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J. BARRY LOMBARDINI: EDITOR

SILVER FALLS REST AREA NEAR CROSBYTON, TEXAS [1, 2] A *SCHINIA* MECCA

BY

J. BARRY LOMBARDINI

Fig. 1. Entrance sign to the Silver Falls Rest Area on U.S. Route 82 near the town of Crosbyton in West Texas.

Approximately 4.5 miles east of Crosbyton, Texas, in Crosby County and 40 miles east of Lubbock is a Texas Highways rest area for travelers that is considered one of the finest in Texas and perhaps the nation (Fig. 1). Aside from being a sanctuary for travelers it is also a magnet for moths being out in the middle of nowhere with lights on all night. This rest area, named Silver Falls Rest Area, on highway U.S. 82, was originally built in the 1930's by the National Youth Administration as part of the Work Program Administration and received major renovations in the year 2000.

The area is 9 acres in size and not only has the obvious rest rooms, but also a tornado shelter (which to my knowledge has never been used but still nice to know that one is present (Fig. 2), and picnic areas and a nature area (Fig. 3). The White River, a tributary of the Brazos River, runs through the area but because of the use of water for agriculture the water level is down 80 feet since 1955 and is currently all but dry

Fig. 2. Rest rooms and tornado shelter where numerous *Schinia* moths are found on the walls mainly in September and October.

Fig. 3. Picnic tables built in the 1930's.

Fig. 4. White River flowing over Sandstone ledges at the Silver Falls (1891). [1]

especially since the severe drought last year (2011) and the continuing lack of rain in 2012. However, there is still some moisture from springs and a lot of vegetation in the creek bed which in some years makes for a good place to look for butterflies.

In the good old days when water was plentiful (in the 1930ties and earlier) this was a favorite place of recreation for the people from the nearby towns and ranches. Verna Anne Wheeler, executive director of the Crosbyton County Pioneer Memorial Museum in 2000 said that humans had visited the area since 1315 as determined by pottery shards that had been found in the area. And Mary Alice Robbins (Morris

Fig. 5. Sandstone ledges as seen in October 2012. Water level has dropped 18.6 feet between 1987 and 2007. [1]

News Service) describing the area in the Lubbock Avalanche Journal in 2000 quoted Wheeler as the area in 1919 having not only a lake but *"...a skating rink, dance hall and bath house opened for swimmers, and visitors came from around the region to enjoy what was known then as the Silver Falls Lake Resort."* [2]

When the White River was flowing with some significance many, many years ago it must have been an impressive site (Fig.4). Fig. 5 shows what the falls look like today under much drier conditions.

While the "good ole days" are long gone, this rest stop still sees a lot of business in that it is not only a good place to stretch your legs on a long trip, but also many locals use it as a picnic area, for family reunions, birthday parties,

(Continued on page 178)

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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:

Regular	$20.00
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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/

INDEX

Page

1. Silver Falls Rest Area Near Crosbyton, Texas A *Schinia* Mecca by J. Barry Lombardini.....175
2. A Comment on Fine & Grisham's Crocodile Lake Project by Lawrence J. Hribar.....179
3. *Pyrrhia aurantiago* (Guenée, 1852) (Lepidoptera: Noctuidae) in Louisiana by Vernon A. Brou Jr.....186
4. I Fought the Bugs and the Bugs Nearly Won! A Misadventure I Will Not Soon Forget by Vernon A. Brou Jr.....187
5. 2012 Diary of an Obsessive Butterflier - Part Two by Craig W. Marks.....189
6. Three Collectors After an Elusive Prey: Irving Finkelstein, James Adams and Bill Russell.....196
7. Zapotec Butterfly Tapestries: A Legacy of Pre-Columbian Mythology by Gary Noel Ross.....197
8. New Members of the SL Society.....214
9. Simple Method for Protecting Antennae When Papering Lepidoptera Specimens by Vernon A. Brou Jr.....215
10. Continuation of James' Challenge to the Southern Lepidopterists' Society.....216
11. Field Notes of Charles F. Zeiger by Marc C. Minno.....217
12. SLS/ATL 2012 Meetings (28-30 September 2012) by Jacqueline Y. Miller.....223
13. SLS Participation at the Florida Museum of Natural History's ButterflyFest (13-14 October 2012) by Deborah L. Matthews.....223
14. Photographs from the SLS/ATL Joint Meeting (28-30 September 2012) by Jeff Slotten.....224
15. Group Photo of the Attendees at the SLS/ATL Meeting by Andrei Sourakov.....225
16. Photographs of the SLS/ATL Meeting by Andrew D. Warren.....226
17. Photographs from the SLS ButterflyFest (13-14 October 2012) and the SLS Field Trip to Paynes Prairie (28 September 2012) by Deborah Matthews.....227
18. Photographs from the Field Trip to Gulf Hammock During the SLS/ATL Meetings by Lary Reeves.....228
19. A List of Moths Recorded at Paynes Prairie Preserve State Park, Alachua County, Florida (29 September 2012) by Charles V. Covell Jr.....229
20. More Photographs from the 2012 SLS/ATL Meetings by Charlie Covell.....230
21. More Photographs from the 2012 SLS ButterflyFest by Charlie Covell.....231
22. Butterflies Observed on the Field Trip Associated with the SLS/ATL Meetings (28 September 2012) by Marc C. Minno.....232
23. The Gravesite of John Abbot (1751- ca. 1840), Pioneering Southern Lepidopterist by Lance A. Durden and Gary R. Mullen.....233
24. Obituary of William Henry Houtz Jr.....236
25. Minutes of the SLS Meeting by Don Stillwaugh.....237
26. Thanks to Those Who Donated to the SL Society.....238
27. Reports of State Coordinators.....238

(Continued from page 176)
and nature walks. (2) Restore it again to its former glory - probably not a chance but many of the citizens of the nearby towns can dream.

The *Schinia* moths that have been found on the walls of the lighted structures in the last few years are the following:

siren	*lynx*	*arcigera*	*ultima*
hulstia	*chrysella*	*alencis*	*reniformis*
coercita	*citrinella*	*sanguinea*	*tertia*
regina	*grandimedia*	*accessa*	*obscurata*
saturata	*nubila*	*cupes*	*rivulosa*
mortua	*volupia*	*bicuspida*	*thoreaui*

Note: It is surprising that the *Schinia* species *gaurae* has not been found on the walls of the main building in my many travels to this location as *S. gaurae* is quite common in West Texas.

Fig. 6. Local scenery.

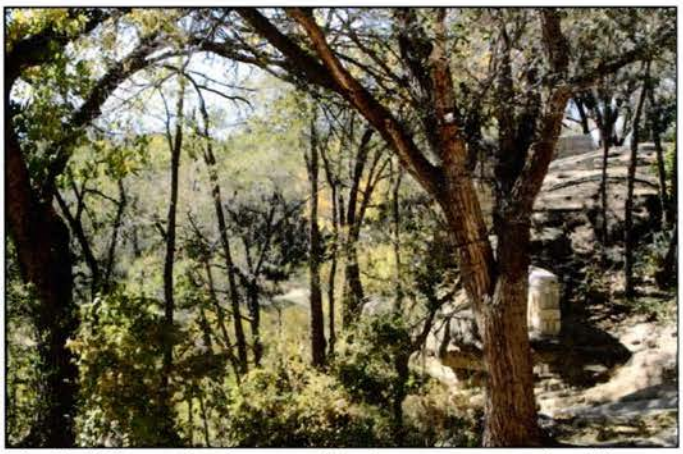

Fig. 7. Where the river used to be - now a creek with about 2 inches of water. However, after an intense rain the creek can be 10 feet across and a few feet deep (not very often).

Sources

1) http://en.wikipedia.org/wiki/White_River_(Texas)
2) http://www.waymarking.com/waymarks/WM6Y4W_Silver_Falls_Rest_Area

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NOTICE: POST-MEETING EXPEDITION TO GUATEMALA, 1-8 July 2013. This post-meeting trip starts in Flores, northern Guatemala, after the late June annual meetings of SLS, ATL and the Lepidopterists' Society. You fly in from Orlando/Miami to Guatemala City and then on to Flores (flights to Flores may also be available from Cancun and other locations). Participants will be picked up at the Flores airport for the short (15 min) ride to Ixpanpajul Nature Park, a 1000 hectare natural reserve of old forest. The park has ample trails through the forested hills, as well as open habitats, and canopy walks over ravines. There is a hilltop observation area also, plus a zip line through the canopy. Cabins are excellent and modern (AC bungalows are also available at extra cost, *ca.* $50 per day extra). All meals are provided at the park restaurant. The park is fully guarded and has electricity (110v). Moth lights will be in operation throughout the week. Many micro-habitats exist in the park for maximum butterfly and moth diversity in this region of the Yucatan Peninsula. Tikal National Park is also nearby and day-trips can be arranged to see this old Mayan city.

Costs are $1,350 for the 8-day trip for double-occupancy accomodation (single accommodation has a surcharge); all meals are included. Airfare is extra at your cost and booked yourself. Deposit of $500 is needed by 15 February. Contact Dr. John Heppner (troplep@aol.com, or Tel: (352) 373-5630), for details and to secure a place on the trip.

A COMMENT ON FINE & GRISHAM'S CROCODILE LAKE PROJECT

BY

LAWRENCE J. HRIBAR

I'm writing to compliment Fine & Grisham on their magnum opus, the document recounting the history and moth fauna of the Crocodile Lake National Wildlife Refuge (Fine & Grisham, 2011). Overall it is a nice job with spectacular photography, fascinating historical vignettes, and some amusing anecdotes about collecting on the refuge (one in particular definitely more amusing in hindsight than it was at the time). The authors' comments upon the job that mosquito control is doing are welcome; it is nice to be appreciated. It has often appeared to me that it is a desideratum of some lepidopterists to come up with a smoking gun to incriminate mosquito control programs as responsible for decline of lepidopteran species in the United States. Several paragraphs of the document are taken up by the authors' postulate that mosquito control operations are responsible for low numbers of moths they collected in urbanized part of Key Largo. Unlike some other critics, the authors' made an attempt to quantify and document their claims, which, to be sure, is a lot more than some other people have done. The authors specifically state that it is not their intention to reopen a debate in which we have previously engaged; neither is it my intention to do so. However, I think some comments may be appropriate regarding the design of the study and I offer an alternative interpretation of the data that may prove even more distressing than that which the authors' provide.

Different light source used to collect moths in urban area and refuge.

The authors used "black light white" and "black light black" (presumably black light and black light blue) lights as well as mercury vapor lights in the refuge, whereas they collected at mercury vapor and fluorescent lights in urban areas. These light sources have markedly different spectra and are differentially attractive to moths (Belton & Kempster, 1963; Wallner *et al.,* 1995). Black light blue ("black light black") lights peak $\lambda \approx 360$ nm, *i.e.,* in the UV portion of the spectrum. Black light ("black light white") has three peaks: $\lambda \approx 360$ nm, 440 nm, 550 nm, *i.e.,* in the UV, blue, and green (Glow, Inc., 1998-2010). Mercury vapor lamps have multiple peaks, $\lambda \approx 370$, 420, 450, 560, 590 nm, *i.e.,* in the UV, blue, and green (Fischer & Hörster, 1992). Fluorescent light sources either do not have a peak in the UV or if they do it is very small (Rensselaer Polytechnic Institute, 1995-2011; Kelber *et al.,* 2003; Bingham, 2011). Another consideration, mentioned by Frost (1953) among others, is that the wattage and spectral intensities of light sources, as well as the spectral peaks, can have an effect on trap catches.

The document focuses on Sphingidae. Sphingids have photosensitivity peaks in three parts of the spectrum, UV, blue, and green (Schwemmer & Paulsen, 1973; Eguchi *et al.,* 1982; Cutler *et al.,* 1995; Kelber *et al.,* 2003). Different species are sensitive to different parts of the spectrum, and even males and females of the same species can have slightly different sensitivities to spectra (Kelber *et al.,* 2003; see also Agee, 1973). Nabli *et al.* (1999) working in Missouri, found black light ("black light white") to be more attractive to Sphingidae than are other light sources.

UV may be attractive to moths (and other flying insects) because sunlight is the only source of UV radiation in nature, thus high UV levels may indicate "open space" or "room to fly" (Mazokhin-Porshnyakov, 1969; Menzel, 1979). Over 20 years ago, in my own work in Louisiana with horse flies, Order Diptera, those most noble insects that need only two wings for flight whereas other insects require four (we will ignore the Strepsipterea and certain Ephemeroptera), I discovered that changing UV reflectance of traps could have a marked effect on number of horse flies captured (Hribar *et al.,* 1991). Collections at different light sources emitting different wavelengths of light probably biased collections somewhat in favor of the refuge in the Fine and Grisham study.

Different lighting regimens in urban area and refuge.

The Crocodile Lake National Wildlife Refuge lands are mainly subject to natural light patterns with annual and diel photophase and scotophase (*i.e.,* light and dark) cycles. Collection at building lights in the urban area presents a problem. The animals in these areas are subjected to what is essentially a "perpetual full moon" (Longcore & Rich, 2004) which can have subtle but cumulative effects on an ecosystem. Artificial lights that are operated day after day for years can disrupt biological processes such as flight and predation (Frank, 2006). For example, Lebbin *et al.,* (2007) observed a mixed species flock of wood warblers (Parulidae) feeding on moths at artificial lights at night. This is significant because Parulidae generally are daytime feeders – the presence of lights subjected the moths to additional predation pressure. Artificial lights can potentially contribute to change in the genetic structure of a

population in two ways: lights affect oviposition and gravid females tend to show up in traps (Frank, 1988, 2006). Continuous trapping in an area may be selecting for individuals less likely to fly to lights (Frank, 1988; Väisänen & Hublin, 1983). In fact, continuous use of light traps in an area can even lead to extinction of moths with a small population (Väisänen & Hublin, 1983). Furthermore, artificial lighting may even reset physiologic clocks that govern development, behavior, and other processes (Frank, 2006). The numbers of light sources probably differed among collection sites, and this variation can also affect trap catch (Glick & Hollingsworth, 1955). Blomberg *et al.* (1976) suggested that the darkness of the night may also have an influence on collections in light traps; certainly in the urban area of Key Largo there is much more "light pollution" than on the refuge. Was any account taken of moon phase and cloud cover? Both of these factors can dramatically affect light trap collections and their effect would be much greater on the refuge than in the city (Bowden, 1982; Bowden & Morris, 1975). Light has the greatest effect on moth populations already under stress from habitat loss and habitat fragmentation (Frank, 2006), which describes the Key Largo "city" populations. Given the effects of light on moth populations, especially urban moth populations, leads one to wonder, are they really the same organism in each habitat, or are they now different organisms that look the same? For a detailed review of how artificial lighting, including light traps, adversely affects insect populations, see Bruce-White & Shardlow (2011).

Urban and rural habitats are not the same.

The fluctuations seen in the authors' data are not entirely unexpected; moth populations fluctuate from year to year, especially in urban areas (Taylor, 1978; Taylor *et al.*, 1978). For that reason alone, the number of moth species is expected to be less in urban areas (Wolda *et al.*, 1994; McKinney, 2008). Collections made at building lights probably are not representative of moth population in the area. Were there parks, gardens, or other relict natural areas that could have been sampled (Eisenbeis, 2006)? These are habitats that are most important to species diversity in urbanized areas (Davis, 1978). Differences in vegetation also likely account for some species differences; in urban areas, those species with the widest host range are more likely to survive in urban areas (Wolda *et al.*, 1994).

Seasonal effect present in light trap data?

There is a possibility that there is a seasonal affect to attraction of moths to various wavelengths of light. Some researchers claim that evidence exists that some species of Lepidoptera are attracted to different wavelengths of light at different times of the year (Blomberg *et al.*, 1976). The references they cite (Glick & Hollingsworth, 1955; Chernyshev, 1961) are not very convincing. However, Bowden (1984) studied the effects of seasonality, latitude, and moon phase on light trap catches in Britain and determined that using the same light source throughout the year will most likely bias the sample during some parts of the year; different light sources may be necessary at different times of the year. This does not seem to have been the case for Sphingidae in Southeast Asia, however (Beck & Linsenmair, 2006).

Qualitative versus quantitative sampling.

Qualitative sampling is used to make comparisons between or among sites regarding the presence or absence of taxa, whereas the objective of quantitative sampling is to provide an estimate of numbers or biomass per unit area, volume, or sampling unit (Klemm *et al.*, 1990). Light traps are useful for qualitative sampling but not so much for quantitative sampling. I suspect no one really knows the number of sphingid moths per unit of habitat in either the Refuge or the urban area of Key Largo. Investigators who use light traps (me included) tend to assume that the numbers of individuals and species found at lights are representative of the population as a whole. It is likely, however, that the data are skewed. Differences among habitats unrelated to the factor under investigation may make analyses difficult. Variability among invertebrate populations also makes them difficult to study quantitatively (Schwenneker and Hellenthal, 1984).

Examination of data provided by Fine & Gresham.

The presentation of data by the authors struck me as somewhat problematic. I decided to take their data and subject them to some statistical analyses to see what I could see, so to speak. Although the authors' intent was to collect paired data sets, this proved more difficult in practice than in theory (not an uncommon problem for field researchers).

First, I threw out all unpaired observations (about 30% of the urban data) and concentrated on those dates when paired observations were made. I reorganized the data in a linear time series rather than clumping them together by month irrespective of year. Another problem became apparent: the data set is not consistent within years; *e.g.*, 2005 has only three paired collection dates, so all graphs are somewhat misleading but useful for illustrative purposes. The X axis is labeled "Case", simply a number assigned to each pair of observations in chronological order, *i.e.*, Case 1 is the earliest pair of observations.

Taking the authors' raw data and plotting them in chronological order and then doing a simple linear regression analysis (available in Excel) we see that both numbers of individuals and numbers of species are declining in both habitats, and in fact those on the refuge are declining at over twice the rate as are those in the urban areas (Figs. 1 & 2).

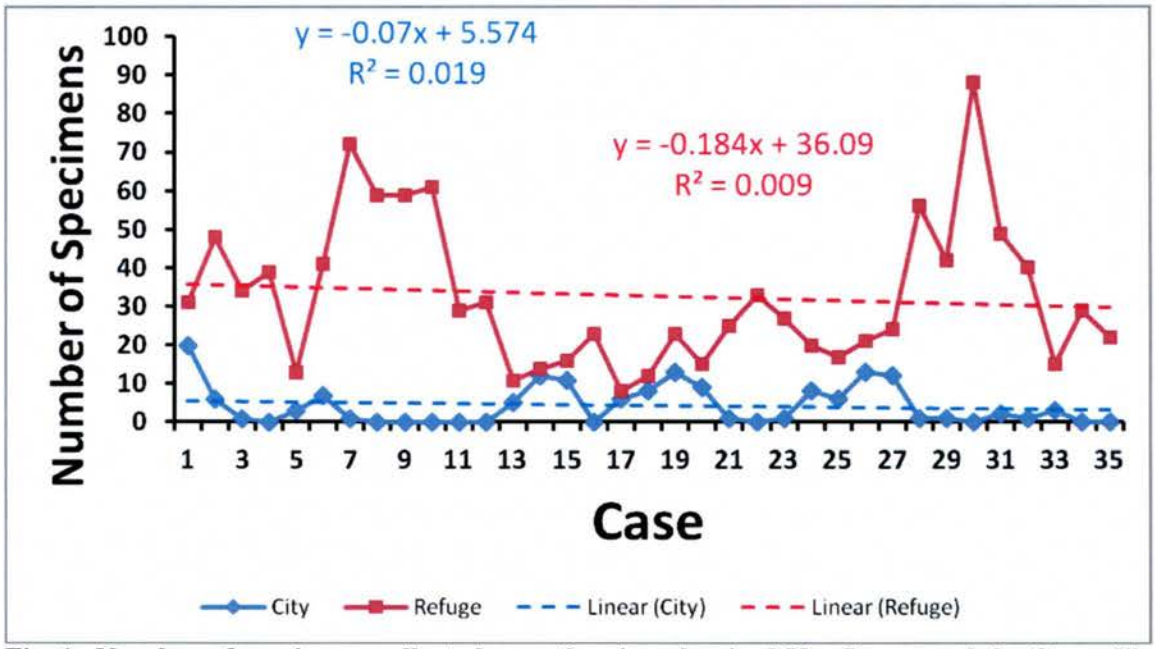

Fig. 1. Number of specimens collected over time in urbanized Key Largo and the Crocodile Lake National Wildlife Refuge.

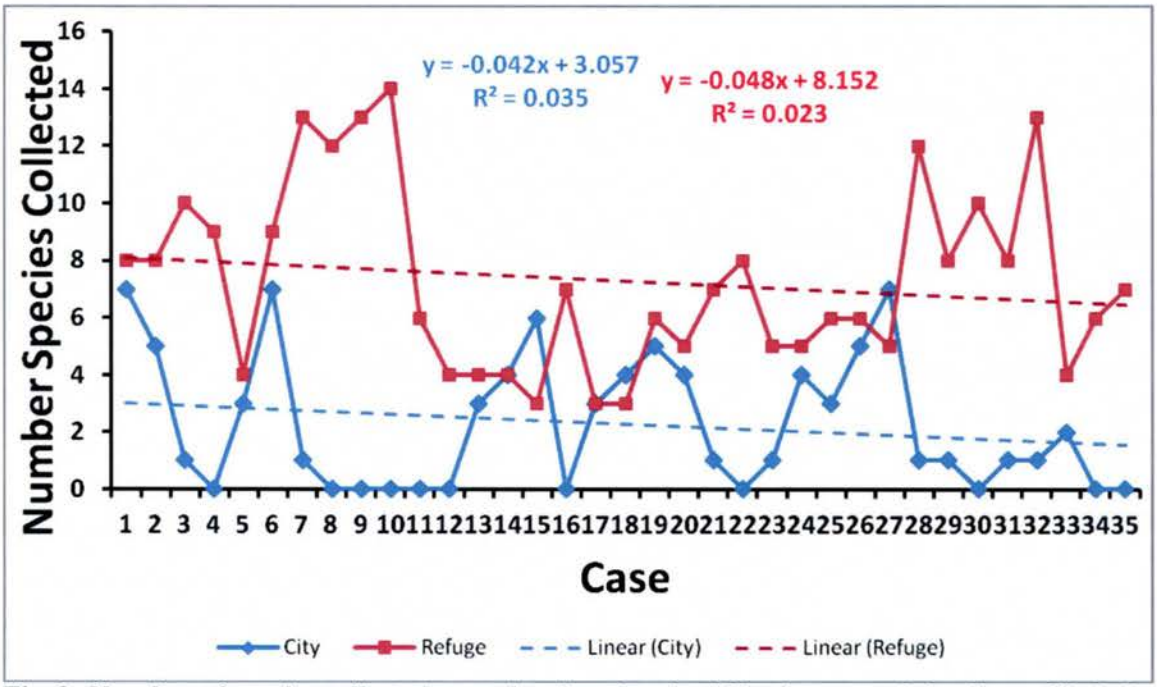

Fig. 2. Number of species collected over time in urbanized Key Largo and the Crocodile Lake National Wildlife Refuge.

The raw data were then subjected to rank order correlation analysis via Kendall's τ statistic, calculated via Wessa (2012). The result was $\tau = 0.306$, $P = 0.02$; there is only 30% correspondence between numbers of specimens collected in each area. Because biological data are "noisy" and subject to random fluctuations, the data were smoothed via a 3 point moving mean (available in Excel) and those results are presented in Figs. 3 & 4.

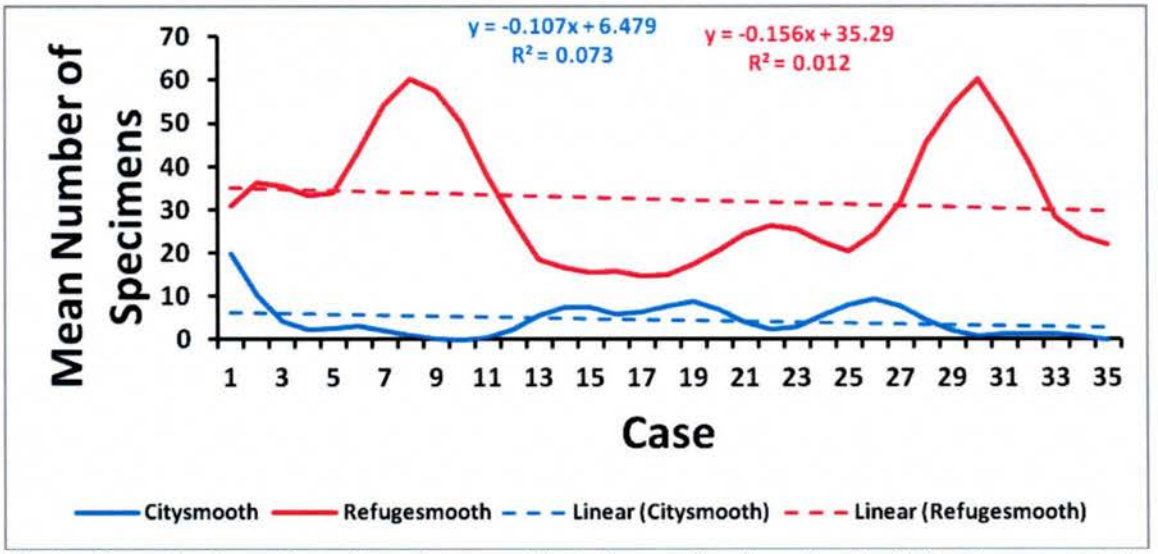

Fig. 3. Smoothed number of specimens collected over time in urbanized Key Largo and the Crocodile Lake National Wildlife Refuge.

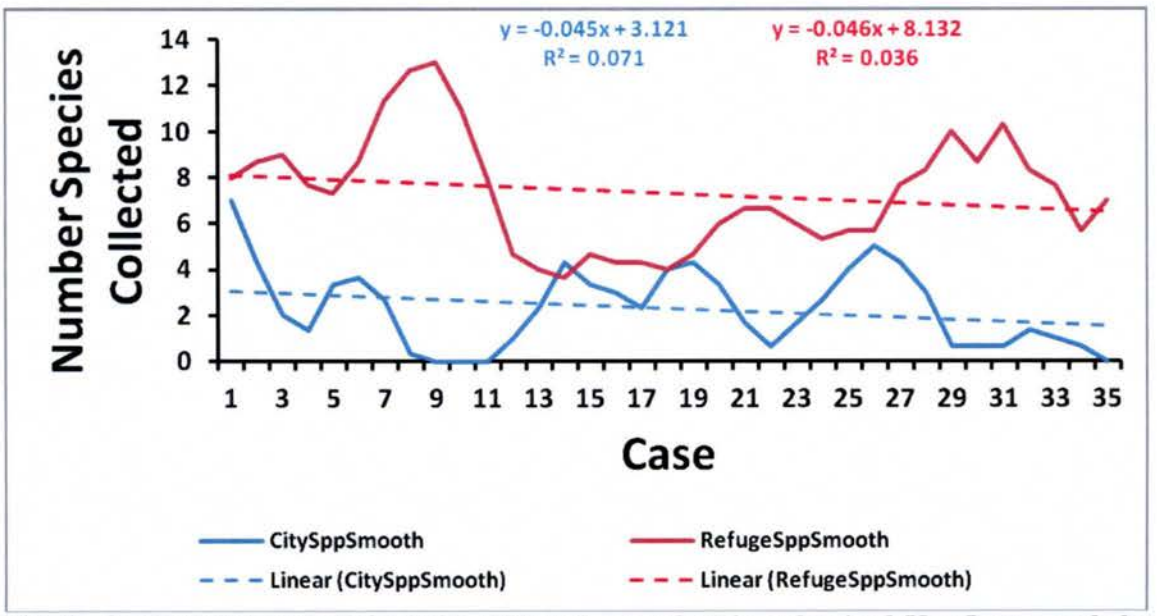

Fig. 4. Smoothed number of species collected over time in urbanized Key Largo and the Crocodile Lake National Wildlife Refuge.

Indeed, the two series seem to mirror each other; generally when one is increasing the other is decreasing. The gaps in the data, however, do not allow us to make much more of a statement than that, except once again, even after data smoothing, we see that both the number of specimens and the number of species are declining both in the urban area and on the refuge.

Were mosquito control missions conducted on the sampling dates?

I requested that Florida Keys Mosquito Control District staff check records of spray missions on Key Largo, going back as far as the authors' data (2004). There were no aerial missions on any of the dates on which the authors' collections were made. It turns out, however, that truck missions were run on some days. Now the question became, was there any correspondence of spray missions to Fine and Grisham's data? The dates on which a truck mission was

run and sampling for moths occurred were plotted against the authors' data for number of species and number of specimens. Prior to making those graphs, I ran an analysis of the authors' data and found that they are skewed and heteroscedastic (not unusual for field-collected biological data). In order to correct for these conditions the data were transformed by

$$X' = \sqrt{X + \frac{3}{8}}$$

(Anscombe 1948). The transformed data were plotted against case number, and sampling dates on which ground missions were run (designated by a vertical bar in Figs. 5 & 6). Simple linear regression was run against both data sets (number of specimens and number of species) for both refuge and urban collections. The results are most interesting. There were few days when a truck mission coincided with a sampling date (12 of 35, or about 33%). Declines in numbers of specimens and numbers

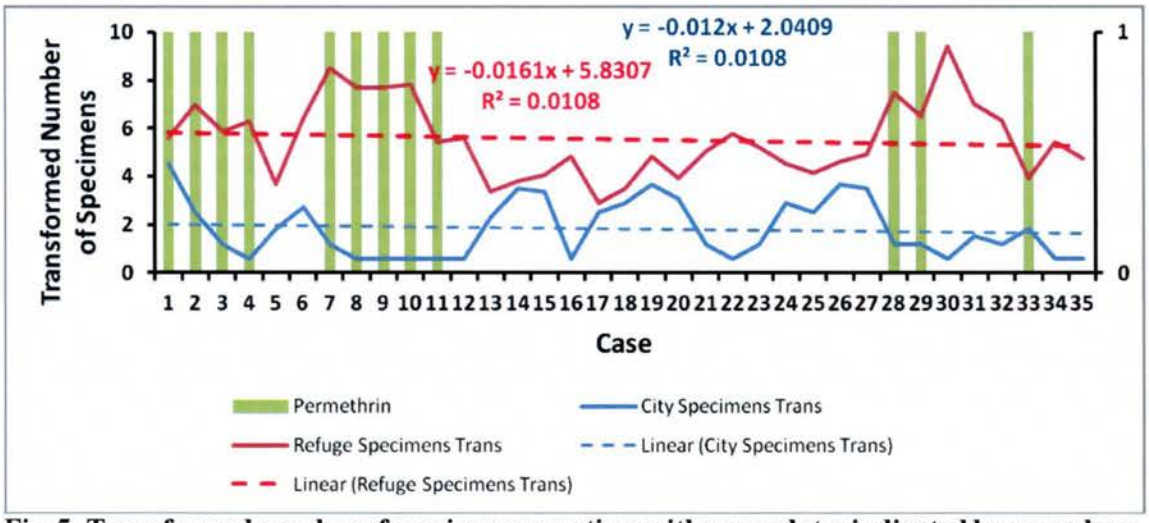

Fig. 5. Transformed number of specimens over time with spray dates indicated by green bars.

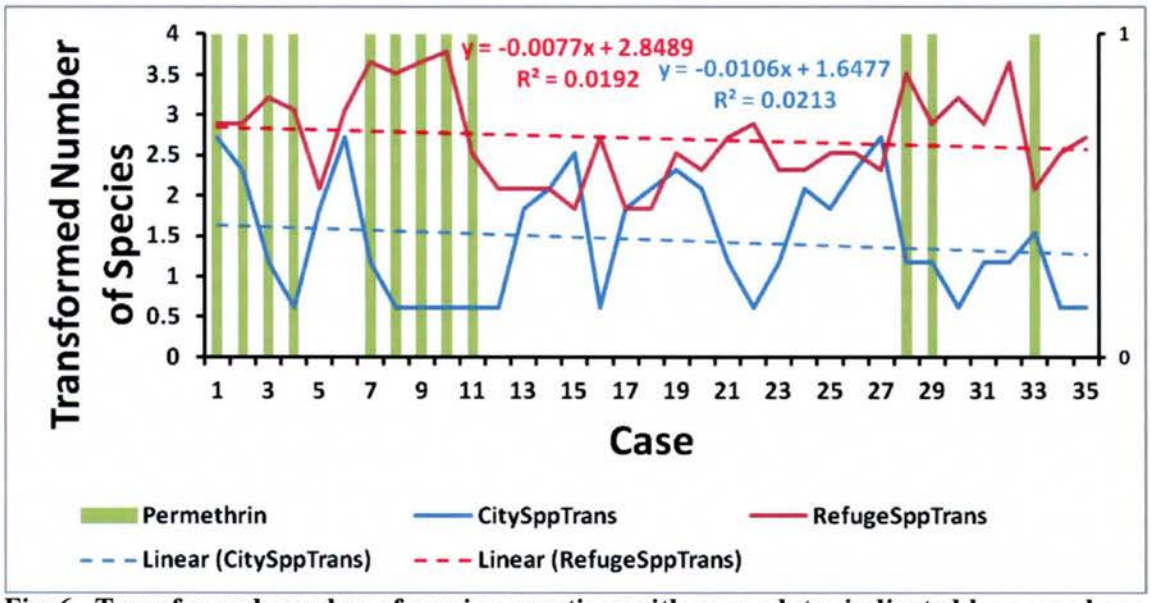

Fig. 6. Transformed number of species over time with spray dates indicated by green bars.

of species may seem to be coincident with spray dates, but there were fluctuations of appreciable magnitude on dates when there were no spray missions. A previous study on the effect of mosquito control operations on nontarget nocturnal insects found that there were short-term declines in numbers of nontarget organisms after mosquito control operations but that their numbers had rebounded 24 hours later (Jensen *et al.*, 1999). Perhaps more interesting are the simple linear regressions run on the transformed data. Realistically, the relationship is not very strong, with R^2 values of 1%, but as with the plot of the raw data, a decline in the number of specimens and the number of species is revealed. This is probably the most significant finding from the authors' data; however you look at it, even in the refuge the populations are declining. Returning to the authors' contention that the different patterns of fluctuation are *prima facie* evidence for culpability of MCDs, perhaps other potential effects should be examined.

Suggestions for another go at it.

Although the Fine and Grisham study has some flaws, it provides a foundation for future studies. It is better to have a regular collection schedule with same light source emitting the same spectrum and intensity of light and to record data by species for each trap location. Locate traps in as natural an area as possible in urban areas.

All the refuge sites should be tested statistically against each other and all the urban sites against each other to determine whether the collection sites can be combined by habitat type. Do regression analyses over time. Record data by species and analyze species within and between habitat types.

García-López *et al.* (2011) studied scarab beetles and demonstrated that UV lights, mercury vapor lights, and "cool white" lights do not attract the same species, nor in the same order of abundance. Why not present the moth data in such as fashion?

But while trapping on the refuge, be careful. People don't usually think of light trapping as hazardous to vertebrates, but birds and bats have been killed in light traps set for insects (Stewart & Hart, 1967). A light trap in and of itself is a form of light pollution, and adverse effects on the life cycles of vertebrate and invertebrate animals in the vicinity of light traps have been reported; see references in Teikari (2007) and Bruce-White & Shardlow (2011).

Acknowledgment

I thank Marc Minno for reading and commenting on earlier versions of the manuscript.

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DEFINITIONS:

Oligophagy [(1)] - Usually used in reference to insects who feed on a restricted range of plants. In general it would refer to an organism that eats only a few specific kinds of food. This would be in contrast to a ***polyphagous*** [(2)] organism that eats many different kinds of food. ***Polyphagy*** also has the definition of a pathological or excessive desire for the consumption of food.

Algivore [(3)] - feeding on algae.

Fungivore **or** ***mycophagy*** [(4)] - feeding on fungi.

1) http://www.thefreedictionary.com/oligophagous
2) http://www.thefreedictionary.com/polyphagy
3) http://www.bison-m.org/codetablelist.aspx?type=trophic
4) http://www.google.como/search?sourceid=navclient&ie=UTF-8&rlz=1T4ADBR_enUS335US335&q=fungivory+definition

PYRRHIA AURANTIAGO (GUENÉE, 1852) (LEPIDOPTERA: NOCTUIDAE) IN LOUISIANA

BY

VERNON ANTOINE BROU JR.

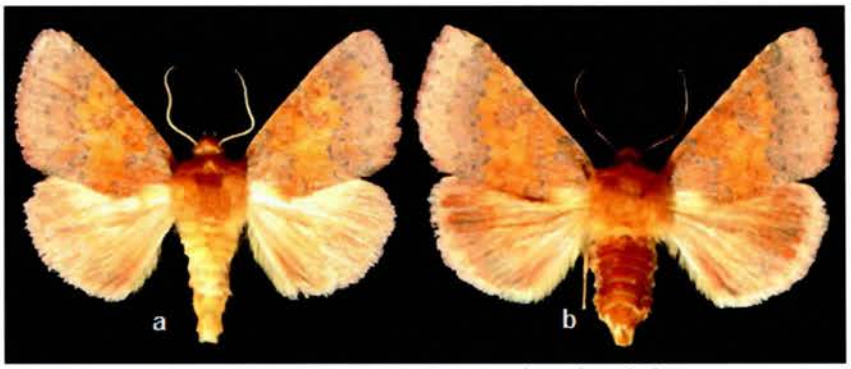

Fig. 1. ***Pyrrhia aurantiago*:** male a, female b.

The not often encountered Heliothine moth ***Pyrrhia aurantiago*** (Guenée) (Fig. 1) was recently addressed by Schweitzer, *et al.*, (2011) as having a spotty distribution over a large portion of the eastern United States and southern Ontario. These authors specifically mention records of this 'uncommon to rarely captured' species from: Connecticut, Florida, Georgia, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Missouri, New Hampshire,

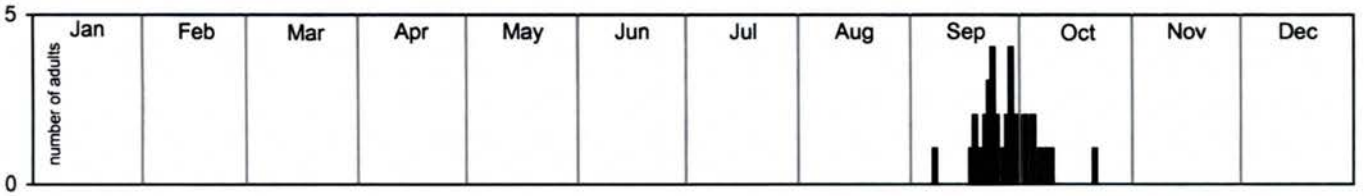

Fig. 2. Adult ***Pyrrhia aurantiago*** captured in Louisiana. n = 36

Fig. 3. Parish records for ***Pyrrhia aurantiago***.

New Jersey, New York, North Carolina, Ohio, Texas, Virginia, West Virginia and Wisconsin.

The current series of captured adult ***aurantiago*** in Louisiana was taken over the past 43 years of continuous nightly ultraviolet light trapping and most records are from the *Abita Springs Study site.

Until recently, this species was known as ***Rhodoecia aurantiago*** (Guenée). Covell (1984) indicates the flight period in northern states to be July to September and in Florida, August to October. Heppner (2003) also states the flight period in Florida to include the months August to October. In Louisiana, ***aurantiago*** has a single brood occurring during September and October, peaking the last week of September (Fig. 2). The parish records are illustrated in Fig. 3.

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

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I FOUGHT THE BUGS AND THE BUGS NEARLY WON! A MISADVENTURE I WILL NOT SOON FORGET

BY

VERNON ANTOINE BROU JR.

I had a true near death experience on Sunday October 14, 2012, while on the second day of a quiet field trip to a large privately owned working cattle ranch in S.W. Louisiana. Walking alone, while retrieving some sesiid pheromone traps left at this site on an earlier visit during 2012, I became lost and disoriented in the coastal marsh for 4-6 hours. I was unable to see above the thick vegetation (3-5 meters in height). Somehow, I failed to return using the same path which I previously entered. Repeatedly over several hours, my body and legs became entangled, encased and completely immobile in the high grass and thick fibrous plants. I could not free my legs or escape from the impenetrable vegetation. At this same time I became severely short of breath and suffered many hundreds to a thousand or more mosquito bites and then I fell into a large red ant (nest) mound (these are a venomous fire ant species which can kill humans and animals) and was covered with many hundreds of ant bites from head to feet. I have had severe polyneuropathy of the upper and lower extremities for several decades, a condition which results in one not being able to feel most mosquito and ant bites. This plague of insect bites caused me to suffer rapid heart rate and a very severe allergic reaction and subsequent near fatal asthma attack while unable to escape or return to my camp site. I did not bring water because it was supposed to take me far less than an hour to accomplish this simple task. Unknown to me at this time was that the repeated compression of the vegetation around my legs for hours caused me to develop deep vein thrombosis (DVT) and multiple pulmonary emboli were filling my lungs. Barely able to breath, experiencing chills, mentally and physically stressed, I was close to truly giving up on three occasions due to severe exhaustion. I did call home to tell my wife I couldn't go on and that maybe I wouldn't be coming home. This was a call I didn't want to make.

Several hours later, I finally did make it back to my campsite by using my rescue albuterol inhaler many dozens of times, resting on the ground 5-10 minutes after every 2-3 meters of movement and taking numerous nitroglycerin tablets. When I returned to the campsite behind the farmhouse my body, especially torso, arms and legs were covered in hundreds to thousands of insect bites, skin cuts and my clothes were soaked with blood and bull poop. I stripped naked and using an outside garden water hose, I washed off. Did I mention the bull poop? My legs and feet were extremely swollen due to the many bites. The subsequent 5-hour (260 miles) drive back home wearing only a pair of clean shorts included dozens more asthma rescue inhaler treatments with albuterol, many nitroglycerin tablets and was done exceeding the driving speed limits all the way. Arriving at home at 10PM, my wife Charlotte covered me with seven different over-the-counter maximum strength antiseptic and pain relieving sprays, two prescription topical preparations and an entire bottle of calamine lotion (calamine lotion provided the best relief). I spent the two subsequent days getting urgent care treatments, nebulizer Ventolin treatments, steroid injections, oral steroids twice a day for the next five days for the ongoing severe allergic asthma attack brought on by the many venomous ant bites. And, if this was not bad enough, I slept for only four hours in the first four days after returning from the marsh, and my legs spasmed violently and continuously due to the extreme compression and stress I put them through. When I lay down my breathing difficulties quickly returned; I was only able to stand, but that didn't help either due to the severe leg muscle fatigue and weakness.

I don't plan on making any collecting forays away from home during the remainder of 2012 and I am unsure about future collecting field trips. I left seven pheromone traps somewhere in the marsh, a small price to pay considering I came close not being here to tell this story. Other entomologists have told me many times that I accomplish more than 100 other collectors combined they personally know. Perhaps this was one time I "pushed the envelope" too far, but that's my lifelong personality and way I have done all things most of my life. What I have come to realize by experiencing it firsthand is that one's normal judgment and mental clarity does not make an appearance in situations of extreme distress, in fact it disappears from one's normal thinking.

The only large creatures on that particular site that day were myself and 700-800 free-ranging bulls. Being Saturday, the cattle wranglers were off or were at a different site that particular day. There were two shrimp biologists ending their 3-day stay who left the site shortly after I arrived on Friday a day earlier. I had my cell phone with me and the Parish Sheriff's office number keyed into the memory, but I knew

finding me would entail aerial search planes, helicopters, horse mounted searchers, and specialized vehicles and involve dozens of rescue and medical personnel going into night time darkness and charges for cases of mosquito repellant and cases of flashlight batteries for the rescue personnel, so I did not make that call, stupidly saving that as my last option. As I previously stated, mental clarity does not make an appearance in near death situations as this.

The third day upon returning home, I made an urgent appointment with my cardiologist because of severely worsening breathing difficulties, I left for the appointment, but rapidly worsening on the way and being extremely unable to breath, my wife drove to the hospital emergency room assuming I was possibly experiencing a heart attack.

Chapter 2 – A continuing saga.

One week after the incident, Saturday October 20, I returned home from a 4-day inpatient hospital stay, as it seems I developed and suffered multiple pulmonary emboli throughout my lungs and DVT (deep vein thrombosis) in my left leg, all as a result of this misadventure I experienced in the Louisiana coastal marsh a week earlier. And all along, this was the real reason for my breathing difficulties while lost in the marsh. This was also not diagnosed by urgent care due to limitations of their diagnostic equipment. Diagnosis of pulmonary embolisms requires a cat scan along with injected dye contrast. For the next several months, I am home on oxygen and four blood thinners to dissolve the blood clots. Writing this story now days later, I am fortunate that my breathing difficulties have significantly lessened with each passing day.

Chapter 3 – When will it end?

On October 28 I began to have breathing difficulties again and returned to the hospital emergency room, where I was diagnosed this time with **pneumonia** and **sepsis** (blood poisoning) along with a temperature of 103°F. It appears that upon discharge from the previous admission I was returned home with a blood infection at one of my IV access sites. The offending organism was **MRSA** (methicillin-resistant ***Staphylococcus aureus***). **MRSA** is a "staph" germ that does not get better with the first-line antibiotics that usually cure staph infections.

On the afternoon of November 6, I was discharged home from a nine-day hospital inpatient stay with two-three weeks of daily intravenous antibiotics, weeks of twice-a-day subcutaneous lovenox injections and months of daily oral Coumadin. No it doesn't end here; during the last five days in the hospital, I received round-the-clock IV morphine every 3 hours for a pinched nerve in my right leg apparently the result of lying in bed for weeks. Upon discharge I was switched from IV morphine to low dose oral morphine. This low dose morphine was insufficient to curb the extreme leg pain and I made an urgent doctor visit to my neurologist early November 7. The neurologist tripled the oral morphine, unable to provide me with any intravenous, epidural or intramuscular medications due to the fact that I was on four blood thinning medications.

The end, I doubt it.

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Female Gulf Fritillary

Male Gulf Fritillary on Mexican Flamevine (*Senecio confusus*)

From the Garden of Gary Noel Ross in Baton Rouge, Louisiana (2012)

2012 DIARY OF AN OBSESSIVE BUTTERFLIER – PART TWO

BY

CRAIG W. MARKS

There Ain't No Cure for the Summertime Blues

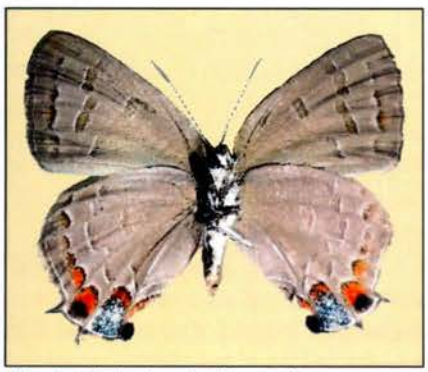
The last week of May had been very hot with high humidity and temperatures in the mid-nineties; however, at least the Acadiana region continued to receive regular rain. In fact, rain and a following cool front moved through the state at the end of May so my first outing of June, back to Sicily Island Hills Wildlife Management Area (Catahoula Parish, Louisiana) had blue skies with mild temperatures and low humidity. The purpose for this trip was to look for Byssus Skippers which had only been reported twice in Louisiana, both times within the last ten years. Kil Roever had previously identified Sicily Island as one of those locations.

I met Jeff Trahan there on Saturday, June 2nd, and we had a day filled with hundreds of butterflies and a total of 29 species, but no Byssus Skippers. Yehl Skippers, Spicebush Swallowtails, Red-banded Hairstreaks, Southern Broken-dashes and Lacewing Roadside Skippers were abundant, found primarily taking nectar at purple bee balm growing wild along the roadsides. Silver-spotted Skippers were common, also on the bee balm.

I saw several satyrs that I initially diagnosed as Southern Pearly-eyes, but a few looked smaller, darker and more blockish in wing shape than the typical Southerns that I have seen elsewhere around the State. Because Catahoula Parish had been historically under-reported, Jeff ended up sending his pictures, including a picture of one pearly-eye, to the "Butterflies and Moths of North America" website. As part of the verification process, Ricky Patterson (from Mississippi) reviewed the pearly-eye photograph and then contacted Jeff to advise he felt the butterfly depicted was *E. anthedon*, not *portlandia*. A Northern Pearly-eye would be new for my list, as well as the first I had seen in Louisiana. After seeing my first Sachem the previous week, we saw two more here. I continued to see American Ladies, three fresh ones. I had another Southern Dogface, still earlier than expected in Louisiana. Finally, we saw a Funereal Duskywing, also new for my list and another sighting earlier than expected.

Northern Pearly-Eyes are listed as part of the fauna of Louisiana on the "Butterflies and Moths of North America" website, reported as found at several locations, but that site offered no particulars, references, dates, locations, *etc.* I know Northern Pearly-Eyes had been reported from Mississippi, but I was unaware of any recent reports of this butterfly from Louisiana. Because the pearly-eyes we saw at Sicily appeared to have had yellow tipped antennae (typically diagnostic of Southern Pearly-eye), I felt more investigation of this colony was needed and planned to return to Sicily soon to take a series for further study.

Sicily is remote, a three hour drive. On the ride home I made my forth stop at Indian Creek Recreation Area (Rapides Parish, Louisiana), still looking for a King's Hairstreak. This time I found four in about 30 minutes. I saw a total of six species, including two more Red Admirals, another butterfly making a strong showing this year. I had one Little Wood Satyr at Indian Creek to go with three at Sicily Island Hills, a late date for this species. I ended the day with 33 species including two new species for the year.



King's Hairstreak (June 2)

Zarucco Duskywing (June 9)

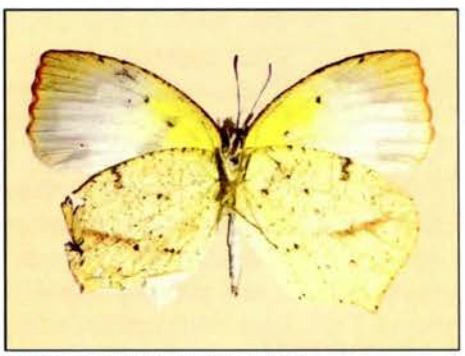
My youngest daughter's dance review was scheduled for the weekend of June 9th - 10th, with dress rehearsals on Saturday and final performance on Sunday. Her show started at 1:30 and lasted until 3:30. My presence was required both days, to film her dances on Saturday and then watch the final effort on Sunday, so I was compelled to stay close to home both days. To complicate matters even more, the forecast for the entire weekend was rain, and rain it did, several times.

Actually, while walking to the rehearsal Saturday I saw a large white butterfly which, upon closer investigation turned out to be a Great Southern White, the first one I've seen this year. That butterfly was actually seen regularly throughout south Louisiana last year, and with our short and mild winter, I was not surprised to see one this early in the summer. After the last dance Saturday, I saw a window of opportunity, and, after a quick change, drove over to the Acadiana Nature Trail in southern Lafayette Parish to search an area where I had found Delaware Skippers last year. In about one hour I saw 13 species, but no Delawares. I did see several Least Skippers and what I tentatively identified as a Zarucco Duskywing, both new to my list for the year. I ended up hustling to get out before the skies opened up, and by 5:00 it was pouring.

I was able to sneak away and spend a couple of hours at Avery Island's Jungle Gardens in Iberia Parish Sunday morning from about 9:45-12:00. It had rained the night before so everything was wet, the skies were overcast and I could hear occasional rumblings of thunder in the distance. Even though the temperatures were in the high 80's, most of the butterflies seen were sitting and sunning, not particularly active. Even the many blooming buttonbushes around the rookery were not getting a lot of attention.

I ended up with 18 species, two of which I believe were new for that parish (a Delaware and a Funereal). I also saw three new bugs for the year's list, a male Delaware (finally after several tries), seven Broad-winged Skippers and an Ocola Skipper. All three were to be expected by this time of the year. As I have previously reported in the SLS newsletter, the Delaware Skippers found in south Louisiana are much darker than those found to the north, and inhabit wetter habitats. I've now found them in Iberia, Lafayette, St. Martin and St. Landry Parishes. I also saw five more Least Skippers, and it appears that bug's first brood of the year is now flying. By the time I left, hurrying home to get cleaned up, it was pouring again. Given that I wondered if I would be able to get out into the field at all, I felt extremely good about seeing six new species for my list, assuming the Zarucco diagnosis was confirmed (more to come on that).

Meske's Skipper (June 19)



Mexican Yellow (June 24)

After a week of heavy thunderstorms, on June 16th I drove to Kisatchie National Forest in Natchitoches Parish. The weather was sunny, warm (but not brutal hot) and dry. I ended up with 31 species. There were a lot of butterflies flying, but they were mostly three species. There were a great many Little Yellows in virtually every area I inspected. There were also many Common Buckeyes and Pearl Crescents. I had a lot of singles, but as I was constantly moving, I don't consider the number of singles as odd. Of the 31 species, three were new to my year's list, Common Wood Nymphs, Confused Cloudywings and Meske's Skippers. In addition, I saw 3 turkeys and 4 deer.

I was there to see if the Meske's Skippers were still flying. Jeff Trahan had seen them at this location 10 days earlier so I was concerned their flight might be over even though I was there on the same weekend I had found them the last 3 years. Not only had the east side of the particular road where I have found them in the past been burned, but there were actual logging operations ongoing on that same side of the road. I saw none between 10:00 and 11:00, but then saw four when I returned around 12:00.

I saw two "summer brood" Zebra Swallowtails with the characteristic darker shading and long tails, a late date for this second brood. I also had a male Great Southern White, possibly the first recorded for the location and parish. As noted above, I had one the previous weekend in Lafayette Parish, and then another the next day, June 17th, again in Lafayette Parish. After lunch, I walked the Caroline Dohrman Trail along a small creek in an area of abundant sweetleaf bushes, but I found no King's Hairstreaks despite the fact that it appeared something had been feeding on the sweetleaf. There was a single Southern Pearly-eye (this is a new area within Kisatchie for this butterfly) and several Common Wood Nymphs flying in the area. I only see this latter bug at a couple of locations within the state and not every year, so it was nice to find them. Carolina Satyrs continue to be mysteriously few and far between this year. I saw a couple of small satyrs, but the only one I could net for identification was a Gemmed Satyr.

Saturday, June 23rd, I drove up to Hope, Arkansas, for the annual North American Butterfly Association Rick Evans/Grandview Wildlife Management Area Count, set for the next day. Arriving in Hope around 12:00 I drove on to Stone Road Glade Natural Area in Howard County. I wanted to visit this particular location to see if any Dianas and/or Byssus Skippers were flying there. Before making this trip I thought I had made the necessary connections to have the gate open (on previous trips, not only by me but others, the gate was always locked). Unfortunately, my efforts in this regard were unsuccessful as that gate was again locked.

Since I had time to kill, I walked in about a half mile or so, and spent a little more than an hour along that road. There were buttonbushes, iron weed and tall thistle in bloom and lots of butterflies. In the short time I was there I saw 22 species, including a male Diana, and two Byssus Skippers (a male on tall thistle and a female on buttonbush), both new species for this year's list. There were also many Silvery Checkerspots flying, but by far the most abundant butterfly was Little Yellows. I sure hope I can get in there one day and walk the actual Natural Area which is further up that entrance road than I chose to walk in the 98 degree heat.

From there, I drove to Rick Evans/Grandview Wildlife Management Area to do my standard pre-count survey to help better plan the count for the next day. The Wildlife Management Area had many flowers blooming including abundant purple cone flowers and ironweed, but it was dry and with the recent high heat (between 95 and 100 degrees), things were beginning to wilt. I ended up seeing 30 species between 3:30 and 6:30, including another male Diana, Common Wood Nymphs were indeed common. Little Wood Satyrs were flying (here and at Stone Road Glade), which seems very late. I saw two male Zabulon Skippers in a different section of the Wildlife Management Area from where they have been seen in the past. Although reported in Louisiana, I have yet to see one within this state, and this location in southwestern Arkansas is the closest colony I have found. I also relocated the colony of Bell's Roadside Skippers that I had found on my trip in late March. Surprisingly, I saw no Southern Dogfaces, typically one of the most common butterflies seen here each year.

Temperatures for the count the next day were very hot, but the results were successful, with a total of 48 species, including two more species added to my year's list. The new species were eleven Great Spangled Fritillaries (the most ever seen on this count) and a Mexican Yellow, not only new to my year's list but also new for the count and the Wildlife Management Area. Another highlight was an additional male Diana in a completely different section of the reserve. We counted five Bell's, which were new for the count. Several Zabulons were seen, and by the end of the day a couple of Southern Dogfaces had even made an appearance.

White M Hairstreaks are typically a rare bug for me but for the fact that I have consistently seen it each summer since 2003 at one location in Lafayette Parish. My records for this site reflect that it flies from early June into July, with multiple bugs seen over that period. Most seen are males, perched in the afternoon on the tips of several kinds of plants (bushes, weeds, *etc.*) at about waist height, some in the sun, others in the shade. Other than the one spot in Lafayette, I never know when it will show up. The first one did not appear this year until June 26th, a smallish male. With that sighting, all I lacked of the hairstreaks usually seen was a Great Purple Hairstreak.

White M Hairstreak (June 25)

Neamathla Skipper (July 1)

I took a couple of days off to join my family at the beach at Fort Morgan, Alabama. With their permission, I evacuated the beach on Friday, the 29th, and drove to Weeks Bay Pitcher Plant Bog near Fairhope, Alabama, a location I had noted the year before as we drove back roads to get home on a trip that took all of 8 hours in the face of post-Fourth of July traffic leaving the Gulf Shores area. Unfortunately, this promising location was not as productive as hoped because the area had been partially burned to clear thick vines and other undergrowth. While clearly needed, the burning did put a crimp on sightings. I ended up seeing 14 species, including Lacewing Roadside Skippers (there was cane in the area), none of which added to my yearly total. I have made a note to return to this site as it looks promising.

So, thus ended June with a total of 105 species.

As I had driven to Alabama in a separate vehicle, I was free to stop on the trip back. So, on the first day of July I got up early and drove to Grand Bay National Wildlife Refuge in Jackson County, Mississippi, right on the Mississippi/Alabama border. It was very hot and there was not much flying. The power-line cut where I had seen numerous skippers last September, such as Berry's, Dion and Palatka, had been burned since I had last been there in March. While the grass and other plants were returning, there was nothing flying except two Buckeyes and three Palamedes Swallowtails. I moved down the road, north of the actual Refuge, and walked an area with pickerelweed growing in the ditches. There I saw five more species, including nine small, tannish skippers. I thought they might be Neamathla Skippers, but several had a couple of light spots on the dorsal forewing. None of the Neamathlas I had found in the past had these spots [see my article, Marks, C.W., 2011. "Twin Sons of Different Mothers," *Southern Lepidopterists' News* 33(4):152-155] but after re-familiarizing myself with the typical field marks for this bug I realized these had the spots that I had read about but had not yet seen. As such, they qualified as my first new species for July.

I had the Fourth of July off and decided to drive out to Indian Bayou Wildlife Management Area in St. Martin Parish. My hope was to pick up some Hayhurst's Scallopwing Skippers, regularly seen there but missed back on May 5th and which would be new for my year's list. I had also made some bait which I intended to set out in an area where several years ago I had found Appalachian Browns. Even though it was extremely hot and dry, I saw 19 species including two Harvesters (new for that Wildlife Management Area, but not unexpected), about 20 Tawny Emperors (which are rarely seen in those kinds of numbers) and several Hayhurst's. Most of the activity was in areas of shade, down in several creek bottoms that still had some mud and water. Both Harvesters were in these areas with the first actually down taking nutrients from the mud. Carolina Satyrs were the most abundant butterfly seen, the first time this year I've seen it in typical high numbers. My bait attracted nothing. I used mashed bananas and mangos, brown sugar, yeast and beer (Coors Light which was left over from the trip to the beach). It should have at least brought in emperors and anglewings, and I wonder if their absence was a comment on my recipe.

I headed out for western Cameron Parish on July 8th, with plans to visit Peveto Woods Sanctuary in Johnson Bayou and National Wildlife Refuge just south of Hackberry. My goal was to start looking for some of the marine skippers that breed in that region. My drive was bathed in bright sunshine until just south of Hackberry. As I crossed into the Refuge it began to drizzle. The rain continued as I drove through and then all the way to Peveto Woods. The skies were heavy and grey to the west so I turned around and headed back toward clearer skies to the north and east. I decided to drive back to the east toward Lafayette (away from the rain) and stop at the Cajun Prairie in Eunice, but by the time I got to the correct exit from I-10 I was in a thunderstorm of huge proportion with lightning and rain blowing sideways. So, in the end I did a lot of driving for nothing, but as this was the first time of the year that I had been completely rained out I guess I shouldn't complain too much, YET!

Family responsibilities and continued rain limited my available field time the following weekend. I was able to steal away for a couple of hours on the 15th of July while my daughter was at a soccer scrimmage. With limited time available, I drove to Avery Island in Iberia Parish to see if any of the skippers I missed in Cameron Parish might be flying there. Over the last two weeks, the immediate region has gotten a lot of rain, virtually every day, followed by high heat and humidity. As a result, there was not a lot flying, and what was flying was, again, primarily in the shade. I saw 14 species (nothing new for my year's list), but only two skippers, a male Fiery and a Least Skipper. Southern Pearly-eyes were the most common butterfly, followed by Spicebush Swallowtails.

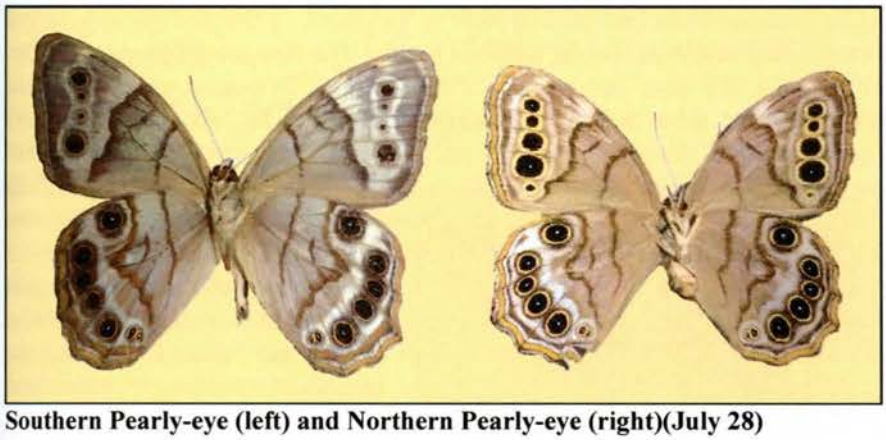
Both Friday, the 20th, and Saturday, the 21st, yielded bad thunderstorms with much lightning and heavy rain. On Sunday morning, the 22nd, I drove to Indian Creek Recreation Area to again look for Georgia Satyrs. There was standing water everywhere, but no Georgia Satyrs even though I greatly expanded the area searched. I am afraid the prescribed burnings in 2010 have wiped out that colony. I must admit I am somewhat perplexed by the absence of butterflies in this particular area. Not only were there no Georgia Satyrs, but I have also seen very few Carolina Satyrs, typically a very common butterfly here. In contrast, on each of the four occasions I have visited this particular spot, I have seen several Swarthy Skippers. If they survived the burnings, why didn't the satyrs?

The rain had generated a lot of wildflowers so I did see a lot of butterflies and 21 species. I noticed that blue wild flowers, particularly a *Liatris* subspecies, attracted much more attention than the several yellow flowers available. Little Yellows were extremely abundant, followed by Spicebush Swallowtails and Horace's Duskywings. I saw no new butterflies toward my year's list.

I left Indian Creek shortly after 1:00 and stopped at Thistlethwaite Wildlife Management Area around 2:00. As with Indian Creek, there was water standing in the roads and in all of the roadside ditches. There were a lot of butterflies about, and I saw 23 species in 1.5 hours (again, nothing new toward my year's list). Little Yellows continued to be common, but Duke's Skippers were the most numerous butterfly, totaling 29 in about 30 minutes of counting. I saw no Dion Skippers, but will return in the third week of August to look again.

Several Monarchs and a male Queen were patrolling a particular ditch in which aquatic milkweed regularly grows. The Queen was my second of the year, with the first seen in May at this same location. Both Southern Skipperlings and Least Skippers were flying together in and around the ditches with the former outnumbering the latter by about 4 to 1. I could tell we are moving into the fall season as Ocola Skippers were present at both locations. The next to appear should be Twin-spot Skippers. In total, I saw 35 species during the day, a good number for the heat of July. That total included one female Black Swallowtail caught in a large Garden Spider's web. It was too late to save her, but I counted her all the same.

On July 28th, I finally had a free day without threat of rain to drive back to Sicily Island Hills Wildlife Management Area in Catahoula Parish to investigate whether there were both Northern and Southern Pearly-eyes flying there. It was extremely hot and humid. While the Wildlife Management Area was still very green there was an almost complete absence of blooming wildflowers, unlike the first two times I was there earlier this year. As a result, the combination of the heat and no nectar sources yielded minimal butterflies and only nine species. The two most common species seen were Southern Pearly-eyes and the colony of potential Northern Pearly-eyes, with over 20 of the former and over 10 of the latter flying. All were active in the shade, and, to my consternation, flying on several fairly steep slopes where both cane and the possible grass food-plant for the Northerns were growing. Much effort was exerted and sweat lost as I worked up and down those slopes.



Southern Pearly-eye (left) and Northern Pearly-eye (right)(July 28)

There was clearly a difference between the typical Southern Pearly-eyes and the particular butterflies that have been identified as Northern Pearly-eyes. These differences included size, coloring, markings and, to an extent, habitat with the possible Northerns flying in areas with much less cane. I was able to obtain a series of both, and, after close inspection, I was in complete agreement with Ricky Patterson. A close-up dorsal view of the antennae of the prospective *anthedon* specimens showed the dark clubs diagnostic of that species. Further, a comparison of several specimens caught in a separate region of the Wildlife Management Area, and which are clearly *portlandia*, showed the distinctions between the two species in excellent detail (see pictures).

With so little flying, I left Sicily at 1:30 and stopped again at Thistlethwaite Wildlife Management Area on my return trip. I arrived much later than I had the week before and only stopped for an hour. I wanted to check a slough in a remote section of the Wildlife Management Area, but was prevented from doing so by a work-over rig and its equipment left blocking the access road. Thistlethwaite is in the middle of an active natural gas field and has numerous active wells within its boundaries. Several of those wells are in the process of being "worked-over" to increase production. This activity appears to have had minimal impact on the wildlife there at the Wildlife Management Area, but certainly kept me from going where I wanted to go this day.

In the hour I was there, I saw 16 species, including another Queen, this one a female. As I have written in the past, in addition to the presence of an inland colony of Queens, I have, on numerous occasions, noted extremely dark Viceroys at Thistlethwaite. The typical subspecies (present over most of the Viceroy's range) is orangish and mimics the Monarch. In south Florida, south Texas and parts of Arizona, where Queens occur, the Viceroy is much darker. The particular Viceroy subspecies at Thistlethwaite is not entirely dark like those in Florida and Texas, but on the dorsal side can still be extremely dark. On this day, there were two very dark Viceroys flying in the same area as the Queen, along with two Monarchs. I ended this day with 23 species, but, for the third week in a row, no new species toward my year's list. So, July ended with only 2 additions to my list, now at a total of 107.

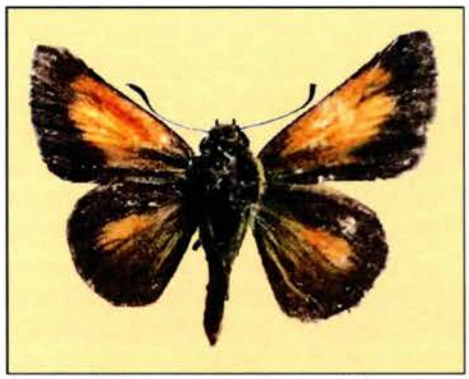
Queen (June 22)

Viceroy (July 28)

August started with a bang. A weekend trip to the Mississippi Gulf Coast, staying in the Bay St. Louis area, allowed me to drive up to Crosby Arboretum in Picayune. I had been there once about ten years before and knew it contained a pitcher plant bog (turned out to have two). It was my hope to find the elusive Georgia Satyr as I had seen it there on the earlier trip. I had also been told I could find Little Metalmarks there. Finally, with the open pine savannah and bog, I wondered if I might find Arogos Skippers.

It rained buckets the night before and there was standing water in multiple places. I arrived at 9:00 and saw only a lonely female Tropical Checkered-skipper in the first hour. I began to see multiple Neamathla Skippers, and on my second walk through the pitcher plant bog, on a *Liatris* subspecies blooming near a boardwalk, I saw a small golden skipper, my first Arogos Skipper ever. Over the next hour and a half, I saw a total of five, all males. I thought I saw two females, but they turned out to be male Tawny-edged Skippers. The first male was on the *Liatris*, while the rest were perched on tall yellow flowers from the *Coreopsis* genus.

I ended up seeing 14 species, primarily skippers. The only non-skipper butterflies seen were one Eastern Tiger Swallowtail, two Spicebush, two Palamedes Swallowtails and two Cloudless Sulphurs. I did not see any satyrs whatsoever, and found neither metalmarks nor any of the thistle on which it feeds. The Arogos Skippers were the only new species to my year's list, although I did also see several Tawny-edged Skippers and Neamathla Skippers, both for only the second time this year. The Neamathla Skippers were, by far, the most common species seen.



Arogos Skipper, male (August 4)

Funereal Duskywing (August 8)

On August 8th, I had to travel to Houston, Texas, for work. On the drive over, I stopped in Baytown at the Baytown Nature Center for a little less than two hours, ultimately seeing 15 species. I had visited this location one time before in May, 2007, at a time when it was extremely dry. This visit, the Center was not nearly as dry, but was still in need of rain. The butterfly garden was beginning to wilt and attracted few butterflies. Despite the lack of nectar sources, I added two new species to my year's list, Ceranus Blues and Western Pigmy Blues, the latter being the most common species seen and the former the second most common. I also saw another Funereal Duskywing and five Tawny Emperors, neither particularly common species.

On August 12th, I drove to Castor Plunge Road within the Kisatchie National Forest unit in Rapides Parish. I hadn't been there since April, and my return was to investigate a colony of Dusted Skippers I had found there the last three springs. The Dusted Skipper is actually two very different-looking races, the northern *hianna* and southeastern *loammi*. Some authors argue the two variable forms are different species. The principal difference between *hianna* and *loammi* is the number of white, opaque spots, primarily on the hindwing. Another potentially distinguishing feature is that *loammi* is double brooded (in Florida and along the Southeastern Coast), whereas all *hianna* are single-brooded. Here in Louisiana, the only report of a fall brood was by Gayle Strickland in August of 1970 when he caught three *hianna*-like specimens in St. Helena Parish. My task for this trip was to see if there might be a fall brood for the colony in Rapides Parish.

While I saw no Dusted Skippers, there were a lot of butterflies on the wing, a total of 25 species. The most

common were Little Yellows and Cloudless Sulphurs. In a low area where I regularly see Falcate Orangetips and Little Wood Satyrs in the spring, Carolina Satyrs and Red-banded Hairstreaks were numerous. I was surprised to find Northern and Southern Cloudywings flying. I also caught my second Zarucco Duskywing of the year.

On the way home I again stopped at Thistlethwaite, still hoping to find Twin-spotted Skippers and/or Dion Skippers. Still no luck with those two, but I did see 23 species. The Dukes Skipper colony was still flying (they can be found continuously from April to October in a pipeline cut). Phaon Crescents were the most common, followed closely by its cousin, Pearl Crescents. There were no Queens flying this time, but I saw three very dark Viceroys. I ended the day with a total of 35 species, not bad for the middle of August. I had no new species for my year's list.

Dukes Skipper (August 12)

Long-tailed Skipper (August 21)

I was unable to get into the field at all during the weekend of August 18th and 19th because of rain. After all the hard but mostly unsuccessful effort during the prior month, on August 21st, I picked up a new species for the year quite easily. Specifically, that evening I saw a Long-tailed Skipper in Lafayette. I had been reading the Tennessee and Arkansas listservs, on which were reports of numerous sightings of this typical, late season migrant, yet I had not seen any herein Louisiana until this one popped after my workout.

On August 23rd and 24th, I traveled to Mobile Alabama for work. On the way over I stopped for an hour and a half on Thursday afternoon at Grand Bay National Wildlife Refuge, Jackson County, Mississippi. I was hoping to find some marine skippers, even though I realized I was probably several weeks early. Within the first five minutes of walking in the power-line cut I typically check, I saw a skipper sitting on a tall yellow, *Coreopsis*-type flower that I thought was a small Palatka Skipper. Shortly thereafter I saw another and now began to doubt my diagnosis as the skippers seemed too small. They turned out to be Tawny-edged Skippers. While I only saw seven species, one was the evasive Twin-spot Skipper I had been expecting to see for several weeks, new to my year's list. I ended up seeing five taking nectar at pickerelweed. Palamedes Swallowtails were the most numerous species seen, and I also saw two male Black Swallowtails, late sightings for the year.

The next day, while driving back to Louisiana, I took a ten mile detour up I-59 to Picayune, Mississippi, to return to the Crosby Arboretum. This time, after corresponding with Ricky Patterson about appropriate flight times, I was hoping to locate Dotted Skippers. From 12:30 to around 3:15, while I saw many skippers, I did not see any Dotted skippers. There were many Neamathla Skippers and a good number of Tawny-edged Skippers, which I again initially misidentified, this time as Arogos Skippers. At around 2:45, I did, in fact see a male Arogos sitting on a tall *Coreopsis* flower. Over the next half hour, I saw two, possible three more, including my first female. I ended the day with seventeen species, including four more Twin-spotted Skippers, but no new species for my year's list. My search ended abruptly when the skies opened and it began to rain like water poured out of a boot.

Western Pigmy Blue (August 8)

Tawny-edged Skipper, male (August 23)

On August 26th, I competed in a triathlon in Opelousas, which is in St. Landry Parish just south of Thistlethwaite, so afterwards I ran out there to renew my search for the year's first Dion Skipper. To my dismay, the pipeline cut where I had found them last year had been bush-hogged to the ground in preparation for the upcoming hunting season. I moved from there to the ditch where I had first found Dions at this Wildlife Management Area and although there

were many butterflies, there were no Dions. From there I drove to a slough within the Wildlife Management Area to see if any Delaware Skippers were flying, but struck out again. I ended with 24 species, "all the usual suspects." Because the cut had been mowed, it was harder to find Duke's Skippers, but I ended with nine. Most numerous were Phaon and Pearl Crescents. Ocola Skippers and Fiery Skippers were very numerous on Brazilian vervain. But, one more time, I failed to add to my year's list, which remained stuck at 112 through August.

While optimistic that September would produce some new species, I have to admit that I was quite frustrated with the weather and my lack of success to see many of my goal species over the last six weeks. There were several butterflies/skippers that I had fully expected to see by now but had not for one reason or another. I felt there were certainly adequate remaining opportunities to substantially increase my species count, with a trip to Orange Beach and several planned into Cameron Parish still to come. What I was to find was that September would not be any better than late August as I continued to wonder what I'm supposed to do when there ain't no cure for the summertime blues.

(Craig W. Marks, E-mail: cmarks@landcoast.com)

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"Last Saturday November 10, Bill Russell (right), James Adams (center) and I (left) got out to try to terrorize the Buck Moths of North Georgia, hitting a favorite hot spot, Taylor Ridge Trail, in Walker County. Weather was absolutely ideal, but in over 3 hours we saw no Buck Moths. Still, real comaraderie and wonderful to be outdoors with our nets so late in the season, as the attached photo attests." Irving Finkelstein

ZAPOTEC BUTTERFLY TAPESTRIES: A LEGACY OF PRE - COLUMBIAN MYTHOLOGY

BY

GARY NOEL ROSS

The Zapotecs of the state of Oaxaca in southern Mexico have a history of fine textile arts dating back to the pre-Columbian (pre-Hispanic) Era, that is, prior to 1519. Long before Europeans set foot in Mesoamerica, these masterful Native Americans were providing their dominant and aggressive Aztec neighbors to the north with imaginative cloths prepared from natural fibers and colored with natural dyes. The fabrics were reputed to be unparalleled in quality and color palette.

That weaving tradition continues to this day. Located in southern Mexico on the mile-high, bucolic Oaxacan plateau just off the Pan-American Highway between Oaxaca City and Mitla, lies the village of Teotitlán del Valle ("Valley Home of the Gods") or Teotitlán for short. This ancient but thriving village is now home to approximately 6,000 pure-blooded Zapotecs, most of whom are involved with the preparation of high-quality woolen rugs and tapestries.

But prior to the arrival of the Spanish Conquistadores in 1519, the Zapotecs of Teotitlán were preparing yarns for weaving from native cotton (white and brown) and even native silk — the latter from the larvae of the indigenous pierid butterfly, *Eucheira socialis*. Dyestuffs were prepared from vegetable, insect, and mineral matter. Weaving per se was executed on a small backstrap or "stick" loom. The textiles included items of clothing, serapes, small blankets, and small rugs. But the newly arrived Spanish quickly changed that. In an effort to expand the artistry of the Zapotec weavers, missionaries introduced the large four-poster or foot loom, which permitted larger weavings, and sheep, which supplied highly durable wool in a variety of earth tones. With these innovations, the Oaxacan Zapotecs' already iconic utilitarian textiles mushroomed even further. Today Zapotec weavings — especially tapestries — are considered refined objets d'art that are collected and displayed by individual connoisseurs and prestigious museums throughout the world. Teotitlán is now distinguished as the richest and most progressive of any indigenous village in Mexico (and probably, the entire Western Hemisphere).

While popular designs run the gamut of human art, the butterfly as portrayed in pre-Columbian artifacts is a favorite theme. Such ancient objects include carvings on stone statues and building facades, elevated impressions (applications) on clay vessels and stamps, paintings on vessels and murals in pyramids, drawings/paintings in picture-books (codices), and thread and painted images on fabric items of apparel. This is not surprising. Pre-Columbian cultures seem to have been steeped in butterfly worship. Indeed, for Mexico's ancient peoples, the butterfly symbolized transcendence, transformation, transfiguration, transmutation — ergo metamorphosis — of the human spirit to the afterlife. To formalize this connection between the physical and the metaphysical, the Nahuas (Aztecs) of central Mexico created Xochiquétzal or Xochiquétzalpapálotl, a deity that symbolized the Mother Goddess, the Goddess of the Precious Paradise Butterfly, Goddess of Flowers and Vegetables, Goddess of Love, Goddess of Artists, and companion of the God of Fire. The deity was often associated with warriors and sacrificial ceremonies, and often portrayed as a figure combining both human and butterfly morphologies.

Since the early1970s, superlative tapestries have been consistently produced by two masterweavers: Isaac Vásquez García and Alberto Vásquez Jiménez, first cousins. Each weaving incorporates virgin wools, handspun yarns, and natural dyes. Each weaving is exceptionally tight — up to 20-25 weft threads/inch. Additionally, Isaac is generally credited for researching the ancient dye techniques and design motifs, and then reintroducing these to contemporary weavers throughout the region.

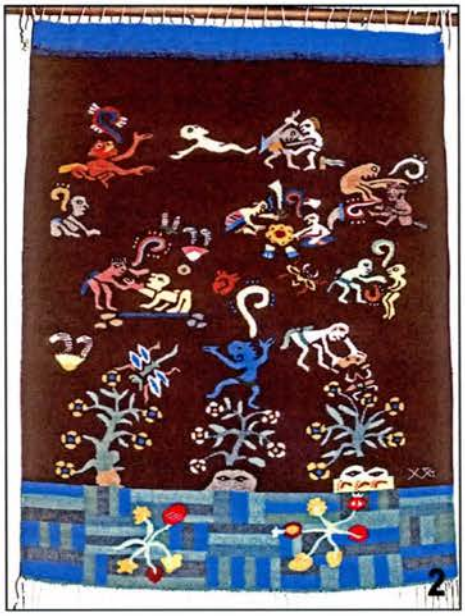
Both Isaac and Alberto have been featured in exhibitions in both Europe and the United States. In fact, I, in conjunction with the Arts and Humanities Council of Greater Baton Rouge along with the Louisiana Arts Alliance, mounted a major exhibit of Zapotec tapestries in my hometown of Baton Rouge in 1983. Titled "The Zapotec Tapestries: Translations of Pre-Columbian Myth," the exhibit ran between June 8 and July 8 and consisted of 61 pieces along with an extensive photographic gallery that illustrated weaving/dyeing processes. (At the time, this exhibit was the first of its kind east of the Mississippi River.) In addition, Isaac Vásquez was in Baton Rouge residency during the first three weeks of the exhibit. At that time he conducted daily personal tours of the gallery and several workshops that demonstrated natural dye techniques.

Many weavings of the Vásquez cousins feature ancient butterfly motifs, albeit highly stylized. In 2004, when the McGuire Center for Lepidoptera and Biodiversity (Florida Museum of Natural History, University of Florida, Gainesville) opened, thirteen Zapotec "butterfly tapestries" from my personal collection formed an exhibit titled "Butterfly Tapestries by Zapotec Master Weavers" in the "Hall of Culture and Science." I published on this in the June 2009 issue of *NOTES of the Association for Tropical Lepidoptera*. Then in fall 2012, I published "Threads of Tradition: The Butterfly Motif in Mexico's Zapotec Tapestries" in *NEWS of The Lepidopterists' Society*. In both cases space limited the number of photos that could be included. Therefore, I am presenting here an expanded selection. All weavings were collected between 1963 and 1983. Most are in my personal collection and will be bequeathed to the McGuire Center for Butterflies and Biodiversity. All field photos — except where otherwise indicated — were taken by me between 1971 and 1987. All my photos in Mexico were shot on Kodachrome 64 film with a Canon AE-1 camera and later scanned with a Nikon Super Coolscan 5000; my other photos (most close-ups) were taken with a Pentax X70, 12 megapixel digital camera.

I hope you enjoy this photo-gallery. GARY.

The first 34 photographs are referred to as THE TAPESTRIES:


1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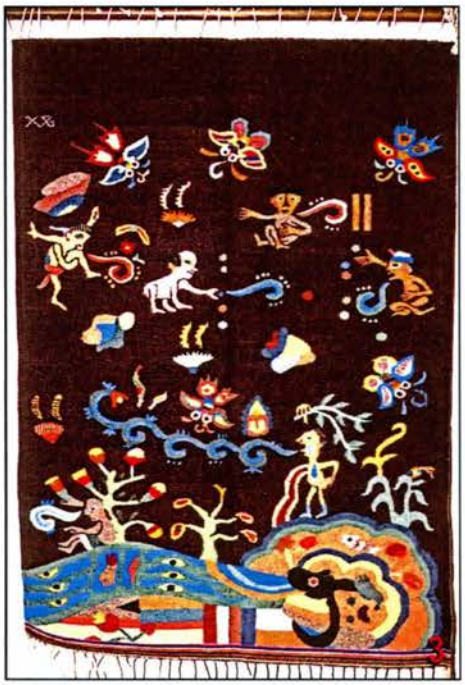
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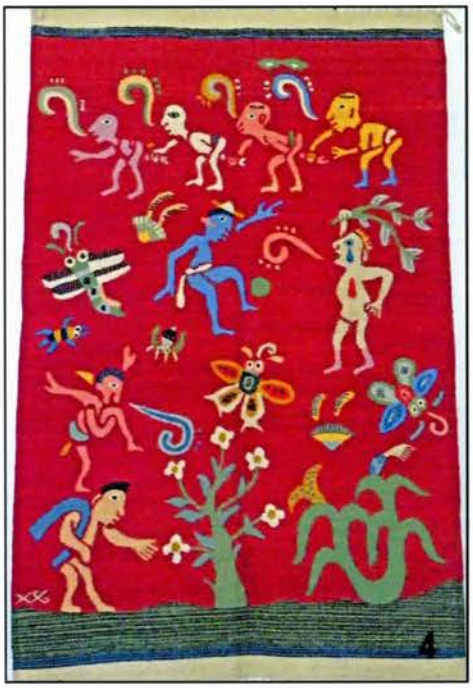
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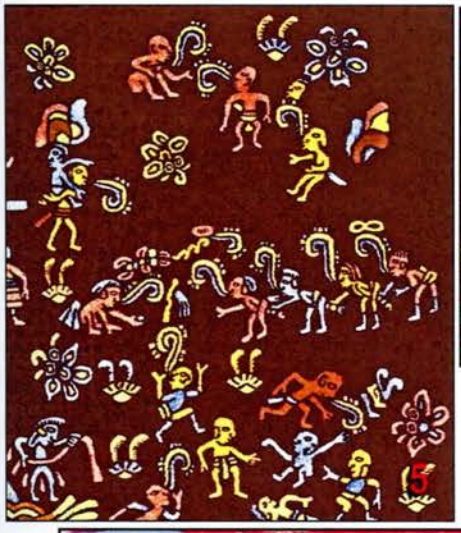
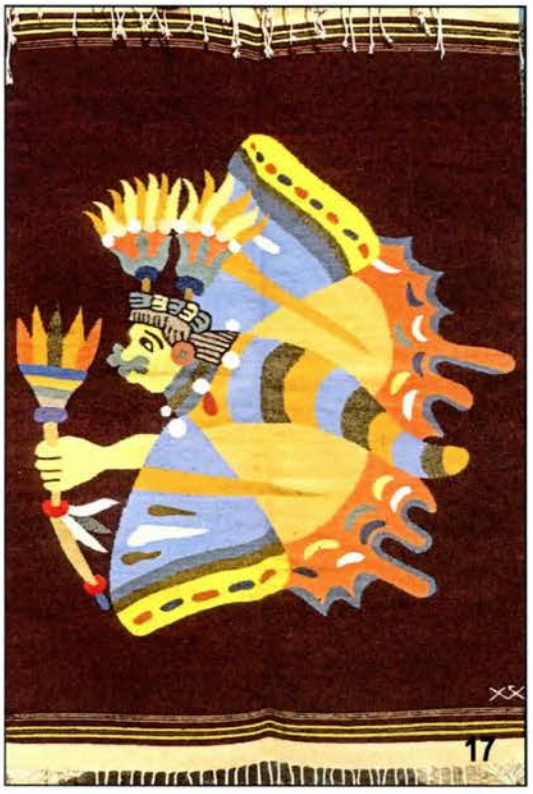
The "Paradise of Tlaloc" tapestries (Tlaloc was the Nahua or Aztec God of water). The first four images in this group of 34 are magnificent tapestries woven by masterweaver Isaac Vásquez G. (IVG) in 1977, 1979, 1983, and 1988. Designs are from a detailed painted mural in the Tecpantitla complex in Teotihuacan, a major archeological site ("The Pyramids") aproximately 30 miles northeast of Mexico City. The venue is pre-Nahua, dating 100 BC-700 AD. The mural, parts of which are in excellent shape, is considered to depict the earliest butterfly images in the Western Hemisphere. The butterfly images, although highly stylized, are presumed to represent the swallowtail *Pterourus* (*Paplio*) *multicaudata*, a species common throughout the Valley of Mexico.



The above images (5-12) are close-ups of butterflies and people from images 1-4. The original mural depicts people frolicking in water, chasing butterflies, picking flowers, and engaging in games, sports, and even physical therapy. The curlicues emanating from the mouths of many individuals are believed to be speech glyphs. These tapestries are stunning examples of IVG's mastery of weaving.



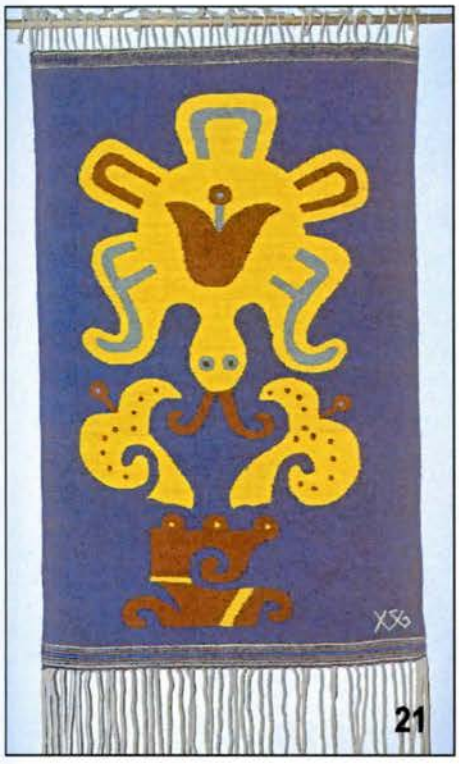
13. Large tapestry (IVG), 1984, emblazoned with a central butterfly design. Original was an anterior painting on a tripod clay pot found in Zaachila, Oaxaca (Mixtec Culture).

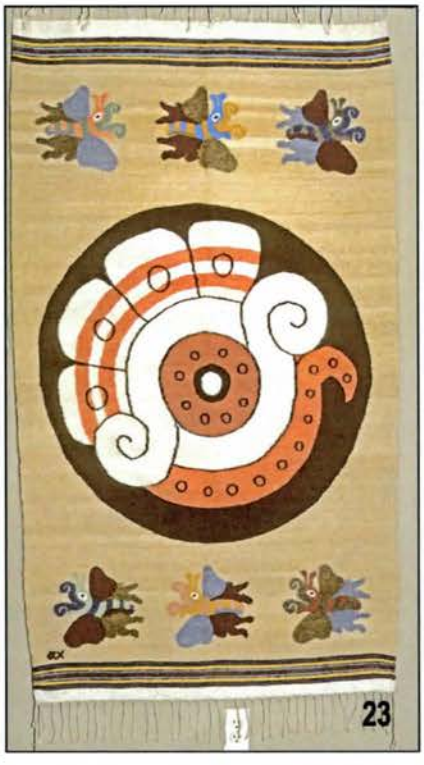
14. Small tapestry (IVG), 1983, featuring a design originally on the bottom of a clay bowl discovered in Tenochtitlan, the ancient Nahua capital, now Mexico City. IVG on right, author on left. Photograph by Everett Powers.

15. Medium tapestry (IVG), 1982, featuring a design from a clay shard found in Monte Albán, Oaxaca (Zapotec/Mixtec Cultures) — a UNESCO World Heritage Site since 1987 located on the outskirts of Oaxaca City. Background color is achieved by the use of a two-ply yarn (orange and gray).

16. Medium tapestry by masterweaver Alberto Vásquez Jiménez (AVJ), 1984. Same design as #15.

17. Medium tapestry (IVG), 1977. The design, likely that of *P. multicaudata*, is from a Nahua shield representing Xochiquézal or Xochiquétzalpapálotl, the Nahua Mother Goddess associated with butterflies. Original is composed of colorful feathers.





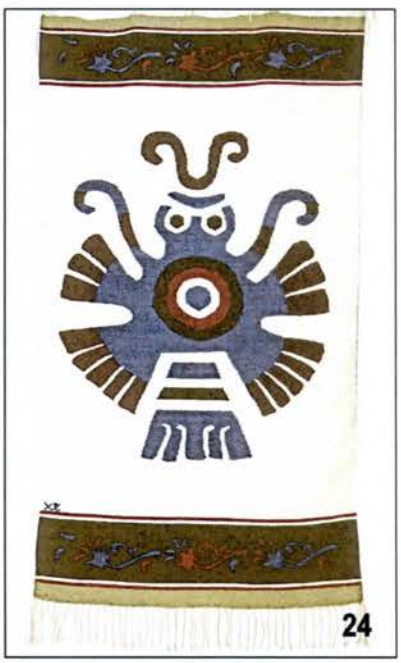
18. Small tapestry (AVJ), 1983. This dramatic design is from a painting on a funeral urn unearthed in Teotihuacan just north of Mexico City.

19. Small tapestry (IVG), 1979, not monogrammed Design based on clay stamp (Nahua) discovered near Mexico City.

20. Medium tapestry (IVG), 1987. "Butterfly Goddess" from a painting on a ceramic unearthed in Palenque, Chiapas, Mexico (Maya Culture).

21-22. Two small tapestries (IVG), 1983, depicting flowers and butterflies. Designs are from the Codex Vindobonesis (Mixtec Culture), a fig-bark, screenfold picture book.

23. Medium size composite tapestry (IVG), 1979. Central design is probably a highly stylized butterfly or flower from a clay spindle whorl (Nahua). Above and below are more realistic butterflies made by impressions of a clay stamp (Nahua).



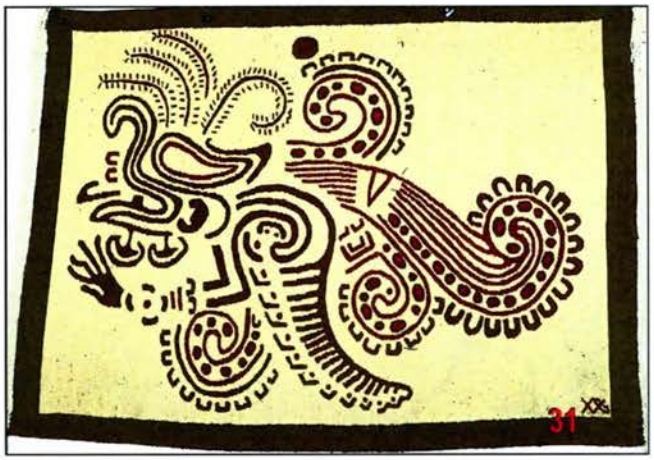
24. Medium tapestry (IVG), 1984. Design based on a clay stamp (Nahua) discovered near Mexico City.

25. Medium tapestry (IVG), 1984. Design is considered to be the "Wind/Butterfly God." From a rock carving in Teotitlán del Valle, Oaxaca (Zapotec).

26. Medium tapestry (IVG), 1984. Composite design based on butterfly, spider, and stepped fret motifs executed in natural wools. From the Codex Magliabechiano (Nahua).

27-28. Small tapestries (AVJ), 1979. Design from a clay application to a clay vessel (Nahua) discovered near Mexico City.

29. Medium tapestry (IVG), 1984. "Butterfly Tree." Composite design. From the Codex Nuttall (Mixtec), clay stamps (Nahua), and painted mural in Tecpantitla (Teotihuacan).

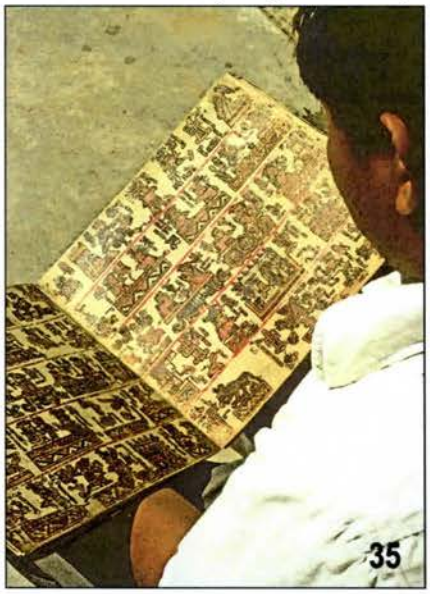


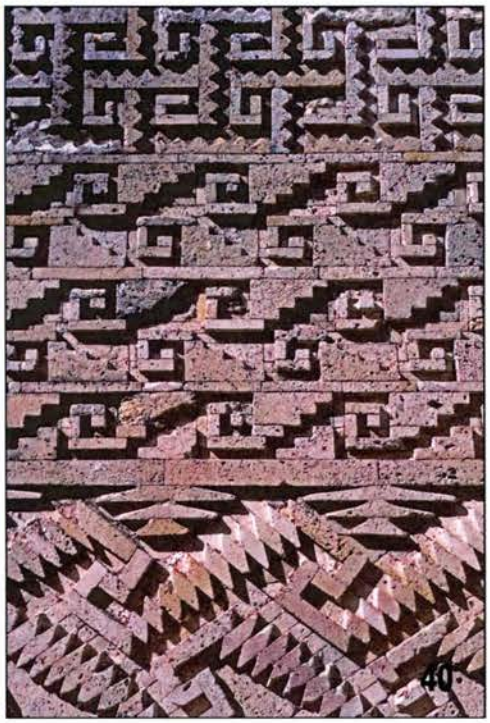
30. Small tapestry by Alfredo García, 1977. Composite design: butterfly from a clay stamp (Nahua) and stepped fret border from rock façade on a pyramid (Zapotec/Mixtec) in Mitla, Oaxaca. Butterfly may depict the Nahua God Itzpapálotl ("Obsidian Butterfly" or "Clawed Butterfly"). The image is frequently associated with the large saturnid moth *Rothschilda orizaba*.

31. Medium tapestry (IVG), 1977. This graceful/fanciful design is from a clay stamp found in Tula, Hidalgo, homeland of the Toltec Empire and located approximately 40 miles north of present-day Mexico City.

32-34. Medium tapestries (AVJ), 1982, with designs from Codex Nuttall (Mixtec). Headdresses of God figures feature butterflies. No. 33 is a close-up from No. 32.

THE DESIGNS (Images #35-40)

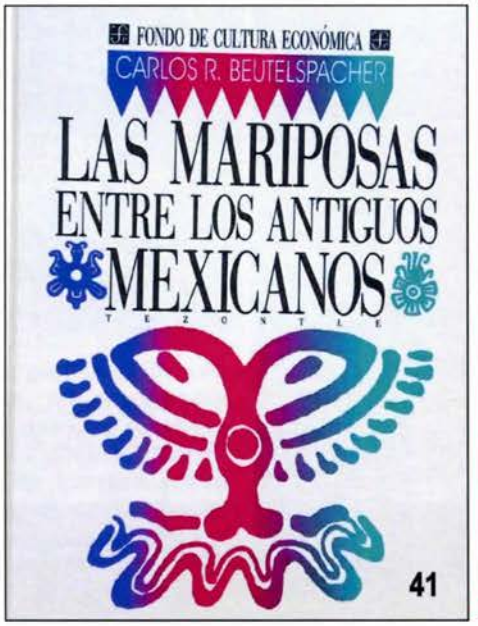


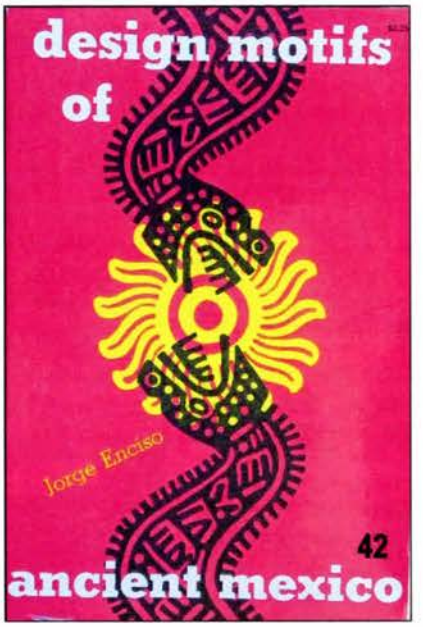


35. Alberto Vásquez perusing a facsimile of the Codex Nuttall for possible designs for a new weaving. Several pre-Columbian picture books (codices) remain. These picture books were executed on fig bark (*amatl*), deer skins, and agave fibers. They were in a screenfold (accordion style) format and read from back to front. Facsimiles of several of these pre-Columbian codices have been published. In addition, several post-conquest books that were executed on European paper have been published; all are used routinely by contemporary Zapotec artisans.

36-37. The original mural in the Tecpantitla Pyramid complex in Teotihuacan. This painted mural, although damaged, contains excellent images of life in pre-Nahua culture. The butterfly images in the mural are singularly beautiful. Photographs by Thomas Emmel.

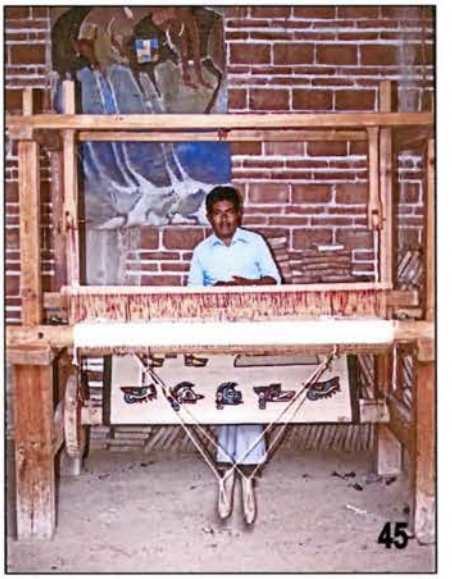
38-40. Pre-Columbian archeological sites serve as rich sources of motifs for Zapotec weavers. No. 38 is a pillar in the Quetzálpapálotl Palace ("Palace of the Plumed Butterfly") along the Avenue of the Dead and near the Pyramid of the Moon in Teotihuacan; several pillars in this pyramid depict a Goddess figure in the guise of the quetzal bird and a butterfly; the carvings were originally painted, and several have obsidian inserts. No. 39 is a Toltec statue in Tula, Hidalgo, with a butterfly breast plate. No. 40 is intricate stone work on a pyramid in Mitla, Oaxaca, just 12 miles southeast of Teotitlán del Valle; these geometric designs are often featured in Zapotec weavings or used simply as border designs featuring other motifs. Archeological sites are usually rich in small artifacts such as pottery, pottery shards, and spindle whorls, many of which are highly designed — often with butterfly imagery.

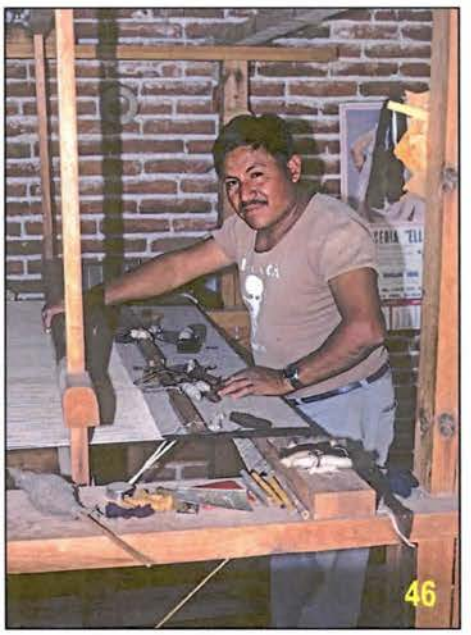




41 - 42. Contemporary publications concentrating on pre-Columbian motifs — and especially butterflies — often serve as a source of reference for today's Zapotec weavers.

THE LOOM AND ITS MASTERWEAVERS (Images #43-49)





43. Alberto Vásquez often uses an opaque projector (epidioscope) to cast an image of a desired subject for weaving. The image is projected onto a section of common brown wrapping paper tapped to a wall. The paper becomes the template for inking the design onto the warp threads of the loom.

44. Isaac Vásquez makes notations on the paper template of the original colors displayed in the photographic representation of the design.

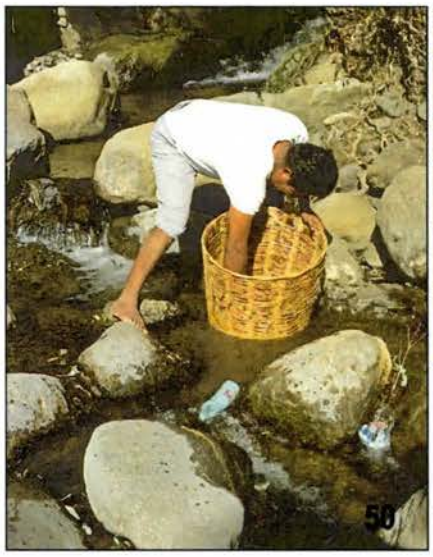
45. IVG at work on the European upright four-poster or foot loom introduced by Spanish missionaries after 1519 AD. Pre-Columbian weavings were executed on an indigenous backstrap or "stick" loom. Artists usually own several looms and supervise members of their family in tapestry production. While men and boys typically engage in the laborious task of weaving, sometimes women and exceptionally strong young girls will weave, also.

46. AVJ at work on one of his several European four-poster looms.

47 - 48. Close-ups of the weaving process. No. 47 is of the large "Paradise of Tlaloc" tapestry, a favorite of IVG. In No. 48, note the inked design on the warp threads and the numerous "spools" of colored yarns that become the weft. Hand-weaving is time consuming. A large tapestry or rug will require several hours of work each day for up to 12 months.

49. After weaving is complete, the artist monograms his initials into a lower corner to guarantee authenticity. Even through a family member may do most of the weaving, all work is supervised by the masterweaver who then monograms the final product. (Initials are sometimes actually woven into the lower corner of a tapestry.)

THE WOOL
(Images #50-54)



50. Raw wool is first separated into its natural colors and then washed in a nearby stream. Before 1519 and the introduction of Iberian churra sheep, cotton (white and brown) was the major yarn although some native silk was used, too.

51. After washing, Maria Vásquez, wife of Isaac, fluffs wool on a palm mat to dry in the Oaxacan sun.

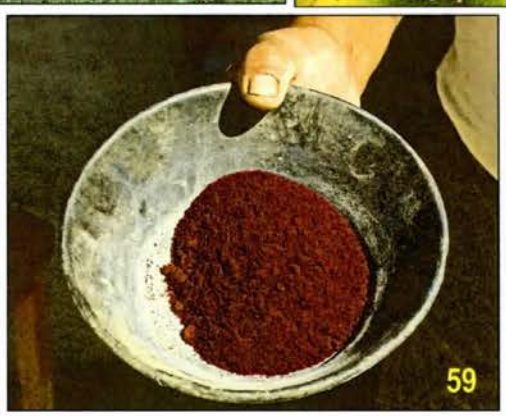
52. Carding (brushing) the raw wool to straighten and align fibers.

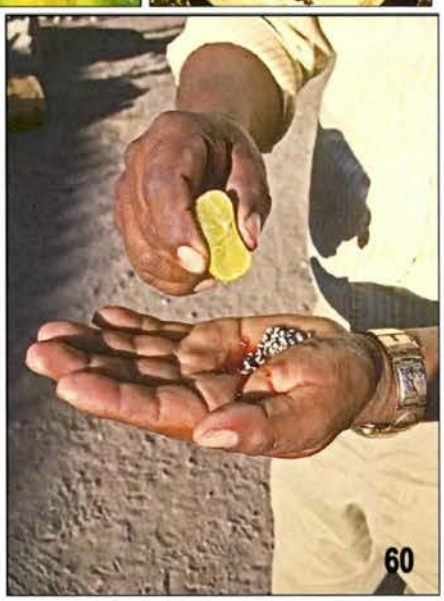
53. Alberto Vásquez and his wife Soledad demonstrate the preparation of yarn in their central patio.

54. Jerónimo Vásquez, eldest son of Isaac, demonstrates yarn preparation in the family patio.

THE DYES (Images #55-77):

Surprisingly, only a handful of dyestuffs are required to create the rich palette of colors that characterize Zapotec tapestries. The dyestuffs include: The cochineal insect (*Dactylopius coccus*) known as "cochineal" (produces shades of red, pink, and purple); West Indian indigo (*Indigofera suffruticosa*), a small shrub, known as "añil" (produces shades of blue and green); foliose rock lichens (unidentified) known as "musgo" (produces rich amber tones); dodder (*Cuscuta* spp.), a parasitic vine, known as "bajuco" (produces bright yellow); and sweet acacia (*Acacia farnesiana*), a small tree, known as "huisache" (produces intense black). Nuts from the pecan tree (*Carya illinoinensis*) known as "nuez" are occasionally used for shades of lavender. Each dye requires a specific recipe that includes some boiling, an addition of mordants (fixatives), and often an adjustment to the acid-base balance (pH). While the preparatory process is quite involved, the resulting colors are extremely stable or color fast — much more so than the easily accessible commercial/aniline dyes. Final color depends upon several factors: (1) the dye bath's concentration and pH, (2) the length of time the wool is immersed, (3) the initial color of the wool, and (4) the number of dyestuffs included in the dye bath. By varying these components, an experienced weaver can create virtually every hue within the visible spectrum.





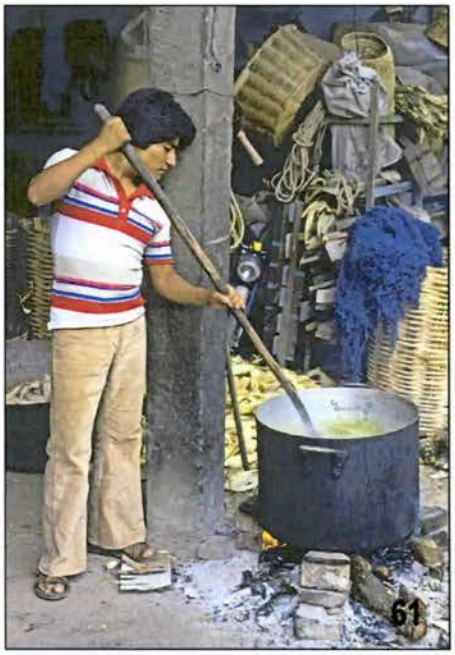
55-56. Cochineal dye is the most popular and most expensive dyestuff employed by Zapotec weavers. The dye is a product of the cochineal scale insect that feeds exclusively on the nopal (prickly pear, paddle) cactus (*Opuntia* spp). The insects live in small colonies hidden beneath a white cottony secretion and must be harvested by hand. Commercial plantations in various parts of Mexico (and other tropical countries such as Peru) raise these insects for the increasing demand of the dye — a growing quantity of which is used in the food and cosmetic industries.

57. Harvested cochineal insects when dried look like gray seeds and were initially thought to be seeds by the early Spanish explorers.

58. Soledad Vásquez uses a "metate" (grinding stone) to pulverize the cochineal insects. The dried body fluids are dark red.

59. Pulverized bodies of hundreds of cochineal insects.

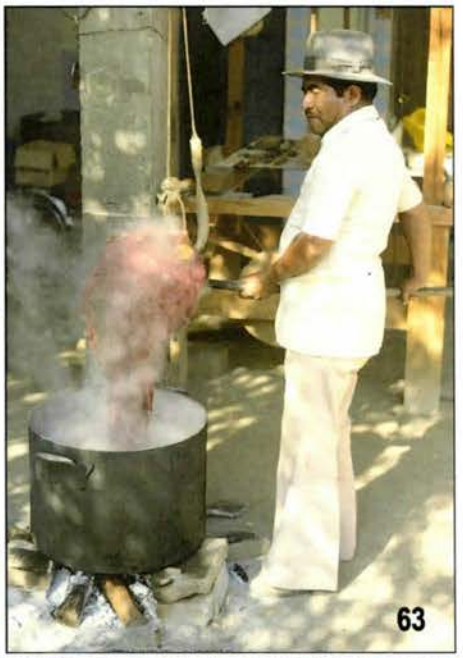
60. IVG demonstrates how pulverized cochineal insects turn a bright red when exposed to the juice of a lime.



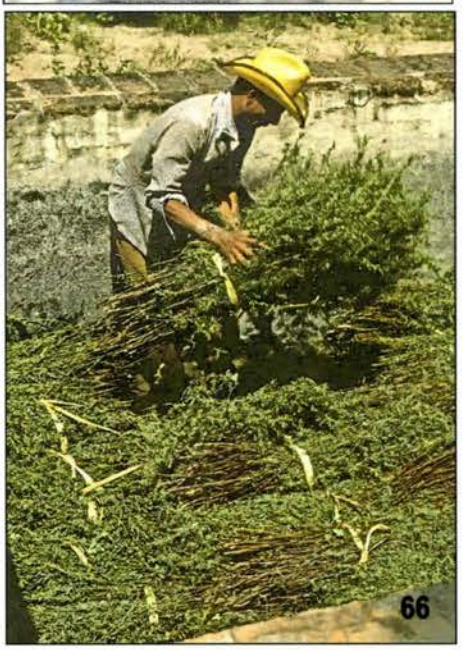
61. A cochineal dye pot.

62. Close - up of a cochineal dye pot.

63. IVG checking on an immersed skein of white wool.



64-65. Indigo is the second most popular and expensive dyestuff. Indigo plants are grown in the sandy soils of the Pacific coastal region of the Isthmus of Tehuantepec near the village of Niltepec ("place of añil"). *Indigofera suffruticosa* is indigenous to Mexico and not the same species grown in the Old World. (Early Spanish explorers initially transported *I. suffruticosa* from Oaxaca to the West Indies to establish large plantations.) Plants are hand harvested by machete.

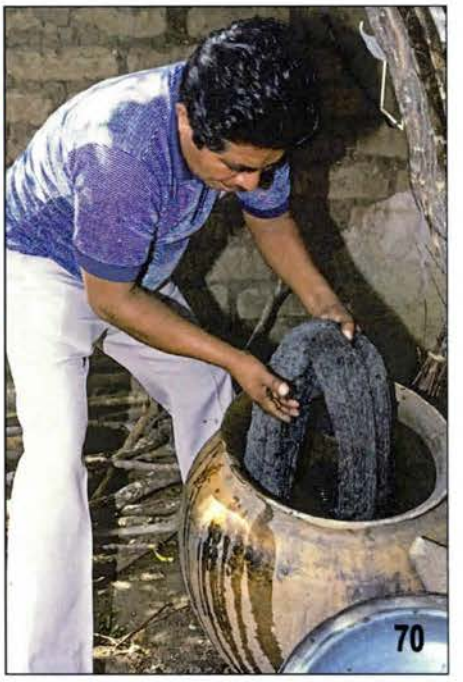


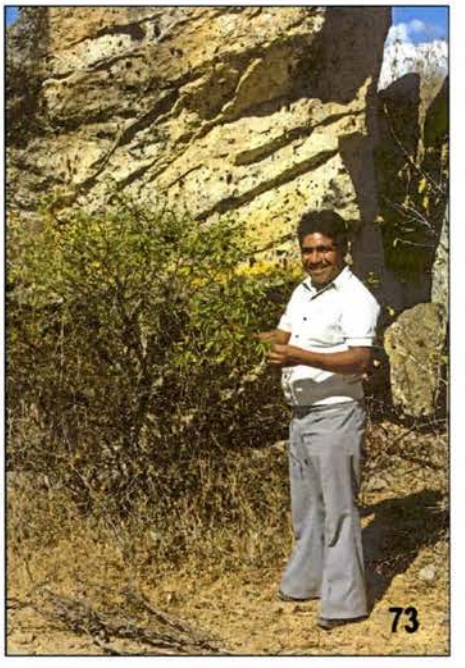
66. Bundled indigo plants are systematically laid in one of two large cement vats (one above the other) for fermentation in the hot tropical sun of the Isthmus.

67. After several days of submersion, the solution becomes cloudy and light green in color. The solution is drained into the lower vat and in the early morning hours, is "beat" with wooden paddles for several hours. This aeration (oxygenation) causes the solution to turn the rich blue color that is associated with indigo. Then, mucilage from the leaves of a local tree or ashes from a cooking fire are introduced. This causes the blue particles to congeal and precipitate to the bottom of the vat. The remaining water is discharged into a nearby stream.

68. The blue sediment from the vat is now water insoluble and has the consistency of putty. It is scooped up and then scraped into clay roofing tiles for a few days of sun drying.

69. The dried indigo is cut into small chunks called "cakes" that are marketed by weight.





70. Indigo cakes are not the final dyestuff. The cakes must undergo another fermentation process to make them water soluble. This is accomplished by introducing pulverized cakes into a metal pot containing water, human urine, leaves from a local bush, and wood ashes. After boiling for an hour or so, the entire contents are poured into a pot, covered and placed into shaded location to set undisturbed for 6-8 weeks. Then a skein of thread is immersed for several minutes. When withdrawn and exposed to the air, the threads turn the characteristic blue color. Here IVG holds a skein of white wool after its removal from the indigo fermenting pot. Repeated dipping will darken the hue.

71. Bejuco is a common stringy vine that is a parasite on a number of plants throughout the Oaxacan plateau.

72. When boiled with its proper mordent, the bejuco dyebath produces a color that is brilliant yellow, reminiscent of butter. A bejuco solution is often added to the cooking pot of cochineal or indigo to brighten the final color.

73. IVG stands beside huisache, a small acacia tree common around Teotitlán that bears bean pods.

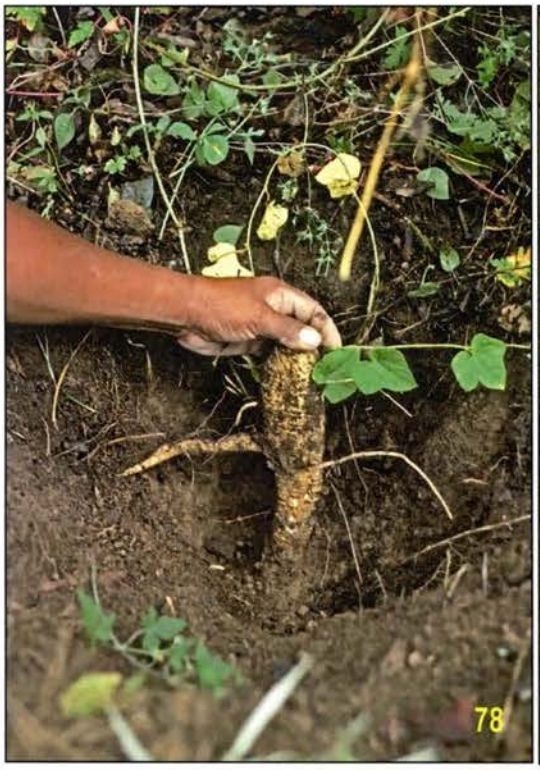
74. The huisache tree produces bean pods that are boiled to yield an intense jet-black dye that is more intense than natural black wool.

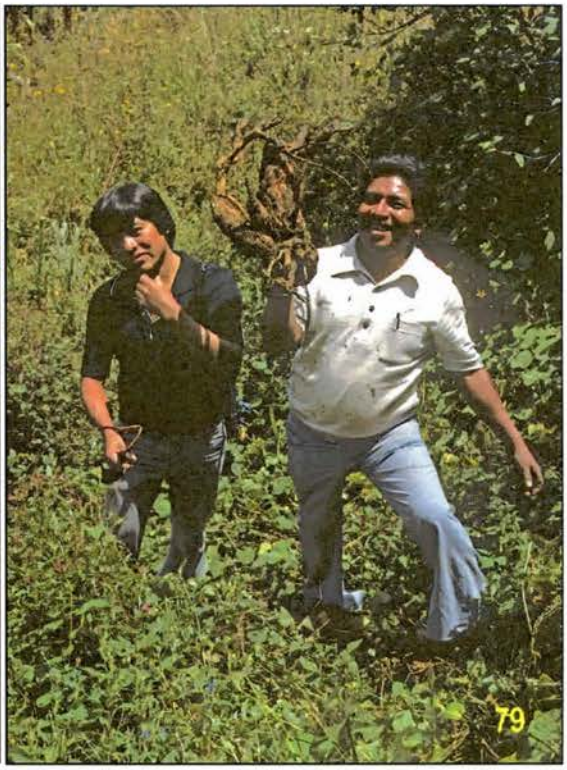
75. Isaac and María Vásquez introduce musgo to a cochineal dyepot to intensify the red color.

76. Musgo is not a moss but a fruticose lichen (similar to reindeer moss) that grows on rocks throughout the semi-arid Oaxacan plateau. The dyebath produces an amber dye.

77. Following dyeing and drying, the skeins of wool are rinsed in a nearby stream. Here IVG and his son, Ernesto, rest beside their washed skeins.

THE FINAL WASHING (IMAGES #78-81):





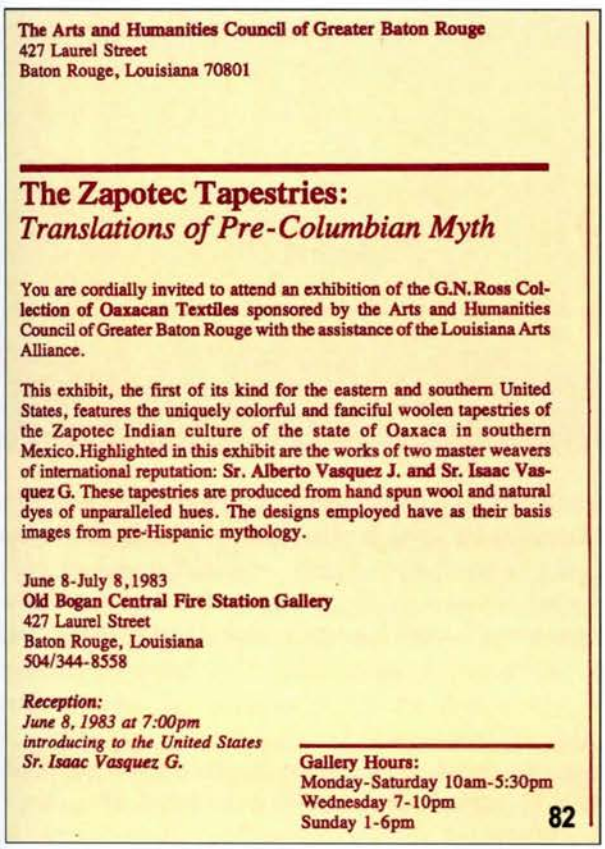
78. After a tapestry has been woven, it is washed in a nearby stream. Although the commercial powder FAB is sometimes used, the traditional cleansing agent is the root from a vine called amole or soaproot (*Chlorogalum* sp.). Scrapings of the root mixed with water become an efficient sudsy, cleansing agent. The vine grows in the cooler forested mountains north of the village.

79. IVG and his son-in-law, Antonio Martínez, proudly show-off recently dug amole roots.

80. IVG's father and eldest son, Jerónimo, wash a butterfly tapestry (dyed with indigo) in a stream near the village.

81. IVG hangs the recently dyed and washed indigo butterfly tapestry on a rod in the family patio to air dry.

THE PRESENTATIONS (Images #82 - 92) — "The Zapotec Tapestries: Translations of Pre-Columbian Myth." An exhibition in Baton Rouge, LA, between June 8 and July 8, 1983, sponsored by The Arts and Humanities Council of Greater Baton Rouge, Louisiana Arts Alliance, and Gary N. Ross. The exhibition was mounted in the council's public gallery in downtown Baton Rouge. The exhibition was the first of its kind east of the Mississippi River.



The Arts and Humanities Council of Greater Baton Rouge
427 Laurel Street
Baton Rouge, Louisiana 70801

The Zapotec Tapestries:
Translations of Pre-Columbian Myth

You are cordially invited to attend an exhibition of the G.N. Ross Collection of Oaxacan Textiles sponsored by the Arts and Humanities Council of Greater Baton Rouge with the assistance of the Louisiana Arts Alliance.

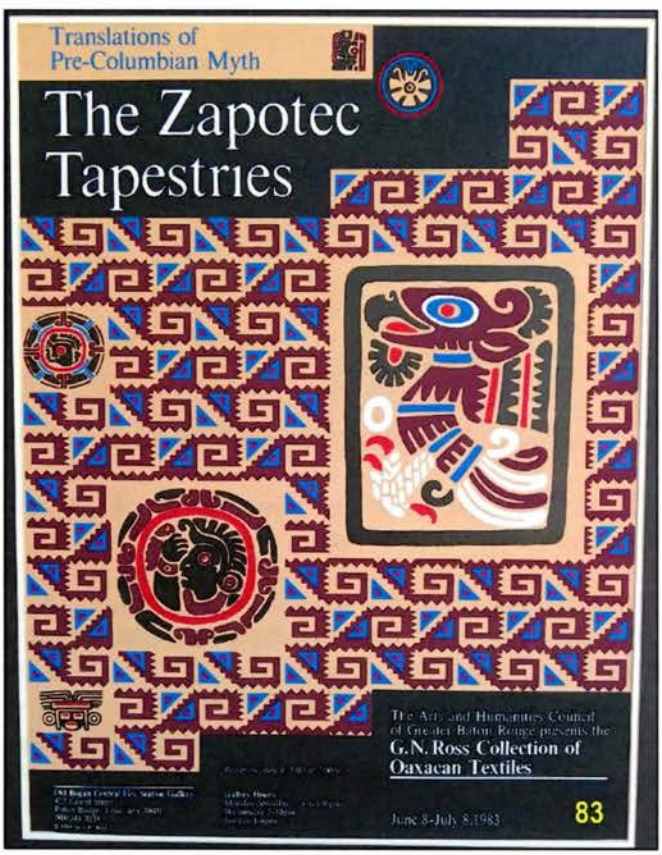
This exhibit, the first of its kind for the eastern and southern United States, features the uniquely colorful and fanciful woolen tapestries of the Zapotec Indian culture of the state of Oaxaca in southern Mexico. Highlighted in this exhibit are the works of two master weavers of international reputation: Sr. Alberto Vasquez J. and Sr. Isaac Vasquez G. These tapestries are produced from hand spun wool and natural dyes of unparalleled hues. The designs employed have as their basis images from pre-Hispanic mythology.

June 8-July 8, 1983
Old Bogan Central Fire Station Gallery
427 Laurel Street
Baton Rouge, Louisiana
504/344-8558

Reception:
June 8, 1983 at 7:00pm
introducing to the United States
Sr. Isaac Vasquez G.

Gallery Hours:
Monday-Saturday 10am-5:30pm
Wednesday 7-10pm
Sunday 1-6pm

82

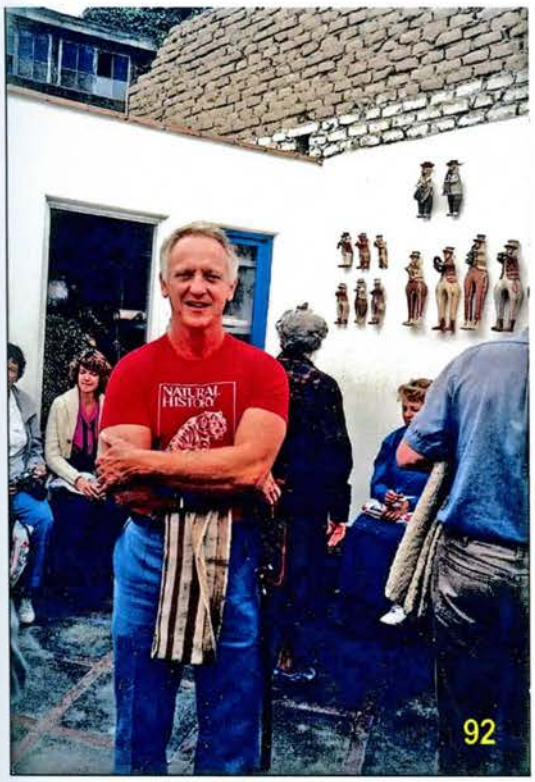


82. Mail-out invitation to the exhibition. Color is an imitation of the insect dye cochineal.

83. Limited edition, five-color poster issued to commemorate the exhibition. Designs are pre-Columbian.

84 - 85. Foyer of gallery. Black/white photographs are of masterweavers Isaac Vásquez G. (right) and Alberto Vásquez J. (left).

86 - 89. Interior of gallery. Sixty-one tapestries and rugs were mounted on walls and suspended from the ceiling of the gallery. In addition, two-sided Plexiglas panels of color photographs illustrating weaving/dyeing techniques and views of Teotitlán del Valle (home of the Zapotec weavers), were suspended by wires from the gallery's ceiling.



90. Isaac Vásquez G. (middle), author (left) and Cecil John Ross (right) pose during opening night. Special T-shirts were designed for both Isaac and Gary. The masterweaver remained in Baton Rouge for nearly the entire length of the exhibition in order to conduct periodic tours of the gallery and workshops on natural dye techniques. Photo by Grant Ross.

91. Crowded gallery at opening night. Over 300 visitors were treated to the soft music of a harpist and a variety of authentic Oaxacan dishes prepared by a catering service specializing in Mexican cuisine. Isaac V. is in the foreground, left of center, with his back to the camera. Photo by Grant Ross.

92. Author directing a 1987 tour to Oaxaca to visit with Zapotec weavers (tour sponsored by Holbrook Travel, Inc.). Here Gary poses in the patio of Isaac Vásquez in Teotitlán del Valle. The T-shirt with "Natural History" commemorates Gary's 1986 article "The Bug in the Rug" in *NH* magazine. ("The Bug in the Rug" was adopted by Isaac for the current name for his gallery and store in Teotitlán.) Photo by undisclosed tour participant.

Acknowledgements

I would especially like to thank the following: My many Zapotec friends, especially the Isaac Vásquez G. and Alberto Vásquez J. families for graciously sharing their unique world with me over several decades; numerous members of SIL International (formerly, Summer Institute of Linguistics, Inc.) and the Wycliffe Bible Translators for assisting me with accommodations and linguistic support during my many months of residency in Mexico between 1962 and 1983; Dr. Thomas C. Emmel (Gainesville, FL) for the use of his 2004 digital photos of the "Butterfly Mural" in the Tecpantitla Pyramid in Teothihuacan, Mexico; Mr. Everett Powers (Spartanburg, SC) for encouragement and direction during the preparation of the Baton Rouge exhibit in 1983, for his assistance with the organization (sponsorship through the Arts and Humanities Council of Greater Baton Rouge) of tours to Oaxaca, Mexico (1984, 1985) following that same exhibit, and for shooting photos of me and Sr. Isaac Vásquez G. together; Giovanna Holbrook of Holbrook Travel, Inc. (Gainesville, FL) for assisting me with the organization of tours to Oaxaca (1987, 1988, 1989); and my brother, Grant Ross, for providing two Kodacolor prints from the 1983 exhibit in Baton Rouge.

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WELCOME TO OUR NEWEST SLS MEMBERS

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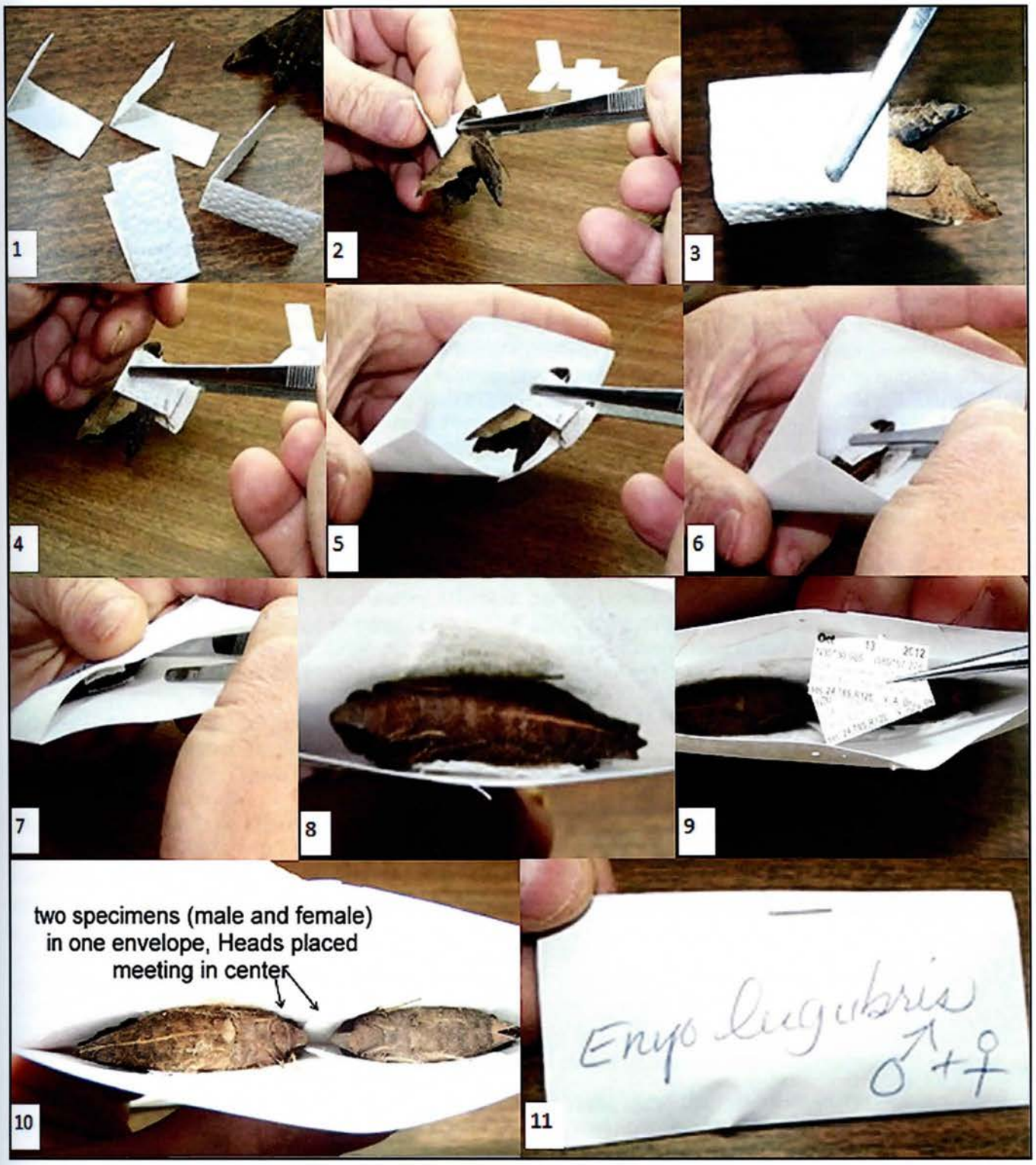
SIMPLE METHOD FOR PROTECTING ANTENNAE WHEN PAPERING LEPIDOPTERA SPECIMENS

BY

VERNON ANTOINE BROU JR.



My personal initial indoctrination to papering dead insect specimens began in the 1960s as a young teenage collector as a method to exchange specimens with other collectors using the mail. Most information published about this subject involved the use of paper or glassine paper triangles. Simply placing the freshly captured adult into a prefolded triangle, then fold to close the triangle. A few collectors developed their own little improvements to this

simple method of triangle specimen storage. Numerous authors, *e.g.,* Winter (2000) addressed this subject illustrating how to fold your own paper triangles and discussed and illustrated the use of commonly available letter envelopes. Winter also illustrated and discussed a method of flat papering lepidoptera (Meyer, 1988) and Tindale's (1961) method of boxing multiple fresh moth specimens between layers of tissue placed in a box containing chlorocresol crystals. Other interesting variations on these methods are also discussed, *e.g.,* papering fresh specimens placing them in plastic containers using chlorocresol crystals and then into a freezer, months later could be spread upon defrosting.

Winter (2000) illustrated a method of protecting antennae from breakage once papered and the lessening of side flattening of large bodied specimens, which I have used as it works well for ova filled females of sphingidae and saturnidae.

Over the years I further tweaked such methods for my own use for protecting antennae and for papering large bodied specimens of butterflies and moths. I have always been frustrated when I received beautiful papered lepidoptera specimens only to find the antennae broken into many pieces. For many years, I placed specimens with the antennae manipulated with a tweezers into envelopes then removing tweezers carefully once in the bottom of the envelope so that the sides of the envelope hold the antennae against the specimen's thorax. I have further improved on this idea by placing the specimens inverted into the envelope so that the bottom as well as the sides of the envelope protect the antennae. The inverted specimen resting in the envelope such that the head and costal margin of the forewings rest upon the bottom of the envelope also lessens the flattening of the sides of the specimen's abdomen, its position to a more flexible position away from the edges of the envelope. Still further refining this method, I have found that along with the addition of a small piece of cut paper towel is somewhat foolproof in protecting antennae even lessening antennae damage when using flimsy glassine paper triangles. I have provided an image presentation (1-11) on how to go about using this simple method.

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CONTINUATION OF JAMES' CHALLENGE TO THE SOUTHERN LEPIDOPTERISTS' SOCIETY

James Adams has asked (and I immediately accepted) if he could renew his challenge to the Society members for articles on "*The Dangers of Lepping*" and "*First Encounters*". James will donate $10 for each article to the SLS Treasury up to $100 per year. These articles are pretty much self explanatory in that "*The Dangers of Lepping*" is just that - one finds him/herself in a predicament that could cause harm in some way either emotional or physical, and "*First Encounters*" would entail finding and describing a new lepidopteran specimen for the first time for your collection, checklist, or photographic survey. And just so we are all on the same page, James is the final arbitrator in deciding if these submitted articles qualify for his $10 donation. [The Editor]

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FIELD NOTES OF CHARLES F. ZEIGER

BY

MARC C. MINNO

During the 1990s Dave Baggett gave me a few books, including a field notebook of Charles F. Zeiger, one of the original members of the Southern Lepidopterists Society (SLS). Chuck Zeiger was the SLS zone coordinator for northern Florida in 1979. He worked as Chief of the Aquatic Plant Control Section for the U.S. Army Corps of Engineers in Jacksonville, Florida. Chuck corresponded with other Lepidopterists such as Bryant Mather and Walfried J. Reinthal. His notes mention sending specimens of *Neonympha areolatus* from Jacksonville to Mather who later published a paper on the distribution and variation of this species (Mather 1965). Chuck donated many specimens of butterflies, moths, and other insects to the Florida State Collection of Arthropods (FSCA) in Gainesville, Florida.

To my knowledge, he had just one publication (Zeiger 1964), a brief note about his capture of *Eurema chamberlaini* at "Ross and Castillo Hammock, Dade Co., Florida" [actually Castellow Hammock Preserve]. The specimen was identified by Alexander Klots and deposited at the FSCA. Calhoun (1997) considered it to be an erroneous record and stated "Single specimen possibly lost; probably a variant of *E. dina*". Following Calhoun's note, Heppner *et al.* (2003) did not include *E. chamberlaini* in their list, but accidentally retained an entry for this species in their index. Until the specimen is found, we will not be able determine which species is correct.

From February 7, 1959 until April 22, 1961 Chuck wrote his collecting notes in a Standard Engineer's Field Book measuring 1 ¼" x 4 5/8" published by Boorum & Pease Company, Brooklyn, New York. On the inside cover, first page, is taped a modified "This Funny World" cartoon. It shows a man working on his butterfly collection and his wife says "How long do you expect me to put up with your brutality, Horace Jackson?", only he crossed out this name and wrote "Chuck Zieger". It's a bit chilling to see how the wife's attitude is reflected in today's politically correct climate of collecting butterflies only with a camera!

On the upper center of the next page, written in blue ink, is "C. F. Zeiger". Stamped in blue at bottom of this page is "Corps of Engineers, U.S. Army, Engineering Division, Survey Branch, P. O. Box 4970, Jacksonville, Florida". Inside the following page is printed in pencil at top "C. F. Zeiger, Levees and Waterways, Design Branch". His collecting notes were written mostly in pencil, although a few entries were written in red pencil or blue or black ink. Most of the pages in the book are blank.

Included in this book were 12 loose, lined notebook pages of slightly smaller size, punched with 6 small holes for a ring binder. Entries written on these pages cover February 12, 1978 to August 30, 1981 for sites in Florida, Ecuador, and Dominican Republic. There is a color photograph of a *Morpho* species. Stamped on the back of this photo is "C. F. Zeiger, 3751 Sommers Street, Jacksonville, Florida 32205" and hand written is "Taken at Mexico, state of San Luis Potosi, El Salto Falls, 1965", but there are no entries for this date or place in either the bound notebook or loose pages. Lastly, there is a newspaper clipping entitled "Butterflies and Charles Zeiger" from a 1978 issue of *The Drawbridge*, a publication of the Jacksonville District, U.S. Army Corps of Engineers. The article includes a photo of Chuck and a colleague holding wood and glass display cases with local butterflies that they made.

Chuck's notes are fairly easy to read, but I had trouble interpreting some of the writing. Many of the scientific names Chuck used have changed. He often used abbreviations and made misspellings. I typed Chuck's notes into a Microsoft Word document in order to better interpret, standardize, and edit the entries. A PDF version of this file can be accessed at http://marcminno.blogspot.com/. I then used the Word file to create a Microsoft Excel spreadsheet of the species, localities, and dates mentioned in the notes.

These notes are important, because very little has been published about the butterflies of northeastern Florida. Chuck's notes cover a time period during which the human population of Florida increased greatly and describe an historical fauna. Although his notes appear to be biased and incomplete, there's a lot of useful information too. He seems to have written down species that were of interest to him, not complete lists. He did not know skippers or blues very well, at least early on. Many common species today, such as *Hylephila phyleus*, *Erynnis horatius*, *Eurema daira*, *Phoebis sennae*, *Hemiargus ceraunus*, and *Phyciodes tharos* are hardly mentioned or are not listed at all.

More than 60 species of butterflies (Table 1) and several moths are listed in Chuck's notes. Among some of the more

interesting records are *Pyrgus communis*, *Pieris rapae*, and *Colias eurytheme*, which have completely or largely disappeared from peninsular Florida. Chuck also listed *Colias philodice*, which may or may not be a misidentification, *Satyrium titus*, and *Fenesica tarquinius* from localities around Jacksonville, all of which are interesting records.

In an entry for February 26, 1978, he states:

> *"Dave [Baggett] and I visited Steve Roman in Orlando. Just north and west of Orlando we stopped to collect on flowering plum trees. There was very little coming in to the trees, however, Steve took a new state record, Tortoise Shell."*

Indeed, I remember Dave Baggett once telling me that same story, only as I recall, the three were sitting eating lunch and watched the butterfly perching and flying a little distance away for a while. They were speculating on what it might be when Steve walked over, caught it, and discovered the first *Nymphalis l-album* for Florida! Dave thought that this butterfly probably came to Florida in a camper or trailer with some tourists from Canada.

In his notes Chuck mentions collecting with other Southern Lepidopterists' Society members Dave Baggett, Steve Roman, Charley Stevens, and John Watts. He also made a trip with Dr. Reinthal in northeastern Florida and Jekyll Island and Savanna Georgia to collect *Asterocampa* species. Two entries mention tagging monarchs, perhaps for Fred Urquhart at the University of Toronto. Other entries document collecting trips in Ecuador and Dominican Republic.

Only a few moths are listed in Chuck's field notes: *Actias luna* from Duval Co., Herksher Drive near St. Regis Paper Co., 4/5/1959; *Psychomorpha euryhoda* from the same locality, 3/11/1979; and *Catocala lacrymosa* form *zelica* from Lake Co., Silver Glenn Spring Campground, 8/28-30/1981.

I've had the field notes tucked away in a box, but recently came across them again and realized that they have scientific value. I plan to donate Chuck's original notes to the University of Florida, Florida Museum of Natural History, McGuire Center for Lepidoptera and Biodiversity in Gainesville.

Table 1. List of butterflies mentioned by Chuck Zeiger in his field notes.

HESPERIIDAE: EUDAMINAE

Epargyreus clarus
Florida, Clay Co., Near Boy Scout Camp, 7/16/1960.
Florida, Duval Co., Park at Hamilton and Park Streets, 5/30/1959.

Thorybes bathyllus
Florida, Clay Co., Second bend in Collins Road W of Orange Park, 7/16/1960.

Thorybes pylades
Florida, Duval Co., Borrow pit just off Edgewood, 4/11/1959.

HESPERIIDAE: HESPERIINAE

Ancycloxypha numitor
Florida, Duval Co., Park at Hamilton and Park Streets, 7/4/1959.

Copaeodes minima
Florida, Duval Co., Gilmore Street in back of City of Edgewood Bldg., 5/22/1959.

Euphyes vestris
Florida, Duval Co., Park at Hamilton and Park Streets, 7/4/1959.

Lerema accius
Florida, Duval Co., Park at Hamilton and Park Streets, 7/4/1959.

Oligoria maculata
Florida, Clay Co., Orange Park behind the Greyhound Race Track, 5/22/1959.

Polites vibex
Florida, Duval Co., Park at Hamilton and Park Streets, 4/15/1961.

HESPERIIDAE: MEGATHYMINAE

Megathymus cofaqui
Florida, Putnam Co., 5 miles S of Interlachen, 3/8/1980.

Megathymus yuccae
Florida, Duval Co., Dames Point, 2/23/1980.
Florida, Duval Co., Herksher Drive near St. Regis Paper Co., 2/23/1980.

HESPERIIDAE: PYRGINAE

Erynnis zarucco (listed as *Erynnis persius)*
Florida, Clay Co., Orange Park behind the Greyhound Race Track, 5/22/1959.

Pyrgus communis
Florida, Duval Co., Park at Hamilton and Park Streets, 7/4/1959.
Pyrgus oileus
Florida, Clay Co., Orange Park behind the Greyhound Race Track, 5/22/1959.

PAPILIONIDAE
Battus philenor
Florida, Clay Co., Near Boy Scout Camp, 7/16/1960.
Florida, Clay Co., Orange Park behind the Greyhound Race Track, 3/4/1961.
Florida, Duval Co., Edgewood Cemetery, 2/29/1960.
Florida, Lake Co., Silver Glenn Spring Campground, 8/28-30/1981.
Eurytides marcellus
Florida, Clay Co., Goldhead Branch State Park, last week of August, 1960.
Florida, Clay Co., Near Boy Scout Camp, 7/16/1960.
Florida, Clay Co., Orange Park behind the Greyhound Race Track, 5/22/1959, 5/30/1959, 3/4/1961.
Florida, Clay Co., Second bend in Collins Road W of Orange Park, 5/24/1959.
Florida, Duval Co., Borrow pit just off Edgewood, 4/11/1959.
Florida, Duval Co., Edgewood Cemetery, 3/22/1959.
Florida, Duval Co., Herksher Drive near St. Regis Paper Co., 2/27/1960.
Florida, Duval Co., Park at Hamilton and Park Streets, 2/22/1959.
Florida, Lake Co., Silver Glenn Spring Campground, 8/28-30/1981.
Heraclides cresphontes
Florida, Duval Co., Edgewood Cemetery, 2/22/1959, 3/22/1959.
Florida, Duval Co., US Army Corps of Engineers Office at 575 Riverside Ave, 7/13/1959.
Florida, Lake Co., Silver Glenn Spring Campground, 8/28-30/1981.
Florida, Nassau Co., Fort Clinch State Park, 7/8/1960.
Papilio polyxenes
Florida, Clay Co., Behind Moose Haven near the St. Johns River, 7/16/1960.
Florida, Clay Co., Orange Park behind the Greyhound Race Track, 3/4/1961.
Florida, Duval Co., Edgewood Ave just N of Paxon Shopping Center, 7/23/1960.
Florida, Duval Co., Zeiger yard, 2/22/1959.
Pterourus glaucus
Florida, Clay Co., Behind Moose Haven near the St. Johns River, 7/16/1960.
Florida, Duval Co., Edgewood Ave just N of Paxon Shopping Center, 7/23/1960.
Florida, Duval Co., Edgewood Cemetery, 2/22/1959, 3/11/1961
Florida, Lake Co., Silver Glenn Spring Campground, 8/28-30/1981.
Florida, Martin Co., Stuart, 3/17/1959.
Pterourus palamedes
Florida, Clay Co., Behind Moose Haven near the St. Johns River, 7/16/1960.
Florida, Duval Co., Kingsley Plantation, 7/8/1960.
Florida, Lake Co., Silver Glenn Spring Campground, 8/28-30/1981.
Georgia, Glynn Co., Island between Jekyll Island and Mainland, 7/9/1960.
Pterourus troilus
Florida, Clay Co., Goldhead Branch State Park, last week of August, 1960.
Florida, Duval Co., 2/00/1959.
Florida, Lake Co., Silver Glenn Spring Campground, 8/28-30/1981.

PIERIDAE: COLIADINAE
Abaeis nicippe
Florida, Lake Co., Silver Glenn Spring Campground, 8/28-30/1981.
Colias eurytheme
Florida, Duval Co., Gilmore Street in back of City of Edgewood Bldg., 5/22/1959.
Florida, Duval Co., Herksher Drive near St. Regis Paper Co., 2/7/1959, 2/15/1959, 4/5/1959, 2/12/1961.
Colias philodice
Florida, Duval Co., US Army Corps of Engineers Office at 575 Riverside Ave, 6/8/1960.
Nathalis iole
Florida, Duval Co., Gilmore Street in back of City of Edgewood Bldg., 5/22/1959.
Phoebis philea
Florida, Duval Co., US Army Corps of Engineers Office at 575 Riverside Ave, 7/13/1959.
Phoebis sennae
Florida, Lake Co., Silver Glenn Spring Campground, 8/28-30/1981.
Pyrisitia lisa
Florida, Clay Co., Goldhead Branch State Park, last week of August, 1960.
Florida, Clay Co., Orange Park behind the Greyhound Race Track, 5/22/1959.
Florida, Martin Co., Stuart, 3/17/1959.

PIERIDAE: PIERINAE

Ascia monuste

Florida, Clay Co., Orange Park behind the Greyhound Race Track, 4/22/1961.
Florida, Duval Co., Edgewood Ave just N of Paxon Shopping Center, 7/23/1960.
Florida, Duval Co., Highway A1A East of Fort George, 7/8/1960.
Florida, St Lucie, Fort Pierce, 4/00/1959.

Pieris rapae

Florida, Duval Co., Behind Atlantic Mills, 2/15/1959.
Florida, Duval Co., Edgewood Ave just N of Paxon Shopping Center, 7/23/1960.
Florida, Duval Co., Park at Hamilton and Park Streets, 4/12/1959.

Pontia protodice

Florida, Duval Co., Gilmore Street in back of City of Edgewood Bldg., 5/26/1959.
Florida, Duval Co., US Army Corps of Engineers Office at 575 Riverside Ave, 7/13/1959, 6/8/1960.

LYCAENIDAE: MILETINAE

Feniseca tarquinius

Florida, Clay Co., Goldhead Branch State Park, last week of August 1960.
Florida, Duval Co., Park at Hamilton and Park Streets, 6/12/1960.

LYCAENIDAE: POLYOMMATINAE

Celastrina neglecta

Florida, Clay Co., Goldhead Branch State Park, 4/1-2/1961.
Florida, Duval Co., Collins Road West, 3/26/1961.

LYCAENIDAE: RIODININAE

Calephelis virginiensis

Florida, Clay Co., Orange Park behind the Greyhound Race Track, 5/30/1959.
Florida, Martin Co. Co., Stuart, 3/17/1959.

LYCAENIDAE: THECLINAE

Atlides halesus

Florida, Clay Co., Orange Park behind the Greyhound Race Track, 5/24/1959.
Florida, Duval Co., Cemetery on Picketville Road, 5/14/1960.

Calycopis cecrops

Florida, Clay Co., Orange Park behind the Greyhound Race Track, 5/22/1959.
Florida, Clay Co., Second bend in Collins Road W of Orange Park, 7/16/1960.
Florida, Duval Co., Borrow pit just off Edgewood, 4/11/1959.
Florida, Duval Co., Cemetery on Picketville Road, 5/14/1960.
Florida, Duval Co., Eastport, 3/16/1980.
Florida, Duval Co., Edgewood Cemetery, 2/29/1960.
Florida, Duval Co., Park at Hamilton and Park Streets, 4/9/1961.
Florida, Duval Co., Picketville Road near Edgewood Ave, 2/26/1961.
Florida, Duval Co., US Army Corps of Engineers Office at 575 Riverside Ave, 7/13/1959.

Incisalia henrici

Florida, Clay Co., Goldhead Branch State Park, 4/1-2/1961.
Florida, Duval Co., Eastport, 2/23/1980, 3/16/1980.
Florida, Duval Co., Herksher Drive near St. Regis Paper Co., 3/11/1979.

Mitoura gryneus

Florida, Duval Co., Fort George, 2/23/1980.
Florida, Duval Co., Little Talbot Island, 7/8/1960.

Parrhasius m-album

Florida, Clay Co., Goldhead Branch State Park, 4/1-2/1961.
Florida, Duval Co., Park at Hamilton and Park Streets, 4/9/1961.

Satyrium calanus

Florida, Duval Co., Cemetery on Picketville Road, 5/14 & 15/1960.

Satyrium favonius

Florida, Clay Co., Orange Park behind the Greyhound Race Track, 5/22/1959.
Florida, Duval Co., Cemetery on Picketville Road, 5/14/1960, 5/15/1960, 5/21/1960, 5/22/1960.

Satyrium titus

Florida, Duval Co., Herksher Drive near St. Regis Paper Co., 2/27/1960.

Strymon melinus

Florida, Clay Co., Orange Park behind the Greyhound Race Track, 5/24/1959, 4/22/1961.
Florida, Duval Co., Cemetery on Picketville Road, 5/14/1960, 5/15/1960.
Florida, Duval Co., Herksher Drive near St. Regis Paper Co., 2/27/1960.

Florida, Duval Co., Park at Hamilton and Park Streets, 4/12/1959.
Florida, Duval Co., US Army Corps of Engineers Office at 575 Riverside Ave, 7/13/1959.

NYMPHALIDAE: APATURINAE

Asterocampa celtis
Florida, Nassau Co., Fort Clinch State Park, 7/8/1960.
Florida, St. Johns Co., 3-5 miles S of Marineland, 7/10/1960.
Georgia, Chatham Co., Savannah, 7/9/1960.
Georgia, Glynn Co., Island between Jekyll Island and Mainland, 7/9/1960.
Georgia, Glynn Co., Jekyll Island, 7/9/1960.

Asterocampa clyton
Georgia, Glynn Co., Jekyll Island, 7/9/1960.

NYMPHALIDAE: DANAINAE

Danaus gilippus
Florida, Clay Co., Goldhead Branch State Park, last week of August,1960.
Florida, St Lucie, Fort Pierce, 4/00/1959.

Danaus plexippus
Florida, Clay Co., Orange Park behind the Greyhound Race Track, 10/25/1959.
Florida, Duval Co., Zeiger yard, 4/18/1959.

NYMPHALIDAE: HELICONIINAE

Agraulis vanillae
Florida, Clay Co., Near Boy Scout Camp, 7/16/1960.
Florida, Clay Co., Second bend in Collins Road W of Orange Park, 7/16/1960.
Florida, Lake Co., Silver Glenn Spring Campground, 8/28-30/1981.
Florida, St Lucie, Fort Pierce, 4/00/1959.
Florida, St. Johns Co., Matanzas Inlet S of St. Augustine, 7/10/1960.
Georgia, Glynn Co., Jekyll Island, 7/9/1960.

Euptoieta claudia
Florida, Duval Co., Borrow pit just off Edgewood, 4/11/1959.

Heliconius charithonia
Florida, Duval Co., Kingsley Plantation, 7/8/1960.
Florida, St Lucie, Fort Pierce, 4/00/1959.

NYMPHALIDAE: LIBYTHEINAE

Libytheana carinenta bachmanii
Georgia, Glynn Co., Island between Jekyll Island and Mainland, 7/9/1960.

NYMPHALIDAE: LIMENITIDINAE

Limenitis archippus
Florida, Duval Co., Park at Hamilton and Park Streets, 7/4/1959.

NYMPHALIDAE: NYMPHALINAE

Anartia jatrophae
Florida, Martin Co., Stuart, 3/17/1959.
Florida, St Lucie, Fort Pierce, 4/00/1959.

Junonia coenia
Florida, Duval Co., Herksher Drive near St. Regis Paper Co., 2/15/1959, 2/27/1960, 2/12/1961.
Florida, Duval Co., Park at Hamilton and Park Streets, 4/12/1959.
Florida, Duval Co., US Army Corps of Engineers Office at 575 Riverside Ave, 6/8/1960.

Phyciodes phaon
Florida, Duval Co., Edgewood Cemetery, 2/29/1960.
Florida, Duval Co., Herksher Drive near St. Regis Paper Co., 2/15/1959, 2/27/1960.
Florida, Duval Co., Park at Hamilton and Park Streets, 4/12/1959, 7/4/1959.

Polygonia interrogationis
Florida, Duval Co., Park at Hamilton and Park Streets, 2/22/1959.
Florida, Duval Co., Herksher Drive near St. Regis Paper Co., 2/12/1961.
Georgia, Glynn Co., Island between Jekyll Island and Mainland, 7/9/1960.

Vanessa atalanta
Florida, Duval Co., Edgewood Cemetery, 3/11/1961.
Florida, Duval Co., Park at Hamilton and Park Streets, 2/22/1959, 4/12/1959.

Vanessa virginiensis
Florida, Clay Co., Orange Park behind the Greyhound Race Track, 4/22/1961.

Florida, Duval Co., Park at Hamilton and Park Streets, 4/12/1959.
Florida, Duval Co., Edgewood Cemetery, 3/11/1961.
Florida, Duval Co., Herksher Drive near St. Regis Paper Co., 2/12/1961.
Florida, Duval Co., US Army Corps of Engineers Office at 575 Riverside Ave, 6/8/1960.

NYMPHALIDAE: SATYRINAE

Cercyonis pegala
Florida, Clay Co., Second bend in Collins Road W of Orange Park, 7/18/1959, 7/16/1960.
Florida, Duval Co., Edgewood Cemetery, 7/25/1959.

Cyllopsis gemma
Florida, Duval Co., Edgewood Cemetery, 5/31/1959, 2/29/1960, 3/11/1961.

Hermeuptychia sosybius
Florida, Clay Co., Goldhead Branch State Park, 4/1-2/1961.
Florida, Duval Co., Behind Atlantic Mills, 2/15/1959.
Florida, Duval Co., Edgewood Cemetery, 2/29/1960.

Megisto cymela
Florida, Nassau Co., Fort Clinch State Park, 4/5/1959.

Neonympha areolatus
Florida, Clay Co., Orange Park behind the Greyhound Race Track, 5/30/1959.
Florida, Clay Co., Second bend in Collins Road W of Orange Park, 5/24/1959, 7/18/1959.
Florida, Lake Co., Silver Glenn Spring Campground, 8/28-30/1981.
Florida, Martin Co., Stuart, 3/17/1959.

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Narrow-leaved sunflower (*Helianthus angustifolius*)

Goldenrod, Narrow-leaved sunflower, and Lantana

Scenes from the Garden of Gary Noel Ross (Baton Rouge, Louisiana)

SLS / ATL 2012 MEETINGS (28 - 30 SEPTEMBER 2012)

The 2012 combined annual meetings of the Southern Lepidopterists' Society and the Association for Tropical Lepidoptera was held at the McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, 28-30 September 2012. There were collecting trips on Friday with a day field trip led by Marc Minno and Lary Reeves to the Gulf Hammock area which resulted in some excellent observations and collections. Charlie Covell along with Jeff Slotten and Lary Reeves made arrangements for an evening trip to Paynes Prairie. At the meetings, topics ranged from butterfly and moth diversity in various habitats and countries to studies on life history, conservation of species and the importance and future of collecting, with a total of 17 oral presentations and one poster. In all, there were 60 registrants with 63 at the annual banquet. Andrei Sourakov announced the ATL Photo contest winners and Charlie Covell presided over the door prizes. There was a discussion following the banquet led by Jackie Miller concerning "Tricks of the Trade" presented by a number of members. The topics covered included some easy ways of keeping good field records, new collecting techniques, and even some great collecting gear to entice younger students to become collectors.

-- Jacqueline Y. Miller, McGuire Center for Lepidoptera and Biodiversity

SLS PARTICIPATION AT THE FLORIDA MUSEUM OF NATURAL HISTORY'S BUTTERFLYFEST (13 - 14 OCTOBER 2012)

Each fall the Florida Museum of Natural History holds one of its premier family events, a weekend long festival at the museum featuring educational displays by local organizations, vendors, live performances, and activities for children such arts and crafts and a pollinator parade. The Southern Lepidopterists' Society is a regular participant in this event with our displays of live caterpillars drawing a continual audience of all ages, with children eager to touch or hold a caterpillar for the first time and gasp at some of the huge creatures our members have been able to round up.

This year with the ample rains and resulting elevated populations of many lepidopteran species, we were able to display a variety of live representatives, including 32 species representing 14 families:

Papilionidae - *Battus polydamas*, *Papilio palamedes*, *Papilio cresphontes*; **Pieridae** - *Phoebis sennae*, *Phoebis philea*, **Lycaenidae** - *Eumaeus atala*; **Nymphalidae** - *Agraulis vanillae*, *Heliconius charithonia*, *Danaus plexippus*, *Danaus gilippus*, *Limenitis archippus*, *Junonia coenia*, *Asterocampa clyton*; **Hesperiidae** - *Urbanus proteus*, *Urbanus dorantes*, *Calpodes ethlius*; **Saturniidae** - *Actias luna*, *Automeris io*; **Sphingidae** - *Manduca rustica*; **Erebidae** - *Utetheisa ornatrix*, *Hyphantria cunea*, *Hypercompe scribonia*; **Noctuidae** - *Spodoptera frugiperda*, *Cucullia alfarata*; **Notodontidae** - *Datana major*, *Symmerista canicosta*; **Limacodidae** - *Phobetron pithecium*, *Natada nasoni*, *Acharia stimulea*; **Zygaenidae** - *Harrisina americana*; **Pyralidae** - *Omphalocera monroei*; and **Pterophoridae** - *Megalorhipida leucodactylus*.

The stars of our show were two very large rustic sphinx larvae, *Manduca rustica*, collected by Reuben Judd. In addition to the multitude of larvae, we also had a few bark mantids from Tom Neal's light trap. The kids especially enjoyed holding these and they generally just crawl around on an arm or sit on your shoulder. However, one of these mantids became a little frisky and provided some extra entertainment when it took off and landed in the eye socket of the museum's mammoth skeleton. The mantid was eventually recovered but not without a few good pictures and film clips to be shared at the next meeting!

Thanks to all those who manned the table or helped in collecting livestock and my apologies to anyone inadvertently omitted: Eric Anderson, Julieta Brambila, Charlie Covell, James Hayden, Reuben Judd, Sandy Koi, Terry Lott, Jackie Miller, Megan Neal, Tom Neal, Lary Reeves, Matt Standridge, Andy Warren, Patti Winters, Madison Young, and Rona Young.

Special thanks to Madison and Rona Young for helping clean up and release and rear caterpillars after the festival and to Tom and Megan Neal who manned our display throughout most of the festival.

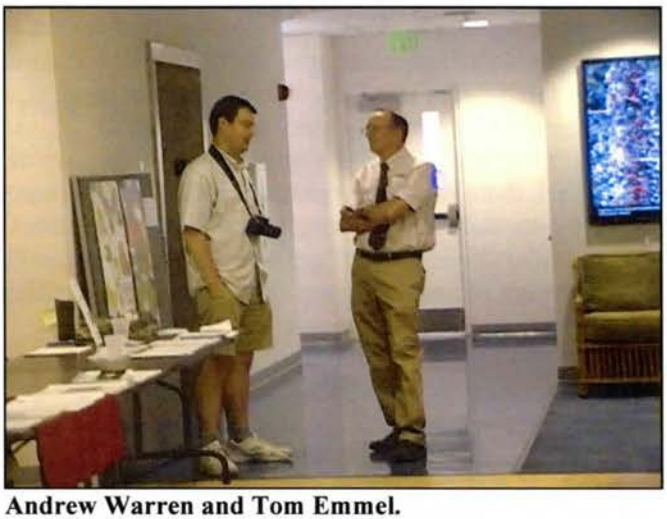
Next year's festival is set for October 19-20, 2013. I hope to see you there!

-- Deborah L. Matthews, McGuire Center for Lepidoptera and Biodiversity

PHOTOGRAPHS FROM THE SLS / ATL JOINT MEETING

(28 - 30 SEPTEMBER 2012)

Mike Rich, Dan Hyman, and Rick Gilmore.



Andrew Warren and Tom Emmel.

Blue Doughnuts at the meeting.

Debbie Matthews moderating business meeting for the SLS. Image of your Editor in the background.

Hearty Breakfast Menu at Meeting.

Jackie Miller and James M. Taylor.

[Above photographs taken at the SLS/ATL Meetings by Jeff Slotten]

[Group photograph of the attendees at the SLS/ATL Meeting by Andrei Sourakov]

Left to right around table: Peter Eliazar, Tom Emmel, Paul Schultz and Court Whelan in foreground at lunch break.

Left to Right: Cassandra Romero, Elena Ortiz and Katrina Lane.

Debbie Matthews and Jeff Slotten presenting the Abbot Award to J. Barry Lombardini (in absentia, but present in spirit and on the screen!).

Attendees at Saturday night banquet presentation.

Marc Minno and John Calhoun sharing a good time after the Saturday night dinner banquet.

Group at lunch on Saturday.

[Above photographs of the SLS/ATL Meeting by Andrew D. Warren]

PHOTOGRAPHS FROM THE SLS BUTTERFLYFEST (13-14 OCTOBER 2012) AND THE SLS FIELD TRIP TO PAYNES PRAIRIE (28 SEPTEMBER 2012)

Charlie Covell placing a caterpillar into the hands of a young lady with a fancy pink-frilled hat.

First attempt at the bark mantid rescue. Note Tom Neal is documenting the adventure.

Tom and Megan Neal. *Aristolochia* plant with fat *Battus polydamas* larvae in the foreground.

Eric Anderson's sheet at Paynes Prairie Preserve State Park. Left to right: Rona Young, Madison Young, Charlie Covell, and Brian Scholtens.

Left: Madison Young and Brian Scholtens; right: Eric Anderson and Charlie Covell (Paynes Prairie Preserve State Park).

Madison Young examines a specimen captured at the sheet (Paynes Prairie Preserve State Park).

[Photographs on this page by Deborah Matthews]

PHOTOGRAPHS FROM THE FIELD TRIP TO GULF HAMMOCK DURING THE SLS / ATL MEETINGS

BY

LARY REEVES

On 28 September 2012, a small group of conference attendees departed from Gainesville to spend the morning exploring in and around Gulf Hammock. Gulf Hammock is an attenuated strip of hydric hardwood hammock that parallels the Gulf of Mexico in the vicinity of Cedar Key. This area is well known for a few unique reptile and amphibian subspecies and color variants. Lepidoptera-wise, the region provides great collecting – with a wide variety of habitats in close proximity to one another, including hydric hammocks, Florida scrub, longleaf pine flatwoods and salt marsh. During the SLS-ATL fieldtrip, we encountered a nice sample of the region's butterfly species, including Sweadner's hairstreak and a number of skipper species. A few diurnal arctiines and pyraustines were found as well.

Brian Scholtens, John F. Douglass, Marc Minno, Lary Reeves, Roxy Wagner, Jia Qianju and two children, Rose Forbes and Mirin Minno.

***Climaciella brunnea* - Several of these mantispids were found at Yankeetown on *Baccharis* flowers.**

***Callophrys gryneus sweadneri* - One of the highlights of the day was Sweadner's hairstreak. Two individuals were observed nectaring on *Bidens* and *Baccharis* at Yankeetown.**

***Panoquina panoquin* - Salt marsh skippers were one of the most abundant skippers observed.**

[Photographs by Lary Reeves]

[Lary Reeves, Department of Entomology and Nematology, University of Florida]

A LIST OF MOTHS RECORDED AT PAYNES PRAIRIE PRESERVE STATE PARK, ALACHUA COUNTY, FLORIDA (29 SEPTEMBER 2012)

BY

CHARLES V. COVELL JR.

In conjunction with the ATL/SLS meeting the following individuals attended a moth blacklighting trip to the parking lot and visitors' center area of Paynes Prairie Preserve State Park, Alachua County, Florida, on 29 September, 2013: James Hayden, Bob and Beth Patterson, Rona and Madison Young, Debbie Matthews, Annie and Terry Lott, Brian Scholtens, James K. Adams, Lary Reeves, Eric Anderson, Jeff Slotten, David Plotkin, Jade Badon, Qianju Jia, Jon Bremer, Nick Larson, Christopher and Kathleen Young, Richard M. Brown and myself. Taxa recorded are as follows, with new additions to the list for The Preserve given in **boldface** type. Numbers before each species refer to those in Hodges (ed.) 1983, *Check List of the Lepidoptera of America North of Mexico*. The recent revision of the Noctuoidea has not been applied to the list as yet. Thanks to all of you who helped in this ongoing survey!

ACROLOPHIDAE:
0371 *Acrolophus piger* (Dyar)

PSYCHIDAE:
0442 *Cryptothelea gloverii* (Packard)

OECOPHORIDAE:
0953 *Eupragia hospita* Hodges

BLASTOBASIDAE:
1144 *Gerdana caritella* Busck

TORTRICIDAE:
2907 *Strepsicrates smithiana* (Walsingham)
3486 *Cydia toreuta* (Grote)
3736 *Platynota stultana* Walsingham
3782 *Carolella sartana* (Hübner)

LIMACODIDAE:
4681 *Isa textula* (Herrich-Schäffer)
4697 *Euclea delphinii* (Boisduval)
4700 *Acharia stimulea* (Clemens)

CRAMBIDAE:
4755 *Synclita obliteralis* (Walker)
4764 *Parapoynx allionealis* Walker
Lipocosma sp.
Eoparargyractis sp.
5150 *Samea ecclesialis* Guenée
5151 *Samea multiplicalis* (Guenée)
5158 *Ategumia ebulealis* (Guenée)
5170 *Spoladea recurvalis* (Fabricius)
5176 *Anageshna primordialis* (Dyar)
5198 *Glyphodes sibillalis* Walker
5274 *Herpetogramma phaeopteralis* (Guenée)
5284 *Syngamia florella* (Stoll)
5324 *Donacaula maximella* (Fernald)
5424 *Microcrambus kimballi* Klots
5450 *Parapediasia decorella* (Zincken)
5463 *Argyria lacteella* (Fabricius)
5481 *Diatraea lisetta* (Dyar)
5538 *Parachma ochracealis* Walker
5568 *Arta olivalis* Grote
5574 *Heliades mulleolella* (Hulst)
Pococera sp.
5802 *Nephopteryx uvinella* (Ragonot) (Sciota?)
6005.1 *Moodna pallidostrinella* Neunzig
6043 *Peoria bipartitella* Ragonot

GEOMETRIDAE:

6335 *Macaria aequiferaria* Walker
6336 *Macaria distribuaria* Hübner
6341 *Macaria bicolorata* (Fabricius)
6582 *Anacamptodes vellivolata* (Hulst)
6590 *Anavitrinella pampinaria* (Guenée)
6941 *Eusarca confusaria* Hübner
6974 *Patalene olyzonaria* (Walker) ssp. *puber* (Grote & Robinson)
7059 *Synchlora frondaria* Guenée
7105 *Idaea scintillularia* (Hulst)
7114 *Idaea demissaria* (Hübner)
7132 *Pleuroprucha insulsaria* (Guenée)
7173 *Leptostales pannaria* (Guenée)
7474 *Eupithecia miserulata* Grote

SATURNIIDAE:

7723 *Anisota virginiensis* (Drury)
7758 *Actias luna* (Linnaeus)

ARCTIIDAE:

8067 *Cisthene plumbea* Stretch
8068 *Cisthene striata* Ottolengui
8071 *Cisthene subjecta* Walker
8090 *Hypoprepia fucosa* (Hübner)
8137 *Spilosoma virginica* (Fabricius)
8140 *Hyphantria cunea* (Drury)

NOTODONTIDAE:
7920 *Peridea angulosa* (J. E. Smith)
7990 *Heterocampa umbrata* Walker
7998 *Lochmaeus manteo* Doubleday

LYMANTRIIDAE:
8301 *Dasychira leucophaea* (J.E. Smith)

NOCTUIDAE:
8322 *Idia americalis* (Guenée)
8328 *Idia julia* (Barnes & McDunnough)
8385 *Renia fraternalis* J. B. Smith

8398 *Palthis asopialis* (Guenée)
8440 *Nigetia formosalis* Walker
8490 *Pangrapta decoralis* Hübner
8514 *Scolecocampa liburna* (Guenée)
8574 *Anticarsia gemmatalis* Hübner
8642 *Hypocala andremona* (Cramer)
8743 *Mocis latipes* (Guenée)
8745 *Mocis texana* (Morrison)
8762 *Argyrostrotis quadrifilaris* (Hübner)
8962 *Paectes abrostoloides* (Guenée)
8965 *Paectes nubifera* Hampson
8991 *Nola cereella* (Bosc)
9211 *Acronicta tritona* (Hübner)
9257 *Acronicta impleta* Walker
9280 *Simyra henrici* (Grote)
9285 *Polygrammate hebraeicum* Hübner
9286 *Harrisimemna trisignata* (Walker)
9286.1 *Cryphia cyanympha* Ferguson
9299 *Eudryas unio* (Hübner)
9672 *Spodoptera eridania* (Cramer)
9676 *Elaphria nucicolora* (Guenée)
9681 *Elaphria festivoides* (Guenée)
9690 *Condica videns* (Guenée)
9819 *Amolita obliqua* J. B. Smith
10438 *Mythimna unipuncta* (Haworth)
10450 *Leucania incognita* Barnes & McDunnough
10663 *Agrotis ipsilon* (Hufnagel)
10911 *Anicla infecta* (Ochsenheimer)
11149 *Schinia trifascia* Hübner

(Charles V. Covell Jr., Curator of Lepidoptera, McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, Hull Road at SW 34th St., Gainesville, FL 32611-2710)

MORE PHOTOGRAPHS FROM THE 2012 SLS / ATL MEETINGS

SLS/ATL Meeting break: Brian Scholtens in foreground.

SLS Banquet in Florida Museum Great Hall.

SLS/ATL Meeting.

Jeff Slotten, James Adams & Brian Scholtens at Paynes Prairie moth trip.

[Photographs by Charlie Covell]

MORE PHOTOGRAPHS FROM THE 2012 SLS BUTTERFLYFEST

Young ones looking at specimens on display at the ButterflyFest.

Debbie Matthews, Jackie Miller and Tom Neal at the SLS table.

A young visitor at the SLS table.

Debbie Matthews and Tom Neal introducing people to caterpillars.

Charlie Covell, Tom Neal and Debbie Matthews working at the SLS table.

Young caterpillar lovers at the SLS table.

[Photographs by Charlie Covell]

BUTTERFLIES OBSERVED ON THE FIELD TRIP ASSOCIATED WITH THE SLS / ATL MEETINGS (28 SEPTEMBER 2012)

BY

MARC C. MINNO

FAMILY/SUBFAMILY	SCIENTIFIC NAME	COMMON NAME	Ozello	Yankeetown	Totals
Hesperiidae: Eudaminae	*Urbanus proteus*	Long-tailed Skipper	7	15	22
Hesperiidae: Eudaminae	*Urbanus dorantes*	Dorantes Skipper	1	0	1
Hesperiidae: Pyrginae	*Erynnis horatius*	Horace's Duskywing	1	1	2
Hesperiidae: Pyrginae	*Erynnis zarucco*	Zarucco Duskywing	1	0	1
Hesperiidae: Hesperiinae	*Lerema accius*	Clouded Skipper	1	0	1
Hesperiidae: Hesperiinae	*Copaeodes minima*	Southern Skipperling	1	2	3
Hesperiidae: Hesperiinae	*Hylephila phyleus*	Fiery Skipper	1	4	5
Hesperiidae: Hesperiinae	*Polites vibex*	Whirlabout	0	7	7
Hesperiidae: Hesperiinae	*Wallengrenia otho*	Southern Broken-Dash	5	5	10
Hesperiidae: Hesperiinae	*Poanes aaroni howardi*	Aaron's Skipper	1	10	11
Hesperiidae: Hesperiinae	*Euphyes pilatka pilatka*	Palatka Skipper	0	2	2
Hesperiidae: Hesperiinae	*Lerodea eufala*	Eufala Skipper	0	1	1
Hesperiidae: Hesperiinae	*Oligoria maculata*	Twin-spot Skipper	0	5	5
Hesperiidae: Hesperiinae	*Panoquina panoquin*	Salt Marsh Skipper	40	20	60
Hesperiidae: Hesperiinae	*Panoquina ocola*	Ocola Skipper	4	0	4
Papilionidae: Papilioninae	*Heraclides cresphontes*	Giant Swallowtail	0	1	1
Papilionidae: Papilioninae	*Pterourus palamedes*	Palamedes Swallowtail	1	0	1
Pieridae: Pierinae	*Ascia monuste phileta*	Great Southern White	1	1	2
Pieridae: Coliadinae	*Phoebis sennae eubule*	Cloudless Sulphur	8	5	13
Pieridae: Coliadinae	*Pyrisita lisa*	Little Yellow	5	10	15
Pieridae: Coliadinae	*Abaeis nicippie*	Sleepy Orange	1	0	1
Lycaenidae: Theclinae	*Mitoura gryneus sweadneri*	Sweadner's Juniper Hairstreak	0	3	3
Lycaenidae: Theclinae	*Strymon melinus*	Gray Hairsreak	0	1	1
Lycaenidae: Polyommatinae	*Brephidium isophthalma pseudofea*	Eastern Pygmy Blue	5	0	5
Lycaenidae: Polyommatinae	*Leptotes cassius theonus*	Cassius blue	0	10	10
Lycaenidae: Polyommatinae	*Hemiargus ceraunus antibubastus*	Ceraunus Blue	7	1	8
Nymphalidae: Danainae	*Danaus plexippus plexippus*	Monarch	1	2	3
Nymphalidae: Danainae	*Danaus gilippus berenice*	Queen	6	2	8
Nymphalidae: Heliconiinae	*Agraulis vanillae nigrior*	Gulf Fritillary	5	15	20
Nymphalidae: Heliconiinae	*Heliconius charitonia tuckerorum*	Zebra Heliconian	2	4	6
Nymphalidae: Nymphalinae	*Juonia coenia*	Common Buckeye	1	4	5
Nymphalidae: Nymphalinae	*Anartia jatrophae guantanama*	White Peacock	2	2	4
Nymphalidae: Nymphalinae	*Phyciodes phaon*	Phaon Crescent	5	20	25
		TOTALS	**113**	**153**	**266**

Thirty-three species observed in approximately 3 hours.

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DEFINITION:

Silvopastoral [1] - describes the practice of combining forestry and grazing of domesticated farm animals in such a manner that it is advantageous to both production of trees and livestock production. ***Silvopastoral*** [2] systems are widely used in Latin America to combine trees, pastures, and livestock in an ecosystem friendly manner with objectives of *"including the pervasive environmental, social and economic objectives of sustainable development"*.

1) http://en.wikipedia.org/wiki/Silvopasture
2) http://encyclopediaofforestry.org/index.php/Silvopastoral_Systems_in_Latin_America

THE GRAVESITE OF JOHN ABBOT (1751 - ca. 1840), PIONEERING SOUTHERN LEPIDOPTERIST

BY

LANCE A. DURDEN AND GARY R. MULLEN

The historical works of John Abbot in the southern United States (mainly Georgia) are well known to many lepidopterists, ornithologists and other naturalists. Several books or articles have been written about his life, publications, and, in particular, about his superb illustrations of butterflies, moths, other insects, spiders, birds and plants (Scudder, 1888; Allen, 1957; Reynolds, 1983; Rogers-Price, 1983; Parkinson & Rogers-Price, 1984; Gilbert, 1998; Calhoun, 2006a,b, 2007; Towers Klacsmann, 2009). His name is currently memorialized in several ways. For example, the John Abbot Award is a prestigious honor bestowed annually by members of the Southern Lepidopterists' Society on an exceptional individual lepidopterist. Nevertheless, little has been written about John Abbot's final resting place which is in a small, rural, family cemetery off a dirt road in Bulloch county, Georgia, about 12 km southeast of the town of Brooklet and about 52 km west of Savannah.

Fig. 1. The historical marker for John Abbot's gravesite on the shoulder of Arcola Road (between Highway 26/80 and Interstate 16), southeast of Brooklet in Bulloch County, Georgia. The inscription (re-written on the right) reads:

John Abbot (1751~1839)
Ornithologist, Entomologist, Artist
-1/3 mile →
In the old McElveen cemetery, one third of a mile northeast of this marker, is the grave of John Abbot, pioneer naturalist of Georgia. Abbot was born in London June 1, 1751, and in early youth became devoted to the study and delineation of insects. At sixteen he already had become proficient with water colors and had collected, painted and exhibited his work in London.
Longing for new collection grounds, he came to Virginia in 1773 and, after three years there, he settled in Georgia. During the next sixty years he devoted himself to the study of birds, insects and plants, and some of his specimens even today are found in the great museums of Europe.
One publication entitled THE NATURAL HISTORY OF THE RARER LEPIDOPTEROUS INSECTS OF GEORGIA, with 104 plates, is compiled from Abbot's notes and was brought out by Sir James E. Smith in 1797. Thousands of other paintings, mostly of birds and insects, remain unpublished and are widely scattered. Two albums of Abbot's paintings still remain in Georgia, one of birds at the University of Georgia at Athens and one of insects at Emory University.

016-2A Georgia Historical Commission 1956

Based on his autobiographical notes located in the Museum of Comparative Zoology at Harvard University (taken from Towers-Klacsmann, 2009) and on information included in some of the references cited above, John Abbott was born in England (London) in 1751, the second of five children of John and Ann Abbot. His father was a lawyer and the family rented a country home where the young John collected and reared insects and interacted with other local naturalists. His interest in art was influenced by his family's collection of quality prints and paintings. In 1769, John started to follow in his father's profession by becoming a law clerk but, after five years, he became disenchanted with that line of work as his interest in natural history grew stronger. With a new direction, he mastered taxidermy skills and techniques for mounting and preserving various insects. Earlier, he had learned how to illustrate natural-history specimens, and in 1770 he exhibited two watercolors of British moths at the Society of Artists of Great Britain.

In 1773, Abbot boarded a ship from England to Virginia, taking with him a letter of introduction from the Royal Society of London and commissions from several collectors and other professionals in London to collect specimens for them. Although he spent more than two years in Virginia, he relocated to Georgia in February 1776 because of increasing unrest between Britain and the American Colonies. Georgia was considered to be a neutral state and Abbot considered this to be conducive to maintaining ties to his British clients and therefore his livelihood. From

Fig. 2. John Abbot's gravestone in the McElveen family cemetery. The inscription (re-written on the right) reads:

JOHN ABBOT 1751-1840
Mary D. Stuart
1956

JOHN ABBOT OF GEORGIA
1751 – 1840

TALENTED ARTIST AND SEARCHING NATURALIST
OF BIRDS AND INSECTS.

AS A TRIBUTE TO HIM AND HIS WORK
MAY YOU WHO STAND HERE FIND PLEASURE
IN PROTECTING THE NATURAL BEAUTY
OF GEORGIA.
JOHN ABBOT LIES BURIED IN THIS
WOODLAND CEMETERY BECAUSE OF
HIS LOVE OF NATURE AND HIS LONG
FRIENDSHIP WITH THE McELVEEN FAMILY.
ERECTED BY GEORGIA HISTORICAL SOCIETY
1957

that time on, Abbot spent the rest of his life (more than 60 years) in Georgia, mainly in the vicinity of Savannah and Brooklet, collecting and illustrating natural-history specimens. His illustrations were sent to clients around the world but some remain in Georgia to this day. Abbot married, and he and his wife had a son John Abbot, Jr. in 1779, who lived in Savannah and died there in 1826. The senior John Abbot's wife died in 1817.

In his later years, in failing health and diminished prosperity, John Abbot lived in an outbuilding located on the plantation of his close friend William Emanuel McElveen III (1812-1880) near Brooklet in Bulloch County, Georgia. Abbot's name was recorded in the Bulloch County census of 27 October 1840 but, based on anecdotal information, he died soon after (or possibly before) that date. The exact date of his death is unknown, as evidenced by the year of 1839 inscribed on the Georgia Historical Commission roadside marker (Fig. 1) and that of 1840 inscribed on his gravestone (Fig. 2). The roadside marker was erected in 1956, whereas the current gravestone was set in place in 1957 by members of the Georgia Historical Society.

Fig. 3. The McElveen family cemetery.

Fig. 4. Roadside signpost for John Abbot's gravesite on McElveen Cemetery Road.

John Abbot is buried in the McElveen family cemetery (Fig. 3) next to William McElveen. The modest but picturesque cemetery is nestled in a small wooded area in rural southeastern Georgia. It is located about half a kilometer from Arcola road (which is paved) on a small dirt road (McElveen Cemetery Road) and is well signposted (Fig. 4).

When John Abbot's current gravestone was commissioned, members of the Georgia Historical Society chose to reproduce on a metal plate the well-known (currently, the only known) image of him that some authors believe to be a self-portrait (Calhoun, 2003). The plate is signed, "Mary D. Stuart, 1956." If Abbot did prepare this portrait, it could be argued that its quality was not up to his usual high artistic standards; as Scudder (1888) remarked, "There seems to be not a little humor in the quaint features and figure..." in this portrait. Perhaps John Abbot completed this portrait of himself in a partly caricature style. Whatever the origin and motive was for this portrait, it is arguably a fitting addition to John Abbot's gravestone.

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62nd ANNUAL MEETING (2013) OF THE LEPIDOPTERISTS' SOCIETY

The McGuire Center, Florida Museum of Natural History and the University of Florida invite you to attend the 62th Annual Meeting of the Lepidopterists' Society also hosted with the Association for Tropical Lepidoptera and the Southern Lepidopterists' Society. The meeting will be held at the Hilton University of Florida Conference Center in Gainesville, Florida. Registration information and further updates are available on the Lepidopterists' Society website (www.lepsoc.org) and also at www.lepsoc2013.com.

The schedule will include separate field trips for photographers/watchers and collectors during the day on June 27 and a moth field trip that evening. The number of participants for each field trip will be limited so preregistration is required. Each registrant will receive a free admission to the Butterfly Rainforest at the McGuire Center. Formal presentations and poster sessions will be scheduled for June 28-30, with special evening events including the traditional barbecue (June 28) and banquet (June 29). Please plan to attend this meeting.

-- Jacqueline Y. Miller, McGuire Center for Lepidoptera and Biodiversity

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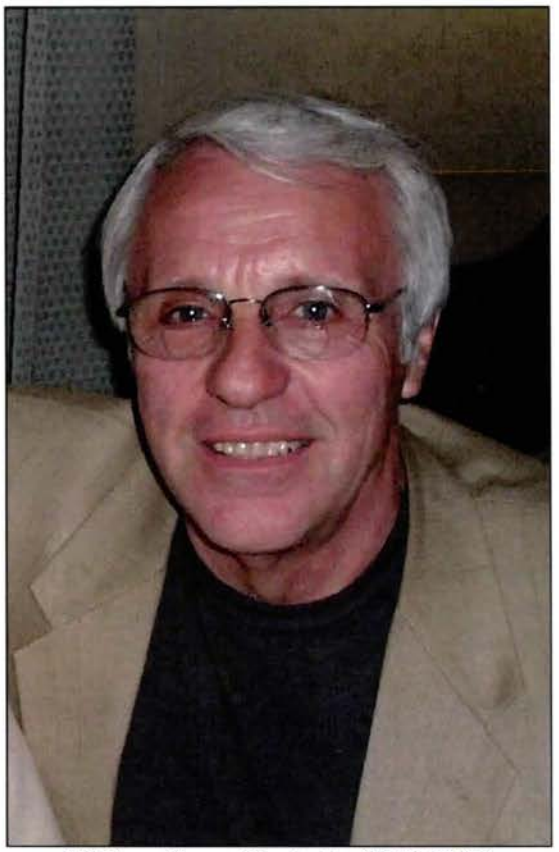
WILLIAM HENRY HOUTZ JR.



William Henry Houtz Jr. (1946-2012)

Our society lost an enthusiastic and passionate lepidopterist on Monday, June 11, 2012. William Henry Houtz, Jr. leaves behind his wife of 40 years, LaVerne Lengel Houtz; a daughter, Kimberly, wife of Keith Schultz, New Tripoli, PA, and twin granddaughters, Sarah Schultz and Emilee Schultz who were the sparkle in his eye. William, known as Bill, lived in Pine Grove, Pennsylvania. He was born in Pottsville, Pennsylvania on December 4, 1946.

Bill was a 1964 scholar athlete graduate of Schuylkill Haven High School. In 1968, he received a bachelor of science degree in education from Penn State. He received his master of science degree in education from Kutztown College and was a biology/advanced biology teacher at Pottsville Area High School for 35 years.

Bill was a member of the NRA and was an avid deer hunter and sportsman. He was a lepidopterist who reared moths and butterflies. He enjoyed exchanging and selling butterflies to others. He built a small, but very well curated collection for scientific purposes.

His passion was for his church, his family, rearing butterflies/moths and hunting.

Bill was a speaker and member of the Gideons. He was a member of Reedsville Bethesda E.C. Church, where he was a Sunday school teacher and was a former ministry council president, former class leader, former official board vice president and former Sunday school superintendent. He was a past president of the Pine Grove Basketball Boosters, a former Child Evangelism Director and former Church League bowler.

I had the pleasure of knowing Bill through my phone calls and exchanges of arctiid moths. After Bill passed suddenly from a heart attack, I contacted his wife. Speaking with her, I know that he was a fortunate man. He had a great family, a lot of interests and a lot of friends. He will be missed by those who knew him.

Sincerely,
Jeffrey R. Slotten
Southern Lepidopterists' Society Treasurer

The members of the Southern Lepidopterists' Society also wish to extend their sincerest condolences to Bill's wife, Mrs. LaVerne Houtz, and to all his family on the untimely death of their loved one. [The Editor]

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SLS 2012 ANNUAL MEETING MINUTES

Chairman Deborah Matthews called the Southern Lepidopterists' Society (SLS) Business Meeting to order at 4:15 PM on Saturday September 29, 2012 at the McGuire Center for Lepidoptera and Biodiversity in Gainesville, Florida. Members who signed in at the Business Meeting were:

James K. Adams	Rick Gillmore	Brian Scholtens
David Auth	Daniel Hyman	Jeff Slotten
Julieta Brambila	Deborah Matthews	Don Stillwaugh
John Calhoun	Marc Minno	J. D. Turner
Charlie Covell	Tom Neal	Andy Warren
John Douglass	Michael Rich	

The meeting began with a quick review of the SLS 2011 Annual Meeting Minutes. Debbie followed with a summary of last year's accomplishments – 3 Issues of NEWS with a fourth on the way, the selection of a Nominating Committee for the Abbott Award (3 Nominees) and SLS participation at the 2011 ButterflyFest at the Powell Hall.

Secretary Don Stillwaugh gave a summary of the 2012 Board Meeting held earlier in the day: 1) Lengths of Officer terms are NOT stated formally in the SLS Constitution – this needs to be addressed! 2) Potential addition of another Member-at-Large 3) Status of the State Coordinators 4) Date & Location of the 2013 SLS Business Meeting.

Next, Jeff Slotten gave the Treasurer's Report. Income and expenses for this year are about even (see NEWS September 2012 for details). Production and mailing of NEWS, as usual, constituted the majority of the expenses.

Marc Minno gave a brief summary of the previous day's field trip to Yankeetown attended by seven or so members. James Adams reported that the previous night's black-lighting at Paynes Prairie was "slow & steady" and will ultimately provide for a significant list. Charlie Covell concurred.

Under New Business, Member-at-Large Rick Gillmore questioned the appropriateness of articles published in NEWS that focus on geographic regions and taxa outside that of the SLS. A discussion ensued regarding the pros and cons of inclusion. Some felt these articles should be submitted to The Lepidopterists' Society (TLS) rather than SLS, while others didn't mind the insertion of these additional articles. The exchange tapered off with an arrangement that Barry and James Adams (Editor, NEWS of TLS) will keep in communication on this topic.

Next came the presentation of the 2012 John Abbott Award to J. Barry Lombardini for his outstanding work over the years as SLS NEWS Editor. Jeff accepted the award on Barry's behalf. A photo of Barry in his "cozy" office was projected on the screen while Debbie read a brief paragraph from Barry's acceptance article (NEWS September 2012).

The subject of Officer elections followed next – Marc proposed the addition of the phrase "two year terms" to the SLS Constitution. It was seconded, a brief discussion followed and the proposal passed unanimously.

The addition of a second Member-at-Large was proposed by Rick and seconded. Back and forth debate hinged on the phrase "with preference given to students." The duties of Member-at-Large were read from the SLS Constitution. Ultimately, a vote to simply "add a Member-at-Large" passed 10 yeas to 6 nays.

The topic continued with the nomination of Lary Reeves for this newly created position. It was pointed out from the membership that the candidate must accept the nomination and the Chair attempted to reach Lary by cell phone. Contingent upon his acceptance, Lary's nomination passed unanimously.

In other New Business, Charlie mentioned that the information he is getting for the State Coordinator's Report is coming primarily from NABA members rather than the regular SLS membership. He felt that SLS should reach out more to "watchers' to augment the State Reports.

Debbie made the announcement of the upcoming ButterflyFest at Powell Hall on October 13 & 14. She also proposed that the 2013 SLS Annual Business Meeting be held in conjunction with The Lepidopterists' Society Annual Meeting in Gainesville at the end of next June.

The Chair received a call from Lary accepting the nomination and thus that new Member-at-Large position will be filled come the first of the year.

Suggestions for additional SLS events were made including a spring moth outing, a Fall SLS Meeting and an informal fall field trip meeting. Further discussion was tabled until the June 2013 Business Meeting.

The meeting was adjourned at 5:14 PM.

Respectfully submitted,
Don M. Stillwaugh, Secretary

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MANY THANKS TO THE FOLLOWING DONORS TO THE SOUTHERN LEPIDOPTERISTS' SOCIETY

Gary Noel Ross (Benefactor) ***Bruce Dixon*** (Benefactor)

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NOTICE — Looking to Trade MONA Fascicles:

I am interested in trading a set (in excellent shape) of **Moths of North America North of Mexico, Fascicles 27.1, 27.2, 27.3** for other MONA fascicles. I am seeking (in like condition) in any combination Fascicles 5.1, 6.1*, 7.6, 13.1A/B*, 13.1C*, 13.2A*, 13.2B*, 15.2*, 15.3*, 15.4*, 15.5, 17.2, 25.1, 26.1, 26.9. Asking 1:1 trade except on those fascicles showing asterisk, for which I'm asking 2:1. Prefer to trade as a set but will entertain other offers. If interested please contact Parker Backstrom at dpbackstrom@embarqmail.com.

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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 records, Sept. 22 – Dec. 9, 2012:

Barbara Woodmansee and her husband Marc and friends visited Three Lakes Wildlife Management Area, 25 miles SE of St. Cloud, Osceola Co., on Oct. 1, 2012, and reported 59 *Atrytone arogos*, plus the following:

Urbanus proteus, U. dorantes, Thorybes. bathyllus, T. pylades, Erynnis zarucco, E. horatius, Nastra lherminier, Lerema accius, Ancyloxipha numitor, Copaeodes minima, Polites themistocles, P. vibex, Hesperia meskei, T. confusa, 59 Atrytone arogos, Anatrytone logan, Euphyes arpa, E. berryi, Wallengrenia otho, Atalopedes campestris, Lerodea eufala, Oligoria maculata, Panoquina ocola, Papilio polyxenes, Papilio glaucus, Papilio troilus, Papilio palamedes Eurytides Marcellus, P. sennae, E. daira, P. lisa, S. melinus, C. cecrops, H. ceraunus, Calephelis virginiensis, L. archippus, P. tharos, P. phaon, J. coenia, A. jatrophae, A. vanillae, Hermeuptychia

sosybius, N. areolata, D. plexippus, and *D. gilippus.*

Barbara also reported these butterflies for Nov. 18, 2012, from Hague Dairy off Rt. 441, Alachua Co., between Gainesville and Alachua: *U. proteus, U. dorantes, Pyrgus oileus, P. communis complex, H. phyleus, p. vibex, Phoebis agarithe, P. sennae, C. eurytheme, A. nicippe, P. daira, P. lisa, P. protodice, P. m-album* (4), *P. phaon, J. coenia, A. jatrophae, E. claudia, A. vanillae, H. charithonia, D. plexippus* and *H. sosybius.*

Charlie Covell recorded the following in Gainesville, Alachua Co.:

U. proteus, Sept. 21, 24, Oct. 12, 13, Nov. 2, 8, 21
U. dorantes, Nov. 5, Dec. 5
W. otho, Sept. 22
H. phyleus, Oct. 12, 13, Nov. 2, 21
B. polydamas, Sept. 24, 26
P. polyxenes asterius, Sept. 24,
P. glaucus, Sept. 26, 30
P. palamedes, Oct. 6, 7, 12
H. cresphontes, Oct. 6
P. sennae, Sept. 22, 23, 24, 26, Oct. 5, 6, 12, 13, 14, 28, Nov. 2, 8, 17, 21, Dec. 5, 9
P. philea, Oct. 4, Nov. 3
P. lisa, Sept. 23, Nov. 17
A. nicippe, Sept. 22, 26, Nov. 2, 17, 21
S. melinus, Oct. 6
L. cassius, Nov. 1, 17, 22
H. ceraunus, Sept. 22
P. interrogationis, Oct. 6
L. archippus, Nov. 21
J. coenia, Sept. 24, Oct. 6, 12, 13, Nov. 3, 22
A. vanillae, Sept. 22, 24, 26, 27, 30, Oct. 5, 6, 7, 12, 13, 14, 28, Nov. 1, 2, 3, 5, 8, 17, 21, 22
P. tharos, Sept. 21, Oct. 6
H. charithonia, Sept. 21, 23, 24, Oct. 5, 6, 7, 12, 13, 14, 28, Nov. 1, 2, 3, 4, 5, 17, Dec. 5, 7
D. plexippus, Sept. 22, 24, 26, Oct. 1, 5, 13, Nov. 2, 16
D. gilippus, Oct. 12
H. sosybius, Nov. 2, 21

SPHINGIDAE:
Enyo lugubris, Oct. 6
Pseudosphinx tetrio, Oct. 12 (collected by Matt Standridge)

Charlie's residential list for the year added only two species in the period: *Eurema daira* on Sept. 17 and *Wallengrenia otho* on Sept. 22 for a year total to date of 25 species.

Charlie also recorded the following butterflies in the visitors' center area of Payne's Prairie State Preserve Park, Alachua Co., on Sept. 27: *U. proteus, E. horatius, E. vestris, A. aesculapius, W. otho, P. glaucus, P. troilus, P. palamedes, A. monuste, P. sennae, A. nicippe, L. arthemis astyanax, A. celtis* (female), *A. vanillae, H. charithonia,* and *H. sosybius*. Also seen: *C. myrodora* (Arctiinae) on small white ball-shaped flowers near the observation tower. Nearby (same day) at Lake Wauberg recreational park for the University of Florida we saw *P. palamedes, P. sennae, P. lisa, E. nicippe, J. coenia, A. vanillae.* and *H. charithonia.*

Sept. 26. Charlie recorded the following at the Payne's Prairie State Park boardwalk off Rt. 441 *P. sennae, A. nicippe, A. vanillae* and *D. plexippus.*


Turtle Mound, Canaveral National Seashore.

Tom Neal sends in the following Florida report:

"On 25 June during a trip to central Florida at the height of Tropical Storm Debby I got this crazy idea to visit Turtle Mound at the north end of the Canaveral National Seashore about 10 miles south of New Smyrna Beach, Volusia County. I had never been there before. This is a large indian shell midden approximately 70 feet tall and is vegetated with what might be termed the northernmost tropical hammock in Florida. During a break in the weather there was a brief time when the sun sort of came out and numerous zebra butterflies flitted about an opening in the hammock. Among them was a fresh male *Dryas julia.* I have no idea whether this butterfly is established there, but it sure seemed at home rather than just passing through. I have never seen this

butterfly north of extreme South Florida. Attached is a photo of Turtle Mound; I didn't get a picture of the butterfly."

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

The contributors include James Adams (JKA or no notation) and Irving Finkelstein (ILF). 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 known new **STATE** and **COUNTY** records are indicated, and all dates listed below are 2012 unless otherwise specified. This fall was a good season for Ceraunus blues in much of Georgia, including several new county records. Also found in good numbers were Texan Crescents (*Anthanassa texana*). There was a huge explosion of Little Sulphurs (*Eurema lisa*) over many parts of Georgia, an unusually large movement of Long-Tailed Skippers (*Urbanus proteus*) into north Georgia and Dorantes skippers (*Urbanus dorantes*) into south Georgia, and, like last year, a number of Dainty Sulphur sightings. Warm weather continued on into December, with some weird emergences occurring (like a Tiger Swallowtail on Dec. 4 in Cobb Co.).

Crest of Rocky Face Ridgeline, just SW of Dalton, Whitfield Co.:

Oct. 4-5:

NOCTUIDAE: *Megalographa biloba, Argyrogramma verrucae, Lacinipolia anguina* (abundant!), *Abagrotis magnicupida.*

Oct. 19-20:

NOCTUIDAE: *Papaipema marginidens, P. cataphracta.*

Carbondale, I-75 exit 326, Whitfield Co.:
EREBIDAE: *Hypena minualis*, Sept. 23; *Metallata absumens*, Oct. 24.

Calhoun, Gordon Co. (346 Sunset Drive SE; home of JKA):
EREBIDAE: *Hypena minualis*, Nov. 3.

Salacoa Road at Salacoa Creek (east side of road), 5 miles ESE of Fairmount, Bartow Co., Oct. 5-6:
NOCTUIDAE: *Papaipema polymniae, Papaipema cataphracta.*

6 mi. W of LaFayette, Civil War Wayside along Hwy. 193, 0.5 mi. E of Davis Crossroads, Walker Co., Oct. 13-14:
NOCTUIDAE: *Apamea helva* (**COUNTY**), *Resapamea fractilinea* (**COUNTY**), *Agnorisma* bollii, ridiculously abundant (113 individuals).

Woodstock, Cherokee Co., Vicki DeLoach:
PIERIDAE: Dainty Sulphur (*Nathalis iole*), Sept. 24 (**COUNTY**). **NYMPHALIDAE**: *Junonia coenia*, Dec. 4 (LATE).

Cobb Co., Vicki DeLoach, Dec. 4:
PAPILIONIDAE: *Papilio glaucus* (Vicki's husband site record); one VERY confused emerger.

Atlanta, Fulton Co., home of ILF, Sept. 28:
NOCTUIDAE: *Bagisara repanda* (**COUNTY**).

Monastery of the Holy Spirit, Rockdale Co., Francis M. Stiteler, Jerry Payne, Rose Payne, Jim Allison:
For more complete lists from the Monastery, contact Francis Michael Stiteler

Aug. 18:

HESPERIIDAE: *Urbanus proteus* (7), *Erynnis zarucco, Polites vibex, Pompeius verna, Problema byssus* (12). **NYMPHALIDAE**: *Satyrodes appalachia.*

Sept. 8:

HESPERIIDAE: *Urbanus proteus* (15), *Copaeodes minimus, Problema byssus* (2). **PAPILIONIDAE**: *Papilio polyxenes*. **PIERIDAE**: *Pontia protodice, Nathalis iole*. **LYCAENIDAE**: *Parrhasius m-album.*

Sept. 26:
LYCAENIDAE: *Hemiargus ceraunus* (**COUNTY**)
Oct. 13:
HESPERIIDAE: *Urbanus proteus* (2), *Copaeodes minimus, Polites vibex, Lerodea eufala*. **LYCAENIDAE**: *Hemiargus ceraunus*.

Collectively for the year: six *H. ceraunus* and three *N. iole* for the Monastery.

Western Bibb Co., Jerry and Rose Payne:
Sept. 24:
LYCAENIDAE: *Hemiargus ceraunus*.
Oct. 14:
HESPERIIDAE: *Polites vibex*. **LYCAENIDAE**: *Hemiargus ceraunus* (7). **NYMPHALIDAE**: *Enodia portlandia, E. creola*.
Nov. 1:
HESPERIIDAE: *Urbanus proteus, Copaeodes minimus, Lerodea eufala*. **PIERIDAE**: *Eurema lisa* (16). **LYCAENIDAE**: *Hemiargus ceraunus*.

Yuchi WMA, Burke Co., Lois Stacey:
HESPERIIDAE: *Pygus oileus* (4+). **LYCAENIDAE**: *Hemiargus ceraunus*.

Additional Sightings of Ceraunus Blues (*Hemiargus ceraunus*), from Jerry and Rose Payne:
Taylor Co.: Sept. 15, Twiggs Co.: Sept. 23, Jones Co.: Sept. 25, Jasper Co.: Sept. 25.

Riverbend WMA, Laurens Co., Oct. 20, Cliff Gibbons and Jerry and Rose Payne:
HESPERIIDAE: *Pyrgus oileus, Copaeodes minimus* (6). **LYCAENIDAE**: *Parrhasius m-album* (2), *Hemiargus ceraunus* (32!). **NYMPHALIDAE**: *Anthanassa texana seminole* (121!!!), *Limenitis archippus, Enodia portlandia, Danaus plexippus.*

Statesboro, Bulloch Co., May 13, Lance Durden:
PYRALIDAE: *Chilo erianthalis* (**STATE**).

Hugh Gillis PFA, Laurens Co., Oct. 20, Cliff Gibbons, Jerry and Rose Payne:
HESPERIIDAE: *Urbanus proteus* (13), *Copaeodes minimus* (107!!). **LYCAENIDAE**: *Hemiargus ceraunus* (9). **NYMPHALIDAE**: *Limenitis archippus* (7).

Bond Swamp, Twiggs Co., Oct. 22, Jerry and Rose Payne:
HESPERIIDAE: *Urbanus proteus* (42), *Pyrgus oileus* (12). **PIERIDAE**: *Eurema lisa* (12), *Abaeis nicippe* (333!!). **LYCAENIDAE**: *Parrhasius m-album*. **NYMPHALIDAE**: *Anthanassa texana seminole* (7), *Limenitis archippus* (3), *Enodia portlandia* (3).

Rum Creek WMA, Monroe Co., Oct. 17, Terry Johnson, Jerry Payne and Rose Payne:
HESPERIIDAE: *Urbanus proteus* (51), *Copaeodes minimus* (39). **PIERIDAE**: *Eurema daira, Eurema lisa* (45). **LYCAENIDAE**: *Hemiargus ceraunus* (11). **EREBIDAE**: *Utetheisa ornatrix*.

Upson Co. side of Flint River (Pobiddy Rd.), Oct. 23, Terry Johnson, Jerry and Rose Payne:
HESPERIIDAE: *Pyrgus oileus*.

Near Howard, Talbot Co., Mar. 24, Dan Vickers and Pierre Howard:
LYCAENIDAE: Brown Elfins (*Incisalia augustinus*), female ovipositing on Mountain Laurel.

Sparrow Field "Pollinator Friendly Area", Skidaway Island, Savannah, Chatham Co., Sept. 7, Fitze Clarke:
LYCAENIDAE: *Hemiargus ceraunus, Leptotes cassius* (2).

Savannah, Chatham Co., Oct. 15, Jim Taylor:
LYCAENIDAE: *Leptotes cassius*. **NYMPHALIDAE**: *Heliconius charitonius*.

Sapelo Island, McIntosh Co., John Hyatt and Lance Durden:
Sept. 14-15:
NOTODONTIDAE: *Datana ranaeceps* (**COUNTY**), *Heterocampa astarte*. **EREBIDAE**: *Cosmosoma myrodora, Metallata absumens* (**COUNTY**), *Ablemma brimleyana*. **NOCTUIDAE**: *Schinia lynx* (**COUNTY**), *S. saturata, S. arcigera, Magusa divaricata, Condica cupentia, Eucoptocnemis dapsilis* (**COUNTY**).
Oct. 18:
CRAMBIDAE: *Syngamia florella, Herpetogramma bipunctalis*. **NOCTUIDAE**: *Anomis flava* (**COUNTY**), *Feltia floridensis* (**COUNTY**), *Eucoptocnemis dapsilis, Euxoa detersa* (**STATE**).
Nov. 30 – Dec. 1:
NOCTUIDAE: *Meropleon cosmion* (**COUNTY**), *Condica cupentia, Anomis flava.*

Clayhole Swamp WMA, Glynn Co., Sept. 29, Mike Chapman:
NYMPHALIDAE: Texan Crescent (*Anthanassa texana seminole*) (**COUNTY**), Appalachian Browns (*Satyrodes appalachia*) (**COUNTY**).

GA coast, Glynn County, Pierre Howard, Aug. 30:
HESPERIIDAE: *Panoquina panoquinoides.*

Lowndes Co., Sept., Pierre Howard:
HESPERIIDAE: *Urbanus dorantes*.

Chickasawhatchee WMA, Dougherty Co., Sept. 27-28:
NOCTUIDAE: *Stiria rugifrons, Pyrrhia aurantiago, Schinia tuberculum, S. petulans, S. sordida.* **GEOMETRIDAE**: *Leptostales laevitaria.* **TORTRICIDAE**: *Eucosma quinquemaculana.*

Americus, Sumter Co., July 29 and later, Saunders Pinckard:
NYMPHALIDAE: *Anthanassa texana seminole* (numerous).

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

Michael sends in the following report:

Chlosyne lacinia, Sight record, October 21, 2012, Eddie Jones Park, Caddo Parish, Louisiana. Reported by Jeff Trahan and Rosemary Seidler.

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

Ricky sends in the following report:

10 October 2012, Picayune, Pearl River county, *Exyra semicrocrea.*
3 November 2012, Vicksburg, Warren county, *Papaipema cataphracta.*

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

Steve sends in the following reports:

The following selected records were submitted by Parker Backstrom (Report #1). The high concentration of honeylocust feeders Parker has previously reported shows no sign of going away.

COSSIDAE:
Givira francesca (CHATHAM – May 22), (LEE – June 20) – photographed

THYATIRIDAE:
Pseudothyatira cymatophoroides (CHATHAM – Aug. 23) – photographed

GEOMETRIDAE:
Mellilla xanthometata (CHATHAM – May 22) – photographed

LASIOCAMPIDAE:
Heteropacha rileyana (CHATHAM – Aug. 2) – photographed

SATURNIIDAE:
Sphingicampa bicolor (CHATHAM – Aug. 7, Aug 17, Aug. 21, Aug. 22, Aug. 23) – total of 8 individuals – photographed

NOTODONTIDAE:
Peridea ferruginea (LEE – Aug. 16) – photographed
Heterocampa subrotata (CHATHAM – Aug. 10, Aug. 17, Aug. 21, Aug. 22) – photographed

NOCTUIDAE:
Cycnia oregonensis (CHATHAM – Aug. 15) – photographed
Magusa divaricata (CHATHAM – Aug. 22) – photographed
Spiloloma lunilinea (CHATHAM – Aug. 11) – photographed
Paectes nubifera (CHATHAM, **STATE** – July 26). Previously recorded in Florida, with at least one larva reared on live oak (Wagner *et al.*, 2011) – stray?
Heliocheilus lupatus (CHATHAM – Aug. 15) – photographed

The following selected moth records were also submitted by Parker Backstrom (Report #2):

CRAMBIDAE:
Diaphania hyalinata Sept. 7, Chatham. Photographed
Pilocrocis ramentalis Oct. 26, Chatham. Photographed

THYATIRIDAE:
Pseudothyatira cymatophoroides Sept. 7, Chatham. Photographed

SATURNIIDAE:
Sphingicampa bicolor Sept. 7,12, Chatham. Photographed
Hemileuca maia Nov. 23, Moore. Photographed

SPHINGIDAE:
Enyo lugubris Oct. 3, Chatham. Photographed

EREBIDAE:
Spargaloma sexpunctata Oct. 1, Chatham. Photographed
Anomis editrix Oct. 6, Chatham (**STATE**). Photographed and collected. This appears to be the first time this Southern species has been recorded in North Carolina.
Scoliopteryx libatrix Oct. 13, Watauga. Photographed

NOCTUIDAE:
Meropleon diversicolor Sept. 15, 22 and Oct. 6, Chatham. Photographed
Ochropleura implecta Oct. 15, Chatham. Photographed
Agnorisma bollii Oct. 12, 16, 17, 18, 19, 23, 25, Chatham. Photographed. This species occurs in North Carolina primarily in the mountains but has previously been recorded as far east as Fort Bragg in the Sandhills.

Jeff Slotten submitted the following record.

NOCTUIDAE:
Catocala grisatra 6/15 Moore (**COUNTY).** Previous attempts to find this species in Bladen County, where the first state specimens were collected by Jamie Cromartie, have been unsuccessful. Jeff's new record now re-confirms the presence of this species but also significantly extends its known range in North Carolina, adding the Fall-Line Sandhills to the Lower Coastal Plain.

Steve Hall and Bo Sullivan submitted the following records from a moth survey they are doing as part of a larger study of brownwater habitats along the Roanoke River being conducted by Hall and Harry LeGrand. This area contains some of the richest levees and bottomlands in the state – particularly anomalous for the Coastal Plain – and contains probably the biggest canebrakes, stretching along the river for over a mile in some areas.

NOCTUIDAE:

Leucania calidior 5/24-25 Halifax (**COUNTY**), 5/25 Northampton (**COUNTY**) (not submitted in the Spring Newsletter). A supposedly wide-spread cane-feeding species that we have failed to find at nearly all canebrake sites we've sampled over the past twenty years

Catocala alabama 6/19 Northampton (**COUNTY**). This record extends the known range of this hawthorn-feeding species from the southern Coastal Plain and Sandhills to close to the Virginia state line. Levee hawthorns are particularly common along the Roanoke.

Catocala amatrix 7/19 Northampton (**COUNTY**) 8/2 Bertie (**COUNTY**). Recorded mainly in the mountains, with only a few Coastal Plain records. A cottonwood-feeding species, whose host plants – including both swamp and eastern cottonwood – are abundant in brownwater habitast.

Catocala connubialis 5/25 Northampton (**COUNTY**). Recorded mainly in the mountains, with only a few Coastal Plain records. Oak-feeding species.

Catocala mira 6/19 Northampton (**COUNTY**). New Coastal Plain record; recorded mainly in the mountains. Hawthorn-feeding species.

Catocala nebulosa 7/16 Northampton (**COUNTY**). New Coastal Plain record; recorded mainly in the mountains. A bitternut-feeding species, whose host plants are abundant in brownwater habitats.

Catocala neogama 6/19 Halifax (**COUNTY).** Recorded mainly in the mountains, with only a few Coastal Plain records. Walnut- and bitternut-feeder.

Catocala orba 6/18 Northampton (**COUNTY**). Hawthorn-feeder previously recorded along the Roanoke in Martin County.

Catocala piatrix 7/19 Northampton (**COUNTY**). Recorded mainly in the mountains, with only a few Coastal Plain records. Probably associated with bitternut or water hickory along the Roanoke.

Halysidota harrisii 7/13 Halifax (**COUNTY**). Larva found on the ground under a sycamore. This species is not only difficult to distinguish from the ubiquitous *H. tessalaris* as adults, but *harrissii* appears to be much more difficult to collect. Based on the distribution of its host plant, sycamore, it should not be as rare as it seems.

Rivula stepheni 6/19 Northampton (**COUNTY**). First record for the Northern Coastal Plain; most NC records are from the Croatan National Forest, Camp Lejeune, and Fort Bragg. Probably a wetland graminoid-feeder.

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 from Tom Paine:

Tom Paine reports *Hemileuca maia* present in numbers along the border of Stewart and Montgomery counties, Tennessee, November 11-18.

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

Ed Knudson sends in the following Texas report - Summer, Fall 2012:

South Texas

Conditions from June-December were marked by some rain early and little rain after September, resulting in poor conditions in areas without irrigation. About 145 butterflies found, mainly from mid October to early December. Nymphalidae that are usually attracted to bait were conspicuous by their absence, unlike last year. If fact, baiting was generally very poor for all Lepidoptera in most areas. As of December 12, no confirmed US records were reported for butterflies.

The best species found were *Melete lycimnia isandra* (Pieridae); *Strymon yojoa, S. bebrycia*, and *S. rufofusca* (abundant) (Lycaenidae); *Heliconius erato petiverana, Dione moneta, Dryadula phaetusa, Eueides isabella eva,*

Siproeta epaphus, Dynamine postverta, Historis odius dious (Nymphalidae); *Proteides mercurius, Erynnis meridianus* (The only new extreme south TX. regional record), *Heliopyrgus sublinea*, and *Rhinthon osca* (Hesperiidae).

[Ed added the following addition on December 16 to the above report: A new US record finally showed up in the valley today. *Panthiades bathildus* at the National Butterfly Park in Mission. This species was included in our RGV book as a likely stray.]

Interesting moths were not common, but there were at least 6 new US records and several state records mainly in the Erebidae. *Hemeroblemma mexicana* (female), was collected in Starr Co., Falcon Heights, by Berry Nall on June 6, in a bait trap (New US). *Ptichodes immunis* was collected by Mike Rickard in Hidalgo Co., Mission, at light on November 4, and by Maury Heiman in Medina Co., Devine, at light on November 8 (New for Texas). *Mocis cubana* was found in Alamo by Bordelon & Knudson November 1-23, if correct, it will be a TX state record.

In the subgroups of the Arctiinae, *Xenosoma flaviceps*, a male (Pericopina), was collected in Hidalgo Co, Alamo, at light on December 4, by Charles Bordelon (Det. Chris Schmidt), and *Aclytia heber*, male (Euchromiina) was collected by Bordelon in Alamo, at light on November 1 (both US records).

In the Geometridae, an undetermined species of *Parilexia* (male) was collected in Alamo on October 21, and an undetermined species of *Psamatodes* was collected in Alamo on November 6, both by Bordelon (both probably new US).

In the Pyralidae, a new species of *Dolichomia* was collected in Santa Ana NWR September 14-16 by Mike Rickard (to be described later by M. Alma Solis).

A few interesting Sphingids were also found including *Enyo ocypete* (female), in Alamo on November 6 by Bordelon (new for TX), and *Aellopos fadus* was collected in Alamo while nectaring on October 15 by Knudson (Perhaps 1st TX voucher). *Erinnyis lassauxii* was also collected on October 20 at Alamo by Knudson. This species has been unusually common in central Texas this year, and was reared multiple times, especially in the Austin area.

An interesting Noctuidae, included *Cobubatha hippotes* (2nd TX record) from Alamo on November 2 by Bordelon and a few other interesting Erebids included *Massala obvertens* and *Cecharismena jalapena*, from Alamo, the second found well to the north by several collectors. *Coenipeta medina* was collected in Santa Ana NWR by Bordelon (2nd US). *Gonodonta bidens* (November 16) and *Letis xylia* (October 19) were collected by Berry Nall at Falcon Heights.

North Texas

In mid-June Knudson and Bordelon traveled to Daingerfield SP and Caddo Lake SP, meeting up with James McDermott at Daingerfield. The object was *Catocal*a and about 13 species were found. McDermott brought along a species he had collected in Kaufman Co., the night before. It was confirmed as *C. judith*, which is new for Texas. Other species found that night in Daingerfield included *C. dejecta, C. insolabilis, C. ulalume, C. muliercula, C. coccinata, C. innubens,* and several other "junk" species.

In Anderson Co., near Engeling WMA on 17 October, a new sesiid for Texas. *Pennisetia marginata* was collected by Rick Fleischer, attracted to net-mounted lures.

In closing, Ann Gordon sent us a photo of *Erranis tiliaria*, from Waco, McLennan Co., taken on December 6. The 2nd TX record known to us.

Virginia: Harry Pavulaan, P.O. Box 1124, Herndon, VA 20172, E-Mail: pavulaan@aol.com

Harry sends in the following report:

Pyrgus albescens – LOUDOUN Co. (**STATE** record): Leesburg, Dry Hollow Road, 10/13/10 (1 collected – Harry Pavulaan). Specimen sent with series of *Pyrgus* to McGuire Center, Gainesville, FL.; det. by Andrew Warren via genitalic examination. **This now throws in doubt any future reports of *Pyrgus communis* north through Virginia.**

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The Southern Lepidopterists' News is published four times annually. Membership dues are $20.00 annually. The organization is open to anyone, especially those with an interest in the Lepidoptera of the southern United States. Information about the Society may be obtained from Marc Minno, Membership Coordinator, 600 NW 34 Terrace, Gainesville, FL 32607, E-Mail: mminno@bellsouth.net, and dues may be sent to Jeffrey R. Slotten, Treasurer, 5421 NW 69th Lane, Gainesville, FL 32653.

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