needed, so a full record of the life cycle can be noted, including dates for each larval instar (particularly if reared from the egg stage), date of pupation, and date of adult emergence. For leafminers, this can be challenging, but easy for larger species like buckmoths. Internal feeders, like yucca skippers are also hard to record for larval instars, but at least the dates of pupation and adult emergence can be noted.

In my larval rearings, I follow what I call the "Powell method" for rearing data. This begins with using a code number for each rearing so an appropriate label can ultimately be attached to the resultant adults once they are mounted. Prof. J. A. Powell, of the University of California, Berkeley, California, used such a record system for rearings that works very well, but the system was modified by him from what H. H. Keifer (1902-1986) used (former microlepidopterist of California), so it really should be called the "Keifer method" for rearing data recording (see Powell and Opler, 2009. *Moths of Western North America*).

Each rearing in the rearing notebook is given a code number, which follows through to the final adult specimens and any possible larval samples, and the labels attached to each. The code has the initials of the rearer, two numbers for the year involved, a letter for the month of original capture (egg or larva) and noted by sequential letter per month from January (A) to December (L), and an assigned number for the rearing for that month. For example, some rearing from May 2022, could be "JBH-22E12", and thus my rearing (JBH) for 2022 in May (E) and the 12th sample for that month. These data would also be put on a rearing label for the eventual adult specimen(s) (or any larvae preserved), adding each adult emergence date and the name of the hostplant to the label. One can also assign the rearing number during field capture and added to the field notebooks as well.

This "Powell" records system for larval rearings should be adopted for all larval rearings. Data in the notebooks can then be easily referred to from each specimen label. An alternative method was used by Annette Braun (1884-1978), another well-known microlepidopterist who did a large number of rearings, particularly of leafminers, and simply involved a continually sequential numbering system: this works as well but does not provide any information on the rearing that the Powell system immediately provides, like what month and year was involved just by seeing the code. In any case, a coding system needs to be adopted in rearings so adults and larvae can all be associated easily with each other and with notebooks involved.

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SPECIMEN LABELS FOR SOUTHEASTERN LEPIDOPTERA, WITH EMPHASIS ON FLORIDA. 1. Tortricidae

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Name labels for lepidopterans of the Southeast, emphasizing Florida, have been organized at McGuire Center, following the Florida checklist (Heppner, 2011), updated to current names. This label list may be useful to collectors to label their specimens and as header labels for species trays or generic sections in their collection. This first part is for the family Tortricidae, other families to follow. Species numbers follow the MONA (Hodges *et al.*, 1983) catalog numbering sequence still commonly used in collections, but for Tortricidae users should be aware that we currently classify the family beginning with the subfamily Tortricinae, rather than the subfamily Olethreutinae.

Readers can copy the label listing from these pages, or request a computer file from the author.

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(Continue to next page.)

TORTRICIDAE

BACTRINI

BACTRA

Bactra furfurana (Haworth, 1811) 2706

Bactra verutana Zeller, 1875 2707

Bactra priapeia Heinrich, 1923 2709

PARALOBESIA

Paralobesia liriodendrana (Kearfott, 1904) 2711

Paralobesia viteana (Clemens, 1860) 2712

Paralobesia monotropana (Heinrich, 1926) 2713

Paralobesia sambuci (Clarke, 1953) 2714

Paralobesia spiraeifoliana (Heinrich, 1923) 2718

Paralobesia vernoniana (Kearfott, 1907) 2723

Paralobesia cyclopiana (Heinrich, 1926) 2727

ENDOTHENIA

Endothenia hebesana (Walker, 1863) 2738

Endothenia albolineana (Kearfott, 1907) 2745

MICROCORSINI

CRYPTASPASMA

Cryptaspasma bipenicilla J. Brown & R. Brown, 2003 2700.1

OLETHREUTINI

EPISIMUS

Episimus argutanus (Clemens, 1860) 2701

Episimus guiana (Busck, 1913) 2701.1

Episimus transferranus (Walker, 1863) 2701.2

Episimus augmentanus (Zeller, 1877) 2702

Episimus burserae Heppner, 1994 2702.1

Episimus kimballi Heppner, 1994 2702.2

Episimus nesiotes Walsingham, 1897 2702.3

Episimus lagunculariae Heppner, 1994 2702.4

Episimus dickeli Heppner, 2019 2702.5

Episimus tyrius Heinrich, 1923 2703

CACOCHARIS

Cacocharis cymotoma (Meyrick, 1917) 2704

Cacocharis albimacula Walsingham, 1892 2704.1

EUMAROZIA

Eumarozia malachitana (Zeller, 1875) 2749

ZOMARIA

Zomaria interruptolineana (Fernald, 1882) 2750

APOTOMIS

Apotomis removana (Kearfott, 1907) 2768

ORTHOTAENIA

Orthotaenia undulana ([Denis&Schiffermüller], 1775) 2770

PHAECASIOPHORA

Phaecasiophora niveiguttana (Grote, 1873) 2772

Phaecasiophora inspersa Heinrich, 1931 2773

OLETHREUTES

Olethreutes atrodentana (Fernald, 1882) 2785

Olethreutes hippocastana (Kearfott, 1907) 2802

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Male monarch nectaring on native cardinal flower (*Lobellia cardinalis*). Baton Rouge, LA. August 1993 (Photo by Gary N. Ross)

IT MUST BE SPRINGTIME

BY

SCOTT D. ANDERSON

It is April, temperatures are warming, although just slightly; after all, this is southwest Florida. The change from winter to spring can be fairly subtle but there is one piece of evidence that allows me to make no mistake about it – Southern Oak Hairstreaks. I think there is a fairly strong argument that the Southern Oak Hairstreak is one of our most beautiful butterflies. They return every April and fortunately for me, I can find them easily only a mile from my house. There is one stand of oaks in particular where they congregate. I enjoy finding butterflies in the wild on their host plants. I can't say why they choose this particular setting, there are many oaks nearby to choose from, but every year they are here, at the same few trees, and on nectar sources nearby.

Southern Oak Hairstreaks quickly stand out because of their size. They are larger than most other hairstreaks in this area and typical for hairstreaks, they are very fast fliers. Their flight pattern is erratic, which you might assume, but they commonly land if not pose to have their picture taken, continuously sawing their hindwings back and forth to fool us which end is front or back. They also stand out for having very long tails, especially the lower ones. Their body color is very gray-brown if not almost coppery so they are not easily confused with the Gray Hairstreak, also common in this area. Good specimens have a long orange red costa but it is their large orange red patch on the hindwing that makes them so attractive. One look at that and you know you are in the presence of beauty. The Southern Oak Hairstreak is not rare, but in a sense, it flies here such a short time each year that it seems so. Sighting one is a real joy and there is no doubt, when you do, it must be springtime.

A TALE OF THREE LEAFTIERS (GELECHIIDAE) FROM THE FLORIDA KEYS (MONROE COUNTY)

BY

LAWRENCE J. HRIBAR

For over 20 years I have been examining bycatch from mosquito control surveillance traps in the Florida Keys and using that information to document new distribution records of arthropods; over 150 new records have been reported so far (Hribar 2020 and in preparation). Small black and white moths have been showing up my traps in increasing numbers. All of the collected specimens were pinned and labelled. I was fortunate to have a specialist, James Hayden with the Florida Department of Agriculture and Consumer Services, examine the moths. Based on the genitalia and coloration Dr. Hayden determined that there was not one species present, but three: *Chionodes dentella* (Buscsk), *Stegasta bosqueella* (Chambers), and *Stegasta capitella* (Fabricius), all Gelechiidae.

The genus *Chionodes* (Gelechiidae) in America north of Mexico contains 187 species (Lee et al. 2009). Their larvae generally are leaftiers feeding on plants in the families Asteraceae, Betulaceae, and Polygonaceae (Hodges 1999, King and Viejo Montesinos 2012). Some species are considered pests in agriculture and forestry (Lee et al. 2009).

Busck (1903) described *Chionodes dentella* (as *Gelechia*) from Phoenix, Arizona. This species is also known from California, Mississippi, Nevada, and Texas (Hodges 1999). According to the Moth Photographers Group web page, *C. dentella* also occurs in Alabama and New Mexico. Thus this moth has been reported in every state along the southern tier of the United States except Louisiana, where it has most likely been overlooked. Hodges (1999) and Heppner (2003) include records of this species from Monroe County, Florida, but no specific islands are mentioned. I found 64 specimens of *C. dentell*a in the mosquito traps: two from Key Largo in April, two from Crawl Key in September, 10 from Grassy Key in July and August, and 50 from Long Key in June through September.

Adult Gelechioidea are mostly active at dusk, night, or dawn (Hodges 1999). *Chionodes dentella* probably is as well, given its presence in light traps, although without specifically looking for this moth during the day it cannot be said with certainty that it does not fly during the day. The flight period of *C. dentella* in Florida is reported to be February to September, according to the Moth Photographers Group webpage. My specimens are mostly from July through September.

Except for the Palaearctic Region, very little is known about the immature stages and host plants of many species of Gelechioidea (Hodges 2013). The immature stages of *C. dentella* have not been described. There is one mention of *C. dentella* on peanut on the Natural History Museum (UK) host plant database (https://www.nhm.ac.uk/our-science/data/hostplants/search/list.dsml?amp;searchpageurl=browse%2Edsml&sort=family&family=copromorphidae&beginIndex=5910), but the natural larval host plants in the United States are not known (Hodges 1999, Heppner 2003). It would seem that the host plant must be widespread throughout the Florida Keys, given the geographic separation of the islands from which this moth has been collected. The host plant may be more likely to be found on Long Key or Grassy Key, where the majority of my specimens were collected.

There are only two species of genus *Stegasta* in North America north of Mexico and both species occur in Florida (Heppner 2003, Lee et al. 2009). *Stegasta capitella* has white coloration on the head and thorax, whereas *S. bosqueella* has white only on the front of the head and the rest of the head and the thorax are dark brown (Briceño Vergara 1976).

Stegasta capitella, the teaweed moth, is found throughout Florida and in Texas and the Caribbean. I only found five specimens in the mosquito traps: one specimen in January from Lower Matecumbe Key and four others in April and June from Long Key. The host plant of this species is teaweed, *Sida spinosa* Linnaeus (Malvaceae) (Heppner 2003), also known as prickly fanpetals and thistle mallow, a weed of roadsides and ruderal habitats. Teaweed occurs in the Florida Keys, with vouchered specimens collected from Crawl Key (Wunderlin et al. 2021). The flight period in Florida is from February through December according to Heppner (2003) and the Moth Photographers Group web page. This moth has been collected at lights (Ramos 1946).

Stegasta bosqueella is an agricultural pest known as the rednecked peanutworm moth. This species is found from Maryland and Nebraska south to Florida and Texas in the United States, and continues south into the Caribbean islands, Mexico, and South America. There are also records from Arizona Colorado, and Washington in the western USA. I only found three specimens from Long Key in May and December in the mosquito traps. Many papers have been published detailing the biology and control of this moth in peanuts. The papers by Pinto et al. (2020) and Carter et al. (2021) are good starting places to read about this moth. According to these authors, the main larval host plant of *S. bosqueella* is peanut, *Arachis hypogaea* Linnaeus, but a number of other cultivated and wild plants are also used, mainly in the Fabaceae; there is also a record from pineapple, *Ananas comosus* (Linnaeus), Bromeliaceae. This moth flies year-round in the southern part of its range (Heppner 2003). In the northern part of its range this moth can be found usually between May and October (Moth Photographers page). In Alabama and Oklahoma, populations are highest in July and August (Arthur et al. 1959, Wall and Berberet 1980). Manley (1961) implies that this moth flies in the early morning, late evening, and on overcast days, and remains hidden in shady areas during periods of bright sunlight. Collections in light traps would seem to support this observation.

The following specimens have been deposited into the Florida State Collection of Arthropods, Gainesville, Florida:

Chionodes dentella (Busck):

Long Key State Park, maintenance shed, 28 July 2021, 1 male (MGCL slide #6377)
Same site, 18 Aug 2021, K. Pointer, 1 female (dissected)
Same site, 25 Aug 2021, K. Pointer, 1 male
Long Key State Park, 1 Sep 2021, K. Pointer, 1 male
Grassy Key, Dennison Street, 19 Jul 2021, K. Pointer, 1 female (MGCL slide #6379)
Same site, 9 Aug 2021, K. Pointer, 1 female
Crawl Key, Curry Hammock State Park, 1 Sep 2021, K. Pointer, 1 male
Key Largo, Gun Club Road, 8 Apr 2021, light trap, L. Frischmann, 1 male

Stegasta capitella (Fabricius):

Long Key State Park, Residences, 3 June 2021, K. Pointer, 1 female
Lower Matecumbe Key, Tennis courts, 19 Jan 2021, K. Pointer, 1 male, (MGCL slide #6380)

Stegasta bosqueella (Chambers):

Long Key State Park, Residences, 5 May 2021, light trap, K. Pointer, 1 male, (MGCL slide #6378)

These additional specimens have not yet been deposited into a research collection:

Chionodes dentella (Busck):

Long Key State Park, maintenance shed, 10 Jun 2021, K. Pointer, 1 specimen;
26 Jun 2021, 3 specimens; 28 July 2021, 9 specimens; 18 Aug 2021, 11 specimens;
25 Aug 2021, 6 specimens
Long Key State Park, 1 Sep 2021, K. Pointer, 16 specimens
Grassy Key, Dennison Street, 19 Jul 2021, K. Pointer, 5 specimens; 9 Aug 2021,
2 specimens; 16 Aug 2021, 1 specimen
Crawl Key, Curry Hammock State Park, 1 Sep 2021, K. Pointer, 1 specimen
Key Largo, Gun Club Road, 8 Apr 2021, light trap, L. Frischmann, 1 specimen

Stegasta capitella (Fabricius):

Long Key State Park, Residences, 3 June 2021, K. Pointer, 1 specimen; 15 Apr 2021, 2 specimens

Stegasta bosqueella (Chambers):

Long Key State Park, Residences, 19 Dec 2020, K. Pointer, 1 specimen; 5 May 2021, 1 specimen

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(Lawrence J. Hribar, E-mail: lhribar@keysmosquito.org)

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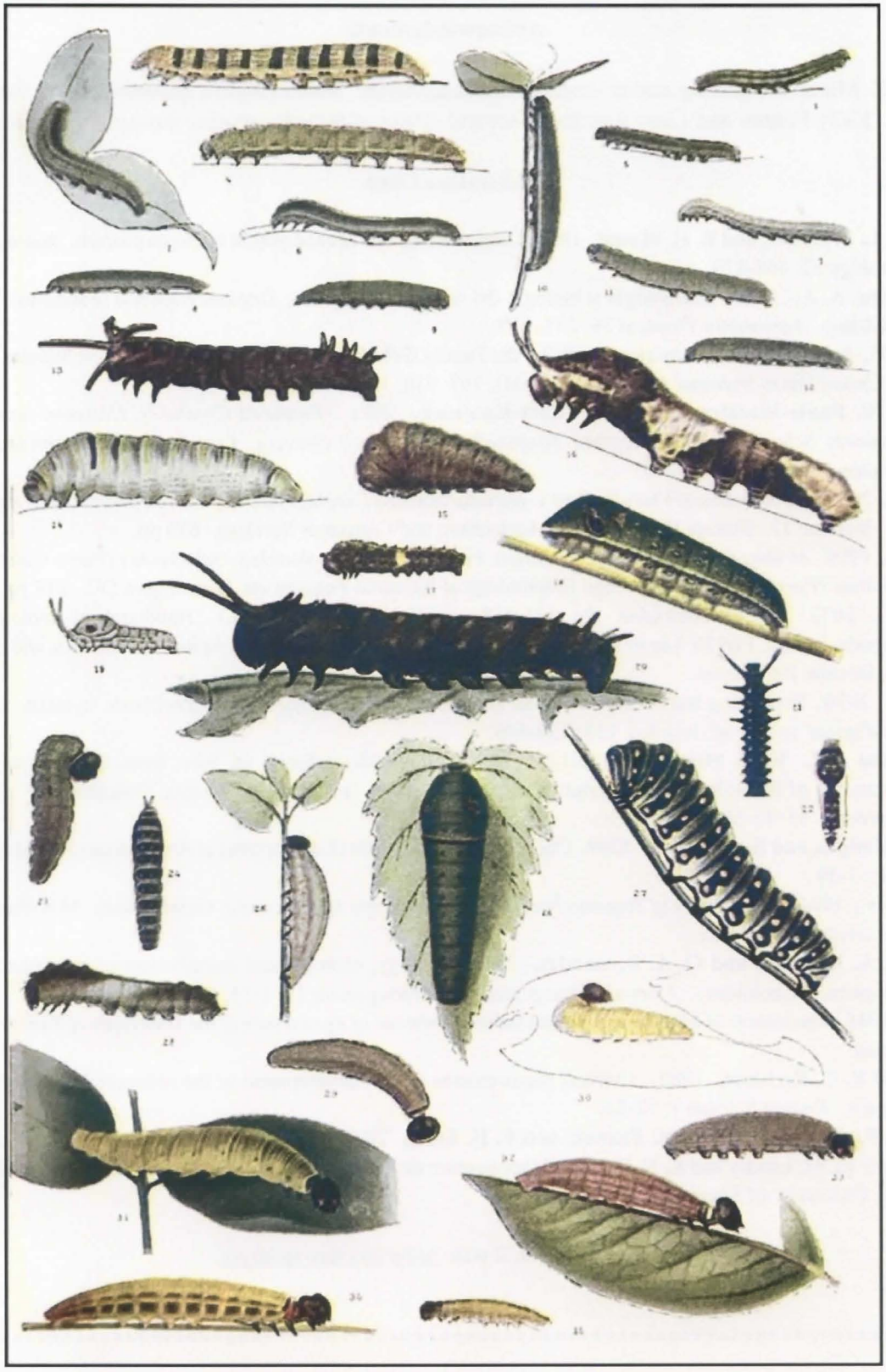

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In

THE BUTTERFLY BOOK, A Popular Guide to a Knowledge of the Butterflies of North America

By

W. J. Holland, PH. D., D. D., LL. D.

Garden City New York
Doubleday, Page & Company
1914

MEGALOPYGE CRISPATA (PACKARD, 1864) (LEPIDOPTERA: MEGALOPYGIDAE) IN LOUISIANA

BY

VERNON ANTOINE BROU JR. AND CHARLOTTE DOZAR BROU

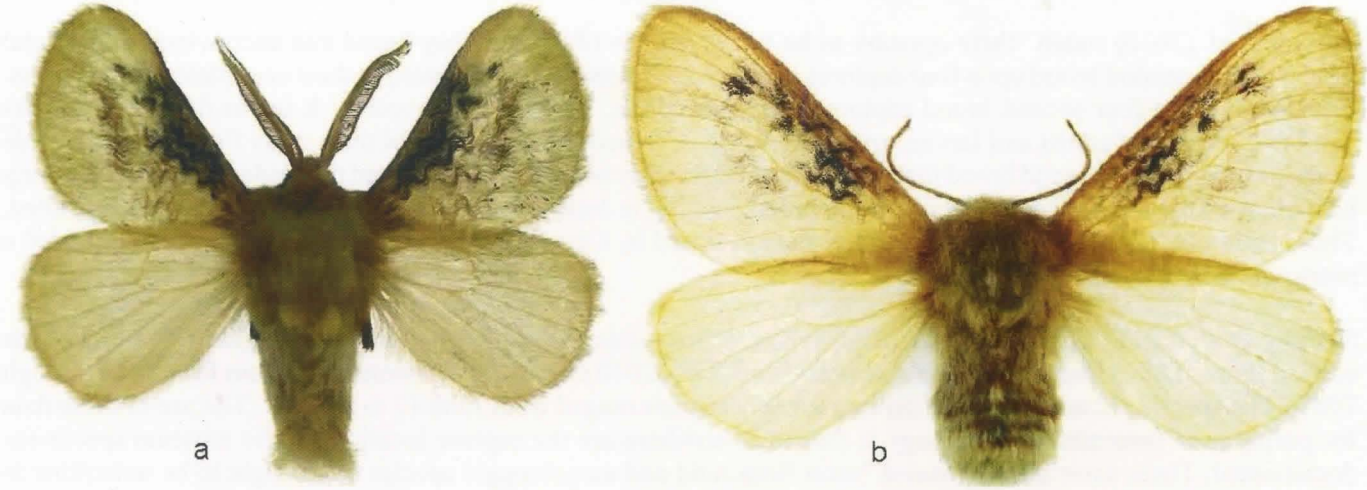

Fig. 1. ***Megalopyge crispata*** morphotypes:
a. male, May 7-2009. b. female, June 12-1983. Both captured at the ***Abita Entomological Study Site.**

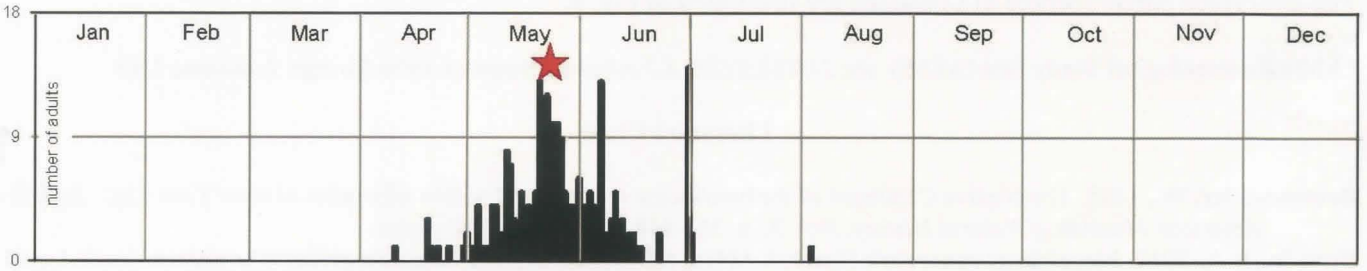

Fig. 2. Adult ***Megalopyge crispata*** captured in Louisiana at the *AESS. n = 223

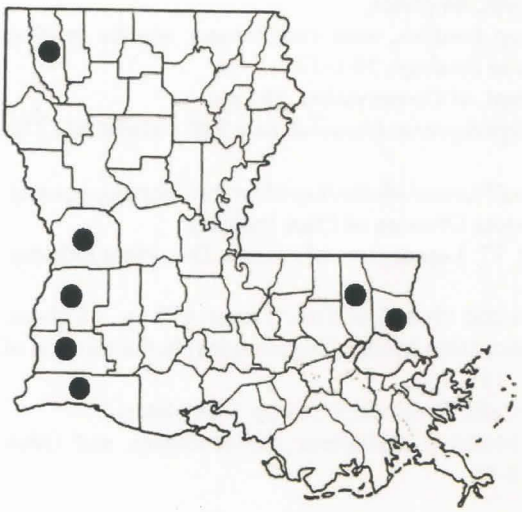

Fig. 3. Parish records for ***Megalopyge crispata***.

The moth ***Megalopyge crispata*** (Packard) (Fig. 1) is colored pale straw-yellow, with whooly scales covering the outer body and all wings. This species was described during the Civil War years. The hindwings on both sexes are unremarkable.

In Louisiana ***M. crispata*** is univoltine, the brood peaking late May, with adults first appearing early April, stragglers trailing into July and into the beginning of August (Fig. 2).

In the state of New York, (Beutenmüller, 1898) stated "*The species is single brooded and the moth emerges in June. The caterpillar hibernates in the cocoon and forms a pupa the following spring*", and he reported the numerous foodplants to include: "*Blackberry, Apple, Pear, Plum, Cherry, Basswood, Alder, Sassafras, Willow, Oak, Hazel, Sycamore, Birch, Myrica, etc.*".

Covell (1984) stated the range of ***M. crispata*** to include New Hampshire to Florida and west to Missouri and Louisiana in the months May to October. Holland (1903,1968) stated ***M. crispata*** occurs Massachusetts southward along the coast. **Heitzman** & **Heitzman** (1987) illustrated and reported ***M. crispata*** occurs throughout Missouri and anecdotally stating it occurs in two annual broods, early May to early August, without providing any factual analysis or proofs. Epstein (1996) reported on the 'slug-like locomotion' of the larvae of some species in the Limacodid group. Heppner

(1995) reported on Limacodidae only, and did not cover the family ***Megalopygidae***. Heppner (1997) stated "*there are 11 species of Megalopygidae recorded for North America north of Mexico, while 236 species occur from Mexico to Argentina*", and also stated "The most common one in Florida is the puss caterpillar, ***Megalopyge opercularis*** (J. E. Smith). This same author listed and illustrated ***M. crispata*** in this same publication. Brou (2017) reported on ***M. opercularis*** in Louisiana which also has one annual brood peaking in July. Heppner (2003) listed the range of ***M. crispata*** to include New Hampshire to Florida to Missouri and Texas, and in Florida in the months of January, April-November. Powell and Opler (2009) did not address ***M. crispata***.

Profant et al. (2010) stated "*there appears to be two broods in Ohio*", but they based that unconvincing anecdotal statement of a second brood upon four captures out of only 50 specimens illustrated in their unexplained phenogram. But two of those four second brood captures were not adults, but are larval records. It seems that these authors conflated records of adults and larvae, and by doing so devalued the usefulness of their study findings. So the sole basis of the supposed second brood in reality is based upon only two adult captures and the readers are left wondering how many of the remaining 46 records of the brood peaking in June/July are adults, since none of this is explained. These authors referenced the range of ***M. crispata*** as stated by Covell (1984). These same authors also provided a more comprehensive list of larval food plants.

Murphy et al. (2011) listed 12 adults of ***M. crispata*** from sites in the metropolitan Washington DC area and the eastern shore of Maryland during 7 field seasons from 2004–2010 and several museum collections from 1883 through 2009. The specific 12 adult dates of capture for ***M. crispata*** ranged from June 13 to July 24. The use of these data for purposes of determining phenology is flawed as nowhere are the capture locations of the museum specimens documented. These same authors stated "most limacodid and megalopygid species are thought to be univoltine in temperate regions...."

The confirmed parish records in Louisiana are illustrated in Fig. 3.

***Abita Entomological Study Site (AESS)**: *sec.24,T6S,R12E, 4.2 miles northeast of Abita Springs, Louisiana USA.*

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COMMON MOTH, "RARE" LARVA: THE SPOTTED PEPPERGRASS MOTH, *EUSTIXIA PUPULA* Hübner 1823 (LEPIDOPTERA: CRAMBIDAE)

BY
CHUCK SEXTON

It is probably not an unusual situation that the larvae of a common species of moth are poorly known or seldom documented. This seems to be the case for the Spotted Peppergrass Moth, *Eustixia pupula* Hubner, 1823 (Crambidae, Glaphyriinae; formerly known as the "Peppergrass Pyralid") (Figs. 1, 2). The species is widespread and common across much of the eastern United States (Holland 1903, Covell 1984, Beadle & Leckie 2012, Leckie & Beadle 2018, Moth Photographers Group 2022). Adults of the species are illustrated in these popular guides and many other works (e.g., Kimball 1965, Solis 2008). Images of adults are very numerous in popular online repositories and databases such as iNaturalist.org (1,000+ images), BugGuide.net (150 images), Flickr.com (168 images), Butterflies and Moths of North America (113 images; www.butterfliesandmoths.org), Barcode of Life Data System (21 images of barcoded adults; v3.boldsystems.org; Ratnasingham & Hebert 2007), and so forth.

Fig. 1. Adult Spotted Peppergrass Moth, *Eustixia pupula*, at moth sheet Amistad National Recreation Area, Val Verde Co., Texas, 6 April 2018

Fig. 2. Adult Spotted Peppergrass Moth, *Eustixia pupula*, Amistad National Recreation Area, Val Verde Co., Texas, 5 April 2018

Dyar (1900) described the later instar larvae of this species, as well as their use of peppergrass (*Lepidium* sp.; Brassicaceae) as a host plant. Unaware of Dyar's note, Shapiro (1968) also mentioned peppergrass as a host plant for the species, adding species of cabbage and mustard (*Brassica* spp.; Brassicaceae) as additional hosts [noted again by Munroe (1972) and Solis (2008)]. Shapiro did not describe the larvae. In the Moths of North America fascicle on this portion of the "Pyralidae", Munroe (1972, p. 145) essentially repeated Dyar's (1900) description of the last instar larva. None of these works or online resources have illustrations or images of the larva, nor are they found in Wright's (1993) nor Wagner's (2005) field guides nor in another recent regional guide (Weber & Weber 2022) nor in any other published work that I can find.

On 24 May 2022, while studying plants in a residential area of the Bolivar Peninsula, Galveston Co., Texas, I photographed a sample of Virginia pepperweed (*Lepidium virginicum* L.) and inadvertently documented two examples of late instar larvae of the Spotted Peppergrass Moth. The larger of the two larvae (Fig. 3) perfectly matches Dyar's (1900, p. 155) description of a

7th instar of the species, to wit: "The last stage is green. ... The subventral fold is narrowly whitish. There are dorsal segmental bands of a dull crimson color reaching the subventral fold laterally; the edges of these bands are irregular and project anteriorly at the spiracle." The smaller of the two larvae (Fig. 4) matches Dyar's (1900, p. 156) description of what he called Stage VI: "Body slender, green, the segments faintly transversely banded with yellow, also yellowish subventrally; dull crimson dorsal and lateral patches in the yellow bands." Munroe (1972, p. 144) also mentioned that "the larva feeds on peppergrass ... eating unripe seeds out of the flat pods and leaving two holes in the upper surface of each pod." Precisely this type of damage can be seen in some of the seed pods in Figures 3 and 4.

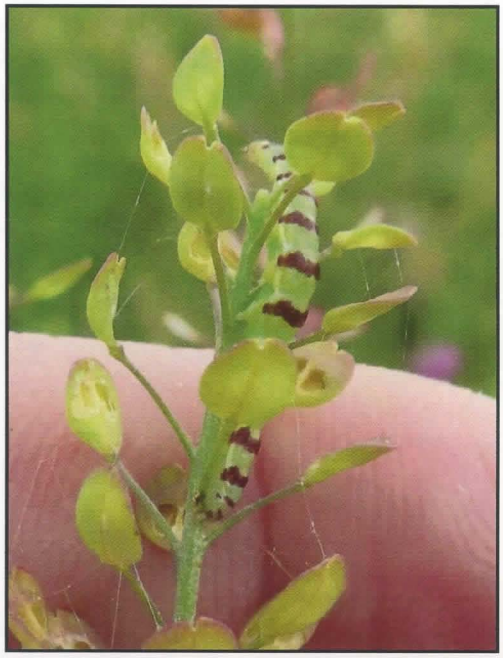

Fig. 3. Last instar, Spotted Peppergrass Moth, *Eustixia pupula*, on Virginia pepperweed, *Lepidium virginicum*, Bolivar Peninsula, Galevston Co., Texas, 24 May 2022

Fig. 4. Probable 6th instar, Spotted Peppergrass Moth, *Eustixia pupula*, on Virginia peppergrass, *Lepidium virginicum*, Bolivar Peninsula, Galveston Co., Texas, 24 May 2022

It is entirely likely that there are any number of images of the larva of this species "out there" on the internet but they have been overlooked or remain unidentified. Few images of Lepidopteran larvae on sites like iNaturalist.org or BugGuide.net have annotations regarding the host plant – annotations which might aid a keyword search. In the absence of any such tags, sifting through the mountain of unidentified larvae would appear to be a rather large task, a task I have only briefly attempted to date. But in a rather quick "proof of concept" result, after I uploaded my identified images to BugGuide, John and Jane Balaban readily identified three more observations on BugGuide (from 2016-2021) which appear to represent additional records of *Eustixia pupula* larvae: https://bugguide.net/node/view/2126333

Perhaps now that there are a few confidently identified images of the larvae of this species, more will turn up.

The illustrations of the present larvae and an early draft of the some of the information contained in this note were first uploaded to iNaturalist.org in June 2022 (Sexton 2022a,b). I thank M. Alma Solis for correspondence regarding the larvae of this species and two anonymous reviewers for comments on this note. I also thank Victor Emanuel for access to the Bolivar Peninsula property.

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(Chuck Sexton, E-Mail: gcwarbler@austin.rr.com)

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Ricky Patterson sends in the following Comment and Photo:

Here is a rather unique *Catocala angusi* collected in Lee county, Mississippi on 17 August 2017. The hindwing fringe on this specimen is white, whereas this fringe is normally dark grey/black.

Catocala angusi

A SHORT BIOGRAPHY ON JAN VAN KESSEL THE ELDER [1]

BY
J. BARRY LOMBARDINI

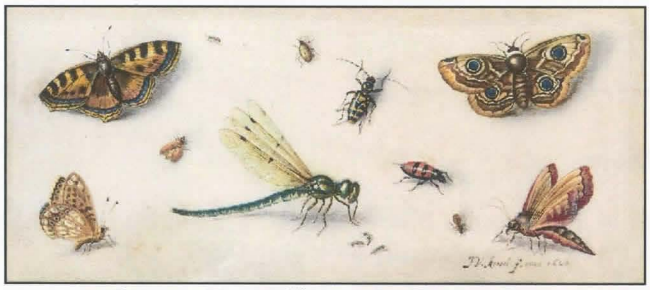
Jan van Kessel the Elder was born (and/or baptized) in Antwerp, Belgium, on April 5, 1626, and died in Antwerp on April 17, 1679. [There is some confusion between the actual date of birth and when baptized by the Church. Both are quoted as being on April 5, 1626.] (1)

Jan van Kessel the Elder (a Flemish painter) was "*A versatile artist he practised in many genres including studies of insects, floral still lifes, marines, river landscapes, paradise landscapes, allegorical compositions, scenes with animals and genre scenes*" (2)

Both his grandfather, father (Hieronymus van Kessel the Younger), and uncle were artists and Jan van Kessel the Elder trained with both his father and uncle. Jan van Kessel the Elder married in 1646 when he was 20 years old and had 13 children, two of which were his pupils and became well known artists in their own rite. In his youthful days he was a very successful artist but his success was not lasting. By 1678 he had numerous financial problems and very ill health. He died on April 17, 1679.

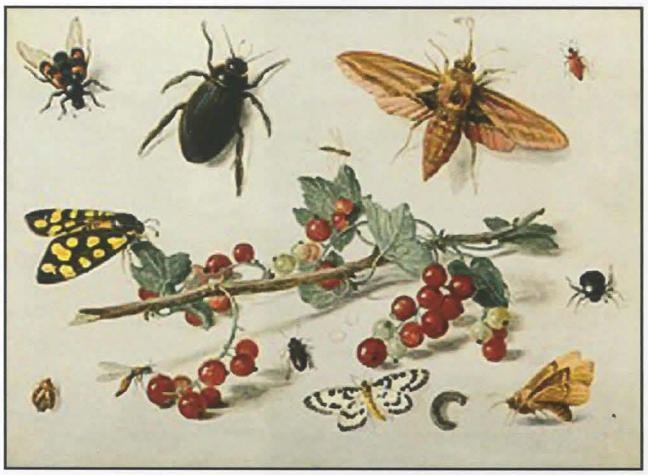
Jan van Kessel the Elder (1)

1) Jan van Kessel the Elder, wikipedia. https://en.wikipedia.org/wiki/jan_van_Kessel_the_Elder
2) Jan van Kessel, http://rkd.nl/nl/explore/artists/44093 at the Netherlands Institute of Art History (in Dutch).
3) The Met, 1000 Fifth avenue, New York, NY 10028



Insects, Butterflies, and a Dragonfly (Painting dislplayed in the Met) (3)

Insects, Butterflies, and a Grasshopper (Painting displayed in the Met) (3)



Sprig of redcurrants with an elephant hawk moth, a ladybird, a millipede and other insects (1)

Butterflies, other insects and flowers (1)

NOTES ON THE BIOLOGY OF THE CASSIA WEBWORM MOTH [*ANABASIS OCHRODESMIA* (ZELLER, 1881) (PYRALIDAE: PHYCITINAE)]

BY

MARC C. MINNO, PH.D.

On April 22, 2022, Ms. Jeanne Farnsworth of Boca Raton, Florida, showed me damaged leaves on a Candlestick Plant [*Senna alata* (L.) Roxb.] growing in her garden. Some of the leaflets were dead or partly dead and tied tightly together with silk (Fig. 1D). I peeled apart the leaflets of a nest and found lots of frass, feeding damage, and some small caterpillars. The larvae also killed very young leaves and buds at the tips of shoots.

I collected several of the nests and reared out adults of a small phycitine known as the Cassia Webworm Moth (*Anabasis ochrodesmia*). Adults are illustrated at online websites such as Bug Guide, Butterflies and Moths of North America, North American and Moth Photographers Group, but the immature stages do not appear to have been previously illustrated or described.

Each nest contained several larvae, sometimes of various instars. Kimball (1965) referenced rearings by the U.S. Department of Agriculture, probably at the Subtropical Horticulture Research Station in Miami, and noted "larva a leaf folder." I observed that the larvae are leaf tiers. The host plants have pinnately compound leaves. The caterpillars tied overlapping leaflets together with silk to form a nest.

The larvae are actually leaf skeletonizers. They only eat the leaf tissue between the veins of the leaves but leave the epidermis intact (Fig. 1E). The frass is held within the nest, perhaps out of convenience, or to hide it from potential predators/parasitoids, or it may function as an ant deterrent. Older larvae make tunnels of silk in the nest between the leaves in which to rest and to facilitate moving around. The pupa is formed inside a cocoon of silk and frass within the nest.

Last instar larvae of *A. ochrodesmia* are about a centimeter in length, the setae are about one to two millimeters long, the body color is dark green with pale green longitudinal stripes (Fig. 1B). The head is light orange-brown. The pupa is light brown with a short abdomen and blunt cremaster (Fig. 1C). As is typical of most phycitines, adults rest with the fore body elevated and the antennae appressed to the top of the wings (Fig. 1A). The top of the head is buff colored posteriorly, matching the color of an indistinct band at the base of the forewings and a more clearly defined band just antecedent of the middle of the forewings. There are two small black tufts of scales separated by a buff colored patch just posterior of the dorsum of the thorax.

Kimball (1965) listed records of *A. ochrodesmia* from central and south Florida including the Florida Keys. The N.A. Moth Photographers Group map shows additional records in northern Florida including the Panhandle, one dot in coastal South Carolina, as well as islands of the Greater Antilles (Cuba, Hispaniola, Puerto Rico, and Jamaica). Although *Anabasis* has been considered a Neotropical genus, recent genetic analyses have revealed other related species in China (Du 2009, Liu 2010, Li 2011 – see Wikipedia).

Kimball (1965) reported the following hosts for *A. ochrodesmia*:

Cassia fistula L.
Cassia javanica L. (as *C. nodos* [*sic*], should be *C. nodosa*)
Lysiloma sp.
Senna alata (L.) Roxb.
Senna ligustrina (L.) Irwin & Barneby (as *Cassia bahamensis*)
Senna obtusifolia (L.) Irwin & Barneby (as *Cassia tora*)
Senna siamea (Lam.) Irwin & Barneby (as *Cassia siamea*)

Ms. Farnesworth also has Desert Cassia [*Senna polyphylla* (Jacq.) H.S. Irwin & Barneby] and African or Popcorn Senna [*Senna didymobotrya* (Fresen.) H.S. Irwin & Barneby] in her garden, but *A. ochrodesmia* has not attacked these plants. *Senna alata* is the preferred host.

Some species of *Senna*, such as *Senna obtusifolia* and *Senna occidentalis* (L.) Link, are annual weedy pest plants of cultivated fields. Shrubby *Senna* species are often used in Florida butterfly gardens to attract Sulphur butterflies. Some of the shrubby ornamental species, especially *Senna pendula*, have escaped from gardens and become invasive weeds of natural areas in southern and central Florida.

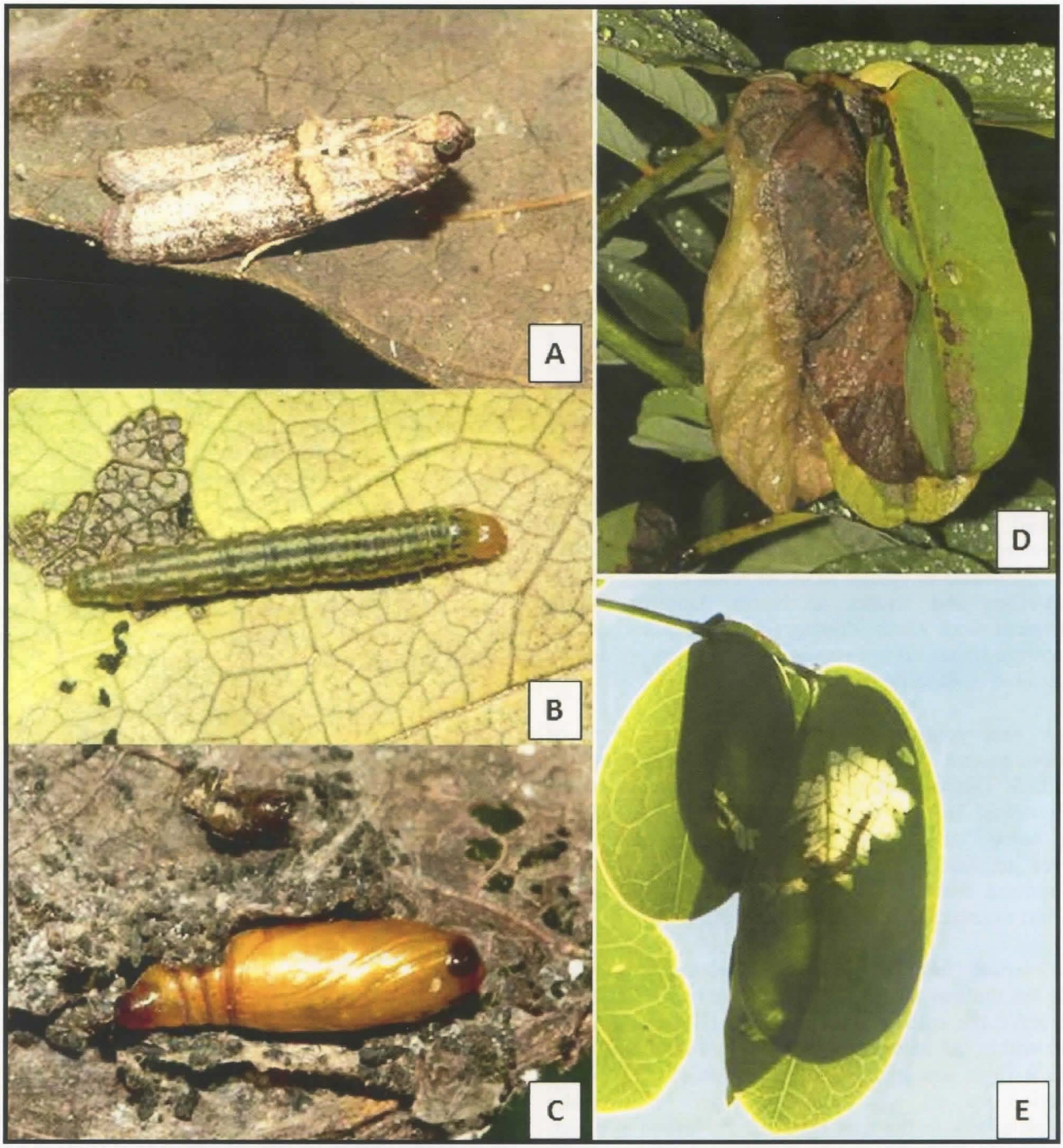


Figure 1. Cassia Webworm Moth, *Anabasis ochrodesmia* (Pyralidae: Phycitinae) from Palm Beach County, Florida. A: Adult reared from *Senna alata*.
B: Last instar larva.
C: Pupa.
D: Nest and damage to *Senna alata*.
E: Larval feeding damage to *Senna pendula*.

As a test, I transferred four late instar larvae of *A. ochrodesmia* from *Senna alata* to a small potted *Senna pendula* to see if they would eat the leaves. They quickly formed nests and began feeding (Fig. 1E). *Senna pendula* may be a potential host plant of *A. ochrodesmia* in the wild, but I have not previously seen the webworm on it.

Gardeners may be dismayed to see unwanted damage to their butterfly plants from *A. ochrodesma.* However, land managers likely welcome the Cassia Webworm Moth to help control the invasive species of *Senna*.

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(Marc C. Minno; E-Mail: marccminno@gmail.com)

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Male monarch nectaring on native dewberry (*Rubus fagellaris*). Baton Rouge, LA. April 1991

Female monarch nectaring on summer Mexican flame vine (*Senecio confusus*), backlighted portrait. Baton Rouge, LA. May 2000.

[Butterflies were photographed by Gary Noel Ross.]

TREASURER'S REPORT FOR 2022

As of April 29th, 2022

The Southern Lepidopterists' Society Business Checking Account is held at Truist Bank Branch 43rd Street and 39th Avenue in Gainesville, Florida. It is a non interest account.

Irving Finkelstein's Investment Account (gift from his estate) is being managed by Edward Jones Investment Company in Gainesville, Florida. Here is the Portfolio Breakdown as of October 29, 2021:

Franklin GA Tax-Free Income A-1,	Price $11.93	Quantity 2,788.333	Value $33,264.81
Nuveen GA Municipal Bond A,	Price $11.07	Quantity 2,798.000	Value $30,973.86
Nuveen Limited Term Muni A,	Price $11.35	Quantity 1,237.241	Value $14,042.69

Value as of October 29, 2021	$81,000.95	Value as of February 25, 2022	$79,182.73
Value as of November 26, 2021	$81,525.46	Value as of March 25, 2022	$79,781.69
Value as of December 31, 2021	$81,710.25	Value as of April 29, 2022	$74,592.45
Value as of January 28, 2022	$79,754.07	Value as of May 27, 2022	$75,423.91

There are 152 paid members and complimentary issues are sent out quarterly to the Library of Congress and the Library at the Division of Plant Industry in Gainesville, Florida .

Beginning Bank Balance with Truist of Gainesville as of January 1, 2022: $9,296.68

Ending Balance as of April 29, 2022: $9,047.79

Deposits: Include member dues and donations, collections from meetings and sales of old newsletters: $4,750.00

Withdrawals and Fees: $4,998.89

Printing Newsletters:

Vol. 43 #4 $1,961.59

Vol. 44 #1 $1,993.36

Postage for Newsletters:

Vol. 43 #4 $422.06

Vol. 44 #1 $505.60

Supplies (clasped mailing envelopes, ink for Media Mail Stamp):

$116.28

Bank Fees $0

Printing costs include paper, printer cartridges for Editor Barry Lombardini's home computer.

Barry Lombardini has continued to do outstanding work as editor of the Southern Lepidopterists' Society News.

Marc Minno has continued to update the membership list.

Due to the generosity of several members we can continue to produce excellent newsletters and not incur a deficit.

Dues are currently:

Student Membership:	$15.00	Benefactor Membership	$75.00
Regular Membership	$30.00	Publication Fund (donations)	open ended
Sustaining Membership	$35.00	Life Membership (40 X Regular)	$1200.00
Contributor Membership	$55.00		

Submitted by:

Jeffrey R. Slotten DDS

Research Associate McGuire Center, FSCA, and SLS Treasurer 2022

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NORTH CAROLINA CALLING!

BY
KELLY RICHERS

A report for those who missed the joint meetings of the Lepidopterists' Society, the Southern Lepidopterists' Society and the Association of Tropical Lepidopterists (ATS) meeting in Cullowhee, North Carolina.

This is a personal account of the meetings listed above by someone who braved the unfriendly skies of both United and American Airlines to attend the festivities. I feel free to name both airlines since they both screwed up big time getting me there and/or back.

Fortunately my brother both picked me up at Dulles and lent me a car so I could drive six hours on I 81 and I 26 through forested mountains beautiful enough to lift my spirits through the pouring rain I encountered the first 150 miles.

Entering North Carolina there is a sign. I didn't see one for Tennessee which I also entered

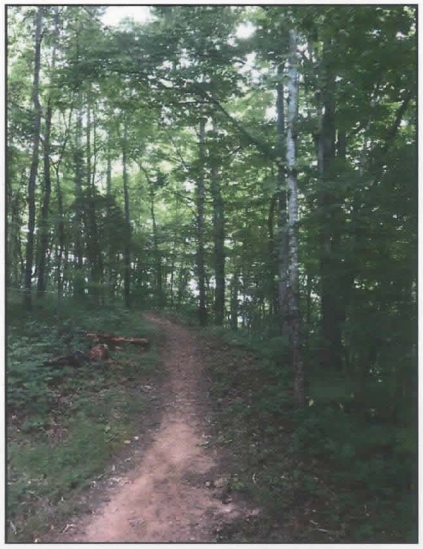
The inspiring sight of the mountains around Asheville North Carolina

After going through western Virginia, apparently Tennessee, (though I saw no signs) and into North Carolina (with a sign) I entered narrower and smaller roads as I went eventually to Sylva, which led In another eight miles to Western Carolina University, a beautiful campus with not much around it in the way of commercial amenities.

The woods outside the cabin on a humid foggy morning. Trap in the middle right

The cabin in the woods perfect for moth collecting

I checked in with Brian Scholtens and his team of able workers, then went to find my more remote cabin, which I rented through Air B&B. It turned out to be strategically located in a forested area with no one around, and perfect for the moth collecting devotee. On the way I also found, (on Little Savannah Road, if you want to look it up) a trail crossing the road that provided other moth trapping locations.



The trail into the deeper woods

Many people stayed in the dorms, and the number registered swelled to some 50 participants. The registration was smooth and registrants seemed very satisfied with the process.

There was a severe heat wave that moved in, with possible afternoon showers that materialized and moved through the area. After that I set traps and went to bed. Perfect hot, humid weather for moth collecting but maybe not so much for butterflies.

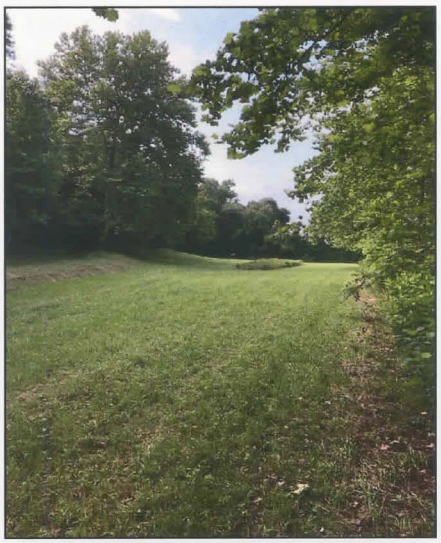
I will discuss the moths in the traps later, but collecting was optimal for me, at least.

Wednesday was the Executive Council meeting of the Lepidopterists' Society, and the only minor glitch was that there was no room setup for those few attendees on the Executive Council. This was due to the large number of people who could not make the meeting. So, I found a shady spot and Zoomed from my car for three hours. (See the part about hot and humid)

Western Carolina University. Meeting was in the building to the left, which is the conference center

I drove north back to Sylva, the commercial support for the area, and had dinner at a great barbecue place, with an eclectic mix of bikers, families and locals. I had tried the previous evening but it seems no one eats out there on Sundays, Mondays or Tuesdays as almost all restaurants were closed those three days. I also visited the Tuskegee Fly Shop as I hoped to go fly fishing Friday, something I had not done on the East Coast in 50 years.

Thursday, after sorting traps, I went to Gibson Bottoms, recommended as a location for butterflies. I pretty much struck out, as did most of the other lepidopterists who went there. It was very hot and muggy, and there was just not much on the wing. I think I only caught three species, and never even saw my target, the Diana Fritillary.



Gibson Bottoms for butterfly study

On the way back to Cullowhee I stopped at one of the Gem Mine places, where you buy a bucket of dirt and rock to see what might have come out of the mountain into the bucket. There were $25 and $50 buckets, and I got the cheaper of the two. It was shady, and I spent a pleasant half hour or more running the contents under the water in a sieve. I came up with some pretty things, went inside and got more souvenirs. Fun times for not too much investment!

I returned to Western Carolina University and listened to some of the presentations, hearing much in the way of scholarly research. Then I made mine, which contained no scholarly research. I still don't know why these people allow me around them. Following the presentations the Southern Lepidopterists' Society held a hosted Zoom meeting with both those present and remote attendance. ATS also held a meeting, which I missed, no longer being a member.

Later we had a barbecue of hot dogs and hamburgers down by the beautiful stream on the campus, and traded

Southern Lepidopterists' Society meeting from Cullowhee

Informal gathering Wednesday evening

information about whatever was going on. Again, the campus workers were exceptional.

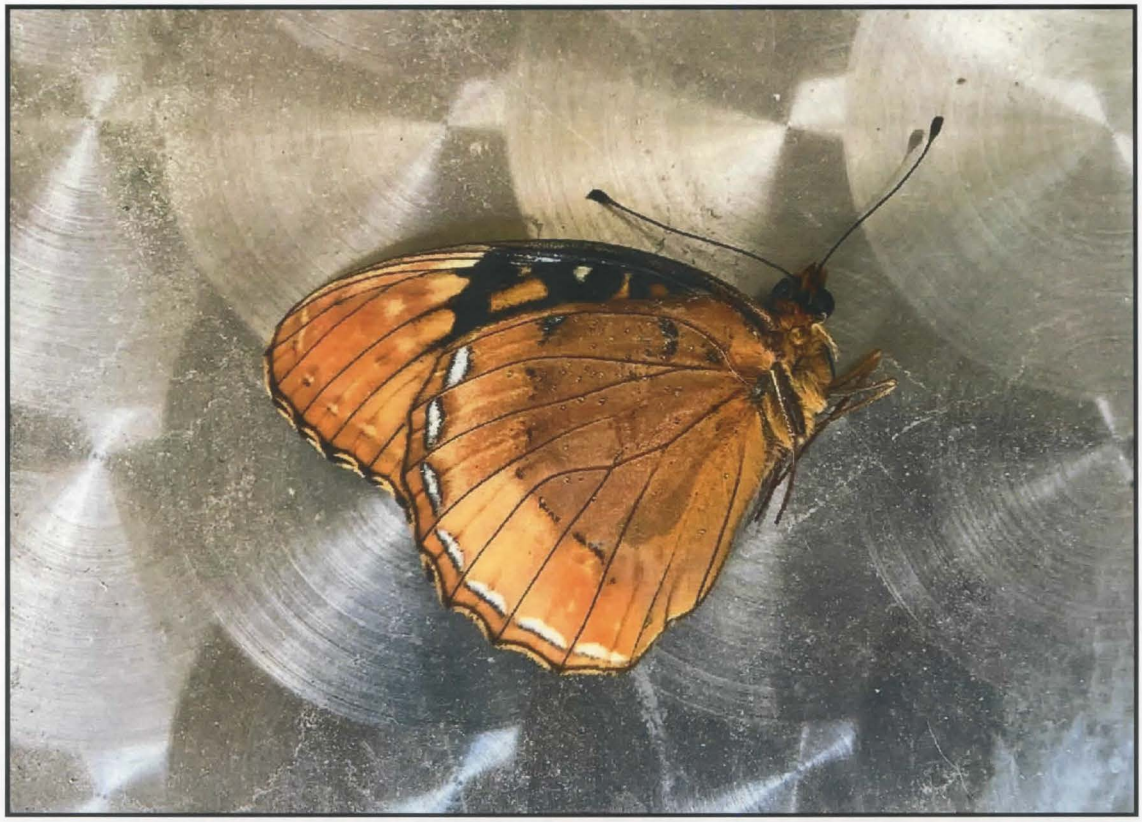
Friday there were more presentations, which I must admit I missed, having staggered up to Sylva after gathering my traps, getting there at 7 in the morning. Friday I devoted to fly fishing in the North Carolina mountains with a guide who was based in Sylva. My guide introduced me to nymph fishing. I suppose he thought I might know something about it, since I was attending an entomology meeting, but I have only nymph fished once, with a total lack of success.

Nevertheless, he managed to coach me to three nice trout in three hours, which I considered a major success. The water warmed up too much by noon to continue, at which point I fell anyway, pulling a thigh muscle to the extent that I was desperately needing a beer or some other medication.

Friday night there was a very nice banquet, where awards were given and much social interaction took place. Again the organization and services were outstanding. All the events took place in very close proximity to each other with a support team there and snacks galore. All the meals were outstanding with plenty of food and drink, but nothing alcoholic, as it was on campus.

The location was beautiful, the meeting well coordinated and those who missed it missed a great gathering, the first in several years.

Bucket traps from two different nights, first looks from the trail in the forest



***Diana Fritillary* - finally !!!!!**

PS. After leaving, while driving back to Virginia, I stopped at an overlook, and by dint of magical good fortune took the Diana Fritillary I saw coming down the trail on the wing!

(Kelly Richers, E-Mail; kerichers @wuesd.org)

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REDISCOVERY OF *PROTEOTERAS IMPLICATA* HEINRICH (1924) AND BASIC SEASONALITY AND IDENTIFICATION INFORMATION

BY

ROYAL TYLER, MICHAEL SABOURIN AND JEFFRY PETRACCA

Introduction

This paper is a documentation of the occurrence and identifying characteristics of *Proteoteras implicata* Heinrich (Tortricidae, Olethreutinae, Eucosmini) in Northwest Louisiana. This species has been seldom mentioned since its original description by Heinrich (1924) almost a century ago. The authors collaborated on this project while attempting to document the Tortricid moths present on the study site in Caddo Parish.

Materials and Methods

Royal Tyler collected and photographed 17 specimens of *Proteoteras* between 2020 and spring 2022 near UV and Mercury vapor lights. At the time the project started this Genus had not been previously documented on the study site, and no documentation of *Proteoteras implicata* could be found online other than being listed as a species (example Global Lepidoptera Index). Online photographic and DNA databases such as Moth Photographers Group, BugGuide, iNaturalist, and BOLD had no examples of this species. All of these specimens are now recorded on iNaturalist with GPS location data, digital photographs, and time and date stamps taken from photographs.

The primary study site is The Royal Hills farm, a 153 acre tree farm located in Caddo Parish, Louisiana. This is the NW corner of the state, not far south of Texarkana, AR. It is approximately 120 acres of upland shortleaf pine (*Pinus echinata*) and loblolly pine (*Pinus taeda*) ecosystems, with about 25 acres of creek bottoms of hardwoods and cypress. Soils are predominantly sandy to sandy loam. There is an approximately 5 acre homesite which contains upland hardwood species in addition to the native pines. Out of 17 specimens collected, 12 were recorded here. The other 5 specimens in fall 2021 through spring 2022 were collected in neighboring Bossier Parish, along the edge of a hardwood bottom in a suburban area using similar methods.

The host plants for this species are not well known, but Heinrich (1924) listed "Bush Ash" as a host in the Florida Everglades. He was possibly referring to a *Fraxinus profunda* which grows shorter and bush-like in the Everglades swamps. Both sites sampled in this study contained *Fraxinus americana* (White Ash). This is a possible host.

Taxonomy/Identification

Royal Tyler collected adults visiting a mercury vapor lamp and UV light setup on a covered porch so that year-round collections could be obtained regardless of weather (see photo 1A). Daily collections during 2020 yielded 10 specimens which were photographed live, immediately collected, labeled, and placed in a freezer. They were then shipped to the co-author Michael Sabourin for mounting and dissection. In 2021, 3 additional specimens were collected, 2 of which were shipped to be barcoded. In early 2022, an additional 4 specimens were collected and sent to Jeffry Petracca for barcoding. The mounted specimens remain in the research collection of Michael Sabourin at the time of publication. Twelve of the 17 specimens collected were *Proteoteras implicata* and 5 were *Proteoteras aesculana.*

Photo 1A: Light setup

P. implicata specimens can be easily placed into the Genus *Proteoteras* based on the bumpy appearance of the forewing scale tufts and the distinctive green coloration. Dissected male specimens correspond with Heinrich's (1924) description of *P. implicata* having long socii.

Description of adults

Proteoteras implicata, FW length 4-7mm, is very similar in appearance to *Proteoteras aesculana* Riley. They differ in genitalia and sex scaling in males (Heinrich 1924). *P. implicata* forewing is olive green in color, with black and gray interspersed within the dominant green color (see Photos 2A, 3A). The type and some specimens have some brown colored scales at the base of the forewing. There is a prominent, dark, costal crescent on the outer half of the forewing, the distal half extending from the cell out toward the apex; usually interrupted before terminating in a rounded black spot before the apex. These two features, the angulate line and the rounded black spot, appeared in every example collected. The rest of the features tended to vary quite a bit. On individuals which are distinguishable by external features, these two characters define the species

Photo 2A: *Proteoteras implicata* (December 1, 2021)

Photo 3A: *Proteoteras implicata* (December 4, 2021)

Photo 3B: *proteoteras implicata* (December 4, 2021)

Photo 3B is a fairly typical example, with the exception that most of our specimens collected tended to be fairly rubbed and worn. These freshest examples were collected in the middle of winter. The male sexual scaling on hindwing is reduced in *P. implicata* only being observed on the proximal half of the costal margin.

Male genitalia (Photo 4A) with 2 or 4 heavy, flat spines from outer margin of harpe, and with entire neck of harpe from outer margin of basal opening to cucullus, densely spined; socii long, slender, the apices practically touching. Female genitalia (Photo 4B) with posterior margin of 7th sternum deeply emarginate medially; postvaginalis long; ostium ovate, posterior to anterior margin of 7th sternum; corpus bursae with two finlike signa approximate in size.

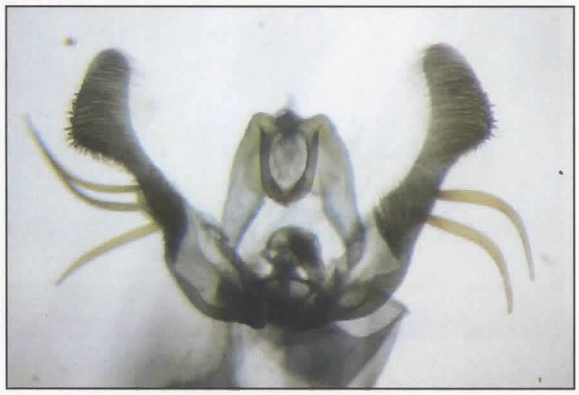

Photo 4A: *proteoteras implicata* ←

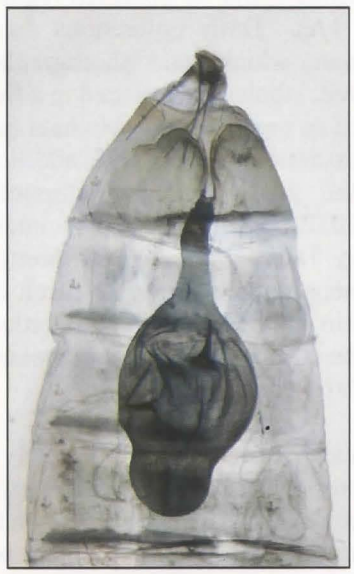

Photo 4B: *proteoteras implicata* →

Occurrence

During 2020 specimens were seen and collected from May 27 through November 9. Collections were not able to be made during peak season in 2021, but an additional specimen was collected on May 3, and then 2 more on December 1 and December 4. It is likely that this species is multivoltine, and active throughout the warm season. 2021 was an unusually warm fall/winter season and allowed collection much later than normal for this region. During the spring of 2022 an additional four specimens were collected from March 15 through May 4, all of which turned out to be *P. aesculana.*

Prior to this publication, there were no known barcoded specimens of *P. implicata.* The result of a specimen (photo 2A) sent to Cold Spring Harbor Laboratory's DNA Learning Center for DNA analysis, was that *P. implicata* was compatible with BOLD bin BOLD:AAA1053 .

DNA Barcode Methodology

Molecular methods were employed to target a portion of cytochrome oxidase I (COI), a marker region typically used in the barcoding of invertebrates. All specimens for barcoding analysis were handled similarly, and extractions were carried out using Qiagen's DNeasy Blood & Tissue kit. Two legs were extracted from each specimen, mechanically digested with a pestle in 180 µL of the kit's ATL solution and 20 µL of proteinase K, and incubated at 56 °C for three hours. The rest of the protocol was carried out following the manufacturer's instructions.

PCR was carried out to target the COI marker region and Agarose gel electrophoresis was used to verify successful amplification of the 600-700 base pair region. Successfully amplified samples were sent for cycle sequencing by a third party biotechnology company.

Sequences were trimmed and checked for quality in DNA Subway, a web application developed by Cyverse and the DNA Learning Center, and consensus sequences were generated for all specimens. These consensus sequences were then used to assess species identification in both the National Institute of Health's GenBank database and the Barcode of Life Database (BOLD).

Conclusion

P. implicata is a neotropical species occurring in Florida (Heinrich, 1924), Alabama, and Louisiana (iNat., 2022), Panama (Heinrich, 1924) and Costa Rica (BOLD, 2022 – misidentified as *Epinotia janzen* 196 and 197).

Sources:

BOLD (2022)

https://www.inaturalist.org/taxa/1099246-Proteoteras-implicata website 3-8-22

Heinrich, C., 1924. North American Eucosminae, notes and new species (Lepidoptera). *Journal of the Washington Academy of Sciences*, 14: 390. Proteoteras. Seen at biodiversitylibrary.org 2022

LepIndex – implicata (nhm.ac.uk) website 3-8-22

Moth Photographers Group – Proteoteras implicata – 3231 (msstate.edu) website 3-8-22

(Royal Tyler, E-Mail: whitefringetree@gmail.com)

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MINUTES OF 2022 SLS BOARD/BUSINESS MEETING

The annual SLS combined board and business meeting was held on 16 June 2022 in conjunction with the Annual Meeting of the Lepidopterists' Society at Western Carolina University, Cullowhee, NC. After some technical gymnastics with connecting the conference computer system to Zoom, Chairman David Fine called the meeting to order at about 3:30 pm. Eighteen members were present on site with Tom Neal and Lance Durden joining via Zoom.

Tom Neal	Bill Russel	Alma Solis
Lance Durden	Darrel Willis	Richard Teper
David Fine	Stuart Marcus	Richard Brown
Brian Scholtens	Rick Gillmore	Don Tangren
Debbie Matthews	John Beck	Wayne Wehling
Kelly Richers	David Arenholz	John Shuey
Steve Mix	J.D. Turner	

Minutes from the 2021 meeting were previously published in the News. Chairman Fine read the 2022 treasurer's report submitted by Society Treasurer, Jeff Slotten. The Society is in good financial shape thanks to the Irving Finkelstein investment account, member donations and dues. There are currently 152 paid members and complimentary issues are sent to the Library of Congress and the Division of Plant industry Library in Gainesville, FL. The report was accepted by the membership and the complete written report with balances through April 29th is included in this issue of the News.

Locations for the 2023 meeting were discussed. It was decided that the meeting will be combined with the Association for Tropical Lepidoptera and be held in Gainesville. Dates will be decided pending release of the Fall 2023 football schedule and conference room availability.

Officer terms and election procedures including nomination committees and the use of mail in ballots were reviewed. These procedures were previously accepted as consistent with Article 5 of our constitution, and all were is favor of the current procedures.

A fall field trip/bioblitz is planned for the weekend of October 21, 2022, at Crocodile Lake National Wildlife Refuge, on North Key Largo. Permission has been granted by refuge manager Jeremy Dixon under David Fine's research permit with the understanding that collecting is restricted to moths only and all specimens are to be eventually deposited at the McGuire Center. More details including meeting places and lodging options will be included in the News.

The meeting concluded at about 3:55 pm and was followed by the Association for Tropical Lepidoptera business/board meeting.

Respectfully submitted by Deborah Matthews

Brian Scholtens opening meeting (Photo by Alma Solis)

A surprising in-person turn out for the SLS board/business meeting (Photo by D. Matthews)

Another view of the meeting room during the SLS board/business meeting (Photo by D. Matthews)

SLS member Kelly Richers gave an important talk entitled "The Case for the Lepidopterists' Society Forming a Clearinghouse Committee for Collection Donations, Evaluations, and Formal Tax Appraisals." (Photo by D. Matthews)

Members Tom Neal and Lance Durden onscreen via Zoom (Photo by D. Matthews)

Mothing
(Photo by Alma Solis)
←

David Arenholz's moth sheet
(Photo by Alma Solis)
→

(Deborah Matthews Lott
E-Mail: dlott@flmnh.ufl.edu)

REPORTS OF STATE COORDINATORS

Alabama: C. Howard Grisham, 573 Ohatchee Road, Huntsville, AL 35811, E-Mail: chgrisham@Comcast.net

Arkansas: Mack Shotts, 514 W. Main Street, Paragould, AR 72450, E-Mail: cshotts@grnco.net

Florida: Charles V. Covell Jr., 207 NE 9th Ave, Gainesville, FL 32601, E-Mail: covell@louisville.edu

Florida report: March 17 to May 16, 2022

As was the case in 2021 the spring flight of butterflies observed in Gainesville, Alachua County, seemed rather sparse. I have to say that I did not visit any of the usual types of habitat where butterflies are more common and varied. Below are my records for the above time period, all in Gainesville (golf courses and home, primarily).

Phoebis sennae	March 17, 18, 21, 22, 26, 30, April 1
Danaus plexippus	March 21, 22, April 14, 19, 29, May 6, 11
Papilio troilus	March 22, May 3
Junonia coenia	March 22, April 19, 28, May 3, 10
Libytheana carinenta	March 28, 29
Erynnis horatius	April 19, 28, May 3, 10
Hylephila phyleus	April 19, 28
Papilio polyxenes asterius	April 19
Agraulis vanillae	April 28
Asterocampa celtis	April 29
Papilio palamedes	May 3
Papilio glaucus	May 10

Andrei Sourakov reported a *Parhassius m-album* in the Natural Area near the Florida Museum of Natural History on April 28 via Twitter.

Georgia: James K. Adams, 346 Sunset Drive SE, Calhoun, GA 30701, E-Mail: jadams@daltonstate.edu
(Please check out the GA leps website at: www.galelps.org/

Most records are from James Adams (JKA or no notation) and Lance Durden (LD). Other contributors are spelled out with the records. Most records are of first of the year specimens, uncommon species, county records, and records for new locations. Records are from 2022 unless otherwise specified.

Calhoun, Gordon Co.:
SPHINGIDAE: *Ceratomia hageni* (COUNTY, third in STATE), Forest Heights, May 19, Gage Loy (see image page 230). **EREBIDAE**: *Sigela braunneata*, April 24, JKA residence.

Rocky Face Ridgeline, just south of Dalton, Whitfield Co.:
May 30-31:
CRAMBIDAE: *Diastictis ventralis*. **GEOMETRIDAE**: *Erastria cruentaria*. **NOCTUIDAE**: *Achatodes zeae, Apamea cariosa*.

Keown Falls, Walker Co., GA, May 27:
HESPERIIDAE: *Lon hobomok*. **LYCAENIDAE**: *Feniseca tarquinius*.

Taylor's Ridge, 5 miles W of Villanow, south of Hwy 136, Walker Co.:
April 12-13:
GEOMETRIDAE: *Selenia kentaria* (female, LATE). **NOCTUIDAE**: *Lithophane querquera* (LATE).
April 23-24:
EREBIDAE: *Zale undularis*. **NOCTUIDAE**: *Abrostola ovalis* (COUNTY, third record for Georgia).
May 6, with Bill Murphy:
EREBIDAE: *Hypena appalachiensis* (COUNTY, second record for Georgia).

May 14:

GEOMETRIDAE: *Glena plumosaria, Lytrosis permagnaria.*

May 21, with JoAnne Russo and Laura Gaudette:

GEOMETRIDAE: *Lytrosis permagnaria*, (common but worn). **SPHINGIDAE**: *Manduca jasminearum.* **EREBIDAE**: *Zale buchholzi.* **NOCTUIDAE**: *Scoliopteryx libatrix.*

May 27, with Roy Morris:

LYCAENIDAE: *Satyrium titus.*

June 4-5:

LIMACODIDAE: *Monoleuca semifascia.* **CRAMBIDAE**: *Compacta capitalis.* **EREBIDAE**: *Dinumma deponens, Catocala miranda.* **NOCTUIDAE**: *Properigea tapeta.*

Crockford-Pigeon Mountain WMA, 8 mi. WSW of La Fayette, Walker Co.:

April 1:

PIERIDAE: *Pieris virginiensis.* **LYCAENIDAE**: *Parhassius m-album.*

April 19, with Roy Brown:

HESPERIIDAE: *Lon hobomok.* **PAPILIONIDAE**: *Battus philenor, Eurytides marcellus, Pterourus glaucus, P. troilus.* **PIERIDAE**: *Pieris virginiensis* (clearly having a long flight).

May 4-5, Cooper Creek Recreational area, Union Co., Bill Murphy:

PAPILIONIDAE: *Papilio appalachiensis.* **GEOMETRIDAE**: *Mesoleuca ruficillata* (COUNTY, third location in STATE). **SATURNIIDAE**: *Hyalophora cecropia* (COUNTY, uncommon in north Georgia). **NOCTUIDAE**: *Feralia comstocki* (COUNTY).

Trackrock Campground, 141 Trackrock Camp Rd., Blairsville, Union Co., April 24-25, LD:

GEOMETRIDAE: *Eupithecia columbiata, Hydrelia inornate.* **NOCTUIDAE**: *Acronicta cryptica* (STATE; see image page 230), *Feralia comstocki.*

Brasstown Bald, Towns/Union Cos.:

April 24-25, LD:

Powerline cut hwy 180 spur, 3200':

GEOMETRIDAE: *Homochlodes fritillaria, Homochlodes disconventa, Gueneria similaria, Lambdina canitaria* (?, STATE), *Plagodis kuetzingi, Plagodis pulveraria, Plagodis serinaria, Eupithecia columbiata.* **EREBIDAE**: *Zale helata, Zale duplicata.* **NOCTUIDAE**: *Pyreferra hesperidago, Orthosia revicta.*

Turn off near top parking lot, 4100':

GEOMETRIDAE: *Eufidonia convergaria, Homochlodes fritillaria, Homochlodes latcispargaria, Lambdina canitaria, Plagodis kuetzingi, Plagodis pulveraria, Eupithecia columbiata.* **NOCTUIDAE**: *Orthosia revicta,*

June 4-6, LD and Jeff Slotten:

Powerline cut on hwy 180 spur, 3200':

SPHINGIDAE: *Lapara bombycoides.* **GEOMETRIDAE**: *Eufidonia convergaria, Lytrosis permagnaria, Euchlaena muzaria.* **NOCTUIDAE**: *Pyrrhia exprimens, Hyppa xylinoides.*

Meadow near parking lot, 4300':

HEPIALIDAE: *Gazoryctra sciophanes*, (STATE, 8 individuals; see image page 230). **GEOMETRIDAE**: *Hydrelia condensata* (STATE; see image page xxx). **NOCTUIDAE**: *Malliatha concinnimacula* (COUNTY), *Phlogophora iris, Dypterygia rozmani, Hyppa contrasta, Lacinipolia lorea.*

June 10-12, JKA:

Powerline cut on hwy 180 spur, 3200':

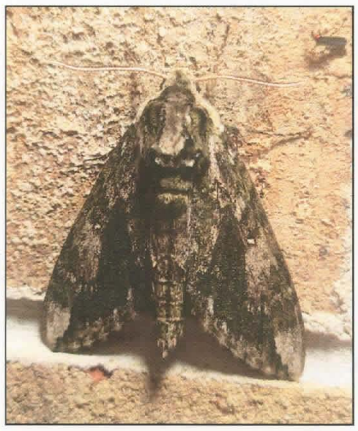
GEOMETRIDAE: *Eufidonia convergaria, Lytrosis sinuosa.* **NOCTUIDAE**: *Hyppa xylinoides.*

Hairpin turn near top, 4100':

HEPIALIDAE: *G. sciophanes* (14 individuals), *Sthenopis pretiosa* (1 individual). **GEOMETRIDAE**: *Heterophelps refusaria, Euchlaena muzaria, Cepphis armataria.* **NOCTUIDAE**: *Chrysanympha formosa, Phlogophora iris, Hyppa contrasta.*

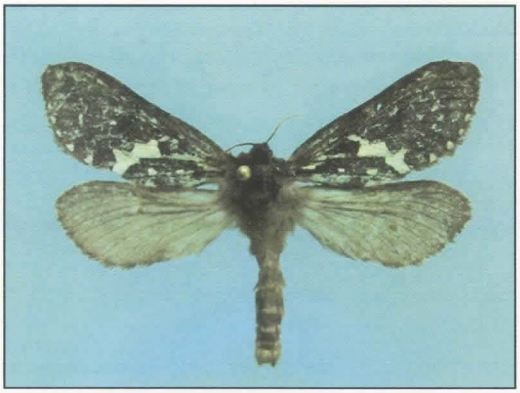
Meadow near parking lot, 4300':

HEPIALIDAE: *G. sciophanes* (2 individuals).



Ceratomia hageni, Calhoun, Gordon Co., Georgia (Photo by Gage Loy)

Acronicta cryptica, from the north Georgia/Brasstown Bald area (Photo by Lance Durden).



Gazoryctra sciophanes, from the north Georgia/Brasstown Bald area (Photo by James Adams).

Hydrelia condensata, from the north Georgia/Brasstown Bald area (Photo by Lance Durden).

Megathymus cofaqui . Chattahoochee Fall Line WMA, Marion Co., Georgia (Photo by Roy Brown).

Cydosia majùscula, Chickasawhatchee WMA, Dougherty Co., Georgia) (Photo by Roy Brown).

Leptosteges flavicostella, Brunswick, Glynn Co., Georgia (Photo by Mike Chapman).

Chattahoochee Bend State Park, Coweta Co., March 26:
TORTRICIDAE: *Acleris cervinana* (possible STATE record); this species should be across north Georgia, as it is found in North Carolina within three miles of Georgia, and across much of eastern Alabama, but I am currently unaware of other records.

Almo Tract, Chattahoochee Fall Line WMA, Marion Co., May 16, Roy Brown and Nancy Crosby:
HESPERIIDAE: *Megathymus cofaqui* (see image page 230).

Chickasawhatchee WMA, Dougherty Co., April 11, Roy Brown:
NOCTUIDAE: *Cydosia majuscula* (COUNTY, second location in STATE; see image page 230).

Statesboro, Bulloch Co., Lance Durden:
EREBIDAE: *Catocala clintoni* (April 17, EARLY).

Alligator Creek WMA, Wheeler Co., May 15-17, Ricky Patterson:
SATURNIIDAE: *Citheronia sepulcralis* (COUNTY). **EREBIDAE**: *Catocala grisatra, C. alabamae.*

Townsend WMA North, Long Co., March 30-31, LD:
LIMACODIDAE: *Heterogenea shurtleffi*, *Euclea nanina*. **GEOMETRIDAE**: *Nemoria saturiba*, *Glena cognataria*, *Tacparia zalissaria*. **SPHINGIDAE**: *Amphion floridensis*. **EREBIDAE**: *Selenisa sueroides*, *Drasteria graphica*, *Euclidea cuspidea*. **NOLIDAE**: *Meganola georgei*. **NOCTUIDAE**: *Feltia manifesta*.

Dixon Memorial Forest WMA, April 13-14, LD:
BATRACHEDRIDAE: *Homaledra heptathalma*. **COSSIDAE:** *Inguromorpha basalis* (COUNTY). **CRAMBIDAE:** *Glaphyria cappsi*. **LIMACODIDAE**: *Heterogenea shurtleffi*. **GEOMETRIDAE**: *Nemoria elfa*, *Nemoria catachloa*, *Glena cognataria*, *Iridopsis pergracilis*, *Lytrosis sinuosa*, *Metarranthis lateritiaria*, *Nematocampa baggetaria*, *Tacparia zalissaria*. **SPHINGIDAE**: *Amphion floridensis*. **EREBIDAE:** *Macrochilio louisiana*, *Cisthene striata*, *Crambidia uniformis*, *Virbia fergusoni*, **NOCTUIDAE**: *Bagisara brouana* (COUNTY).

Sapelo Island, McIntosh Co., May 2-3, Lance Durden:
SPHINGIDAE: *Manduca quinquemaculata* (ISLAND record), *Eumorpha vitis*. **GEOMETRIDAE**: *Nemoria bifilata*, (ISLAND record), *Nematocampa baggettaria* (ISLAND record), *Digrammia eremiata* (ISLAND record). **NOTODONTIDAE**: *Oedemasia concinna* (ISLAND record). **EREBIDAE**: *Idia majoralis, Simplicia cornicalis*. **NOCTUIDAE**: *Derrima henrietta, Photedes enervata, Globia oblonga.*

Brunswick, Glynn Co., Mike Chapman:
CRAMBIDAE: *Leptosteges flavicostella*, May 3 (STATE, see image page 230).

Louisiana: Michael Lockwood, 215 Hialeah Avenue, Houma, LA 70363, E-Mail: mikelock34@hotmail.com

Mississippi: Ricky Patterson, 400 Winona Rd., Vicksburg, MS 39180, E-Mail: rpatte42@aol.com

Ricky sends in the following report (records by Ricky Patterson unless otherwise specified):

21 February 2022, Sandy Creek WMA, Adams county, MS : *Erynnis horatius, Cyllopsis gemma*

14 March 2022, Holly Springs National Forest, Lafayette county, MS: *Celastrina neglecta neglecta* (spring form), *Anthocharis midea, Nymphalis antiopa*

28 March 2022, Sandy Creek WMA, Adams county, MS : *Amblyscirtes aesculapious*

15 May 2022, Vicksburg, Warren county, MS: *Poanes yehl*

4 May 2022 and 5 June 2022, Vicksburg, Warren county, MS: *Calephelis virginiensis*

4 June 2022, Moorhead, Sunflower county, MS: *Phyciodes phaon jalapeno*

4 June 2022, Menge Road, Pass Christian, Harrison county, MS: *Euphyes dukesi dukesi* leg: Craig Marks (county record)

North Carolina: Harry LeGrand, 1109 Nichols Drive, Raleigh, NC 27605, E-Mail: hlegrandjr@gmail.com

Harry sends in the following report: SPRING BUTTERFLY RECORDS FOR NORTH CAROLINA – 2022

Records are from March through May 2022, except as indicated. Names in parentheses are counties; when in bold, a first county record.

February and March were quite warm, and a great number of early records were made, especially in the mountains. Temperatures moderated up and down thereafter. Rainfall was adequate in most areas, but much of the Coastal Plain was in a strong drought, especially so into May. Thus, dry conditions there, coupled with extreme weather changes, are making butterflying in this province a troubling and highly concerning situation.

Once again, the state had a strong and "killing frost" or two in late March and in April. These very cold periods (far below freezing) are now following unseasonably warm periods, when many life stages have "awoken" and are very vulnerable to "killing frosts". As a result, again most of the state – especially the central and eastern portions – continue to see very depressed numbers of butterflies, especially grass skippers. It seems as though species whose hostplants are trees and shrubs are faring better than are species whose hostplants are herbaceous species. Most trip lists even into May contained a lack of grass skippers, with most skippers being spreadwings such as Erynnis species.

PAPILIONIDAE:

Pterourus palamedes, Bob Cavanaugh saw two very early individuals in his Newport (Carteret) yard on March 6.

PIERIDAE:

Euchloe olympia, two seen by Pete Dixon at the best Madison County site on March 15 tied the earliest record for the state. Of great interest was the photographing of an individual about 4 miles east of the only previously known colony in Madison County on April 14 by Loy Xingwen. This new site does have a population of the species' favored local hostplant – Draba ramosissima.

Pontia protodice, there were an "average" three reports this season, all in May – singletons noted by Harry LeGrand in Wake County, Richard Stickney in Durham County, and Kevin Metcalf in Mecklenburg County. All of these were from the Piedmont province, as usual.

Pieris virginiensis, there were a handful of records, by several observers, from a Piedmont outlier range – South Mountains – this spring. This is one of a few "montane" butterflies that do occur eastward to this range (which does not reach 3,000 feet elevation).

LYCAENIDAE:

Feniseca tarquinius, Lori Arent had a very good tally of four, at Tuttle State Forest (Caldwell), on April 22.

Parrhasius m-album, sightings of this scarce species once again were greater than usual, with close to ten reports, though almost all were of just a single individual.

Callophrys gryneus, a surprising foothills tally of ten individuals was made by Will Stuart on April 6 in the South Mountains Game Land (Rutherford).

Callophrys hesseli, very few people made an effort to look for this local species this spring. Notable was a good tally of five, photographed by Will Stuart in the Sandhills Game Land (Richmond) on March 30.

Callophrys augustinus, a count of 30 made by Mary Jane Klotzer in Madison County on April 11 was one of the state's highest ever.

Callophrys henrici, a very good count for the western Piedmont was four, as noted by Sven Halling, at Pilot Mountain State Park (Yadkin) on April 3.

Callophrys niphon, a good one-day count of three was made by Pete Dixon in Madison County on March 21.

Satyrium titus, a new county record was one photographed by Will Stuart in the foothills at South Mountains Game Land (**Rutherford**) on May 29.

Erora laeta, Mary Jane Klotzer photographed one in Madison County on April 11. Also in that county, Pete Dixon saw one – in his yard – on April 22, the same date on which Gail Lankford saw one near her home in Britten Cove near Weaverville (Buncombe). A fourth (!) spring record was one seen by Gail Lankford and Sven Halling at Sandy Mush Game Land (Buncombe) on April 28.

Glaucopsyche lygdamus, though not quite a record early date, two seen on March 3 in Madison County by Pete Dixon were notable.

Celastrina neglectamajor, Doug Allen noted a population of large azures on the top of Tryon Peak (**Polk**) in the latter part of May that seems to relate to this species. This mountain lies along the Blue Ridge Escarpment at the eastern edge of the range of the species.

NYMPHALIDAE:

Limenitis arthemis "arthemis", a first state record of this subspecies – or maybe better stated as "color morph" – was made by Will Stuart, who photographed one at the Green River Game Land (Polk) on April 25. Several taxonomists noted that members of this species – the more southerly "Red-spotted Purple" and more northerly "White Admiral" – often show mixed, intermediate characters; thus, they suggested that the North Carolina individual was presumably a very rare "complete mutant" of astyanax to the other form (arthemis) and not a presumed migrant from the Northern states.

Asterocampa clyton, this species "crashed" statewide in 2021, and again it was nearly unreported in late spring 2022. However, John Connors found a state record early individual at Raleigh (Wake) on May 1.

Vanessa cardui, there were practically no reports for the state this spring. The one or two reports might have been typos (for Vanessa virginiensis) on e-mail reports.

Hermeuptychia intricata, a photograph on iNaturalist taken by D.J. McNeil on August 8, 2021 in **Brunswick** filled in a gap on the range map. There is still much to be learned about this newly described species, though we are learning that it favors rich or very diverse moist hardwood forests and is more specialized in habitat choice than is H. sosybius, which occurs in most forested wetland types, especially more acidic ones.

HESPERIIDAE:

Erynnis martialis, Will Stuart was the only person to run into this declining species this spring. At a known locale in the South Mountains Game Land (Rutherford), he found three on April 6, and two on April 17.

Erynnis baptisiae, Pete Dixon photographed one in Madison County on the state record early date of March 3.

Atrytonopsis hianna, rare in the mountains, one was seen by Gail Lankford at Sandy Mush Game Land (Buncombe) on May 6.

Amblyscirtes hegon, seldom reported anymore east of the mountains and foothills ranges, singles were notable at Mayo River State Park (**Rockingham**) on May 2 (by Richard Stickney) and at Mountain Creek Park (**Catawba**) on May 9 (by Lori Owenby).

Amblyscirtes carolina, sadly the only report of the season was one noted by Will Stuart in Gates County on April 3.

Megathymus yuccae, only two reports were made this spring, both in Brunswick County. The one of more interest was a coastal individual found by Taylor Piephoff at Ocean Isle Beach on April 11. Owing to coastal development, stands of yucca on dunes and sand flats are slowly disappearing, and skipper populations are always small.

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Terry sends in the following report for the 2rd quarter of 2022, and comments:

Butterfly and moth species and individual numbers have been severely effected by continued drought that started October, 2010. Eighty-one % of the state is in extreme or exceptional drought – highest since February of 2012. East Texas had above normal rainfall in first quarter, but nothing since returning area to dry conditions. Extreme arid conditions are also in southern and western U.S.

iNat survey of key counties in Texas geographical areas are showing some minor gains. Strays are almost non-existent.

An interesting observation in Cameron County: *Erynnis meridianus*, female, 9 May, 2022, 3012 Melissa Lane, Harlingen, Texas. Out of range, normally resident of central and western Texas westward to New Mexico and Arizona and southwestern Mexico.

>>

Stuart sends in the following report:

Moths for Trinity River National Wildlife Refuge
Liberty County, TX
Feb 1, 2022 through Apr 30, 2022

The following moths were seen at least once during the month indicated on sheets using black and mercury vapor lights at Trinity River National Wildlife Refuge. If you would like any photographs or phenology data dating back to 2012, please let me know at stuart.marcus13@gmail.com.

AUTOSTICHIDAE
Glyphidocera juniperella Mar

BLASTOBASIDAE
Pigritia sp. Apr

BUCCULATRICIDAE
Bucculatrix sp. Apr

COSMOPTERIGIDAE
Cosmopterix scirpicola Apr
Cosmopterix sp. Feb
Triclonella bicoloripennis Apr

COSSIDAE
Givira anna Apr
Inguromorpha basalis Apr
Prionoxystus robiniae Mar, Apr

CRAMBIDAE
Achyra rantalis Mar, Apr
Anageshna primordialis Apr
Argyria lacteella Mar, Apr
Chrysendeton medicinalis Apr
Conchylodes ovulalis Apr
Crambus satrapellus Apr
Desmia funeralis complex Apr
Diacme sp. Apr
Diastictis fracturalis Mar, Apr
Diatraea lisetta Apr
Diatraea sp. Mar
Donacaula sp. Apr
Elophila gyralis Apr
Elophila obliteralis Feb, Mar, Apr
Elophila tinealis Apr
Eoreuma densellus Apr
Epipagis fenestralis Apr
Euchromius ocellea Mar, Apr
Eudonia strigalis Mar
Eustixia pupula Apr
Fissicrambus sp. Apr
Hymenia perspectalis Feb
Microcrambus biguttellus Apr
Microcrambus elegans Mar, Apr
Nomophila nearctica Feb, Mar, Apr
Palpita magniferalis Feb, Mar, Apr
Parapediasia teterrellus Apr
Parapoynx allionealis Feb, Mar, Apr
Pyrausta acrionalis Apr
Pyrausta laticlavia Apr
Pyrausta tyralis Mar, Apr
Rupela tinctella Apr
Samea baccatalis Apr
Udea rubigalis Feb, Mar, Apr
Urola nivalis Mar, Apr

DEPRESSARIIDAE
Agonopterix argillacea Mar, Apr
Antaeotricha humilis Apr
Antaeotricha schlaegeri Mar, Apr
Psilocorsis sp. Apr

EREBIDAE
Amolita obliqua Apr
Apantesis phalerata Mar, Apr
Apantesis sp. Feb
Caenurgia chloropha Feb, Mar, Apr
Cisseps fulvicollis Feb, Mar, Apr
Cisthene plumbea Mar, Apr
Clemensia ochreata Mar
Colobochyla interpuncta Feb
Crambidia pallida Apr
Cutina albopunctella Feb, Apr
Dasychira meridionalis Apr
Estigmene acrea Feb, Mar, Apr
Euerythra phasma Mar, Apr
Halysidota sp. Apr
Hypena baltimoralis Apr
Hypena scabra Feb, Mar, Apr
Hypercompe scribonia Mar
Hyphantria cunea Feb, Mar
Hypoprepia fucosa Apr
Hypsoropha hormos Apr
Hypsoropha monilis Apr
Isogona tenuis Mar, Apr
Lesmone detrahens Mar
Metria amella Mar
Mocis marcida Mar
Orgyia leucostigma Apr
Oruza albocostaliata Apr
Pagara simplex Mar, Apr
Palthis asopialis Feb, Mar, Apr
Panopoda carneicosta Apr
Panopoda rufimargo Apr
Plusiodonta compressipalpis Feb, Mar, Apr
Pyrrharctia isabella Feb, Mar
Renia adspergillus Feb, Mar, Apr
Spilosoma virginica Mar, Apr
Tetanolita floridana Feb Mar
Tetanolita mynesalis Feb, Mar, Apr
Virbia laeta Feb, Mar
Zanclognatha theralis complex Apr

EUTELIIDAE
Eutelia pulcherrimus Apr
Marathyssa basalis Apr
Paectes oculatrix Apr

GELECHIIDAE
Anacampsis New Sp - 420495.96 Apr
Aproaerema sp. Mar, Apr
Arogalea cristifasciella Mar
Chionodes discoocellella Feb
Coleotechnites florae Mar, Apr
Dichomeris sp. Apr
Glauce pectenalaeella Feb
Helcystogramma chambersella Feb
Helcystogramma melanocarpa Mar
Monochroa sp. Mar, Apr

GEOMETRIDAE
Anavitrinella pampinaria Mar
Chlorochlamys chloroleucaria Mar
Chloropteryx tepperaria Apr
Cleora sublunaria Mar
Costaconvexa centrostrigaria Apr
Dyspteris abortivaria Apr
Eupithecia miserulata Feb
Eusarca confusaria Apr
Eutrapela clemataria Mar
Idaea tacturata Apr
Iridopsis defectaria Mar, Apr
Isturgia dislocaria Mar, Apr

Leptostales pannaria Feb, Mar
Lobocleta ossularia Feb, Apr
Lophosis labeculata Feb, Mar, Apr
Lychnosea intermicata Apr
Lycia ypsilon Mar
Macaria aequiferaria Feb, Mar
Macaria bicolorata Mar
Nematocampa resistaria Apr
Nemoria elfa Apr
Nemoria lixaria Feb, Apr
Orthonama obstipata Feb, Mar
Paleacrita merriccata Mar
Phaeoura quernaria Mar
Phigalia denticulata Feb
Phigalia strigataria Feb
Plagodis fervidaria Mar
Prochoerodes lineola Apr
Scopula aemulata Mar, Apr
Scopula compensata Feb
Scopula lautaria Mar
Synchlora frondaria Feb, Mar, Apr
Tornos scolopacinaria Apr

GRACILLARIIDAE
Neurostrota gunniella Apr

LACTURIDAE
Lactura subfervens Mar, Apr

LASIOCAMPIDAE
Artace cribrarius Apr
Heteropacha rileyana Feb, Mar, Apr
Malacosoma americana Apr
Malacosoma disstria Apr

LIMACODIDAE
Adoneta gemina Apr
Adoneta spinuloides Feb
Apoda biguttata Apr
Euclea delphinii Mar, Apr
Isochaetes beutenmuelleri Apr
Phobetron pithecium Apr
Prolimacodes badia Apr

MEGALOPYGIDAE
Megalopyge opercularis Apr

MIMALLONIDAE
Lacosoma chiridota Mar, Apr

MOMPHIDAE
Mompha murtfeldtella Apr

NOCTUIDAE
Acronicta afflicta Apr
Acronicta connecta Apr
Acronicta oblinita Feb, Mar
Acronicta ovata Mar, Apr
Acronicta rubricoma Mar, Apr
Acronicta vinnula Mar, Apr
Anicla infecta Mar, Apr
Anicla simplicius Mar
Cerma cora Mar
Charadra deridens Feb, Mar
Charadra dispulsa Apr
Condica videns Mar
Copivaleria grotei Mar
Ctenoplusia oxygramma Mar, Apr
Cydosia aurivitta Apr
Elaphria versicolor Feb, Apr
Eudryas unio Mar, Apr
Galgula partita Feb, Mar, Apr
Helicoverpa zea Apr
Homophoberia apicosa Apr
Lacinipolia laudabilis Apr
Leucania incognita Feb, Apr
Leuconycta lepidula Apr
Marimatha nigrofimbria Apr
Mythimna unipuncta Mar
Psaphida rolandi Feb, Mar
Pyreferra hesperidago Feb
Rachiplusia ou Feb
Raphia frater Feb, Mar, Apr
Spodoptera eridania Feb
Spodoptera ornithogalli Feb, Mar, Apr
Spragueia leo Apr
Tarache aprica Apr
Tripudia quadrifera Mar
Tripudia rectangular Apr

NOLIDAE
Afrida ydatodes Feb, Mar, Apr
Baileya acadiana Mar, Apr
Baileya ophthalmica Apr
Garella nilotica Apr
Meganola minuscula Feb, Mar

NOTODONTIDAE
Clostera inclusa Mar, Apr
Coelodasys unicornis Feb, Mar, Apr
Datana integerrima Apr
Gluphisia septentrionis Apr
Heterocampa guttivitta Mar
Heterocampa obliqua Apr
Heterocampa subrotata Apr
Heterocampa umbrata Mar
Lochmaeus bilineata Feb, Mar
Macrurocampa marthesia Mar
Misogada unicolor Mar, Apr
Nerice bidentate Mar
Oedemasia leptinoides Apr
Paraeschra georgica Mar, Apr
Peridea angulosa Apr
Symmerista albifrons Feb, Mar

OECOPHORIDAE
Epicallima argenticinctella Apr
Inga sparsiciliella Apr

PLUTELLIDAE
Plutella xylostella Feb, Mar, Apr

PSYCHIDAE
Cryptothelea sp. Apr

PTEROPHORIDAE
Adaina sp. Mar
Lioptilodes albistriolatus Feb
Pselnophorus belfragei Mar, Apr

PYRALIDAE
Acrobasis demotella Apr
Adelphia petrella Mar
Clydonopteron sacculana Mar
Ephestiodes gilvescentella Feb, Mar
Epipaschia superatalis Mar
Eulogia ochrifrontella Apr
Homoeosoma electella Feb, Mar, Apr
Hypsopygia binodulalis Apr
Laetilia coccidivora Apr
Moodna ostrinella Feb, Mar, Apr
Phycitodes reliquellum Feb, Apr
Pococera asperatella Mar, Apr
Pococera humerella Mar
Salebriaria engeli Apr
Sciota celtidella Mar, Apr
Sciota uvinella Mar, Apr
Tampa dimediatella Apr
Tlascala reductella Mar, Apr

SATURNIIDAE
Actias luna Feb, Mar, Apr
Antheraea polyphemus Mar
Automeris io Apr
Syssphinx bicolor Mar, Apr

SPHINGIDAE
Agrius cingulata Apr
Amorpha juglandis Apr
Ceratomia undulosa Mar, Apr
Darapsa choerilus Apr
Darapsa myron Mar, Apr
Deidamia inscriptum Mar
Dolba hyloeus Apr
Eumorpha pandorus Apr
Hyles lineata Mar, Apr
Manduca quinquemaculatus Apr
Paratrea plebeja Feb, Mar, Apr
Smerinthus jamaicensis Mar, Apr
Sphecodina abbottii Apr
Xylophanes tersa Apr

TINEIDAE
Acrolophus heppneri Apr
Acrolophus mycetophagus Mar, Apr
Diachorisia velatella Apr
Homostinea curviliniella Apr
Xylesthia pruniramiella Apr

TISCHERIIDAE
Tischeria sp. Feb

TORTRICIDAE
Acleris semipurpurana Apr
Aethes sp. Mar, Apr
Ancylis comptana Feb, Mar
Archips argyrospila Apr
Archips grisea Apr
Archips semiferanus Apr
Argyrotaenia kimballi Apr
Argyrotaenia quercifoliana Apr
Bactra furfurana Apr
Cenopis cana Apr
Chimoptesis gerulae Feb
Chimoptesis pennsylvaniana Feb
Choristoneura fractivittana Apr
Choristoneura rosaceana Apr
Clepsis peritana Feb, Mar, Apr
Cochylichroa hospes Apr
Cochylichroa temerana Mar
Coelostathma discopunctana Feb, Mar
Coelostathma placidana Mar, Apr
Crocidosema plebejana Feb
Cydia caryana Apr
Cydia marita Mar
Ecdytolopha mana Apr
Endothenia hebesana Feb, Mar, Apr
Epiblema boxcana Apr
Epiblema desertana Apr
Epiblema otiosana Mar, Apr
Epiblema scudderiana Apr
Epiblema strenuana Apr
Episimus argutana Mar, Apr
Eucosma ambodaidaleia Feb
Eugnosta bimaculana Apr
Eugnosta sartana Apr
Goditha bumeliana Feb
Grapholita packardi Apr
Gretchena bolliana Feb
Larisa subsolana Apr
Olethreutes sp. Apr
Pammene medioalbana Apr
Paralobesia sp. Feb
Paralobesia viteana Mar, Apr
Platphalonidia magdalenae Feb, Apr
Platynota exasperatana Apr
Platynota idaeusalis Mar, Apr
Platynota rostrana Feb, Mar, Apr
Pseudogalleria inimicella Apr

Rhopobota finitimana Apr
Rhyacionia frustrana Mar
Rudenia leguminana Feb, Apr
Sparganothis sulfureana Feb, Mar, Apr
Sparganothoides lentiginosana Apr
Suleima helianthana Apr

ZYGAENIDAE
Harrisina americana Apr

Virginia: Harry Pavulaan, 606 Hunton Place, Leesburg, VA. 20176, E-Mail: Pavulaan@aol.com

Harry sends in the following report – 2022 spring report for Virginia:

County/City records are indicated in all CAPITALS.

Butterflies:

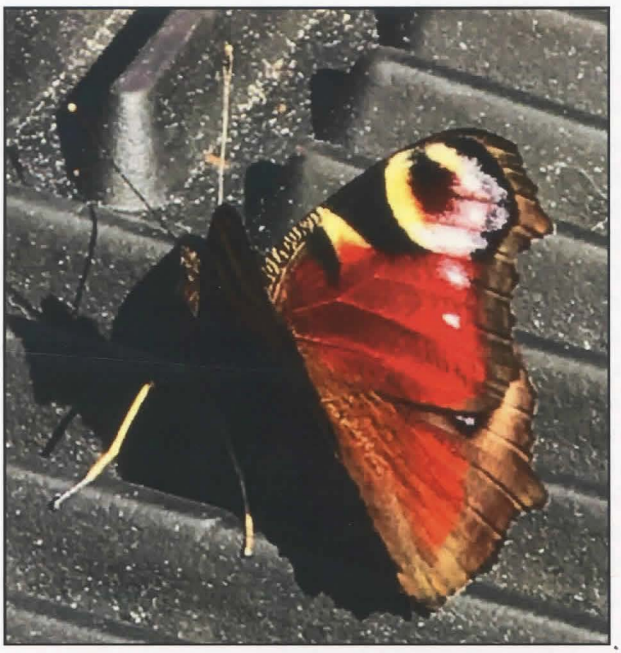
Anthocharis midea – Charles City Co.: 3/18/2022 (Larry Lynch – photo). Cumberland Co.: 3/20/2022 (Larry Lynch - photo). SOUTHAMPTON Co.: 3/19/2022 (Larry Lynch - photo).

Parrhasius m-album – CUMBERLAND Co.: 8/15/2021 (Larry Lynch - photo). A female taken by H. Pavulaan in Leesburg, VA. on 4/19/2022 was confined for 8 days outside in a large container with sprigs of several Oak species and she did not lay one egg. I suspect an alternate host is being used in my area.

Callophrys niphon – CUMBERLAND Co.: 4/17/2021 (Larry Lynch - photo).

Celastrina neglecta – Loudoun Co.: Leesburg, Veterans Park, 3/30/2022 (spring form with fully-developed ventral HW black patch, second one taken at same exact location, Harry Pavulaan – collected).

Aglais io – NORFOLK city (STATE record): 3/3/2022 (Jennifer Greeley – photo, below). VIRGINIA BEACH city (COUNTY/CITY record): 4/4/2022 (anonymous via iNaturalist – photo).



Aglais io

[HP comment: It is unfortunate that so many "naturalists" posting to iNaturalist prefer to remain anonymous and not be recognized for outstanding finds.]

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The Southern Lepidopterists' News is published four times annually. Membership dues are $30 annually. The organization is open to anyone, especially those with an interest in the Lepidoptera of the southern United States. Information about the Society may be obtained from Marc Minno, Membership Coordinator, 600 NW 34 Terrace, Gainesville, FL 32607, E-Mail: marccminno@gmail.com, and dues may be sent to Jeffrey R. Slotten, Treasurer, 5421 NW 69th Lane, Gainesville, FL 32653.

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