Southern Lepidopterists' Society

and

ASSOCIATION FOR TROPICAL LEPIDOPTERA

2012 Annual Meeting

McGuire Center for Lepidoptera and Biodiversity

Florida Museum of Natural History

University of Florida
28 – 30 September 2012

Front Cover: *Pierella helvina incanescens,* Honduras: Atlantida: Parque Nacional Pico Bonito, vic. Estación CURLA, 11 August 2010, J. Y. Miller & D. Matthews.

FALL MEETING OF THE SOUTHERN LEPIDOPTERISTS' SOCIETY AND THE ASSOCIATION FOR TROPICAL LEPIDOPTERA SEPTEMBER 28-30, 2012

McGuire Center for Lepidoptera and Biodiversity Conference Room, Florida Museum of Natural History

University of Florida, Gainesville, Florida

Local Arrangements

Meeting Co-Chairs: Jacqueline Y. Miller and Nancy C. Turner

Meeting Organizing Committee:
Charles V. Covell, Jr., Christine Eliazar, Peter Eliazar, Thomas C. Emmel, Lary Reeves, Deborah L. Matthews, Jacqueline Y. Miller, Marc Minno, Tom Neal, Jeff Slotten, J. D. Turner, Nancy C. Turner

Banquet/Lunch:
Tom Neal, Jacqueline Y. Miller, Nancy C. Turner

Field Trip Coordinators:
Charles V. Covell, Jr., Marc Minno, Lary Reeves, Jeff Slotten

Group Photograph & ATL Photo Contest:
Andrei Sourakov

Collection Access:
Andrew D. Warren & Andrei Sourakov

Program:
Christine Eliazar, Jacqueline Y. Miller, Nancy C. Turner

Program Technical Support:
James B. Schlachta, J. Court Whelan

Door Prizes & Evening Program Coordinator :
Charles V. Covell, Jr., Jacqueline Y. Miller

Registration/Meeting Support:
Elena Ortiz, Katie Lane, Cassandra Romero

Security:
Kurt Auffenburg

and

ASSOCIATION FOR TROPICAL LEPIDOPTERA

Schedule of Events

Friday, September 28

1:00-5:00 p.m.: **Registration,** Lobby, Powell Hall, Florida Museum of Natural History, UF Cultural Plaza, University of Florida.

Field trip participants must sign a release form.

8:00a.m -4:30 p.m.: **Day field trip**. Participants will meet the field trip coordinator in the Florida Department of Agriculture and Consumer Services Doyle Conner Building (1911 SW 34th St., Gainesville) parking lot (north side). We plan to leave the parking lot by 8:30 am and will head back to Gainesville around 3:00 pm. Contact Marc Minno (mminno@bellsouth.net; 352-219-1009 cell) or Lary Reeves (lereeves@ufl.edu, 352-514-2794) for updates on meeting time and transportation. A variety of habitats, including flatwoods, maritime hammocks, swamps, and salt marshes is available to explore. Please be prepared to carpool or provide your own transportation, food, beverages, special equipment, and insect repellant as needed.

6:00p.m.: **Night Collecting**, Charlie Covell along with Jeff Slotten and Lary Reeves will be leading the evening moth trip. Charlie has made arrangements with the rangers at Paynes Prairie. Members attending should be prepared to pick up something fairly quick to eat (neither dinner nor drinks will be provided) and drive out to Paynes Prairie Preserve State Park located 10 miles south of Gainesville, in Micanopy, on the east side of US 441. Please contact Charlie for further updates and instructions ((352) 273 2023; ccovell@flmnh.ufl.edu) on where to park and meet for collecting. Please bring along special equipment and insect repellent as needed.

Saturday, September 29

Please follow the signs and enter the McGuire Center through the north staircase. There is a special event at the Florida Museum of Natural History, Powell Hall on Saturday, September 29.

8:00-9:00 a.m.: **Registration** and reception, poster viewing, McGuire Center Conference Room

MORNING SESSION

Moderator: Peter Eliazar

9:00 – 9:10: **Opening remarks**: Thomas C. Emmel, Deborah L. Matthews, & J. D. Turner.

Southern Lepidopterists Symposium:

9:10 – 9:40: **James E. Hayden**
"Microlepidoptera on Solanaceae: An Online Resource"

9:40 – 10:00: **John V. Calhoun**
"John Abbot's Butterflies: Science and Commerce in Early Georgia"

10:00 – 10:20: **Robert Patterson**

"Recent Developments at Moth Photographers Group"

10:20 – 10:40: BREAK

10:40 – 11:10: **James K. Adams**
"The Very Latest Lep Updates from Georgia and Kansas"

11:10 – 11:30: **Peter A. Van Zandt, John-Paul Tortorich, Aisha Bonds, Grant Gentry, Richard Brown**
"A Comparison of the Moth Communities of Forested, Glade, and Urban Habitats in Bibb and Jefferson Counties, Alabama"

11:30 – 12:00: **Andrew D. Warren**
"Collections and Collecting: We Are Running Out of Time!"

12:00 – 12:15: **Group Photo**, McGuire Center outside steps

12:15 – 1:30: **Lunch** at McGuire Center (courtesy of the Neal family Subway).

AFTERNOON SESSION

Moderator: J.D. Turner

ATL Symposium:

1:30 – 1:50: **Deborah L. Matthews, Jacqueline Y. Miller, Terry A. Lott, Roger W. Portell, James K. Toomey**
"Inventory of the Lepidopteran Fauna of the Guantanamo Bay Naval Base, Cuba"

1:50 – 2:10: **Francesca V. Ponce, Akito Y. Kawahara**
"Preliminary Molecular Phylogeny of *Eumorpha* Hawkmoths"

2:10 – 2:30: **David M. Plotkin**
"Analysis of Morphology of Neotropical Geometrinae (Lepidoptera: Geometridae) using Exo- and Endoskeletal Characters"

2:30 – 2:50: BREAK

2:50 - 3:10: **Peter R. Houlihan**
"Impacts of Forest Gaps on Butterfly Diversity in a Bornean Peat-Swamp Forest"

3:10 - 3:30: **Cassandra Romero, Ian Kitching, Jesse Barber, Akito Y. Kawahara**
"Hawkmoth Tibial Spur Variation and Evolution (Lepidoptera: Sphingidae)"

3:30 – 3:50: **P. Sebastián Padrón**
"Molecular Phylogeny and Biogeography of a Highly Diverse Genus of Andean Butterflies (Preliminary Results)"

3:50 – 4:10: **Maria F. Checa**
"Bait-Attracted Butterflies from Ecuador and Their Implications for Butterfly Conservation"

4:10 – 4:30: **Announcements** by Thomas C. Emmel & short break

4:30 – 5:00: **Business Meeting**, Southern Lepidopterists' Society

5:00 – 6:00: Free time on your own before banquet.

EVENING EVENTS

6:00 p.m. **Banquet**, Powell Hall Classroom, Florida Museum of Natural History. Dinner entertainment: natural history films by Expedition Travel.

7:00 p.m. **ATL Photo Contest Awards**, Andrei Sourakov.
Door Prizes, Charles V. Covell, Jr.. "**Tricks of the Trade**",Jacqueline Y. Miller, moderator. Bring images or examples to demonstrate or describe your favorite collecting, dissecting, specimen prep or other techniques to share with the group.

Sunday, September 30

8:30-9:00: **Morning reception**, McGuire Center Conference Room

MORNING SESSION

Moderator: Andrew D. Warren

SLS/ATL Combined Symposium:

9:00 – 9:20: **Charles V. Covell, Jr.**
"Highlights of the 2012 Lepidopterists' Society meeting in Denver, CO, July 24-29, 2012"

9:20 – 9:40: **Andrei Sourakov**
"Niche Partitioning and Life Histories of Moths Feeding on Coral Beans in Florida"

9:40 – 9:50: BREAK

9:50 – 10:20: **Marc C. Minno**
"Critically Low Populations of the Schaus' Swallowtail (*Heraclides aristodemus ponceanus*, Papilionidae) and Bartram's Scrub-Hairstreak (*Strymon acis bartrami*, Lycaenidae) in the Florida Keys."

10:20 – 10:40: **Brian G. Sholtens**
"Range Changes of Butterflies in South Carolina and Michigan"

10:40 – 10:50: BREAK

10:50 – 11:50: **Jeffrey R. Slotten**
"Life History Notes on *Lintneria* (formerly *Sphinx*) *eremitoides* (Strecker, 1874)"

11:50 – 12:00: BREAK

12:00 – 12:30: **Business Meeting**, Association for Tropical Lepidoptera

12:30: Conclusion of Morning Session

Posters

Please take time to peruse posters on display in the halls outside the McGuire Center conference room. Meeting posters are on panels just outside the conference room (see abstracts).

Abstracts

Adams, James K., Department of Natural Science, Dalton State College, Dalton, GA 30720 (jadams@daltonstate.edu).

"The Very Latest Lep Updates from Georgia and Kansas"

ABSTRACT: As we investigate different areas in Georgia and sample at different times of the year, our knowledge of the lep fauna becomes more complete. Inventories have been completed for some locations over the course of several years and we are now beginning to be able to see some trends in the abundance of some species as well. Kansas is a remarkably rich state from a lepidopterological standpoint. It stands at the "crossroads" between east and west, north and south. Contrary to popular belief, it is NOT completely flat! Although I have not been involved as long in seriously surveying Kansas as I have in Georgia, there are many more people involved in the survey which has given us ample sampling from most parts of the state. Come and see some of the coolest and unusual lep species that have been recently encountered in the states of Georgia and Kansas.

Calhoun, John, 977 Wicks Drive, Palm Harbor, FL 34684 (bretcal1@verizon.net).

"John Abbott's Butterflies: Science and Commerce in Early Georgia"

ABSTRACT: During his long residency in Georgia, the English naturalist-artist John Abbot (1851-ca.1840) produced thousands of watercolor drawings of natural history subjects, including butterflies. Through his drawings and accompanying manuscripts, Abbot painstakingly documented the early stages and food plants of many species, which remains a valuable source of scientific information. Abbot also gathered thousands of specimens, many of which are still preserved in institutional collections. These activities provided a livelihood for himself and his family. To produce multiple illustrations for sale, he often duplicated compositions and shared individual figures between drawings. In the process, he sometimes portrayed erroneous figures of early stages and food plants, presumably for aesthetic purposes. In the interest of business, Abbot often employed such "artistic license."

Checa, María F., McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, University of Florida, Gainesville, FL 32611-2710 (mcheca@ufl.edu).

"Ecological Aspects of Bait-Attracted Butterflies from Ecuador and Their Implications for Butterfly Conservation"

ABSTRACT: Climate is one of the most influential factors controlling seasonal changes in abundance of tropical insects. However, our knowledge about climate effects on butterfly communities or species inhabiting forests with varying seasonality is limited. A 12-month survey of bait-attracted butterflies was carried out in both a dry forest from the Chocó Bioregion and a rain forest in the Amazonia. A total of 1867 individuals and 89 species were collected in the dry forest, while 9236 and 208 species were registered in the rain forest. Butterfly communities from both habitats showed a conspicuous fluctuation in abundance and species richness throughout the year; although, linear regression models showed climate differentially affects butterfly communities from dry and rain

forests. Moreover, these models also showed range-restricted butterfly species are significantly more affected by variability in climate and habitat compared to widespread species. Hence, these results suggest climate change is likely to cause more conspicuous effects on range-restricted butterflies.

Covell, Charles V., Jr., McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, University of Florida, Gainesville, FL, 32611-2710
(ccovell@flmnh.ufl.edu).

"Highlights of the 2012 Lepidopterists' Society meeting in Denver, CO, July 24-29, 2012"

ABSTRACT: A report with images is presented, including Executive Council meeting, reception, Butterfly Pavilion visit, people, collection visits, student participation, meeting presentations, banquet, and field trips.

Gallice, Geoffrey, Lawrence Reeves, Keith Willmott, and Blanca Huertas, McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, University of Florida, Gainesville, FL 32611-2710

POSTER: "**Quantifying Threat Status of Butterflies in the Tropical Andes"**

ABSTRACT: The tropical Andes rank among the world's biodiversity hotspots, where high numbers of species face extraordinary pressure from habitat loss. The region is the world's richest in terms of butterfly diversity, and many species are likely in danger of extinction due to deforestation. Here we highlight efforts to quantify the threat status of individual butterfly species, and also to identify areas of high conservation priority for butterflies in the tropical Andes.

Hayden, James E., Florida State Collection of Arthropods, FDACS, Division of Plant Industry, PO Box 147100, Gainesville, FL 32614-7100

(James.Hayden@freshfromflorida.com).

"Microlepidoptera on Solanaceae: An Online Resource"

ABSTRACT: Many microlepidopteran pests of solanaceous crops are concentrated in two groups: Gnorimoschemini (Gelechiidae) and the *Leucinodes* group of Spilomelinae (Crambidae). These include species that are native to the southeastern United States (e.g. *Phthorimaea*, *Lineodes*), other Nearctic regions, or other continents, such as *Tuta absoluta* and *Leucinodes orbonalis*. Their diagnosis from similar non-pests is often difficult, information is scattered, and the taxonomy is confused. I outline a USDA-funded project for an on-line Lucid key to microlepidoptera on Solanaceae that uses morphological and molecular tools and concentrates on the fauna of the Gulf Coast region.

Houlihan, Peter R. ,Department of Behavioral Biology, The Johns Hopkins University, Baltimore, MD 21218, The Orangutan Tropical Peatland Project, Center for the International Cooperation in Sustainable Management of Tropical Peatlands, University of Palangka Raya, Palangka Raya, Central Kalimantan, Indonesia, McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, University of Florida, Gainesville, FL 32611-2710 (phoulih2@jhu.edu).

"**Impacts of Forest Gaps on Butterfly Diversity in a Bornean Peat-Swamp Forest"**

ABSTRACT: Tropical peat-swamp forests of Southeast Asia are a critical habitat for biodiversity conservation, in which insect communities, and the impacts of forest degradation on them, are poorly understood. I investigated the impacts of forest gaps on fruit-feeding butterflies in the Sabangau peat-swamp forest of Borneo. Fruit-baited traps were monitored during the 2009 dry season. On an inter-site scale, high traps recorded greater diversity than low traps; however, low traps recorded higher intra-site species richness. Species richness was positively correlated with percent canopy cover and comparisons of diversity indices support these findings. Coupled with results

indicating differences in morphology between species caught in closed-canopy versus those in gaps, forest degradation has a profound effect on butterfly communities in this habitat, with more generalist species being favored in disturbed conditions. Further studies are necessary to better understand the influences of macro-habitat quality and seasonal variations on butterfly community composition in peat-swamp forests.

Matthews, Deborah L. , Jacqueline Y. Miller, Terry A. Lott, Roger W. Portell, James K. Toomey, McGuire Center for Lepidoptera and Biodiversity and Division of Invertebrate Paleontology, Florida Museum of Natural History, University of Florida, Gainesville, FL, USA, 32611-2710, (dlott@ flmnh.ufl.edu)

"Inventory of the Lepidopteran Fauna of the Guantanamo Bay Naval Base, Cuba"

ABSTRACT: The Guantanamo Bay Naval Base covers a 120 km^2 area at the southeastern shore of Cuba. The bay area is surrounded by several mountain ranges, with the resulting rain shadows limiting annual precipitation to less than 24 inches. The unique dry tropical sub-montane to marsh habitats preserved on the base are home to a variety of endemic and widespread lowland wildlife species. A project to inventory Lepidoptera currently on the base, and assemble records from previous collectors, is in progress. Initial fieldwork was conducted in January 2012. Preliminary observations and examples of taxa collected will be presented.

Minno, Marc C., 600 NW 35th Terrace, Gainesville, FL 32607 (marcminno@gmail.com)

"Critically Low Populations of the Schaus' Swallowtail (*Heraclides aristodemus ponceanus*, Papilionidae) and Bartram's Scrub-Hairstreak (*Strymon acis bartrami*, Lycaenidae) in the Florida Keys."

ABSTRACT: The Federally endangered Schaus' Swallowtail butterfly is limited to West Indian hardwood hammocks having an abundance of the larval host plant, Torchwood (*Amyris elemifera*, Rutaceae), in the upper Florida Keys, from northern Key Largo to islands in Biscayne National Park. In the lower Florida Keys, Bartram's Scrub-Hairstreak is found only in pine rockland habitat on Big Pine Key near patches of its only host plant, Pineland Croton (*Croton linearis*, Euphorbiaceae). This hairstreak is also found in a few pine rockland areas of Everglades National Park and southern Miami-Dade County on the mainland. Each year from 2007 to 2012, I searched for Schaus' Swallowtails in the upper Keys during the adult flight season (April-June). I observed approximately 82 adults in more than 111 hours of searching (0.74 adults/hour). The highest numbers of adults were seen in 2007(4.64/hr), 2008(2.15/hr), and 2009(4.20/hr). Lower numbers of Schaus' Swallowtails were seen in 2010(0.09/hr), 2011(0.46/hr), and 2012(0.06/hr). I observed approximately 224 adults of Bartram's Scrub-Hairstreak (0.91/hr) on Big Pine Key between August 2006 and July 2012. This butterfly was most abundant in 2007 (1.02/hr), 2008 (1.30/hr), and 2011 (0.96/hr), and less common in 2006 (0.52/hr), 2009 (0.68/hr), 2010(0.63/hr), and 2012(0.70/hr). The low number of adults in 2006 is probably an artifact, because I was just beginning to search for butterflies in the Keys that fall. Since the 1990s, both species of butterflies disappeared from significant portions of their limited and highly fragmented ranges and are in such low abundance that extinction is likely in the near future without major funding for recovery programs. The Schaus' Swallowtail has an outdated Federal recovery plan that has hardly been implemented by the U.S. Fish & Wildlife Service. Bartram's Scrub-Hairstreak has been a candidate for Federal listing for years and has no recovery plan.

Padrón, Pablo Sebastián, Department of Entomology and Nematology, University of Florida, Gainesville, FL 32611-0675 (pablospadron@ufl.edu).

"Molecular Phylogeny and Biogeography of a Highly Diverse Genus of Andean Butterflies (Preliminary Results)"

ABSTRACT: This research project will be the first to produce a phylogenetic tree for one of the largest Andean butterfly radiations, the genus *Catasticta* Butler, 1870, with more than 96 species. We will employ that tree to investigate a number of critical questions about how evolution has proceeded in this important but poorly studied group of insects. Mitochondrial (COI and COII) and nuclear (EF-α1) DNA sequences will be used to reconstruct a phylogenetic hypothesis of species relationships. A time-calibrated phylogeny will be used to test hypotheses of the origins and diversification of the genus, which has its greatest species richness in the Andes. Field and collection data will be used to answer major biogeographic questions about the speciation of these butterflies. The biology, distribution and preliminary phylogenetic results will be presented.

Patterson, Robert, 12601 Buckingham Drive, Bowie, MD 20715(BPatter789@aol.com)

"Recent Developments at Moth Photographers Group"

ABSTRACT: This will be a presentation of website statistics, species distribution maps, and coverage of Antillean Lepidoptera. Opportunities
abound for everyone to contribute photographs, island checklists, and mapping locality data.

David M. Plotkin, Mississippi Entomological Museum, Box 9775, Mississippi State, MS 39762 (dmp215@msstate.edu)

"Analysis of Morphology of Neotropical Geometrinae (Lepidoptera: Geometridae) Using Exo- and Endoskeletal Characters"

ABSTRACT: The Geometrinae are commonly distinguished from other subfamilies of Geometridae using genitalic characters, wing venation, and scale patterns. However, removing scales from whole bodies of Geometrinae enables observation of further morphological variation of exoskeletal and

endoskeletal characters. Using the method of Lee and Brown (2006), whole body mounts of descaled specimens of Neotropical Geometrinae were prepared. These were compared with representatives from three other subfamilies of Geometridae. Variation of characters on the descaled head, legs, and tegulae was observed between subfamilies, indicating that these characters may be of diagnostic value. Further variation was observed within Geometrinae, at the generic level. One character in particular, the length of the foretibial epiphysis, appears to be directly correlated with length of antennal pectination, implying functional variation.

Ponce, Francesca V., Akito Y. Kawahara, McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, University of Florida, Gainesville, FL 32611-2710
(francescavponce@ufl.edu)

"Preliminary Molecular Phylogeny of *Eumorpha* Hawkmoths"

ABSTRACT: The hawkmoth genus *Eumorpha* (Sphingidae) includes 23 often strikingly colored species that are restricted in distribution to the New World. While they are often perceived as staples of Neotropical hawkmoths, little is known of their phylogenetic relationships. We constructed a preliminary molecular phylogeny with three genes (CAD, EF1-alpha and COI) totaling 2619 base pairs. Maximum Likelihood analyses (ML) were conducted with RAxML, and Bayesian analyses in MrBayes. Analyses were conducted on individual genes and on the concatenated three-gene dataset. Results indicate that the genus *Eumorpha* is monophyletic with strong support and that there are several well-supported relationships that were previously unknown.

***Romero, Cassandra L.*[1]*, Ian Kitching*[2]*, Jesse Barber*[3]*, Akito Y. Kawahara*[1], [1]McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural

History, University of Florida, Gainesville, FL 32611-2710, [2]Department of Life Sciences, The Natural History Museum, Cromwell Road, London SW7 5BD, U.K.; [3]Department of Biology, Boise State University, Boise, ID 83725 (clromero@ufl.edu)

"Hawkmoth Tibial Spur Variation and Evolution (Lepidoptera: Sphingidae)"

ABSTRACT: Hawkmoths have some of the longest tibial spurs among Lepidoptera. While the function of these spurs remains largely unknown, they may serve as a defense mechanism against predatory bats. These spurs vary greatly in length between species, and we measured the tibial spurs of males and females of 108 species. Spur length was controlled for body size and mapped onto a phylogeny of hawkmoths to determine whether long spurs are correlated with specific hawkmoth lineages.

Scholtens, Brian G., Department of Biology, College of Charleston, Charleston, SC 29424 (ScholtensB@cofc.edu).

"**Range Changes of Butterflies in South Carolina and Michigan**"

ABSTRACT: Evidence from occurrence going back at least 50 years suggests that significant range changes have occurred in multiple butterfly species in both South Carolina and Michigan. Most of the changes appear to be the expansion northward of more southern species, although some involve the contraction northward of northern species. There is some indication that Hesperiidae appear to be experiencing the most significant range changes.

Slotten, Jeffrey R., 5421 NW 69th Lane, Gainesville, FL 32653(slotten@bellsouth.net).

"Life History Notes on *Lintneria* (formerly *Sphinx*) *eremitoides* (Strecker, 1874)"

ABSTRACT: *Lintneria eremitoides*(Strecker, 1874) is a *Sphinx* species that has not been well studied. It has a limited range in the United States and its larval host is very specific. In this presentation, I describe the life history of this moth with habitat and hostplant information.

Sourakov, Andrei, McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, University of Florida, Gainesville, FL 32611-2710
(asourakov@flmnh.ufl.edu).

"Niche Partitioning and Life Histories of Moths Feeding on Coral Bean in Florida"

ABSTRACT: My new studies of life histories of erythrina leafroller *Agathodes designalis*, and erythrina stem-borer *Terastia meticulosalis* (Crambidae), conducted in Florida, complement previous literature accounts. I propose that competition among larvae of these two crambid moths has resulted in ecological niche partitioning. In the studied populations, both species feed on coral bean, but each species occupies different parts of the plant and different plants in the ecosystem. Larval behavior and morphology are consistent with adaptation for resource partitioning. Both species are multivoltine and their life history varies between generations, suggesting adaptation to changes in environmental and hostplant conditions. I discuss these moths' distribution, hostplant and life history information in the context of their co-evolution. Another unrelated moth species, erythrina leafminer *Leucoptera erythrinella* (Lyonetiidae), also uses coral bean as its hostplant, utilizing this resource in a manner that minimizes interspecific competition. I present my new studies on the life history of the latter species.

Van Zandt, Peter A.[1], *John-Paul Tortorich*[1], *Aisha Bonds*[1], *Grant Gentry*[2], *Richard Brown*[3], [1]Department of Biology, Birmingham-Southern College, Birmingham, AL 35254, [2]Department of Biology, Samford

University, Homewood, AL 35229; [3]Mississippi Entomological Museum, Mississippi State University, Mississippi State, MS 39762-9775, (pvanzand@bsc.edu)

"A Comparison of the Moth Communities of Forested, Glade, and Urban Habitats in Bibb and Jefferson Counties, Alabama"

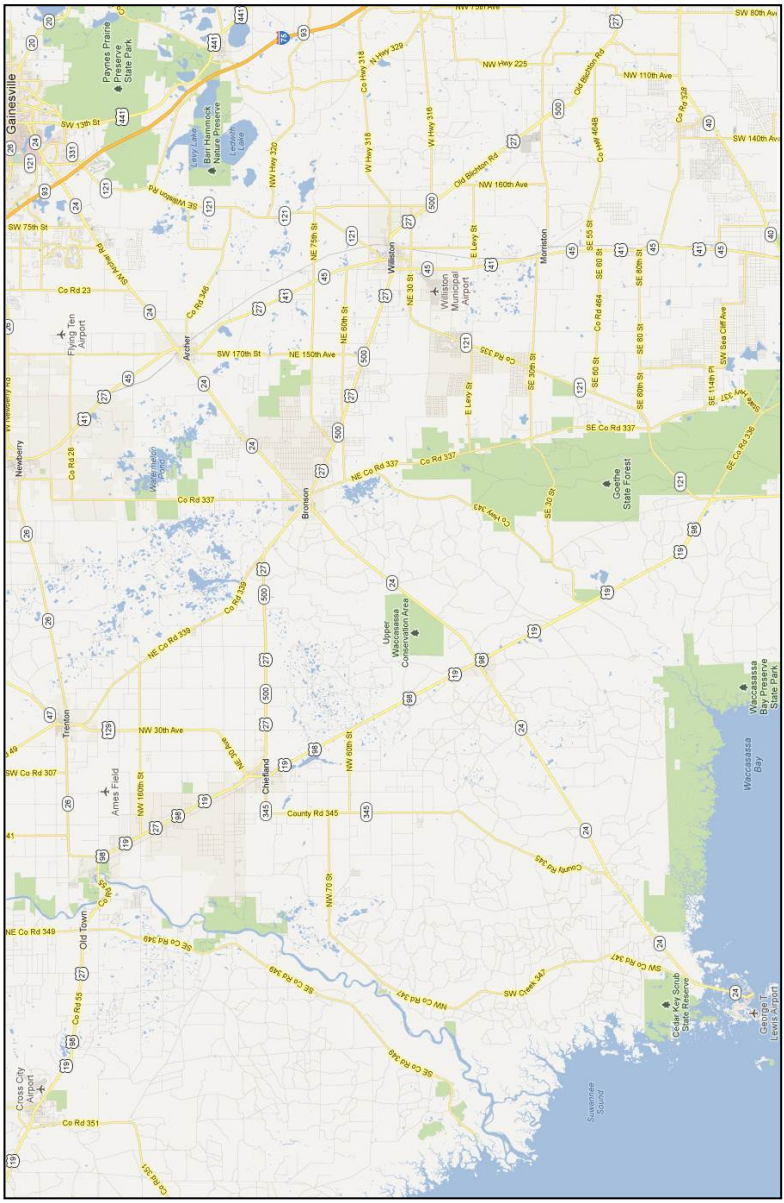
ABSTRACT: Regional diversity of moth species remains understudied and unexplored in much of the southeastern United States. Their ability of moths to utilize different habitats depends on both the presence of important host plants and the relative distances separating biological communities. The Bibb County Glades and Cahaba River National Wildlife Refuge, both rural habitats located in Bibb County, account for a large portion of the fauna which characterize Alabama as the fifth most biodiverse state in the U.S. In this study, we surveyed moth species diversity of these two rural habitats and compared them to the moth community of an urban woodlot. We sampled each location from May 7th - October 27th, 2011 on 10 nights using black light traps. We found that moth species richness was not significantly different between the two rural habitats, but that they were considerably more diverse than the urban woodlot. Approximately 41% of species were found in both the rural sites; however, each rural site had many unique species, despite only being 3.5 km apart. Although the urban woodlot had lower numbers of species overall, it still had many species not found at the rural sites. Combined moth community composition in these habitats also appears to be strongly influenced by seasonal change. Thus, while proximity and homogeneity of local vegetation may explain commonality in species occurrence between the sampling sites, unique host plant occurrence and habitat distinctiveness seem to account for differences in moth species distribution within the urban and rural habitats.

Warren, Andrew D., McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, University of Florida, Gainesville, FL, USA, 32611-2710,(andy@butterflies of america.com).

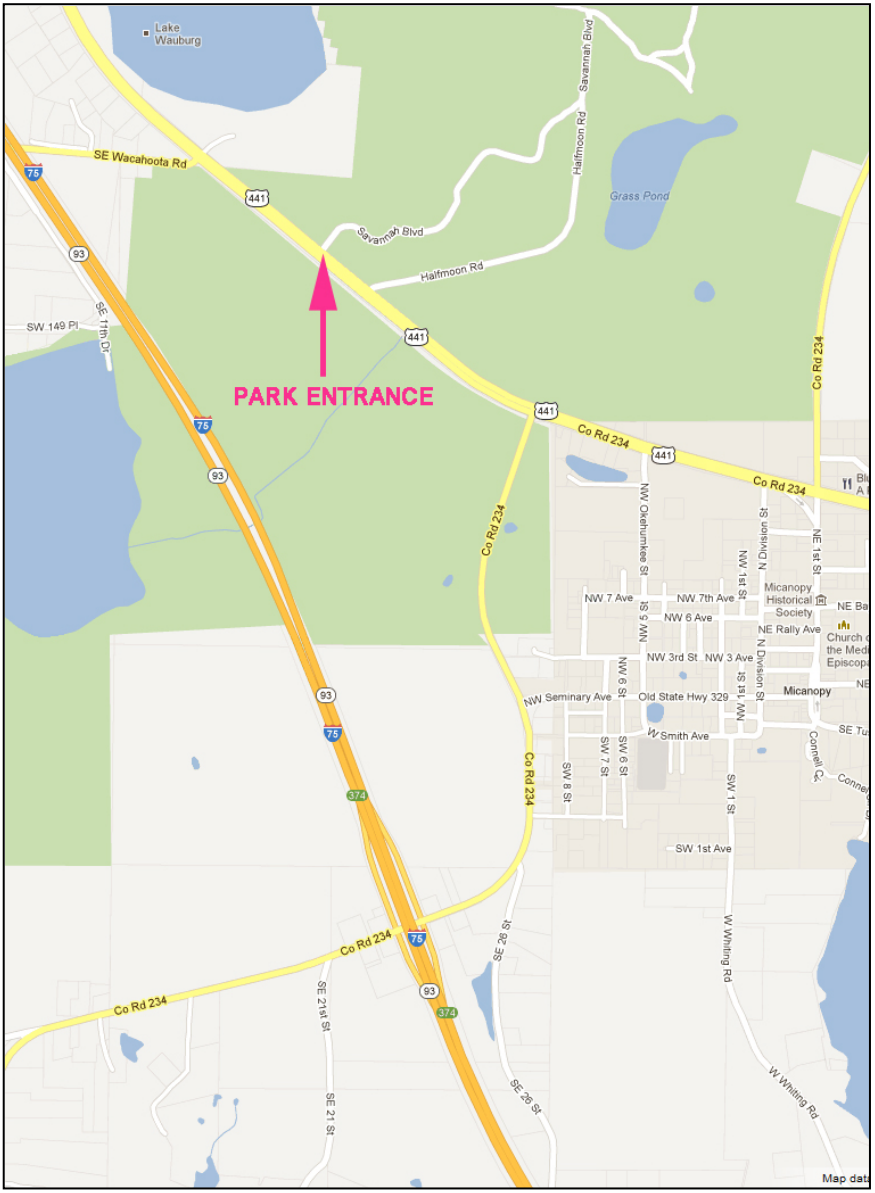
“Collections and Collecting: We Are Running Out of Time”

ABSTRACT: The importance of biological collections is reviewed, mostly using examples of Pieridae from the McGuire Center for Lepidoptera and Biodiversity. The need for continued collecting is discussed, especially in light of recent restrictions on butterfly collecting in the United States. Because of changing attitudes towards collecting, at various levels in our society, time is running out to develop natural history collections. We urgently need to intensify collecting activities, especially in the USA, in order to document our biodiversity while we still have the opportunity.

Gulf Hammock - Cedar Key



Payne's Prairie State Park




Florida Museum
of Natural History
FLORIDA WILDFLOWER & BUTTERFLY GARDEN
N
Information
Restrooms (ADA Accessible)
Baby Changing Station
Water Fountain
Security Office
Front Desk Ticketing
Gift Shop
First Aid
Stairs
RESEARCH FACILITIES
(closed to the public)
CAMELLIA COURT CAFÉ
BICYCLE RACKS
VISIBLE COLLECTIONS & LABS
SOUTH FLORIDA PEOPLE & ENVIRONMENTS
FLORIDA FOSSILS: EVOLUTION OF LIFE & LAND
BUTTERFLY RAINFOREST GIFT SHOP
BUTTERFLY REARING LAB
BUTTERFLY EXHIBITS
NORTHWEST FLORIDA: WATERWAYS & WILDLIFE
BUTTERFLY RAINFOREST
CHANGING GALLERY 2
GALLERIA
CENTRAL GALLERY
DESIGN & FABRICATION
(closed to the public)
CHANGING GALLERY 1
ADMINISTRATION
(closed to the public)
CHILDREN'S GALLERY
COVERED OUTDOOR PICNIC AREA
CLASSROOM
COLLECTORS SHOP
BICYCLE RACKS
FOSSIL PLANT GARDEN
PARKING AREAS
HARN MUSEUM OF ART
MUSEUM ENTRANCE
PHILLIPS CENTER FOR THE PERFORMING ARTS