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THE OFFICIAL PUBLICATION OF THE SOUTHERN LEPIDOPTERISTS' SOCIETY ORGANIZED TO PROMOTE SCIENTIFIC INTEREST AND KNOWLEDGE RELATED TO UNDERSTANDING THE LEPIDOPTERA FAUNA OF THE SOUTHERN REGION OF THE UNITED STATES

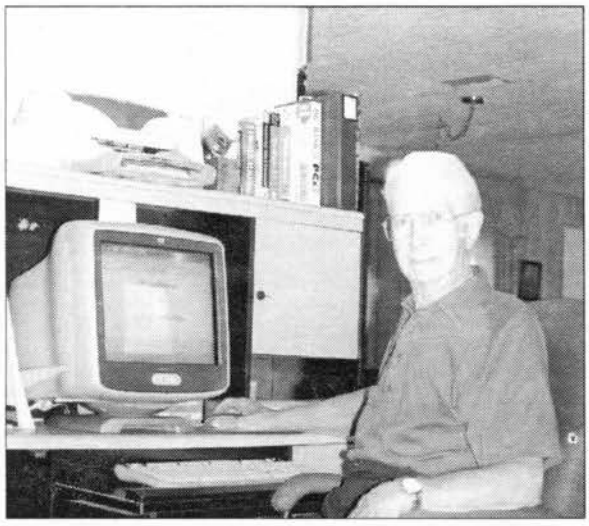
J. BARRY LOMBARDINI: EDITOR

BIOGRAPHY - DR. ROY W. RINGS

Editor's Note: Dr. Roy W. Rings has written an extensive article on "Moth Collecting in Central Florida". The first part of this article was published in the Southern Lepidopterists' Newsletter in 1998 (Vol. 20, No. 4, pp 60-63) and the second part earlier this year (Vol. 23, No. 2, pp 24-28, 2001). The current issue contains Part III. In order to get to know Dr. Roy Rings a bit better and to recognize his contributions to the Newsletter and more importantly to his numerous contributions to the science of entomology, I have opted to inform the Society membership about his life and accomplishments with a short biography.

Dr. Roy W. Rings was a resident of Wooster, Ohio, from 1947 to 1999 but was born and grew up on the west side of Columbus, Ohio. He was employed by the Ohio State University, Ohio Agricultural Research and Development Center from 1947 to 1977. Dr. Roy Rings is a professional entomologist with a Ph.D. from Ohio State University. He served as a Professor in the Department of Entomology for 30 years at Ohio State University. Dr. Rings in his career has published over 200 scientific articles on the biology and control of insects attacking fruit trees in Ohio.

In 1950, Dr. Rings pioneered in the research use of radioisotopes in the United States to study the flight of insects in peach orchards. He made plum curculios radioactive in his laboratory by feeding them radiophosphorus, radioiodine, radiocobalt, or radiostrontium. These marked beetles were released in an orchard so that he could trace their overwintering behavior in the field. For this research Dr. Rings was listed in the international, scientific listing "Who's Who in Atoms".



Dr. Rings was appointed Associate Chairman of the Department of Zoology and Entomology at Wooster as well as at the Ohio State University at Columbus in 1961. He supervised the research of 17 entomologists at Wooster and five in Columbus. A few years later he was listed in "Leaders in American Science".

Dr. Rings edited his first book in 1966 "The Ohio Mosquito Control Manual" which included information on the biology and control of Ohio mosquitoes in cooperation with four other state agencies responsible for mosquito control. Later in the 1960's Dr. Rings studied the bionomics of the Ohio and Michigan species of climbing cutworms and green fruitworms that are serious,

defoliating pests of fruit trees and published a series of scientific papers on their economic importance, biology, distribution, and behavior. Other research entomologists, from as far away as Washington State came to Ohio to learn his techniques for working with these important insects. This research led to a comprehensive, multidisciplinary, multistate state project on the search for safer chemicals for controlling arthropods attacking corn and vegetable crops in the east and midwest. In cooperation with chemists and entomologists at the New York State Agricultural Experimental Station, Dr. Rings identified the chemical pheromone of the black cutworm, a serious pest of corn and vegetables throughout the United States. In 1992, he published his second book on "The Owlet Moths of Ohio" featuring over 700 species of cutworms, fruitworms, and other noctuid moths destructive to Ohio crops.

Dr. Rings was active in local, regional and national scientific organizations first as Chairman of the 16 state North Central Branch of the Entomological Society of America in 1963. Later in the sixties, he was elected President of the Wooster, Ohio Sigma Xi Club which was composed of the faculties of the College of Wooster and the Research Center. In 1973, he served as President of the Ohio Mosquito Control Association and was on the Editorial Committee of this Association. In the 80's, Dr. Rings served three years as President of the Ohio Lepidopterist's Society.

When The Ohio Lepidopterists received a grant over a six year period to survey the entire state for Lepidoptera, Dr. Rings who had retired in 1977 became very active in this project and fortunately could choose his own fields of interest. Dr. Rings stated that he first collected butterflies in Ohio in his boyhood and later also collected as a Four-H advisor.

After retirement, Dr. Rings was able to pursue three main hobbies, one was golfing and another was cruising. In 1981, Dr. Rings began the fascinating experience of luxury liner cruising. He "sailed" on over 30 cruises in the Caribbean, Mediterranean and Tasman Seas as well as the Atlantic and Pacific Oceans. His third hobby was collecting moths in Ohio and butterflies in the tropics. After observing so many tropical species in February, he decided to collect in the West Indies on the shore excursions. Later he found out about Tom Emmel and accompanied him on expeditions to Peru, Ecuador, Venezuela, Brazil, Papua New Guinea, Malaysia, Botswana, Zimbabwe, and South Africa. Roy states that he really enjoyed these trips and became friends with Lepidopterists from all over the U.S.

Dr. Rings visited 35 countries to collect exotic butterflies on five continents. Most of his collection is maintained in the Museum at the Research Center, but some material was deposited in the Museum of Biological Diversity at Ohio State in Columbus and his larval collection resides in the Cleveland Museum of Natural History.

Dr. Rings was in the service during World War II and states that he is not a stranger to Texas having spent a month in August 1943 at Camp Barkley, Abilene, TX, for basic training at the Medical Replacement Training Center. His comment about Abilene was "That was a real hot place!". He was stationed in Dallas for a short time as a medical entomologist, then went to Camp Livingston, LA, on to Horn Island MS, and finally did duty at the 4th Service Command Hqs. in Atlanta, GA.

In 1975, Dr. Rings was honored by the Ohio Academy of Science as one of the ten outstanding Ohio scientists of the 20th century. He was presented with a large bronze plaque and letters of appreciation from several Ohio State Senators and Representatives.

His third book "the Lepidoptera of Wayne County County, Ohio" with Roger Downer was published in March 2001 as Research Bulletin 1192 by the Ohio State University, Ohio Agricultural Research and Development Center, Wooster, Ohio. The annotated check list includes 901 species. Dr. Rings is currently working on a fourth book entitled "The Lepidoptera of Portage County, Ohio".

In 1997, Dr. Rings and his wife Lorraine spent three weeks at Lido Beach near Sarasota and he was in heaven - playing golf and collecting moths. Unfortunately, over the course of the years he has developed plantarfasciatis (like a badly bruised right heel) which has nearly incapacitated him and he no longer collects lepidoptera. In 1999, Dr. Rings and Lorraine moved to Shadow Brook Condominium Park, Palmetto - just below Tampa. Both are enjoying the area, and Roy states "we love it".

MOTH COLLECTING IN CENTRAL FLORIDA PART III.

PYRALIDAE (SECOND SECTION)

BY

ROY W. RINGS[1] AND LORRAINE F. RINGS

This article is a continuation of the check lists published in the Southern Lepidopterists' Newsletter of 20(4):60-63, 1998 and 23(2):24-28,2001. Moths were collected by mercury vapor light and sheet in the parking lots of the listed sites. Most of the collecting was done by Lorraine. Roy identified species with standard identification guidebooks and by visiting the Florida State Collection of Arthropods (FSCA) to compare unknowns with determined material. More difficult identifications were made by Eric H. Metzler, Columbus, Ohio, in the Noctuidae, Notodontidae and Lymantridae and by Dr. John B. Heppner, Curator of the Florida State Collection of Arthropods, University of Florida, Gainesville, in the Tortricidae.

The full names of the collecting sites, cities, and counties are:

Archbold Biological Station, Lake Placid, Highlands County [A very complete list of the Lepidoptera of Archbold Biological Station (1,112 species) has been published by Marc Minno in the 1992 Florida Entomologist 75(3): 297-329].
Avon Park Air Force Bombing Range, Avon Park, Osceola County
Highlands Hammocks State Park, Highlands County
Lake Manatee State Recreation Area, Manatee County
Myakka River State Park, Manatee County

The species MONA numbers are from Hodges *et al* (1983) and the common names of moth families are from Heppner (1998). For each entry the scientific name, author, year of description, and Hodges number are in the upper left. The common name is in the upper right section. On the second and succeeding lines are the collection site(s), date, or inclusive dates of collection, and the number of individuals collected.

PYRALIDAE (SECOND SECTION)

Hymenia perspectalis (Hübner, 1796) **5169** SPOTTED BEET WEBWORM
Highlands Hammocks 4/10/99 - 5/15/99 (10); Lake Manatee 11/6/97 (l), 10/26/98 (l); Myakka River 2/4/97 -11/22/97 (7), 5/17/98 - 10/14/98 (5).

Spoladea recurvalis (Fabricius, 1794) **5170** HAWAIIAN BEET WEBWORM
Highlands Hammocks 5/9/99 (l); Lake Manatee 11/1/97 - 12/21/97 (15), 5/21/98 - 12/23/98 (11); Myakka River 10/25/97 - 12/22/97 (2), 10/15/98 - 12/24/98 (7), 1/16/99 (l).

Diasemodes nigralis (Fernald, 1892) **5173**
Highlands Hammocks 4/10/99 (l).

Desmia ploralis (Guenée, 1858) **5167**
Avon Park 5/8/99 (l).

Glyphodes sibillalis Walker, 1859 **5198**
Myakka River 10/25/97 (l).

[1]Research Associate, Florida State Collection of Arthropods, Florida Department of Agriculture and Consumer Services and Professor Emeritus, College of Biological Sciences, Ohio State University, Columbus, Ohio.

Diaphania nitidalis (Stoll, 1781) **5202** PICKLEWORM
Lake Manatee 11/21/98 (l).

Diaphania hyalinata (Linnaeus, 1767) **5204** MELONWORM
Lake Manatee 12/23/98 (l); Myakka River 10/25/97 (2).

Diaphania modialis (Dyar, 1912) **5205**
Lake Manatee 11/11/99 (l), Myakka River 3/26/98 (l).

Omiodes indicata Fabricius, 1775 **5212**
Myakka River 11/22/97 (l).

Condylorrhiza vestigialis (Guenée, 1854) **5215**
Lake Manatee 10/26/98 (2).

Palpita quadristigmalis (Guenée, 1854) **5218**
Highlands Hammocks 5/9/99 (2); Lake Manatee 4/29/98 - 5/21/98 (4); Myakka River 11/22/97 (l), 4/16/98 - 5/23/98 (14).

Palpita magniferalis (Walker, 1861) **5226**
Avon Park 5/8/99 (3); Highlands Hammocks 4/10/99 (l); Lake Manatee 1/4/98 - 5/21/98 (3); Myakka River 2/4/97 - 11/22/97 (2), 4/28/98 - 5/23/98 (14).

Herpetogramma bipunctalis (Fabricius, 1794) **5272**
Highlands Hammocks 5/15/99 (l).

Pilocrocis ramentalis Lederer, 1863) **5281**
Avon Park 5/8/99 (l); Highlands Hammocks 5/9/99 (l); Lake Manatee 11/1/97 - 11/20/97 (6), 12/23/98 (3); Myakka River 10/25/97 - 11/5/97 (2), 5/2/98 - 10/14/98 (2).

Syngamia florella (Stoll, 1781) **5284**
Lake Manatee 10/28/97 - 12/21/97 (24), 5/15/98 - 12/23/98 (43), 11/11/99 (15); Myakka River 2/28/97 - 12/22/97 (28), 10/14/98 - 12/24/98 (22).

Marasmia trapezalis (Guenée, 1854) **5288**
Myakka River 10/14/97 - 11/22/97 (2), 11/20/98 (l).

Scirpophaga perstrialis (Hübner, 1825) **5307**
Archbold 4/25/99 (l); Lake Manatee 11/21/98 - 12/23/98 (4).

Scirpophaga repugnatalis (Walker, 1863) **5308**
Lake Manatee 1/4/98 (l).

Rupela segrega Heinrich, 1937 **5310**
Highlands Hammocks 4/10/99 - 5/15/99 (5); Lake Manatee 4/19/98 - 5/21/98 (2), Myakka River 4/16/98 (2), 4/8/99 (l).

Donacaula sordidella (Zincken, 1821) **5313**
Lake Manatee 5/21/98 (l); Myakka River 10/25/97 - 12/22/97 (4), 1/5/98 - 11/20/98 (3), 2/9/99 - 4/8/99 (64).

Donacaula maximella (Fernald, 1891) **5324**
Highlands Hammocks 5/15/99 (l); Lake Manatee 12/9/98 (l); Myakka River 10/14/97 - 11/22/97 (2), 5/23/98 - 11/20/98 (2).

Crambus quinquareatus Zeller, 1877 **5369**
Highlands Hammocks 4/10/99 (l); 12/12/97 (2); Lake Manatee 12/21/97 (l), 1/4/98 - 12/23/98 (9), 11/11/99 (2); Myakka River 12/24/98 (l), 1/16/99 (l) .

Crambus satrapellus (Zincken, 1821) **5372**
Lake Manatee 12/23/98 (l).

Microcrambus elegans (Clemens, 1860) **5420**
Lake Manatee 4/1/98 - 12/23/98 (24), 11/11/99 (5); Myakka River 2/19/97 (1), 10/14/98 (l), 1/16/99 (2).

Parapediasia decorella (Zincken, 1821) **5450**
Avon Park 5/8/99 (3).

Argyria lacteella (Fabricius, 1794) **5463**
Highlands Hammocks 4/10/99 - 4/25/99 (7); Myakka River 11/20/98 (l), 3/26/99 (l).

Urola nivalis (Drury, 1773) **5464**
Highlands Hammocks 4/10/99 - 4/24/99 (2); Lake Manatee 1/4/98 - 12/23/98 (11), 11/11/99 (l); Myakka River 11/10/98 - 12/24/98 (2), 4/8/99 (l).

Vaxi auratella (Clemens, 1860) **5465**
Lake Manatee 4/1/98 - 12/23/98 (3); Myakka River 11/10/98 - 12/24/98 (2).

Aglossa caprealis (Hübner, 1800-09) **5517**
Myakka River 11/22/97 (l)

Aglossa cuprina Zeller, 1872 **5518**
Highlands Hammocks 5/9/99 - 5/15/99 (3); Lake Manatee 5/21/98 (l).

Herculia binodulalis (Zeller, 1872) **5530**
Archbold 4/25/99 (l); Avon Park 5/8/99 (2); Highlands Hammocks 4/10/99 - 5/15/99 (2); Myakka River 2/9/99 (l).

Herculia infimbrialis Dyar, 1910 **5532**
Avon Park 4/18/98 (l); Myakka River 1/26/97 - 11/22/97 (4), 11/10/98 - 11/20/98 (3).

Herculia olinalis (Guenée, 1854) **5533**
Lake Manatee 3/26/98 - 5/6/98 (4), 2/9/99 (l).

Parachma ochracealis Walker, 1866 **5538**
Archbold 4/25/99 (l); Myakka River 3/26/99 - 4/8/99 (6).

Epipaschia zelleri (Grote, 1876) **5579**
Myakka River 2/19/97 - 2/28/97 (2).

Jocara incrustalis (Hulst, 1887) **5582**
Lake Manatee 11/20/97 - 12/12/97 (4), 1/4/98 - 5/21/98 (2).

Oneida lunulalis (Hulst, 1887) **5588**
Highlands Hammocks 4/10/99 (l).

Tallula watsoni Barnes & McDunnough, 1917 **5592**
Archbold 4/25/99 (l); Lake Manatee 12/23/98 (2), 11/11/99 (2); Myakka River 10/25/97 (l), 4/8/99 (2).

Tetralopha robustella Zeller, 1848 **5595** PINE WEBWORM
Archbold 4/25/99 (2); Highlands Hammocks 4/10/99 - 5/15/99 (3); Lake Manatee 10/28/97 - 12/12/97 (3), 3/25/98 - 10/17/98 (6), 11/11/99 (3).

Tetralopha subcanalis (Walker, 1863) **5602**
Highlands Hammocks 5/15/99 (l); Lake Manatee 5/6/98 - 10/17/98 (2).

Galleria mellonella (Linnaeus, 1758) **5622** WAX MOTH
Lake Manatee 12/4/97 (l), Myakka River 4/8/99 (l).

Etiella zinckenella (Treitschke, 1832) **5744**
Lake Manatee 11/11/99 (l).

Dioryctria abietivorella (Grote, 1878) **5841**
Lake Manatee 12/9/98 (l).

(To be continued)

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IDENTIFICATION ?

Specimen #3 in the June 30th (Volume 23 No.2, 2001) Color Insert was tentatively identified as *Anomis illita* Guenée (Hodges list #8551) by a fellow member of the Society. However, Vernon Brou who submitted the picture was pretty sure that this was incorrect. Because of the persistence of our fellow member who was sure that this specimen was *Anomis illita,* Vernon Brou further investigated the identification of the unknown *Anomis* and after receiving a copy of 1991 Tropical Lepidoptera (Vol 2, No.1), Vernon realized that his unknown was pictured and identitied as *Anomis luridula* Guenée (MONO checklist #8549) in an article written by Terhune Dickel "New records of noctuid moths from Florida. Dr. Roy Rings, our fellow member who initially though the unknown *Anomis* was *illita*, wrote to Vernon Brou "I imagine you now have a deep sense of satisfaction having identified your unknown *Anomis*. I am happy to learn that you did. My first response was to only an unknown *Anomis* which was very similar to *illita*. I assumed you were in the northern area of its range and had caught your first *illita*. The lesson is - to never assume anything. However, if I hadn't made an assumption I never would have contacted you. The situation is admirable for it caused a personal interaction between members of the Southern Lepidopterists. Controversial subjects are always more interesting than those cut and dried. Best wishes." Well said Dr. Rings - the Editor.

This brings up an interesting question/dilemma in general for the Editor. Members will send in different opinions as to the identification of a particular moth/butterfly. Case in point is the above *Anomis* specimen and story. I will publish the identifications as sent to me, but not the members' names (unless directed otherwise) so as not to embarrass anyone or cause hard feelings. O.K.?

Specimen #5 in the June 30th Color Insert has been identified as a noctuid, *Cydosia aurivitta*, by two members and as *Cydosia phaedra* by a third member.

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MEMBERS' NOTICES

For Sale: LIGHT TRAPS: 12 volt DC or 110 volt AC with 15 watt or 20 watt black lights. The traps are portable and easy to use. Rain drains and beetle screens protect specimens from damage. For a free brochure and price list contact: Leroy C. Koehn, 202 Redding Rd, Georgetown, KY 40324; Tele: 502-570-9123; E-mail: Leptraps@aol.com.

For Sale: BAIT TRAPS: 15" Diameter x 36" Height, collapsible for travel. Two types available: Flat Bottom and Inverted funnel. For a free brochure and price list contact: Leroy C. Koehn, 202 Redding Rd, Georgetown, KY 40324; Tele: 502-570-9123; E-mail: Leptraps@aol.com.

SANNINA UROCERIFORMIS WALKER (SESIIDAE) IN LOUISIANA

BY

VERNON A. BROU JR.

This medium sized and striking clearwing moth appears black with a blue sheen throughout, except the bilateral tegulae and segment 4 of the abdomen which are a deep orange color. The orange color of the abdominal segment may extend ventrally to some degree but is usually boldly represented dorsally. Two specimens were captured which lack the orange abdominal band, the abdomen appearing entirely black, though the tegulae were orange as usual. Eichlin and Duckworth (1988) report adults fly March to May in the south. Fig. 1 shows the quantities of **uroceriformis** taken each day this spring using a series of revamped Universal Moth Traps along with a newly available sesiid pheromone labeled **poplar twig borer**. Though the pheromone was touted to attract **Paranthrene tabaniformis** (Rottemburg), a willow and poplar borer, not a single **tabaniformis** showed up in the traps. **Synanthedon kathyae** Duck. & Eich. was also readily attracted to this new pheromone, as well as a few others to lesser extent. Recently, Knudson & Bordelon (2001), reported on their observations and response to using this new pheromone in Texas. Prior to using this pheromone, only 1 male (by UV light trap) and 2 females (by hand netting) **uroceriformis** were known for Louisiana. Numerous other insects including geometridae, noctuidae, micro lepidoptera, hymenoptera, hemiptera, and diptera were captured in the traps using this pheromone.

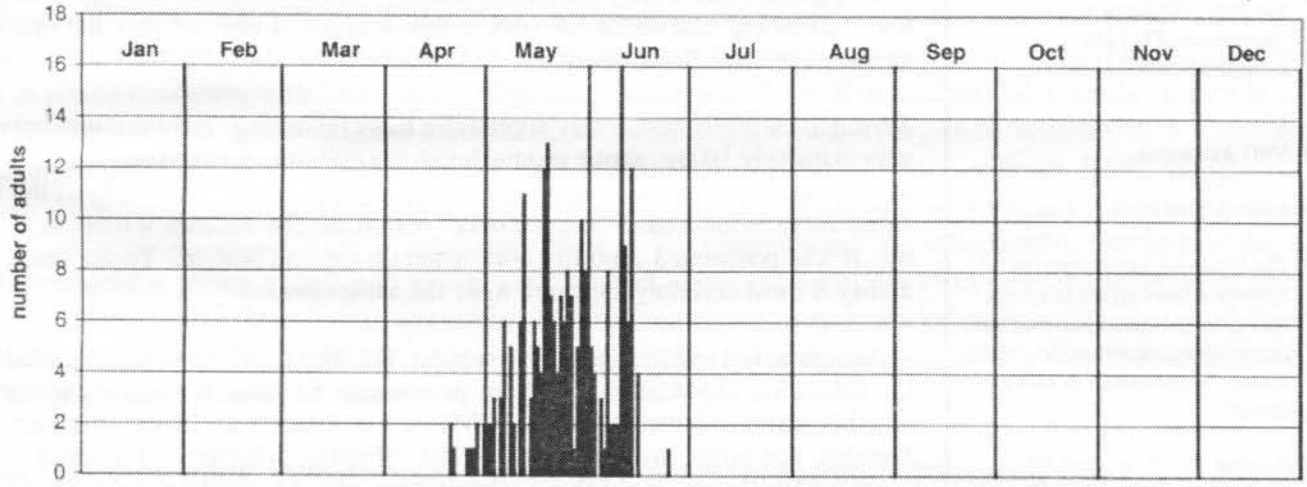

Fig. 1. Phenology of the Persimmon Borer Sannina uroceriformis Walker, near Abita Springs, Louisiana, sec. 24,T6,SR12E during 2001. N = 240.

Literature cited

1. Eichlin, T.D. and W.D. Duckworth (1988) Sesoidea: Sesiidae. In Dominick, R.B. et al.(eds), The Moths of America North of Mexico, Fasc. 5.1 Washington: Wedge Ent. Res. Found. 176 pp.
2. Knudson, E. and C. Bordelon (2001) Observations on Texas Sesiidae Paranthrene species and Synanthedon kathyae. South. Lepid. News 23:28-29.

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

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EDITOR'S PLEA: Thus far there has been no additional cost to the Society membership for the color plates. However, this cannot go on forever. While I would vigorously oppose any increase in the membership dues, I would hope, perhaps, that our more affluent members consider a donation to the Society either as a "Sustaining Member ($25.00)"or "Contributing Member ($50.00)". More generous contributions would even be more welcome.

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

Regular	$15.00
Student	$12.00
Sustaining	$25.00
Contributor	$50.00

The newsletter, Southern Lepidopterists' NEWS, is published four times annually.

Information about the Society may be obtained from the Membership Coordinator.

SESIIDAE: OBSERVATION OF UNUSUAL BEHAVIOR OF A MALE SYNANTHEDON EXITIOSA (SAY)

BY

JOHN HOLOYDA

Field work was underway on July 15, 2000, employing Gempler's Co. Trécé Apple Crown Moth lure (ACM), which is composed of the following organic components: Z,Z-ODDA/E, Z-ODDA/Z, E-ODDA/E, E-ODDA = 94.5/2.3/2.3/0.9. The last two components are as yet unfamiliar; their properties are being researched.

The following observation was made by myself in River Grove, Cook Co., Illinois. The usual *S.exitiosa* males were attracted to the pheromone at approximately 1 PM CST. As I was hoping to attract a less common species, none were netted. Near 1:30 PM, while glancing upon an opaque green leaf (the leaf was approximately 10 cm. long and 6 cm. wide), I noticed a male *exitiosa* resting upon the top of the plant leaf. Glancing elsewhere for only a few seconds, I noticed that the specimen appeared to have flown away.

Trying to carefully and slowly approach a more promising sesiid that was hovering approximately 10 cm. above ground level, the *exitiosa* observed previously on top of the leaf was now resting hanging upside down on the underside of the leaf! Apparently, it must have "flipped over" within the few seconds it took me to pass by. It was positioned centrally both when on top and bottom. To the best of my ability it most certainly appeared to be the same *exitiosa*.

Although based upon a single observation, the "flip over" may be associated with the following explanation: without pheromone Sesiidae are rarely encountered whether males or females; yet the ACM lure can attract many in one afternoon. The females, not lured, are rarely seen. The "flipping behavior" of a sesiid at rest, combined with very rapid flight when active, may be an additional reason (aside from mimicry), why sesiids without pheromone are rarely seen. This may also explain why sesiids are rarely seen at rest, although the pheromone attraction indicates that (especially *S. exitiosa* males) are very common, yet unobserved. Although a difficult task, this type of Sesiidae behavior will be explored further.

(John Holoyda, 5407 N. Oketo Ave., Chicago, IL., 60656-1746)

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Carl Linnaeus who was also known as Carolus Linnaeus or Carl von Linné was born in 1707 at Stenbrohult in southern Sweden. While his parents wanted him to enter the priesthood he choose to study medicine and received his medical degree from the University of Harderwijk. Carl Linnaeus developed the **binomial** system for naming species. He designated one Latin name to indicate the genus, and one name as a "shorthand" for the species. Prior to his new system the scientific name for the common wild briar rose was *Rosa sylvestris inodora seu canina* or *Rosa sylvestris alba cum rubore, folio glabro*. These names were unwieldy and created a problem with the numerous, newly discovered species in many new lands. Linnaeus renamed the briar rose as *Rosa canina*. His new nomenclature was used in his publications on plants, *Species Plantarum (The Species of Plants)*, and on animals, *Systema Naturae*. This new system by Linnaeus became very quickly the standard for naming species and even though he was not the first to use a binomial system, he was the most consistent.

Description of photographs in Color Insert A:

A. Yucca blooming in May after a wet early Spring - Caprock Canyons State Park.
B. Bumper crop of the White-Lined Sphinx (*Hylea lineata*) at black lights - Caprock Canyons State Park.
C. Unknown male Synanthedon species (Submitted by Vernon Brou).
D. Unknown female Synanthedon species (Submitted by Vernon Brou).
E. Unknown noctuidae (Submitted by Vernon Brou).
F. Copper Breaks State Park, Quanah, Texas.
G. Copper ore present in Copper Breaks State Park, Quanah, Texas.
H. Butterflies behaving as butterflies (Copper Breaks State Park).
I. Big Pond in Copper Breaks State Park (photograph by Dr. Gwynne Little).
J. *Erinnyis obscura* (Copper Breaks State Park).
K. Campsite at Copper Breaks State Park (photograph by Dr. Gwynne Little).
L. Unknown from Fort Davis, Texas (Submitted by JB Lombardini).
M. Unknown from Post, Texas (Submitted by JB Lombardini).
N. Unknown from Post, Texas (Submitted by JB Lombardini).

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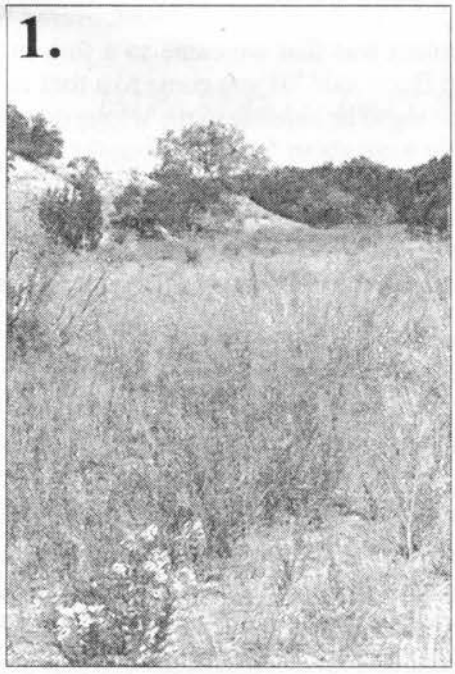
COPPER BREAKS STATE PARK - TYPICAL WEST TEXAS

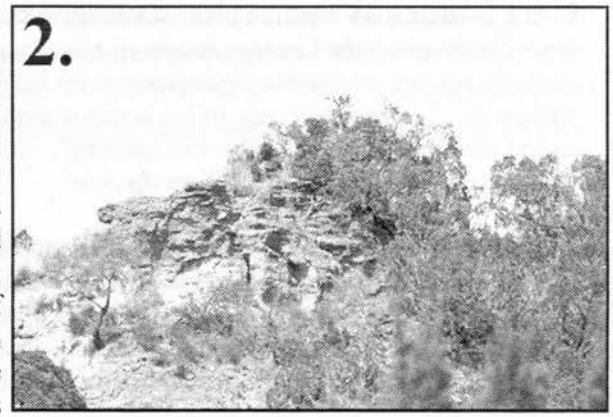
BY

JOHN B. LOMBARDINI



Copper Breaks State Park located near Quanah, Texas, approximately 8 miles from the Texas-Arkansas border on State Highway 6 is a small State Park with geology and vegetation typical of the West Texas region (Fig. 1). Historically, the park is of interest because it was part of the homelands of the Comanche and Kiowa Indian tribes. Located just 3 miles east of the Park is the Pease River Battle Site where the wife of Peta Nocona and the mother of Quanah Parker, Cynthia Ann Parker[1], was recaptured in 1860 from the Indians and returned to her "white" relatives. Twenty-four years earlier in 1836, Cynthia Ann Parker had been captured by the Indians near Mexia, Texas (south of Dallas, east of Waco).

The soil and the rock outcroppings of the Park are a reddish color (Fig. 2 and Fig. F - See Color Insert A) and is of the Mid-Permian age formed approximately 230 million years ago. This reddish soil, typical of the West Texas area, is made up of red shales and clays and alternating layers of gypsum. The area contains deposits of copper ore (Fig. G - See Color Insert A) which were mined beginning in the 19th century up until the 1960ties. (Mining never actually took place in the Park *per se* but in areas along the Pease River which is just outside the southern boundary of the Park.) The copper deposits are of low grade and because of the poor commercial quality and lack of sufficient water all mining activity in the area has been abandoned. The Park received its name from the presence of the copper deposits and from the rough terrain. Vegetation in the area consists of juniper trees and grasses which cover the mesas. The Park area is 1933 acres and contains two small lakes

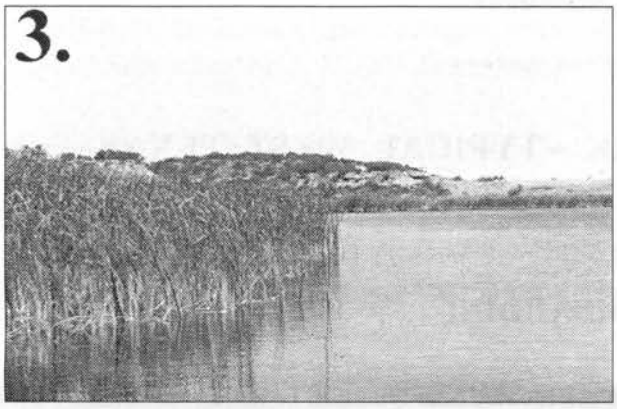


(Fig. 3) which are stocked with catfish, bass, and perch.

North of the Park and to the East of highway 6 are located 4 mounds that rise approximately 200 to 350 ft above the surrounding plains. These are religious and ceremonial sites that were used by the Comanches who inhabited the region. Also near the mounds are the remnants of a buffalo trail testifying to a different era when vast buffalo herds roomed this area.

An historical figure in this area, but not by choice, was Joe Earl who was killed by the Indians in 1870. He has the distinction to be the first man buried in the cemetery of the city of Quanah. While traveling in a covered wagon with two companions, Joe Earl was, momentarily and unfortunately, on foot and consequently cut off by the Comanche Indians who killed him and then scalped him. His companions made it to safety - *Joe was a great decoy*! Joe Earl was buried by his cowboy friends near where he was killed before the city of Quanah was actually settled. In time, other individuals were buried near Joe Earl and the cemetery was established.

A good friend and I camped in the Park this summer (July) and were quite fortunate that when we arrived on an early Friday afternoon it was only 102^0 F. We were lucky, as the day before on Thursday it was 112^0 F. Never did cool off at night!!!! (Not only is the West Texas area normally very hot this time of year, but this July has been the second hottest on record and to make matters worse, the area is experiencing a drought after a very wet Spring.) However, not too hot to stop the butterflies from being butterflies (Fig. H - See Color Insert A).



On Saturday, we decided to hike around one of the small lakes (referred to as the "Big Pond", Fig. I - See Color Insert A). Almost immediately, we managed to get off the trail and made our way around the pond where we finally rediscovered "the trail". The next problem was that we came to a fork in the road and, of course, we had left the Park map at the campsite. So as Yogi Berra said "If you come to a fork in the road, take it!" and we did. After about 30-40 minutes of walking and appearing to be heading in the wrong direction we backtracked to the fork and "took it", but this time the other branch. We were about 50 yards from the road. It was a long, very hot, walk!

In Mid-July not much was flying. However, 4 specimens of *Erinnyis obscura* (Fig. J - See Color Insert A) were attracted to our camp black lights (Fig. K - See Color Insert A). and while not an especially great "catch" for this area, they were appreciated.

Reference

1. J.B. Lombardini, Palo Duro Canyon - The Beauty of West Texas, Southern Lepidopterists' News 23: 6-7, 2001.

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Carl Linneaus equated plant sexuality with human sexuality and wrote in 1729 *"The flowers' leaves...serve as bridal beds which the Creator has so gloriously arranged, adorned with such noble bed curtains, and perfumed with so many soft scents that the bridegroom with his bride might there celebrate their nuptials with so much the greater solemnity..."*. However, one of his botanist contemporaries and severe critic, Johann Siegesbeck, was enraged and called the above prose "loathsome harlotry". Linneaus evidently got his revenge when he named a worthless (then considered) European weed *"Siegesbeckia"*.

Linneaus, in his early years, believed that species could not change and he wrote *"Unitas in omni specie ordinem ducit (The invariability of species is the condition for order [in nature]"*. However, Linneaus was extremely observant and noted that different species of plants could hybridize and as a consequence new forms were produced which appeared to be new species. Thus, he abandoned his youthful belief and put forth the theory that new species may have arisen after the Creation, but he is still not considered to be an evolutionist. Carl Linneaus died in 1778.

NOCTUIDAE OF TEXAS: SPECIES NEAR THE STIRIINAE

BY

ED KNUDSON AND CHARLES BORDELON

INTRODUCTION

Since the publication of Hodges et al., 1983, Check List of Lepidoptera North of Mexico, there have been many changes in the scientific nomenclature, above all in the Noctuidae. The partial classification proposed by Poole, 1995, MONA fasc. 25.1, included many changes, particularly in the Amphipyrinae. Many former tribes were given or restored to sub-family status, among them the Stiriinae which Poole revised and illustrated in this same work. Other genera and species, which had been placed close to the Stiriini (of Hodges, 1983), were placed in the higher classification scheme, but not illustrated. Others appear to remain unplaced as yet. Our purpose in this present work is to illustrate some of these moths for the benefit of those who are interested in the noctuids of Texas and the southwest. Few of the species shown here have been previously illustrated in color and most have not been illustrated in any modern works.

The classification of Lepidoptera remains unsettled and will, no doubt, experience many more changes and revisions. One other recent work, Heppner, 1998, presents a different classification for the noctuids. Up to now, classification of the Noctuidae and other Lepidoptera has depended almost entirely on structural characters, but it is likely that the comparative study of DNA will play a more important role in the future. We present here 30 species known form Texas with Poole's 1995 placement.

COLOR PLATE B

NOTE: The species shown in Figs. 1-20 and Fig. 30 are placed in the sub-family Psaphidinae; Figs 1-5 in the tribe Azeniini, Figs. 6-20 in the tribe Nocloini, and Fig. 30 in the tribe Triocnemidini by Poole. The remaining species figured were not placed, but most probably fit into Poole's concept of the sub-family Noctuinae. In Hodges, 1983, these mostly fall into the "Unassociated Genera". Most of these species are found in western Texas- southeastern Arizona in August and September.

Fig. 1: ***Azenia obtusa*** (H.-S.). Fairly common and widespread in Texas, except trans-Pecos area. This, and the next two species were formerly in the genus ***Stiriodes*** (Poole, 1995).

Fig. 2. ***Azenia perflava*** (Harv.). Common in the western half of Texas, especially in the hill country of south central TX.

Fig. 3: ***Azenia edentata*** Grt. Known in Texas only from Big Bend region; also in southeastern AZ.

Fig. 4: ***Azenia implora*** Grt. Quite common in trans-Pecos region of Texas. This species, like the others in the genus is variable in the expression of forewing pattern.

Fig. 5: ***Aleptinoides ochrea*** B&McD. This species seems to be rare in Texas. The illustrated specimen is from Alpine, Brewster Co., TX, in August.

Fig. 6: ***Lythrodes radiatus*** Sm. An uncommon species in Texas, mostly seen from the Davis or Guadalupe Mts. See comments below.

Fig. 7: ***Lythrodes venatus*** Sm. A species that is fairly common in southeastern AZ, occasionally found in the El Paso area of Texas. The identification of these species follows what is in most collections, but Smith's original descriptions appear to contradict this.

Fig 8: ***Lythrodes tripuncta*** B&McD. Fairly common in the higher elevations of the Davis Mts. of Texas. Worn individuals appear all white.

Fig. 9: ***Oslari pura*** (B&McD). Common in southeastern AZ; known in Texas from the specimen shown, which was found at the TX-NM border in Aug. 1999, and another, from the Davis Mts., Aug. 2000.

Fig. 10: ***Oslaria viridifera*** (Grt.). Fairly common in west, central, and south TX, also in AZ.

Fig. 11: ***Nocloa plagiata*** Sm. Fairly common in west Texas, especially in the Davis Mts.

Fig. 12: ***Nocloa nanata*** (Neum.). Locally common in the Davis Mts. of west Texas.

Fig. 13: ***Nocloa duplicata*** (Sm.). Occurs in sandy areas in the Texas panhandle. The specimen shown is from Cottle Co., TX., in Sept.

Fig. 14: ***Ruacodes tela*** (Sm.). Fairly common in western Texas.

Fig. 15: ***Paramiana smaragdina*** (Neum.). Fairly common in west Texas mountains.

Fig. 16: ***Paramiana marina*** (Sm.). Fairly common in west TX, both mountains and deserts.

Fig. 17: ***Paramiana callaisata*** Blanch. Appears to be restricted to Davis and Chisos Mts. of west TX.

Fig. 18: ***Paramiana perissa*** Nye. Occurs in most west Texas mountains, usually uncommon.

Fig. 19: ***Paramiana exculta*** Blanch. & Knuds. Known only form the Davis Mts., TX, where it is uncommon.

Fig. 20: ***Euamiana adusta*** Blanch. & Knuds. Known from 2 specimens from the Davis Mts., TX.

Fig. 21: ***Nacopa bistrigata*** (B&McD). In Texas, seen only from the Davis Mts., where it is uncommon.

Fig. 22: ***Nacopa melanderi*** B&Benj. Fairly widespread in trans-Pecos, TX, and may be common in some years.

Fig. 23: ***Acopa carina*** Harv. Found mainly in the central Texas hill country.

Fig. 24: ***Acopa perpallida*** Grt. This species occurs mainly in the Chihuahuan Desert of west TX - east AZ.

Fig. 25: ***Gloanna hecate*** Blanch. & Knuds. An uncommon species known, so far, from the Sierra Diablo and Franklin Mts. of Texas.

Fig. 26: ***Minofala instans*** Sm. This species has been collected along the southern Texas coast on a few occasions. The illustrated specimen is from Boca Chica NWR, collected in April 1999. The moths resemble several southwestern species of the genus ***Escaria***.

Fig. 27: ***"Stibadium" navium*** (Harv.). This species was excluded from the Stiriinae by Hogue, 1963, but he did not place it anywhere. Poole, 1989, retained it in the stiriine genus ***Plagiomimicus***; however, in Poole, 1995, there is no mention of this taxon. Until we can find out more about this, we are retaining it in ***Stibadium*** as it appeared in Hodges, 1983. The moth is moderately common in southwestern TX.

Fig. 28: ***Eviridemas minuta*** (B&McD). This petite species may be endemic to the central Texas hill country where it is infrequently collected. The specimen shown is from Concan, Uvalde Co., in Oct.

Fig. 29: ***Anycteola fotelloides*** (B&McD). This small, neatly marked moth is common in southwest Texas to southeastern Arizona. It is found in deserts and mountain foothills.

Fig. 30: ***Policocnemis ungulatus*** Benj. This species resembles several species of ***Oxycnemis*** which also are placed in the Triocnemidini by Poole. It is fairly common in the Chihuahuan Desert of west Texas.

COMMENTS

Several other species that fit in the above groups occur in Texas, including ***Redingtonia alba*** B&McD, which is a pure white, unmarked species, unsuitable for illustration in the above format; ***Achytonix praeacuta*** (Sm.), a montane species resembling several ***Oncocnemis spp***; ***Cosmia calami*** (Harv.), a well known continental species; and ***Zotheca tranquilla*** Grt., similar to the last, but we have no specimen suitable for illustration.

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(Ed Knudson, 8517 Burkhart, Houston, TX, 77055 and Charles Bordelon, 8440 Washington, Beaumont, TX, 77707)

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OCCURRENCE AND LIFE HISTORY NOTES FOR *EACLES IMPERIALIS IMPERIALIS (DRURY, 1773)* IN CENTRAL TEXAS

BY

JOSEPH F. DOYLE III

ABSTRACT - *Eacles imperialis imperialis*, a species of saturnid moth, occurs in the central part of Texas known as the Edwards Plateau. The yellow nominate and suffused form *didyma* are recorded with the latter being noted for the first time. All central Texas records known by the author are given. Host plant and life history are presented.

The status of *Eacles imperialis imperialis* in Texas (Drury, 1773) has been the subject of various opinions held by authors in recent publications. It was assigned subspecific status as *E. imperialis nobilis Neum.* In Ferguson, (1971). Lemaire (1988) also gave it the same rank with the reservation, in agreement with Ferguson, that all three forms, the nominate, *nobilis* and *didyma*, could be found in Texas populations. However, Tuskes, Tuttle and Collins (1996) have recently suggested that *nobilis* and *didyma* are forms that are present in many populations and lowered both to synonymy with *i. imperialis*.

They placed the range of *i. imperialis* at the edge of the Great Plains from Nebraska south to Kerrvile, Kerr Co, Texas which would include central Texas. Hatch, Gandhi and Brown (1990) describe central Texas as an area dominated by the Edwards Plateau and bounded on the east and south by the Balcones Escarpment and the Stockton Plateau on the west.

Recent findings by the writer provide another scenario. The form *nobilis* has not been observed in central Texas. Adults collected and reared by the author from Bexar Co. compare with nominate *imperialis* yellow form (see Color Insert C, Figs. A. , B., C. and D.). All records collected by others known to the writer are the yellow form with the exception of two examples of the form *didyma*. One of the *didyma* examples is shown here (see Color Insert C, Figs. E. and F.). Hoffman (1942) lists *i. imperialis* in Mexico from the states of Tamaulipas and Veracruz and *i. didyma* from the state of Sinaloa.

It is single brooded in central Texas with peak emergence in mid-August. East Texas records indicate some emergence from early May to early July indicating double broods in that area. The larval foodplant is *Quercus virginiana Mill.*, Fagaceae in Bexar Co. and central Texas as none of the other reported foodplants for *imperialis* are present. The writer has collected it in August and September. Location and dates follow.

Bexar Co., Texas:

13310 Bar C Dr. at black light, 24 August 1985, 1♂, 19 September 1987, 2♂, 21September 1989, 1♀, 28 August 1995, 1♂, 21 September 1997, 1♀ (J.F. Doyle coll.).

Collection records by others as follows --

Bastrop Co., Texas:

Bastrop State Park, 4 September 1961, 33 ♂, 25 August 1962, 5 ♂, *leg.* R.O. and C.A. Kendall. 24 April 1963, 1 ♂ or more, *leg.* Andre Blanchard (R.O. and C.A. Kendall coll.). The April record is interesting in that it is the only vernal record from central Texas. The park is in a relect pine forest separated about 100 miles from the main mass of east Texas loblolly pines.

Bexar Co., Texas:

13 September 1958, Witte Museum, 3801 Broadway, San Antonio, 1♂, *leg.* Charles J. Long. 3 September 1963, same loc., 1♂, *leg.* Joe Vella. 4 September 1963, same loc., 1♂, *leg.* Margarito Medellin. 29 August 1963, San Antonio Intl. Airport, 1♀, *leg.* Robert Braubach. 30 August 1973, 5598 Mt, McKinley Dr., San Antonio, 49 ♂, of which one is form *didyma*, this specimen is the above noted example, 26 October 1973, same loc., 2 last instar larvae on *Q. virginiana*, 18 and 20 October 1978, same loc., 3 larvae on *Q. virginiana* and 15 October 1980, same loc., last instar crawling to pupate (R.O. and C.A. Kendall coll. and records). 7 September 1995, 2007 Pinetree, San Antonio, 1♀, *leg.* Joshua Lavender (J.F. Doyle coll.). 15 August 1999, 3830 Flyn Y Dr., 1♀, *leg.* M. and R. Stramoski (J.F. Doyle coll.).

Caldwell Co., Texas:

3 September 1997, service station at I. H. 10 and U.S. 183, 1♂, *leg.* Bill Jones (Bill Jones coll.). This specimen is form *didyma.*

Colorado Co., Texas:

10 November, 1961, roadside park, 10 miles west of Columbus, one last instar larva feeding on *Q. virginiana*. Pupa died after pupating ca. 22 Nov. 1961. (R.O. and C.A. Kendall coll. record).


A.

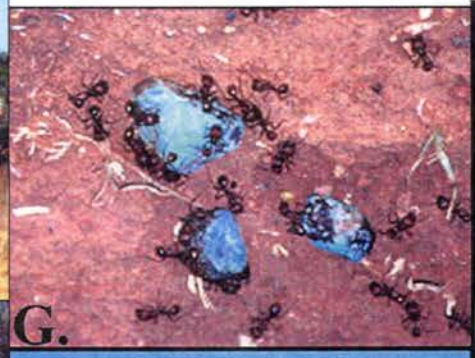

B.


C.


E.


D.


F.


G.


H.


I.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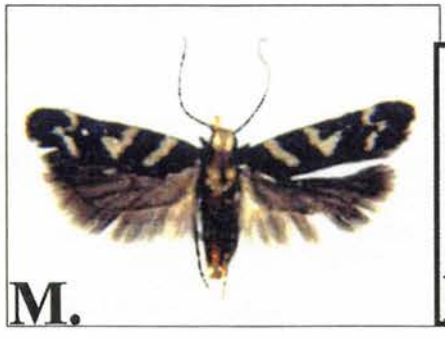
K.


L.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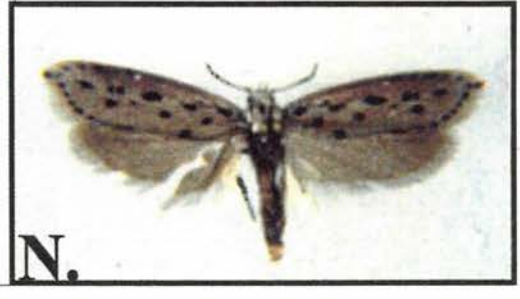
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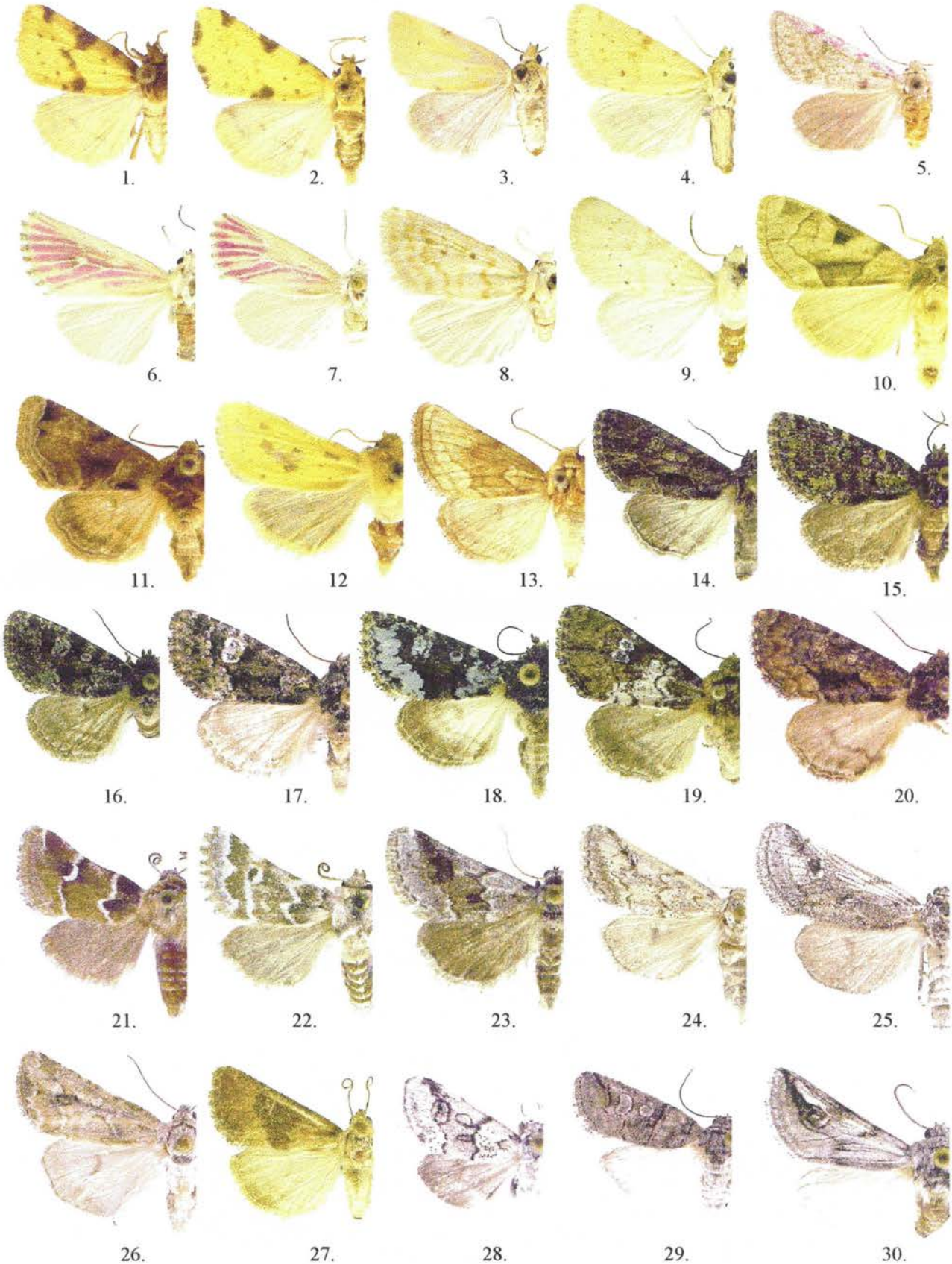
NOCTUIDAE OF TEXAS : SPECIES NEAR THE STIRIINAE **PLATE B**



1. 2. 3. 4. 5.
6. 7. 8. 9. 10.
11. 12 13. 14. 15.
16. 17. 18. 19. 20.
21. 22. 23. 24. 25.
26. 27. 28. 29. 30.

Fig. A: Male - Dorsal

Fig. B: Male - Ventral

Fig. C: Female - Dorsal

Fig. D: Female - Ventral

Fig. E: Male - Dorsal, form *didyma*

Fig. F: Male - Ventral, form *didyma*

Hays Co., Texas:

30 August 1971, Meadows Apts. San Marcos, sex unknown, collector unknown.

Kerr Co., Texas:

26 August 1901, 7 miles sw of Kerrville, sex unknown, *leg.* H.G. Lacey (Kendall, 1971).

Kinney Co., Texas:

15 September 1994, rest stop 4 miles east of Brackettville, 1♂, worn, (yellow form, pers. comm. J.K. Adams), *leg.* Eleaner Adams. (Lep. Soc.News 40:2, 1997 Season Summary). This record is a western range extension.

The following are lab notes for immature stages reared by the writer:

A female *E. i. imperialis* was collected on 11 September, 1996 in northwest San Antonio, Texas. It was given to me by Jo Anne Wells of the Witte Museum. Fifty ovo were oviposited from 11 to 14 September. First instar larvae began to appear by 23 September and were started on juvenile leaves of *Q. virginiana*. On 27 September five larva had entered second instar. Larvae began a third instar molt on 1 October. Larvae were moved to large plastic garbage containers with open tops in an outside environment. On 5 October fourth instar were noted. Fifth instar larvae were observed in a search mode on 31 October and green coloration was turning to reddish brown. They were put in plastic containers with 3 or 4 inches of perlite. Small rocks 2" by 3" were introduced on the surface to give larvae a hard surface against which to make the subterranean pupal chamber. By 18 November only a dozen larva had survived to enter pupal diapause. Disease and cannibalism were observed causes of death. Pupae were then kept inside the writers home. No water was sprinkled on pupae. As an experiment four larvae were placed with mature leaves of *Sapindus saponaria var. drummondii (Hook. & Arn.)* Sapindaceae on 28 September. Juvenile leaves are only produced in spring. Only small amounts of foodplant were consumed. On 19 October it was observed that all had starved to death. This exercise was initiated for two reasons. *Sapindus* is a known larval foodplant of *Eacles oslari* Rothschild, 1907 and *Sapindus* is present in central Texas and on the property of the writer's home (13310 Bar C Dr.) in western Bexar Co, Texas.

Emergence dates in 1997 of adults by sex and date were: Males, 20 August, 18 September; Females, 25 August, 1 September, 19 September, 22 September (one individual for each date). One female emerged in the following year, 19 August, 1998 (J.F. Doyle coll.). This extended emergence may indicate a survival strategy to cope with dry years in central Texas.

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HONORS TO MR. AND MRS. BRYANT MATHER

One of our Society members, Mr. Bryant Mather, was recently honored on September 25, 2001, by the U.S. Army Engineers. On this date a building named the Katharine and Bryant Mather Building was dedicated to Mr. Mather and his wife Katharine. The Katharine and Bryant Mather Building is located at the U.S. Army Engineer Research and Development center, Waterways Experiment Station, 3909 Halls Ferry Road, Vicksburg, Mississippi 39180-6199. Congratulations to Mr. Mather and his wife Lorraine from the Southern Lepidopterists' Society.

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DUES, DUES, DUES – PLEASE CHECK

Please pay your dues. A considerable number of the membership has not paid their 2001 dues. Please note on the right hand corner of the address label on issue #3 (2001) if the number is 2001 or greater. If not, then you are in arrears. Fifteen bucks ain't going to break you.

Also, while I am on a role. The Society has approximately 150 members. Lets try to increase the membership. Every member must know somebody who has at least a fleeting interest in Lepidoptera. Buy them a membership or encourage them to join. My Goal is to increase the membership to 200. (The Editor)

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

Its been a great summer for Underwing moths (*Catocala*), both in terms of numbers and diversity. Records listed below are from James Adams unless otherwise specified. Other contributors include: Bill Russell (BR), Irving Finkelstein (IF), Jim Taylor (JT), Robert Clements (RC), and Maria Capolino (MC). Most records presented here represent new or interesting records (range extensions, unusual dates, uncommon species, county records, etc.) or newly identified species, mostly for NW Georgia. Records are from Calhoun, Gordon Co., GA unless otherwise specified, so any record listed without locality data is from my back porch! "Dade" represents exit 169 off I-24 (the

Wildwood exit), Dade Co.; "Car." represents Carbondale, exit 326 (formerly 136) off I-75, Whitfield Co.; "Hur." is Hurricane Rd. (also Co. Rd. 202 or north end of Pinhoti Trail), Rocky Face ridgeline, atop Dug Gap Battle Mtn. Road, just S. of Dalton, Whitfield Co.; "Dal." is Dalton State College Campus, Dalton, Whitfield Co.; "Bar" is NE corner of Bartow Co., 5 miles SE of Fairmount, Salacoa Creek at Salacoa Rd.; "Atl" is Atlanta, Fulton Co. (either Irving Finkelstein's home or on the Georgia State University campus); "Alla" is Allatoona Dam area, Bartow Co.; "Gil." represents Gates Chapel Road, 8 miles WNW of Ellijay, Gilmer Co.; "Dah." represents Dahlonega, Lumpkin Co.; "Clay" represents Clayton, Rabun Co. Definite county/state records are indicated.

LYCAENIDAE: *Parhassius m-album*, 27 August 2001 (**COUNTY**). SATURNIIDAE: *Syssphinx (Sphingicampa) bisecta*, 11 June 2001 (Villanow, Walker Co.; IF); *Callosamia angulifera*, 4 August 2001 (Clarke Co.; MC); *C. securifera* (no date), Cairo, Grady Co. (**COUNTY**; RC). SPHINGIDAE: *Manduca jasminearum*, 22 July 2001 (Dah., **COUNTY**, IF); *Paonias astylus*, Sonoraville, Gordon Co., 28 August 2001. ARCTIIDAE: *Grammia virgo*, 22 July 2001(Dah., **COUNTY**, IF). NOTODONTIDAE: *Gluphisia septentrionis*, 30 August 2001 (Dal., COUNTY); LYMANTRIIDAE: *Dasychira atrivenosa*, 17 June 2001 (Bar.; COUNTY). NOCTUIDAE: *Idia denticulalis*, 12 June 2001; *Polypogon (Zanclognatha) martha*, several, mid May, and also 29 May 2001 (Atl.; IF); *Ablemma brimleyana*, 20 August 2001 (**COUNTY**); *Lomanaltes eductalis*, 17 June 2001 (Bar., **COUNTY**); *Drasteria grandirena*, 10 June 2001; *Zale phaeocapna*, 19 July 2001 (**COUNTY** [Gordon]), also 5 August 2001 (Dade; **COUNTY**); *Z. metata*, 20 August 2001 (Hur.); *Catocala innubens*, 5 August 2001 (Dade; **COUNTY**), also 27 July 2001 (Dah., IF); *C. retecta*, 19 Sept. 2001 (Car., **COUNTY**); *C. sappho*, 5 August 2001 (Dade; **COUNTY**); *C. epione*, 31 July 2001 (**Late**?, Dah., IF); *C. subnata*, 20 August 2001 (Hur., **COUNTY**); *C. serena*, 16 July 2001 (Dah., **COUNTY**, IF; see Clayton below) *C. clintoni*, 13 June 2001; *C. connubialis*, 13 June 2001; *C. similis*, 13 June 2001; *C. orba*, 15 and 23 June 2001 (**COUNTY**); *Tripudia quadrifera*, 20 August 2001; *Homophoberia apicosa*, 10 & 22 August 2001 (Bar.), also 28 August 2001 (my back porch); *Argillophora furcilla*, 22 August 2001 (Bar.); *Apamea nigrior*, 8 June 2001 (**COUNTY**); *ALuperina@ trigona*, 8 Sept. 2001 (Bar., in cane, **STATE**); *Papaipema polymniae*, 8-9 Sept. 2001 (Bar.); *Bellura obliqua*, 27 July 2001 (Dah., **COUNTY**, IF); *Euplexia benesimilis*, 20 June 2001 (Atl; **COUNTY**; IF); *Basilodes pepita*, 22 August and 8-9 Sept. 2001 (Bar.), also late August 2001 in Fannin Co. (**COUNTY**; BR); *Stiria rugifrons*, 27 August and 5 Sept. (Hur.); *Properigea costa*, 27 August 2001 (Hur.); *Perigea xanthoides* (many), 22 August - 9 Sept. 2001 (Bar.); *Trichordestra legitima*, 4 Sept. 2001 (Car.); *Richia (Loxagrotis) grotei*, 17 Sept. 2001 (Hur., **STATE**); *Trichosilia geniculata*, 17 Sept. 2001 (Hur.); *Schinia thoreaui*, 31 July 2001 (Dah., IF). NOTODONTIDAE: *Hyparpax aurora*, 16 August 2001 (Car.). GEOMETRIDAE: *Macaria (Semiothisa) bicolorata*, 16 June 2001; *Euchlaena madusaria*, 5 & 17 Sept. 2001 (Hur.); *E. serrata*, 9 June 2001 (Gil.; IF); *Metarranthis angularia*, 16 June 2001; Caripeta aretaria, 5 & 17 Sept. 2001 (Hur.); *Nepytia* sp. (grey, undescribed), common early-mid June, 2001; *Nemoria bistriaria*, common, early-mid June, 2001; *Idaea dimidiata*, common, mid-June, 2001 (STATE?); *I. obfusaria*, common mid-June, 2001; *Coryphista meadi*, 29 May 2001 (Atl.; **COUNTY**; IF), also 8 August 2001; *Xanthorhoe lacustrata*, 17 June 2001 (Bar.; **COUNTY**). LIMACODIDAE: *Phobetron pithecium*, 9 July 2001; *Euclea nanina*, 9 July 2001 (**COUNTY**). EPIPYROPIDAE: *Fulgoraecia exigua*, 12 August 2001 (Atl; **COUNTY**; IF). COSSIDAE: *Cossula magnifica*, 12 June 2001, Savannah (JT, **COUNTY**). PYRALIDAE: *Palpita quadristigmalis*, 29 May 2001 (Atl.; IF); *Diaphania hyalinata*, 11 August 2001 (Gil., IF); *Omphalocera munroei*, 21 June (Atl.; **COUNTY**; IF); *Salebriaria engeli*, Savannah, Chatham Co., April 21, 1999 (JT); *Dioryctria amatella*, 15 August 2001 (Atl; IF). TORTRICIDAE: *Melissopus latiferreanus*, Savannah, Chatham Co., Sept. 26 1995 (JT).

James Adams and Bill Russell had a very productive night trip to Dillard and the north slope of Rabun Bald in Rabun Co., June 21-22, 2001. Listed below are some of the notable species, including five new state records!

Dillard: NOCTUIDAE: *Catocala dejecta, C. ultronia, C. similis, C. pretiosa* (**COUNTY**), *C. connubialis*, *Achatodes zeae* (**COUNTY**), *Iodopepla u-album* (**COUNTY**), *Pyrrhia exprimens*. GEOMETRIDAE: *Metarranthis amyrrisaria*.

Rabun Bald area: ARCTIIDAE: *Cisthene plumbea, Haploa lecontei* (yellowish form), *Hypercompe scribonia.* NOTODONTIDAE: *Hyperaeschra georgica, Symmerista* species. NOCTUIDAE: *Idia laurenti, Bomolocha edictalis, B. madefactalis, Zale undularis, Chrysanympha formosa, Acronicta innotata, A. morula* (**COUNTY**), *A. funeralis, Leuconycta lepidula* (**COUNTY**), *Malliatha synochytis, Meganola spodia, Balsa labelcula, Callopistria mollisima, Euplexia benesimilis, Oligia* sp. (near *semicana* [3]; **STATE**), *Homorthodes furfurata, Eueretagrotis sigmoides, Pyrrhia exprimens.* GEOMETRIDAE: *Macaria (Itame) subcessaria* (**STATE**), *Macaria (Semiothisa)* species (3; **STATE**), *M. fissinotata, M. bisignata, Sicya macularia* (several!; apparently resident in GA), *Metarranthis amyrisaria, M. angularia, M. homuraria, Besma endropiaria, Venusia comptaria, V. cambrica* (**STATE**), *Hydrelia inornata.* LIMACODIDAE (10 species): *Tortricidia testacea, T. flexuosa, Apoda biguttata, A.y-inversum, Packardia geminata, P. elegans* (3; **STATE**), *Isa textula, Lithacodes fasciola, Prolimacodes badia, Euclea delphinii.*

A short stop at the Taco Bell in Clayton, Rabun Co. on July 16 (by James Adams) and July 17 (by IF) yielded:

NOCTUIDAE: *Polypogon (*formerly *Zanclognatha) protumnusalis, Catocala lacrymosa, C. retecta, C. residua, C. serena* (**STATE**?), *Actonicta noctivaga.* (*Catocala vidua* also seen here Sept. 16).

Bill Russell and Irving Finkelstein went "Catocaling" (Bill's word) on Atlanta's Georgia State University campus, Fulton Co., July 21, 2001, and recorded the following:

NOCTUIDAE: *Bomolocha bijugalis, B. baltimoralis, Catocala innubens, C. lacrymosa, C. dejecta, C. neogama, C. paleogama, C. piatrix, C. maestosa, C. residua, Zale minerea, Oligia modica, Amphipura pryamidoides, Spodoptera ornithogalli*

A quick visit to Ellijay, Gilmer Co., on August 11, 2001 by IF yielded:

NOCTUIDAE: *Catocala dejecta, C. retecta, Raphia abrupta, Phosphila turbulenta.*

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

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

Pontia protodice, male taken 2 miles south of Bolton, Hinds county, on 3 July 2001, at least in central Mississippi. This used to be a fairly common butterfly, but has recently been uncommonly seen.

Euphyes dukesi, 3 specimens taken at a known locality 6 miles west of Holcomb, Grenada county, on September 2. Due to habitat changes, it is not as common here as it was a few years ago.

At Grand Gulf, Claiborne county on 1 August 2001, several specimens of *Enodia portlandia missarkae* were taken, along with a single female *Enodia creola.* On September 7 a female *Staphylus hayhurstii* and several *Basilarchia archippus watsoni* specimens were collected there.

Phyciodes phaon jalapeno was collected at Vicksburg on 15 June 2001. Dr James Scott has reviewed a series of specimens from central Mississppi and determined they are this subspecies.

On 2 July 2001, at a location 2.2 miles west of Magna Vista, Rick Patterson collected several specimens of *Catacola atacola.* The following weekend, Jeff Slotten and Drew Hildebrandt went to the same locality, and collected a number of females. They also collected/observed some other species, such as *C. cara carissima* and *C. nebulosa.*

Erynnis funeralis, seen at Vicksburg, Warren county, Mississippi on August 5, 2001. This is the most northern record Rick Patterson has for this species in the state.

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

The following moth records were submitted by James K. Adams from the Highlands area in Macon County (numbers not given).

HEPIALIDAE: *Stenopis auratus*, 6/22. **LIMACODIDAE:** *Packardia elegans*, 6/22. **THYRIDIDAE:** *Dysodia oculatana*, 7/15. **GEOMETRIDAE:** *Orthofidonia tinctaria*, 5/25. *Lytrosis sinuosa*, 6/22. *Euchlaena serrata*, 7/15. *Metarranthis amyrisaria*, 5/25. *Cepphis armataria*, 6/22, 7/15. *Plagodis serinaria*, 5/25. *Caripeta divisata*, 7/15. *Caripeta angustiorata*, 7/15. *Scopula ordinata*, 6/22. **SPHINGIDAE:** *Paonias astylus*, 5/25. **ARCTIIDAE**: *Spilosoma latipennis*, 5/25. **NOCTUIDAE:** *Idia concisa*, 6/22. *Dyspyralis illocata*, 6/22, 7/15. *Dyspyralis puncticosta*, 7/15. *Dyspyralis nigella*, 7/15. *Parahypenodes quadralis*, 7/15. *Lomanaltes eductalis*, 7/15. *Catocala serena*, 7/15. *Catocala insolabilis*, 7/15 (New State Record). *Diachrysia aeroides*, 6/22. *Eosphoropteryx thyatyroides*, 7/15. *Autographa ampla*, 6/22. *Syngrapha rectangula*, 6/22, 7/15. *Lithacodia bellicula*, 6/22. *Leuconycta lepidula*, 6/22. *Acronicta superans*, 6/22, 7/15. *Acronicta fragilis*, 7/15. *Apamea amputatrix*, 6/22. *Apamea sordens*, 5/25. *Oligia fractilinea*, 5/25. *Oligia crytora*, 6/22. *Oligia* n. sp. nr. *semicana*, 6/22. *Hyppa xylinoides*, 5/25. *Morrisonia* n. sp., 5/25. *Tricholita signata*, 7/15. *Euxoa scholastica*, 6/22. *Noctua pronuba*, 6/22. *Aplectoides condita*, 5/25. *Abagrotis anchocelioides*, 7/15.

The following selected moth records were submitted by Steve Hall and Bo Sullivan from Fort Bragg (Hoke, Cumberland, and Harnett Counties). All specimens were collected using 15 watt UV traps unless otherwise stated. Moth sampling was very poor on 8/21-22, despite good weather and moon conditions. A similar dearth in butterfly numbers was noted during the summer (see report by Harry LeGrand below).

GEOMETRIDAE: *Scopula purata*, 5/30, 3 trapped, 2 observed on leaves (bird-dropping mimic). **LASIOCAMPIDAE:** *Tolype minta*, 5/30, 4 (associated with pond cypress). **NOTODONTIDAE:** *Schizura apicalis*, 6/20, 1 (one of less than 10 specimens known from NC). Notodontidae, New Genus 1, 8/21, 4 fresh specimens collected at three different sites, all in bottomlands, the habitat where almost all NC specimens have been taken. **ARCTIIDAE:** *Grammia placentia*, 5/30, 1; 7/10, 1; 8/21, 4. *Pygarctia abdominalis*, 5/29, 1. **LYMANTRIIDAE:** *Dasychira atrivenosa*, 5/29, 5 specimens taken in bottomland habitats, where most NC specimens have been taken. **NOCTUIDAE:** *Catocala jair*, 6/20, 1. *Apamea inebriata*, 6/20, 1**(STATE)**, apparently the first collected south of New Jersey as well as the first collected more than 50 miles inland from the coast. *Acrapex relicta*, 5/29-30, 4; 6/19-20, 7. *Agrotis* n. sp. 1 nr. *buchholzi*, 6/20, 1. *Schinia jaguarina*, 6/20, 1.

The following butterfly records for June - August 2001 were submitted by Harry LeGrand. Place names refer to counties unless otherwise stated, and records are not new county reports unless indicated. RE = Randy Emmitt, RG = Ron Gatrelle, HL = Harry LeGrand, JP = Jeff Pippen.

The summer was a very dismal one in the Piedmont, especially for overall numbers. The first broods of Hesperiidae were markedly down in numbers from previous years. The second broods of most species, including Pieridae, Papilionidae, and other families, were also in fewer numbers than most people had ever seen. Causes for the declines are not obvious, as close to normal rainfall and temperatures were present. As 2000 was a banner summer and fall for butterfly numbers, some discussion about a surplus of predators was suggested as a possible factor.

PIERIDAE:

Nathalis iole, only the second or third report ever for the state was one noted by RG in Clay **(COUNTY)** on July 31.

LYCAENIDAE:

Feniseca tarquinius, this species continued to be found in much better than usual numbers, following a very good spring season. Reports were made in the June 2-12 period in Burke, Caswell, Durham, Mecklenburg, and Rowan, though the peak count was just two individuals. In July, reports were made in Caldwell and Forsyth.

Satyrium calanus, RG had an excellent state count of approximately 225 individuals on June 29 in Clay.

Satyrium caryaevorum, RG is confident that he found this species in Macon on July 6. Chris Wilson photographed several in his yard near Boone in Watauga during July. His yard contains much mockernut hickory (*Carya ovata*). These latter individuals probably need further corroboration, as photos can be inconclusive, considering the variation in *S. calanus*, and RG thinks another cryptic but as yet undescribed species might be present in the southern Appalachians. (A large series of photos taken mostly in the mountains of Virginia by RE seem to indicate there may be such another species, if just one other, of *Satyrium* in our mountain region.) Needless to say, there is much confusion about this group, and published photos in field guides and reference books have misidentified these two species. Dissection of genitalia might be the only way to sort out this confusion.

Satyrium kingi, HL found a colony of at least seven individuals on Kings Pinnacle (any coincidence?) in Crowders Mountain State Park in Gaston **(COUNTY)** on June 15. A stand of horse sugar (*Symplocos tinctoria*) is present on the monadnock, as is a good nectar source in sourwood (*Oxydendrum arboreum*). This is a first record for the state's Piedmont, filling a gap between the Sandhills region and an old record from the southern mountains. Quite late were reports of the species from Moore on July 18 by Scott Hartley and in Craven on July 28 by JP. Several were found in Scotland **(COUNTY)** on June 10 by HL.

Fixsenia favonius ontario, HL observed one nectaring on New Jersey tea (*Ceanothus americanus*) at a Nature Conservancy preserve in Hoke **(COUNTY)** on June 10.

Callophrys niphon, one seen in Lincoln **(COUNTY)** was quite late on June 10 (Don Seriff).

NYMPHALIDAE:

Phyciodes batesii maconensis, the species was reported on June 10 in Clay by John Dole and on June 12 by Jason Love. This taxon is a Federal Species of Concern and appears to be limited now to a handful of counties in extreme southwestern North Carolina and adjacent Georgia.

Vanessa cardui, this migrant was noticeably common over much of the state this summer, as in some summers nary a report is made. The best count was 200 seen in Washington and Tyrrell on June 17 by HL and JP.

Vanessa atalanta, numbers continued much higher than normal into the summer, highlighted by a remarkable count of 95 at Mount Mitchell in Yancey on July 14 by JP.

Danaus plexippus, the species was noticeably scarce from spring into June, but numbers rebounded well, such that good numbers were observed on many or most Piedmont Fourth of July counts in late July and August, highlighted by 180 on the Durham count on August 12.

HESPERIIDAE:

Autochton cellus, the only report for the year was one seen by Jason Love in Macon on June 12.

Staphylus hayhurstii, Buddy Garrett observed one in his yard in Onslow **(COUNTY)** on July 4; there are few recent records for many coastal counties.

Erynnis martialis, a female in medium wear was photographed by RE in Caswell on June 2, for the only report of the season.

Atyrtone arogos arogos, HL and party had an excellent state count of 11, mostly fresh males, in Carteret on August 19. This is still the only currently known site in the state, despite much searching in savannas and powerline cuts in recent years. On 6/16, Marc Minno, Steve Hall, Bo Sullivan, and Jenna Hestir found three early instar larvae in shelters on pinebarrens reedgrass (*Calamovilfa brevipilis*), confirming the previously suspected use of this grass as a host plant in North Carolina. The preceding week, Marc and Dale Schweitzer had found larvae on the same plant in the New Jersey Pine Barrens.

Problema byssus, HL observed one in Cleveland **(COUNTY)** on June 14 at Crowders Mountain State Park, for a first record for the state's Piedmont. As the species is found sporadically in the South Carolina Piedmont, the site is not completely unexpected, as it is barely 2 miles north of the state line. Another first-brood report (one of just a few reported for the state prior to the main brood in August-September) came from John Dole, who saw one at a known site in New Hanover on June 20.

Euphyes pilatka, HL and Scott Hartley carefully observed two fresh individuals along a canal in Washington **(COUNTY)** on June 17. No saw grass (*Cladium jamaicense*) appears to be anywhere near this site, and suitable tidal marsh habitat is a few miles away. Yet, one was seen along a nearby canal several years ago. Is an alternate hostplant being used, or are they simply moving several miles to nectar?

Amblyscirtes carolina, an excellent count of 60 individuals was made at various sites in Croatan National Forest in Carteret and Craven on August 19, as tallied by HL, RE, and others. In comparison, only one *A. reversa* was seen for the day. Several dozen *A. aesculapius* were also seen in the Croatan on this date.

South Carolina: Ron Gatrelle, 126 Wells Rd., Goose Creek, SC 29445, E-Mail: gatrelle@tils-ttr.org

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

Rick Paterson resports: *Catacola sappho*, *C. epione*, and *C. flebelis* were collected near Douglas Lake Dam, 8 miles east of Sevierville, Sevier county, Tennessee on 18 July 2001.

John reports that he captured *Lethe creola* in his backyard bait trap in Sullivan Co., TN, on Sept 1, 2001. This is the first time that he has observed *L. creola* in about 15 years.

Texas: Ed Knudson, 8517 Burkhart Road, Houston, TX 77055, E-Mail: eknudson0@earthlink.net

Jasper Co., Martin Dies State Park, July 9, 2001: Sesiidae recovered from two pheromone traps, which were set out in April. Lure: 3,13, EZ-ODDOH (tabaniformis): *Sannina uroceriformis*, *Synanthedon kathyae, Carmenta odda, Paranthrene simulans*, (Bordelon & Knudson).

Cameron Co., Audubon Palm Grove Sanctuary, Aug. 4, 10: Sesiidae recovered in pheromone trap set out May 2001: *Tirista praxila* (3) (1:1 of 3,13, ZZ-ODDA - 2,13, EZ-ODDA). Butterflies: *Apodemia walkeri* (1) by Bordelon, Aug. 4; *Hypolimnas misippus* (1 male) by Bordelon Aug. 10. *H. misippus* is a new state record for Texas. It was collected visiting flowers of *Pithecellobium ebano* (Texas Ebony) after having been sighted twice several hours previously. This was an unbelievable and totally unexpected catch. The prior records closest to Texas are from southern Mississippi and Costa Rica. An illustration of this specimen will appear in next springs' Lepidopterists' News. Moth - *Thysania zenobia* - in bait trap, Aug 10, (Bordelon & Knudson).

Cameron Co., Sta. Maria NWR Aug. 6: Sesiid recovered in Pheromone Trap - 3,13-ZZ-ODDA (May 2001), *Osminia sp.* (1) - NOTE: This is the 5th example collected in TX of this tiny, unbanded species, probably undescribed. It is half the size of *O. ruficornis.*

Hidalgo Co., Bentsen State Park, Aug. 8: Moth: Thysania zenobia - in bait trap, (Bordelon & Knudson).

Live Oak Co., Choke Canyon State Park. Aug. 11: Sesiidae recovered in pheromone traps (set May 2001), 2,13-EZ-ODDOH - *Cissuvora ampelopsis* (2). These are the first known captures to pheromones of this species. 1:1 of 3,13-ZZ-ODDA - 2,13-EZ-ODDA - *Paranthrene dollii* (2), (Bordelon & Knudson).

NOTE: Conditions in the Lower Rio Grande Valley during our Aug 4-11 visit were abysmal, except for that mentioned above. There has been some rain since, which may improve things.

Local Records:

Harris Co., Spring Valley, Sept. 1-5: Butterflies: *Heliconius charitonius* reported from this area recently. It apparently is now well established in Brazoria & Ft. Bend Co's to the south. *Dryas iulia* - seen ovipositing on *Passiflora foetida* - Sept. 4 (Bordelon); *Urbanus proteus* - Several, nectaring on *Wistiria perennifolia*, (Bordelon & Knudson).

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

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