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J. BARRY LOMBARDINI: EDITOR

EUERYTHRA PHASMA IN NW LOUISIANA WITH THE FIRST DETAILED LARVAL DESCRIPTIONS OF THE SPECIES

BY

ROYAL TYLER

This paper is a documentation of the occurrence and identifying characteristics of *Euerythra phasma* in Northwest Louisiana. This is the only species from this genus recorded in Louisiana. This is the first account known to the author of life history of *E. phasma*.

Fig. 1A. Adult *Euerythra phasma*. Photo taken 6-12-20 at MV light and blacklight.

Location

The study site is The Royal Hills farm, a 153 acre tree farm located in Caddo Parish, Louisiana. This is the NW corner of the state, not far south of Texarkana, AR. It is approximately 120 acres of upland shortleaf pine (*Pinus echinata*) and loblolly pine (*Pinus taeda*) ecosystems, with about 25 acres of creek bottoms of hardwoods and cypress, and 2-3 miles of pipelines and woods roads providing good access and openings. Soils are predominately deep, sandy to sandy loam soils.

The host plant for this moth was reported by Heppner (2003) as being *Sideroxylon. Sideroxylon lanuginosa* (formerly known as *Bumelia lanuginosa*) common names Gum Bumelia or Woolly buckthorn, occurs on sandhills on the study site including very close to the light setups where this species has been recorded. Although no larvae of *E. phasma* were recorded on the host, multiple young were recorded successfully reared on *S. lanuginosa* after collecting eggs from captured adults.

Taxonomy/Identification

Erebidae, subfamily Arctiinae, genus *Euerythra* includes 2 species of moths in North America according to Lafontaine and Schmidt (2010) *Checklist of Moths of North America north of Mexico*. The only two species occurring are *Euerythra phasma* Harvey (1876) and *Euerythra trimaculata* Smith (1887). *E. trimaculata* has a limited range, limited to southern Texas and Florida.

Euerythra phasma is a very striking moth, easy to identify in the field (see photo 1A and 1B). An abbreviated version of Harvey's original description is "forewings white, crossed by a broad irregular blackish band from base to extremity of veins 3 and 4, where it retains the otherwise white fringes. From apices to middle of external margin a second band diagonally crosses the wing." He also briefly mentions "the body above is crimson and whitish at the base". He lists expanse as 38 mm. Covell (1984) lists it as 31-38 mm.

Fig. 1B. Adult *Euerythra phasma*.
Photo taken 6-12-20 at MV light and blacklight.

Occurrences

On the study site this species occurs primarily from March through August. Heppner (2003) and Covell (1984) both listed February through August, with Covell stating this was for Missouri, adding "a longer season southward." iNaturalist has recorded sightings in February through November with a majority of sightings coming in March/April and a small peak of sightings in June/July. There is a steep drop off in sightings after August, which matches the study site.

Heppner (2003) and Covell (1984) both listed the range of this species as from Kentucky south to Florida, and west to Missouri and Texas. I would further add Kansas and Indiana to the northern part of the range based on sightings recorded by BAMONA (butterfliesandmoths.org) in southern Indiana.

Life Cycle

To date little has been published on the life cycle of *Euerythra phasma* so it was decided to rear some larvae and determine identifying features and timing of the life cycle. Photographs were taken from oviposition (Photo 2A) throuth final instar (photo 2K) to document the identifying characteristics. From oviposition to emergence of the first adults took 76 days. However, there were still much younger larvae present in the containers when the first adults emerged. This could be a normal phenonomen or possibly mean that some eggs were much slower to develop. It would take further study to fully document the occurrence and reasons behind it.

Fig. 2A. Ova — photo taken 5-18-2020.

Multiple adults were collected and placed inside a plastic container during the week of May 10-16. Some adult photos are included for reference (see Photo 1A and 1B). They began ovipositing almost immediately with clusters from around 25-50 ova being observed 2 days later (photo 2A). Twelve days after oviposition first instar larvae were observed emerging. The larvae were solid white in color, with thin hairs spaced throughout the length of the body which also appeared white (see photo 2B). The head was almost clear in color.

Fig. 2B. Emergence of first star larvae
5-28-20.

The dorsal view by day 2 indicated that the hairs running along the dorsum were actually solid black, with the lateral view revealing the white hairs projecting at a 90 degree angle (horizontally) from the dorsal hairs which run vertically with the exception of over the head and tail which project outwards. The dorsum has begun turning a bright green to blend in with the host *Sideroxylon* leaves. The head also has begun to turn slightly yellow by this time-which will be the mature color. The feeding pattern at this point is lightly chewing between the veins, but will become true skeletonizing very soon (photo 2C).

Additional photos were taken at day 10 (June 7, 2020) which clearly illustrate the dorsal striping (see photo 2D). The dorsal striping could be described as white stripes along the outer edges of the green dorsum, with sets of parallel white dashes (or 2 broken white lines) between them. Lateral views show the sides continuing to be an almost clear to slightly off-white color. The head is now solid yellow. In addition, more evident at this stage is the skeletonizing feeding pattern of the early/mid instar larvae. An average size would probably be around 8mm in length at this stage.

Day 16 of larval stage (June 13, 2020) reveal a change back to an off-white or cream-colored dorsum with very pronounced white stripes, and the head and now the last two thoracic segments are turning bright yellow. There is a very slight green tint still showing on a few larvae but most are solid off-white. Larvae were also photographed on various other surfaces to confirm that wasn't just green color from underneath showing through transparent larvae, and the larvae stay the same off-white color with no color showing through from the other surface underneath. See photo 2E. Larvae are large enough that they no longer are skeletonizing feeding, but rather consuming the leaves.

Fig. 2C. Feeding patterns of first instar larvae (5-29-20).

Fig. 2D. June 7, 2020, dorsal striping evident and skeletonizing feeding pattern.

Fig. 2E. June 13, 2020

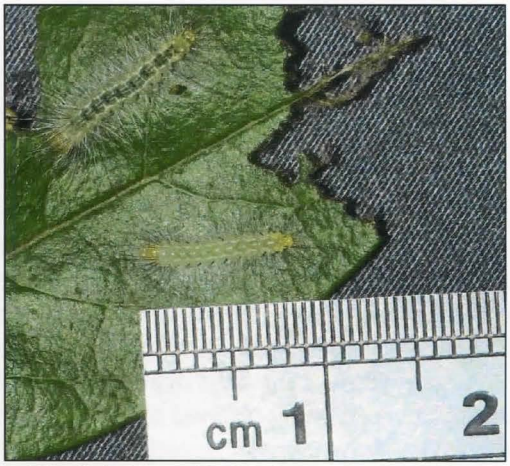

Fig. 2F. June 15, 2020, new colors after second instar (compare top larva to the earlier instar below) and note new feeding pattern of larger larva.

Day 18 of larval stage (June 15, 2020, Photo 2F) shows a transition to a second instar that includes a new dark stripe down the dorsum, in-between the parallel white broken lines. This photo shows both first and

Fig. 2G. June 22, 2020, black dorsum appears.

Fig. 2H. June 28, 2020, at day 31 larvae appear mostly black.

Fig. 2J. June 28, 2020, close-up of one larva with a black face.

Fig. 2K. July 5, 2020, final instar larva.

second instars, with the sizes of both instars. The second instar larvae are averaging about 11mm in size, slightly longer than the first instar larvae which were recorded a few days earlier at between 8mm and 9mm.

Day 25 of larval stage (June 22, 2020) – The larvae are now developing a black dorsum (photo 2G), but maintaining the green sides with white stripes and conspicuous yellow heads.

Day 31 of larval stage (June 28, 2020) – It's becoming very obvious that many of the larvae were slow to hatch by this point, with a wide variety of sizes and colorations in the containers. They continued to hatch for weeks after the initial hatch began, although most appeared to have emerged within a few days of each other. The most mature are the ones being referred to in the descriptions. By day 31, they appear mostly black. Close-up digital photographs reveal the striped patterns still existing on the lateral view.

On initial observations it wasn't obvious, but in later study of the photographs, it was observed that some of the caterpillars have developed a black face also (see photo 2H and 2J). Some maintained the yellow face all the way until pupation. Compare 2H to photo 2K.

Day 38 of larval stage (July 5, 2020) – The final instar caterpillar appears almost bloated, and more lethargic as it is becoming prepupal. The color appears lighter black, and the patterns are more obvious again (photo

Fig. 2L. July 7, 2020, day 40 larva begins to spin silk on underside of leaf.

Fig. 2M. Larva beginning pupation.

Fig. 2N. July 13, 2020, pupal cases.

2K). The long hairs have shed as it prepares for pupation.

Day 40 of larval stage (July 7, 2020, 51 days since ovipositing) – The first caterpillar is observed trying to spin a cocoon on the underside of a leaf in the container (photo 21).

Day 43 of larval stage (July 10, 2020) – By moving the larva that was beginning to pupate it may have disturbed the cycle a little. It has moved from under the leaf to the edge of the container and starting to curl up to prepare for pupation (photo 2M).

July 13, 2020 – Cocoons vary in color, from dark wine red to black depending on the maturity of the individual pupa. The most mature are nearly black by this point. Photo 2N shows two larvae that pupated just a couple of days apart.

At this point remaining larvae were reintroduced to the wild and just the remaining two were observed until completion of the cycle. The larvae were ravenous feeders and keeping them in fresh foliage to eat had been quite a chore. The remaining adults' emergence was observed beginning on August 2, 2020. The entire life cycle, from oviposition to the next generation of adults emerging, took 76 days. There were at least three instars with sheds being obvious in the container on June 15, and again around the week of July 5.

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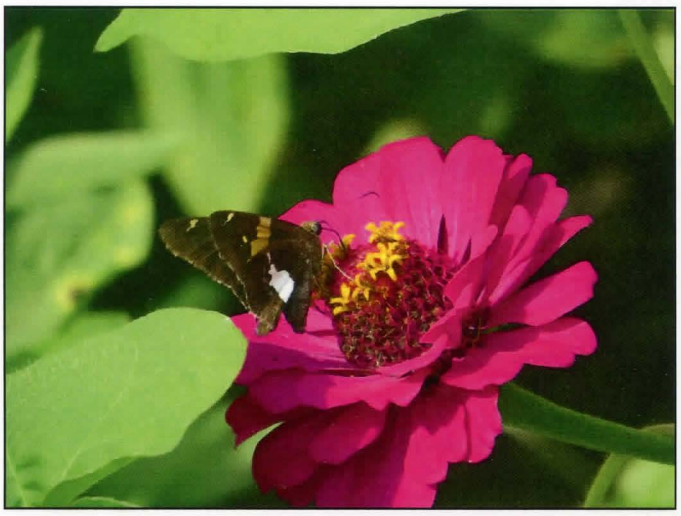

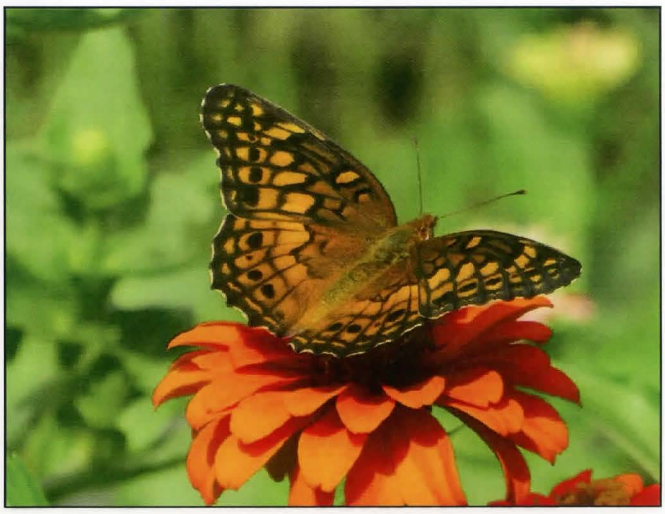

Photos taken by Matt Blaine in the Garden of Matt and Donna Blaine in Laurel, Delaware (August 2020)

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

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POSTSCRIPT TO "A GRAND DAY FOR HAIRSTREAKS ON THE COAST OF GEORGIA"

BY

JOHN A. HYATT AND LANCE A. DURDEN

Several years ago the present authors wrote an SLS report on a truly outstanding assemblage of hairstreaks (and a few neat day-flying moths) observed on May 21, 2016. (See John A. Hyatt and Lance Durden , "A Grand Day for Hairstreaks on the Coast of Georgia", *Southern Lepidopterists' News* 38(3), 177-179 (2016)). On a single chinquapin tree (*Castanea sp.*, probably *C. pumila*) in the area known as Crescent in coastal McIntosh Co., GA, we each took specimens of all eight hairstreak species known to occur in coastal Georgia — all in the course of about an hour and a half!

In subsequent years, hairstreaks kept coming to the blooming chinquapin, although neither of us ever found all eight species on the tree at the same time again. But a trip to the site on May 23, 2020, by Hyatt afforded not a single hairstreak. The accompanying photograph tells the sad tale.

Anyone who has collected Lepidoptera for many decades has probably seen many good collecting spots come and go, and one has to learn to take such disappointments in stride . But the inexplicable loss of this one tree, which stood at the edge of a moderately busy road, feels like the end of an era.

The wonderful hairstreak tree, then and now (May 2016 and May 2020)

(John Hyatt: E-Mail: jkhyatt@centurylink.net
Lance Durden: E-Mail: ldurden@georgiasouthern.edu)

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PHOTOGRAPHING THE YUCCA GIANT-SKIPPER, *MEGATHYMUS YUCCAE* IN CENTRAL OKLAHOMA

BY

BRYAN E. REYNOLDS

Since moving to central Oklahoma in September 2005, I've been on the quest to photograph all the butterfly species found within my home state. One of those on my 'hit list' was the Frosted Elfin, *Callophrys irus*. Chuck Harp had done extensive work in central Oklahoma on this species back in the 1990's and based upon his data, I had found a colony in the town of Sulphur (Murray County). This was in May of 2011 and all I found were the larvae on yellow wild indigo, *Baptisia sphaerocarpa*. So, I planned on returning the following spring to photograph adults.

The following year, I went to the colony to hopefully photograph adults. At this point of my photography career, I was still shooting slide film. So, on 31 March 2012, I arrived early to Sulphur and proceeded to the small patch of indigo that was growing in a cow pasture. I quickly saw adults and had my photos in less than an hour. That species was now covered…check. So, what to do next? It was still very early in the day and I had a pocket full of Fuji Velvia slide film that I wanted to shoot. The small community of Sulphur is right next to the Chickasaw National Recreation Area, so I decided to head there for more photography. I had been there many times, and I remembered seeing a decent patch of Arkansas Yucca, *Yucca arkansana*, growing along one of the roads on the preserve. I was thinking I might get lucky and the Yucca Giant-Skipper, *Megathymus yuccae*, could be flying. This would also be another lifer for me, so that's where I went.

Note: Photographs 1-12 all contain the following information: Yucca Giant-Skipper(s), *Megathymus yuccae*, Chickasaw National Recreation Area, Murray County, Oklahoma (31-March-2012).

Fig. 1. Yucca Giant-Skippers courting.

Veteran's Lake is located on the Chickasaw NRA and along the road to the lake there's a pullout. At this spot on the opposite side of the road, there is a small hillside that's covered with yucca, cactus, and loose rocks. I thought if any giant skippers were out, this would be a good place for them. I had never even seen a Yucca Giant-Skipper, but I had photographed adults of the Strecker's Giant-Skipper, *Megathymus streckeri*, in North Dakota, so I knew what to look for. I proceeded up the hill and within minutes, a loud insect buzzed past my head. My eyes acquired the subject as it flew by, and I couldn't believe it, here was my first *M. yuccae*. My heart was pounding as I slowly stalked the butterfly. After approaching low and slow, I was able to get some nice dorsal shots of a fresh male perched on a yucca

Fig. 2. Male Yucca Giant-Skipper

leaf. In less than an hour after arriving to Sulphur, I had already photographed two lifers. The day was definitely looking up, but I wanted more. It didn't take long and I noticed movement on a yucca plant. This was an incredible sight, here was a gorgeous female, and she was ovipositing! I immediately went into stealth mode and quickly moved into position for photos. I work her hard, getting many shots of the egg laying. Then I added

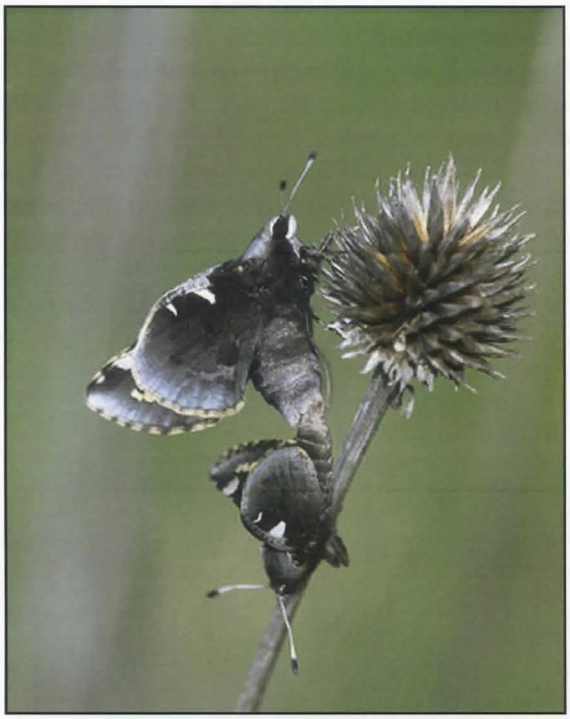

Fig. 3. Yucca Giant-Skippers mating.

more magnification and got some close-ups of eggs. And if that wasn't exciting enough, I was going to see and photograph an even more remarkable spectacle. The grand finale of the day happened when I saw a female land on a stalk of last year's vegetation. A male then immediately landed right next to her. He then curled his abdomen in the J position, she refused and loudly blasted away with him in hot pursuit, flying at breakneck speeds and literally inches away from her. I tracked them visually until they went down. While continuously looking at that spot and not averting my eyes, I quickly walked over cactus, yuccas and loose head-sized rocks to the spot. It was remarkable that I didn't break an ankle, but it was worth it. Here they were, sitting on an old coneflower stem and mating. This topped off a wonderful day of firsts.

All of this excitement happened in 2012, and since then, I've totally updated my camera set-up. I still use the exact same Nikon 200mm macro lens, but I now shoot in digital format. So, one of my big goals has been to find and reshoot all of the Oklahoma butterfly species, including the Yucca Giant-Skipper. Luckily, I noticed some flying very close to where I live, at the Lexington Wildlife Management Area (Cleveland County). So, early this year (2020), I started monitoring the small patch of yucca for any activity. I kept checking on a daily basis, and my patience paid off with my first spotting on 6 April, a fresh adult perched on an old coneflower stalk. I got some photos and then continued searching for more. Not 5 feet away was another one, this time perched near a yucca plant, which I assumed it just emerged out of. It was very fresh, and due to a cooler morning, was very cooperative. I got the standard full-body shots, but then decided to get closer for some wing detail photos and face portraits. As I was doing this, it started to rapidly vibrate, which I later learned was to warm up. It then blasted away, probably on its virgin flight. I found a couple more individuals, and worked them hard. One was a male that graciously opened to display his dorsal side. I had a good start on this day, but I really wanted more detailed coverage of this species. I was hoping for courtship, mating, and

Fig. 4. Female Yucca Giant-Skipper

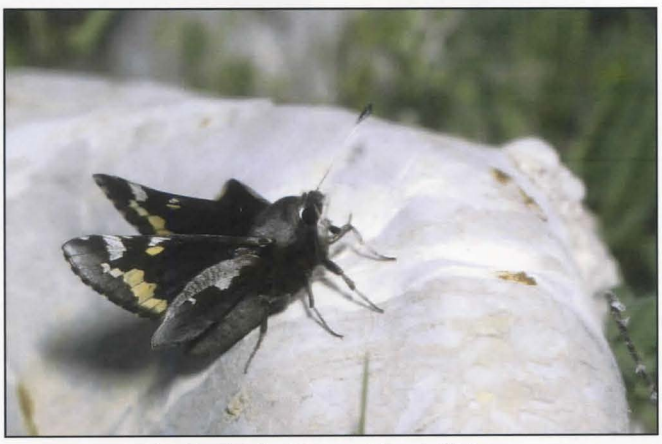

Fig. 5. Male Yucca Giant-Skipper

ovipositing behavior. So, I kept going back to the same spot day after day, and walking the same route, almost like a transect. This paid off, and I started to notice eggs showing up on some of the plants. I didn't see any courtship or mating, but I was able to photograph more ovipositing behavior and several more adults. I also wanted to photograph larval tents, which was something I never saw before. After consulting (several times) with members of the Desert-leps listserve, I located a

tent. Once I found the first one, I started to see them everywhere and got many photos. I just had to learn what they looked like.

After having fun photographing tents, adults and ova, I really wanted to get some larva photos. Again, I consulted with experts on Desert-leps. I kept monitoring the eggs and by the beginning of May, they started to change color from cream to a reddish hue. I knew they were getting close to hatching. On the 1st of May, one of the eggs I was monitoring had a hole in the top of it. It had hatched. I looked through all of the leaves of the plant, but I didn't see the bright red (as it was described to me) larva. I found another egg that had hatched and same thing, I saw no larvae on the leaves. Then someone recommended I look deeper at the base of the plant to see if any 'sawdust' looking debris was visible. Sure enough, I saw some sawdust, so I gently pealed a leaf down to expose more of the base of the plant. To my joy, there were two larvae, both eating and burrowing into the flesh of the plant. I was ecstatic and took many photos. This wonderful experience topped off a great photographic series of this species. I still want to get updated coverage of courtship and mating, not to mention more general coverage of this wonderful butterfly, so in April of 2021, you'll again find me scouring the same patch of yucca searching for more Yucca Giant-Skippers.

Fig. 6. Freshly deposited eggs on Arkansas yucca (*Yucca arkansana*)

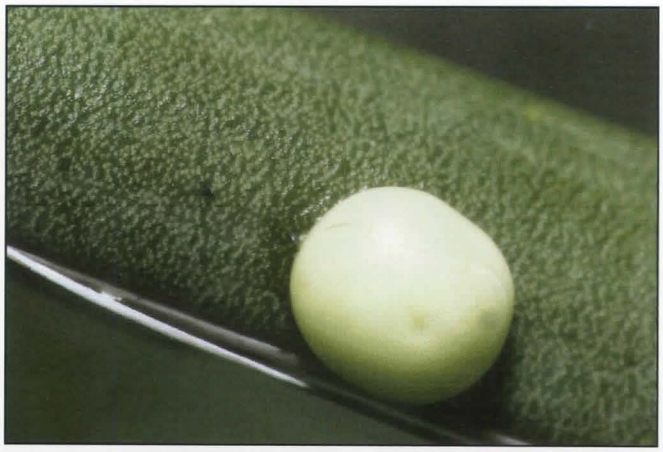

Fig. 7. Freshly deposited egg on Arkansas yucca (*Yucca arkansana*)

Fig. 8. Female ovipositing on Arkansas Yucca (*Yucca arkansana*)

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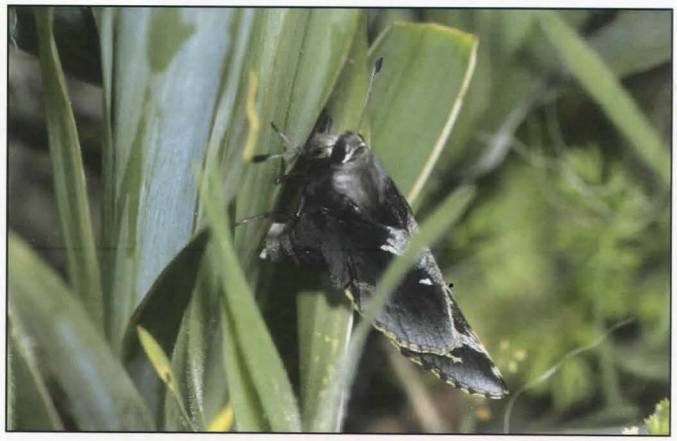

Fig. 9. Female ovipositing on Arkansas Yucca (*Yucca arkansana*)

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Fig. 10. Male perched on Arkansas Yucca (*Yucca arkansana*)

Fig. 11. Female taking flight just after ovipositing on Arkansas Yucca (*Yucca arkansana*)

Fig. 12. Male perched on Arkansas Yucca (*Yucca arkansana*)

Note: Photographs 13-25 all contain the following information:
Yucca Giant-Skipper(s),
***Megathymus yuccae*,**
Lexington Wildlife Management Area,
Cleveland County, Oklahoma

Fig. 13. Yucca Giant-Skipper (6-April-2020)

Fig. 14. Yucca Giant-Skipper (6-April-2020) ➜

Fig. 15. Yucca Giant-Skipper, vibrating wings to warm up (6-April- 2020) ➜

Fig. 16. Larval tent next to Arkansas Yucca, *Yucca arkansana* (7-April-2020)

Fig. 17. Yucca Giant-Skipper (7-April-2020)

Fig. 18. Yucca Giant-Skipper (7-April-2020)

Fig. 19. Yucca Giant-Skipper (28-April-2020)

Fig. 20. Ovae on Arkansas Yucca (*Yucca arkansana*) (11-April-2020)

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Fig. 21. Ovae (with one hatched) on Arkansas Yucca (*Yucca arkansana*) (1-May-2020)

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Fig. 22. First instar larva feeding and burrowing into Arkansas Yucca (*Yucca arkansana*) (3-May-2020)

Fig. 23. First instar larva feeding and burrowing into Arkansas Yucca (*Yucca arkansana*) (3-May-2020)

Fig. 24. First instar larva feeding and burrowing into Arkansas Yucca (*Yucca arkansana*) (3-May-2020)

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

Fig. 25. Arkansas Yucca (*Yucca arkansana*) blooming (7-May-2020)

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NORTH AMERICAN MICROLEPIDOPTERA MEETING # 1

BY

F. MATTHEW BLAINE

In 2016 I had the pleasure of visiting Colorado to attend the International Lepidopterist Society Meeting. It was held at The Nature Place located in Florissant, Colorado and began on July 6th. We decided to fly into Denver a few days early to do some sightseeing. The plan was to stay the first night in Denver then head to Colorado Springs where reservations had been made for a couple of days before heading to The Nature Place in Florissant. Traveling to Colorado from Delaware is an uphill trip. While our home is located on one of the highest locations in Sussex County, a breathtaking 14 meters above sea level, we thought it would be prudent to spend some time relaxing to adjust to Colorado's altitude. With that in mind we waited until the next morning before we drove to the top of Pikes Peak on our way to Colorado Springs.

Fig. A. Pikes Peak summit marker

Fig. B. View down from the summit

In early April I had gotten an e-mail informing me that there was going to be a meeting of people interested in Microlepidoptera on July 5th in Denver. I was excited about that but we already had reservations in Colorado Springs so it would mean a lot of extra driving. Seeing that this would be our first trip to the state, we did not know how crowded the roads would be. On April 29th I sent Vazrick Nazari our RSVP signing us up for the meeting anyway, but with some trepidation.

After our flight arrived in Denver, we went to our motel. The next morning we picked up a vehicle then drove to Pikes Peak. There we experienced magnificent views, lower temperature, and altitude adjustment (A, B). Next we left for Colorado Springs and found the roads to be delightful with virtually no traffic, spectacular views, open space, and beautiful weather. The drive was much different than what we were used to in the northeast. As a result we definitely would drive back to Denver early the next morning for the Microlepidoptera meeting.

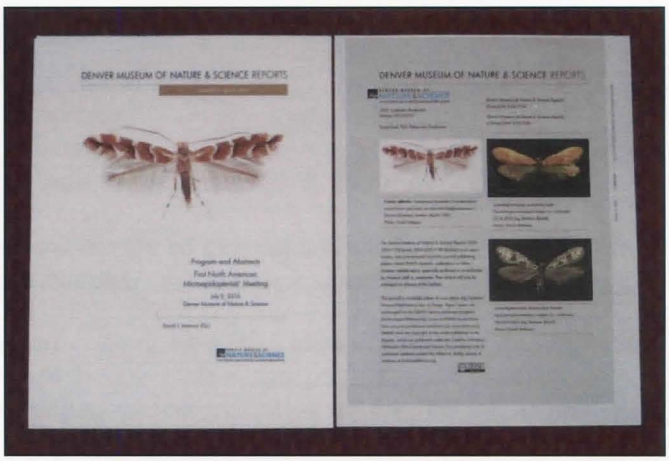

Fig. C. First and last pages of the Program and Abstracts

July 5th 2016 was a Tuesday. We arrived at the Denver Museum of Nature & Science where the meeting would be held around eight thirty. This was our first time in Denver so we gave ourselves extra time to locate the museum, park our vehicle, and locate the basement room where the meeting would be held. We had been provided with a PDF copy of the Program Abstract in advance so we knew who would be making presentations. Program and Abstracts First North American Microlepidopterists' Meeting July 5, 2016, Denver Museum of Nature & Science edited by David J. Bettman was very well done with several magnificent illustrations of microlepidoptera (C). The organizers were Vazrick Nazari, David Bettman, and Todd Gilligan and hosted by Frank T. Krell, Department of Zoology, DMNS (D). Our meeting was held in the Ludlow Griffith Workshop Zoology and it was divided into two sections. The first session held in the morning was composed of individual presentations and the second afternoon session was workshops and demonstrations followed by a tour of the DMNS Collections.

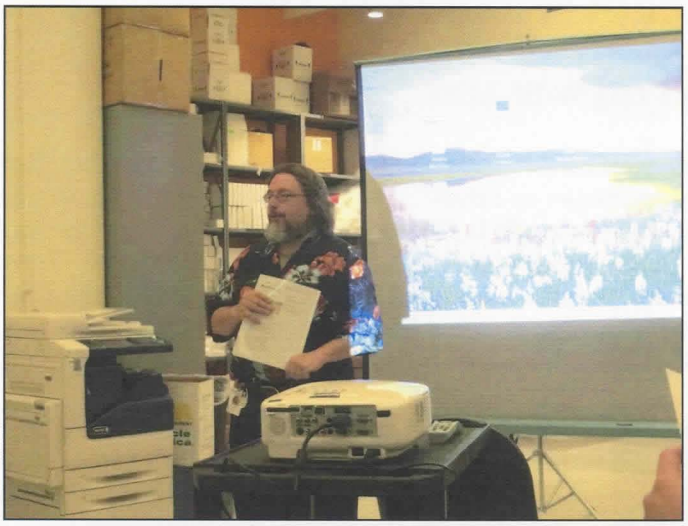

Fig. D. Frank Krell with opening remarks and meeting overview

After Frank Krell's opening comments the Contributed talks were as follows:

Mari Kekkenon: Sorting the mess of micros: How DNA barcodes can help with specimen identification

Todd Gilligan, Peter Huemer & Benjamin Wiesmair: Different continents, same species? Resolving the taxonomy of some Holarctic Ancylis Hubner (Lepidoptera Tortricidae)

Vazrick Nazari: The identity of the South American potato tuber moth ((Lepidoptera: Gelechiidae)

Jurate De Prins: Online Global Gracillariidae database – a web-based tool expanding the user audience beyond taxonomists

David Bettman: New and interesting microlepidoptera of Colorado

Stephanie Shank: Collecting microlepidoptera in Baja California, Mexico

David G Holden: Encounters with the moths of British Colombia

Marc E. Epstein: Dyer's breakup of the 'Bombyces' (1894-1896) and modern classification of microlepidoptera

Brian G. Scholtens & M. Alma Solis: New North American check list for Pyraloidae

I found all of these oral presentations to be very interesting and well done. If anyone would want more information on any or all of them it can be found in the Abstracts (DMNS Reports No4).

The afternoon workshops were also very good. In the unique area of microlepidoptera where there are small numbers of researchers, having time to share experiences, materials, and methods is important. Many have developed their personal techniques for collecting and preparing specimens.
Presenters were:

Sangmi Lee: Whole – body dissection of microlepidoptera

Chris Grinter & Todd Gilligan: Spreading techniques for microlepidoptera

Followed by David Bettman (Facilitator): Round-table discussion – Making and Customizing field equipment for microleps and microlep rearing techniques

Many years ago I became interested in microlepidoptera. I did as much research as I could to find out how to go about collecting and preparing specimens. While doing this research I discovered the Cross Expeditions conducted by Mississippi State Entomology Department (1). I have read every report. In one there was a researcher named

Sangmi Lee who specialized in microleps. I contacted Joe MacGown and asked him about the expedition and he advised me to watch the video of her preparing microleps on line (6). I watched it and learned a lot. As a result I was excited to see her presentation (E). The presentation was live, done on a binocular dissecting microscope attached to a camera and projected on a screen. We could see what she was doing as she explained and did it. (F, G). She also had a series of slides that listed the materials, tools, and methods (H, I, J, K).

The next presentation was by Chris Grinter & Todd Gilligan. In this portion there was a general discussion of methods used to spread and transport spread specimens. One method was to pin the micro lep upside down in a v shaped grove made in plastic foam. Containers of clear plastic prepared for spreading and transporting were shown and explanation of their easy construction was given.

Fig. E. Sangmi Lee dissecting and preparing whole body dissections for slide preparation using a binocular dissecting microscope which was projected live while she worked

Fig. F. Dissected parts being prepared on a slide

Fig. G. Wing mounting on slide

Fig. H. Introductory slide

Fig. I. General materials used for whole body mounts

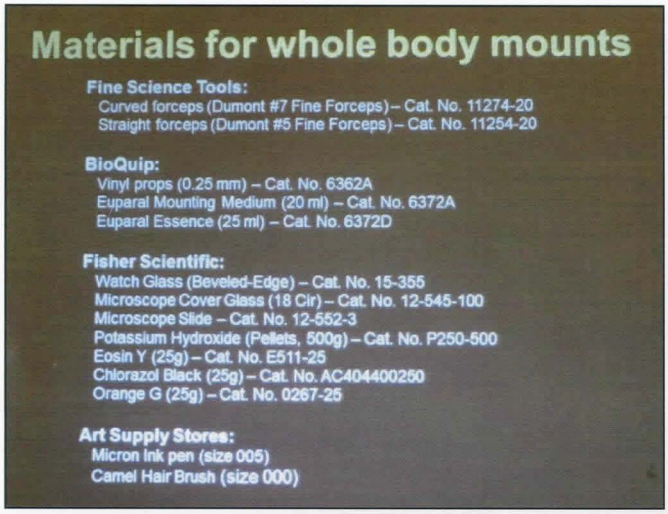

Fig. J. Specific materials used by Sangmi Lee

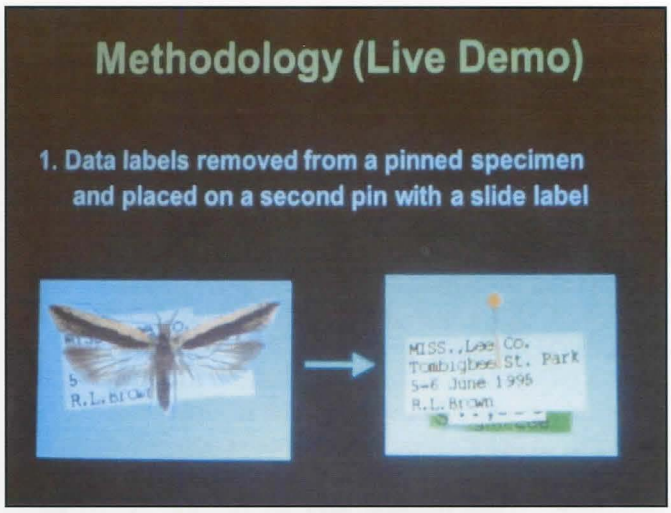

Fig. K. Data label transfer

One problem that is found with spreading microlepidoptera is that if they dry out they are extremely difficult if not impossible to spread. In macro lepidoptera and other insects it is common to "Paper" the specimen and prepare it later. Papered and dried specimens can be "relaxed" and spread months, years, or even decades later. This is not the case with microlepidoptera. Many collectors immediately freeze the specimens then thaw them very soon after capture to spread or spread them the same night they are captured directly from a killing jar. As a result Microlepidopterists spend much time and energy preparing the specimens immediately or soon after capture.

It is more difficult to bring back delicate pinned specimens on spreading surfaces than it is to bring back a package of papered specimens.

Todd Gilligan wowed us with his masterfully crafted solution to this problem (L). It was a homemade carrying case constructed to carry many microlepidoptera even when traveling on an airplane. (L, M, N, O). The case features 6 drawers that hold securely 4 microlepidoptera spreading boards with a slight angle for wings to prevent drooping. It has a front cover that latches on, a handle on top, and a canvas cover to add extra protection. His fine craftsmanship was impressive.

Fig. L. One of Todd's expertly constructed micro spreading boards

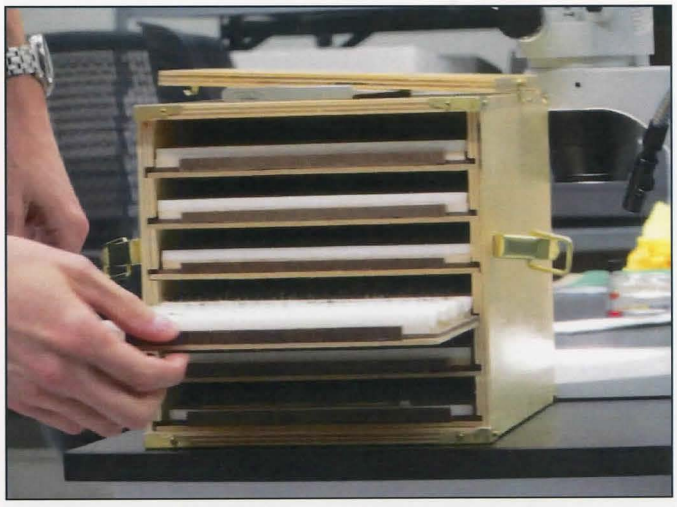

Fig. M. Front view of carrying case

Finally we took a tour of The Museum's general insect collection. Part of their collection is "The Riker Collection" which is of historic value. Riker invented the Riker Mount. These mounts are still in use today to display anything from insects to coin collections. Two cabinets are displayed which have numerous drawers. Several of these drawers were taken out for us to admire. Each drawer contained Large Riker Mount with butterflies carefully arranged.

Fig. N. Six drawer cabinet with front attachable door

Fig. O. Each drawer holds four microlepidoptera spreading boards that easily slide out the side but are securely held from the front when the drawer is pushed shut

Fig. P. A drawer of Lepidoptera from the Riker collection in a Riker mount

Fig. Q. One cabinet from the Riker collection

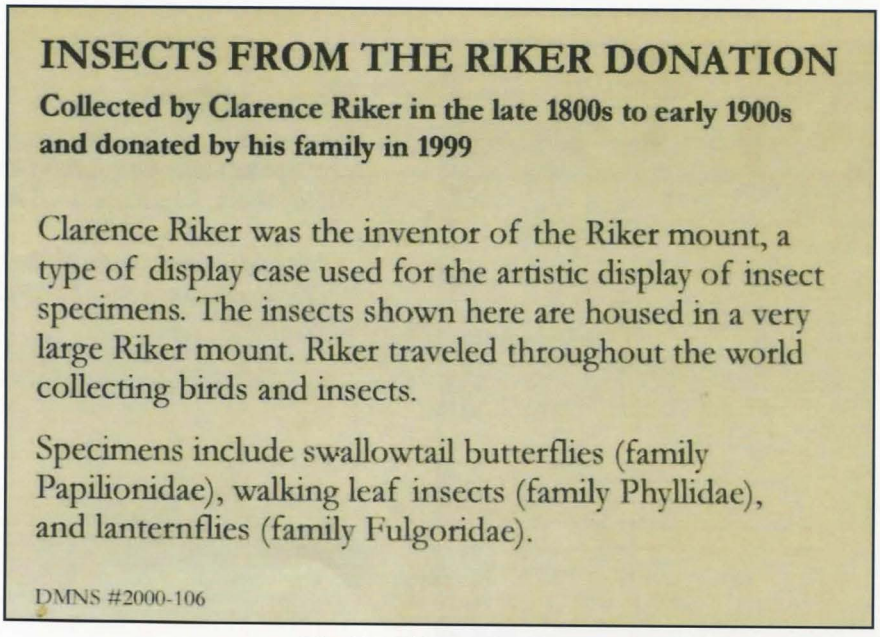

Fig. R. Riker collection

We were fortunate to be able to attend North American Microlepidoptera Meeting #1. This meeting started a series of annual microlepidoptera meetings. To date we have attended all but the last one. Each has a different feel and participants and each has been a rewarding experience. Hopefully they will continue into the future.

Credits

1. Cross Expeditions - https://mississippientomologicalmuseum.org.msstate.edu/museumsites/CrossExpeditions.html

2. DENVER MUSEUM OF NATURE & SCIENCE REPORTS NUMBER 4, JULY 5, 2016 (available at > www.dmns.org/Science/Museum-Publications) free of charge.

3. Dona Blaine – accompanying me for 52+ years, proof reading, comments and suggestions

4. Frank Krell – personal communications

5. Joe A. MacGown, Research Technician/Scientific Illustrator Mississippi State Insect Museum – personal communication

6. Sangmi Lee https://www.youtube.com/watch? v=W_BOEYgs6_0&feature=youtu.be

7. Tod Gilligan – personal communications

8. Vazrick Nazari- personal communications

F. Matthew Blaine
Independent Researcher

Curatorial Associate
Delaware Museum of Natural History

(F. Matthew Blaine, E-Mail: mattblaine@earthlink.net)

Research Associate
The Florida State Collection of Arthropods

Research Associate
The McGuire Center for Lepidoptera and Biodiversity at the Florida Museum of Natural History, University of Florida

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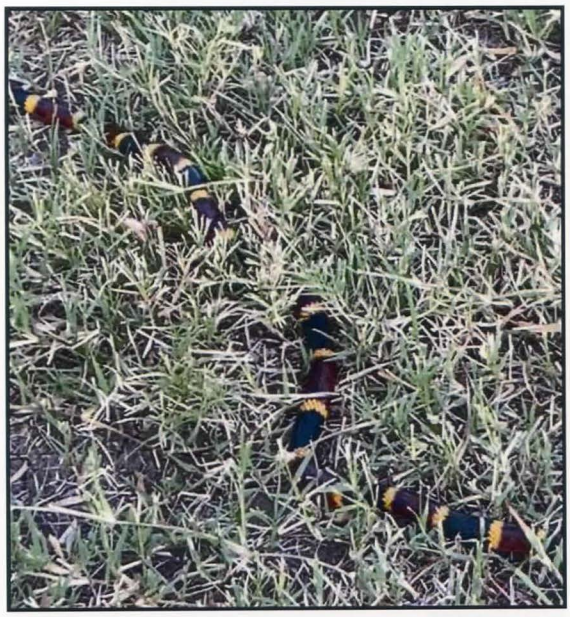

Coral Snake (*Micrurus fulvius tener*), River Walk, San Antonio, Texas (August 2020); *"Red on Yellow, Kill a Fellow"* (Photo, Richard Lombardini

A CATERPILLAR IN TAMARIND FRUIT ON VACA KEY, FLORIDA

BY

LAWRENCE J. HRIBAR

On June 8, 2020, I was picking some fruit from my tamarind tree, *Tamarindus indica* L. (Fabales: Fabaceae). One of the fruits I picked was obviously bad; black, brittle, and lighter in weight than the good, edible fruits. I broke open the bad fruit and found a small caterpillar inside. The caterpillar was a dark pinkish color. I tried to rear it to the adult stage but I believed that I was unsuccessful. (Beginning June 9, I was semi-immobile for nearly two months due to a medical issue.) On August 5, 2020, I decided to throw out the remains of the apparently failed rearing but I checked the container once more to be sure and therein I found two small adult moths. They were both badly rubbed and the scale patterns on the wings were difficult to discern. They had emerged and died in the container some time before I found them, and likely had beaten themselves up trying to escape. On August 9, 2020, I examined more tamarind fruits and found pupae within the husks. The pupae appeared to be within a small silk chamber and surrounded by frass pellets. One pupa was damaged when the husk was opened and it was preserved in isopropanol. The rest were reserved for another rearing attempt. Any success will be reported in another note.

Fig. 1. Caterpillar found in tamarind fruit.

Fig. 2. Caterpillar found in tamarind fruit.

Based on host plant information provided by Heppner (2003) and a brief description of the larva by Garson and Applebaum (2019), I believe the caterpillar to have been the carob moth, *Ectomyelois ceratoniae* (Zeller, 1839)(Pyralidae). I compared the adults that I found to online photos of the carob moth and they are similar in size, structure, and general coloration, and what little markings that can be seen appear similar. Definitive determination might still be possible as Zimmerman (1958) provides illustrations of the genitalia. The carob moth is also known as the Locust bean moth and infests a number of host plants as well as dried dates, raisins, figs, and nuts (Heppner 2003). Tamarind trees are native to east Africa but are cultivated in most subtropical and tropical areas of the world (Joshi and David 2018). The carob moth is probably native to west-central Africa but is a pest worldwide on a number of crops (Zimmerman 1958, Legner undated).

The nomenclature of the carob moth is interesting in and of itself, with a number of synonyms reported and the generic placement seems to depend on with whom one agrees. The carob moth has been placed in the genus *Apomyelois* Heinrich, 1956 and a number of online documents use this generic placement. I am following Heppner (2003) and Ren and Yang (2016), using *Ectomyelois* Heinrich, 1956. Heppner (2003) includes the Florida Keys in the known range of this moth. A search of the Florida State Collection of Arthropods revealed six larval specimens of the carob moth: three collected from *T. indica* on "Sumerlin Key" (presumably Summerland Key) in 1953; two from "*Albizzia* (sic) *lebbeck* Benth" on Upper Matecumbe Key in1960; and one larva from *Tamarindus* sp."near Tavernier" in 1963 (J. Hayden, pers. comm.). If these moths are indeed the carob moth then Vaca Key is a new locality record for this species. "*Albizzia*" is an obsolete generic name and refers to a group of plants called silk trees or (erroneously) mimosas. *Albizia lebbeck* Bentham (Fabales: Fabaceae), woman's tongue or shak shak tree, is native to Indomalaya, New Guinea, and Australia, was originally planted in Florida as an ornamental but is now considered invasive (Langeland and Craddock Burkes 1998, Wunderlin 2020).

I thank James E. Hayden, Florida State Collection of Arthropods, for searching the collection and records of the FSCA.

Fig. 3. Tamarind fruit in which caterpillar was found.

Fig. 4. Caterpillar and infested fruit.

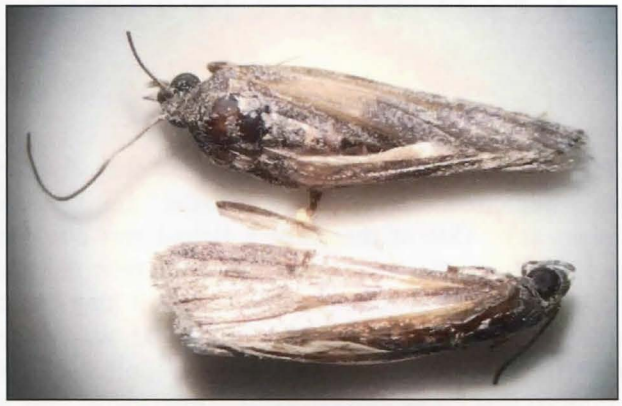

Fig. 5. Reared adults.

Fig. 6. Dorsolateral and ventral views of pupa recovered from tamarind fruit.

Fig. 7. Pupa from Fig. 6 *in situ* in tamarind fruit.

Fig. 8. A pupa within a silk chamber inside the husk of a tamarind fruit.

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

SOUTHERN LEPIDOPTERISTS' SOCIETY FIELD TRIP UPDATE

Traditionally, the Southern Lepidopterists' Society organizes a field trip each year in which member participation is encouraged. Recent SLS field trips have visited a pitcher plant bog in southern Alabama, various habitats in northern Florida, Sapelo Island, Georgia, the mountains of eastern Tennessee and a fall line Wildlife Management Area (WMA) in central Georgia. Typically, these field trips meet in May, June, or September. As we all know, the events of 2020 have been unprecedented in modern history with respect to the spread of the COVID-19 pandemic. Although we have obtained permission to hold an SLS field meeting at Alligator Creek WMA in Wheeler County, southeastern Georgia, we have not yet felt that conditions have been sufficiently safe to set dates for a field trip at this site in 2020. With COVID-19 transmission still being significant in southeastern Georgia at the time of writing, we have concerns about the safety of SLS members, in particular the possibility of participants becoming infected at hotels or restaurants during a field trip. Social distancing should be possible in the field, however.

Fig. 1: Alligator Creek Wildlife Management Area entrance.

Fig. 2: Bucket blacklight trap set in sandhill habitat at Alligator Creek Wildlife Management Area (17 August 2020).

In light of the frequently changing epidemiology of COVID19, we will continue to monitor the situation with respect to planning an SLS field trip. If COVID-19 cases significantly diminish or an effective vaccine becomes widely available in the future, we will organize a field trip at Alligator Creek WMA. Because of the possibility that a field trip may be planned at fairly short notice, we will most likely send an announcement by mass e-mail to SLS members. The subject line for such a message would be "SLS Field Trip" and would be sent by one of us. For this reason, we wanted to alert members to this possibility. The nearest hotels to Alligator Creek WMA are about 10 miles away in Hazelhurst. If we organize a field trip, we will provide information on nearby hotels as well as directions to the WMA, etc. We would also ask field trip participants to sign a waiver related to COVID-19, other infections, or injuries, etc.

Fig. 3: Pond Cypress stand and associated climbing fetterbush and other vegetation at Alligator Creek Wildlife Management Area (17 August 2020).

To date, we have only recorded moths at Alligator Creek WMA during a few months and only at selected sites and habitats. However, we have already recorded some local or rare species at this site including *Fernaldella georgiana, Cyclophora culicaria, Petrophora divisata, Zale perculta, Gondysia similis, Drasteria graphica, Pseudeustrotia indeterminata, Ulolonche modesta, Sympistis perscripta* and *Sideridis vindemalis* (see James' Georgia state coordinator report on pages 159-160 of the June 2020 issue of *Southern Lepidopterists' News* for images of some of these species). Alligator Creek WMA has some specialized habitats such as pond cypress (*Taxodium ascendens*) stands with associated climbing fetterbush (*Pieris phyllyreifolia*) (foodplant of *Z. perculta*), and sandhill habitats with woody goldenrod (*Chrysoma pauciflosculosa*) (foodplant of *F. georgiana*). Pond cypress associated moths recorded so far include *Iridopsis pergracilis, Nemoria elfa, Isoparce cupressi, Cutina albopunctella, Cutina distincta* and *Lithophane abita*.

We sincerely hope we can organize an SLS field trip in 2020 but fear we may not be able to safely do so until 2021. Stay tuned and please check your e-mail in case we are able to organize a gathering at relatively short notice.

Lance A. Durden, SLS Chair (2020-2021) (ldurden@georgiasouthern.edu)

James K. Adams, SLS Field Trip Coordinator (2020-2021) (jadams@daltonstate.edu)

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"...NOTHING – MUCH – AROUND REGARDING BUTTERFLIES THIS SPRING AND EARLY SUMMER..."

BY

HOWARD GRISHAM

Yeah, I'm about to hit my 67th birthday, but don't think the problem is eyesight or geriatrics.

The bug season here in my usual haunts in northeast Alabama started out this spring with a bang, the usual common *Anthocharis midea, Eurytides marcellus*, and *Callophrys henrici* abundant, together with bumper numbers of *Danaus plexippus*. Thereafter, however, something happened.

Two violet fields I had shared for over fifteen years with *Speyeria cybele* had none of them flitting about; now, two months later, there are no aestivated females on my Buddleia. A reliable colony of *Pontia protodice*, which I also had enjoyed looking at for fifteen or so years running, still have not produced this year any individuals that I have seen. A *Pieris virginiensis* colony, for a decade before this year full of boys chasing girls, produced only six individuals that I saw. Likewise, regarding butterflies generally. Further, I have seen none of the local uncommon, but reliable, specialties at all — *Poanes hobomok monofacies, Lycaena phlaeas, dianas*, etc. Aside from a few *Papilio glaucus*, even the usual swallowtails did not appear this spring, although they have as I write this on August 3 come back to normal numbers via the routine "second hatch."

Same thing generally regarding beetles. No *Serica*, and very few *Phyllophaga*. No carabids under my tin, and very few in my traps. Plenty of ticks and snakes, though . . .

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WHAT THE HECK WAS THAT?

BY
CRAIG W. MARKS

At one of the Louisiana NABA Fourth of July Counts a couple of years ago, Phillip Wallace announced to some of the other counters that he had seen an owl fly. One of the veteran birders in the group jerked his eyes skyward and asked, "where?" Turns out that Phillip had seen the bug, not a bird.

Thistlethwaite WMA St. Landry Parish, 3-VII-2017 (P. Wallace)

Owlflies fall within the order of Neuroptera (Net-winged insects) which also includes lacewings, antlions, mantid flies and others. They are in the Ascalaphidae family with approximately 450 species worldwide. There are reported to be four species in Florida and three in Mississippi. One source suggested they can be "fairly common" in the South, but much rarer in the North. Both the adults and the larvae are predators, feeding on small insects. Eggs are laid on twigs. Upon hatching, the larvae of some species drop to the ground and live in the litter beneath while other species may stay in the foliage.

The first one I ever saw (or at least realized I had seen) was in Lafayette Parish at the Acadiana Nature Center. I was butterflying in a wooded area along a steep banked bayou when I saw what appeared to be a dragonfly that didn't fly like a dragonfly. I chased it down and netted it. My first thought was an antlion, but the habitat didn't fit (in my experience, antlions lived in sandy areas where the larvae could build their ant traps). I later concluded it was an owlfly.

There is a good picture of one on BugGuide by Bette Kaufman, taken at Allen Acres in Vernon Parish (where, by the way, we also conduct an annual butterfly count). When found in the posture presented in Bette's picture, owlfies appear similar to antlions (see picture of an antlion taken by Phillip Wallace below), but that is not the posture that owlflies typically assume. Rather, when resting, they will position themselves head down with the abdomen perpendicular to the twig or grass stalk on which they are resting. The theory is that this position is for camouflage, designed to look like another twig.

Kisatchie Ranger District, Natchitoches Parish, 21-VI-2018 (P. Wallace)

The next owlfly I encountered was at Nacatoch Ravines Natural Area in southwestern Arkansas. On the wing, its body position resemblances that of a dragonfly, but the wingbeats were odd. Unlike the clean, synchronized, blurring strokes of a dragonfly, the wingbeats of an owlfly are slower with each of the four wings appearing to work independent of each other in a fluttery and more disorganized fashion.

Nacatoch Ravines Natural Area, Hempstead Co., 28-VI-2019 (C. Marks.)

I was able to net that owlfly and closely exam its features. The eyes and antennae are nothing like that of a dragonfly. In fact, the eyes remind me of hairstreak eyes while the antennae are similar to those found on a swallowtail butterfly, long with knobs on the end. I believe it was the species, *Ululodes macleayanus*, which has been recorded throughout the South, including AL, AR, LA, MS and TX.

Most recently, Jeff Trahan and I saw one flying along a forest road in Catahoula National Wildlife Preserve in Grant Parish. It popped up out of the grass and, by its flight, I immediately recognized it to be an owlfly so I asked Jeff to snap a picture (below). I think this owlfly was *Ascaloptynx appendiculata*, the largest owlfly recorded in MS. There are recent entries on Bugguide and iNaturalist recording its presence in LA, and it has also been found in MS, AR and TX.

Catahoula National Wildlife Management Preserve, Grant Parish, 16-V-2020 (J. Trahan)

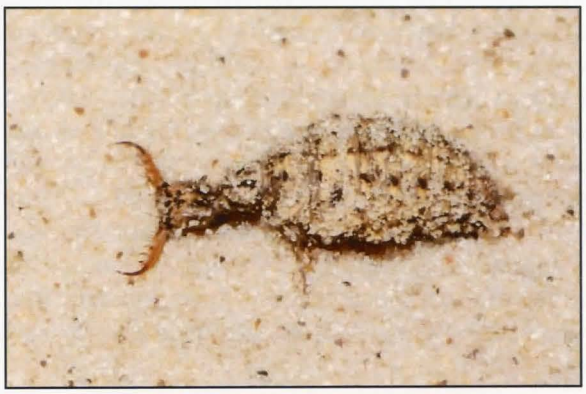
While we were in the Catahoula National Wildlife Management Preserve, I saw the damnedest thing. We were looking for damselflies in a shaded, low and moist area. Jeff was taking pictures of three male Seepage Dancers that were jockeying with each other when what looked to me like a tiny UFO floated through that mix. In the deep shade, it was slowly moving, inches above the grass, with what appeared to be slightly rotating miniature white lights.

What I had seen was a Phantom Crane Fly (*Bittacomorpha clavipes*). A member of the Order Diptera (two-winged insects), this crane fly floats on the air with all of its legs fully extended. Those legs are hollow and the tarsi (the foot segments at the end of each leg) are swollen and filled with air, all of which help keep it aloft. In deep shade, often all that can be seen are the white stripes on the legs.

Phantom Crane Flies are in the Family Ptychopterida and live in damp, shaded woods in the eastern U.S. The larvae live and scavenge in shallow, fresh water, breathing through a tube that essentially functions like a snorkel. The larvae leave the water to pupate. Adults do not feed.

Valentine Lake, Rapides Parish 23-II-2020 (P. Wallace)

I had previously mentioned antlions, being familiar with them from family vacations in Oklahoma where my brother and I would search sandy areas for the inverted, cone-shaped traps built by the larvae. Once found, we would drop an ant into the trap and watch the trap work. If the ant tried to climb out, the larvae would use its broad head to throw sand on top of the ant, causing it to slip back down (there is a good video on BBC Earth, if anyone is interested). The larvae are fearsome looking creatures with huge jaws (see photo below) while the adults are much more delicate.



Vernon Parish, 22-VI-2020 (B. Moon)

Antlions are in the Family, Myrmeleontidae, found primarily in the south and southwest with about 100 species in North America. They resemble owlflies but have much shorter antennae and, at least here in Louisiana, are not quite as large. While the larvae are predatory, the adults are not, feeding on nectar, pollen or nothing at all. They are found primarily in the southern and southwestern U.S.

While I was on a butterfly trip in southeastern Arizona, we stayed a couple of nights in Sierra Vista. Each morning, as we left our motel for the field, I noticed

several antlions that looked like they were on steroids on the walls and pillars of the motel (see below). I believe it was *Vella fallax*, the largest in N. America with a wingspan up to 4.5 inches.

Sierra Vista, Arizona (C. Marks)

Velvet-ants are not really ants. Although in the same Order as ants (Hymenoptera), they are actually hairy wasps. As with antlions, my first experiences with Velvet-ants were in Oklahoma. In particular, we learned not to handle the species known as Cow Killers, *Dasymutilla occidentalis*, so named for the female's ability to inflict a powerful sting. While the adults feed on nectar, the larvae are predatory, invading the underground brood chambers and feeding on the larvae of ground and bumble bees.

Here in Louisiana, I occasionally see the brightly colored red and black, wingless females scurrying along ground, apparently looking for bumble bee nests. While I've never been stung by one, the name is sufficient warning to steer clear and not mess with them. On the 2020 Honey Island Swamp NABA Count, we saw a male (see below), the first I had seen in many years.

Honey Island Swamp, St. Tammany Parish, 20-VI-2020 (L. Auld)

Last year, while doing a NABA Count at Rick Evans Grandview Prairie in Hempstead, AR, I was in a heavily shaded area of deciduous woods with cane and tall grass in the understory. I was looking for Pearly-eyes, Bell's Roadside Skippers and Yehl Skippers. I noticed a large number of very strange looking insects flying in that understory, landing on the grass blades, cane leaves and tree leaves. They had red colored bodies with dark bands on the wings, had fierce looking mouths and strange abdomens.

Rick Evans Grandview Prarie WMA, Hempstead Co., 5-X-2019 (J. Trahan)

They were common scorpionflies, and I asked Jeff Trahan to take some pictures. Scorpionflies are in the Order Mecoptera (long-winged insects), and Family Panorpidae. There are in excess of 40 species of common scorpionflies in North America, primarily east of the Rocky Mountains. They are so named because the genitalia at the end of the males' abdomen curl up like a scorpion's tails, but they cannot sting. Typically found in habitat similar to where I found them, the larvae (which resemble caterpillars) live in the soil, feeding on organic matter. At the end of the beak-like rostrum is a mouth with chewing parts. The adults are reported to feed on nectar, decaying fruit and dead and/or injured insects.

Almost any time we dive into the deep woods here in Louisiana, looking for Kings Hairstreaks, we necessarily find ourselves near water where the larval food plant, Sweetleaf, grows. In that habitat, we are often entertained by a dancing, dark specter, the beautiful Ebony Jewelwing (*Calopteryx maculata*), the largest damselfly in this state. Damselflies are in the Odonata Order (toothed insects), and in the Calopterygidae family (broad-winged damsels). There are two species of jewelwings in Louisiana, the most common being the Ebony Jewelwing. (see Phillip Wallace's picture below)

The other jewelwing in Louisiana is the Sparkling Jewelwing, *C. dimidiata*. They prefer sandy-bottomed creeks and stream with clear running water. The adults

Oak Mountain SP, Alabama, 20-VIII-2015 (P. Wallace)

don't migrate far from those streams, typically perching on vegetation over/adjacent to the water. Like other damselflies, the larvae live in water where they are predatory. The adults are also predatory, feeding on small flying insects. I have only seen it once, in St. Tammany Parish, along a freshwater stream. (see picture below)

Talisheek Creek, St. Tammany Parish, 3-III-2018 (P. Wallace)

Although part of the same order as dragonflies, jewelwings do not fly with the same fast, darting flight of their cousins. Rather, jewelwings move from perch to perch in the dappled light of the understory which they inhabit with a bouncing, delicate flight. As they pass through patches of sunlight, the metallic blue or green of the bodies glint in the sun. Their wing beats are more similar to that of owlflies, with each wing's movement discernable. If lucky enough to find a colony, the males will tangle in a dance that seems to be straight out of West Side Story, serious to them, enchanting to the audience.

The first time I saw a Scarlet-bodied Wasp Moth, *Cosmosoma myrodora*, I actually did think it was a wasp. I had netted one accidentally when I had also caught a skipper. So, while trying to get a look at the skipper, I was, at the same time, trying to avoid getting stung by this "faux" wasp. A member of the Tiger Moth group and the Arctiinae subfamily, this moth is not only a wasp mimic, but the red color also serves as a warning of its distastefulness to potential predators.

UL Lafayette campus, Lafayette Parish, 2-VI-2016 (B. Moon)

The methodology utilized by this moth to absorb the distasteful chemical that make it unpalatable is unique. The chemical, an alkaloid, is not consumed by the caterpillar; rather, the adult male stores it in a pair of abdominal pouches. Studies done in Florida reflect that males of this species visit *Eupatorium capilifolium*, a plant which contains the alkaloid, probing the plant with their proboscis. Within the pouches of those males that fed on *E. capilifolium* were fine cuticular filaments which were laden with the alkaloid. During courtship, the male then discharges upon the female a cottony mass of cuticular filaments containing some of the alkaloids. The referenced studies indicate the presence of those filaments on both the male and female protect them from predation by spiders.

I see it regularly around the state, primarily, but not always, late in the season. It seemed to be common at Mary Brown Nature Preserve in W. Feliciana Parish in late October and early November. Most recently, I found one flying during the 2020 Indian Bayou WMA NABA Count in St. Martin Parish in the same area as Appalachian Browns and Duke Skippers.

There are many other insects I hope to see some day, such as a fishfly, a dobsonfly, a caddisfly or a stonefly. Hopefully, as I continue participating in various butterfly counts around the South, I will get to see some of these interesting non-butterflies.

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

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The Loch on the Andrews Glacier trail, Rocky Mountain National Park, Colorado (Photos by Lane Ayo, July 31, 2020)

BELL'S ROADSIDE SKIPPER *(AMBLYSCIRTES BELLI)*

BY
KATHY MALONE

I saw something fly in out of the corner of my eye. "What do I spy?" I asked myself as I watered my bird baths. "Why, it's a skipper! And it has a checkered fringe. Hmmm…oh, I see that it's a Bell's Roadside Skipper!" Woohoo! This is only the second time I've seen one. The first was at a friend of a friend's house in Nashville, where I'd gotten permission to stake it out. Was envious of Sally and Dean Jue who had a lifer Bell's at a Nashville park when they had come up for the solar eclipse a couple of years ago. Yes, just casually walking along a trail amidst blooming Ironweed, they turned to a bloom to discover a Bell's perched atop. How easy was that, when I'd pined for the sight of one for years! If you don't search for it, it will find you, right?!

Bell'S Roadside Skipper (*Amblyscirtes belli*)
August 3, 2020, Fairview, Tennessee)

(Kathy Malone, E-Mail: kathymalone98@gmail.com)

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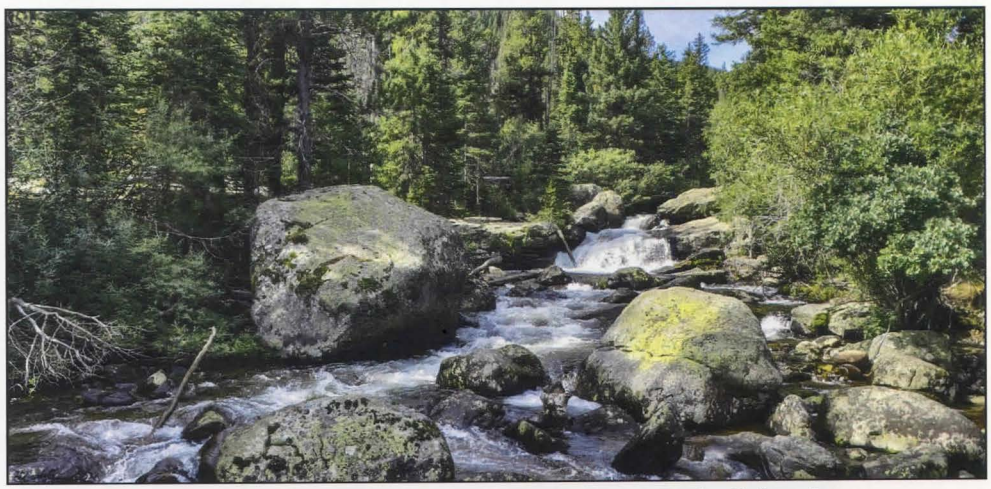

Ouzel Falls trail, Rocky Mountain National Park, Colorado
(Photo by Lane Ayo, August 2, 2020)

MONARCH BUTTERFLIES — ANNUAL ARRIVAL ON SOUTH BASS ISLAND IN LAKE ERIE

BY

CANDY SARIKONDA

Lately, I have been getting questions about monarch butterflies' annual arrival to the Lake Erie Islands. When do monarchs first appear in the islands? There is lots of anecdotal evidence, from sources who suggest that monarchs arrive in late June. But according to my limited data, the monarchs actually can arrive much sooner.

I have been monitoring monarchs on South Bass Island through the Monarch Larva Monitoring Project (MLMP) and Journey North for several years. And though I have tried to recruit others to do the same, I have had only limited success, primarily with tagging efforts in the fall. We can talk all we want, and give our best guess as to when we think monarchs arrive to the Lake Erie islands in spring—but what do the data actually show?

Though I have been monitoring the monarch butterfly fall migration on South Bass island for several years, I only began formally documenting spring monarch activity in 2018, through MLMP and Journey North. I decided it was time to look at what my reports showed. Were the monarchs coming in late June, or sooner? It turns out, they can be found on South Bass Island in late May.

In 2019, my family and I visited the Lakeside Daisy Nature Preserve near Marblehead, Ohio. While visiting this preserve on May 18th, I saw a large, fresh female monarch nectaring on the daisies, along with several painted lady butterflies. South Bass Island is only 3 miles off the nearby shore of Lake Erie, so I knew the monarchs could be migrating to the island.

Fig. 1. DJ's yard — We visited DJ's yard. In a half hour, D.J., Maya and I found 13 larvae and 4 eggs in the garden on 34 *A. syriaca* plants. We searched only about half the milkweed in the garden. A few plants had 2-3 larvae hiding in the uppermost leaves of the plants. It was 66F° but felt cool, and many larvae had obviously just freshly molted from 2nd to 3rd, or were about to molt. One 3rd instar was clearly basking on a leaf. We had our light coats on, it was cloudy, no breeze.

My good friend DJ Parker has a home on South Bass island, and he has created a large pocket prairie in his front yard. On June 4, 2019, I visited his home and we searched for monarchs in his prairie. On 34 common milkweed stems, we found 4 eggs, 6 second instars, 6 third instars, and 1 fourth instar. That fourth instar made it clear that monarchs had arrived in late May. See photos here https://www.flickr.com/photos/candy_kasey/albums/72157708931504721 I took a look at my data from DJ's yard in 2018, and noted the monarchs had also arrived to his yard in late May of that year. On June 2, 2018, DJ, my kids and I found numerous monarchs in his pocket prairie. We found 7 eggs, 1 second instar and 1 third instar on 66 common milkweed stems.

Fig. 2. 4th instar — this fourth instar is evidence that the monarchs arrived in late May of 2019 to DJ's garden.

Fig. 3. Two eggs — We found some leaves with 2 or 3 eggs on them.

I looked at my data from other sites on the island. I have monitored the milkweed patches at the Put-in-Bay Winery garden, South Bass Island State Park, along roadsides near the island's fish hatchery, and alongside the island's ice ramp. The ice ramp is a ramp used by the island's anglers to launch their ice fishing shanties in winter. What did my MLMP and Journey North reports show?

Fig. 4. Three 2nd instars — Three 2nd instars were hidden in the top of this *A. syriaca* plant. Note their feeler length, not body length, when determining the instar phase. Caterpillars which are about to molt to the next instar phase will be larger than instars which have just freshly molted from the previous instar.

On June 2, 2018, I checked the patch of milkweed alongside the ice ramp. It is a 15x15 foot area of common milkweed, growing on the water's edge just outside the reach of the waves crashing on shore. On 26 plants, my kids and I found 1 egg sucked dry, 3 second instars, 5 third instars, and 1 fourth instar. Again, this showed the monarchs had arrived in late May. In addition, my reports from June 22, 2019, at this site showed that on 17 common milkweed stems, we found 1 egg and a fourth instar. Based on the age of the fourth instar, it meant the monarchs had arrived by mid-June to the site.

So why might people be thinking the monarchs do not arrive to the islands until late June? In the spring, the monarch population is small and scattered, as adults fly north during the spring migration. Females are out early in the morning, searching for milkweed on which to oviposit. A small number of migrating adult females in the area could easily be missed, especially since they do not roost in groups like they do in the fall. But the offspring of these spring migrants will not be missed, if you monitor milkweed patches closely. This demonstrates the value of checking monarch habitat regularly, and documenting the presence of eggs and larvae. You never know when you might have missed seeing a mama monarch lay eggs in your milkweed patch!

The best way to begin your monarch monitoring season is to begin collecting data as soon as milkweed emerges in spring. Ideally, check your milkweed patch once a week, and document any adults, eggs or larvae that you find.

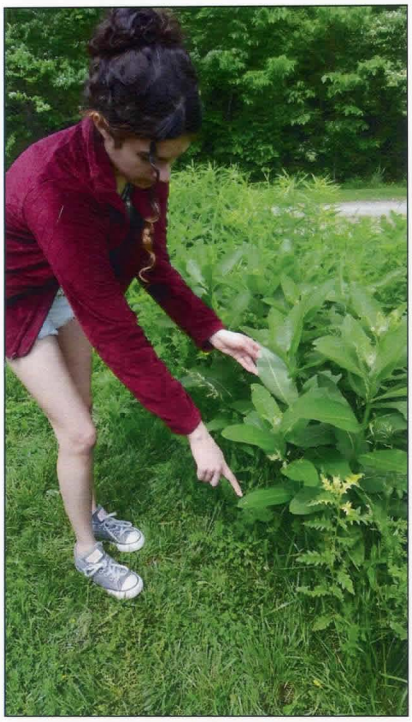

Fig. 5. Maya points out basking 3rd instar — My daughter Maya points out a 3rd instar basking near the tip of this common milkweed leaf. I have seen larvae engage in this behavior many times, particularly in the Traverse City, MI, area at various milkweed patches that I monitor in late July. Cool days, in the low 60s, often lead caterpillars to sun themselves on the top of milkweed leaves, in an attempt to warm themselves.

Fig. 6. Basking 3rd instar — It was a slightly chilly morning, and we found this 3rd instar basking in the morning light.

Then be sure to share your data through one of the citizen science monitoring programs, such as MLMP or Journey North. These sites will keep your records for years to come, and you can easily access your records from previous years and review them. You might also want to print out your reports and keep them in a binder at home for your own records. Then write an article, and share your findings with the rest of us!

Happy Monarch Monitoring!

(Candy Sarikonda: E-Mail: koundinya@buckeye-express.com)

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Garden of Dona and Matthew Blaine, Laural, Delaware (Photo by Matthew Blaine, August 2020)

AMERICAN SNOUT (*LIBYTHEANA CARINENTA*) LIFE HISTORY

BY
BERRY NALL

There are not a lot of butterflies breeding when south Texas is in the grips of an extended, extremely hot, drought. One species that is an exception to the rule: American Snout. These butterflies thrive under such conditions; apparently, in part, because their natural predators die off when it is dry and hot. With little else on my plate during 2011's summer, when I saw a female ovipositing on Spiny Hackberry (*Celtis ehrenbergiana*), I decided it was time to raise some Snouts.

Female ovipositing, 14-VII-2011

I collected three eggs; two eclosed and the larvae were raised to adults. Both of these caterpillars were green; at other times I have found caterpillars that were darker and more prominently striped (see the picture from 2010). Apart from size, there were not a lot of visible changes in the caterpillars as they matured.

Growth was very rapid. The featured caterpillar pupated two days before its sibling, only 10 days after eclosing. This adult emerged only 16 days after the egg was deposited; the other, one day later.

Egg, 14-VII-2011 ➜

Caterpillar recently emerged, 16-VII-2011 ➜

Caterpillar day after emerged, 17-VII-2011 ➜

20-VII-2011 ➜

21-VII-2011 ←

Mature caterpillar
22-VII-2011 →

Dark form of
Snout Caterpillar,
4-X-2010 ←

Prepupal, 25-VII-2011 ←

Chrysalis, 26-VII-2011 →

Fresh adult American Snout, 30-VII-2011

The SL Society and the Editor thank Mr. Berry Nall for allowing us to reprint his life history of the Ameerican Snout butterfly in the SLS NEWS. The original publication on the internet is listed: http://leps.thenalls.net/content2.php?ref= Species/Libytheinae/carinenta/life/carinenta_life.htm

Mr. Nall's contact e-mail is lb@thenalls.net

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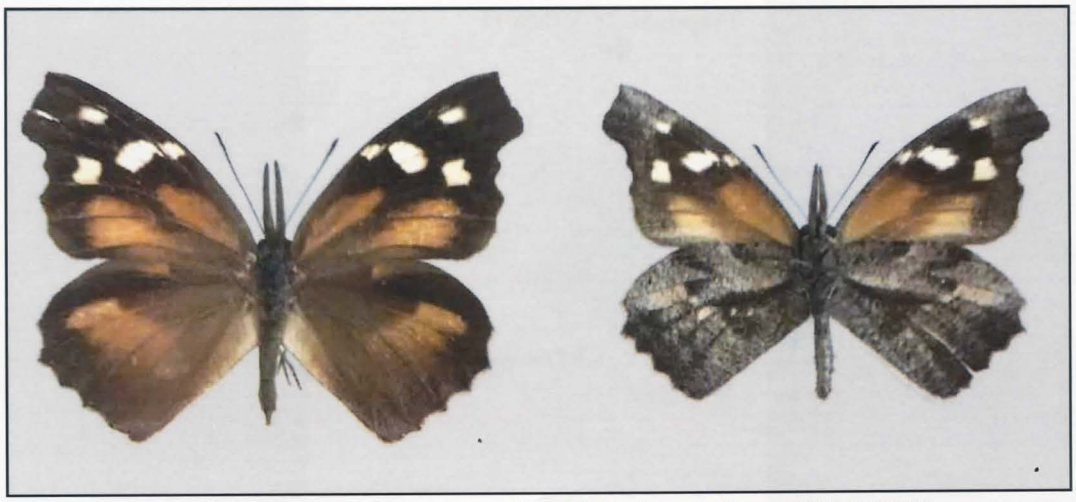

American Snout (*Libytheana carinenta*), Lubbock, Texas (10-X-1998)

FLOWER VISITATION BY BUTTERFLIES ON CUMBERLAND ISLAND, CAMDEN COUNTY, GEORGIA

BY

MARC C. MINNO AND MARIA F. MINNO

Introduction

This is the third paper on the butterflies of Cumberland Island, Georgia, that we have published based on data that we collected there on June 26-27, 2010, to September 19-21, 2012. However, there is a correction to be made on the species list published in our first paper (Minno and Minno 2019). John Burns recently elevated *Erynnis somnus* from a subspecies of *Erynnis brizo* to a full species (Burns 2020). Riley Gott has been studying *Erynnis* species for his Masters Research at the University of Florida. Riley stated in an email communication to us dated July 10, 2020, that he has reached the same conclusion. He also kindly noted that the species we found on Cumberland Island and illustrated in Fig. 2F as *Erynnis brizo* is actually *Erynnis somnus*. Therefore, only *Erynnis somnus* is known to occur on Cumberland Island. We greatly appreciate Riley's notifying us about the Burns publication and for correcting our mistaken species identification.

Cumberland Island is the southern-most barrier island along the Atlantic Coast of Georgia. Most of the island is natural conservation land in the Cumberland Island National Seashore, but there are also some private areas and residences. Major upland plant communities are beach dunes, oak-pine forest, scrub, flatwoods, and heavily grazed disturbed areas such as old fields and lawns.

Thousands of people visit the Cumberland Island every year to see wild horses, learn about the island's colorful history, and enjoy the beaches and natural beauty. About 20,000 acres of Cumberland Island are uplands, consisting mostly of forests of oaks and/or pines and nearly 17,000 acres are wetlands, mostly saltmarshes. At least 583 species of vascular plants have been reported from Cumberland Island (Zomlefer *et al.* 2008), about 11% of which are not native to the southeastern U.S.A.

We visited Cumberland Island to document the butterflies present and the natural resources they used (Minno and Minno 2019, 2020). Here we discuss in greater detail the flowers visited by butterflies on Cumberland Island.

Methods

We made 11 trips to Cumberland Island to observe butterflies (Minno and Minno 2019). We conducted field work on 26 days with at least 140 site visits and more than 105 hours of observation. We searched for butterflies in various habitats throughout the island and noted the flowers they visited. We also wrote down the names of plant species in flower to better understand the seasonality of the flora.

Results

Of the 68 species of butterflies we found on Cumberland Island (Minno and Minno 2019), we only observed 45 species visiting flowers (Table 1). Butterflies that we observed most often at flowers include *Agraulis vanillae* (Gulf Fritillary), *Panoquina panoquin* (Salt Marsh Skipper), *Eurema daira* (Barred Yellow), *Urbanus proteus* (Long-tailed Skipper), and *Erynnis horatius* (Horace's Duskywing).

We observed butterflies visiting the flowers of 43 species of plants in 16 different families (Table 2) on Cumberland Island. Color of the flowers visited varied: purple or blue (16 plant species), yellow (12 species), white (12 species), red (2 species), and green (1 species). The majority of the plants visited were in the Asteraceae (15 species) and Fabaceae (10 species). *Phyla nodiflora* (Verbenaceae) and *Hexasepalum teres* (Rubiaceae) had the most observations of butterflies visiting their flowers and attracted the greatest number of butterfly species, 26 and 20 respectively.

Discussion

Of the 472 species of flowering plants (angiosperms) recorded from Cumberland Island (Zomlefer *et al.* 2008) nearly 30% are grasses, sedges, and rushes, which are not usually visited by butterflies. We found only 13% of the other 334 species of angiosperms to be attractive to butterflies. Further observation will likely increase that number to perhaps 15 to 20 percent of angiosperms present.

Although a few plants flowered over many months, most were more limited to a few weeks or months during certain seasons. We observed two peaks of flowering on Cumberland Island, March through May and September (Fig. 1). This correlates well with the number of butterfly species observed per month (Minno and Minno 2020), which also peaked during the same months.

Table 1. Butterflies observed visiting flowers on Cumberland Island, Georgia.

SCIENTIFIC NAME	COMMON NAME	FAMILY/SUBFAMILY	# Plant Species Visited
Cecropterus dorantes	Dorantes Skipper	Hesperiidae: Eudaminae	1
Urbanus proteus proteus	Long-tailed Skipper	Hesperiidae: Eudaminae	22
Atalopedes campestris huron	Sachem	Hesperiidae: Hesperiinae	2
Euphyes vestris metacomet	Dun Skipper	Hesperiidae: Hesperiinae	6
Hylephila phyleus	Fiery Skipper	Hesperiidae: Hesperiinae	13
Lerodea eufala	Eufala Skipper	Hesperiidae: Hesperiinae	2
Panoquina ocola ocola	Ocola Skipper	Hesperiidae: Hesperiinae	6
Panoquina panoquin panoquin	Salt Marsh Skipper	Hesperiidae: Hesperiinae	28
Polites themistocles	Tawny-edged Skipper	Hesperiidae: Hesperiinae	1
Polites vibex	Whirlabout Skipper	Hesperiidae: Hesperiinae	12
Wallengrenia egeremet	Northern Broken-Dash	Hesperiidae: Hesperiinae	3
Wallengrenia otho	Southern Broken-Dash	Hesperiidae: Hesperiinae	10
Burnsius albescens	White Checkered-Skipper	Hesperiidae: Pyrginae	2
Burnsius oileus	Tropical Checkered-Skipper	Hesperiidae: Pyrginae	1
Erynnis horatius	Horace's Duskywing	Hesperiidae: Pyrginae	22
Erynnis zarucco	Zarucco Duskywing	Hesperiidae: Pyrginae	8
Brephidium pseudofea	Eastern Pygmy-Blue	Lycaenidae: Polyommatinae	5
Hemiargus ceraunus antibubastus	Ceraunus Blue	Lycaenidae: Polyommatinae	9
Leptotes cassius theonus	Cassius Blue	Lycaenidae: Polyommatinae	2
Calephelis virginiensis	Little Metalmark	Lycaenidae: Riodininae	1
Calycopis cecrops	Red-banded Hairstreak	Lycaenidae: Theclinae	2
Mitoura gryneus sweadneri	Sweadner's' Juniper Hairstreak	Lycaenidae: Theclinae	1
Satyrium favonius	Oak Hairstreak	Lycaenidae: Theclinae	2
Strymon melinus melinus	Gray Hairstreak	Lycaenidae: Theclinae	5
Danaus gilippus berenice	Queen	Nymphalidae: Danainae	2
Danaus plexippus plexippus	Monarch	Nymphalidae: Danainae	1
Agraulis vanillae nigrior	Gulf Fritillary	Nymphalidae: Heliconiinae	39
Heliconius charitonia tuckeri	Zebra Heliconian	Nymphalidae: Heliconiinae	2
Anartia jatrophae	White Peacock	Nymphalidae: Nymphalinae	1
Junonia coenia	Common Buckeye	Nymphalidae: Nymphalinae	10
Phyciodes phaon	Phaon Crescent	Nymphalidae: Nymphalinae	9
Vanessa cardui	Painted Lady	Nymphalidae: Nymphalinae	9
Vanessa virginiensis	American Lady	Nymphalidae: Nymphalinae	2
Hermeuptychia sosybius	Carolina Satyr	Nymphalidae: Satyrinae	1
Battus philenor philenor	Pipevine Swallowtail	Papilionidae: Papilioninae	1
Eurytides marcellus floridensis	Zebra Swallowtail	Papilionidae: Papilioninae	3
Heraclides cresphontes	Giant Swallowtail	Papilionidae: Papilioninae	2
Pterourus palamedes	Palamedes Swallowtail	Papilionidae: Papilioninae	4
Pterourus troilus troilus	Spicebush Swallowtail	Papilionidae: Papilioninae	1
Abaeis nicippe	Sleepy Orange	Pieridae: Coliadinae	1
Eurema daira daira	Barred Yellow	Pieridae: Coliadinae	24
Nathalis iole	Dainty Sulphur	Pieridae: Coliadinae	2
Phoebis sennae eubule	Cloudless Sulphur	Pieridae: Coliadinae	14
Pyrisitia lisa lisa	Little Yellow	Pieridae: Coliadinae	4
Ascia monuste phileta	Great Southern White	Pieridae: Pierinae	12
		TOTAL	310

Table 2. Flowers visited by butterflies on Cumberland Island, Georgia.

SCIENTIFIC NAME	FAMILY	COMMON NAME	FLOWER COLOR	# OBSERVATIONS	# BUTTERFLY SPP
Sesuvium portulacastrum	Aizoaceae	Shoreline Seapurslane	Purple	4	4
Serenoa repens	Arecaceae	Saw Palmetto	White	5	4
Bidens alba	Asteraceae	Beggarticks	White	2	2
Borrichia frutescens	Asteraceae	Bushy Seaside Oxeye	Yellow	15	9
Cirsium nuttallii	Asteraceae	Nuttall's Thistle	Purple	14	11
Conyza canadensis	Asteraceae	Canadian Horseweed	White	2	2
Elaphantopus elatus	Asteraceae	Tall Elephantsfoot	Purple	13	8
Erechites hieracifolia	Asteraceae	Fireweed	Green	3	3
Eupatorium compositifolium	Asteraceae	Yankeeweed	White	2	2
Heterocheca subaxillaris	Asteraceae	Camphorweed	Yellow	2	2
Liatris sp	Asteraceae	Gayfeather	Purple	2	2
Melanthera nivea	Asteraceae	Snow Squarestem	White	2	2
Mikania scandens	Asteraceae	Climbing Hempvine	White	3	3
Pityopsis graminifolia	Asteraceae	Narrowleaf Silkgrass	Yellow	2	1
Pluchea odorata	Asteraceae	Sweetscent	Purple	8	5
Solidago odora var. chapmanii	Asteraceae	Sweet Goldenrod	Yellow	1	1
Symphyotrichum tenuifolium	Asteraceae	Perennial Saltmarsh Aster	White	1	1
Canna indica	Cannaceae	Indian Shot	Red	2	2
Ipomoea cordatotriloba	Convolvulaceae	Tievine	Purple	3	2
Jacquemontia tamnifolia	Convolvulaceae	Hairy Clustervine	Purple	2	2
Cnidoscolus stimulosus	Euphorbiaceae	Tread-Softly	White	10	7
Croton glandulosa	Euphorbiaceae	Vente Conmigo	White	1	1
Aeschynomene viscidula	Fabaceae	Sticky Jointvetch	Yellow	3	1
Centrosema virginianum	Fabaceae	Spurred Butterfly Pea	Purple	1	1
Crotalaria pallida var. obovata	Fabaceae	Smooth Rattlebox	Yellow	2	2
Crotalaria rotundifolia	Fabaceae	Rabbitbells	Yellow	2	1
Galactia elliottii	Fabaceae	Elliott's Milkpea	White	2	2
Galactia regularis	Fabaceae	Downy Milkpea	Purple	1	1
Galactia volubilis	Fabaceae	Eastern Milkpea	Purple	14	11
Lespedeza hirta	Fabaceae	Hairy Lespedeza	Yellow	13	12
Senna obtusifolia	Fabaceae	Sicklepod	Yellow	1	1
Sesbania herbacea	Fabaceae	Danglepod	Yellow	2	2
Salvia coccinea	Lamiaceae	Tropical Sage	Red	9	3
Trichostema dichotomum	Lamiaceae	Forked Bluecurls	Purple	1	1
Sida rhombifolia	Malvaceae	Indian Hemp	Yellow	1	1
Bacopa monnieri	Plantaginaceae	Herb-of-Grace	Purple	1	1
Limonium carolinianum	Plumbaginaceae	Carolina Sealavender	Purple	2	2
Asemeia violacea	Polygalaceae	Showy Milkwort	Purple	4	4
Prunus umbellata	Rosaceae	Flatwoods Plum	White	4	3
Hexasepalum teres	Rubiaceae	Poor Joe	Purple	44	20
Polypremum procumbens	Tetrachondraceae	Rustweed	White	1	1
Lanatana strigocamara	Verbenaceae	Lantana	Yellow/Orange Yellow/Pink	9	7
Phyla nodiflora	Verbenaceae	Turkey Tangle Fogfruit	Purple	94	26
			TOTAL	310	

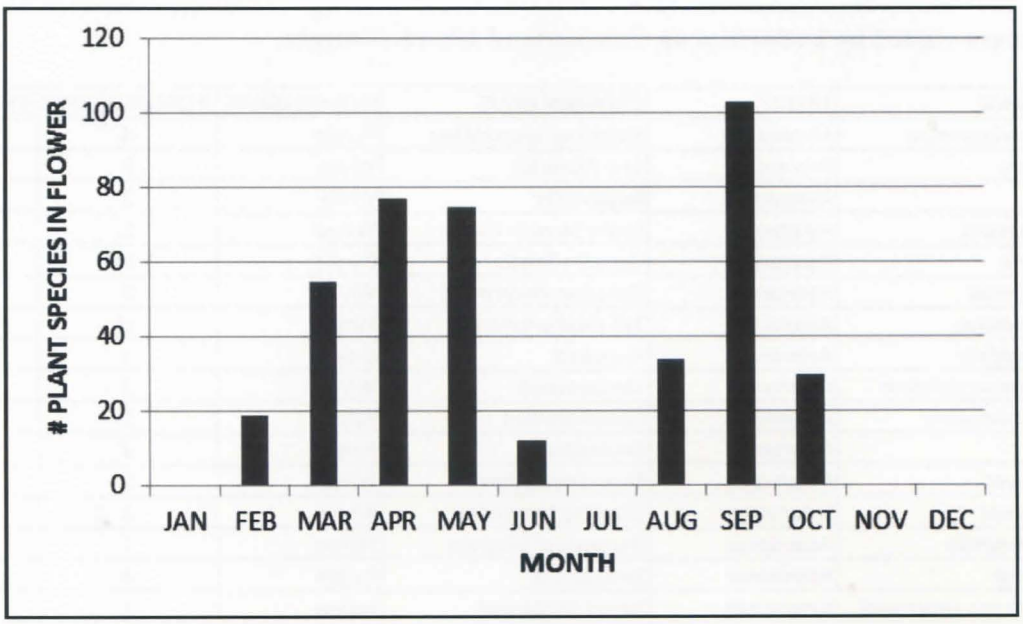

Fig. 1. Number of plant species observed flowering on Cumberland Island each month. We did not sample in January, July, November, or December.

Adult butterflies visit flowers for nectar, which they imbibe via the tubular proboscis. The petals or heads provide a platform for the butterfly to perch upon while feeding. Butterflies at Cumberland Island visited a variety of flower types. The most frequently visited plants have small, simple flowers, but differ in flower arrangement. Whereas *Hexasepalum teres* produces single flowers in the leaf axils, *Phyla nodiflora* has clusters of flowers in small heads (Fig. 2). These plants grow low to the ground in open sunny places. Less visited flower types include tubular and funnelform shapes (Fig. 2). Most of the plants visited were herbs less than 1.5 meters tall, but a few were vines (*Mikania scandens, Ipomoea cordatotriloba, Jacquemontia tamnifolia*, and *Galactia* spp.), shrubs (*Serenoa repens, Lantana strigocamara*), or small trees (*Prunus umbellata*).

Additional plants that occur on Cumberland Island (Zomlefer *et al.* 2008) that are likely attractive to butterflies include *Asclepias humistrata, Aralia spinosa, Carphephorus odoratissimus, Vaccinium arboreum, Vaccinium myrsinites, Pontederia cordata, Rubus* spp., *Cephalanthus occidentalis, Salix caroliniana*, and *Sideroxylon tenax*.

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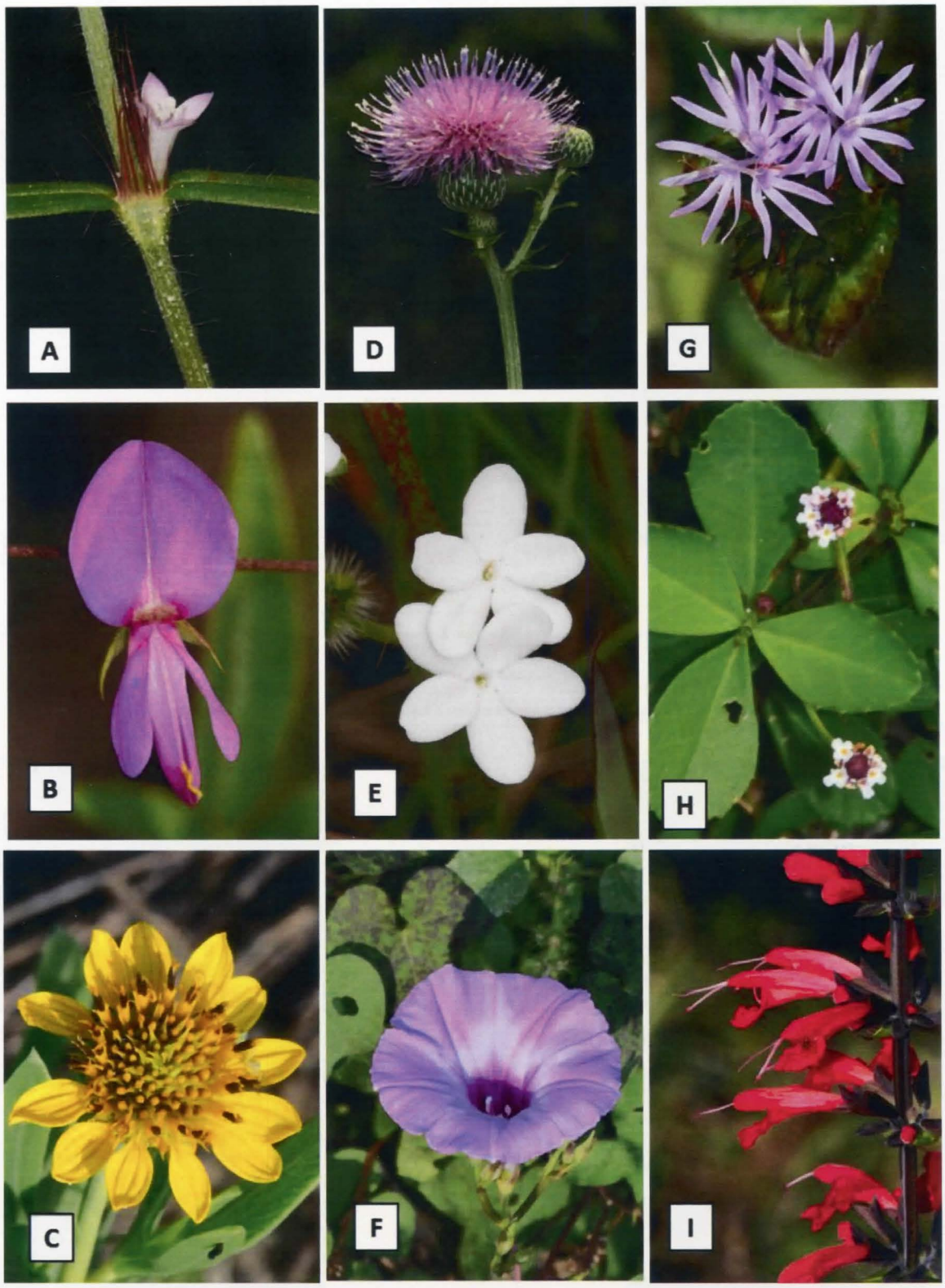

Fig. 2. Plants with flowers attractive to butterflies on Cumberland Island, Georgia: A) *Hexasepalum teres*, B) *Galactia volubilis*, C) *Borrichia frutescens*, D) *Cirsium nuttallii*, E) *Cnidoscolus stimulosus*, F) *Ipomoea cordatotriloba*, G) *Elephantopus elatus*, H) *Phyla nodiflora*, and I) Salvia coccinea.

(Marc C. Minno and Maria F. Minno: E-Mail: marc.minno@gmail.com)

BATTUS POLYDAMAS

Tom Neal sends in this photograph of two handfuls of caterpillars with the following statement — "This time of year we frequently get a *Battus polydamas* population explosion, but this year has been exceptional. The pipevine in the front yard having been stripped, I moved about a third of the caterpillars to some remaining food plant elsewhere."

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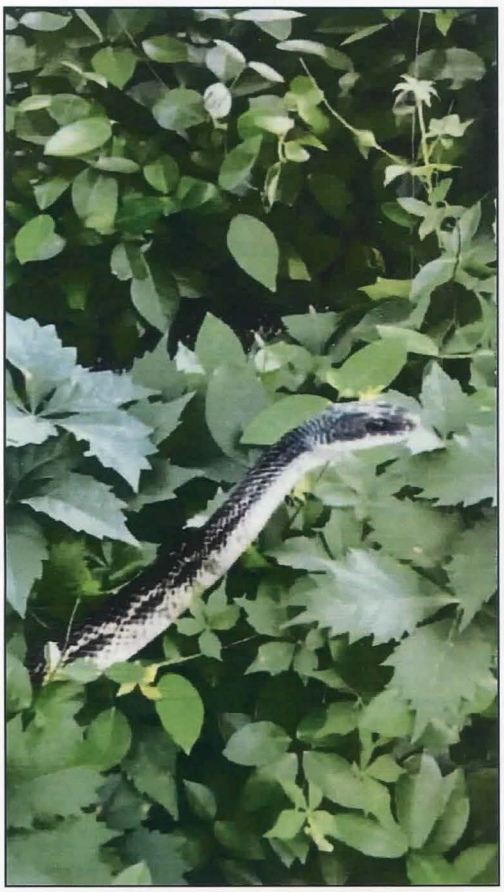

Texas Rat snake along San Antonio River in King William District, Texas (Photo Richard Lombardini, 11-V-2020)

Three baby armadillos, Friedrich Wilderness Park, San Antonio, Texas (Photo Richard Lombardini, 10-V-2020)

NICE FLOWERS, SMALL MOTHS, SHY SURPRISES — PALE BUCKEYE

BY
DELMAR CAIN

Some plants seem to hold more surprises than other plants. The first time I noticed the pale buckeye (*Aesculus pavia* L. var. *flavescens* (Sarg.) Correll was soon after we moved into our house near Boerne in 2006. I happened to be walking along the creek to the rear of the property and noticed a hum in the air. I finally noticed that there were humming birds in the air zipping from one buckeye bloom to another. It was early spring when the buckeyes were the only plants with blooms and they were attracting a crowd. (Fig. 1)

Fig. 1. Bloom of *Aesculus pavia* L var. *flavescens*

My wife and I enjoyed the few buckeyes near the house with some blooming a colorful yellow, some blooming pink and some blooming a darker shade of almost red. Imagine our concern in June when the plants began to display brown leaves, which fell soon after. Were these the first casualties of leaving them too close to our building site? No, they were just a Texas Hill Country species that chose to hibernate to avoid the heat of a Texas summer.

Fig. 2. Hybrid buckeye (*Aesculus pavia* var. *pavia*)

I later found out that where the pale buckeye and the scarlet buckeye (*A. pavia* var. *pavia*) over-lap as in the Edwards Plateau, there can be a pink hybrid (Fig. 2).

A few years later a group came to visit the property to look for plants and butterflies. Terry Doyle, an accomplished lepidopterist of many years in Texas, was in the group and noticed that some of the buckeye plants had silken shelters containing several of the terminal leaves at the end of the branch. Terry asked my permission to collect a silken shelter with its caterpillars to find out what was the culprit. I had to get to my retirement years before seeing an actual person collecting caterpillars to rear. Terry even gave me the answer, which was that it was the shelter of *Archips rileyana*, living up to its common name of Southern Ugly-nest Caterpillar Moth. (Fig. 3)

Fig. 3. Community shelter of *Archips rileyana*

In the September 2018 issue of the *Southern Lepidopterists' News* I reported on finding a *Strymon melinus* larva feeding on the developing seed of a buckeye. I found that interesting since there are numerous cautions that the seeds and even the young leaves are toxic to most wildlife. The Gray hairstreak didn't seem to suffer so that species could have a long history with the buckeyes.

In March and April of this year I noticed several types of herbivory on a buckeye just off our back terrace. On March 24, 2020, I collected a larva eating from a shelter of rolled buckeye leaves. It pupated on March 28, 2020, and emerged on April 9, 2020. I identified it as *Proteoteras aesculana*-Maple Twig Borer Moth-Riley, 1881, which has thus far remained hidden in Texas except on iNaturalist. On April 10, 2020 when I photographed the emerged moth, I photographed another moth of the same species on the outside door frame near the host plant. (Figs. 4 and 5)

On March 24, 2020, I also collected another larva eating strips near the end of a buckeye leaf. It pupated on March 27, 2020, and emerged on April 9, 2020.

Fig. 4. Larva of *Proteoteras aesculana* in buckeye leaves

Fig. 5. Emerged *Proeoteras aesculana*

My identification was *Eupithecia miserulata* – Common Eupithecia Moth – Grote, 1863. (Fig. 6)

Although the buckeye continued to produce different larvae, either through lack of skill, inattention or bad luck, I was not always successful in determining the big secret in each surprise. On April 7, 2020, I collected from the buckeye what appeared to be a leaf skeletonizer. It pupated on April 10, 2020. I missed the date the specimen emerged and found it on May 25, 2020. But, with a poor photograph I am unsure of the identification, except that it is in the genus of *Caloptilia*. (Figs. 7-9)

I first thought that it could be *Caloptilia blandella*, which strayed from its usual host of black walnut. Then in Microleps.org I found *Caloptilia negundella* another similar appearing moth, which feeds on box elder. The best choice may be a *Caloptilia sp.*, which feeds on Ohio buckeye, *Aesculus glabra*. According to Microleps.org "this *Caloptilia* is indistinguishable from *C. negundella* on male and female genital morphology, as well as coloration." Apparently, not many *Caloptilia* species find Texas a habitable location. The one found on our buckeye remains incognito.

Fig. 6. Larva of *Eupithecia miserulata*

Fig. 7. Larva of *Caloptilia sp.*

Fig. 8. Pupa of *Caloptilia sp.* on buckeye leaf

Fig. 9. Expired emerged *Caloptilia sp.*

On April 11, 2020, I captured a green larva with a white stripe on the buckeye. It did not survive a fungus in the container. I don't know what it was, but it looked suspiciously like a *Hypena scabra*. (Fig. 10)

On April 12 and 15, 2020, I collected four black larvae from the buckeye that I thought was part of a societal feeding group. The larvae pupated on April 16, 2020, and on the same day I collected a larger pupal shelter that I thought contained others of the same species. The pupae of the black larvae never emerged, but the large shelter produced twelve specimens of *Archips rileyana*. (Fig. 11)

This article is dedicated to all those who don't find success in every rearing venture. It is also dedicated to the buckeye, which like the lake called Gitche Gumee, seldom gives up all its secrets. This reference will probably be lost on those who don't remember Gordon Lightfoot.

Fig. 10. Unknown larva with white stripe

Fig. 11. Unknown black larva

(Delmar Cain, E-Mail: dlc192@gvtc.com)

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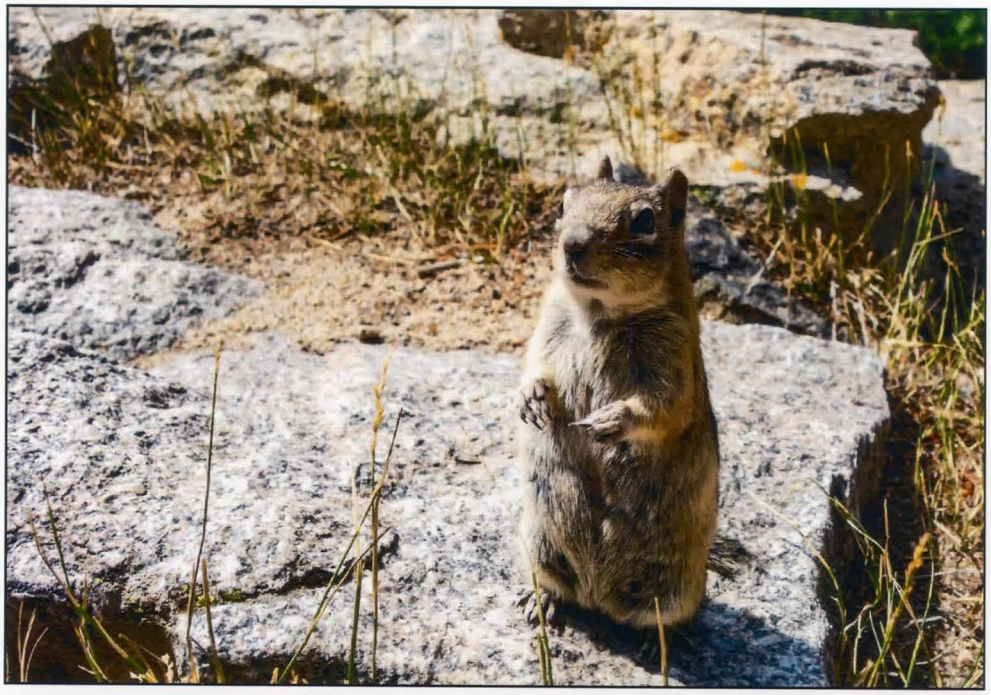

**Chipmunk, along Ouzel Falls trail,
Rocky Mountain National Park, Colorado
(2-VIII-2020)(Photo by Lane Ayo)**

Membership in the Lepidopterists' Society

The Lepidopterists' Society is open to membership for anyone interested in any aspect of lepidopterology. The only criterion for membership is that you appreciate butterflies and/or moths! To become a member, please send full dues for the current year, together with your current mailing address and a note about your particular areas of interest in Lepidoptera, to:

Kelly Richers, Treasurer
The Lepidopterists' Society
9417 Carvalho Court
Bakersfield, CA 93311

The dues rates are as follows:

Active (regular)	$ 45.00
Affiliate (same address)	10.00 (this is for relatives living at the same address as the primary member)
Student	20.00
Sustaining	60.00

(outside U.S., for above add $5.00 for Mexico/Canada, and $10.00 for other countries)

Life	1800.00

Students must send proof of enrollment at their educational institution (this can be at any level – grade school, high school, college). We encourage advisors/professors to sponsor students, and for students to seek sponsors if you don't have one. You may also inquire if we have any open student sponsorships to Chris Grinter at cgrinter@gmail.com. Please add $5.00 to your dues if you live in Canada/Mexico, $10.00 for any other country, outside the U.S. to cover additional mailing costs. Remittances must be in U.S. dollars, payable to "The Lepidopterists' Society". All members receive the Journal and the News (each published quarterly). Supplements included in the News are the Membership Directory, published in even-numbered years, and the Season Summary, published annually. Please visit https://www.lepsoc.org/ for more information.

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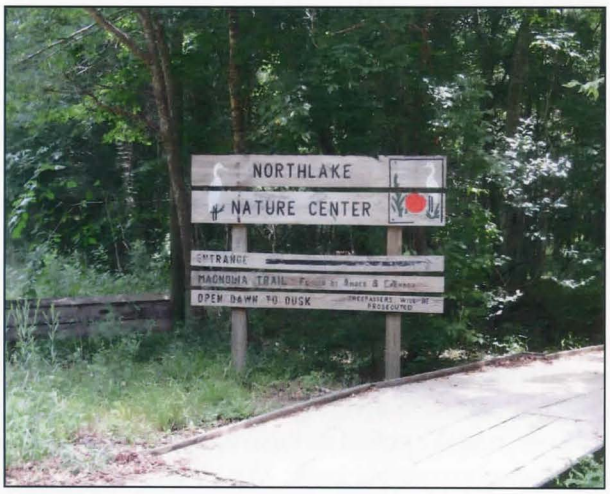
Marmots, along Ouzel Falls trail, Rocky Mountain National Park, Colorado (2-VIII-2020)(Photo by Lane Ayo)

BUGLADY'S NORTHLAKE ADVENTURE

BY
LINDA BARBER AULD

Northlake Nature Center in Mandeville is a 400 acre tract of land with three distinct ecosystems: hardwood forest, pine hardwood forest, and pond swamp. Beaver dams created the ponds in the cypress swamp and visitors can view a beaver lodge from one of the center's raised boardwalks. Interpretive signs and outdoor classrooms enhance the experience. The site serves for environmental education programs, hiking and other nature activities.



Northlake Sign

On Saturday morning May 30, 2020, folks from Baton Rouge, Prairieville, Folsom and New Orleans joined me to hike and look for butterflies and their preferred plants. A native plant garden greeted us in the parking lot, created by Jim Russell and Rue McNeill. We spent a good half hour looking at the variety of host and nectar plants inviting the native pollinators to visit. We

2-Spotted longhorn bee

admired Partridge Pea and *Cassia obtusifolia*, two caterpillar hosts for Cloudless Sulphur, Sleepy Orange and Little Sulphur butterflies. We also found a nice stand of blooming native milkweed, *Asclepias perennis* that attracts Monarchs to lay eggs. Its delicate white flowers supply a nectar snack for butterflies as well as bees. We watched two different species of flower beetles lapping up nectar on those flowers. Nearby, a Two-spotted Long-horned Bee was struggling to squeeze its body down into a purple ruellia flower, trying to reach the throat to gather the nectar. I noticed its two spots—one on either side of its butt—that's how it got its name! There's always something to discover in nature.

A big surprise was finding baby Goatweed caterpillars on the *Croton capitatus*! The Goatweed caterpillar is one of only four butterfly caterpillars that creates what's known as a "frass chain". This happens when the baby caterpillar eats from the leaf stem to tip along the leaf rib, leaving a "plank" of poop, creating a safe haven that ants and other predators don't want to cross! Our list of blooming flower smorgasbord grew to include monarda (bee balm), coneflowers, ruellia, milkweed, turk's cap, basketflower, elderberry, verbena, sida and bidens. Summer will bring new varieties to bloom.

Next we checked out the powerline area where on my last visit I saw many different skippers plus Buckeye butterflies and caterpillars perched atop stems of their host plant Agalinus. To get there we hiked a boardwalk trail where we stopped to admire a gang of large turtles sticking their heads up out of the water as if begging for a snack. Further along I noticed turned leaves on Water Canna (*Thalia dealbata*) that indicated Brazilian Skipper use. This caterpillar, an interesting little critter, is clear in coloration so its "innards" show. The Brazilian Skipper butterfly is reported to be crepuscular (active at dusk and dawn) and has such along tongue that its pupa has a separate sheath to house it! Moving

Brazilian skipper caterpillar — it threw up on the leaf when disturbed

along, sprays of white, globe-shaped Buttonbush flowers towered above our heads as we crossed the boardwalk into the meadow.

There we found stands of indigo, *Baptisia alba* crowned with seed pod spikes. A month earlier, these must have been spectacular splashes of erect white flower swords. Patches of indigo mixed with Lead plant, *Amorpha fruticosa* packed this area. It didn't take long to find a clump of Lead plant leaves sewn together and discover, inside them, an adorable Silver-spotted skipper caterpillar, an orange dot on each cheek and green stripes running side to side across its body. Lead plant is also a host for whimsically-named Dog-face Sulphur caterpillars. As we hiked along the path, Common Checkered Skipper butterflies flitted around us, investigating *Sida rhombifolia*, its host. "What's that?" someone shouted. A male Black Swallowtail was showing off his yellow-dotted black wings. He barreled across the cleared area and vanished into the forest trees.

Silver spotted skipper caterpillar

Reaching the meadow, someone else excitedly yelled out, "Come look at this one!" A Buckeye flitted around patches of sprouting Agalinus. Next, spotting some sewn leaves on Desmodium, we discovered a Long-tailed Skipper caterpillar hiding inside! This caterpillar, like the Silver-spotted Skipper, also has an orange dot on each cheek (I call them headlights) but its stripes run the length of its body. A menomic technique to differentiate the Long-tailed from the Silver-spotted caterpillar (other than knowing their different host plants) is this: *Long-tailed's* stripes run the *Length* of the body whereas *Silver-spotted's* stripes run from *Side to side*.

Host plant of the Barred Sulphur, tiny yellow Pencil flowers, each the size of a Sweetheart rose bud, dotted the meadow landscape. As we were admiring the ironweed—some already sporting purple flowers—I spied something shiny on nearby *baptisia* leaves. Upon closer inspection I detected webbing and another great surprise—Genista moth caterpillars whose shiny metallic spots warn predators that they taste bad.

Genista Broom moth cateterpillar

Suddenly from out of a row of trees a Giant Swallowtail swooped into the open next to us, startling and exciting us before flying off to the opposite tree line in a flash. We caught our collective breath to observe several species of dragonflies patrolling the area in search of lunch. A pack of immature Painted Lubber and little green grasshoppers were munching on the green buffet. Delicate damselflies hunting for a snack hovered among low-growing plants as a Tiger Swallowtail butterfly lazily flew past us to investigate the tree line. Surprise! A thin green snake poked its head out of some high grass and slithered across our path. We all stopped to give it some space, observe and take pictures.

On our return stroll back to the parking lot, Rue McNeil of the Center directed us on another loop trail to check out PawPaw trees, host for Zebra Swallowtail. Several trees resemble the PawPaw but it can be easily identified by its distinctive crushed leaf smell of bell pepper. One more butterfly waited for us back in the parking lot: a male Spicebush Swallowtail circling a mud puddle before landing to suck up minerals with his tongue. Males are black with green accents whereas females are black with blue.

Although our group had catalogued a great diversity of interesting plants and bugs, in two hours we had covered only a small portion of the Northlake Nature Center's tract. Hikers may choose from three main loop trails, each encompassing Longleaf Pine restoration areas: Eagle Trail Loop at 0.75 mile, South Loop at 1.2 mile and North Loop at 1.75 mile. Savanna Lake Trail and the Beaver Pond area offer two more areas to explore.

Northlake Nature Center is located on Highway190 in Mandeville, Louisiana, situated along Bayou Castine, adjacent to Pelican Park Sports Complex and the 31 mile Tammany Trace Rails-to-Trails path. I highly recommend planning your next Nature experience there.

Silver-spotted skipper

Long-tailed skipper

Common skipper

Common Buckeye

"All Photos by Linda Barber Auld"

Linda Barber Auld, better known as the NOLA BugLady, owns and operates Barber Laboratories, a 3-generation family retail store where homeowners and business owners can buy and apply professional strength pest control products on their own properties. Linda has raised butterflies for over forty years and has self-published her first book, "BugLady's Butterfly Summer". She sells butterfly nectar and caterpillar host plants at her store located at 6444 Jefferson Highway in Harahan. Open Monday through Friday. You can reach Linda at nolabuglady@gmail.com. Also, check out her Facebook pages and her websites @ www.barberlaboratories.com and www.nolabuglady.com to see the upcoming scheduled events, list of available plants, and pictures of her butterfly projects.

(Linda Barber Auld, email: nolabuglady@gmail.com)

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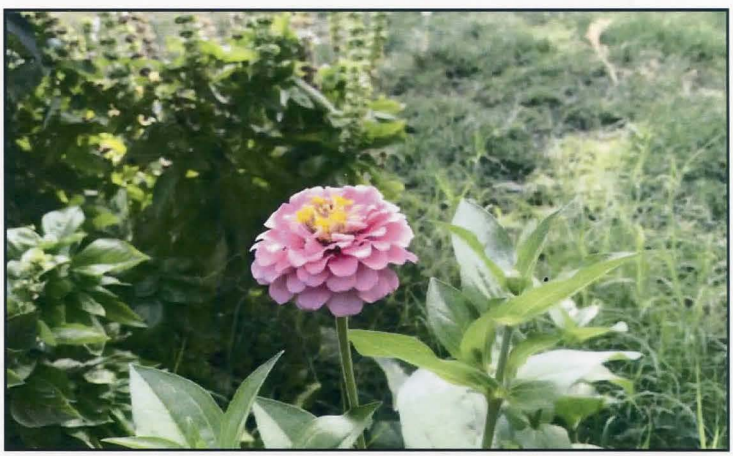
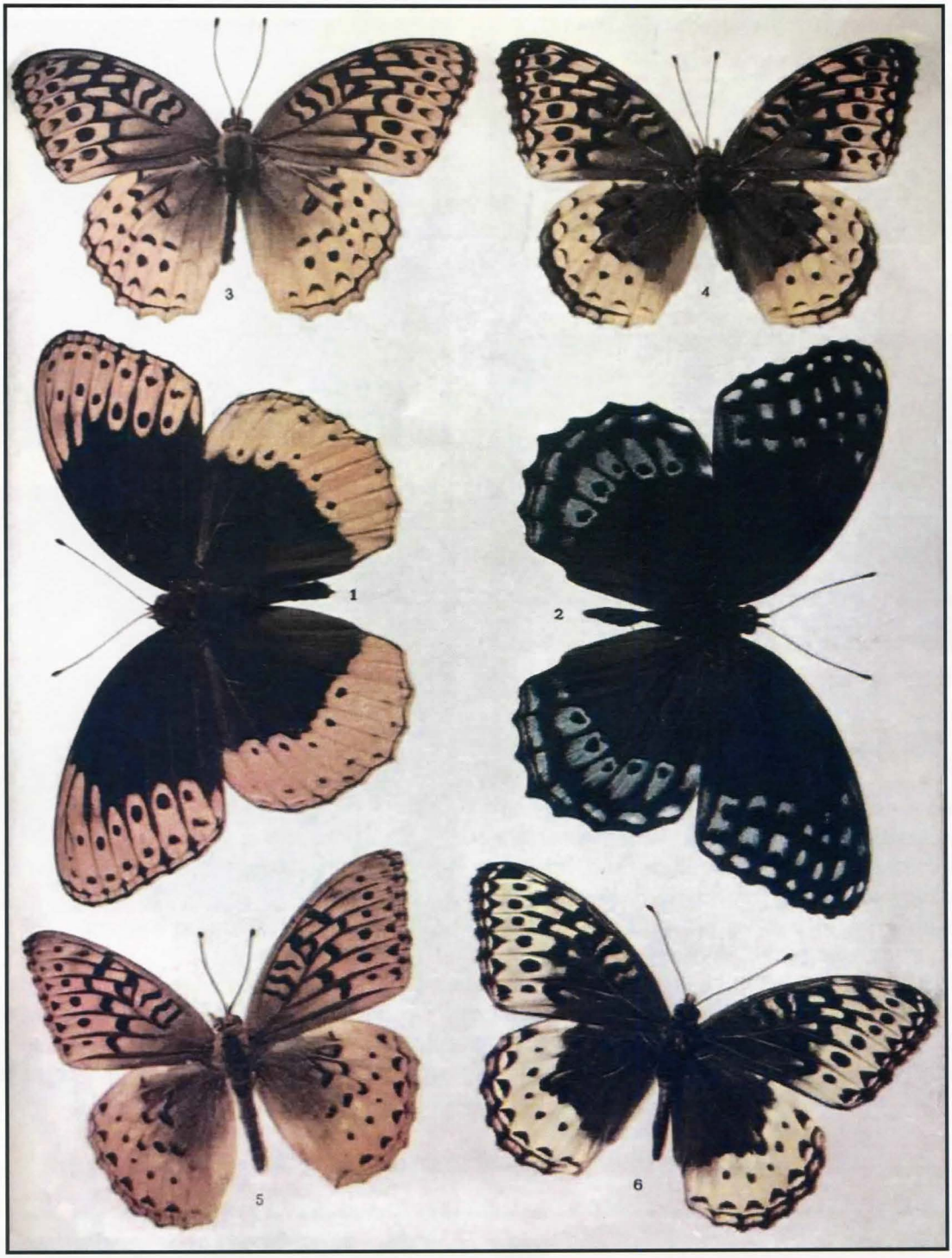
Lubbock, Texas
(September 6, 2020)





EXPLANATION OF PLATE IX

1. *Argynnis diana,* Cramer, ♂.
2. *Argynnis diana,* Cramer, ♀.
3. *Argynnis cybele,* Fabricius, ♂. .
4. *Argynnis cybele,* Fabricius, ♀.
5. *Argynnis leto,* Behr, ♂.
6. *Argynnis leto,* Behr, ♀.

THE BUTTERFLY BOOK, A POPULAR GUIDE TO A KNOWLEDGE OF THE BUTTERFLIES OF NORTH AMERICA
BY W. J. HOLLAND
[Garden City, New York, Doubleday, Page & Company, 1914]

LIFE CYCLE OF LITTLE METALMARK (*CALEPHELIS VIRGINIENSIS*) [GUÉRIN – MÉNEVILLE, 1832]

BY

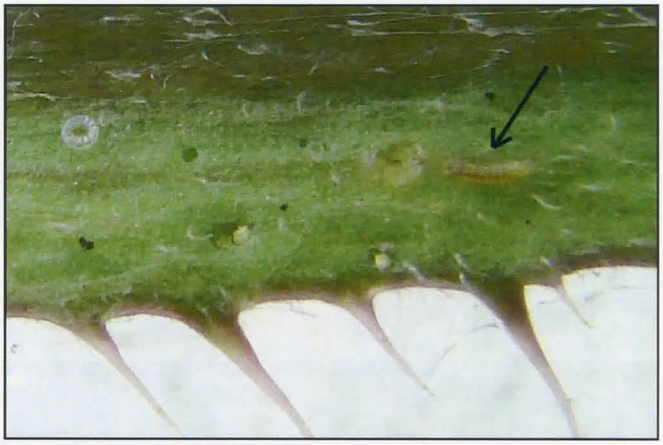
RONDA SPINK

I have been working on the Little Metalmark life cycle for several years now. I had a hard time figuring out how to keep the thistle leaves alive and desirable for the caterpillars but once I figured that out it was fairly easy to raise. I started this project back in 2007 in Florida but eventually had to move back to Michigan. I became an official "Snowbird" in 2016 and restarted this project in 2019. I found a last instar caterpillar in Levy County, Florida, on March 11, 2019. It continued feeding until March 19 at which time it pupated. The adult emerged on March 31, 2019, and was released in Citrus County, Florida.

Little Metalmarks copulating

Little Metalmark egg

Little Metalmark egg



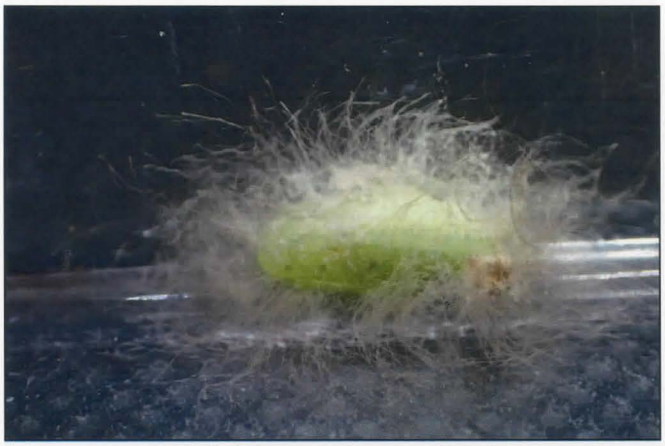
Little Metalmark – newly hatched caterpillar

Little Metalmark caterpillar

Little Metalmark caterpillar showing feeding pattern

Little Metalmark caterpillar – last instar

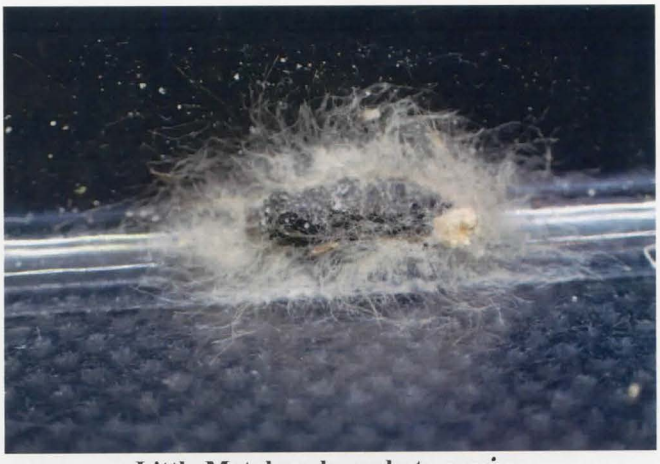
Little Metalmark caterpillar just before pupation



Little Metalmark pupa day 1

Little Metalmark pupa day 2

Little Metalmark prior to emergence



Little Metalmark ready to emerge

Little Metalmark adult – eclosed on 31-III-2019

Little Metalmark adult – eclosed on 31-III-2019

(Ronda Spink, E-mail: rlovesbutterflies@gmail.con)

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Matt and Dona Blaine send in the following 2 photos. "Eastern black Swallowtail caterpillars enjoying our pot of Parsley. While picking some dinner for tonight we found several *Papilio polyxenes asterius* devouring our crop. We will plant several more plants next year to feed our Lepidoptera friends!"

LIFE HISTORY NOTES ON *DASYCHIRA LEUCOPHAEA* (J. E. SMITH, 1797), THE PALE – BANDED TUSSOCK MOTH

BY

JEFFREY R. SLOTTEN AND ERIC L. QUINTER

I have been studying the moth fauna of sandhill communities containing *Quercus incana* (Bluejack Oak) for several years. This oak occurs naturally throughout north and central Florida south to Lee County and Titusville. It is native to the Atlantic and Gulf coastal plains of the United States, from Virginia to Florida and then west to Texas and inland to Oklahoma and Arkansas. Some of the moths of interest to me that utilize this hostplant are *Anisota consularis*, *Hyparpax peropheroides* and *Dasychira leucophaea*. Life history notes on *Hyparpax peropheroides* were presented in Volume 40, Issue No. 3 in the *Southern Lepidopterists' News*.

Fig. 1: Habitat of *Dasychira leucophaea*

Fig. 2: *Quercus incana*

This paper will present life history notes on the pale-banded tussock moth, *Dasychira leucophaea* (J. E. Smith, 1797), a species of tussock moth in the family Erebidae. This moth is found in the southern United States from New Jersey and North Carolina south along the Atlantic coastal plain and then to the eastern coast of Texas to the west. There are at least two broods in Florida, with the last brood overwintering as half grown larvae. In north central Florida, the first brood adults emerge in March and April. Their progeny feed and mature through the summer and emerge in July through September.

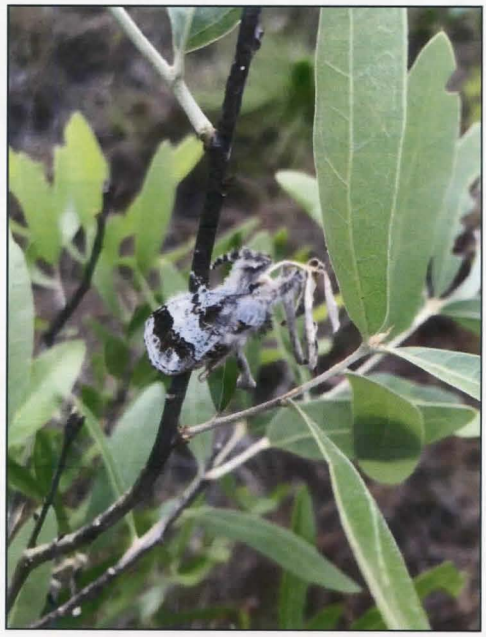

Fig. 3: Female *Dasychira leucophaea* on *Quercus incana*

There are several other species of *Dasychira* in Florida including *Dasychira meridionalis, Dasychira manto, Dasychira tephra, Dasychira atrivenosa*, and *Dasychira dominickaria*. They are distantly related to the one species we don't want in Florida, the invasive *Lymantria dispar*, commonly known as the Gypsy Moth. Our native species seem to be held in check by parasites, predators and environmental circumstances so they rarely cause noticeable destruction of their hostplants, unlike the Gypsy Moth. *Dasychira leucophaea* seems to be very local and I have not personally noticed defoliation of all the *Quercus incana* trees where they occur.

Eric Quinter in Connecticut has been rearing and recording notes on the *Dasychira* species of the United States. I have sent him a few batches of eggs for his

Figs. 4: Egg masses of *Dasychira leucophaea*

studies and he was kind enough to send me detailed notes on each instar of *Dasychira leucophaea*. I present these data in this paper as follows:

"Parent female was collected at ultraviolet light by Jeff Slotten in Williston, Levy County Florida on April 11th, 2020. Oviposition occurred April 12-14th, 2020. Eggs were laid in several masses by the hundreds.

Egg clusters hatch: May 4-5, 2020. No oak leaves were available to Eric this early in the year in Connecticut so he used apple leaves which the young larvae readily accepted. First instars presented normal appearance except appearing hairier than other first instars of *Dasychira spp*. Their color is light honey brown.

Fig. 5: First instars of *Daychira leucophaea*

First molt: May 14-16, 2020 (10 days). Second instars are uniform light yellowish brown, with noticeably longer somatic hairs than other *Dasychira spp*. No ALPs (anterior lateral pencils) present in 2nd instar. DABs (dorsal abdominal brushes) on A1-A2 not yet discernible; no PDB (posterior dorsal brush) on A8. DABs on A3-A4 likewise absent. Dorsal glands present on A6 & A7, of same pale-yellow color as integument; head capsule also of same pale color as integument.

All larvae now offered both apple leaves and tiny young oak leaves, the latter reddish and densely pubescent, so the larvae continue to show a strong preference for the smooth, green apple leaves (even through this species has been only reported from oak).

Second molt: May 20-21, 2020 (6 days). Third instars are pale yellowish brown, with extremely long somatic hairs, quite unlike third instars of other *Dasychira spp*.

Figs. 6-7: Early instars of *Dasychira leucophaea* showing feeding damage to hostplant

Third instars now have straight, dark ALPs, without "satellites" and a short, distad-slanting black PDB. No true PLPs, only very long hairs not distinguished as pencils. DABs on A1-A4 not readily distinguishable if present, being hidden under the dense mat of somatic hairs. Somatic hairs very light brown; subspiracular row on A1-A6 not distinguishably different from the rest. Dorsal glands remain of the same pale yellowish color as the integument and verrucae. Head capsule pale honey color.

Third molt: May 25-27, 2020 (6 days). Fourth instars are now more orange-brown, with dense, shaggy, plumose somatic hairs. ALPs are black, much longer

than in previous instar, and now have small "satellites". PDB black, now more of a long pencil, extending beyond basal brush which is now of the same pale coloration as the somatic hairs. Still no PLPs, only a few simple hairs of the same coloration as the plumose somatic hairs. DABs on A1-A4 now more distinguishable from the surrounding plumose somatic hairs, but of exactly the same coloration. Dorsal glands pale yellow. Head capsule pale honey color.

Figs. 8-9: Last instars of *Dasychira leucophaea*

Fig. 10: Cocoon of *Dasychira leucophaea* with hatched male adult

Figs. 11: Adult male of *Dasychira leucophaea* attracted to ultraviolet light on a sheet strung between two trees

Fourth molt: May 30-June 2, 2020 (6 days). Fifth instars are like fourth but larger and brighter orange. They are so densely covered with somatic hairs as to make observation of some other structures difficult. DABs on A1-A4 more distinguishable from the surrounding plumose somatic hairs, now of a slightly darker brownish orange coloration than the orange plumose hairs. ALPs very long and black, with prominent "satellites," strongly contrasting with orange plumose somatic hairs.

First cocoons spun ca. June 10th, 2020. First emergence (all males) began June 22nd, at a point when some sibling larvae were still in the fourth and fifth instars, demonstrating a remarkably protracted rate of development. Larval mortality was higher than expected, with most deaths occurring in the penultimate and final instars. Cause of mortality is unknown; perhaps this species is less tolerant of the higher humidity incurred with indoor captive rearing. No overt symptoms of disease were noted. No correlation of mortality was noted between the groups reared primarily on apple and those reared primarily on oak. All were reared through the second instar on apple, until oak leaves became available, after which some remained on apple and the others fed oak exclusively through pupation".

Eric mentioned that females have a fifth molt into a sixth instar versus males which only have four molts. Female adults are considerably larger than males. Adults are sexually dimorphic.

I also reared several *D. leucophaea* larvae in Florida. I experienced a lot of mortality rearing the larvae in-doors in closed plastic containers though humidity was kept to a minimum and leaves were changed every few days. This species is not tolerant of crowding in later instars.

I am including twelve photos of my studies of this interestingly patterned *Dasychira species*.

Figs. 12: Adults of *Dasychira leucophaea*

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HARSHAW CREEK, PATAGONIA, ARIZONA

BY

KELLY RICHERS

Most of the lepidopterists who visit Arizona have a list of preferred sites to visit. These may include certain mountain ranges and canyons for butterfly enthusiasts and many of the same but a few different for moth studiers. One of the last places in Arizona left for me to visit that was on my list, primarily because it lies far off the beaten path to the other locations, is Harshaw Creek, southwest of the town of Patagonia. This area is known more for moths than butterflies, (as well as being a major crossing area for illegal immigration) although a notable number of skippers fly in the area. Other than the name, I had little idea of what the area looked like or might contain different from other areas not too far away.

Harshaw Creek Road vegetation

The town of Patagonia, which is not large by any means, lies in Santa Cruz County, south of Interstate 80 east of Tucson. Route 90 south just west of Benson is the main route from civilization to the area where Patagonia lies nestled in a valley. From Route 90, Route 82 west will take you right into Patagonia.

Harshaw Creek Road area

Patagonia is a pleasant little village sized town with more amenities than you might expect for a center with only about 900 scattered residents. There is a general store, there are several smaller specialty stores and by the park a large well visited post office. The post office is important, because the road to Harshaw Creek lies behind the post office. In addition, there are two large lantana plants at the post office, which are a major attraction for Pipevine Swallowtails, (*Battus philenor*) and Gulf Fritillaries (*Agraulis vanilla* ssp.) which can be seen floating around the plants on a daily basis.

So, after a brief stop to either collect, photograph or just enjoy the beauty of the butterflies, grab some ice and groceries if needed, some fudge maybe from a specialty store, and then head south on Harshaw Avenue, like I did.

Turn right at this sign

Perhaps "Avenue" is not the right term, or someone had a sense of humor in naming it, because after about a mile the road becomes a country farm road, not anything resembling an avenue in most people's minds. The two-lane road winds in a fairly straight path east then curves south for several miles. This area contains several marked camping areas on the west side of the road, but this is probably not the optimal location for moth collecting, as these were occupied when I went past them.

A notable feature is the lack of apparent nectaring sources for butterflies, in the traditional sense of flowers blooming along the roadway. While there are lots of greenery, there are few blooming plants, and the area seems to alternate between almost desert and more of a less arid state of vegetation. However, since the

monsoons hit Arizona starting in about the second week of July, there is a lot of new greenery, as the plants burst forth with new leaves. This is what brings the influx of moths and starts the cycle of laying eggs so the caterpillars have fresh leaves to eat.

After turning right onto Harshaw Avenue instead of going straight, you find that you could have gone straight and been on Harshaw Creek Road or Harshaw Road. Confusing? You bet! However, Harshaw Avenue is where the moth collecting supposedly can be done in peace.

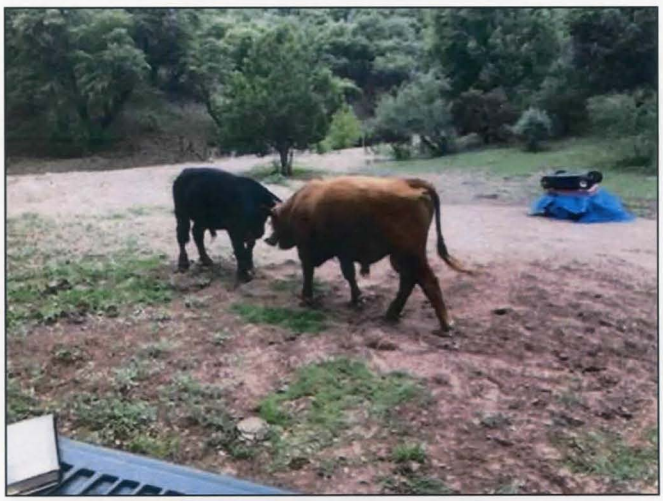
On my trip, I found several campers along Harshaw Avenue, as well as in the aforementioned camping locations near Patagonia. One of these campers was in the broad area near the old Harshaw Townsite. Harshaw, alas, is not more. Named after the prospector David Harshaw, who discovered silver in the area, the town site grew and shrank as the silver discoveries were made and played out. By the 1960's the town became a ghost town, and virtually everything above the foundations of buildings disappeared to other places or were torn down. Virtually anything still standing is on fenced private property.

However, there is a cemetery across the intersection from the old town site, and that is one of the recommended locations for moth collecting. I hesitated to do so with a generator or lights with a camper there so I continued on and found a small turnout further up the road about a mile or so. This seemed an optimal location, across from a seasonal stream which had a little water in some spots in it from recent rains and was mostly a dry stream bed.

Light trap area Harshaw

I set up my truck and prepared five traps for locating up and down the road later, when, around seven p.m., the cows came out of the stream bed area to visit me. This was a nice visit, until two of the "cows" which were apparently young bulls, not cows, decided to have their battle of studliness right where I was trying to set up.

The "*cows*" appear



The "*cows*" are young bulls

Honestly, you can't make this stuff up. They lost their fear of humans in the heat of the moment, so it was something like an hour before I could convince them to move somewhere else (about fifty feet away, finally) so I could go set my traps without returning to destroyed equipment. Having set the traps a couple hundred yards apart dowm the road (and the camper had moved so I could set up in the wide space across from the cemetery also) I returned and set up a mercury vapor sheet.

Now, the Harshaw Creek area is notable for several possible species that might fly there, considered a more exotic type of mothing area than, say, even Madera Canyon, which lies about seventy miles northwest of Harshaw Creek. For instance, the sphingid *Prosperpinus terlooii*, a gorgeous green sphinx moth, supposedly flies in the area. This is a moth that I have not caught in the past, but have seen others catch in Brown Canyon in previous years. In addition, *Automeris patagoniensis*, a large Saturnid moth with eyespots but no forewing line like *Automeris cecrops*, (much more common) could be in the area.

Hypercombe suffuse, Hypocrisias minima, Panopoda rigida, Apatalodes pudefacta, Symmerista* probably *zacualpana, Estigmene acrea arizonensis, Lophocampa mixta, Leucanopsis perdentata, Virbia costata, Sphinx chersis, Neoilliberis fusca, Proserpinus terlooii, Smerinthus salceti, Pachysphinx occidentalis, Manduca quinquemaculatus, Hyophora gloveri

But, judging from the sheet collecting, nothing was in the area of note. In fact, numbers were low, and nothing like Pena Blanca, Box Canyon or Brown Canyon. I went to sleep around midnight disappointed, wary of young bulls and/or rainstorms which could impact the area.

But, the traps did not disappoint. In the traps were a single *terlooii*, a single *patagoniensis*, at least six different species of *Acrolophus*, many of the micro *Filatima albilorella*, some *Parasa chloris*, and a half dozen beautiful pink *Trosia obelescens*.

For the larger moths, *Dicorgaster coronada* predominated, *Gloveria arizonensis* and *Eacles oslari* were present, three *Citheronia splenedens sinaloensis* were there, and two *Sphinx chersis*, as well as a huge *Pachysphinx occidentalis* female, among other large moths.

A *Lophocampa mixta*, several *Hypocrisias minima* and a couple of *Euchaetes antica* were the arctiids that predominated, and of the noctuids *Heteranessa mima* was the best represented. And, nestled in one of the traps was my first *Arctioptera cavillator*, which I neither expected to see nor could identify until I went to the Moth Photographers Group website. This is a very large white and black moth, and was an unexpected bonus.

So, after a dull start with the sheet, the trip was determined to be a success with both my "target" moths taken, although only one of each, and a bonus new moth added. Other unidentified moths may also prove to be new, because there is still a box of some 100 mostly micromoths to work on.

Trosia obselescens, Parasa chloris, Heteranassa mima, Arctioptera cavillator, Nocloa alcandra

Dicogaster coronada, Automeris patagoniensis, Syssphinx hubbardi, Eacles oslari, Automeris cecrops panina, Citheronia splendens sinaloensis, Gloveria arizonensis

Proserpinus terlooii **are very bright dark green when caught but fade almost immediately.**

The highest peak in the Harshaw area

MOTH LIST, Harshaw Creek, Patagonia July 29, 2020:

MONA	Genus	Species	M spread	F spread
341	Acrolophus	arizonellus	2	
358	Acrolophus	klotsi		1
359.a	Acrolophus	laticapitana clarkei macrogaster	4	2
362.b	Acrolophus	laminicornus	1	
369	Acrolophus	parvipalpus	1	3
385	Acrolophus	variabilis	2	8
948	Himmacia	huachucella	3	1
981	Ethmia	semitenebrella	1	
1004	Ethmia	marmorea	3	1
1012	Antaectricha	lindseyi	1	
1916	Friseria	cockerelli	2	
2129	Filatima	albiorella	8	3
3729	Sparganothoides	machimiana	6	
4635	Neoilliberis	fusca	1	
4640	Trosia	obelescens	6	
4681	Isa	textula	1	
4698	Parasa	chloris	2	
4784	Petrophila	schaefferalis		1
4796	Microtheoris	ophionalis	1	
4798	Frechinia	helianathiales	4	
4826.a	Mimoschinia	rufofascialis novalis	1	
4858	Nephrogramma	separata	1	
4895	Chalcoela	iphitalis	3	
5001	Loxostege	typhonalis	1	
5034	Pyrasuta	signalis	2	3
5043	Pyrausta	pseudonythesalis	1	1
5189	Hileithia	rehamalis	1	
5329	Mesolia	oraculella	8	4
5496	Eoreuma	multipunctella	5	2
5504	Xubia	dentilineatella	4	
5521	Aglossa	gigantalis	1	
5537	Caphys	arizonensis	1	
5553	Galasa	nigripunctalis	2	
5566	Arta	statalis	1	
5568	Arta	olivalis		1
5622	Galleria	mellonella		1
5919	Honora	mellinella	1	
6326	Macaria	aemulataria	1	
6333	Psamatodes	everiata	1	
6374	Digrammia	delectata		2
6415	Rindgea	cyda	1	
6424	Taeniogramma	mendicata	1	
6451	Glena	interpunctata	2	
6511	Glaucina	denticulata	1	
6525	Nepterotaea	dorotheata	5	1
6573	Itidopsis	fdatana	7	
6615	Tracheops	bolteri	4	2
6635	Vinemina	opacaria	2	
6761	Pero	occidentalis	4	
6764	Phaeoura	cristifera	1	
6886	Besma	rubritincta	1	
6939	Eusarca	geniculat	1	
7036	Nemoria	zelotes	6	1

MONA	Genus	Species	M spread	F spread
7100	Lobocleta	peralbata	1	1
7356	Stamnoctenis	morrisata	3	2
7664	Apatelodes	pudefacta	1	
7692	Dicogaster	coronada	10	
7696	Gloveria	arizonensis		2
7705	Eacles	oslari	1	
7707.a	Citheronia	splendens sinaloensis	3	
7711	Syssphinx	hubbardi	1	
7748.a	Automeris	cecrops pamina	2	
7749.2	Automeris	patagoniensis	1	
7769	Hyalophora	gloveri	1	
7776	Manduca	quinquemaculatus	1	
7802	Sphinx	chersis	1	1
7823	Smerinthus	saliceti	1	
7829	Pachysphinx	occidentalis		1
7879	Proserpinus	terlooii	1	
7913.1	Datana	"rotunda?"	1	
7914	Datana	perfisa	1	1
7955	Symmerista	zacualpana	1	
7962	Afilia	oslari	1	2
7993	Heterocampa	lunata	1	
8053	Crambidia	cephalica	5	
8115	Virbia	costata	2	
8131.a	Estigmene a	crea arizonensis		1
8149	Hypercompe	suffusa	2	
8201	Hypocrisias	minima	9	
8212	Lophocampa	mixta	1	
8217.1	Leucanopsis	perdentata	4	2
8242	Euchaetes	antica	1	1
8520	Gabara	stygalis	4	
8590	Panopoda	rigida	2	1
8598	Melipotis	perpendicularis	1	
8615	Bulia	similaris	1	
8659	Heteranassa	mima	7	2
8741	Callistege	diagonalis	1	
8955	Marathyssa	inficita	2	
9026	Oruza	ablocostata		1
9034	Amiana	niama	2	
9087	Ponometia	venustula	1	
9098	Ponometia	phecolisca	1	
9107	Ponometia	altera	3	1
9118	Ponometia	tripartita	5	2
9123	Spraguiea	cleta	1	
9129	Spraguiea	funeralis	5	1
9128	Spraguiea	jaguaralis	1	
9187	Arctioptera	cavillator		1
9193	Raphia	frater	1	
9303	Gerra	servosa	1	
9695	Condica	albolabes	2	
9718	Emarginea	percara	1	
9796	Nocloa	cordova	2	
9799	Nocloa	alcandra	2	1
10585	Orthodes	majuscula	1	
593	Hexorthodes	inconspicua		1
10601	Hexorthodes	accurata	1	

MONA	Genus	Species	M spread	F spread
10602	Hexorthodes	senatoria	1	
10606	Hypotrix	lunata		1
10634	Lophoceramica	artega	5	1
11029.2	Abagrotis	forbesi	1	
11128	Schinia	arcigera	2	
			235	63

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Old friends, botanical bookends:
Jim Burkhalter
and Bill Boothe,
SLS Field trip, April 2017
[photo by Debbie Matthews]

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PSEUDOTHYRIS SEPULCHRALIS (BOISDUVAL, 1832) (LEPIDOPTERA: THYRIDIDAE) IN LOUISIANA

BY

VERNON ANTOINE BROU JR., RICKY PATTERSON, AND ROYAL TYLER

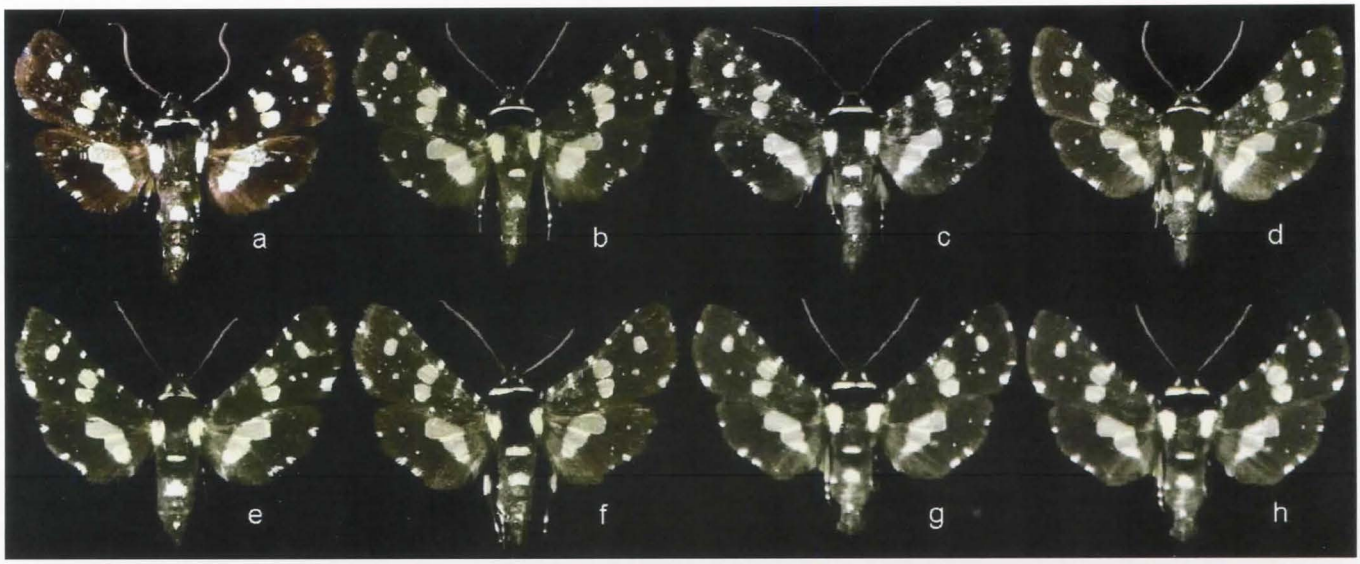

Fig. 1. ***Pseudothyris sepulchralis*** Louisiana phenotypes: (a - d) males, (e - h) females.
All from near Abita Springs, St. Tammany Parish, a. Mar. 29-2009, b. Apr. 10-1995, c. Apr. 3-2008, d. Apr. 4-1989, e. Apr. 2-2006, f. Apr. 10-1994, g. Apr. 6-1988, h. Mar. 29-1998.

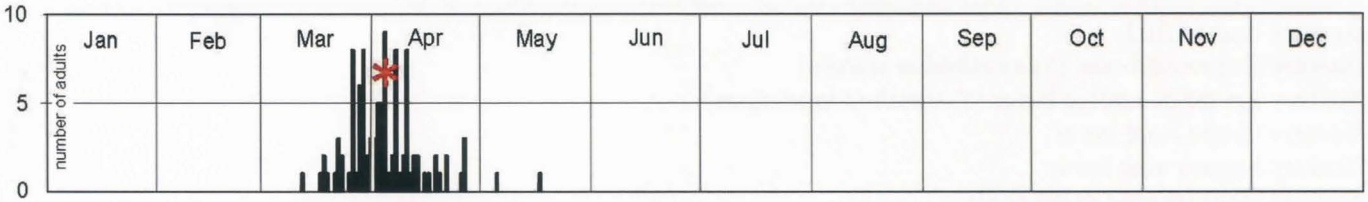

Fig. 2. Adult ***Pseudothyris sepulchralis*** captured in Louisiana. n = 102

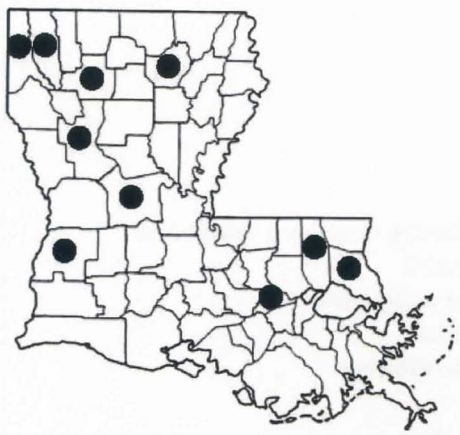

Fig. 3. Parish records in Louisiana for ***Pseudothyris sepulchralis***.

Pseudothyris sepulchralis (Boisduval) (Fig. 1) was transferred from the genus ***Thyris*** to the genus ***Pseudothyris***, gen. n., in Thiele (1986). Thiele provided quite an extensive discussion regarding the historical evolutionary taxonomical changes involving several iterations of the names of family, genera and species involved (e.g. ***Thyrididae, Thyridae,Thyris, maculata, sepulchralis*** and others).

Heppner (2003) listed the range of ***sepulchralis*** to include Maine to Florida and Illinois to Texas and the months of capture for adults in Florida to include March-April. Heppner listed the larval foodplants of ***sepulchralis*** to include species of the genus ***Smilax*** Linnaeus. Earlier Covell (1984) listed the larval foodplants for ***sepulchralis*** to include ***Clematis*** Linnaeus, and grapes. Thiele (1986) stated species of ***Thyris*** are invariably leaf rollers on soft-leaved ***Clematis*** species. Thiele (1997) revised and stated previous hostplant records for ***sepulchralis*** feeding on ***Clematis*** (Ranunculaceae) and ***Vitis*** (Vitaceae) are shown to be in error.

In Louisiana, ***sepulchralis*** is both diurnal and nocturnal in its adult activities and is univoltine, peaking during the first week of April, records existing from mid-March with stragglers into mid-May (Fig. 2). The Louisiana parish records currently in our possession are illustrated in Fig. 3.

The numerous hundreds of adult specimens of ***sepulchralis*** captured using semiochemical sesiid lures during the tree

farm study are not included in the phenogram (Fig. 2) because specific dates of capture were not logged, as the sesiid traps were not monitored daily, but only over one to two months intervals.

A single specimen of the smaller in size ***Thyris maculata*** Harris (Fig. 5) was captured in a flight trap (= malaise trap) at the Abita Entomological Study Site, near Abita Springs, St. Tammany Parish, on July 9, 1983. Covell (1984) stated the larval foodplants for ***maculata*** to include ***Clematis*** Linnaeus and ***Houstonia*** Linnaeus and listed the range of ***maculata*** to include Quebec to North Carolina and west to Kansas and Mississippi in the months of May to September, and to be local and uncommon.

Fig. 4. A few examples of the self-designed automatic-capture semiochemical lure-traps used 2018-2020.

Scentry brand L103,
Scentry Dogwood borer (***Synanthedon scitula***)
Scentry Lesser peachtree borer (***Synanthedon pictipes***)
Scentry Grape Root borer
Scentry Squash vine borer
Scentry ***Paranthrene asilipennis***
Scentry ***Synanthedon viburni***
Scentry ***Synanthedon bibionipennis***
Scentry Western poplar borer
Scentry ***Synanthedon rubrofascia***
Pherobase brand Squash vine borer
Phero-Bio brand ***Sesia siningensis***
Phero-Bio ***Paranthrene regalis***
Phero-Bio ***Paranthrene tabaniformis***
1:1 combination Scentry lesser peach tree borer (***Synanthedon pictipes***): Scentry western poplar borer
1:1 combination Scentry lesser peach tree borer: Scenturian western poplar x10
1:1 combination Scentry ***Synanthedon bibionipennis***: Scentry ***Paranthrene asilipennis***
1:1 combination Scentry ***Synanthedon tipuliformis***: Scentry Grape Root borer
1:1 combination Scentry ***Synanthedon pictipes***: Pherobio ***Paranthrene tabaniformis***
1:1 combination Scentry Sequoiae pitch moth: Scentry western poplar
1:1 combination Scentry Sequoiae pitch moth: Scenturian western poplar x10
1:1 combination Scentry ***Synanthedon fatifera***: Scentry L103
1:1 combination EZ2,13OH:EZ2, 13A
1:1 combination Scentry Squash vine borer: Scentry grape root borer
1:1 combination Scentry Dogwood borer (***Synanthedon scitula***): Scentry L103
1:1 combination Scentry Synanthedon viburni: Scentry L103
1:1 combination Scentry lesser peach tree borer: Scenturian western poplar x10

Table. Semiochemical lures used at Royal Hills Tree Farm which attracted ***P. sepulchralis*** in 2018-2020.

Fig. 5. ***Thyris maculata***

Fig. 6. We documented adults of ***sepulchralis*** at Royal Hills Tree Farm, Vivian, Caddo Parish, nectaring on Eastern Redbud, Rubus, and wild plum, often in the evening.
Photo by Royal Tyler April 26, 2019, 6:23PM.

In their publication concerning clearwing moths in the state of Texas, Knudson & Bordelon (2010 ?) also mentioned capturing specimens of four different species of the genus ***Thyris*** using sesiid semiochemical lures, but these authors did not elaborate regarding to which species they were referring.

During 2018-2020 the authors placed and monitored 65 (2018-2019) and 87 (2019-2020) self-designed automatic capture insect traps (Fig. 4) utilizing semiochemical lures at Royal Hills Tree Farm, Vivian, Caddo Parish, Louisiana, for the purpose of surveying the clearwing moths of the Lepidoptera family Sesiidae Boisduval. This location is comprised of 153 acres of rolling hills woodlands. During this study several hundred adult ***sepulchralis*** were captured (as bycatch) in some of the traps containing sesiid lures of many differing descriptions. Live adult specimens of ***sepulchralis*** were observed on numerous occasions (Fig. 6). The specific sesiid lures which attracted and captured adult ***sepulchralis*** during our study are listed (Table 1). In this study 25-30 lures and combinations of lures with additional differing identities not listed in Table 1 did not attract any ***sepulchralis***. The 102 specimens reported in Fig. 2 for Louisiana are just a small number of the adults captured using only self-designed automatic capture ultraviolet light traps operating continuously year-round over the past five decades by the senior author. Adults of ***sepulchralis*** were also lured to human fecal waste. Scant previous records of ***sepulchralis*** are documented for Louisiana, e.g. (Mather, 1999) Barksdale Air Force Base, Bossier Parish, Louisiana. Thiele (1997) again addressed ***sepulchralis***, this time addressing life history and distribution for ***sepulchralis*** in the southeastern United States, particularly for Alabama, Florida, and Maryland, but did not provide any specific Louisiana records.

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Mack sends in the following report from Ricky Patterson:

"On 28 June 2020, I (*Ricky*) collected at Rick Evans Grandview Prairie WMA, Hempstead county, Arkansas. Specimens collected included *Catocala myristica, Catocala lacrymosa, Catocala insolabilis*, and *Cercyonis pegala*.

This is probably the first Arkansas report of the recently described *Catocala myristica* which feeds on the relatively uncommon Nutmeg Hickory (*Carya myristiciformis*)."

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

Charlie sends in the following Florida report:

Records of Lepidoptera from Alachua Co., FL, May 1 – Aug. 31, 2020. Most records are from our yard at 207 NE 9th Ave., Gainesville, and Gainesville Country Clubs in SW Gainesville near the north edge of Paynes Prairie. C. V. Covell Jr.

Papilio glaucus, May 2, 5, 8, June 4, 26, July 8, 18, 24, 25, 27, Aug. 4
Agraulis vanillae, May 2, 13, 16, July 2, 4, 9, 20, 25, 27, Aug. 4, 6, 8, 10, 12, 15, 18, 25
Danaus plexippus, May 2, 12, June 4, 9, 10, July 21, 24, 25, 27
Limenitis archippus, May 5, July 4, 25, Aug. 25
Junonia coenia, May 5, 9, 21, 30, June 2
Heliconius charithonia, May 5,7, 12, 13, 21, 28, June 4, 9, 18, 19, 21, 26, July 2, 3, 4, 7, 8, 11, 14,18, 20, 21, 24, 27, Aug. 4, 6, 12, 17, 28, 29
Danaus gilippus, May 5
Erynnis horatius, May 7, July 4, Aug. 10, 15
Papilio troilus, May 9, 11, 14, 21, June 23, July 4, 18, 25, Aug. 6, 10, 15, 17, 25
Vanessa virginiensis, May 9
Phoebus sennae, May 12, June 18, July 2, 14, 20, 21, 25, Aug. 4, 8, 10, 15, 18, 22, 25
Leptotes cassius, May 13, June 8
Papilio polyxenes asterius, May 14, 30, June 23,
Ancyloxipha numitor, May 16, Aug. 18
Abaeis nicippe, May 21, June 23, July 14, Aug. 8, 15
Anartia jatrophae, May 28, Aug. 18
Hylephila phyleus, May 30, June 10, 23, 28, July 2, 4, 7, 14, 18, 21, 25, Aug. 8, 10, 15,
Pyrasitia lisa, May 30, July 4
Heraclides cresphontes, June 9, 23, July 21, 27, Aug. 8
Asterocampa clyton, June 28, Aug. 4, 25
Limenitis arthemis astyanax, July 7
Battus polydamas, July 7
Urbanus proteus, July 20
Asterocampa celtis, July 25, Aug. 25
Lerema accius, Aug. 6
Phoebus philea, Aug. 15, 25

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

James sends in the following report:

Most records are from James Adams (JKA or no notation) and Lance Durden (LD). Other contributors are spelled

out with the records. Most records are of uncommon species, county records, and records for new locations. All records are 2020 unless otherwise specified.

This year has seen a significant increase in records for certain species I would have considered typical of southern Georgia. Earlier in the year, there were many records for *Metria amella*. In this report, you will see many records for *Mocis marcida*, and a few scattered records for *Idaea tacturata* (including a number of individuals recently from the Salacoa location). These species are definitely expanding their ranges northward, likely indicative of climate change issues.

This summer in NW Georgia has been a MONSTER summer for Underwing Moths (*Catocala* spp.), especially on Taylor's Ridge (see below). This is only the second time I have taken *C. serena* in Georgia. I more than doubled the number of *C. miranda* in my collection. For only the second time, I've taken *C. cerogama* in NW Georgia. I got only the second *C. illecta* and second *C. innubens* I've taken in Georgia. This is the first summer I've taken *insolabilis* in numbers. I doubled the number of *C. judith* I've ever seen. And most recently I have taken the first *habilis* I've ever taken in Georgia, and added to the few *luctuosa* I've seen. Truly an amazing season of Underwings!

Cooper's Creek WMA, Sea Creek Falls area, Fannin Co.:
PAPILIONIDAE: *Satyrodes appalachia*, June 7.

Ringgold, 92 Sunset Drive, Catoosa Co., August 29, Kayla Heinz:
EREBIDAE: *Ascalapha odorata.*

Calhoun, Gordon Co., 346 Sunset Drive (home of JKA):
SESIIDAE: *Synanthedon alleri*, May 29, June 2 (COUNTY; range extension northward in Georgia); *S. acerrubri*, May 28; *Vitacea polistiformis*, Aug. 16, at lights; *Podosesia syringae*, several, last week in August at pheromones. **GEOMETRIDAE:** *Idaea tacturata*, Aug. 15; *Phaeoura quernaria*, May 28, June 6 (first time collecting the second brood of this moth). **EREBIDAE:** *Callopistria floridensis*, Aug. 6, Aug. 12; *Ascalapha odorata*, Aug. 6; *Catocala clintoni*, June 5; *Catocala innubens*, July 12; *Mocis marcida*, several nights, mid/late August. **NOCTUIDAE:** *Argyrogramma verrucae*, July 19; *Harrisimemna trisignata*, July 18.

Rocky Face ridgeline, just W of Dalton at crest of Dug Gap Battle Rd., Whitfield Co:
May 30-31:
EREBIDAE: *Apantesis anna*, 2 females with black hindwings. **NOCTUIDAE:** *Acronicta funeralis, Apamea cariosa.*
June 7-8:
EREBIDAE: *Dinumma deponens* (3), *Catocala connubialis*. **NOCTUIDAE:** *Harrisimemna trisignata, Achatodes zeae.*
June 19-20:
COSSIDAE: *Givira anna.* **EREBIDAE:** *Dinumma deponens* (2), *Catocala connubialis*. **NOCTUIDAE:** *Protolampra brunneicollis.*
June 26-27:
GEOMETRIDAE: *Erastria cruentaria.* **SPHINGIDAE:** *Smerinthus jamaicensis.* **EREBIDAE:** *Lycomorpha pholus, Catocala minuta.* **NOCTUIDAE:** *Harrisimemna trisignata.*
July 8-9:
GEOMETRIDAE: *Selenia kentaria* (summer brood). **SPHINGIDAE:** *Sphinx kalmiae, Sphecodina abbotii.* **EREBIDAE:** *Dinumma deponens, Catocala serena* (COUNTY). **NOCTUIDAE:** *Spragueia apicalis, Heliocheilus lupatus* (early), *Schinia arcigera* (early), *Dypterygia rozmani, Euplexia benesimilis.*
July 19-20:
GEOMETRIDAE: *Selenia kentaria.* **SATURNIIDAE:** *Anisota peigleri* (male). **SPHINGIDAE:** *Paratraea plebeja.* **NOCTUIDAE:** *Raphia frater, Acronicta fallax, A. funeralis, A. henrici, Heliocheilus lupatus, Schinia lynx* (early), *Anomis erosa* (early), *Dypterygia rozmani, D. patina.*
July 26-27:
GEOMETRIDAE: *Biston betularia* (COUNTY). **NOCTUIDAE:** *Acronicta fallax, A. funeralis, Harrisimemna trisignata, Spragueia dama, Emarginea percara, Magusa divaricata.*
Aug. 8-9:
GEOMETRIDAE: *Idaea tacturata* (becoming more common in north Georgia). **NOTODONTIDAE:** *Tecmessa scitiscripta.* **EREBIDAE:** *Euchaetes egle, Cycnia oregonensis* (COUNTY), *Zanclognatha atrilineella, Anomis erosa,*

Hypocala andremona, Catocala luctuosa, C. obscura, C. residua, C. retecta. **NOCTUIDAE:** *Argyrogramma verruca, Enigmogramma basigera, Tripudia rectangula, Acronicta fallax, A. noctivaga longa, A. lithospila, Schinia rivulosa, S. trifascia, Dypterygia rozmani, Magusa divaricata, Properigea* near *costa.*

Aug. 19-20:

SPHINGIDAE: *Sphinx franckii, Hyles lineata.* **NOTODONTIDAE:** *Nerice bidentata.* **EREBIDAE:** *Catocala sappho.* **NOCTUIDAE:** *Acronicta fallax, Cucullia asteroides, Dypterygia rozmani, Magusa divaricata, Properigea near costa.*

Aug. 26-27:

EREBIDAE: *Dinumma deponens* (2), *Mocis marcida.* **NOCTUIDAE:** *Cucullia convexipennis, Stiria rugifrons, Plagiomimicus pityochromus, Pyrrhia cilisca, Schinia thoreaui, Mesapamea fractillinea, "Resapamea" trigona, Properigea* near *costa.*

Taylor's Ridge, S of Hwy. 136, Walker Co.:

June 13-14:

EREBIDAE: *Dinumma deponens, Catocala miranda, Zale undularis.* **NOCTUIDAE:** *Harrisimemna trisignata.*

June 29-30:

COSSIDAE: *Cossula magnifica.* **CRAMBIDAE:** **Compacta capitalis** (COUNTY). **GEOMETRIDAE:** *Selenia kentaria.* **EREBIDAE:** *Cisthene kentuckiensis, Catocala insolabilis, C. serena* (COUNTY), *C. judith* (2), *C. miranda* (2).

July 3-4:

COSSIDAE: *Cossula magnifica.* **EREBIDAE:** *Catocala judith* (5), *C. miranda* (**see image**). **NOCTUIDAE:** *Euplexia benesimilis, Hadena ectypa* (COUNTY, very few in state), *Abagrotis magnicupida.*

Catocala miranda

***Idia* near *occidentalis* Taylor's Ridge**

July 11-12, 2020:

COSSIDAE: *Cossula magnifica.* **LIMACODIDAE:** *Euclea semifascia* (common). **GEOMETRIDAE:** *Selenia kentaria.* **SPHINGIDAE:** *Sphecodina abbotii.* **NOTODONTIDAE:** *Misogada unicolor* (female). **EREBIDAE:** *Catocala neogama, C. cerogama* (COUNTY), *C. insolabilis, C. judith, C. serena, Zale horrida.* **NOCTUIDAE:** *Acronicta fallax, Heliocheilus lupatus, Emarginea percara.*

July 17-18:

LIMACODIDAE: *Phobetron pithecium.* **GEOMETRIDAE:** *Selenia kentaria, Gueneria similaria* (COUNTY). **SATURNIIDAE:** *Anisota peigleri* (2 males). **SPHINGIDAE:** *Sphecodina abbotii.* **EREBIDAE:** *Idia* species, large, in *lubricalis* complex, near *occidentalis* (**see image**), *Euclidia cuspidea, Catocala cerogama, C. sappho, C. judith, C. serena, C. ulalume, C. residua* (COUNTY). **NOCTUIDAE:** *Acronicta interrupta, A. fallax, A. lithospila, Hadena ectypa* (second in two weeks; see July 3-4 above).

July 31-August 1:

TINEIDAE: *Scardia anatomella.* **EREBIDAE:** *Zanclognatha atrilineella.* **NOCTUIDAE:** *Emarginea percara.*

August 15-16:

EREBIDAE: *Catocala retecta, C. angusi* (COUNTY), *C. habilis, Mocis marcida.* **NOCTUIDAE:** *Acronicta morula, Cucullia convexipennis, Euplexia benesimilis, Hadena ectypa.*

August 23-24:

TINEIDAE: *Scardia anatomella.* **EREBIDAE:** *Mocis marcida, Catocala retecta, C. luctuosa, C. angusi, C. residua, C. obscura, C. habilis.*

Crockford-Pigeon Mountain WMA, 9 mi. WSW of LaFayette, Walker Co.:

June 13-14 (cane site):

GEOMETRIDAE: *Idaea tacturata* (COUNTY). **LASIOCAMPIDAE:** *Heterocampa rileyana.* **EREBIDAE:** *Idia denticulalis, Zanclognatha atrilineella.* **NOCTUIDAE:** *Protapamea danieli;* New genus, new species (cane feeder); *Achatodes zeae.*

Salacoa Road at Salacoa Creek, 5 miles ESE of Fairmount:

June 2-3:

EREBIDAE: *Mocis marcida, Catocala illecta* (few in STATE), *Zale phaeocapna*. **NOCTUIDAE:** *Apamea cariosa, Loscopia velata*.

June 12-13:

LASIOCAMPIDAE: *Heteropacha rileyana*. **NOCTUIDAE:** *Protapamea danieli*; New genus, new species (cane feeder); *Achatodes zeae*.

July 13-14:

NOTODONTIDAE: *Peridea bordeloni*. **EREBIDAE:** *Crambidia near cephalica, Cycnia oregonensis* (COUNTY), *Dinumma deponens* (COUNTY). **NOCTUIDAE:** *Harrisimemna trisignata*.

August 27-28:

NYMPHALIDAE: *Lethe* (*Enodia*) *creola*. **GEOMETRIDAE:** *Idaea tacturata* (many). **EREBIDAE:** *Idia majoralis, Rivula propinqualis, Mocis marcida*.

Pine Log WMA, Bartow Co., June 4, with Giff Beaton:

SESIIDAE: *Podosesia syringae, Paranthrene simulans*.

Mountain Lake Circle Cabins, Fannin Co., Georgia, June 2, Roy Morris:

HEPIALIDAE: *Sthenopis pretiosa* (COUNTY).

Winding Stair Gap rd. at crest of Forest Service Rd. 58, Lumpkin Co., June 16-17, Roy Morris and JKA:

GEOMETRIDAE: *Homochlodes disconventa, Euchlaena muzaria*. **EREBIDAE:** *Catocala dejecta*.

Canoochee Sandhills WMA, Bulloch Co., LD:

April 28-29:

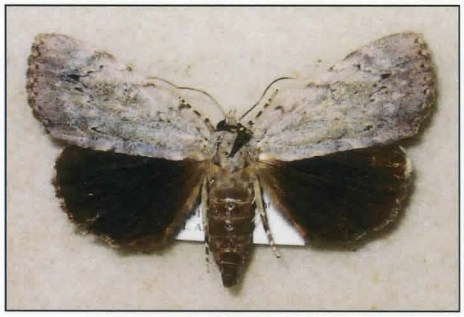
NOCTUIDAE: *Acronicta clarescens*.

May 31-June 1:

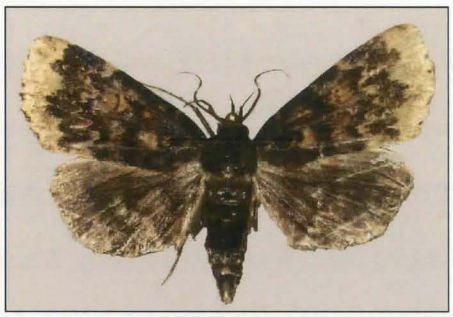
GEOMETRIDAE: *Nemoria catachloa* (COUNTY), *Idaea ostentaria* (COUNTY). **APATELODIDAE:** *Olceclostera indistincta* (COUNTY). **NOTODONTIDAE:** *Hyparpax perophoroides*. **EREBIDAE:** *Catocala orba* (COUNTY, second in STATE, see image), *C. louiseae, C. praeclara charlottae, Zale fictilis*. **NOLIDAE:** *Afrida ydatodes* (COUNTY).

August 2-3:

EREBIDAE: *Idia* species, large, in *lubricalis* complex but near *occidentalis* (see image).



***Catocala orba* Canoochee**
(May 31 - June 1, 2020)



Idia* large near *occidentalis
Canoochee

Alligator Creek WMA, 2 miles N of Lumber City, Wheeler Co., with LD, March June 14-15, and June 21-24:

This is a new location for us for trapping, certainly this time of year, so many of these will be county records. Truly unexpected/unusual records are indicated.

Sandhills sites:

GEOMETRIDAE: *Fernaldella georgiana, Cyclophora culicaria* (COUNTY, third location in state), *Idaea micropterata*. **NOTODONTIDAE:** *Heterocampa varia, Hyparpax aurora*. **EREBIDAE:** *Catocala alabamae*. **NOCTUIDAE:** *Bagisara brouana* (COUNTY, third location in state), *Pseudeustrotia indeterminata* (COUNTY).

Forest/sandhills edge habitats:

PSYCHIDAE: *Oiketicus abboti*. **NOTODONTIDAE**: *Hyparpax aurora*. **EREBIDAE:** *Cutina aluticolor, C. arcuata, Gondysia smithii/telma*. **NOCTUIDAE:** *Ponometia fasciatella* (COUNTY), *Pseudeustrotia indeterminata, Xestia dilucida* (ODD, very early time of year).

Cypress/edge habitats:

COSSIDAE: *Inguromorpha basalis* (June 14-15). **GEOMETRIDAE:** *Cyclophora culicaria*. **SPHINGIDAE:** *Isoparce cupressi*. **NOTODONTIDAE:** *Hyparpax aurora*. **EREBIDAE:** *Sigela near eoides, Cutina aluticolor, Gondysia similis, G. smithii/telma, Catocala alabamae*. **NOLIDAE:** *Nola* sp. (tiny, near *pustulata*). **NOCTUIDAE:** *Ponometia fasciatella, Dypterygia patina, Morrisonia triangula.*

August 17-18, Lance Durden:

Sandhills sites:

BATRACHEDRIDAE: *Batrachedra busiris*. **TORTRICIDAE:** *Eucosma litorea* (**see image**). **LIMACODIDAE:** *Natada nasoni, Apoda rectilinea*. **GEOMETRIDAE:** *Fernaldella georgiana* (47 in one trap!), *Lobocleta peralbata, Cyclophora culicaria*. **NOTODONTIDAE:** *Datana ranaeceps*. **EREBIDAE:** *Hyperstrotia flaviguttata, Drasteria grandirena*. **NOLIDAE:** *Nola clethrae*.

Eucosma litorea

Cypress sites:

CRAMBIDAE: *Chilo erianthalis, Pyrausta laticlavia*. **GEOMETRIDAE:** *Iridopsis pergracilis, Stenaspilatodes antidiscaria. Cyclophora culicaria*. **SATURNIIDAE:** *Callosamia securifera*. **APATELODIDAE:** *Olceclostera indistincta*. **NOTODONTIDAE:** Datana *ranaeceps*. **EREBIDAE:** *Gabara subnivosella, Cutina albopunctella, Hyperstrotia flaviguttata*. **NOLIDAE:** *Afrida ydatodes, Nola clethrae, Nola triquetrana*. **NOCTUIDAE:** *Tripudia rectangula, Ponometia fasciatella,*

Edge habitats:

GEOMETRIDAE: *Nemoria outina, Idaea ostentaria*. **NOTODONTIDAE:** *Datana ranaeceps*. **EREBIDAE:** *Metallata absumens, Gondysia similis, Hyperstrotia flaviguttata, Hyperstrotia pervertens*. **NOCTUIDAE:** *Bagisara brouana, Callopistria cordata, Callopistria granitosa, Schinia rivulosa.*

Sapelo Island, new STATE microlep records:

TINEIDAE: *Homosetia marginimaculella, Pelecystola nearctica, Euprora argentiliniella*. **GRACILLARIIDAE:** *Phyllocnistis liquidambarisella*. **DEPRESSARIIDAE:** *Antaeotricha osseella*. **COSMOPTERIGIDAE:** *Limnaecia phragmitella*. **GELECHIIDAE:** *Coleotechnites* ca. *huntella, Fascista bimaculella*. **ARGYRESTHIIDAE:** *Argyresthia alternatella*. **PYRALIDAE:** *Pococera melanogrammos*. **CRAMBIDAE:** *Elophila faulalis, Nymphuliella daeckealis, Hahncappsia marculenta.*

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

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

11 May to 6 June 2020, *Carmenta anthracipennis*, Osborne Prairie, Oktibbeha county, MS, in pheromone traps.

2 and 20 June 2020, *Synanthedon acerrubri*, Vicksburg, Warren county, MS, in pheromone trap.

24 June 2020, *Vitacea polistiformis*, Vicksburg, Warren county, MS, in pheromone trap.

17 August 2020, *Catocala flebelis*, NE of Palmetto, Lee county, MS.

17 August 2020, *Catocala dejecta*, ENE of Troy, Pontotoc county, MS.

17 August 2020, Libytheana carienta *bachmanii, Chlosyne nycteis nycteis, Eurema daira daira* (COUNTY), *Vanessa atalanta rubria*, Chickasaw County WMA, Chickasaw county, MS.

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

Harry sends in he following SUMMER BUTTERFLY RECORDS FOR NORTH CAROLINA – 2020

Records are from June through August 2020, except as otherwise noted. Names in parentheses are counties; new county records are in **CAPS and bold**.

Summer 2020 was a rather wet one, and July temperatures set records for many areas of the state. Certainly, no one complained about anything resembling drought conditions; more likely, some impacts to butterflies probably came as a result of locally too heavy precipitation levels.

There were quite a few records of some species considered as immigrants, especially for *Calpodes ethlius* and *Pyrisitia lisa*. *Lerodea eufala* was also somewhat above normal. On the other hand, *Vanessa cardui* was rather scarce, with a handful of reports. The biggest concern is now the alarming decline in native "grassland" skippers, much owing to poor management of powerline corridors (i.e., herbiciding or too infrequent mowing or burning).

PAPILIONIDAE:

Heraclides cresphontes, there were four photo reports of presumed strays in Chatham County -- by unnamed people on July 1 and July 3, by David Preo on July 9, and by Andy Upshaw on August 27. Could there have been a tiny breeding population established in this Piedmont county? Another stray was photographed near Charlotte (Mecklenburg) on August 31, as reported by Don Seriff. In the mountains, where a rare breeder, Pete Dixon had one in his yard at Hot Springs (Madison) on August 3, three were found along the New River (Ashe) on August 19 by Will Stuart, and one was seen along this river on August 22 by Jan Hansen.

PIERIDAE:

Pyrisitia lisa, a tally of 125 by Harry LeGrand, Lori Arent, and Lori White in the Sandhills Game Land (Scotland) on August 26 was an excellent count.

Abaeis nicippe, 480 reported at the Tar Heel boat ramp on the Cape Fear River (Bladen) on August 23 by Mike Turner was an excellent one-party count, for a single site.

Pontia protodice, this species remains very scarce across the state. In fact, only one person – Will Stuart – reported it at all: one in the Sandhills Game Land (Richmond) on July 17 and another near the New River (Ashe) on August 19.

LYCAENIDAE:

Feniseca tarquinius, this scarce species was found on three occasions by Doug Allen in Polk County; other reports came from Madison, Guilford, and Durham counties.

Lycaena phlaeas, locally rare was one photographed by Pete Dixon in his yard near Hot Springs (Madison) on July 26. Sadly, there were no other reports for this declining species.

Atlides halesus, one photographed by Marie Poteat in Jamestown **(GUILFORD)** on August 28 was a good find for the northern Piedmont.

Parrhasius m-album, always a good find, it was reported four times – singles in Richmond (Will Stuart), Wake (Richard Stickney), Durham (Harry LeGrand), and New Hanover (Jan Hansen) counties.

Callophrys gryneus, good counts were 15 at Fort Fisher (New Hanover) on June 18 by John Taggart, and 36 there on June 26 by Jan Hansen. Very rare in the upper Coastal Plain was one at Cape Fear Botanical Garden in Fayetteville (Cumberland) on August 10 by Mike Turner; this is a first recent record for the county.

Callophrys hesseli, a new county record for **HARNETT** was one photographed on July 19 by Jimmy Randolph near the Lee County line.

Satyrium titus, Harry LeGrand had a good count of five near Butner (Granville) on June 22, and Derb Carter had an even better eight there on the next day. One seen on the Weymouth Woods butterfly count (Moore) on June 8 (fide Brian Bockhahn) was the only other seasonal report away from Granville County.

Satyrium favonius, one – presumably of the *favonius* subspecies -- was seen by John Taggart at Fort Fisher (New Hanover) on June 1; there were many records from this area in May.

Satyrium kingi, in additional to the usual reports from Weymouth Woods (Moore), two were noted on June 4 at the Sandhills Game Land (Richmond) by Will Stuart, and two were seen there on June 6 by Mike

Turner. Paul Hart saw one in **HARNETT** on July 5 at Anderson Creek County Park, for an overdue county record. Of greater significance, at the inner edge of the range in the mountains/foothills, were one photographed by Roger Shaw on July 8 in the Linville Gorge area **(BURKE)**, and another photographed by Rudy Padilla in **CALDWELL** on July 15, 2017 (photo on iNaturalist).

Satyrium edwardsii, a quite good tally was the 25 seen on the Weymouth Woods (Moore) butterfly count on June 8, fide Brian Bockhahn.

RIODINIDAE:

Calephelis virginiensis, four were seen at a known site in Onslow County on August 27 by Hunter Phillips.

NYMPHALIDAE:

Libytheana carinenta, normally scarce in the Sandhills, notable counts there (Richmond) were 12 on July 25 by Mike Turner and 17 on the next day by Will Stuart.

Danaus gilippus, as usual, this locally resident species was reported only from Fort Fisher (New Hanover). The first seasonal report was two seen on July 17, and four there on July 29, as reported by John Taggart. Jan Hansen saw one there on August 18.

Heliconius charithonia, oddly, both records came from the southwestern Piedmont, where we can only hope they were legitimate strays. One photographed by Pam Torlina near Green Creek (Polk) on August 12 was not a first county record; however, a photo on iNaturalist from Rutherfordt **(RUTHERFORD)** on August 29 was indeed new for that county.

Speyeria diana, one was scarce in the upper Piedmont at the South Mountains Game Land (Rutherford) on June 11, seen by Will Stuart. Roger Shaw had five individuals – two males and three females – in Linville Gorge (Burke) on July 8 for a good one-person tally.

Vanessa cardui – there were a handful of reports from most of the state – Alexander, Ashe, Chatham, Columbus, Madison, Mecklenburg, Pitt, and Yancey; only in the last county was more than one seen in a day – two by Jan Hansen.

Phyciodes batesii, two worn individuals were seen at a known site in Clay County on June 18, by Brian Bockhahn; most of the flight there occurs in May.

Phyciodes phaon, oddly scarce in Brunswick County, two seen by Alicia Jackson just west of the Cape Fear River on June 4 provided a first recent record. It is locally quite common across the river in New Hanover County.

Megisto cymela, a good count was 14 in eastern Clay County on June 18, made by Brian Bockhahn. A fresh individual near Durham (Durham) on July 14 (Harry LeGrand) might well have been a Type II individual; if so, this Type is very rare and poorly understood in the state, as the usual flight period in the area is early May to late June (Type I).

Hermeuptychia intricata, Mark Shields photographed one at Lumber River State Park – Princess Ann section **(ROBESON)** on August 7, a new county record for this poorly understood species. As always, the identity was confirmed by Tom Austin.

Neonympha helicta. at Fort Bragg (Hoke), Dave Pavlik photographed three individuals of the *helicta/areolatus* complex on June 3 and two on June 4. Photos might suggest that both species were present at the same location; however, it appears that *helicta* is the more likely taxon in the Sandhills. Separating these two species is often not tricky, but in this case there was some consternation about the identities!

HESPERIIDAE:

Telegonus cellus, the only records again came from western Madison County: three on June 26, three on August 2, two on August 4, one on August 19, and two on August 21. All records were made by Pete Dixon and/or Gail Lankford. There are still relatively few records for the month of August, as the first brood is the "larger" of the two.

Pholisora catullus, Nick Flanders saw two in central **HALIFAX** on August 22; there are oddly few records for the northern Coastal Plain, probably owing to poor coverage.

Staphylus hayhurstii, the only seasonal record was of two seen in Madison County on July 24 by Pete Dixon.

Burnsius oileus, one was photographed by Nick Flanders in Lumber River State Park **(COLUMBUS)** on August 29. This is the fifth county of occurrence in the state, and 7th state record.

Erynnis baptisiae, new for **CHATHAM** was one seen well by Jan Hansen in the southeastern part of the county on August 13.

Atrytone byssus, one photographed by Jeff Pippen in Duke Forest **(ORANGE)** on June 21was at the edge of the range, and one seen by Derb Carter near Butner **(GRANVILLE)** on June 23 extended the northern edge of the range closer to Virginia! One photographed by Jimmy Randolph in Lee on July 13 was also notable. Other Piedmont records were singles noted by Will Stuart at Pee Dee NWR (Anson) on June 20 and in Duke Forest (Durham) by Jeff Pippen on August 30.

Hesperia attalus, the only records for the summer were one seen at the Sandhills Game Land (Scotland) on June 8, and two at the same spot in the second brood on August 26, both by Harry LeGrand.

Hesperia sassacus, one was seen by Sven Halling along the Blue Ridge Parkway (Wilkes) on June 12. The species is not all that difficult to find in this region, but COVID limited trips to the northern mountains in the state this year.

Poanes viator, 24 tallied at Eagle Island (Brunswick) on August 17 by Jan Hansen was a good count for the state.

Amblyscirtes reversa, one of the few mountain records was one photographed in Great Smoky Mountains National Park (Swain) on July 3 by Jason Love; interestingly, there is a previous state record for this park and county. The only other seasonal record was of two seen in the Sandhills Game Land (Richmond) on July 14 by Will Stuart.

Amblyscirtes hegon, a good find for the Piedmont was one seen by Will Stuart at South Mountains Game Land (Rutherford) on June 11.

Lerodea eufala, there were many more Piedmont records than usual. The earliest was one seen on June 22 at Pee Dee NWR (Anson) by Will Stuart. One photographed in **CATAWBA** on July 31 by Lori Owenby was a first county record. In the mountains, where quite rare, Pete Dixon saw one in Madison on August 3.

Oarisma minuta, a tally of seven on the Southern Lake Norman (Mecklenburg) count on August 16 (fide Taylor Piephoff) was quite good at the northern edge of the range.

Calpodes ethlius, this was another good summer for them. The earliest report of an adult was one in Pitt on July 9 by Salman Abdulali. Jason Love had one at Franklin **(MACON)** on August 8, for just the second known mountain record. One on the Hanging Rock State Park **(STOKES)** count on August 19 (fide Brian Bockhahn) was the first record for the northwestern Piedmont.

Among about 5-6 other reports, the best was a tally of 10 adults – at two sites – on the Wake County count on August 17, as seen by Harry LeGrand, Lori Arent, and Lori White.

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

Brian sends in the following state report:

Doug Allen; SpartanburgCo., Caroland Farms; 21 April 2020

Papilionidae

Papilio troilus

Pieridae

Phoebis sennae

Nymphalidae
Vanessa atalanta
Phyciodes tharos
Vanessa virginiensis
Polygonia comma
Polygonia interrogationis
Hermeuptychia sosybius
Hesperiidae
Epargyreus clarus
Erynnis juvenalis
Poanes zabulon

John Demko; AikenCo., Silver Bluff Audubon Sanctuary, 25 April 2020
Papilionidae
Papilio troilus
Papilio glaucus
Pieridae
Phoebis sennae
Nymphalidae
Vanessa virginiensis
Libytheana carinenta
Limenitis arthemis astyanax
Limenitis Archippus
Polygonia interrogationis
Euptoieta claudia
Junonia coenia
Phyciodes tharos
Hermeuptychia sosybius
Danaus plexippus
Lycaenidae
Strymon melinus
Hesperiidae
Hylephila phyleus
Lerema accius
Ancyloxypha numitor
Euphyes vestris
Epargyreus clarus
Thorybes pylades
Thorybes bathyllus
Erebidae
Virbia aurantiaca

Marty & Dave Kastner; Chesterfield Co., Carolina Sandhills NWR, 1 May 2020
Papilionidae
Papilio glaucus
Papilio troilus
Papilio Palamedes
Eurytides marcellus
Nymphalidae
Vanessa virginiensis
Phyciodes tharos
Junonia coenia
Euptoieta claudia
Hermeuptychia sp.
Polygonia sp.
Hesperiidae
Thorybes pylades

Doug Allen; Spartanburg Co., Caroland Farms; 2 May 2020

Papilionidae
- *Eurytides marcellus*
- *Papilio troilus*
- *Papilio glaucus*

Pieridae
- *Phoebis sennae*

Lycaenidae
- *Celastrina neglecta*
- *Cupido comyntas*

Nymphalidae
- *Chlosyne nycteis*
- *Phyciodes tharos*
- *Junonia coenia*
- *Hermeuptychia sosybius*
- *Danaus plexippus*

Hesperiidae
- *Poanes zabulon*

Matt Campbell; AbbevilleCo., Parsons Mt. Recreation Area; 7 May 2020

Lycaenidae
- *Satyrium liparops (county record)*

Marty & Dave Kastner; Chester Co., Sumter NF, Store Rd. & Boat Ramp Rd., 11 May 2020

Lycaenidae
- *Celastrina sp.*

Nymphalidae
- *Polygonia interrogationis*
- *Polygonia comma*
- *Vanessa virginiensis*
- *Libytheana carinenta*
- *Junonia coenia*
- *Lethe portlandia*
- *Hermeuptychia sp.*
- *Megisto cymela*

Hesperiidae
- *Achalarus lyciades*
- *Poanes zabulon*

Marty & Dave Kastner; Union Co., Sumter NF, Brock's Creek Trail, 11 May 2020

Lycaenidae
- *Celastrina sp.*

Nymphalidae
- *Polygonia interrogationis*

Marty & Dave Kastner; Union Co., Sumter NF, FDR 409 FS Rd., 11 May 2020

Papilionidae
- *Eurytides marcellus*

Pieridae
- *Abaeis nicippe*

Lycaenidae
- *Strymon melinus*

Nymphalidae
- *Polygonia interrogationis*
- *Phyciodes tharos*
- *Libytheana carinenta*
- *Junonia coenia*
- *Limenitis arthemis astyanax*

Megisto cymela
Hermeuptychia sp.
Hesperiidae
Thorybes pylades

John Demko; Aiken Co., Gum Swamp Rd., 14 May 2020
Papilionidae
Eurytides marcellus
Pieridae
Phoebis sennae
Abaeis nicippe
Lycaenidae
Strymon melinus
Cupido comyntas
Nymphalidae
Danaus plexippus
Junonia coenia
Polygonia interrogationis
Libytheana carinenta
Asterocampa clyton
Agraulis vanilla (earliest seen in county)
Euptoieta claudia
Hesperiidae
Lerema accius
Hylephila phyeus
Burnsius albescens
Erynnis horatius

Marty & Dave Kastner; Chesterfield Co., Carolina Sandhills NWR, 31 May 2020
Papilionidae
Eurytides marcellus
Battus philenor
Papilio palamedes
Lycaenidae
Strymon melinus
Satyrium calanus
Nymphalidae
Vanessa virginiensis
Junonia coenia
Danaus plexippus
Hesperiidae
Erynnis horatius
Poanes zabulon

Marty & Dave Kastner; Chesterfield Co., Carolina Sandhills NWR, 31 May 2020
Papilionidae
Battus philenor
Papilio palamedes
Pieridae
Phoebis sennae
Colias eurytheme
Lycaenidae
Strymon melinus
Satyrium titus
Nymphalidae
Euptoieta claudia
Phyciodes tharos

Vanessa virginiensis
Libytheana carinenta
Junonia coenia
Limenitis arthemis astyanax
Danaus plexippus

Hesperiidae

Erynnis horatius
Poanes zabulon
Panoquina ocola

Marty & Dave Kastner; Lexington Co., Cayce, Timmerman Trail, 1 June 2020

Papilionidae

Eurytides marcellus

Nymphalidae

Euptoieta claudia
Phyciodes tharos
Polygonia interrogationis
Vanessa atalanta
Vanessa virginiensis
Libytheana carinenta
Junonia coenia
Asterocampa celtis

Hesperiidae

Erynnis horatius
Urbanus proteus
Hylephila phyleus

Dennis & Donna Forsythe, Charleston Co., Santee Delta WMA East on dike, 2 June 2020

Nymphalidae

Libytheana carinenta
Limenitis archippus
Limenitis arthemis astyanax
Polygonia interrogationis
Vanessa atalanta
Phyciodes tharos
Hermeuptychia sp.

Hesperiidae

Burnsius oileus
Euphyes dukesi
Problema bulenta
Hylephila phyleus
Poanes viator
Ancyloxypha numitor

Dennis & Donna Forsythe, Charleston Co., Francis Marion NF, Palmer Bridge Rd & Mills Branch Rd., 3 June 2020

Papilionidae

Papilio palamedes
Papilio glaucus

Pieridae

Abaeis nicippe

Lycaenidae

Celastrina neglecta

Nymphalidae

Junonia coenia
Phycioddes tharos
Megisto cymela
Danaus plexippus

Hesperiidae
Epargyreus clarus
Burnsius oileus
Erynnis horatius
Problema byssus
Hylephila phyleus
Poanes yehl
Oligoria maculata
Nastra lherminier
Lerema accius

Will Stuart; Chesterfield Co., Carolina Sandhills NWR, Pool L and Pool K, 6 June 2020
Papilionidae
Papilio troilus
Lycaenidae
Satyrium titus
Celastrina neglecta
Nymphalidae
Junonia coenia
Vanessa virginiensis
Hesperiidae
Erynnis horatius
Erynnis zarucco

Will Stuart; Chesterfield Co., Carolina Sandhills NWR, 7 June 2020
Papilionidae
Eurytides marcellus
Papilio troilus
Papilio glaucus
Papilio palamedes
Pieridae
Colias eurytheme
Lycaenidae
Celastrina neglecta
Cupido comyntas
Satyrium titus
Satyrium kingi
Nymphalidae
Junonia coenia
Vanessa virginiensis
Hesperiidae
Hylephila phyleus

Dennis & Donna Forsythe; Berkeley Co., Francis Marion NF, Farewell Corners Rd.; 10 June 2020
Papilionidae
Battus philenor
Papilio palamedes
Papilio glaucus
Lycaenidae
Strymon melinus
Riodinidae
Calephelis virginiensis
Nymphalidae
Danaus plexippus
Phyciodes tharos
Junonia coenia
Lethe portlandia
Neonympha areolata

Hesperiidae
Thorybes bathyllus
Anatrytone logan
Problema byssus
Amblyscirtes reversa
Lerema accius

Will Stuart; Chesterfield Co., Carolina Sandhills NWR, 13 June 2020
Papilionidae
Papilio glaucus
Papilio palamedes
Eurytides marcellus
Pieridae
Abaeis nicippe
Lycaenidae
Celastrina neglecta
Satyrium titus
Satyrium kingi
Atlides halesus
Nymphalidae
Euptoieta claudia
Vanessa virginiensis
Junonia coenia
Hesperiidae
Hylephila phyleus
Hesperia meskei
Polites vibex
Erynnis horatius
Erynnis zarucco

Doug Allen; SpartanburgCo., Holston Creek Park, 20 June 2020
Pieridae
Colias eurytheme
Lycaenidae
Cupido comyntas
Nymphalidae
Junonia coenia
Phyciodes tharos
Vanessa virginiensis
Limenitis arthemis astyanax
Agraulis vanillae
Euptoieta claudia
Hesperiidae
Erynnis horatius
Burnsius sp.
Hylephila phyleus

Doug Allen; Spartanburg Co., Holston Creek Park, 20 June 2020
Pieridae
Colias eurytheme
Abaeis nicippe
Lycaenidae
Strymon melinus
Cupido comyntas
Nymphalidae
Euptoieta claudia
Phyciodes tharos
Vanessa virginiensis
Junonia coenia

Hesperiidae

Lerodea eufala
Hylephila phyleus
Atalopedes campestris

John Demko; Aiken Co., Silver Bluff Audubon Sanctuary, 27 June 2020

Papilionidae

Papilio glaucus
Papilio palamedes
Papilio troilus

Pieridae

Phoebis sennae
Pyrisitia lisa
Abaeis nicippe

Lycaenidae

Calycopis cecrops
Strymon melinus

Nymphalidae

Libytheana carinenta
Agraulis vanillae
Vanessa virginiensis
Phyciodes tharos
Limenitis archippus
Limenitis arthemis astyanax
Hermeuptychia sosybius
Junonia coenia

Hesperiidae

Epargyreus clarus
Achalarus lyciades
Thorybes bathyllus
Erynnis horatius
Erynnis baptisiae
Hylephila phyleus
Polites vibex
Euphyes vestris
Panoquina ocola

Brian Scholtens, Mt. Pleasant, 1-26 July 2020

Crambidae

Nacoleia charesalis (confirms photo record for state from 2016 on John's Island)

Doug Allen; Spartanburg Co., Holston Creek Park, 10-11 July 2020

Papilionidae

Papilio glaucus
Papilio troilus

Pieridae

Pyrisitia lisa

Lycaenidae

Strymon melinus
Cupido comyntas

Nymphalidae

Agraulis vanillae
Euptoieta claudia
Phyciodes tharos
Vanessa virginiensis
Junonia coenia

Hesperiidae

Urbanus proteus
Hylephila phyleus
Atalopedes campestris

Dennis Forsythe; CharlestonCo., Holy Cross Cemetery, 22 July 2020

Hesperiidae

Erynnis funeralis

Terrie Johnson; Orangeburg Co, Elloree, Hwy 301, 25 July 2020

Pieridae

Nathalis iole

Doug Allen; Spartanburg Co., Holston Creek Park, 2 August 2020

Papilionidae

Papilio troilus
Papilio glaucus

Pieridae

Colias eurytheme
Abaeis nicippe
Phoebis sennae

Lycaenidae

Cupido comyntas

Nymphalidae

Agraulis vanillae
Euptoieta claudia
Vanessa virginiensis
Junonia coenia
Limenitis archippus

Hesperiidae

Hylephila phyleus
Atalopedes campestris

Dennis and Donna Forsythe; Orangeburg Co., Elloree in pollinator garden, 3 August 2020

Papilionidae

Papilio troilus
Papilio glaucus
Papilio palamedes

Pieridae

Nathalis iole
Abaeis nicippe
Phoebis sennae
Pieris rapae

Lycaenidae

Strymon melinus

Nymphalidae

Agraulis vanillae
Euptoieta claudia
Vanessa virginiensis

Hesperiidae

Epargyrius clarus
Burnsius albescens
Erynnis zarucco
Polites vibex
Lerodea eufala

Doug Allen; Spartanburg Co., multiple locations, 3 August 2020

Papilionidae
- *Papilio glaucus*

Pieridae
- *Phoebis sennae*
- *Colias eurytheme*
- *Abaeis nicippe*
- *Pontia protodice*

Lycaenidae
- *Cupido comyntas*

Nymphalidae
- *Vanessa virginiensis*
- *Libytheana carinenta*
- *Junonia coenia*

Hesperiidae
- *Epargyreus clarus*
- *Urbanus proteus*
- *Erynnis horatius*
- *Hylephila phyleus*
- *Atalopedes campestris*
- *Poanes zabulon*

Dennis & Donna Forsythe ; CharlestonCo., Michigan Ave,, Folly Beach, 4 August 2020

Papilionidae
- *Papilio palamedes*

Lycaenidae
- *Leptotes cassius*

Nymphalidae
- *Heliconius charithonia*
- *Agraulis vanillae*

Hesperiidae
- *Urbanus proteus*

Dennis & Donna Forsythe; Charleston Co., Hyde Park Rd., Ravenel, 9 August 2020

Papilionidae
- *Papilio glaucus*
- *Papilio troilus*
- *Papilio palamedes*

Pieridae
- *Phoebis sennae*
- *Pyrisitia lisa*
- *Abaeis nicippe*

Lycaenidae
- *Celastrina neglecta*
- *Hemiargus ceraunus*

Nymphalidae
- *Libytheana carinenta*
- *Heliconius charithonia*
- *Agraulis vanillae*
- *Limenitis arthemis astyanax*
- *Asterocampa celtis*

Hesperiidae
- *Thorybes bathyllus*
- *Urbanus proteus*
- *Epargyreus clarus*

Burnsius oileus
Erynnis zarucco
Erynnis funeralis
Euphyes vestris
Hylephila phyleus
Wallengrenia otho
Amblyscirtes aesculapius

Doug Allen; Spartanburg Co., fallow field, 10-11 August 2020

Papilionidae
Papilio troilus
Papilio glaucus
Pieridae
Pontia protodice
Pyrisitia lisa
Abaeis nicippe
Phoebis sennae
Lycaenidae
Strymon melinus
Cupido comyntas
Nymphalidae
Agraulis vanillae
Euptoieta claudia
Phyciodes tharos
Vanessa virginiensis
Junonia coenia
Hesperiidae
Epargyreus clarus
Urbanus proteus
Erynnis horatius
Burnsius communis
Pholisora catullus
Lerodea eufala
Hylephila phyleus
Atalopedes campestris
Panoquina ocola

Dennis & Donna Forsythe; Charleston Co., Hyde Park Rd., Ravenel, 11 August 2020

Papilionidae
Papilio glaucus
Papilio troilus
Pieridae
Phoebis sennae
Abaeis nicippe
Lycaenidae
Celastrina neglecta
Nymphalidae
Heliconius charitonia
Polygonia interrogationis
Phyciodes tharos
Hermeuptychia sp.
Hesperiidae
Epargyreus clarus
Urbanus proteus
Burnsius oileus
Euphyes vestris

Amblyscirtes aesculapius
Calpodes ethlius

Dennis Forsythe; Charleston Co., James Island, 16 August 2020

Papilionidae
Papilio palamedes
Pieridae
Phoebis sennae
Nymphalidae
Agraulis vanillae
Hesperiidae
Urbanus proteus
Epargyreus clarus
Erynnis horatius
Hylephila phyleus
Lerema accius
Panoquina panoquin

Marty & Dave Kastner, Lee Co., Lee State Park, Bishopville, 17 August 2020

Papilionidae
Papilio palamedes
Pieridae
Abaeis nicippe
Phoebis sennae
Pyrisitia lisa
Nymphalidae
Phyciodes tharos
Limenitis arthemis astyanax
Polygonia interrogationis
Hesperiidae
Erynnis horatius

Matt Campbell; Abbeville Co., 18 August 2020

Nymphalidae
Heliconius charithonia (county record)

Dennis Forsythe; Charleston Co., Holy Cross Cemetery, 22 August 2020

Pieridae
Phoebis sennae
Nymphalidae
Agraulis vanillae
Heliconius charithonia
Hesperiidae
Erynnis horatius
Urbanus proteus
Hylephila phyleus
Polites vibex
Panoquina ocola

Tennessee: John Hyatt, 233 Park Ridge Court, Kingsport, TN 37664, E-Mail: jkshyatt@centurylink.net

John sends in the following report:

April 13, 2020: TN, Greene Co., Bear Hollows Rd. *Glycopsyche lygdamus* and *Euchloe olympia* both taken for the first time in a couple of decades in the Tennessee mountains by Hyatt.

June 22, 2020: TN, Unicoi Co., Unaka Mtn., 4950', Eric Smith and Bill Garth: *Catocala marmorata* (7 specimens seen!), *Ascalapha odorata*.

July 20, 2020: TN, Unicoi Co., Unaka Mtn., ca. 4500', Eric Smith, Bill Garth, and John Hyatt: *Darapsa versicolor, Diachrysia balluca, Acronicta innotata*, and *Caripeta angustiorata*.

Texas: Terry Doyle, 13310 Bar C Drive, San Antonio, TX 782253, E-Mail: tdoyle335@yahoo.com
Stuart Marcus, P.O. Box 463 Liberty, TX 77575, E-Mail: stuartmarcus13@gmail.com

Terry sends in the following State Coordinator Report (3rd Q 2020) and comment:

High pressure continues to dominate the state under a La Nina Watch. Cooler, drier spring followed by above normal temps and below normal precipitation in portions of east, central and total western 1/3. Persistent extreme drought in the west. Houston/Galveston area had 31 high minimum temp records in July 2020. Far east and so. Texas are the exception with Hurricane Harvey making landfall 25 July 2020 at Padre Island with 90 mph winds and tracking south-southwest effecting 32 counties with focus in lower Rio Grande Valley. Earliest "H" storm to form on record for Atlantic Basin. It produced extreme rainfall in portions of So. Texas and Northern Mexico with 6-18" of rain in Cameron, Willacy and Hidalgo counties. July midmonth brought unseasonably warm temperatures. Prediction through October is cooler and drier than normal. Notwithstanding any hurricane occurrences.

This list is indicative of a natural dispersal event by some Skipper and Brushfoot species straying north from south Texas, Lower Rio Grande Valley and northern Mexico. In some years becoming temporarily established in central and northern parts of the state depending on favorable conditions prevailing until first freeze.

All records are 2020 dates. Records are grouped by observer.

Terry Hibbits
Uvalde County, Texas
8 August
Malachite, *Siproeta stelenes*, Leona River at FM 375
Hermit Skipper, *Grais stigmaticus*, Leona River west of Fort Inge

Tripp Davenport
Uvalde County, Texas
28 June
Zebra Heliconian, *Heliconius charitonia*, Fort Inge
4 July
Gold-spotted Aguna, *Aguna asander*, Fort Inge
11 July
Soldier, *Danaus eresimus*, Fort Inge
12 July
Mexican Fritillary, *Euptoieta hegesia*, So. Grove St.
Coyote Cloudywing, *Achalarus toxeus*, Tom Nunn's Crossing, Nueces River
13 July
Hermit Skipper, *Grais stigmaticus*, Tom Nunn's Crossing, Nueces River
14 July
Two Barred Flasher, *Astraptes fulgerator*, Tom Nunn's Crossing, Nueces River
19 July
Two Barred Flasher, Astraptes fulgerator, Nueces River just south of US 90
30 July
Heppner's Petrophila, *Petrophila heppneri*, Smyth's Crossing, Nueces River
1 August
Jalapus Cloudywing, *Thessia jalapus*, Fort Inge
Ruddy Daggerwing, *Marpesia petreus*, So. Grove St.
2 August
Hermit Skipper, *Grais stigmaticus*, Fort Inge
3 August
Coyote Cloudywing, *Achalarus toxeus*, Vanessa Street Colonia
Brown Longtail, *Spicauda procne*, Vanessa Street Colonia

4 August
Hermit Skipper, *Grais stigmaticus*, Fort Inge
7 August
Dorantes Longtail, *Cecropterus dorantes*, El Progresso Library Native Garden
8 August
Great Southern White, *Ascia monuste*, Fort Inge
Large Orange Sulphur, *Phoebis agarithe*, Fort Inge
Malachite, *Siproeta stelenes*, Fort Inge
Gold-spotted Aguna, *Aguna asander*, Fort Inge
Julia Heliconian, *Dryas julia*, Fort Inge
9 August
Tropical Leafwing, *Anaea aidea*
Julia Heliconian, *Dryas julia*, Fort Inge
Malachite, *Siproeta stelenes*, Fort Inge
Gold-spotted Aguna, *Aguna asander*, Fort Inge
White-Patched Skipper, *Chiomara georgina*, Fort Inge

Bandera County, Texas
14 July
Meridian Duskywing, *Erynnis meridianus*, Vanderpool
Mimosa Yellow, *Pyrisitia nise*, Vanderpool
15 August
Ornythion Swallowtail, *Papilio ornythion*, Fort Inge
Hammock Skipper, *Polygonus leo*, Leona River, so. of Fort Inge
Malachite, *Siproeta stelenes*, Leona River, so. of Fort Inge
16 August
Malachite, *Siproeta stelenes*, Fort Inge
22 August
Gold-spotted Aguna, *Aguna asander*, Fort Inge
Great Southern White, *Ascia monuste*, Fort Inge

Patty Leslie Pasztor
Bexar County, TX
9 June
Northwest San Antonio, Texas, NABA count, Total 23 species, 250 individuals.
15 August
Gold-spotted Aguna, *Aguna asander*, San Antonio Botanical Garden on Mexican olive blooms, second record for this location.

Gold-spotted Aguna
(*Aguna asander*)
Photo by Patty Leslie Pasztor

Helen C.
Medina County
5 April
Gold-spotted Aguna, *Aguna asander*
FM 1283, e. of Lakehills, Texas, PR 1731

Steven Schaferman
Midland County
4 July

White-patched Skipper, *Chiomara georgina*, Midland, Texas, on vitex.

White-patched Skipper
(*Chiomara georgina*)
Photo by Gae Kovalick

1 July

Julia Heliconian, *Dryas julia*, Midland, Midland County, Texas

Julia Heliconian
(*Dryas julia*)
Photo by Bill Lupardus

Tom Collins
Kerr County
15 July

Kerrville, Texas, NABA count. Total 43 species, 324 individuals, new high count

Rose Cooper
Uvalde County
11 July

Turk's Cap White Skipper, *Helioptes macaira*, Cook's Slough, Uvalde, Texas

Delmar Cain
Kendall County
1 May

Acrolophus texanella
Lactura rubritegula
Apoda latomia
Adoneta gemina
Episemasia cervinaria
Lochmaeus bilineata
Catocala similis
Ogdoconta cinereola

2 May
Hileithia magualis
3 May
Melitara junctolineella
5 May
Archips rileyana, Pupal nest found on *Aesculae pavia* var. *flavescens*
Lipocosma polingi
Estigmene acrea
Catocala ilia
Bagisara oula
Galgula partita, Reared from larva on *oxalis*
9 May
Usingeriessa onyxalis
Glaphyria sequistrialis
Hammaptera parinotata
Metria amella
10 May
Caenurgina erechtea
11 May
Erebidae Phytometra orgiae
20 May
Petrophila daemonalis
Catocala micronympha
25 May
Caloptilia sp., Reared from larva on *Aesculae pavia* var. *flavescens*
30 May
Pero meskaria, Reared from larva found on *Baccharis neglecta*.
5 June
Acrolophus cressoni
Salebriaria fasciata
6 June
Cisthene unifascia
Toxonprucha crudelis
Catocala agrippina
Spragueia jaguaralis
7 June
Nemapogon multistriatella
Aristotelia lespedezae
8 June
Hypsopygia olinalis
9 June
Chloraspilates bicoloraria
Misogada unicolor
10 June
Amphipyra pyramidoides
Tarache quadriplaga
14 June
Ascalapha odorata
20 June
Nemoria elfa
1 July
Lithacodes fasciola
Palpita quadristigmalis
4 July
Omiodes indicata
5 July
Isogona snowi

13 July
Loxomorpha flavidissimalis
Anicla infecta
14 July
Ethmia delliella
15 July
Petrophila heppneri
17 July
Petrophila jaliscalis
Digrammia californiaria
19 July
Apoda rectilinear
20 July
Isoparce cupressi
24 July
Pyrausta onythesalis
Panopoda rufimargo
25 July
Hypena minualis
26 July
Microtheoris vibicalis
Microtheoris ophionalis
30 July
Parapoynx diminutalis
4 August
Petrophila bifascialis
5 August
Salebriaria ademptandella
7 August
Galleria mellonella
Erinnyis obscura
10 August
Tallula atrifascialis
Ectypia bivittata
11 August
Antigastra catalaunalis
12 August
Properigea continens
13 August
Euchlaena marginaria
15 August
Eugnosta sartana
Litodonta hydromeli
Panopoda carneicosta
Atabenoides terminellus

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Stuart Marcus sends in the following Texas report:

Moths for Trinity River National Wildlife Refuge
Liberty County, TX
May 1, 2020 through July 31, 2020
Stuart J. Marcus

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

ACROLOPHIDAE
Acrolophus heppneri May, June, July
Acrolophus mycetophagus May
Acrolophus popeanella May, June, July
Acrolophus texanella May, July

ATTEVIDAE
Atteva aurea May

AUTOSTICHIDAE
Glyphidocera juniperella May, June
Glyphidocera lactiflosella May

BLASTOBASIDAE
Holcocera sp. May
Pigritia sp. June

COLEOPHORIDAE
Coleophora querciella June

COSMOPTERIGIDAE
Cosmopterix sp. July
Euclemensia bassettella May
Melanocinclis lineigera May
Triclonella bicoloripennis June, July

COSSIDAE
Cossula magnifica May
Fania nanus July
Givira anna May, June, July

CRAMBIDAE
Achyra bifidalis July
Achyra rantalis May, June, July
Aethiophysa invisalis May
Anageshna primordialis May, June
Argyria critica June
Argyria lacteella May, June
Argyria nummulalis July
Apogeshna stenialis June
Chrysendeton medicinalis July
Cnaphalocrocis trapezalis May, June, July
Conchylodes ovulalis July
Crambus quinquareatus July
Crocidophora tuberculalis May, June, July
Desmia subdivisalis June
Diacme adipaloides May
Diastictis fracturalis May, June, July
Diatraea lisetta July
Dicymolomia julianalis May, June
Donacaula sp. May
Elophila gyralis May, June
Elophila obliteralis May, June, July
Elophila tinealis May, June, July
Epipagis fenestralis May, June, July
Euchromius ocelleus May, June
Eudonia heterosalis July
Fissicambrus sp. June
Glaphyria fulminalis May
Glaphyria sesquistrialis July
Herpetogramma fluctuosalis June
Herpetogramma phaeopteralis July
Hyalorista taeniolalis May, July
Hymenia perspectalis June, July
Leptosteges parthenialis May, June
Lineodes integra July
Lipocosma septa May
Microcrambus biguttellus July
Microcrambus elegans May, June, July
Niphograpta albiguttalis July
Nomophila nearctica May
Oenobotys vinotinctalis May, June, July
Ostrinia penitalis May, July
Palpita freemanalis May, June, July
Palpita illibalis June
Palpita magniferalis May, June, July
Palpita quadristigmalis May, June, July
Parapediasia decorellus July
Parapediasia teterrella May, June, July
Parapoynx allionealis May, June
Parapoynx obscuralis May
Pilocrocis ramentalis July
Polygrammodes flavidalis May
Pyrausta acrionalis May, June, July
Pyrausta laticlavia May
Pyrausta tyralis May, July
Rupela sp. May, July
Samea baccatalis July
Samea ecclesialis May, June, July
Samea multiplicalis May, June, July
Uresiphita reversalis May
Urola nivalis May, June, July

DEPRESSARIIDAE
Agonopterix argillacea May, June
Antaeotricha schlaegeri June, July

EREBIDAE
Ablemma brimleyana June, July
Apantesis phalerata May, June, July
Caenurgia chloropha May, June, July
Catocala agrippina June, July
Catocala amica May, June
Catocala pretiosa May
Catocala ultronia May
Cisseps fulvicollis May, June
Cisthene unifascia May, June
Colobochyla interpuncta June
Crambidia pallida May, July
Cutina albopunctella May, June, July
Cutina distincta June
Dasychira manto May
Dasychira meridionalis July
Dasychira tephra June

Doryodes sp. May
Estigmene acrea May, June
Gabara distema May, June
Halysidota sp. May, June, July
Hypena abalienalis May
Hypena bijugalis June
Hypena palparia May
Hypercompe scribonia June
Hyphantria cunea May, June, July
Hypoprepia fucosa May, July
Hypsoropha hormos May, June, July
Idia aemula May, June
Idia americalis May, July
Isogona tenuis May, June
Lascoria ambigualis June
Ledaea perditalis May
Lesmone detrahens June
Macristis schausi May
Macrochilo orciferalis June, July
Melanomma auricinctaria May, June
Melipotis cellaris May
Metalectra diabolica May
Metalectra discalis May, July
Metria amella May, June
Mocis marcida May, July
Nigetia formosalis July
Ommatochila mundula June
Orgyia leucostigma May
Orgyia sp. June, July
Pagara simplex May
Palthis asopialis May, June, July
Panopoda carneicosta May, June, July
Panopoda repanda June
Panopoda rufimargo June, July
Plusiodonta compressipalpis May, June, July
Ptichodis vinculum May, July
Pyrrharctia isabella May, June, July
Renia adspergillus May, July
Scolecocampa liburna July
Simplicia cornicalis June, July
Spilosoma virginica May
Tetanolita floridana May, June
Tetanolita mynesalis May, June, July
Virbia laeta May, June, July
Zale galbanata June
Zale lunata June, July
Zanclognatha atrilineella June

EUTELIIDAE
Paectes oculatrix May, June

GELECHIIDAE
Aristotelia fungivorella May
Chionodes discoocellella July
Coleotechnites sp. July
Dichomeris inversella or *kimballi* Complex June
Dichomeris juncidella June
Helcystogramma chambersella June
Monochroa sp. May
Neodactylota sp. (Possibly) July
Polyhymno luteostrigella July
Polyhymno undescribed - Hodges#2211.99 July
Stegasta bosqueella May
Theisoa constrictella May
Untomia albistrigella June

GEOMETRIDAE
Chlorochlamys chloroleucaria May, June
Costaconvexa centrostrigaria May, June
Cyclophora myrtaria May
Digrammia gnophosaria May, June
Euchlaena obtusaria June
Eulithis diversilineata or *gracilineata* Complex May, June
Eupithecia miserulata May, June
Eusarca confusaria July
Glenoides texanaria July
Hypagyrtis sp. June, July
Idaea celtima June
Idaea tacturata June, July
Ilexia intractata May
Iridopsis defectaria May, June, July
Leptostales laevitaria May, July
Leptostales pannaria May, June, July
Lobocleta ossularia May, June, July
Lychnosea intermicata June, July
Macaria aequiferaria May, June
Macaria bicolorata June
Melanolophia sp. May
Mellilla xanthometata May
Metarranthis homuraria May
Nemoria lixaria May, June, July
Nepytia semiclusaria May
Pero zalissaria May, July
Pleuroprucha insulsaria July
Prochoerodes lineola June, July
Psamatodes abydata July
Synchlora frondaria May, June, July
Timandra amaturaria May, June, July
Xanthotype attenuaria July

GLYPHIPTERIGIDAE
Diploschizia impigritella June

GRACILLARIIDAE
Caloptilia triadicae May, June, July
Neurostrota gunniella July

LACTURIDAE
Lactura pupula May
Lactura subfervens May

LASIOCAMPIDAE
Artace cribrarius May, June, July
Heteropacha rileyana May, June, July
Malacosoma disstria May

LIMACODIDAE
Adoneta spinuloides June
Apoda biguttata July
Apoda y-inversum May, June, July
Euclea delphinii May, June
Isa textual May, July
Natada nasoni June
Prolimacodes badia May, June

MEGALOPYGIDAE
Megalopyge opercularis May, June, July

MIMALLONIDAE
Lacosoma chiridota June

MOMPHIDAE
Mompha rufocristatella May

NOCTUIDAE
Acronicta afflicta May, June
Acronicta connecta May, June, July
Acronicta exilis May
Acronicta insularis May, June, July
Acronicta vinnula June, July
Acronicta longa May
Acronicta rubricoma May, June
Anicla infecta May, June, July
Anicla simplicius June
Bagisara repanda June
Bellura obliqua May
Callopistria floridensis July
Charadra deridens May, June
Condica sutor May, June
Condica videns May, July
Cydosia aurivitta May, July
Diphthera festiva July
Elaphria chalcedonia June, July
Elaphria nucicolora May, June, July
Elaphria versicolor May
Enigmogramma basigera May, June
Eudryas grata May, July
Eudryas unio May, July
Feltia subterranean June, July
Galgula partita May, June, July
Helicoverpa zea July
Homophoberia apicosa May, June, July
Leucania incognita May, June, July
Leuconycta lepidula May
Marimatha nigrofimbria May, June
Megalographa biloba July
Mythimna unipuncta June
Ogdoconta cinereola May, July
Orthodes majuscule May
Ozarba aeria May
Ozarba nebula July
Peridroma saucia May, July
Perigea xanthioides May
Phosphila miselioides May, June, July
Polygrammate hebraeicum May, June
Ponometia candefacta May, July
Pseudeustrotia indeterminata May, June
Raphia frater May, June, July
Spodoptera dolichos May
Spodoptera frugiperda June, July
Spodoptera ornithogalli May, June, July
Spragueia leo May
Tarache aprica May, June, July
Tripudia flavofasciata complex June, July
Tripudia quadrifera May

NOLIDAE

Afrida ydatodes May, June, July
Baileya acadiana May, June, July
Baileya ophthalmica May
Garella nilotica May, June, July
Meganola minuscula May, June, July
Nola cereella May, June, July

NOTODONTIDAE
Clostera inclusa May, June, July
Datana integerrima June
Furcula cinereal July
Gluphisia septentrionis July
Heterocampa subrotata June, July
Lochmaeus bilineata June, July
Lochmaeus manteo July
Macrurocampa marthesia July
Misogada unicolor May, June, July
Peridea angulosa May, July
Schizura unicornis May

OECOPHORIDAE
Inga sparsiciliella May

OPOSTEGIDAE
Pseudopostega sp. May

PSYCHIDAE
Cryptothelea sp. May, June

PTEROPHORIDAE
Dejongia californicus May
Hellinsia sp. May, June
Lioptilodes albistriolatus May
Pselnophorus belfragei May, June, July
Stenoptilodes sp. May, July

PYRALIDAE
Acrobasis exsulella May
Adelphia petrella June, July
Cacotherapia flexilinealis July
Clydonopteron sacculana May, July
Dioryctria pygmaeella May
Ephestia kuehniella July
Epipaschia superatalis July
Hypsopygia binodulalis May, June, July
Hypsopygia nostralis June, July
Laetilia coccidivora May
Macrorrhinia endonephele May, June, July
Moodna ostrinella May, June
Phycitodes reliquellum June, July
Pococera asperatella July
Pococera humerella May
Salebriaria squamopalpiella May
Sciota celtidella May, June, July
Sciota uvinella May, June, July
Tallula atrifascialis June
Tlascala reductella May, June, July
Varneria atrifasciella June

SATURNIIDAE
Actias luna July
Anisota virginiensis June
Antheraea polyphemus May
Automeris io May
Eacles imperialis May, June
Sphingicampa bicolor May

SPHINGIDAE
Amorpha juglandis May, July
Ceratomia amyntor May, July
Darapsa myron May, June, July
Dolba hyloeus May
Enyo lugubris May, June
Isoparce cupressi June
Manduca quinquemaculatus June
Manduca rustica July
Manduca sexta May
Sphecodina abbottii June
Xylophanes tersa May, June

TINEIDAE
Bucculatrix sp. June
Homostinea curviliniella May, June, July
Niditinea sp. June

TISCHERIIDAE
Possibly – *Coptotriche* sp. May

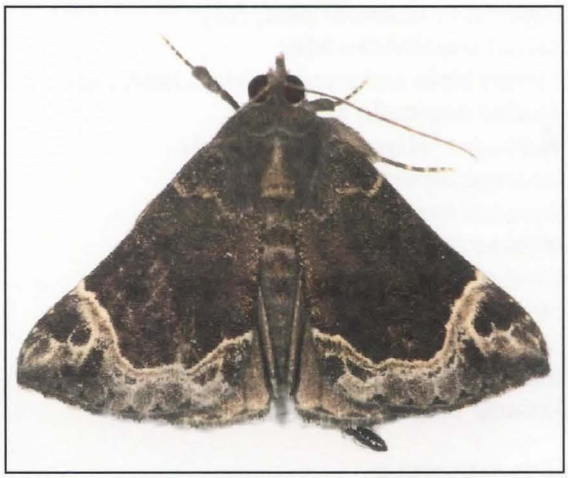
TORTRICIDAE
Aethes angulatana May
Ancylis comptana May, June
Ancylis platanana May
Argyrotaenia hodgesi May
Argyrotaenia ivana May
Argyrotaenia quercifoliana June
Bactra furfurana May, June, July
Cagiva cephalanthana June
Cenopis cana May
Cenopis ferreana May
Choristoneura argentifasciata May
Choristoneura rosaceana May, June
Clepsis peritana May, June, July
Cochylis caulocatax July
Coelostathma discopunctana July
Coelostathma placidana May
Cydia latiferreana June, July
Ecdytolopha mana June
Endothenia hebesana May
Epiblema boxcana July
Epiblema abruptana May
Epiblema scudderiana May
Episimus tyrius May, June
Eugnosta bimaculana May, June
Eugnosta erigeronana May
Eumarozia malachitana June, July
Gretchena bolliana June
Gymnandrosoma punctidiscanum May
Gypsonoma salicicolana May, June
Larisa subsolana May, June
Olethreutes sp. May
Paralobesia viteana May, July
Platphalonidia felix May, June
Platynota flavedana May, June, July
Platynota idaeusalis June
Platynota semiustana July
Sonia constrictana May
Sparganothis caryae May
Sparganothis sulfureana May, June, July
Sparganothoides lentiginosana June, July
Strepsicrates smithiana May
Suleima helianthana July

Aristotelia fungivorella

Fania nanus

Lophocampa annulosa
(Santa Ana Tussock Moth)

Goya stictella



Hypena abalienalis **(White-lined Hypena)**

Polyhymno **undescribed**

Metalectra diabolica
(Diabolical Fungus Moth)

Dejongia californicus

Moths observed for the first time at Trinity River Refuge between May 1st and July 31st (Stuart Marcus)

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

Harry sends in the following 2020 summer report for Virginia:

This has been the absolute worst butterfly season that I can ever recall. Virtual absence of butterflies reported regionwide except some areas seem to buck the trend as isolated hotspots. My butterfly garden and 20 Buddleia shrubs have attracted almost nothing except two or three *Atalopedes campestris* through July, yet nearby Ida Lee Park in Leesburg hosted swarms of butterflies. Record heat dominated the summer but that should not have been a factor. The general consensus is that excessive rains and late frosts in the spring affected numbers but I suspect other factors such as disease, parasites or predators at play. Numbers of Sachems spiked up in my Leesburg garden in September but only scant numbers of anything else.

County and state records show in all-caps.

Butterflies:

Abaeis nicippe – Loudoun Co.: Leesburg, Ida Lee Park, 8/1/2020 (H. Pavulaan, 20+ observed), 8/3/2020 (H. Pavulaan, 2 observed). Leesburg, 9/11/2020 (H. Pavulaan, 48 larvae found on *Senna marilandica* in garden).

Pheobis agarithe – Loudoun Co.: Leesburg, 7/29/2020 (1 male observed in my backyard on Mexican Sunflower – no net or camera phone!), 7/30/2020, one possible sighting right in front of my car in downtown. Three other unconfirmed reports from the immediate region (Maryland and Washington D.C.). Possible northward dispersal?

Calycopis cecrops – Loudoun Co.: Leesburg, 8/20-8/25/2020. A female (presumably the same one rather than multiples) was observed for several days beneath several Butterfly Bush (*Buddleia*) shrubs next to my house. She flew about, mainly at or near ground level and was observed ovipositing on shredded hardwood mulch [I have previously observed oviposition on garden mulch in Herndon, VA.].

Atalopedes campestris – Loudoun Co.: Leesburg, Ida Lee Park, 8/22/2020. Hundreds of individuals observed, mostly on Zinnia flowers; one female ovipositing on Crab Grass (*Digitaria sanguinalis*).

Polites peckius – Loudoun Co.: Leesburg, 8/23/2020. A female was observed ovipositing on my lawn, consisting mainly of Kentucky Bluegrass (*Poa pratensis*).

Moths:

Tetracis crocallata – Loudoun Co.: Leesburg, 8/4/2020 (bright yellow form, observed at porch light, H. Pavulaan).

Ctenoplusia oxygramma – Loudoun Co.: Leesburg, 8/4/2020 (ex-pupa on Senna marilandica (silken shelter in folded leaf), adult eclosed on 9/11/2020, H. Pavulaan).

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The Southern Lepidopterists' News is published four times annually. Membership dues are $30.00 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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