



Phaëton

The Official Newsletter of the
Maryland Entomological Society

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FACULTY SPONSORS: **Frank E. Hanson** and **Austin P. (Bob) Platt**
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Meeting Announcement

The Maryland Entomological Society's 298th regular meeting will be held **Friday, 18 April 2014, at 8:00 p.m.**, in **Room 004** (one floor below the street level), **Biological Sciences Building**, University of Maryland Baltimore County (UMBC). Bring a friend and specimens, observations, and books to share. Refreshments will be provided. Presentations are scheduled to begin at 8:15 p.m.

Speaker: Paul Z. Goldstein, Ph.D. – Research Entomologist, Systematic Entomology Laboratory, Agricultural Research Service, United States Department of Agriculture, National Museum of Natural History, Smithsonian Institution, Washington, DC

Title: “Insect Diversity, Glacial Remnants, and Faunal Change on the Southern New England Coastal Sandplain”

Barrens, grasslands, and heathlands associated with the New England coastal plain are among the more vulnerable natural areas in the region, and provide some of the best examples of post-glacial remnant insect faunas. While the offshore islands in particular seem to have served as refugia for insects that have vanished from the mainland, these faunas have changed over the last century, tracking changes in the landscape that accompanied a shrinkage of agriculture.

Dr. Paul Goldstein is a Research Entomologist with the USDA Systematic Entomology Laboratory and affiliated with the Department of Entomology at the Smithsonian Institution. He completed his Bachelor of Arts at Harvard University, where he studied the life history and feeding ecology of sandplain moths and began to inventory threatened species across Massachusetts. Paul did his doctoral work in entomology at the University of Connecticut and was a graduate fellow in the molecular systematics laboratory at the American Museum of Natural History in New York, where he studied phylogenetics and the evolution of hostplant use in noctuid moths. Dr. Goldstein served as head of the Division of Insects at the Field Museum of Natural History in Chicago and on the faculties of the University of Chicago and the University of Florida before coming to Washington. In addition to his professional activities in systematic entomology, he has maintained a presence in Massachusetts studying sandplain Lepidoptera, the conservation genetics of tiger beetles (Carabidae: Cicindelinae), and most recently the diversity of bees (Apoidea) and other Hymenoptera.

Meet for Dinner before the Lectures

If you are interested in meeting for dinner before the lectures, you are invited to join the guest speaker and your fellow MES members at [Kibby's Restaurant and Lounge](#), “Home of Baltimore’s Best Shrimp Salad Sandwich.” Kibby’s is located inside the Baltimore Beltway at 3450 Wilkens Avenue, Baltimore, MD 21229, just 15 minutes from UMBC. Meet at the restaurant **promptly at 6:00 p.m.**

NEW DATE SCHEDULED FOR
 THE MAY MES MEETING

The date for the May MES meeting has been changed to **Friday, 9 May 2014** so as not to conflict with the [2014 Maryland Ornithological Society \(MOS\) Annual Conference](#) that will be held at the Holiday Inn Solomons Conference Center, Solomons, Calvert County, Maryland on Friday-Sunday, 16-18 May 2014. The theme for this year's MOS conference is Maryland Biodiversity and many of the birding trips will be paired with another discipline, such as dragonflies & damselflies, butterflies & moths, and bees & wasps. Several MES members will be attending this year's MOS conference imparting their knowledge of Maryland's insects.

21 MARCH 2014 MES MEETING MINUTES

The 297th general meeting of the Maryland Entomological Society was held on Friday, 21 March 2014 at UMBC and began at 8:25 p.m. with a welcome by Co-President **Fred Paras** and then the introduction of the speaker for the main program. The main program on treehoppers (Hemiptera: Membracidae) is summarized below. Attendees broke for a period of refreshments and discussion afterwards. There were no major items of Society business, and considering that most attendees had left a bit earlier than usual, the business meeting, which was scheduled next, was restricted to a brief review of news items. Treasurer **Ed Cohen** was unable to attend, but he had left news earlier with Secretary **Dick Smith** that the General Funds total was now \$3061.07. Fred mentioned receiving a note from Steve Jacobs, Senior Extension Associate in Entomology at Penn State University, that MES member **Frank Fee**, of State College, Pennsylvania, had passed away and his colleagues were in search of any heirs Frank might have, as none had been located at present. At this meeting, Vice-President **Phil Kean** displayed a Cornell drawer of Southeast Asian Cicadidae (which are in the same superfamily Cicadoidea as the Membracidae). As spread specimens, many of these resembled colorful Sphingid moths.

Respectfully submitted, Richard H. Smith, MES Secretary

21 MARCH 2014 MES LECTURE

Speaker: Stuart H. McKamey, Ph.D. – Research Entomologist, Systematic Entomology Laboratory, Agricultural Research Service, United States Department of Agriculture, National Museum of Natural History, Smithsonian Institution, Washington, DC

Title: “Aliens of the Amazon: Treehoppers”

The program for the March meeting consisted of a presentation of a two-episode video documentary on Amazonian treehoppers (Hemiptera: Membracidae), narrated in person by Dr. **Stuart H. McKamey**. The video, released in 2009 with outstanding close-up color footage and intriguing research narrative on these oddly-shaped treehoppers, has become internationally famous and has been presented in South America, Europe, Japan, Canada, and the United States. The video was a joint effort by Mona Lisa Productions and Breakthrough Films and Television

and won an award as “Best Science TV Documentary” in Europe. *[I found that this amazing video is currently easily located on YouTube using Google.]* Dr. McKamey, as a key expert on Membracidae, was featured in the documentary, along with Dr. Rex Cocroft, a researcher of membracid communication from the University of Missouri, and researcher and writer Dr. Caroline Godoy from the University of Costa Rica. Dr. McKamey corrected some statements in the videos, such as that 50%, rather than 90%, of all known membracid species occur in North and South America. There are actually approximately 3000 known species split evenly between the Old and New Worlds; however, this is considered to be a small fraction of the expected total. Dr. McKamey mentioned that there are about 70 species known in Maryland, and they are mostly associated with species of oaks (*Quercus* L. [Fagaceae]). The travel featured in the videos began in Quito, Ecuador and moved to the Yasuni Biosphere Reserve in the eastern part of the country. This part of Ecuador is also high in crude oil reserves, which is pumped from the ground and distributed to refineries through a huge cross-country pipeline network. Unfortunately, the network detracts from the environmental purity of the region, but the pipeline tracks now provide easy access to otherwise poorly accessible and remote rainforest study areas. The researchers also navigated along eastern Ecuador's Tiputini River to find new species. A variety of remarkably-shaped treehopper species were immediately encountered in the Yasuni Reserve area, including a species of *Bocydium* Latreille with four curious globular structures offset from the pronotum. Treehoppers were pervasive but incredibly hard to detect due to their close resemblance to plant structures and leaf debris. One species even resembles an unpalatable dead and rotting insect. Treehoppers often appear to be motionless and crawl slowly, but they are very wary, jump spontaneously much like a flea, and are difficult to capture. Once airborne, their flight has been described as similar to that of a mosquito. Leafhopper adults and nymphs feed exclusively on plant juices, absorbed through a penetrating stylet mouthpart. Treehopper courtship and mating was observed to span a 24-hour period. The video showed the curious trait of female treehoppers perching on and protecting their clutch of eggs, remaining with maturing nymphs, and battling with predator insects during the entire period from the immatures' first molt to last. All treehopper nymphs pass through five molts. Much as with certain lycaenid Lepidoptera, treehopper nymphs of some species perpetuate a mutualism with ant species. Treehopper nymphs defecate a sugary fluid that is actually enjoyed by ants as food, and in return the ants as well as the treehopper mother protect nymphs from predators. Some ants even construct elaborate casings of plant debris around small tree trunks to protect treehopper nymphs. The research team also visited Ecuador's Bellavista Cloud Forest (elevation about 2286 m [7500 ft]) west of Quito to study treehopper diversity there. Ants are scarce at the higher elevations, and ant mutualisms were not observed. Dr. Cocroft brought rather high-tech sound analysis equipment and software into the field to record and analyze distinct repetitive vibrations produced by treehoppers.

He has discovered that treehoppers communicate by vibrating their body cavities and transmitting the vibrations into surrounding plant tissue. Much like orthopterans, treehoppers use vibrations to indicate presence for mate location. Dr. Cocroft has also witnessed and recorded the remarkable trait of female treehoppers using their vibrations to signal ants to converge and help protect her brood when predators encroach. The functions of the treehoppers' unusual body structures are not yet fully understood. Minute pits are also spread over the pronotum and have nerve attachments, but their function is unknown.

Respectfully submitted, Richard H. Smith, MES Secretary

WELCOME TO NEW MEMBERS

MES welcomes the following new members to the Society:

Lisa J. Kuder	New Market, MD
Stuart H. McKamey	Rockville, MD

HONORING MEMBER DONORS

MES wishes to honor the following members who made charitable donations along with their recent membership renewals. These donations help with the printing and mailing of *The Maryland Entomologist*.

Lisa J. Kuder

“WHERE’S PETER?”

(Editor’s apologies to “Where’s Waldo?”)

MES member **Peter Houlihan** joined the Society while an undergraduate student at The Johns Hopkins University. He is currently a Ph.D. student in the Department of Biology at the University of Florida. Peter is studying predator-prey interactions between bats (Chiroptera) and hawkmoths (Lepidoptera: Sphingidae) for his thesis, which he is working on now in Borneo. Some of Peter’s research is going to be featured in a David Attenborough documentary that was just filmed in Borneo over the past few weeks. The film is scheduled to air in late 2014. Additional details about the film can be found at: <http://www.flmnh.ufl.edu/mcguire/kawahara/filming-in-borneo-for-a-3d-david-attenborough-documentary/>.

IN MEMORIAM: FRANK D. FEE

22 May 1941 – 16 March 2014

My name is Bob Gardner and I knew **Frank Fee** for over 20 years. During that period of time, I had the fortunate opportunity to get to know the man, the collector. He was a longtime and dedicated amateur entomologist and a member of the Maryland Entomological Society. He lived in State College and collected primarily in Pennsylvania. Frank was spilling over with knowledge he acquired from first hand experiences in the field. When you asked Frank about a certain species or a group of species, he would invite me up to his rather spartan apartment, chat awhile, and then away we would go. Often the species or species were right where they should be, Frank never guaranteeing that you would encounter the bug. Frank and I repeatedly made excursions to Scotia Barrens, Black Moshannon, the “shale mound,” and Stone Valley, always

finding something not only intriguing, but a delight to see in the field. If you missed the bug while maneuvering your net, Frank would let you know. We would chat every week or more during collecting season, chatting about what we both collected, or hearing Frank “brag” about what he caught. But Frank bragging was the reward for his determination, keen eyesight, and relying on his instincts and past experiences. For Frank to give away a specimen was rare, but you could count on the particular bug to be of “choice” quality. Our conversations on the phone commenced with me saying “Any buprestids out?” This was anytime of the year. This got to be a tradition he always found humorous. Conversations always centered around bugs, but often we were armchair quarterbacks, analyzing the past Penn State football games. He would recollect his collecting days in Texas, as he would often do, and all I did was listen and conjure up the habitat and experience he was describing in my mind. He was very sad and somber when he discussed his cat passing away. I remember that big cat on my lap as I slept on his sofa when I came up for a two-day trip. How can I forget this great collector; he was so knowledgeable about beetles, bees, wasps, flies, and leps. He was just telling me about his state records for many bee species. He was the first person to make me aware of the bumble bee publication that had just become available. Because of him, I did in fact purchase this book. I am planning to write a note inside the cover acknowledging his inspiration in buying this book. I even hosted a trip for him to come to my place of employment to catch the buprestid *Buprestis rufipes*. I wanted to return the favor and take him to a spot. I did so and I was happy for him. I always listened to Frank because he was a vast treasure trove of knowledge you could count on as being a page from a publication. Our last conversation was going to be him showing me where to catch The Infant (*Archiearis infans*), a day flying moth, and then traveling to the blooming willows to catch bee species. Yes Frank, I will miss you as the avid collector; I will think of you when I see my pinned specimens I caught because you showed where to go; I will think of you when I look at the pinned specimens you gave to me with your name on them. Frank, you were a part of my life as a collector, and for that I am so grateful. “Any buprestids out yet?????????????” Rest in peace Frank. Miss the guy.

Submitted by MES member Bob Gardner

(A brief obituary in the Centre Daily Times can be viewed at: <http://www.legacy.com/obituaries/centredaily/obituary.aspx?n=frank-d-fee&pid=170372790&fhid=15760>.)

IN MEMORIAM: STUART M. FULLERTON d: 5 April 2014

MES member **Stuart M. Fullerton** of Oviedo, Florida, has passed away at age 74. Stuart was the founder of [The Bug Closet](#), since 2010 officially known as the Stuart M. Fullerton Collection of Arthropods at the University of Central Florida (UCFC). UCFC possesses one of the largest completely databased collections in the world with over 500,000 specimen records for insects and other arthropods. Stuart was a graduate of the University of Central Florida (UCF). He had an interest in insects since his teenage years. Stuart was a research

associate at UCF, specializing in parasitic wasps, and for 10 years he taught the lab section of entomology. The creation of UCFC was largely self-funded by Stuart, purchasing cabinets, drawers, unit trays, pins, microscopes, computers, and other supplies. He even self-funded student volunteers. In 1997, he created an endowed account known as the "Fullerton Family Fund" in memory of his family, which has continued to generate revenues to sustain UCFC. It is estimated that Stuart has donated over \$1 million to the creation and operation of UCFC.

The following comments were posted to the ENTOMO-L listserve by Eric R. Eaton (principal author, *Kaufman Field Guide to Insects of North America*) and reprinted here with his permission: "I think I can safely say that I know of no one who has done more for entomology with less to work with. The "Bug Closet" was, for many years at least, just that, a highly inadequate space that Stuart made the most of. The devotion of his students and volunteers speaks volumes about his ability to motivate and befriend people. The Bug Closet is clearly in good hands moving forward, but it would not have gotten to where it is without Stuart. I hope we can all be as giving and grateful and friendly as he was."

Information gleaned from *The Bug Closet* and *ENTOMO-L listserv* websites by MES member *Gene Scarpulla*

RECENT CBP / USDA-APHIS-PPQ INTERCEPTIONS

Trogoderma granarium Everts (Coleoptera: Dermestidae) – a dermestid beetle



The dermestid beetle *Trogoderma granarium* Everts (Coleoptera: Dermestidae) was found at Dulles International Airport in a bag of rice in personal luggage originating from Saudi Arabia.

Archachatina (Calachatina) marginata (Swainson) (Mollusca: Gastropoda: Achatinidae) – Giant African Snail, Giant West African Snail, West African Land Snail, Banana Rasp Snail, etc.



A snail found in baggage was identified as the Giant African Snail, *Archachatina (Calachatina) marginata* (Swainson) (Mollusca: Gastropoda: Achatinidae). This species is a vector of the parasitic roundworms *Angiostrongylus cantonensis* (Chen) and *A. costaricensis* Morera & Cespedes (Nematoda: Strongylida: Angiostrongylidae) which cause eosinophilic meningoencephalitis in humans. Specimens can reach 21 cm (8.3 in) in length and 13 cm (5.1 in) in diameter. Although small, this specimen was mature. This is only the second time this pest has been intercepted at Baltimore/Washington International Thurgood Marshall Airport.

Submitted by MES member **Jim Young**, Entomologist Identifier, USDA-APHIS-PPQ- Baltimore

UNIVERSITY OF MARYLAND DEPARTMENT OF ENTOMOLOGY COLLOQUIA

Fri, 11 April 2014, 12:00 p.m.

"Symbionts as Modulators of Honey Bee Health; Lactic Acid and Foulbrood"

Dr. Eva Forsgren, Swedish University of Agricultural Sciences

Fri, 18 April 2014, 12:00 p.m.

"The Roles of and the Crosstalk between JAK/STAT and Hippo Signaling Pathways in the Cell Proliferation of *Drosophila* Neuroblasts"

Liguan Du, Graduate Student, Molecular & Cellular Biology, UM

Fri, 25 April 2014, 12:00 p.m.

"Patterns of Host Use by Brown Marmorated Stink Bug (*Halyomorpha halys*) in Woody Ornamental Plants"

Erik Bergmann, Graduate Student, Entomology, UM

Fri, 2 May 2014, 12:00 p.m.

"The Role of Mutualisms in the Ecology and Invasion Biology of Red Imported Fire Ants"

Dr. Micky Eubanks, Entomology, Texas A&M

Fri, 9 May 2014, 12:00 p.m.

"Spatial Heterogeneity of Stink Bug (Hemiptera: Pentatomidae) Populations in Agricultural Systems"

Dilip Venugopal, Graduate Student, Entomology, UM

Entomology colloquia take place in 1130 Plant Sciences Building, College Park, MD. For additional information, go to: <http://entomology.umd.edu/news/events>.

THE GEORGE WASHINGTON UNIVERSITY ENTOMOLOGY SEMINARS

Fri, 18 April 2014, 3:00 p.m.

"Should I stay or should I go? Studying action selection in fly escape circuits"

Dr. Gwyneth Card (Group Leader, Janelia Farm Research Campus, Howard Hughes Medical Institute, Ashburn, VA)

Entomology seminars take place in Corcoran Hall 106, 2023 G St. NW, Washington DC. For additional information, go to: <http://departments.columbian.gwu.edu/biology/about/seminars>.

**AMERICAN ENTOMOLOGICAL SOCIETY
PUBLIC MEETING**

Wed, 23 April 2014; 7:00 p.m.

**“Effects of Habitat Alterations on Dragonflies and
Damselflies in Delaware”**

Dr. **Harold B. White, III** (MES member and Professor,
Department of Chemistry and Biochemistry, University of
Delaware, Newark, DE)

The Academy of Natural Sciences of Drexel University, Ewell
Sale Stewart Library, Second Floor, 1900 Benjamin Franklin
Parkway, Philadelphia, Pennsylvania

<http://darwin.ansp.org/hosted/aes/mtgSched.htm>.

**MARSHY POINT NATURE CENTER
SPEAKER SERIES**

Tue, 15 April 2014; 7:00 p.m.

“The Bees of Hart-Miller Island”

Gene Scarpulla (MES Publications Editor and Associate at the
USGS Bee Inventory and Monitoring Laboratory, Patuxent
Wildlife Research Center)

Marshy Point Nature Center, 7130 Marshy Point Road,
Baltimore, MD

<http://www.marshypoint.org/>.

**USA SCIENCE & ENGINEERING FESTIVAL
FREE EXPO**

Sat-Sun, 26-27 April 2014, 9:00 a.m-6:00 p.m.

The mission of the expo is: “to re-invigorate the interest of our
nation's youth in science, technology, engineering and math
(STEM) by producing and presenting the most compelling,
exciting, educational and entertaining science festival in the
United States.”

Walter E. Washington Convention Center, 801 Mount Vernon
Place (between 9th and 7th Streets NW on L Street NW)

For additional information, go to:

<http://www.usasciencefestival.org/>.

**ENTOMOLOGICAL SOCIETY OF WASHINGTON
PUBLIC MEETING**

Thu, 1 May 2014; 7:00 p.m.

Topic: TBA

Speaker: TBA

National Museum of Natural History, Smithsonian Institution,
Washington, DC

<http://entsocwash.org/>.

**THE INTERNATIONAL HETEROPTERISTS' SOCIETY
5TH QUADRENNIAL MEETING**

Mon-Fri, 21-25 July 2014

The Fifth Quadrennial Meeting of the International
Heteropterists' Society will be held at the National Museum of
Natural History, Smithsonian Institution, Washington, DC.

Additional information can be found at:

<http://ihs.myspecies.info/content/5th-quadrennial-meeting-july-2014>.

2013/2014 PROPOSED MES EVENT SCHEDULE

Regular MES lecture/meetings are held at UMBC on the 3rd
Friday of each of the 6 months coinciding with UMBC's
academic year. Proposed events for the upcoming MES
membership year are:

<u>Date</u>	<u>Speaker</u>	<u>Topic</u>
Sep 8	Crab Feast/Meet-&-Greet at J. KING'S Restaurant	
Oct 18	Harold Harlan	New & Novel Mosquito Control Options
Nov 15	Sam Droege	High Resolution Insect Photography
Feb 21	Andrew Ulsamer	Colony Collapse Disorder
Mar 21	Stuart McKamey	Aliens of the Amazon: Treehoppers
Apr 18	Paul Goldstein	Southern New England Coastal Sandplain
May 9	Members' & Students' Presentations & Elections	
TBA	Survey/Field Trip	TBA

OCT 2013 – SEP 2014 SOCIETY YEAR OFFICERS

Co-Presidents	Timothy Foard & Frederick Paras
Vice President	Philip J. Kean
Secretary	Richard H. Smith
Treasurer	Edgar A. Cohen, Jr.
Historian	(vacant)
Faculty Sponsors	Frank E. Hanson & Austin P. Platt
Publications Editor	Eugene J. Scarpulla

SUBMITTAL DEADLINES

MAY 2014 issue of the *Phaëton*:

Please send member news items by 2 May 2014.

SEP 2014 issue of *The Maryland Entomologist*:

First drafts of articles and notes are due ASAP.

Send drafts for both publications to ejscarp@comcast.net.
