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THE OFFICIAL PUBLICATION OF THE SOUTHERN LEPIDOPTERISTS' SOCIETY ORGANIZED TO PROMOTE SCIENTIFIC INTEREST AND KNOWLEDGE RELATED TO UNDERSTANDING THE LEPIDOPTERA FAUNA OF THE SOUTHERN REGION OF THE UNITED STATES (WEBSITE: www.southernlepsoc.org/)

J. BARRY LOMBARDINI: EDITOR

FIRST STATE RECORD OF WHITE ANGLED SULPHUR IN LOUISIANA BY

JEFF TRAHAN



Fig. 1. White Angled Sulphur (ventral) observed September 30, 2008, in Winn Parish, LA. The butterfly is feeding on blazing-star.

The White Angled Sulphur (Anteos clorinde) is a tropical butterfly found mainly in Mexico but whose range extends into southern Arizona along the Mexican border and southern Texas along the Rio Grande River. In the fall it often strays into other parts of Texas, New Mexico and Oklahoma. I searched the literature but found no record of this species having been recorded in Louisiana. There is no record of it in Louisiana in Butterflies and Moths of North America nor is there a record of it as having been seen in Louisiana in the Lepidopterists' Society Annual Season Summaries. In the fall of 2008, there were many reports of this species north of its usual range on the TX-Butterfly Listserv. It was reported as far north as Dallas and eastward to Houston. Thus I was on the lookout for it in northwestern Louisiana where I live and also along the western border of Louisiana where Louisiana abuts Texas. I also

notified all of the butterfliers in northwestern Louisiana to watch for it, but to no avail.

Terry Davis and I took a trip to search for butterflies in the calcareous prairies of Kisatchie National Forest in Winn Parish on September 30, 2008. While riding on Coldwater Creek Road near Coldwater Creek Prairie, we spotted a



Fig. 2. White Angled Sulphur (dorsal) observed September 30, 2008, in Winn Parish, LA. This photo was taken while the butterfly was in flight.

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large white butterfly. We stopped and quickly realized that the butterfly was a White Angled Sulphur. This species often feeds on red and purple flowers as do many other large sulphurs. We found it feeding on the purple flowers of blazing-star (*Liatris squarrulosa*). See Figures 1 and 2 for the ventral and dorsal photos of this individual. It was very surprising to me to find this species at this location since Winn Parish is in the central part of north Louisiana and not along the western border where Louisiana and Texas meet. We returned to this location two days later and the butterfly was still present.

I recently contacted Vernon Brou from Abita Springs, LA, who agreed that this sighting is a first state record for Louisiana.

NEW MEMBERS TO THE SOUTHERN LEPIDOPTERISTS' SOCIETY WELCOME!!!

Dan Vickers 5249 Beech Forest Dr. Lilburn, GA 30047

Pierre Howard 2843 Dover Road Atlanta, GA 30327

Matt Standridge 517 NW 27th Ave. Gainesville, FL 32609 Parker Backstrom P.O. Box 31 Bear Creek, NC 27207

Richard W. Lyons 1230 NW 7 Street Miami, FL 33125

Larry Reeves 515 NE Blvd. Gainesville, FL 32601

Thomas W. Carr 6626 Weckerly Drive Whitehouse, OH 43571 Darlene J. Moore 1656 Reserve Way Decatur, GA 30033

Montana Atwater 215 NEW 6th Street Gainesville, FL 32601

Dean K. Jue 3455 Dorchester Ct. Tallahassee, Fl 32312

Katrina Lane 915 SW 6th Ave Gainesville, FL 32601

DONATIONS TO THE SLS SOCIETY FROM JUNE TO SEPTEMBER 2009 MANY, MANY THANKS FOR THESE GENEROUS CONTRIBUTIONS

Rosemary Seidler (Sustaining) Bill Conner (Contributor) Joel Szymczyk Joe Riddlebarger (Sustaining) Lawrence Gall (Contributor) Ed Knudson (Contributor) Charles Bordelon (Contributor)

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The Southern Lepidopterists' Society

OFFICERS

Joe Riddlebarger: Chairman 610 Greenspring Drive Gibsonia, PA 15044 E-Mail: <u>alyfab@earthlink.net</u>

Jeffrey R. Slotten: Treasurer 5421 NW 69th Lane Gainesville, FL 32653 E-Mail: jslotten@bellsouth.net

Donald M. Stillwaugh: Secretary 604 Summerhill Ct Apt. D Safety Harbor, FL 34695-4387 E-Mail: <u>dstillwa@co.pinellas.fl.us</u>

Marc Minno: Membership Coordinator 600 NW 34 Terrace Gainesville, FL 32607 E-Mail: <u>mminno@bellsouth.net</u>

Tom Neal: Member-at-Large 1705 NW 23rd Street Gainesville, FL 32605 E-Mail: Chouwah@aol.com

Dave Morgan: Website Manager 4355 Cobb Parkway Suite J461 Atlanta, GA 30339 E-Mail: <u>mrdavemorgan@hotmail.com</u>

J. Barry Lombardini: Editor 3507 41st Street Lubbock, Texas 79413 E-Mail: <u>ibarry.lombardini@ttuhsc.edu</u>

The Southern Lepidopterists' Society is open to anyone with an interest in the Lepidoptera of the southern region of the United States. Annual membership dues:

\$20.00
\$15.00
\$30.00
\$50.00
\$70.00

A newsletter, The News of the Southern Lepidopterists' Society is published four times annually.

Information about the Society may be obtained from the Membership Coordinator or the Society Website: www.southernlepsoc.org/

POLYGRAMMATE HEBRAEICUM HÜBNER, 1818, (LEPIDOPTERA: NOCTUIDAE) IN LOUISIANA BY

VERNON ANTOINE BROU JR.



Fig. 1. P. hebraeicum phenotype variations from St. Tammany Parish, Louisiana (a-h).



Fig. 2. Adult P. hebraeicum captured at sec. 24T6SR12E, 4.2 mi. NE of Abita Springs, Louisiana. n = 26,277.



Fig. 3. Parish records for *P. hebraeicum*.

Within Louisiana, the common noctuid species *Polygrammate hebraeicum* Hübner (Fig. 1) has been captured as an adult in all months except November (Fig. 2), and over much of the state (Fig. 3). At the Abita Springs study site, there appear to be seven annual broods peaking at approximate 30-day intervals. The fourth brood is more often the largest in population based on a very large sample size taken in this study.

Covell (1984) listed the range of *hebraeicum* to include Maine to Florida, west to Ontario, Missouri and Texas in the months May through August. Heppner (2003) states dates of February through October.

Numerous authors state the larval foodplant to be *Nyssa sylvatica* Marsh, commonly referred to as Blackgum or Sourgum, a common large tree species at the Abita Springs study site.

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(Vernon A. Brou Jr., 74320 Jack Loyd Road, Abita Springs, Louisiana, 70420 USA; E-Mail: vabrou@bellsouth.net)

MY SEARCH FOR THE *"FROSTED"* GRAIL BY CRAIG W. MARKS



Fig. 1. Frosted Elfin, female (ventral), from Natchitoches Parish.



Fig. 2. Frosted Elfin, female (dorsal) from Natchitoches Parish.



Fig. 3. Frosted Elfin, male (ventral) from Natchitoches Parish.

The Frosted Elfin, *Callophrys irus*, has a range that extends across much of the eastern U.S., from western Maine to Florida then west to central Wisconsin down to eastern Texas. Despite this extended range, *irus* is usually extremely local; however, when you find one then chances are good you will find more in that immediate area. Living in small, scattered colonies, this bug has a single flight period in the spring which starts progressively later as the latitude moves north, March to April in the south, May to June in the north. Frosted Elfins are described as low-flying and low perching. Its habitat is given as pine barrens or oak savannah, places where wild lupine (*Lupinas*) and wild indigo (*Baptisia*), its larval hostplants, grow.

There are three subspecies, each of which has regional distributions, *C. i. irus* occupying the northern part of the range, *C. i. arace* occurring from southern New England to the coastal areas of North and South Carolina and *C. i. hadra* confined to east Texas, west Arkansas and into northwestern Louisiana. Several authors suggest *C. i. hadra* should be recognized as a separate species. Shepard reports *C. i. hadra* feeds only on wild indigo. Cech and Tudor suggest the lupine-feeding and *Baptisia*-feeding subspecies are actually sibling species. Raney notes this subspecies has less distinct markings than those found in the east. In particular, there is significant blurring of, even the virtual absence of a midline on the hindwing (compare the pictures below to those in Glassberg and Cech and Tudor).

Neck lists *C. irus hadra* as present in the far eastern portion of Texas during April and May. Tveten, within their species description of *C. henrici*, identifies *irus* as a similar species that may stray into the Houston area from further north in Texas. Several individuals reporting on the Texas Listserve over the last several years have indicated that the Frosted Elfin is regularly found north of Houston at Big Creek Scenic Area and Kirby State Park in late March and early April. Wauer states this bug occurs throughout the region he identified as the "*Pineywoods Region*," an area defined as located in the eastern Texas timber belt along the border with Arkansas and Louisiana. He gave the flight period as March and April, most often along roadsides, in fields and in open woods where lupine and false indigo grow.

Spencer described *C. irus hadra* as an uncommon butterfly found in the Coastal Plain and Ouachita Mountains of Arkansas, flying in March and April. Moving eastward, Glassberg reported the Frosted Elfin as locally rare in the northern peninsula of Florida, flying from late February to early April. Harris listed *irus* throughout the state of Georgia, but local and common. Singlebrooded, adults flying in March and April in the Coastal and

Piedmont regions, but flying in April and May in the mountains. As far as I can determine, it has not been reported from either Alabama or Mississippi.

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Fig. 4. Frosted Elvin, male (dorsal) from Natchitoches Parish.



Fig. 5. Henry's Elfin, male (ventral) from Natchitoches Parish.



Fig. 6. Henry's Elfin, female (dorsal) from Natchitoches Parish.

Shown above and below are four different Frosted Elfins from In order are Fig. 1, a female (ventral); Fig. 2, a Louisiana. female (dorsal); Fig. 3, a male (ventral); and Fig. 4, a male (dorsal). All were caught in the field adjacent to the Catahoula Butterfly Garden in Grant Parish on March 16, 2008. I've also included ventral (Fig. 5) and dorsal (Fig. 6) views of two Henry's Elfins (C. henrici turneri) caught in Kisatchie NF in Natchitoches Parish. As the two elfins do fly at the same time and (at least in my experience) coincide in their Louisiana range, confusion may Aside from the subtle differences reflected by these occur. photos, I offer two main distinctions between the two bugs: (1) henrici flies higher and around its food plant, the Redbud tree (Cercis canadensis) while irus flies low around wild indigo and (2) irus has a small thecla dark spot near the hindwing margin that henrici lacks. Occasionally, that spot is hard to discern due to wear. In a few it appears to be completely lacking (see Fig. 7 on page 95).

Having never seen any elfins in Louisiana before 2006, I set out to locate all three. I started by referencing Gary Ross' articles on LA butterflies (*Journal of Lep. Soc.*, vol. 17; 12/30/63, pp. 148-158 and vol. 19; 3/31/65, pp. 47-52). I also reviewed past season summaries by the Lepidopterist Society and sought information from other helpful butterfliers like Kreg Ellzey, Kilian Roever and Nick Grishin. All three were able to give me suggested locations within Kisatchie at Natchitoches Parish.

By 2007, I had seen both Henry's Elfins and Eastern Pine Elfins, *C. niphon,* in Natchitoches Parish (as well as other locations in West Feliciana Parish). Based on information from Kreg and Kilian, I found that a good place to look for Henry's Elfins is along the top of the ridge where the main trail begins at Longleaf Vista Recreational Area when the several redbud trees there are in bloom. Watch high up among the blooms for dark spots moving among the flowers. I also saw an Eastern Pine Elfin along the top of this trail at the Longleaf Vista Recreational Area. Another good spot is to drive along Road 360, stopping at blooming redbud trees in the lower, wetter areas.

That then left the Frosted Elfin. Lambremont first listed *C. irus* as part of Louisiana's butterfly population in 1954 based on a report by Skinner (1907), but this listing was confusing. First, Lambremont gave the common name of *C. irus* as "the Hoary Elfin." Next, he noted the range of this particular bug as an east-west distribution in the New England latitude (which would be correct for *C. polios* but not *irus*). Lambremont then suggested Skinners' record is either "an exceptional range extension" or Skinner had confused this species with *C. henrici* with which it is

reported as often confused. No location within the state is identified.

In 1965, Lambremont and Ross reported a male from Grant Parish on 4/18/64, three miles east of Bentley. Kilian Roever had also seen *irus* in Grant Parish. In an unpublished article by Gayle T. Strickland circa 1971, twenty-seven specimens were reported as having been collected in northwest Louisiana *"where it is common."* The only other location information given is the longleaf pine hills of Natchitoches and Desoto Parish. Dates of capture are given as the first week of April.

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Fig. 7. Frosted Elfin, male (ventral) from Natchitoches Parish.

The reference materials I've used for this article describe this bug's hostplant either generically as "wild indigo" or, specifically, as *B. tinctoria*, a herbaceous perennial plant in the family Fabaceae, native to North America. After several discussions with Jeff Trahan, I am unconvinced that *B. tinctoria* is present in Louisiana. Several references state it is not present in Louisiana or east Texas. For example, the plant database found on the websites for the USDA and Garden Guide do not list either state as within the range of this particular indigo species.

A very similar looking species of indigo, *B. nuttalliana*, is listed as present in Louisiana and East Texas (see Ajilvsgi and the USDA website referenced above). Both *tinctoria* and *nuttalliana* prefer dry meadow, prairies and open

woodland environments and produce yellow flowers. I believe the plant I have found in western Louisiana is the latter species of indigo (see Fig. 8), and it is on this plant that I have found *C. irus* perched. The absence of any mention of *nuttalliana* as a host plant of *C. irus hadra* is perplexing and would appear to be a good subject for further investigation.

There is a second indigo species present in the areas I have described in this article, *B. bracteata*, which also bears yellow flowers. This plant can be distinguished from *B. nuttalliana* as it grows in a horizontal fashion with drooping flowers rather than the much more upright *B. nuttalliana*. I would add that I have never seen *C. irus* either flying around or perched on *B. bracheata*.

After this investigation, on March 16, 2008, I located my first colony of Frosted Elfins. The colony was found primarily in the large open area adjacent to the Catahoula Butterfly Garden in Grant Parish. I saw a total of 12 Frosted Elfins either on or flying about the numerous wild

On the "Butterflies and Moths of North America" website, irus is listed from five parishes in Louisiana: Caddo, Natchitoches, Grant, Sabine and Vernon. Jeff Trahan's website, "Butterflies of Caddo Parish," lists irus as uncommon, flying from March 4 to April 11. This site gives Walter B. Jacobs Nature Park in that parish as one location where it can be found. Jeff has personally told me he has also found it at Eddie D. Jones Park there in Caddo.

Based on old records from Gary Ross (Ross, 1965, and personal communications with Gary) as well as information provided by Kilian Roever, in 2007 I searched for suitable habitat for Frosted Elfins in both Grant and Natchitoches Parish. I found in both parishes large quantities of what I suspected was that bug's Louisiana foodplant, *Baptisia*; however, I now have some question as to which *Baptisia* I found.



Fig. 8. Wild Indigo.



Fig. 9. Open pine woods off of Rd. 342 in Kisatchie National Forest where *irus* was found in 2008 and 2009.

indigo plants that had grown to a height of about twelve inches in that field. The growth status of the wild indigo around Stuart Lake was a good week behind the plants in the garden area, and no Elfins were flying.



Fig. 10. Ridge at Indian Creek Rec Area where *irus* was found on 09-III-2008.

The following Friday, March 21, 2008, I went to Kisatchie National Forest in Natchitoches Parish and found all three Elfins flying, including two separate colonies of Frosted Elfins. The first was along the Longleaf Vista Road two to three miles north of the Longleaf Vista Recreation Area. I saw three in this area. The second was along Forest Route 345 about a half mile after the turn off of FR 342 (Fig. 9, page 95). Seven were seen in this area. Sleepy Duskywings (*Erynnis brizo*) were also flying with the Frosted Elfins at this spot.

On March 7, 2009, I returned to the Catahoula butterfly garden area to check on the Frosted Elfin colony at that location. Because the spring was running earlier than 2008, and as I wanted to better determine the flight period I went 9 days earlier than the year before. Despite cloudy, windy conditions, five Frosted Elfins were seen, all in one small section

of the colony area. All were fresh. E. brizo was also flying.

During the summer of 2008, I discovered a ridge at Indian Creek Recreational Area with a lot of wild indigo growing (see Fig. 10, photograph taken along the top of that ridge). As the area greatly resembled the two sites in Natchitoches Parish where I had found *irus*, I made a mental note to return in the spring. I did so on March 7, 2009 after leaving Grant Parish. In less than five minutes after reaching the ridge, a saw a male Frosted Elfin flying at the western end. Within 30 minutes, I'd seen a total of 10, both male and female. All were fresh and all were flying along the top of the ridge in pine woods. As far as I am aware, the colony of Frosted Elfins at Indian Creek is a parish record. Unlike those seen at Catahoula (where the grass is much shorter) these were flying about four to six feet off the ground with a somewhat bouncing flight, almost like a satyr. If I waited long enough, each would stop flying and alight on the end of a long stalk of dead grass.

Due to my daughter's spring soccer schedule and inclement weather, I wasn't able to get back in the field until March 22 when I drove to Kisatchie National Forest in Natchitoches Parish. The weather was sunny and warm. I found three Frosted Elfins at the Longleaf Vista site, the earliest seen at around 10:00 A.M. All were resting on the top of an indigo plant. *E. brizo* was also flying in the general area. I saw four more *C. irus* at the site on Forest Route 345, between 2:00 and 2:30 P.M. Rosemary Seidler and Vickie LeFever reported *irus* was still flying at Kisatchie in Natchitoches Parish on April 4, 2009. They indicated they found it at various stands of wild indigo along the Longleaf Vista Road.

On March 29, I drove back to Grant Parish to check the site near the Stuart Lake Recreational Area. As previously noted, I had seen a significant amount of indigo along the road just south of the lake. On further investigation during 2008, I found a ridge about a quarter of a mile west of the road with a good growth of indigo along the top of the ridge. I started on the March 29 in the large field near the butterfly garden but found no elfins (and not much of anything else). I was also unsuccessful in locating any elfins directly along the Stuart Lake Road; however, at about 2:00 P.M. I found two males flying along the ridge along with a few Sleepy Duskywings. Maybe it is just my limited experience, but the presence of Sleepy Duskywings seems to be a good indicator that *C. irus* could also be present.

I'm pretty sure I've located another area at Indian Creek Recreational Area, where this uniquely local bug should thrive, and I've already made a mental note to return there next March. I also intend to check Highway 8 in Grant Parish between the Butterfly Garden and Stuart Lake where I've seen a great amount of indigo growing along that highway. Finally, I also plan to visit the Blue Hole Recreational Area in Vernon Parish to determine if it might also be there.

For the last three winters I've anxiously awaited March like never before. Even though winter in Louisiana is generally mild, I still dream during January and February of those first warm (and windy) weekends in March

when I can get back out into the field and search for Louisiana's three elfins. I still get a charge seeing these small, dark, fluttering harbingers of spring and the new butterfly season.

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GEORGE T. AUSTIN: JULY 10, 1943 TO JUNE 30, 2009

Many Southern Lepidopterists' Society members had personally known George Austin, Senior Collection Manager at the University of Florida, Florida State Museum, McGuire Center for Lepidoptera and Biodiversity in Gainesville. He died suddenly on the morning of June 30th of a heart attack. Dr. Thomas C. Emmel, Director of the McGuire Center, held a well-attended memorial service for George on the evening of July 6th at the Florida Museum. Dr. Emmel read some of the many emails that had arrived while photos of George, the Nevada desert, and gorgeous tropical butterflies flashed on a large screen. Co-workers, colleagues, friends, and family each added their own remembrances. As Dr. Jacqueline Miller mentioned, his was a life well lived. He had character and tremendous energy in the collection, preparation, and study of butterflies and recently moths as well. Over his lifetime he collected hundreds of thousands of specimens, published several hundred scientific papers on birds, butterflies, and other subjects, and described more than 100 new species and subspecies of Lepidoptera. He was unrivaled in his knowledge of the butterflies of Nevada and Rondonia, Brazil. The McGuire Center plans to finish and publish his nearly completed book, Butterflies of Nevada, in the near future. The McGuire Center also plans to create a memorial fund for George Austin to support student research on the Lepidoptera. Please contact the McGuire Center if you want to make a contribution to the memorial fund.

We will all miss George Austin.

Marc C. Minno

The members of the Southern Lepidopterists' Society send their sincerest condolences to the family of George T. Austin.

REMEMBERING A FIRST ENCOUNTER - A LONG TIME AGO BY

J. BARRY LOMBARDINI



Green Hairstreak (Callyphors dumetorum) (photograph by Adam Winer).

In an effort to squeeze another buck out of James and rise to his challenge, I wish to reminisce a bit about the Green Hairstreak (*Callyphors dumetorum*) which I first encountered approximately 60 years ago when living in San Francisco (please don't call San Francisco, *Frisco*). I would like to thank Henry "*Hank*" Leibee, a college roommate of many, many years ago, who periodically sends me potential articles for the NEWS and who sent me to the website for the following article on the Green Hairstreak.

The hills of San Francisco were my childhood playing grounds. My parents and brother and I lived on 18th Avenue and Quintara Street which is approximately 4 blocks from Hawk Hill and 6 blocks from Rocky Outcrop. Both locations within easy walking distance for a 9 year old lad in 1950. Incidently, while living at this San Francisco location for 27 years, I never realized that these two areas had distinct names, *i.e.*, Hawk Hill and Rocky Outcrop.

(photograph by Adam winer). The Green Hairstreak during these early times was quite prevalent and I had a number in my collection which also included the following: Red Admiral (Vanessa atalanta), Painted Lady (Vanessa cardui), West Coast Lady (Vanessa annabella), Mourning Cloak (Nymphalis antiopa), Common Buckeye (Junonia coenia), Monarch (Danaus plexippus), California Dogface (Zerene euryice), Clouded Sulphur (Colias philodice), Orange Sulphur (Colias eurytheme), Western Tiger Swallowtail (Papilio rutulus), Anise Swallowtail (Papilio zelicaon), Cabbage White (Pieris rapae), Acmon Blue (Plebejus acmon), Fiery Skipper (Hylephila phyleus) and many other common butterflies found in the San Francisco area. My father had made a glass case for me to display my collection. [Did not know about BioQuip Products which was a new company at this time (started in 1947).] But alas, that was a long time ago and none of this "first" collection has survived. Too bad, as I would like now to have a couple of those Green Hairstreaks.



Green Hairstreak (*Callyphors dumetorum*) (photograph by Adam Winer).

NEIGHBORS COME TOGETHER TO PRESERVE DISAPPEARING BUTTERFLY BY RONITTE LIBEDINSKY

One hundred years ago, the Xerces Blue Butterfly flew among the sand dunes of the Sunset District. But this iridescent blue, inch-wide insect was last seen in the early '40s, and it is believed to be the first butterfly in North America to become extinct as a result of urban development. Now, the Green Hairstreak Butterfly is in danger of sharing the same fate.

"It's unbelievable that San Francisco is famous for making this beautiful butterfly extinct. I can't just sit back and click another one off," said Liam O'Brien, a lepidopterist with Nature in the City, an organization dedicated to preserving and appreciating nature in San Francisco.

The Green Hairstreak, a kelly green, nickel-sized butterfly, was once abundant in San Francisco, but it is currently

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Callophrys dumetorum (C1081), male, females do not have dorsal; California, Marin Co., Point Reyes, 03-V-1983; Butterflies of America, ©2008 Kim Davis, Mike Stangeland, & Andrew Warren.

found in only three locations in the City; along the coastal bluffs in the Presidio and at two locations in Golden Gate Heights, the rocky hillsides at Hawk Hill, located at 15th Avenue and Rivera Street, and the Rocky Outcrop, located at 14th Avenue and Ortega Street. The two populations in Golden Gate Heights are separated by only four blocks, but the houses and streets on the blocks form a barrier that prevents the butterflies from flying between the two locations.

In small populations like these, the

males many to choose from when mating, leading to inbreeding and an

increased chance of extinction. To make matters more complicated, the female Green Hairstreak lays her eggs on only two types of plant, coastal buckwheat and deerwheat. If the female does not find those plants, the eggs are lost.

"These isolated populations will ultimately implode," O'Brien said.

About two years ago, O'Brien's imagination was sparked by the possibility of connecting the two populations in



Green Hairstreak (C. dumetorum) nectaring on Armeria (photograph by Matthew Zlatunich).

Golden Gate Heights by planting coastal buckwheat, deerwheat and other native plants along the four-block-long corridor. The idea is to encourage females to fly down the corridor and breed with males from the other group.



Liam O'Brien leads City's Green Hairstreak Butterfly walk on Easter morning, 2009 (photograph by Kerre-Suzanne Kyle).



Nature in the City's Green Hairstreak Corridor Butterfly walk starts at Hawk Hill, and is led by Liam O'Brien (in white).

Nature in the City's Green Hairstreak Butterfly walk begins with a hike through ice plant pictured: Liam O'Brien's niece, Miranda, in forefront] (photograph by Kerre-Suzanne Kyle).

Nature in the City's Green Hairstreak Butterfly walk in the San Francisco Sunset District, 14th Avenue, Rocky **Outcrop.** Pictured: **Evolutionary Biologist David** Seaborg taking notes, Iris **Clearwater standing** (photograph by Kerre-Suzanne Kyle).

O'Brien approached nature in the City with his idea, and the Green Hairstreak Project has now been operating for one and a half years.

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Corridor: Evolutionary Biologist David Seaborg taking notes, San Francisco Sunset District, 14th Avenue, Rocky Outcrop (photograph by Kerri-Suzanne Kyle).

Nature in the City's Green Hairstreak Corridor, Iris Clearwater, San Francisco Sunset District, 14th Avenue, Rocky Outcrop (photograph by Kerri-Suzanne Kyle).

Nature in the City's Green Hairstreak Corridor, Green Hairstreak Butterflies mating in San Francisco Sunset District, 14th Avenue, Rocky Outcrop (photograph by Kerri-Suzanne Kyle).

"The Green Hairstreak Project is a wonderful project that integrates everything we want to do at Nature in the City," said Peter Brastow, founder of the organization. "It's about restoring nature and connecting people with nature. It's a mutually advantageous relationship."

The SF Department of Public Works has given permission to Nature in the City to cultivate unused pieces of land along the corridor specifically for this project. Some neighbors have become site stewards who manage the small areas, while others have started planting coastal buckwheat and deerwheat in their yards.

"You don't need a large area of land, just a little bit," said Mike Belcher, a neighbor and steward who manages a small triangle of land close to Rocky Outcrop.

On a recent walk along the Green Hairstreak corridor, none of the small butterflies were seen, but the first



Nature in the City's Green Hairstreak Corridor: Green Hairstreak Butterfly, San Francisco Sunset District, 14th Avenue (photograph by Kerri-Suzanne Kyle).



Nature in the City's Green Hairstreak Corridor: the walk's first Green Hairstreak; sitting - Iris Clearwater, bending over - Charles (no last name given), San Francisco Sunset District, 14th Avenue (photograph by Kerri-Suzanne Kyle).

sighting of one at Rocky Outcrop brought all the participants into an excited huddle around the light purple Pompom flower that it was seated on. Fifteen minutes later, there was even more enthusiasm when a mating couple was spotted perched on another flower.

"This is something so rare that you've just seen," O'Brien said with a huge a smile.

O'Brien will consider the project to be successful when Green Hairstreaks are seen on the newly-planted areas along the corridor. But it could take some time. Belcher estimates that it might take two years before the native plants fill in his little plot.

Even though Green Hairstreak Butterflies are common throughout Europe and Asia, their fate in San Francisco can be viewed as a barometer of how good our local ecology is doing, according to O'Brien. By his count, there were 32 species of butterflies in the City in 2007. One hundred years earlier, there were 54.

"I want to be part of a group of people that tries. It might be too late, no doubt, but I'll do the best that I can," O'Brien said.

The next Green Hairstreak Butterfly walk will take place on Sunday, May 9, at 11 a.m.

For more information, visit the Web site at www.natureinthcity.com.

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The Editor of the Southern Lepidopterists' Society News wishes to thank the following individuals for their permission to reprint this very interesting and nostalgic (probably only to the SLS Editor) article entitled "*Neighbors Come Together to Preserve Disappearing Butterfly*": Ronitte Libedinsky, the author of the article and Paul Kozak, editor of the Richmond ReView and the Sunset Beacon (community publications serving the residents living in the west side of San Francisco. The article reprinted here in the Southern Lepidopterists' News originally appeared in the Sunset Beacon on May 2009, <<u>www.sunsetbeacon.com</u>>); Mr. Adam Winer and Mr. Matthew Zlatunich for their elegant photographs of the Green Hairstreak; Ms. Ellie Billings, Executive & Programs Assistant for Nature in the City (an organization dedicated to preserving and appreciating nature in San Francisco, a project of Earth Island Institute <<u>www.natureinthecity.org</u>>); Mr. Liam O'Brien, a lepidopterist with Nature in the City, who spearheaded the project of saving the Green Hairstreak; Ms. Kerri-Suzanne Kyle for her photographs of the participants in the Nature in the City's Green Hairstreak Butterfly walk and for her butterflies of the rocky, hill areas that the Green Hairstreaks still inhabit in San Francisco; and finally, last but not least, Kim Davis, Mike Stangeland, and Andrew Warren, and Butterflies of America <<u>http://butterfliesofamerica.com/></u> for the photograph of the Green Hairstreak.

INTERESTING GYNANDROMORPH FROM CALIFORNIA



California Dogface Butterfly (Zerene eurydice). [Photograph by Kevin Twomey.

Hank Leibee recently sent me information on this California Dogface Butterfly that resides in the California Academy of Sciences in San Francisco. Hank suggests that an article on gynandromorphism in butterflies by a SLS member should be of interest and something to consider. [gynandromorphism is defined as an organism that demonstrates both male and female characteristics. The Greek derivation of the word "gynandromorph" is "gyne" = female and "andro" = male.]

If anyone has such hybrid butterflies/moths in their collections please send me some photographs. Perhaps an article! [The Editor]

Acknowledgement: The SL Society thanks Mr. Kevin Twomey for allowing us to publish his photograph of the California Dogface Butterfly in our Newsletter, and Dr. David H. Kavanaugh, Senior Curator, Department of Entomology, California Academy of Sciences, San Francisco, California, for contacting Mr. Twomey to obtain permission to publish the photograph.

MY FIRST BLUE MORPHO AND MEXICO'S EL SALTO WATERFALL BY

GARY NOEL ROSS

Today, when anyone visits an insectarium or butterfly conservatory the greatest number of oohs and aahs invariably are in response to the "blue morpho"—a butterfly with an iridescent, metallic blue appearance coupled with an extraordinary wingspan. Furthermore, when anyone today takes an ecotour to Central or South America (Costa Rica, for instance, continues to be a popular destination), individuals relate that one of their most exciting moments was their sighting of a "blue morpho." Am I right? But such memorable experiences are relatively new, dating back only to the late 1980s. Before then, the public as



Morpho helenor montezuma (A3473), male; Xilitla, SLP, MX, 11-XI-2005; Butterflies of America, © 2005 Kim Davis & Mike Stangeland.



Morpho helenor montezuma (A3474), male; Xilitla, SLP, MX, 11-XI-2005; Butterflies of America, © 2005 Kim Davis & Mike Stangeland.

well as butterfly aficionados had to be satisfied with textbook drawings and specimens mounted in museum cabinets.

My formative years date back to the '50s and '60s in New Orleans. As a budding entomologist, the exotic

blue morpho was often the stuff of my dreams. That, however, changed in the summer of 1960. About to begin my junior year at Louisiana State University in New Orleans (now the University of New Orleans), I and a LSU medical student (Don S.) with a penchant for reptiles and birds, convinced my brother Grant (two years my junior) who also had a thing for snakes, but more importantly, owned a just-marketed 1961 Ford station wagon, to join us for a sixteen-day "expedition" to Mexico. (I use the word "expedition" because if you will recall, 1960 predates the interstate highway system, the Internet, luxury motels, fast food joints, and even those seemingly indispensable high tech devices such as personal computers, cellular telephones, and Global Positioning Systems, to name but a few.) Having just graduated from high school, Grant enthusiastically signed up. He did stipulate, however, that since it was his vehicle, he would do all the driving. Don and I had no qualms with that.

I had learned from two of my professors (an ornithologist and a geographer—both with extensive field experience in Mexico), that we should drive for about 450 miles south of the Brownsville/Matamoros border, past Ciudad Victoria and Ciudad Mante, and then slightly westward to "*El Salto*"—a massive waterfall on the Río Tamesí, the boundary between the states of Tamaulipas and San Luis Potosí. There we would experience a bonafide "*Tropical Rainforest*" featuring such "*jungle-esque*" celebrities as spider monkeys, parrots and macaws, boa constrictors, and my soul's desire—blue morphos.

We departed New Orleans on August 13. The shinny black wagon was packed to the roof: personal and collecting gear, a Coleman camping stove, a fivegallon tank of water, and lots and lots of processed food products-including jars of "Gerber's" baby food. (We also had to carry cans of motor oil for an en route oil change since we were breaking in a new We secured car insurance from vehicle.) SANBORNS, a popular department store that sold Mexican auto insurance on a day-to-day basis, in Brownsville. We explained to the travel agent that this was our first trip into Mexico. The agent graciously gave us some tips on the exchange rate between dollars and pesos, best places to convert currency, type of gasoline to purchase, and where to secure additional potable water when our supply ran low. Other than that, we were told we should have a safe and enjoyable trip-even though we knew only a

handful of words in Spanish. With that, we three whippersnappers were off!

Well, sort of. Extricating ourselves from the hustle and bustle and potholed streets of Matamoros was not easy. Directional signs were almost non-existent. We had to repeatedly stop and plaintively mouth "*Ciudad*



Memphis p. pithyusa (A1333), male; Los Troncones Canyon, TMP, MX; 17-XI-2004; Butterflies of America, © 2004 Kim Davis & Mike Stangeland.



Memphis p. pithyusa (A1331), male; Los Troncones Canyon, TMP, MX; 27-XI-2004; Butterflies of America, © 2004 Kim Davis & Mike Stangeland.

Victoria?" while at the same time gesture with open hands. Surprisingly, this worked, and we eventually located Mex. 101/180—our artery south.

Our second milestone came when we reached highway marker "Tropico de Cancer," about 25 miles south of Ciudad Victoria. Now we were officially in the "tropics." Then, within less than 30 minutes, the scenery dramatically changed to reflect our latitude. As the road descended into a river valley, semiarid vegetation gave way to lush cabbage palms, gigantic bamboos, and myriad unrecognized trees, shrubbery and flowering herbs. The valley was apparently very fertile because plots of sugarcane flanked the highway. (At first, I didn't recognize the crop—even though I grew up in a sugarcane producing state. Seems as if the extended growing season in low latitudes allows the stalks to flower with handsome white plumes similar to those of ornamental pampas grass.) And the butterflies? Well, they were so ubiquitous that I dubbed them "*plankton of the air*." We stopped every few miles so that we could observe what was flying and so that Don and Grant could inspect the roadsides for living or dead herps.

To reach El Salto we turned westward from the Pan American Highway (Mex. 85) just south of Mante at Antiguo Morelos onto narrow Mex. 80 and the beckoning "Sierra Madre Oriental"-the eastern backbone of Mexico. The road quickly became sinuous as it entered the rocky foothills of the mountains. I was struck by the abundance of the statuesque "Pony-tail Palm." (Technically Beaucarnea recurvata and related to yuccas, the species is tree-like with a tall trunk to 30 feet in height, swollen at the base, and topped by a rosette of linear, pendulous, concave leaves up to six-feet in length.) In Louisiana, we often used these distinctive plants for indoor accents, but here they were growing seemingly directly from cracks in the rocks. Even more exciting, wherever there was water seepage in the road cut, there was usually a gathering of mediumsized butterflies, predominantly black but with a suffusion of blue (these turned out to be a leafwing, Memphis pithyusa and a bluewing, Myscelia ethusa).

We arrived at El Salto (literally, "the Leaper") on August 16. The waterfall was perhaps 200 feet in height. Its bluish-green torrents tumbled noisily into a narrow river below, creating billowing wisps of mist. The shoreline of the river was shaded by majestic, moss-hung ahuehuete or Montezuma Cypress trees (Taxodium mucronatum), a southern sister species to our familiar Bald Cypress. The tableau was postcard perfect. A dirt road along the river just below the cataract accommodated parking and camping. However, no one was around except a few local campesinos living along the access road and who were involved with sugarcane agriculture. [Recall two important points about 1960: First, American tourists did not venture into Mexico's hinterlands. And second, there was no significant trafficking in drugs. Ergo, we felt-and, indeed, were-safe.]

As we drove down to the river's edge, we disturbed a large mud puddle where large numbers of brightly colored butterflies had congregated. These included sulphurs (pierids) such as (*Anteos maerula*, *A. chlorinde*, *Ascia monuste*, *Eurema boisduvalianum*, *E. mexicana*, *E. proterpia*, *Kricogonia lyside*, *Phoebis argarithe*, *P. philea*, *P. sennae*, and *P. statira*), a few



Myscelia e. ethusa (D1305), female, Mission, Hidalgo Co., TX, 06-XI-2004; Butterflies of America, © 2008 Kim Davis & Mike Stangeland.



Anteos maerula (E3551), male; Gomez Farias, TAMP, MX, 19-X1-2004; Butterflies of America, © 2009 Kim Davis & Mike Stangeland.



Anteos maerula (E3557), female; MEXICO: GRO: Acahuizotla, July 1966 [MGCL]; Butterflies of America, © 2009 Kim Davis & Mike Stangeland.

nymphalids (Chlosyne janais, Dryas iulia, Dynamine dyonis, Eunica monima, Euptoieta hegesia, Libytheana carinenta, and Physiodes frisia tulcis), and a blue (Leptotes marina). All are tropical species that occasionally stray into southern Texas. I could identify these by consulting the sole popular book on

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Myscelia e. ethusa (A6986), female, Mission, Hidalgo, Co., TX, 19-X-2003; Butterflies of America, © 2007 Kim Davis & Mike Stangeland.



Anteos maerula (E3555), male; MEXICO: TAMP: Km. 808 on Hwy 85 near Villagran, 07-VIII-1962 [MGCL], © Kim Davis & Mike Stangeland.

butterflies available at the time: A Field Guide to the Butterflies of North America, East of the Great Plains (part of The Peterson Field Guide Series) by Alexander B. Klots. (Those species that were not pictured in the Klots work had to remain in limbo until months later when I was able to visit the Tulane University library to consult the huge tome Macrolepidoptera of the World. Volume 5. The American Rhopalocera published by A. Seitz in 1923.) After parking, I quickly grabbed my net and began collecting one or two representatives of each species. The weedy roadside was alive with butterflies, too, especially Anartia fatima, A. jatrophae, Danaus gilippus, Mestra amymone, and Microtia elvas (all Nymphalidae).

After savoring the morning, I noticed that there was a narrow trail leading into the forest upward toward the actual waterfall. While my partners contented themselves along river's edge, I decided to venture alone into what I envisioned as an *"enchanted woods."* The trail first skirted a plot of sugarcane that had recently been harvested. The odor of fermenting

sugar wafted through the air. Some stalks—presumably discards from workmen—were attracting an assortment of nymphalids such as, *Anaea* troglodyta aidea, Doxocopa pavon, Historis odius,

EL SALTO IN THE PAST: (Photographs in the archives of Gary N. Ross)



Massive waterfall on the Rio Tamesi at El Salto, Mexico.



Water cascades over precipice at El Salto, Mexico.

Hypanartia lethe, Marpesia chiron, M. petreus, Siproeta stelenes, and Smyrna karwinskii. Biblis hyperia, Heliconius chaithonia and H. erato flitted about preferentially within the shade of the forest.



Collecting at El Salto - mist and cascade.



Butterflies puddling at El Salto.



Morpho helenor montezuma



El Salto - rapids below falls.

And then, there they were! Like bits of shinny blue foil, four large morphos seemingly materialized from thin air barely ten feet in front of me. With a loping flight barely a few feet above the trail, they past me and continued down the corridor. I had never observed such a manner of flight. All I could think of was the mythological Greek "Pegasus." But returning to reality, I focused my eyes on the tree trunk before me, the apparent source of the four butterflies. There I could make out another butterfly, resting. Its wings, however, were closed. There was no blue but only dark chocolate highlighted with several rather large, marginal ocelli or evespots. Could this be another morpho, I wondered? As I slipped in closer, I could see that the specimen was feeding on sap oozing from an injury in the tree's trunk. All of a sudden, the butterfly sensed my presence and took off. Sure enough, the characteristic brilliant blue was unmistakable. I implicitly skedaddled down the trail behind the butterfly yelling "Morphos! Morphos!" As I exited the trail, my brother responded: "I saw them! They came out of the forest and flew along the river toward the falls."

The three of us now joined forces to relocate the treasured butterflies. Our plan was to ascend the trail and then sit quietly near the tree where I originally had observed the butterflies, hoping that the insects would remember the location of their "banquet." Sure enough, within no more than 45 minutes the butterflies returned and settled to resume dining. I easily netted two specimens, which I later identified as Morpho peleides, but currently catalogued as M. helenor montezuma. [NOTE: The Atlas of Neotropical Lepidoptera, Checklist: Part 4A edited by Gerardo Lamas (2004) lists 29 distinct species within the genus Morpho. That includes 126 subspecies and even more forms. Morpho helenor montezuma occupies the most northern range for the genus, being recorded as a resident from northern Mexico (Tamaulipas: Gomez Farias, near El Salto), south into Guatemala and Honduras. Interestingly, M. helenor is represented by the greatest number of subspecies (30), ranging from Mexico through Central American and into northern, eastern, and central South America. Although most morphos exhibit some degree of blue iridescence, two species are opalescent white, one species is predominately brown, and the females of several species are basically brown even though males are blue.] Afterwards, we hiked to the top of the falls. Turns out the blue morphos were relatively common and easy to observe since they patrolled on a regular basis the dappled pathways within the forest and the river's edge. With such beauty surrounding me, the region was paradisiacal. And Grant and Don? Well, they (and I) managed to observe at close hand a twofoot brown Mexican Vine Snake (*Oxybelis aeneus*)—a mildly poisonous rear-fanged snake—several large iguanas, scads of lizards, and a squawking flock of green parrots. We all were very, very content and wished we could stay forever in this magical "*Garden of Eden.*"

But after two nights, we realized we had to move on. First, we ascended the eastern Sierra to reach the Central Plateau. Our plan called for us to drive to Amecameca in order to drive the dirt road to the high pass between the second and third highest volcanoes in Mexico (Volcán Popocatépetl: 17,802 feet, and Volcán Itaccíhuatl: 17,159 feet). We drove to the end of the road up "*Popo*" (above timber line) and then hiked to the first patches of snow (both volcanoes are permanently snow-capped).

Plainly, bad idea! Since we had been living in a state with practically no elevation, our bodies were totally out of synch with high attitudes. As a consequence, we soon began to experience signs of anoxemia, a.k.a. altitude sickness: shortness of breath, sleepiness, lack of energy, and nausea. All were so debilitating that we quickly returned to the parking area. Unfortunately, too, the weather was cloudy and cold so that no butterflies were on the wing. On the other hand, Don and Grant managed to scurry up a lizard or two as they scouted the black volcanic sand and tufts of grass. Although we originally planned to camp at this site, the weather and our health caused us to scrap that idea; as an alternative, we returned to Amecameca to rent an inexpensive hotel room. There we collapsed into the cold night in a room without heat. The next morning we were more than ready to begin driving eastward to the more agreeable lowlands of coastal Veracruz-our last scheduled venue before returning to Brownsville.

The remainder of the trip went well with nary a scratch or dent to Grant's new vehicle. Although I encountered no other blue morphos, I did collect a total of 114 specimens representing 79 species-and of course, I observed many, many others-even though the trip predates the advent of close-focusing By "big science" standards, these binoculars. numbers are, of course, unimpressive. However, extensive collecting was beyond the purview of our trip. Rather, we novices intended a whirlwind introduction to many of Mexico's spectacular habitats. Reflecting on that adventure nearly five decades ago. I must say that of all the memories and of all the "firsts," the most enduring and emotional remains that initial encounter with the morphos along the jungle trail beside the El Salto waterfall.

EL SALTO TODAY AFTER CONSTRUCTION OF HYDROELECTRIC PLANT: (Photographs in the archives of Gary N. Ross)



El Salto, Mexico - falls with no water (1981).



Gary at El Salto -- dry river bed (1981).



El Salto - dry falls (1981).



Gary - a bit younger (1981). Water flow is on the river below El Salto.



Lower cascade plus Gary (1981). Water flow is on the river below El Salto.

[NOTE: My method of temporary butterfly preservation in 1960 was new for me. First, I inserted the specimens after pinching into glassine envelopes. The envelopes were then neatly stored in an airtight, green-metal military ammunition box that I had purchased at an army surplus store. I then sprinkled a goodly amount of silica gel within the box to dry the specimens. The method proved extremely satisfactory. Later, the dehydrated butterflies were relaxed, spread, labeled and identified. While I still retain my field notes, the specimens are now housed in the McGuire Center for Lepidoptera and Biodiversity, University of Florida.]

Alas, however, El Salto is no more. No thundering cataract. No cooling mist. And no soft rainbow. In 1981, when out of nostalgia I revisited the site, I was shocked by the presence of a dry riverbed and a wall of calcified rock (the shock was softened a bit since the encrustations looking remarkably like graceful theatre drapery). Only here and there did rivulets trickle through a handful of deep crevices. Walking through the riverbed to the base of the "falls" was surreal. Where water once scoured, grasses and shrubbery were now anchored amidst rounded, pitted boulders and rocks. Fortunately, the ancient ahuehuete trees were still verdant, but I wondered for how much longer.

What happened? In the late '70s, the Mexican government had diverted the waters of the Río Tamesí upstream of the falls into a gigantic conduit in order to power the turbines in a new hydroelectric plant. The water was then returned to the original riverbed a mile or so below the precipice. To protect the facility, the government built a small military outpost on the main ridge accessing the hydroelectric facility. Since I was in no rush (and my Spanish during this visit was considerably improved from that in 1960), I initiated a chat with one of the seemingly affable soldiers. When he learned that I had visited the site 20 years earlier,

we engaged in a genuine conversation. He relayed to me that although the "falls" are dry most of time, during the summer rainy season sometimes overflow water gets shunted over the old precipice, thus creating a "mini El Salto." This overflow combined with the small cascades on the river below as well as the presence of such a large number of birds and butterflies are enough to draw a few tourists each year. When I asked if he thought these "touristas" were a good thing, he smiled and replied enthusiastically: "Sí, sí, Señor!"

Then I inquired about the surrounding forest, which was still essentially intact. He said that the government has a strict prohibition against cutting any trees within the area—especially the ancient *ahuehuetes*. And then I breached what for me was the million-dollar question: "*What about the 'mariposas azules*' (blue butterflies)?" The young soldier grinned from ear to ear and then voiced (I translate): "*They are here everyday throughout the wet season. I enjoy them.*"

After the conversation, I scouted for the trail that I had hiked in 1960. Sure enough, it was still in the exact same place—although the vegetation was now much more mature. Of course, I couldn't resist the hike. And then, halfway up, like a leap back in time, a morpho gaited past me! I sank to the ground and let my mind drift back to that August day when as a 20year old, a dream came alive. After a few minutes in silence, I returned to the parking ground.

Even though the glory of El Salto exists only in archives, perhaps the government's daily presence at the site is enough to guarantee the preservation of this precious microhabitat.

The question, of course, is open ended. Glancing back toward the trail one last time before I departed, I mused: "*I wish you well*."

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[Gary Noel Ross is a Research Associate at the McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History (University of Florida) and Director of Butterfly Festivals, North American Butterfly Association. He lives at 6095 Stratford Ave., Baton Rouge, LA 70707; E-Mail: <u>GNR-butterfly-evangelist@juno.com</u>]

PLATYNOTA STULTANA WALSINGHAM, THE OMNIVOROUS LEAFROLLER, RESIDENT IN FLORIDA? BY JOHN W. BROWN

Technical Abstract. *Platynota stultana*, the omnivorous leafroller, is indigenous to northwestern Mexico and southwestern United States. Over the last century it has increased its range considerably, and it is now a pest in urban, agricultural, and greenhouse situations throughout much of California. The species was reported from Florida in the 1960s, but these reports were considered suspect by many because its identification was based on larvae rather than adults. However, recent records of adults provide ample evidence of its establishment and persistence in Florida.



Fig. 1. Platynota stultana Walsingham.

Platynota stultana Walsingham, the omnivorous leafroller of the American economic literature (*e.g.*, Lynn 1969, Shaw *et al.* 1983, Webster 1988, Webster and Cardé 1982, 1984, Yokoyama & Miller 2000, Yokoyama *et al.* 1999), was described from Sonora, Mexico in 1884. It is uncertain how broad its native range was, but it likely occurred in northwestern Mexico and adjacent southwestern U.S. (Powell 1983). According to Powell (1983), the earliest records from California are 1898; the species quickly became naturalized in the southern part of the state, feeding on a broad range of cultivated

plants, including avocado, tomato, citrus, carnation, and sugar beet. In the 1930s it was intercepted commonly at U.S. ports-of-entry along the Mexican border (such as Nogales, Arizona), most frequently on bell peppers (*Capsicum* sp.; Solanaceae) (USNM specimens). It became a pest of grapes in the Central Valley of California in the late 1960s (*e.g.*, Lynn 1969, AliNiazee and Stafford 1972 a,b), and it continues to require control measures there today (Yokoyama *et al.* 1999, Yokoyama & Miller 2000). By the 1980s the species had adapted to urban habitats, greenhouses, and agricultural fields, and greatly expanded its host range to include fruit and vegetable crops, flowers and other ornamentals, monocots, and conifers. Powell (1983) provided a detailed chronological account of its spread throughout California and summarized host records.

In 1933 and 1934 *Platynota stultana* was recorded in Virginia (Fairfax County) (n = 16 specimens) on greenhouse roses and chrysanthemums, and in Washington, D.C. (n = 10) on roses, but it quickly disappeared, perhaps unable to withstand the cold winter temperatures. The species found its way to Hawaii in the 1990s (Miller & Hodges 1995).

Platynota stultana was reported from Florida by Kimball (1965) based mostly on larval collections. Consequently, the validity of some of these records is somewhat suspect. However, a handful of recent records of adults confirms the presence of this species in Florida. Some of the recent records are from the same (or nearby) localities as those listed by Kimball (*e.g.*, Archbold Biological Station, Homestead, Gainesville) providing additional evidence of its presence and persistence in Florida for at least 60 years (see Specimens Examined below). The species currently is known from California, Arizona, Texas, and Florida in the U.S., and Baja California, Sinaloa, Sonora, and Tamaulipas, Mexico, ranging as far south as the state of Veracruz, based on recent rearings from *Parkinsonia aculeata* (Fabaceae) by the CSIRO biocontrol laboratory. Its documented range and invasive nature suggest it may be present elsewhere in the southeastern U.S.

Florida Specimens Examined. Alachua Co.: Gainesville, 23 July 1993 (1°), J. Slotten (USNM). Dade Co.: 6 km NW Homestead, 20-23 March 1998 (2°), J. Brown & J. Pena (USNM). Chekika [Island] St. Rec. Area, 9 May 1990 (1°), B. Landry (USNM). Hernando Co.: Spring Hill, 11 December 1991 (1°), R. Leuschner (USNM). Highlands Co.: Archbold Biological Station, Dicerandra cottage windows, elev. 48 m, 22 June 2006 (1°), B. Landry (Zurich). Indian River Co.: Vero Beach, 1 April 1941 (1°), J. R. Malloch (USNM). Osceola Co.: Rt. 192, W of Kissimee, 3-9 November 2000 (1°), R. Leuschner (USNM).

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Adults of *P. stultana* are superficially similar to those of *P. flavedana* and *P. rostrana*, with a somber brown forewing that lacks distinct pattern elements and long labial palpi in both sexes (slightly longer in females) (Fig. 1). Males of *P. stultana* usually are smaller than those two species and have simple scaling on the frons, unlike *P. rostrana* which has a complex hood of scales surrounding a mostly naked frons. Forewing length is 4.5–6.0 mm in males and 6.5–7.5 mm in females. The male genitalia of *P. flavedana* and *P. rostrana* are very similar; those of *P. stultana* can be easily separated from those two species by the deeply V-shaped juxta and the longer spines of the transtilla.

Moth collectors in the southeastern U.S. should keep a watchful eye for this species. It will be interesting to document its spread throughout this portion of the continent. You can send potential records, specimens, or images to me at the Systematic Entomology Laboratory.

Interpretive Summary. The larvae of leaf-roller moths are important pests of agricultural, forest, and ornamental plants, causing billions of dollars in damage annually. This paper discusses one of these species, the *"omnivorous leafroller,"* and provides details of its occurrence in Florida, where it is not native. This information will be useful to pest managers, especially those working with citrus, grapes, and bell peppers.

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(John W. Brown, Systematic Entomology Laboratory, PSI, Agricultural Research Service, USDA, c/o National Museum of Natural History, Washington, DC, 20013-7012; E-Mail: john.brown@ars.usda.gov.)

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THE QUESTIONMARK (*POLYGONIA INTERROGATIONIS* F.) IN THE FLORIDA KEYS (MONROE COUNTY) BY MARC C. MINNO AND PAULA CANNON



Fig. 1. Lower and upper views of a *Polygonia interrogationis* found on Big Pine Key, Monroe County, Florida, on November 23-25, 2008.

The Questionmark (Nymphalidae: Nymphalinae) is a common forest butterfly throughout much of North America east of the Rocky Mountains from southern Canada to northern Mexico. It is not difficult to find this butterfly in northern Florida, especially at rotting fruit or sap flows in hammocks (forests of broad-leaved trees). The Questionmark is less common in central Florida, and is rarely seen in the southern part of the state. Very few records of the Questionmark have been reported from the Florida Keys. David Fine found a worn adult in a bait trap in a hammock in Key Largo on January 1, 2000 (Fine, D. 2006. Spring leps in Florida. *Southern Lepidopterists' News* 28(2):36-47). Here we report on a few more recent sightings.

On December 19-21, 2004, Paula found an adult Questionmark in her yard on northeastern Big Pine Key. Paula's yard is a diverse and beautiful garden that she has planted with many nectar and host plants to attract butterflies. After three days, this individual disappeared. Surprisingly, another Questionmark appeared on Nov. 23-25, 2008, in the same part of the garden. Both Marc and Paula watched and photographed this butterfly (Fig. 1) on November 25th as it perched and flew about the garden. Both individuals preferred a mostly open and sunny area of the yard with a mulberry tree (Morus alba). They were seen in the afternoon, especially after 3:00 p.m. The butterflies often perched with their wings wide open on leaves of the mulberry tree and on a rock wall. Both butterflies were seen after cold fronts passed through the Keys. It is unlikely that the Questionmark breeds in the Keys due to lack of host plants such as elms (Ulmus

spp.), hackberry (*Celtis laevigata*), and nettles (Urticaceae). The spring herb *Parietaria floridana* in the Urticaceae family grows in disturbed, shady places on several of the islands, but the Questionmark has never been documented using this plant.

NOTICE: William "Bill" H. Howe (1928 - 2009) the author of *The Butterflies of North America*. [Doubleday, Garden City, 633 pgs., 97 plates (1975)] passed away August 18, 2009. He was born in Stockton California but was a resident of Ottawa, Kansas, for most of his life. Mr. Howe was an author, biologist, and artist. His paintings presently are in more than 50 museums, universities, public offices and private collections. In 1984, the Kansas Arts Commission funded a state tour of Mr. Howe's paintings titled "*Butterflies of Kansas*." He was honored as Kansas Artist of the Year in 1987 by Gov. Mike Hayden. His book on the North American butterflies was (is) a classic for its time. The hand painted butterflies in the plates are excellent. Mr. Howe is buried in Ottawa.

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NADATA GIBBOSA (J. E. SMITH, 1797) (LEPIDOPTERA: NOTODONTIDAE) IN LOUISIANA BY

VERNON ANTOINE BROU JR.



Fig. 1. Nadata gibbosa Louisiana phenotypes: (a-c) males, (d-f) females.



Fig. 2. Nadata gibbosa captured at sec.24T6SR12E, 4.2 mi. NE Abita Springs, Louisiana. n = 1643.



Fig. 3. Parish records by this author.

The large notodontid moth *Nadata gibbosa* (J.E. Smith) (Fig. 1) is listed by Packard (1895) to occur from British Colombia, Canada, and Maine to Washington and California to Florida, Georgia and Texas and New Mexico and several other interior states. Packard listed the foodplants to include: oak, maple, birch and plum. Packard assumed it was single-brooded in the north and double-brooded in the Gulf States. Covell (1984) states there are two broods southward in eastern North America.

In Louisiana, *gibbosa* appears to have five annual broods (Fig. 2), the first peaking at the very end of March, second peaking beginning of June, remaining broods peaking at 32 day intervals. The parish records are illustrated in Fig. 3.

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NOTES ON THE BACKYARD BIOLOGY OF THE HARVESTER BUTTERFLY [FENISECA TARQUINIUS (FABRICIUS)] FROM THE FLORIDA PANHANDLE BY

BILL BOOTHE

In the summers of 2007 and 2008, a colony of the Harvester butterfly (*Feniseca tarquinius*) was found utilizing Woolly Ash Aphids on the green ash (*Fraxinus pennsylvanica*) in Liberty County in the Florida Panhandle.

The Harvester is a rare butterfly in Florida (J. Glassberg, M. C. Minno, and J. V. Calhoun, 2000) that typically occurs along streams and rivers and in rich forests of broad-leaved trees or hammocks.

I had only seen one live specimen of the Harvester in the wild at Torreya State Park in March 2006 and did not expect to see additional adults in my own backyard. The yard is less than 2/3-acre and is surrounded by open fields and neighboring yards. However, there is extensive habitat bordering the Apalachicola River, about 1 to 1.5 miles west of the property. There are two large (60-foot plus) mature green ashes on the side of the yard. Seeds from these trees have produced two six- to ten-foot saplings in the back yard.

I have observed and documented over fifty-two butterfly species in my yard including populations of the elusive 'Sweadner's' Juniper Hairstreak (Callophrys gryneus sweadneri) and the Great Purple Hairstreak (Atlides halesus).

I had been observing Woolly Ash Aphid colonies on the saplings for some time, but had not noticed any signs of Harvesters. In the summer of 2007, I saw my first Harvester up close, flitting about the lower limbs of the green ash. Ever since I have been more observant and have been documenting my sightings with photographs.



Aphids in rolled-up Green Ash leaves. © Bill Boothe



Harvester caterpillar among aphids on unrolled Green Ash leaf. Note black mummies, the pupae of the Aphid Wasp (*Aphelinus abdominalis*). © Bill Boothe



Harvester caterpillar in unrolled Green Ash leaf. © Bill Boothe



Harvester caterpillar and chrysalis in unrolled Green Ash leaf © Bill Boothe.

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Following are some of my observations concerning the biology of the aphid colonies that live on the green ash's leaves. Feeding by the Woolly Ash Aphid (*Prociphilus fraxinifolii*) causes young green ash leaves to curl up. The aphids live inside this microcosmic ecosystem where they are protected from the elements, but not from numerous biological threats. They reproduce quickly and, before long, increasing numbers of leaflets become infested with additional aphid colonies. The aphids are tended by workers of the non-native Argentine ant (*Linepithema humile*) that feed on the "*honeydew*" that is excreted by the aphids. The ants are also vectors for the aphids, often carrying them from leaf to leaf.



Harvester chrysalis in uncurled Green Ash leaf. © Bill Newly emerged Harvester butterfly. © Bill Boothe



Harvester nectaring on aphid honeydew. © Bill Boothe

Note the patrolling ant in foreground. © Bill Boothe

Inside the rolled-up leaves lie a preponderance of insect predators that keep the aphids in check. Goldeneye Lacewings (Chrysopa oculata) lay their stalked eggs on the surface of the leaves and their larvae soon find a readily available source of food in the maturing aphids beneath. Adult ladybug beetles can be seen crawling on the outside of the leaf nests, feeding on any aphids that they can reach. Their larvae eat the aphids that stray along the edges of the rolled up leaves. Predatory Syrphidae fly larvae are also sparsely found inside the leaf nests and feeding on the aphids.

At times, you may open a leaf and find nothing but empty aphid corpses and a few "black mummies." These aphid "mummies" are the pupae of the Aphid Wasp (Aphelinus abdominalis).

The wasp larvae feed on living aphids and transform into pupae that resemble mummies.

The aphids produce long waxy thread secretions that deter many predators from feeding on them. At times, the interior of the rolled up leaves may be filled with waxy secretions and globules of *"honeydew"* produced by the aphids. The aphids spend the winter on the tree's roots.

The Harvester larva is North America's sole carnivorous butterfly caterpillar. The caterpillar lives amongst and feeds upon aphids on a variety of host plants (J. A. Scott, 1986; J. T. Allen, P. Brock, and J. Glassberg, 2005). The most common plant-species relationship is the Woolly Alder Aphid (*Prociphilus tesselatus*) on the Hazel Alder (*Alnus serrulata*). In Florida, Harvester larvae have also been documented feeding on Woolly Maple Aphids (*Neoprophilis aceris*) which are associated with various greenbriers (*Smilax spp.*) (M. C. Minno, J. F.

Butler, and D. W. Hall, 2005). I have also seen Harvester caterpillars among the Beech Blight Aphids (*Grylloprociphilus imbricator*) on American Beech (*Fagus grandifolia*) in Jackson County at Florida Caverns State Park near Marianna, Florida. Both the Beech Blight Aphids and the Woolly Ash Aphids are new host records of the Harvester in Florida (M. C. Minno *et al.* 2005).



Harvester on Green Ash leaf. © Bill Boothe



Syrphid fly larvae among aphids in unrolled Green Ash leaf. Note the black mummies. © Bill Boothe





Ladybug beetle larva feeding on aphids. © Bill Boothe

Lacewing egg stalks rest among aphid colony (on Green Ash leaves). © Bill Boothe

There are up to three generations of Harvesters per year in Florida. Their development is rapid because of their carnivorous appetite. The time span from egg to adult may take less than twenty-one days. The larvae live amongst the aphids, feeding at will, and are not bothered by the patrolling ants that tend the aphids. The chrysalis is often formed inside the curled leaf nest, attached by a small pad of silk. There may be one or two chrysalides lying next to a maturing larva. The chrysalis resembles the head of a dog or monkey, with eye, nose, and ear markings. In Florida, their adult flight may last from February to December. Males madly flit back and forth, patrolling on or near the host plant, sometimes ten feet above the ground. The adults do not nectar *per se*. They have a very short proboscis and cannot reach down into the tubes of most flowers. Instead, they will get their nourishment from the "honeydew" that the aphids produce.

Most of my observations were from June to mid-September of 2007 and 2008. Up to eleven adult Harvesters had been seen at one time in early July 2007 on the green ash. More than twenty empty chrysalides were found inside rolled up leaves in late July 2007. Adults were observed flying from 10:00 a.m. to 4:00 p.m. on clear sunny days. Occasionally on very hot days, a few caterpillars were found crawling outside the closed leaves.

The Harvester populations fluctuated depending on the preponderance of aphids in the curled leaves. On two occasions in late June 2007 and late July 2008, the aphid populations were almost nil and so were the butterflies. Later, the aphid numbers rebounded in July 2007 and August 2008. There were far fewer numbers of Harvesters than in previous months. By late August 2007 and mid-September 2008, no adult Harvesters were observed and

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Lacewing larva feeding on aphids in unrolled Green Ash leaf. Note that the Lacewing larva is camouflaged by the corpses of dead aphids. © Bill Boothe

Who knows what 2009 and 2010 will bring!



Adult Golden-winged Lacewing. © Bill Boothe

only a few empty chrysalides remained in the curled leaves. Although colonies of Woolly Ash Aphids still exist on the green ash, I have not observed any Harvesters in 2009, perhaps because the saplings are more mature and healthier due to plentiful rainfall this growing season.

Get out in your own backyard and be observant on what surrounds you. You too might come across some neat butterfly species. Be sure to document your observations.

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(Bill Boothe, PhotoNaturalist@NatureInFocus.com. More of his images may be seen at http://NatureInFocus.com.)

JAMES' CHALLENGE — ONGOING!

In the March issue of the SLS NEWS James coughed up \$10 each for "*Elfin Magic: New Florida State Butterfly Record*" by John V. Calhoun, MaryAnn Freidman, & Jeffrey R. Slotten and "*Lost in Costa Rica*" by Gary Noel Ross. And an additional \$5 for my story "Glutophrissa drusilla tenuis (Lamas, 1981) in Dickens County, Texas." (Wasn't overly impressed!).

In the present issue we have 5 candidates for James to consider: "First State Record of White Angled Sulphur in Louisiana" by Jeff Trahan, "My Search for the 'Frosted' Grail" by Craig W. Marks, "Remembering a First Encounter - A Long Time Ago" by J. Barry Lombardini, "My First Blue Morpho and Mexico's El Salto Waterfall" by Gary Noel Ross, and "The Questionmark (Polygonia interrogationis F.) in the Florida Keys (Monroe County)" by Marc C. Minno and Paula Cannon.

Up-to-date [the first two issues (March and June) of the NEWS]: thus far we have received \$60 from James *via* his challenge. Many thanks. [The Editor]

JOEL MACK JOHNSON: MARCH 26, 1920 TO FEBRUARY 25, 2009



Joel "Mack" Johnson

Joel Mack Johnson passed away on 25 February 2009 at his home in Payson, Utah, having honorably fulfilled his mission in mortality. The eldest of 10 children, he was born 26 March 1920 in Benjamin, Utah, to Alma Joel and Ruth Selin Johnson. All four of his grandparents were Mormon immigrants from Vastmanland Province in central Sweden.

After serving in the Texas-Louisiana Mission, he spent three years as an electronics technician with the U.S. Navy during World War II. He graduated from BYU in Chemistry and received a Masters Degree in Education and Counseling from the University of Texas. In June 1950, he married Jane Bullock in the Logan Temple and they made their first home in Baytown, Texas. He was an excellent teacher and taught High School Chemistry and Physics for 37 years, finishing his career at Payson High School.

Joel Mack served as a Bishop, a High Counselor, in a Stake Presidency, and as a Stake Patriarch for 25 years. He and Jane served a Family History mission in the North Carolina Raleigh Mission.

He loved the outdoors, hunting, fishing, and raising animals, and enjoyed farming with his brother, Hal. He was a member of the Utah Lepidopterists' Society and the Southern Lepidopterists' Society. He was an avid collector of butterflies and moths. He donated a vast collection of moths to Brigham Young University.

He is survived by his wife, Jane Bullock Johnson and by his siblings Norma (Don) Braithwaite, Barbara (Keith) Gleave, John Hal (Marie) Johnson, Carolyn Tanner (Neel) Pass, and Nadene (Don) Tuft. He was blessed with 7 children: Dean Edwin Johnson, Juliann (Jeff) Bradshaw, Walter Jan Johnson, Miriam Sue (Doug) Davis, Joel Eric (Selina) Johnson, Lars Edward (Diane) Johnson, and Leigh Alma (Deborah) Johnson, as well as 23 grandchildren and 9 great-grandchildren. He was preceded in death by brothers Dean Edwin, Alma Carl, and Paul Joseph, and sister Edith Elizabeth Olsen.

The Family expresses their sincere appreciation for the love and care extended by neighbors, friends, Love Hospice, and the medical professionals at Mountain View Hospital. In lieu of flowers, we ask that donations be made to the LDS Perpetual Education or Missionary funds.

Funeral services were held Saturday, 7 March 2009, in the Mountain View Fifth Ward Building in Payson, Utah, and internment was at the Benjamin Cemetery.

Condolences may be sent to the family at: www.Walkerfamilymortuary.com.

The members of the Southern Lepidopterists' Society also wish to send their sincerest condolences to Mrs. Joel Johnson and to the members of "*Mack's*" family.

Some visitors of Vernon Antoine Brou Jr. & Charlotte Dozar Brou in Abita Springs Louisiana, during 2009.



2009 June 19 **Paul W. Schaefer** Research Lepidopterist (left) visiting Vernon Antoine Brou Jr.

2009 July 20 Christopher C. Grinter with the California Academy of Sciences (left) visiting Vernon Antoine Brou Jr.

2009 August 12 J. Bolling Sullivan (right) Visiting Vernon Antoine Brou Jr.

UTETHEISA ORNATRIX (L., 1758) AND UTETHEISA BELLA (L., 1758) (LEPIDOPTERA: ARCTIIDAE) IN LOUISIANA BY

VERNON ANTOINE BROU JR.



Fig. 1. Adult Utetheisa, wild collected "pink hindwing phenotype" variations captured in Louisiana: a-v.



In the most recent checklists (Hodges, *et al.*,1983, Schmidt and Opler, 2008), two species of the Arctiidae genus *Utetheisa* Hbn. are listed for North America, *Utetheisa bella* (L.) and *Utetheisa ornatrix* (L.) as separate species, but that status will be revised to one species (Lafontaine and Schmidt in prep.) based on the results of DaCosta (2007). This probable single species of *Utetheisa* is quite variable as illustrated by a sampling of some of the many variations depicted in this study. All of the 506 specimens in this report were captured using ultraviolet light traps over many years, though no specific effort was made to obtain them (Fig. 2). I have observed pink phenotypes in the fall months visiting flowers of Goldenrod (*Solidago* sp.) during bright sunshine. I discuss the various entities in this article and have segregated the images of adults into three groups based upon visual

attributes of wing color, especially hindwing color: "bella" (pink phenotypes) (Fig.1), "bella/ornatrix" (pink-white phenotypes) (Fig. 3), and "ornatrix" (white phenotypes) (Fig. 4).

It is quite evident that some Louisiana specimens are impossible to place into what is traditionally considered to be species "*bella*" and species "*ornatrix*" and I have illustrated some of these confusing variations (Fig. 3). There are no established criteria to distinguish what percentage of color or maculation attributes delineate one so called distinct species versus the other. When one looks at specimens from other geographic locations, there are still other variants of what is being called *ornatrix*, some quite different than those exhibited in this Louisiana investigation, especially from more tropical areas of its reported range. Also some of these specimens (Fig. 3) look remarkably similar to other world species of this genus.



Fig. 3. Adult Utetheisa, wild collected "pink-white hindwing phenotype" variations captured in Louisiana: a-v.

Forbes (1960) determined that the new world entities exhibited a "wide variation of color, with a single type of genitalia". He further considered two North American species to include Utetheisa idea Clarke from Swain's Island, Newfoundland, only known from the types, and questions the validity of the type locality for this isolated species, and Utetheisa ornatrix (L.), including bella which he considered a "race" or subspecies of ornatrix. Swains Island is in American Samoa; there is a specimen located in the Canadian National Collection labeled (Swains Island, Newfoundland) which has a note correcting the geographic location. Forbes further discussed some named variations of ornatrix/bella, though the significance of such names seems nonsensical in light of the innumerable variations found in a significant sample from even a single state as seen in this investigation.

Forbes (1960) stated that ornatrix was one of the best examples of the folded type of "rassenkreis", which forms

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Fig. 4. Adult Utetheisa, wild collected "white hindwing phenotype" variations captured in Louisiana: a-h.

a circle, *e.g.*, (Forbes, 1960) starting in Kansas with *bella*, occurring in a variety of forms in the Greater Antilles, then, typical *ornatrix* occurs from Puerto Rico around the Caribbean and back to Mexico to Kansas. In Kansas, the extremes of *ornatrix* and *bella* meet and behave as separate species of the genus.

The definition of "rassenkreis" is a species composed of several geographical subspecies, a polytypic species. The definition of a ring species comprises populations whose range is distributed in the shape of a ring. These populations continuously intergrade around the ring except in one area, where populations are sympatric but do not exchange genes.

Hayes (1975) described three new species of *Utetheisa* from the Galapagos Islands and also listed and pictured *ornatrix* from there. The black and white pictured specimens of *ornatrix* by Hayes are not visually dissimilar to the Louisiana *ornatrix* illustrated in Fig. 4.

Larvae of *Utetheisa* are found inside developing green pods of alkaloid-bearing *Crotalaria* (Fabaceae) species. At the Abita Springs study site, larvae occur during the month of November on *Crotalaria spectabilis* Roth, a species native to Asia, found across the southeastern U.S. and introduced to the Abita Springs study site by this author to rear this species. In my study, seeds of *spectabilis* which begin sprouting naturally in April, do not have resulting green seed pods until late September to early November, at which the almost woody stalk-like plants can be seven to eight feet in height. Although eggs are reportedly deposited naturally on the leaves of the plant, apparently, the larvae show little interest in feeding on leaves. In my rearing activities, I found that larvae reluctantly fed on leaves, and only when seed pods were unavailable. It has been reported in literature that the concentration of pyrrolizidine alkaloids in unripe seeds is about five times greater than in the leaves of the plant. I have illustrated the foodplants used in my rearing activities and the larval interactions with the seed pods in Fig. 5 and Fig. 7.

Four species of *Crotalaria* are native to the southeastern U.S. More than 50 years ago, numerous other foreign species of *Crotalaria* were introduced into the southeastern US for soil improvement and forage. *Crotalaria* plants are toxic to livestock, and can potentially be fatal due to the presence of pyrrolizidine alkaloids.

Heppner (2003) listed the range of *ornatrix* to include Florida and West Indies and Texas to Argentina and the range of *bella* to include Nova Scotia to Florida and Minnesota to Texas, West Indies, and Mexico to Argentina. The Louisiana parish records for all *Utetheisa* are illustrated in Fig. 6.

Covell (1984) pictured only *bella* and listed its range to include Nova Scotia to Florida, west to Minnesota, Kansas, and Texas with July and September broods northward and breeding continuously in the deep south. Regarding *ornatrix*, this same author stated it is tropical and occurs in south Florida and south Texas and flies year-round. Covell provided a number of foodplants for *bella*, including some which seem unusual, namely: *Crotalaria, Lespedeza*, lupines, elm trees, fireweed, *Prunus* species, and sweet gale. For *ornatrix*, Covell listed only unspecified legumes as foodplants.

The earliest report of bella in Louisiana was by von Reizenstein (1863), specifically at City Park, within the city

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Fig. 5. a. *Crotalaria spectabilis* Roth (Fabaceae) mature plants at the Abita Springs study site, b. seed pods on stem, c. mid instar larvae creating entrance hole near base of green seed pod, d. mature, drying seed pod illustrating internal silken pad over entrance (this drying pod with intact silken internal pad will usually contain a single larvae), e. mature larvae removed from seed pod.

of New Orleans, Orleans Parish. Hine (1906) listed *bella* as occurring in Cameron Parish. Jung (1950) listed *bella* common throughout Orleans Parish. Knudson and Bordelon (1999ab, 2004) either list or comment on *bella* and *ornatrix* in three of their Texas publications. Schmidt and Opler (2008) list both *bella* and *ornatrix* as distinct species in the latest revised checklist of tiger moths of the continental U.S. and Canada.

It is not my intention in this article to cover all that is known about the well-known but still misunderstood species, *Utetheisa ornatrix* and *Utetheisa bella*, as there is already a plethora of published articles, books, research, and web available information. My purpose in publishing this information is to document on the record







Fig. 7. a. Mature larva feeding on seeds of cut open unripe seed pod, b. pupating larva in typical flimsy cocoon.

what I have found and illustrating these two confusing entities and the great number of variations present here in Louisiana. Interested readers would be advised to view a web based article by Florida Cooperative Extension which is a pdf recreation of their bulletin at <u>http://creatures.ifas.ufl.edu</u> by Hall (2005), which lists some of the more relative information and a nice listing of references on this species.

I thank Jeffery R. Slotten, James K. Adams, and B. Christian Schmidt for reviewing a draft of the manuscript and providing many helpful suggestions.

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(Vernon Antoine Brou Jr., 74320 Jack Loyd Road, Abita Springs, Louisiana 70420 USA; E-Mail: vabrou@bellsouthy.net)

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PRIONOXYSTUS ROBINIAE (PECK, 1818) (LEPIDOPTERA: COSSIDAE) IN LOUISIANA BY VERNON ANTOINE BROU JR.



Fig. 1. Louisiana phenotypes of Prionoxystus robiniae: (a-b) males, (c-e) females.



Fig. 2. Adult Prionoxystus robiniae captured at sec.24T6SR12E, 4.2 mi. NE of Abita Springs, Louisiana. n = 421.



Fig. 3. Parish records by this author.

In the checklist (Hodges, *et al.*, 1983) three species of the genus *Prionoxystus* Grote are listed. One of these species, *Prionoxystus robiniae* (Peck) (Fig. 1) commonly known as the "carpenterworm moth", was first reported in Louisiana by von Reizenstein (1863). In the images (Fig. 1), I have preserved the size ratio of the females versus males, in which females can be as much as 60% larger in wingspan, compared to males.

The flight period appears to be a single annual brood occurring over a lengthy four month period at the Abita Springs study site (Fig. 2). My locality records are more numerous from across the southern part of the state (Fig. 3).

Covell (1984) listed the range of *robiniae* to be throughout Eastern North America and dates from April through October.

Knudson & Bordelon (1999) listed *robiniae* in their checklist of Texas Lepidoptera. Heppner (2003) listed the range of *robiniae* to include: Nova Scotia to Florida and Manitoba to Texas with dates January throug December.

Covell (1984) reported the life cycle of *robiniae* requires three to four years. The apparent bimodal distribution o the spring flight period remains a mystery, with populations peaking in mid March and almost two months later ir early to mid May. Whether this is an indication of perhaps another unknown cryptic species or a natural phenomena of a single species is not apparent by visual attributes. I have not subjected this matter to genitalic or DNA analysis.

I thank Charles V. Covell Jr. for commenting on this article.

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PICTURE FROM OUR PAST

1990 Catocala workshop at Tall Timbers Research Station near Tallahassee. (Left to Right): David C. Hawks, Lawrence F. Gall, H. Dave Baggett (Founder of the Southern Lepidopterists' Society), Jeffery R. Slotten, Vernon A. Brou Jr., also attending, but not in the photograph was Rick M. Gillmore. [Photo credits: Jeffrey Slotten and Vernon Brou.]

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DICHORDA IRIDARIA (GUENÉE, 1857) (LEPIDOPTERA: GEOMETRIDAE) IN LOUISIANA BY VERNON ANTOINE BROU JR.



In the checklist (Hodges, *et al.*, 1983) four species of the genus *Dichorda* Warren are listed. One species, *Dichorda iridaria* (Guenée) (Fig. 1) occurs commonly in southeast Louisiana.

At the Abita Springs study site (Fig. 2), six annual broods occur, first brood peaking at the beginning of April, second peaking end of May and remaining broods at 34-day intervals.





Fig. 2. Adult Dichorda iridaria captured at sec.24, T6SR12E, 4.2 mi NE of Abita Springs, Louisiana. n = 422.

Forbes (1948) states there are eight species, limited to America. Regarding the phenology of *iridaria*, this author states "apparently two broods", "May to September in the south."

Covell (1984), stated *iridaria* is moderately common and the range includes: Nova Scotia and Quebec to Florida, west to Wisconsin and Texas. This author also stated there are two broods and the flight period occurs from April to August, and the larval foodplants are staghorn sumac and winged sumac.

Heppner (2003) listed information on the Florida subspecies Dichorda iridaria latipennis (Hulst, 1898) with



Fig. 3. Parish records for Dichorda iridaria.

dates January through December. Covell (1984) stated "latipennis has sharper lines" (on wings).

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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

Charlie sends in the following Florida report, September 2009.

In Gainesville, Alachua Co., the period 1 June to 1 September was unusually rainy and humid, and yet *H. charithonia* was rare in the Gainesville area. I did not see the first one in the Covell yard until 20 Aug.! My *"first sighting"* records for 2009 were well behind 2008 levels. Picking up from vol. 31, No. 2, p. 78, for the first half of the year, the sixteenth species appeared on June 18 this year but was recorded on March 29 in 2008! The total by August 20 this year is 25 species, while last year the twenty-fifth species had been seen by June 14. (Total butterfly species recorded at the Covells' last year was 33. We might make it yet!)

- Papilio palamedes
 Erynnis horatius
 Erynnis baptisiae
 Strymon melinus
 Limenitis arthemis astyanax
 Urbanus proteus
 Calycopis cecrops
 Euphyes vestris
 Lerema accius
- 25. Heliconius charithonia

June 18, flying in back yard June 22, resting in pergola foliage June 25, on blue flower in front July 12, at end of our driveway July 20, flying around our bird feeder August 2, on lantana in front yard August 8, resting near ground in back yard August 20, resting on a bush in the front yard August 20, in almost same location as *vestris* August 20, flying in back yard

Other Gainesville records from Covell for June - August include the following 43 species:

Epargyreus clarus	July 19, 27, Aug. 3, 11,
Urbanus proteus	July 10, 17, 21, 22, 27, 29, 30, Aug. 2, 3, 7, 10, 11, 14, 15, 19, 20, 25, 26, 27, 28 31
Erynnis horatius	June 12, 22, 24, July 1, 2, 9, 11, 17, 19, 21, 28, 29, 30, 31, Aug. 8, 15, 28
Erynnis baptisiae	June 25
Asbolis capucinus	July 22
Hylephila phyleus	June 13, 16, 19, 23, July 1, 4, 10, 11, 22, 29, Aug. 5, 8, 11, 15, 27,
Atalopedes campestris	July 7,
Euphyes vestris	Aug. 20
Lerema accius	Aug. 20
Ancyloxipha numitor	July 28, Aug. 8, 12
Panoquina ocola	Aug. 11, 27, 28
Battus philenor	Aug. 27
Battus polydamas	Aug. 2, 9, 27 (larva), 28
Papilio polyxenes asterius	July 10, 11, 12, 28, 29, 30, Aug. 10,
Papilio glaucus	Aug. 3, 7, 28
Papilio troilus	June 13, July 1, 9, 29, 31, Aug. 7, 8, 12, 15, 27, 28, 30, 31
Papilio palamedes	June 13, 18, 20, Aug. 30
Heraclides cresphontes	June 12, 21, July 4, 15, 16, 21, 27, 29, 31, Aug. 2, 4, 5, 8, 10, 12, 25, 27, 28, 30
Eurytides marcellus	July 29
Pontia protodice	July 22
Ascia monuste	July 22
Phoebis sennae	June 23, July 21, 28, 29, Aug. 4, 7, 8, 10, 11, 12, 14, 15, 18, 19, 20, 26, 28, 30
Eurema nicippe	June 13, July 4, 14, 15, 21, Aug. 4, 5, 8, 12, 18, 19, 28,
Eurema lisa	July 22, Aug. 5
Eurema daira	Aug. 5, 11, 28
Nathalis iole	July 11, Aug. 26, 27,

Calycopis cecrops	June 24, Aug. 8
Strymon melinus	July 12
Leptotes cassius	June 18, 22, July 4, 5,
Hemiargus ceraunus	Aug. 1
Libytheana carinenta	June 2, 12, July 17, Aug. 8, 18, 30
Polygonia comma	Aug. 4
Vanessa atalanta	July 14
Vanessa cardui	July 21
Limenitis archippus	June 2, July 4, 10, 11, 15, 18, 22, 29, Aug. 1, 4, 5, 8, 11, 12, 15, 18, 19, 20, 27, 28
Limenitis arthemis astyanax	July 20, Aug. 11
Junonia coenia	June 13, 16, 24.
Euptoieta claudia	July 4, 14
Agraulis vanillae	June 2, 11, 13, 14, 16, 19, 20, 21, 22, 25, July 1, 2, 4, 8, 9, 11, 12, 15, 1, 3, 4, 5, 7, 8, 10, 11, 12, 14, 15, 18, 19, 26, 27, 28,
Heliconius charithonia	July 17, Aug. 4, 19, 20, 24, 26, 27, 28, 30
Asterocampa clyton	July 31, Aug. 8, 12, 27
Danaus gilippus berenice	June 13, July 1,
Danaus plexippus	June 11, 20, 22, 25, July 3, 12, 30, Aug. 2, 3, 4, 5, 8, 10, 14, 26, 27, 28, 30, 31

Moth records from Gainesville: Enyo lugubris (Sphingidae), Aug. 25; Hemaris thysbe (Sphingidae), Aug. 27.

On July 24. Charlie Covell and Lincoln Brower drove to Key Largo, Monroe Co., and met Steve Klett, Manager of the Crocodile Lake National Wildlife Refuge. We explained our interest in listing butterflies, and he gave us permission to enter the Refuge, which is on the landward side of SR 905. We saw virtually no butterflies along the road itself. At Steve's office there is a small butterfly garden, where Lincoln found a *Battus polydamas* larva on it foodplant. There and along the 2 old roads and hammock off of them we saw the following: *Phocides pigmalion, Polygonus leo, Phoebis sennae, Phoebis agarithe, Eurema lisa* (a white female), *Eurema nicippe, Appias drusilla, Electrostymon angelia* (in hammock, perching on a leaf in front of Covell), *Leptotes cassius* (several), *Anartia jatrophae, Dryas iulia, Heliconius charithonia, Agraulis vanillae*, and *Danaus gilippus berenice*. We went into the Dabney Johnson nature park near the 905 – Rt. 1 junction and saw virtually nothing flying. After lunch we drove down to Long Key, walked in the state park there. We recorded *Phocides pigmalion, Phoebis agarithe, Ascia monuste* (several), *Appias drusilla, Leptotes cassius* (several), *Heliconius charithonia, Agraulis vanillae*, is (several), *Heliconius charithonia, Agraulis vanillae* and *Danaus gilippus berenice*.

On July 26 Covell and Brower participated with Rick Cech, Roger Hammer, Marc Minno, Sandy Koi and others in the "Butterfly Days" event at Fairchild Tropical Botanic Garden in Coral Gables, Dade Co. Covell recorded the following butterfly species at Fairchild Gardens: Erynnis horatius, Polites baracoa, Battus polydamas, Phoebis agarithe, Phoebis statira, Leptotes cassius, Anartia jatrophae, Agraulis vanillae and Danaus plexippus.

A small number of moths were recorded at lights in Fairchild Gardens on the night of July 25, and except for *Cautethia grotei* (Sphingidae) they have not yet been identified.

Marc Minno reports the following Cuban sphingid, recently established in south Florida:

Eupyrrhoglossum sagra, Biscayne National Park, Elliott Key, Miami-Dade County, 23 May 2009, Marc C. Minno.

"I found a mangled adult of this recently established Cuban species in the web of a golden silk spider (Nephila clavipes) on Spite Highway Trail on the southern end of Elliott Key. This is a new record for Biscayne National Park and Elliott Key."

Rick Gillmore sent the following report:

"My friend Terry Moore drove to the Barge Canal in Dixie County on August 20, 2009. This is just west of highway 98. He saw about thirteen Mitoura gryneus sweadneri, three Hemaris thysbe, at least one Calycopis

cecrops, a Juonia coenia (?) larva, a fly, and one large eastern diamond-back rattlesnake."

Records from Jean Evoy for August, 2009. All were from De Soto Co., FL, 3 miles N of Arcadia and 1/2 mile E of the Peace River.

Inga sparsiciliella, nightly Prionoxystus robiniae, 15th Choristoneura parallela, 23rd Harrisina americana, nightly Pyromorpha dimidiata, 15th & 20th Megalopyge opercularis, 14th & 19th, caterpillars throughout month Neargyractis slossonalis, 1st, 10th Pyrausta onythesalis, 11th Pyrausta phoenicealis, 14th Pyrausta acrionalis, 12th, 22nd Lineodes integra, 5th, 14th Diacme elealis, nightly Samea multiplicalis, nightly Antegumia ebulealis, 31st Desmia funeralis, nightly Spoladea recurvalis, 1st Diaphania hyalinata, 1st, 15th, 19th, 22nd Herpetogramma bipunctalis, 31st Argyria lacteella, 28th Urola nivalis, 19th Synchlora frondaria, 19th, 29th Chlorochlamys chloroleucaria, 19th Cyclophora packardi, 5th, 12th, 14th Leptostales pannaria, 1st, 12th, 15th, 22nd Leptostales crossii, 31st Scopula compensata, 3rd Cicinnus melsheimeri, 24th

Anisota virginiensis, 17th, 23rd caterpillars Citheronia regalis, 1st, 11th Antheraea polyphemus, 24th Eumorpha fasciata, 29th Xvlophanes tersa, 19th Datana spp., 13th, 15th Heterocampa ssp., 12th, 15th, 19th, 20th Dasychira meridionalis, 18th caterpillar Cosmosoma myodora, 24th Idia americalis, 1st Lascoria ambigualis, 31st Nigetia formosalis, 14th, 22nd Hemeroplanis scopulepes, 11th Phytometra earnestinana, 11th, 15th, 19th, 20th Phyprosopus trichoides, 1st, 15th Hypsoropha hormos, 23rd Selenisa sueroides, 1st, 14th, caterpillars throughout month Mocis latipes, nightly Ptichodis vinculum, 9th, 11th, 14th Zale horrida, 16th Nola cerebella, nightly Thioptera nigrofimbrfia, nightly Spragueia onagrus, 12th, 13th, 20th, 29th Eudrvas unio, 1st, 24th Callopistria floridensis, 1st, 13th, 19th, 20th, 23rd Leucania sp. (possibly incognita), 28th

Nancy Soucy, a NABA member, photographed 2 *Composia fidellissima* (Arctiidae) at Melbourne Beach, Brevard County, FL, on Sept. 14, 2009.

Georgia: James K. Adams, 346 Sunset Drive SE, Calhoun, GA 30701, E-Mail: jadams@daltonstate.edu (Please



James Adams' 12 year old son (Patrick Nathaniel) and nearly 3 month old daughter (Samantha Ruth) — next generation of lepidopterists in the Adams' family.

check out the GA leps website at: <u>http://www.daltonstate.edu/galeps/</u>).

The contributors include James Adams (JA or no notation), Irving Finkelstein (IF), and Eleaner Adams (ERA). Other contributors are spelled out with the appropriate records. Most records presented here represent new or interesting records (range extensions, unusual dates, uncommon species, county records, *etc.*), or more complete lists for new locations/new times of year. All dates listed below are 2009 unless otherwise specified.

8 mi. WNW of Ellijay, along Gates Chapel Rd., Gilmer Co. (IF): <u>May 28-31</u>: SPHINGIDAE: Lapara coniferarum (a

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melanic specimen). <u>NOTODONTIDAE</u>: Clostera inclusa (unusually abundant). <u>NOCTUIDAE</u>: Noctua pronuba (second year in a row). <u>GEOMETRIDAE</u>: Lytrosis permagnaria, L. sinuosa (female, females rarely seen), Euchlaena muzaria (common, males only), E. irraria (common), Metarranthis homuraria (unusually large). <u>LIMACODIDAE</u>: Packardia geminata (several). <u>PYRALIDAE</u>: Pococera expandens (first at this location). <u>TORTRICIDAE</u>: Argyrotaenia tabulana (first for me), Olethreutes hamameliana (first for me). <u>HEPIALIDAE</u>: Sthenopis auratus (second for Georgia, first one 8 years ago at same location). PTEROPHORIDAE: Hellinsia nr. glenni.

Aug. 25-27:

<u>NYMPHALIDAE</u>: Enodia portlandia (COUNTY). <u>NOCTUIDAE</u>: Zanclognatha ochreipennis (COUNTY), Catocala cerogama, Cucullia convexipennis.

Calhoun, Gordon Co. (JA residence):

NOCTUIDAE: Catocala insolabilis (COUNTY), June 29.

Salacoa Rd at Salacoa Creek, 5 mi. ESE of Fairmount, NE corner of Bartow Co.: June 13-14:

<u>NOCTUIDAE</u>: Idia denticulalis, Zanclognatha nr. gypsalis, Catocala pretiosa, Baileya doubledayi, Acronicta dactylina, Apamea cariosa, several specimens each of 2 different cane feeders, Oligia chlorostigma (2; COUNTY).

June 27-28:

<u>NOCTUIDAE</u>: Hemeroplanis scopulepes, Catocala nebulosa, Rachiplusia ou, Bagisara rectifascia, Ozarba aeria. <u>**GEOMETRIDAE**</u>: Selenia kentaria (summer), Metarranthis angularia. <u>**CRAMBIDAE**</u>: Omphalocera munroei. <u>**LIMACODIDAE**</u>: Euclea nanina (COUNTY). <u>**COSSIDAE**</u>: Cossula magnifica.

July 11-12:

<u>NOCTUIDAE</u>: Phalaenophana hanhami, Macrochilo litophora, Argillophora furcilla. <u>**CRAMBIDAE**</u>: Crocidophora pustulifera, Omphalocera munroei. <u>**LIMACODIDAE**</u>: Euclea nanina.

August 15-16:

NOCTUIDAE: Redectis pygmaea, Ozarba aerea, Basilodes pepita, Schinia nundina, Mesapamea trigona. Sept. 5-6:

<u>NOCTUIDAE</u>: Parahypenodes quadralis (COUNTY, uncommon in state), Basilodes pepita, Papaipema polymniae (many). **<u>GEOMETRIDAE</u>**: Lobocleta ossularia.

Cooper's Creek, Fannin Co., August 8, 2009, JA, IF, ERA and Tony McBride:

<u>NYMPHALIDAE</u>: Speyeria diana. <u>LYCAENIDAE</u>: Satyrium kingi (LATE). <u>NOCTUIDAE</u>: Zanclognatha sp. nr. lituralis, Phalaenophana hanhami (COUNTY), Dyspyralis nigella, D. puncticosta, Machrochilo litophora, Oxycilla malaca (COUNTY), Acronicta radcliffei, Colocasia propinquilinea (common), Noctua pronuba (COUNTY), Xestia praevia (several), Pseudohermonassa bicarnea (EARLY). <u>DREPANIDAE</u>: Drepana arcuata, Eudeilinea herminiata (COUNTY). <u>GEOMETRIDAE</u>: Guenaria similaria, Homochlodes disconventa, Selenia kentaria (summer brood), Plagodis (formerly Anagoga) occiduaria, Xanthorhoe lacustrata, Hydrelia albifera (STATE).

Dillard, Rabun Co., August 9, JA, IF, and ERA: NOCTUIDAE: Catocala sappho. GEOMETRIDAE: Selenia kentaria (summer), Nepytia canosaria.

Rabun Bald, Rabun Co., August 9-10, JA, IF and ERA: <u>NOCTUIDAE</u>: Catocala cerogama, C. retecta, C. flebelis. <u>GEOMETRIDAE</u>: Plagodis kuetzingi.

Brooks, GA, between Line Ck and Flint River, along Line Ck Rd, Spalding Co., June 23, Brenda & David Sims: **NYMPHALIDAE**: Speyria diana.

Hwy. 127 @ Whitewater Ck Bridge, Taylor Co. (32°27'5.87"N, 84°13'30.21"W), July 18, Dan Vickers/Pierre Howard:

LYCAENIDAE: Leptotes marina (COUNTY; female). This record is only the second (possibly third) record I know of for the state.

2246 Hwy. 42-South, Forsyth, Monroe Co., July 11, Angela and Terry Johnson:

<u>SPHINGIDAE</u>: Manduca rustica (likely COUNTY)

Ansley Park in Midtown Atlanta, Fulton Co., Mid August, Erin Weinstein: NOCTUIDAE: Ascalapha odorata

Di-Lane Plantation WMA, Burke Co., late Aug., Lois Stacey:

<u>HESPERIIDAE</u>: Common/White Checkered Skipper, Byssus Skipper (*Problema byssus*), Swarthy Skipper (*Nastra lherminieri*), Zarruco Duskywing (*Erynnis zarruco*), Southern Skipperling (*Copaeodes minima*), Clouded Skipper (*Lerema accius*), Eufala Skipper (*Lerodea eufala*), Common Sootywing (*Pholisora catullus*). **<u>NYMPHALIDAE</u>**: Viceroy (*Limenitis archippus*), Texan Crescent (*Anthanassa texana seminole*). **<u>PAPILIONIDAE</u>**: Zebra Swallowtail (*Eurytides marcellus*), Spicebush Swallowtail (*Papilio troilus*), Palamedes Swallowtail (*Papilio palamedes*).

Swampy area near Darien, McIntosh Co., Sept. 4, Lance Durden: HESPERIIDAE: Euphyses berryi (1 female), Euphyses dukesi (2 males), Problema bulenta (1 female).

Near Woodbine, Camden Co., Aug. 29, Pierre Howard:

HESPERIIDAE: Urbanus proteus, Euphyes arpa, Problema byssus, Anatrytone logan, Poanes viator, Oligoria maculata, Polites vibex, Copaeodes minima, Pyrgus oileus, Panoquina ocala.

John Hyatt sends in the following report: Camden Co., near White Oak, *Calpodes ethlius*, 7 Sept. 09, *leg.* J. Hyatt. Also flying was *Problema byssus*, but no other coastal swamp skippers (*bulenta, viator, dukesi, palatka, arpa, berryi*) that have been seen in this spot in years past were present at all. A very skimpy butterfly showing this summer in south Georgia; *Papilios* notably scarce. Even long-tailed skippers were rare!

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

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

North Carolina: Steve Hall, North Carolina Natural Heritage Program, Div. of Parks & Recreation, 1615 MSC, Raleigh, NC 27699-1615, E-Mail: <u>Stephen.Hall@ncmail.net</u>

Steve sends in this extensive report: The following noteworthy butterfly records were compiled by Harry LeGrand. Place names refer to counties unless otherwise stated, and records are not new county reports unless indicated. Records are all from June - August 2009.

PAPILIONIDAE:

Papilio palamedes, one was photographed in Warren (COUNTY) on July 24 by Paul Scharf. This county lies in the Piedmont, just west of the Fall Line; the species is considered to be a stray in this province.

LYCAENIDAE:

- Atlides halesus, seldom reported from the northwestern Piedmont, one was a good find by Jim Nottke on his farm in Forsyth on June 19.
- Satyrium liparops, there were a few reports during the season, including one seen in Rockingham (COUNTY) on June 12 by Beth Brinson.
- Parrhasius m-album, perhaps a first record for Croatan National Forest was one seen by Randy Emmitt on July 3 in Craven (COUNTY). Another photographed by Salman Abdulali on August 15 in Pitt (COUNTY) was also notable.

NYMPHALIDAE:

- *Euphydryas phaeton*, Jeff Pippen found a very large colony of about 25 adults in Haywood, on June 9. Several observers (Harry LeGrand, Will Cook, *et al.*) observed about 35 there on June 13. The only other report for the season was of one seen in neighboring Buncombe, on June 9 by Gail Lankford.
- Polygonia faunus smythi, the species was found in 2009 in Yancey at Mount Mitchell State Park, where a good population was found in 2008; Lori Owenby photographed one on August 27. Though reported from

- many mountain counties over the years, this has been the only reliable site in recent years.
- *Danaus gilippus*, highly erratic from year to year, in 2009 a small population was found at Fort Fisher in New Hanover, the site of local breeding in past years. Dorothy Pugh noted four adults there on August 2, and five were seen there on August 29 by Will Cook. Bob Cavanaugh saw another on the mainland farther up the coast in Carteret, on July 21.

HESPERIIDAE:

- Autochton cellus, always worth reporting, singles were seen by Jason Love in Nantahala National Forest in Macon on June 14 and by Gail Lankford in northern Buncombe on July 4.
- Staphylus hayhurstii, this scarce species was reported for the first time ever in Davidson (COUNTY) on June 2 by Jim Nottke and in Catawba (COUNTY) on July 17 by Lori Owenby. In addition, the first mountain records in over 20 years were made by Gail Lankford, who saw several in Buncombe at Sandy Mush Game Land from August 6-10.
- Hesperia attalus slossonae, seldom reported in recent years due to lack of searching, one was a welcome find in Scotland on August 23 by Randy Emmitt.
- Hesperia sassacus, this uncommon species was reported only in Haywood, where one was seen on June 13 by Harry LeGrand and Will Cook.
- *Polites peckius,* though locally numerous in the mountains, it is scarce in the Piedmont, essentially only in the northwestern portion. This season had reports from Rockingham, Stokes, and Surry, all along the Virginia border.
- Poanes viator, Mike Turner found a colony far inland in Wake (COUNTY) on August 30. He observed four adults at Harris Lake County Park; the presumed hostplant, Zizaniopsis miliacea, occurs along the shore of Harris Lake.
- *Euphyes dukesi dukesi*, John Fussell noted the species at several swampy areas near the Neuse River in Craven, between June 6-24. His best counts were 50+ each on June 13 and June 24. The species is only known from five counties, all near the coast, in the state.
- *Euphyes berryi*, one was collected by Bruce Dixon and Bo Sullivan adjacent to Lake Waccamaw in Columbus (COUNTY) on June 21. This is just the fifth state county record, and the first for the southern portion of the state's Coastal Plain, filling a big gap between Craven and Carteret in NC and Berkeley and Charleston in SC.
- Amblyscirtes aesculapius, very rare in the central mountains; one was seen by Gail Lankford and party on July 21 in Madison (COUNTY).
- Amblyscirtes carolina, one photographed by Salman Abdulali on July 2 in Winterville was a first record for Pitt (COUNTY).
- Amblyscirtes vialis, always notable and difficult to find, several were seen in Riverbend Park in Catawba (COUNTY) between July 13-17 (Matthew Daw, Lori Owenby).
- *Calpodes ethlius,* the only report of adults for the season was of two found by Tom Stock at Duck at a *Canna* patch on the Dare Outer Banks, on July 31.

The following noteworthy moth records (plus one butterfly record) were submitted by various people from across the state.

Records from Hall *et al.* refer to a intensive effort conducted by Steve Hall, Jamie Cromartie, Jeff Slotten, Bo Sullivan, and Bruce Dixon to re-locate *Catocala grisatra* (and *C. louisiae*) in the area where Jamie first found these species in the state back in 1993. This was the third effort made to find these species (see SL Newsletter, Summer, 2008), but this year we tried our luck earlier in June (11-12), and set out far more traps - 12 light traps and 3 bait traps - than we had done before. In addition to sites we had sampled in previous years, we added a site in the Bushy Lake State Natural Area (with permission from the Division of Park and Recreation) that contains one of the largest and the most intact stand of hawthorns that we have run across yet. However, the results were the same: no *grisatra* or *louisiae*, although several other interesting species were found.

Additional records from Hall come from a survey conducted in the Fall Line Sandhills, covering several sites in Moore, Hoke, Scotland, and Richmond Counties. This survey was funded by the US Fish and Wildlife Service to identify blocks of habitat that are ecological intact at the landscape level. Unlike previous studies we (NC Natural Heritage Program) have conducted in the Sandhills, this survey was conducted primarily on private lands (with

permission from the landowners), greatly extending the known range of several species that we had previously documented only within Fort Bragg or the Weymouth Woods State Natural Area.

Finally, records from Parker Backstrom, Ed Corey, and Merrill Lynch all represent a growing trend towards photography of living moths, spurred at least in part (or largely) by the development of internet resources such as the Moth Photographers Website and Bugguide. As indicated by their records, the increase in the number of people interested in moths should greatly expand our knowledge of the state's fauna.

GEOMETRIDAE:

- *Eulithis molliculata,* fresh specimen photographed on July 10 by Ed Corey at New River State Park in Ashe County. Bo Sullivan has previously collected this species from this area but the overall distribution of this northern species in our mountains remains unknown.
- Hypagyrtis brendae, several specimens were collected by Hall on June 24 from a stand of white cedars along Hitchcock Creek in the Pee Dee River Basin, Richmond County (COUNTY).
- Metarranthis n. sp. 1, one specimen was collected by Hall on June 24 from a site along Drowning Creek in Moore County (COUNTY). All specimens in the Fall-Line Sandhills are from streamhead swamp forests with dense understories of pocosin shrubs.
- Speranza (=Itame) subcessaria, specimens were photographed on June 25, July 1, and July 2 by Merrill Lynch at his farm in Watuaga County (COUNTY). Ribes, the host plant for this species, occurs scattered throughout his property, which is located at about 3,400 ft. The few additional state records for this species also come from sites at mid to high elevation in the mountains.

SATURNIIDAE:

Syssphinx (=Sphingicampa) bisecta, fresh specimen photographed by Parker Backstrom (see Moth Photographer's Website) at a gas station light in Sanford, Lee County (STATE). Although this primarily mid-western species has been recorded in the western parts of Georgia and South Carolina, this is the first record for it in North Carolina. Amazingly, it was found not in the mountains, but on the far eastern edge of the Piedmont. Given the freshness of the specimen, it presumably is not a stray. Although honey locust, the host plant for this species, is widely planted as a street tree in North Carolina, it seems unlikely that the moth was transported in from out of state on nursery stock.

NOCTUIDAE:

- Abrostola ovalis, photographed on August 14 by Merrill Lynch at his farm in Watauga County (COUNTY). Only a few records exist for this species in North Carolina, although they span the entire length of the mountains. The presumed host, wood nettle (*Laportea*), is common on the property.
- Apamea inebriata, one specimen was collected by Hall near a sandhill seep in Moore County (COUNTY). This northern species has been previously collected in the Fall-Line Sandhills only from a couple of locations within Fort Bragg.
- Ascalapha odorata, photographed on August 3 by Parker Backstrom in Sandford, Lee County (COUNTY). Reports of other individuals of this tropical migrant have also been made in the eastern Piedmont in early to mid August.
- Bellura brehmei, one specimen was collected on June 19 by Hall from a beaver pond complex in Hoke County. This species has been previously recorded by Hall in similar habitat at several sites within Fort Bragg (all in Hoke County), as well as by Bo Sullivan in New Hanover County along the edge of the Cape Fear River estuary.
- Catocala alabamae, several specimens were collected on June 12 during the grisatra hunt, both from the same sites in Bladen and Cumberland Counties where Hall and Cromartie had found them previously, as well as from the new sampling area at Bushy Lake State Natural Area. Additionally, Hall collected one on June 24 in Moore County at a site about 10 miles north of where Jeff Slotten collected larvae of this species last year.
- Catocala marmorata, one specimen was photographed on June 9 by Parker Backstrom in Alleghany County, and one was collected on June 11 in Bladen County by Bo Sullivan during the *grisatra* hunt. In both cases as is often the case with early summer records for this species no populations of its known host plant, swamp cottonwood, occur anywhere close to where the individuals were found.

Catocala jair, one specimen was collected on June 24 by Hall at a site in Moore County.

- Hyperstrotia nana, specimens were collected on June 12 by Hall et al. in Bladen County (COUNTY), on June 19 by Hall in Hoke County, and on June 24 by Hall in Moore and Richmond Counties (both COUNTY). This species has probably been overlooked in the past but appears to be about as common as *H. flaviguttata* in dry-xeric, mixed oak sandhills in both the Outer Coastal Plain as well as the Fall-Line Sandhills.
- Macrochilo n. sp. nr. absorptalis, two specimens were collected on June 2 by Hall at a site just within Fort Bragg, Hoke County. This species has previously been recorded at two other sites within Fort Bragg, which encompasses all of the known sites for this species in North Carolina. It's pattern differs from M. absorptalis from the NC mountains but resembles a specimen illustrated by Ferguson from the New Jersey Pine Barrens (Entomolography 1:303-332, Fig. 18). Ferguson declined to describe the New Jersey form as a different species, but the one at Fort Bragg almost certainly is, or at least a major disjunct if it represents the same thing as Ferguson's.
- *Tarachidia parvula*, three specimens were collected on June 24 by Hall at a site along Drowning Creek in Moore County (**COUNTY**). While this species has now been recorded at several sites within the Fall-Line Sandhills, as well as sites in the Outer Coastal Plain, its habitat associations are still not clear. Does anyone know what the larval host plant is?

NYMPHALIDAE:

Asterocampa clyton, two fresh females were observed on June 13 by Hall *et al.* at Bushy Lake State Natural Area in Cumberland County. Although this species has been found in both Cumberland and Bladen Counties along the Cape Fear River, where there are rich alluvial forests characteristic of brown water rivers (which drain out of the Piedmont), its occurrence at Bushy Lake seems completely out of place. Both specimens were attracted to one of Jeff Slotten's bait traps, set out along a very xeric sand ridge. Although there are fairly extensive bottomlands adjoining this sand ridge, the forests there belong to the much more acidic type characteristic of blackwater habitats. As unlikely as it is to find an *Asterocampa* very far away from a hackberry tree, it is equally as unlikely to find a hackberry in the North Carolina Coastal Plain away from one of the brown water rivers (or one of the even rarer areas with marl close to the surface, which were also nowhere close by).

South Carolina: Brian Scholtens, College of Charleston, Charleston, SC 29424, E-Mail: scholtensb@cofc.edu

Tennessee: John Hyatt, 5336 Foxfire Place, Kingsport, TN 37664, E-Mail: jkshyatt@aol.com

John sends in the following report: Sullivan Co., 22 August 2009, at bait, *catocala nebulosa*. He also states: "We had a strong flight of N. Antiopa (usually uncommon here), and Speyerias were at about normal levels, but almost everything else has gone missing. It is positively rare to see a Papilio, and I haven't even seen a Colias in several weeks. Bait-trapping yielded a large crop of Catocala ilia, but only about three specimens of all other species combined!"

Texas: Ed Knudson, 8517 Burkhart Road, Houston, TX 77055, E-Mail: eknudson@earthlink.net

June - August 2009 by Ed Knudson:

The summer in most of Texas has been very dry, except for parts of west and north TX. In particular, southeast and south central TX, including the valley has had severe drought conditions, thanks to El Nino, I suppose. Nevertheless, there has been fairly good butterfly activity in south TX and in the TX hill country, with a good influx of *Eunica monima*. The hairstreaks in the valley have also been well above average, with about 15 species found in June-July. Moth collecting has been below average, but with a few interesting things found.

The following contributed by Mike Rickard, Mission, TX.

Bentsen State Park, Hidalgo Co., TX (photos, 2009):

Papilio ornythion, 6, 8 July Glutophrissa drusilla, 21, 22 July Ganyra josephina, 1-29 July Aphrissa statira, 22, 23 July Anteos chlorinde, 30 June, 25 July Eurema boisduvaliana, 23 July

Cyanophrys miserabilis, 10 June-1 July; 15 July-5 Aug. Cyanophrys herodotus, 1 July Chlorostrymon telea, 10 June-1 July Electrostrymon hugon, 10 June-1 July, 24 July Strymon bebrycia, 12 June Strymon albata, 25 June-5 Aug (15 sightings) Ministrymon azia, 10 June-1 July Eunica monima, 21 June-15 July Hamadryas februa, 25 July Marpesia petreus, 22 July Pellicia arina, 22 July Monca crispinus, 15 July Lerema liris, 15 July

Perichares philetes, 13 June (found by Joshua Rose) Chlosyne rosita, 1 July

Hidalgo Pumphouse Park, Hidalgo Co., TX:

Anteos maerula, 1 Aug Dynamine dyonis, 9 July

Mission (Alladin Villas):

Hamadryas guatemalena, 2 Sept.

Other records from the Valley (Bordelon, Knudson, Rickard) at Madero House (Mission TX):

Eunica tatila, June 30, Bordelon; 8, 12 July, Rickard (3 individuals found & collected) *Eunica monima*, 1-25 July (Bordelon, Knudson, Rickard) (about 20 sightings) *Marpesia chiron*, 28 July, Rickard *Pyrisitia dina*, 26-28 July, Rickard (3 sightings)

Interesting moths found in Mission:

Alatuncusia bergii (Crambidae), 20 July, Knudson, NEW STATE RECORD
 Rindgea maricopa (Geometridae), 26 July, Bordelon, formerly Semiothisa siren
 Pachylia ficus (Sphingidae), 5th instar larva found on ornamental fig at Hawthorn Suites, in Mission, 1 July (Bordelon), emerged 9 August (female)

Moths from other places:

Dolbogene hartwegii (2), Jeff Davis Co. TX, 9 mi. north of Ft. Davis, 10-16 June 2009 (Kons & Borth)
Noctua pronuba, Ward Co, TX, 15 miles south of Monahans, 8 June (Kons & Borth), NEW STATE RECORD
Sympistis laticosta, Ward Co., TX, Monahans, 9 June 2009 (Kons & Borth)
Eulepidotis micca, Gonzalez Co., Palmetto S.P. 24 May 2009 (Kons & Borth)
Gonodonta pyrgo, Kaufman Co., Becker, 7 Aug. (J. McDermott Jr.). Also recorded from Kerr Co., Kerrville-Schreiner S.P., 10 July, 2009 (Jason Cole). Both are County records.
Catocala texanae, Kaufman Co., Kaufman, 15 July (J. McDermott Jr.)
Catocala atocala, Dallas Co., TX, 19 June, 2009 (Dale Clark)
Catocala dejecta, Wise Co., LBJ Nat. Grassland, 10 June 2006 (Dale Clark). First authentic specimen we have seen from TX.

Butterflies from other places:

- Polites carus, Irion Co., TX Barnhart, 13 Aug. (R & B Wauer). New for this obscure, desolate county in the Permian basin.
- Cyanophrys miserabilis, McMullen Co., TX, Choke Canyon SP, 21 June 2009 (W. Sekula). New county record, well north of normal range. Also recorded from Starr Co, TX, Falcon Heights, 26 June, 2009 (B. Nall). Also new for county.

Interesting Historical Records:

The following information from Powell & Opler, 2009 Moths of Western North America.

Paranthrene robiniae (Sesiidae), El Paso Co., TX, El Paso, 7 March 1950 (reared from Willow), collector unknown (in USNM), STATE RECORD

Hemileuca hualapai, Presidio Co., TX, Presidio, 13 Sept. 1928, E. Tinkham (in CNC), STATE RECORD

The Heliodines group in the Heliodinidae has been revised by Hsu & Powell, 2005 University of California Publications. In *Entomol.* 124. I didn't know about this fine little book until recently. It is available from University of California Press. The following species appear to be new for TX.

Embola ciccella, Jeff Davis Co., TX, 12 m. n. Alpine, 2 Nov. 1980, Knudson *Neoheliodines arizonense*, Jeff Davis Co., TX, Davis Mts. S.P, 21 June 1989, Knudson

(There are at least 9 other species of these beautiful little moths in TX)

Virginia: Harry Pavulaan, 494 Fillmore Street, Herndon, VA 22070, E-Mail: pavulaan@aol.com

PHOTOGRAPHS — JAMES ADAMS

James sends in the following photographs to perhaps stimulate the SLS membership to do some mothing outside of the Society's territory:









Back view of Euscirrhopterus gloveri

Euscirrhopterus gloveri

Schinia jaguarina

Sharon Springs gas station light

The *Euscirrhopterus gloveri* and *Schinia jaguarina* are from Sharon Springs, Wallace Co., Kansas, July 28 (3:30 am). There were just a few *E. gloveri* records from Kansas previously, but the end of July and first half of August saw an explosion of this species throughout SW Kansas (they were abundant in Elkhart two weeks later).

SOUTHERN LEPIDOPTERISTS' SOCIETY

c/o J. BARRY LOMBARDINI, THE EDITOR 3507 41st Street Lubbock, Texas 79413