Phaëton

The Official Newsletter of the
Maryland Entomological Society

Volume 35, Number 7 **April 2015**

EDITOR: **Eugene J. Scarpulla** – ejscarp@comcast.net
FACULTY SPONSORS: **Frank E. Hanson** and **Austin P. (Bob) Platt**
Department of Biological Sciences
University of Maryland Baltimore County (UMBC)
1000 Hilltop Circle
Baltimore, MD 21250
WEBSITE: http://www.mdentsoc.org/

Meeting Announcement

The **M**aryland **E**ntomological **S**ociety's **304th** regular meeting will be held **Friday, 17 April 2015**, 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: Floyd W. Shockley, Ph.D. – Collections Management, Department of Entomology, National Museum of Natural History, Smithsonian Institution, Washington, DC

Title: "A Tale of Four Families: Systematics and Natural History of the Handsome Fungus Beetles (Coleoptera: Endomychidae [sensu lato])"

The Handsome Fungus Beetles (Coleoptera: Endomychidae) are a heterogenous assemblage of primarily fungus-feeding taxa which exhibit a wide array of interesting life histories. They also serve an important role in forest ecosystems, particularly in the tropics, where they are important contributors to nutrient recycling in these systems. In recent years, multiple phylogenetic hypotheses have been produced for the family Endomychidae based on different datasets, but each yielding variable results for the internal relationships between endomychid subfamilies and between Endomychidae and other Cerylonid Series taxa. Floyd Shockley will present the most recent results based on a comprehensive analysis of 8 genes that demonstrate that Endomychidae is paraphyletic and that the subfamilies Anamorphinae, Mycetaeinae, and Eupsilobiinae should be removed and elevated to family level. He will then discuss morphological and ecological evidence that corroborates these results.

Floyd W. Shockley is the Acting Collections Manager in the Department of Entomology at the National Museum of Natural History. In that capacity, he is directly responsible for all aspects of collection management, logistics, purchasing and property management for the Department of Entomology providing complete oversight of the National Insect Collection (100,000+ type specimens, 35 million+ specimens) and interacting with staff from the three agencies that comprise the Combined Entomology Department (Smithsonian Institution, United States Department of Agriculture, and Department of Defense). He is the primary contact for the superfamily Cucujoidea (Coleoptera) (excluding Phalacridae [shining flower beetles] and Coccinellidae [lady beetles]), handling all specimen loan requests, performing curatorial duties, and hosting visitors, and he is the primary contact for curation and transaction management for all deactivated groups (~15% of the collection). Dr. Shockley received his B.A. in Biology from Westminster College, his M.S. from the University of Missouri, working on identifying mechanisms of host plant resistance of alfalfa to the potato leafhopper, and his Ph.D. from the University of Georgia, working on the systematics of Endomychidae. He has authored or co-authored 30 articles in scientific and popular journals, 2 book chapters, and 16 electronic articles, field guides, and internet resource pages.

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, 8 May 2015** so as not to conflict with the 2015 Maryland Ornithological Society (MOS) Annual Conference that will be held at the Clarion Hotel and Hager Hall, Hagerstown, Maryland on Friday-Sunday, 15-17 May 2015. Several MES members will be attending this year's MOS conference imparting their knowledge of Maryland's insects.

WELCOME TO NEW MEMBERS

MES welcomes the following new members to the Society:

Gary F. Hevel	**Washington, DC**
Morgan A. Kerr	**Leonardtown, MD**
James H. Trosper	**Silver Spring, MD**
Elissa M. Weidaw	**Odenton, 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*.

Stephen S. Israel
Elissa M. Weidaw

ANNUAL ELECTION OF MES OFFICERS

The annual election of MES officers will be held at the 8 May 2015 meeting. Nominations for officers are currently being solicited. Nominations can be made by any paid member. Officers serve for a one-year term (which is renewable). If nominees run unopposed, the election slate is voted on as whole. If there are two or more nominations for an office, that office will be voted on individually by secret ballot. Please forward nominee names to the *Phaëton* Editor at ejscarp@comcast.net. Members must be present at the May meeting to vote.

20 MARCH 2015 MES MEETING MINUTES

The 303rd general meeting of the Maryland Entomological Society was held on Friday, 20 March 2015 at UMBC and began at 8:32 p.m. with a welcome by Co-President **Fred Paras**. The meeting proceeded directly to an introduction of the speaker for the main program, which is summarized below. Problems with laptop-projector settings during set-up before the meeting, locked building doors for re-entry as the main speaker was departing, and early departures of most attendees led to a curtailment of the MES business meeting. However, a brief discussion of MES business matters among MES officers occurred at the end. Treasurer **Ed Cohen** was unable to attend, but he left a note with the Secretary before the meeting that the MES Funds balance currently stood at $3733.38. Editor **Gene Scarpulla** alerted us to the fact that we are currently lacking any submitted manuscripts for the 2015 issue of *The Maryland Entomologist*. Members are urged to submit their manuscripts as soon as possible. At the meeting, the main speaker displayed a representative collection of large and small insects obtained over a period of years on his home lot in Silver Spring, Maryland.

Respectfully submitted, ***Richard H. Smith***, *MES Secretary*.

20 MARCH 2015 MES LECTURE

Speaker: Gary F. Hevel (Public Information Officer [Emeritus], Department of Entomology, National Museum of Natural History, Smithsonian Institution, Washington, DC)

Title: "A Yard of Insects: Local Entomological Biodiversity"

Mr. Hevel's program reviewed and presented the results of his four-year study, the collection and identification of virtually all insect species obtained on his two-acre lot in Silver Spring, Maryland. The project was a personal one for Mr. Hevel, who says he was inspired by a 1941 book, entitled *A Lot of Insects*, by Dr. Frank E. Lutz, Chairman of the Department of Entomology at the American Museum of Natural History, New York City, in the early 20th century. In the book, Dr. Lutz humorously describes his success at accumulating a remarkable total collection of over 1,400 insect species just in his private residence yard in New York City over a four-year period. Mr. Hevel wanted to test if such a feat was possible in current times in the DC area. One of Mr. Hevel's mottos is to "think small" when assessing insect diversity – the average size of all insects is 1/8" or less. For Lepidoptera, it is important to concentrate on the Microlepidoptera, or small moths. Of the over 205,000 Lepidoptera species currently described worldwide, 185,000 are moths if the micros are included. Mr. Hevel's yard list amassed 800 species of Lepidoptera. Non-native species, such as *Promalactis suzukiella* (Matsumura) in the Family Oecophoridae and native to Southeast Asia, was one particularly colorful and tiny example.

The Periodical Cicada, *Magicicada* spp. (Hemiptera: Cicadidae) appeared in 2004 during Mr. Hevel's survey period. Eggs are laid in broken twigs in trees, and the newly hatched nymphs drop to the ground like rain at night. Cicadas were his largest hemipteran, but a large number of much smaller species in this order were found, including those from the families Cicadellidae (leafhoppers), Membracidae (treehoppers), Aradidae (flat bugs), and Miridae (plant bugs) and superfamilies Cercopoidea (spittlebugs) and Fulgoroidea (planthoppers), which contains the large families Derbidae (derbid planthoppers) and Delphacidae (delphacid planthoppers). The majority of hemipterans is hidden in daylight and only appears at night. The genus *Erythroneura* Fitch in leafhoppers contains a large number of strikingly colorful species.

Mr. Hevel went on to discuss a variety of orthopterans and dipterans he had collected. The Yellowjacket Hover Fly, *Milesia virginiensis* (Drury), a wasp mimic, was honored by appearing on a United States postage stamp in 1999. Mr. Hevel had recommended it for this appearance, and he of course had found representatives of it in his yard. With the help of flower fly/hover fly (Syrphidae) specialist Dr. Chris Thompson at the Smithsonian, Mr. Hevel was able to identify 80 species of syrphids in his yard. The only North American species of a

stalk-eyed fly, *Sphyracephala brevicornis* (Say) (Diopsidae), which matures on skunk cabbage, *Symplocarpus foetidus* (L.) Salisb. ex W.P.C. Barton, was captured for the first time in Maryland in Mr. Hevel's yard. Many fly families are represented in Mr. Hevel's collection, including Tephritidae (peacock flies), Keroplatidae (very small flies with long antennae and known as predatory fungus gnats), Platypezidae (flat-footed flies), Bombyliidae (bee flies), Tipulidae (crane flies), and Ephydridae (shore flies, which are tiny flies that usually only occur near seashores and inland water bodies). A very colorful yellow tephritid is the Sunflower Maggot, *Strauzia longipennis* (Wiedemann). Among the Culicidae (mosquitoes), 34 species were eventually isolated from Mr. Hevel's yard.

Over 1000 different species of beetles were obtained; the most numerous being the Carabidae (ground beetles). Also well represented were the Staphylinidae (rove beetles). Among the Buprestidae (jewel beetles) were several alien species.

Among Hymenoptera, the small parasitic Braconidae and Chalcididae wasps provided the most species diversity. Examination of chalcidid wasp parasites in Mr. Hevel's yard led him to the discovery of the species *Balcha indica* Mani & Kaul, an ecto-parasitoid of small beetle grubs. A section of the dead plum tree, where it was attacking beetle grubs in Mr. Hevel's yard, was sent to researchers at Michigan State University. They eventually found it to be effective in also parasitizing the Emerald Ash Borer, *Agrilus planipennis* Fairmaire, and thus it could play an important role in future control of this pest. *Balcha indica* is native to southeast Asia, but it was apparently accidentally introduced to the United States in recent years.

Mr. Hevel was also instrumental in inaugurating the BioBlitz phenomenon in North America. Although the most publicized first BioBlitz was held in Central Park in New York City in 2006 (and was sponsored by Prof. E. O. Wilson's Biodiversity Foundation), the first Bioblitz in the DC area was at Kenilworth Aquatic Gardens in 1996. Mr. Hevel, [MES member] **Chris Thompson**, and [MES member] **Sam Droege** of the Patuxent Wildlife Research Center helped to organize the event. Mr. Hevel has participated in, and displayed his huge yard collection of insects since the late 1990s, at a number of BioBlitzes in major metropolitan areas around the country, including Miami, Chicago, Los Angeles, and San Francisco. The National Geographic Society and the National Forest Service will be co-sponsoring BioBlitzes for at least the next ten years, and thousands of youths from public schools have also become excited participants in the events by finding and gathering specimens for identification by experts.

For Mr. Hevel's yard survey, it is often difficult to locate a specialist who can accomplish accurate identifications for some of the insect groups, and final determinations would occasionally be years in the making. Staphylinids were such an example. Since insect population numbers are quite variable over a period of years, it is necessary to extend a survey to cover many years to obtain a true faunal representation. From 2001 through 2004, Mr. Hevel's yard survey amassed about 4000 species of insects, and about 1000 additional species have been discovered there since then, although accurate identifications are still pending on many. The collection is housed in approximately 20 USNM drawers. Recent additions include many alien species. The yard's species total actually represents about 75% of the insect species that have been documented to occur in Maryland. Mr. Hevel has shown a portion of this collection during public entomology displays outside the National Museum of Natural History on the Capitol Mall.

Mr. Hevel went on to list the great variety of collection techniques he employs. These include ultraviolet ("black") and white porch lights with funnel traps that run all night (He said many beetles are not active until after 10:00 p.m.). A variety of baits are also used. For upright traps, he uses window-glass or mist nets with large soapy water catch trays under them. Pitfall traps are used for crawling insects. Of course, the usual vegetation sweep nets and aerial nets are also regularly employed. Some insects were reared to maturity to complete the species identification.

Respectfully submitted, ***Richard H. Smith****, MES Secretary*.

WILMINGTON, DELAWARE CBP INTERCEPTS FIRST IN PORT RARE DESTRUCTIVE PEST

A 23 March 2015 U.S. Customs and Border Protection (CBP) news release reports that a United States Department of Agriculture (USDA) - Animal and Plant Health Inspection Service (APHIS) - Plant Protection and Quarantine (PPQ) identifier confirmed that on 16 March 2015, CBP agriculture specialists at the Port of Wilmington, discovered a leafhopper, *Scaris* Le Peletier & Serville sp. (Hemiptera: Cicadellidae), in a shipment of bananas from Guatemala. The species has been encountered only one other time in the United States, in Miami in 2005.

A leafhopper, *Scaris* Le Peletier & Serville sp. (Hemiptera: Cicadellidae). (Image courtesy of CBP)

The full news release can be accessed at: http://www.cbp.gov/newsroom/local-media-release/2015-03-23-000000/wilmington-del-cbp-intercepts-rare-destructive.

Submitted by MES member and USDA-APHIS-PPQ Entomologist Identifier ***Jim Young***.

FIRST IN NATION AGRICULTURAL PEST STOPPED AT NOGALES, ARIZONA PORT OF ENTRY

A 31 March 2015 U.S. Customs and Border Protection (CBP) news release reports that on 23 March 2015, a United States Department of Agriculture (USDA) - Animal and Plant Health Inspection Service (APHIS) - Plant Protection and Quarantine (PPQ) identifier confirmed that on 20 March 2015, CBP agriculture specialists at the Mariposa commercial cargo facility, discovered a seed bug, *Claudinerobius slateri* Brailovsky (Hemiptera: Lygaeidae: Rhyparochrominae), in a shipment of celery from Mexico. This is the first interception of this species at a United States port of entry.

A seed bug, *Claudinerobius slateri* Brailovsky (Hemiptera: Lygaeidae: Rhyparochrominae). (Image courtesy of CBP)

The full news release can be accessed at: http://www.cbp.gov/newsroom/local-media-release/2015-03-31-000000/agricultural-pest-stopped-nogales-port-entry.

*Submitted by MES member and USDA-APHIS-PPQ Entomologist Identifier **Jim Young**.*

UNIVERSITY OF MARYLAND DEPARTMENT OF ENTOMOLOGY COLLOQUIA

Fri, 10 April 2015, 12:00 p.m.
"Wasps, Worms and Plants: On the Way to Speculation"
Karen Kester, Ph.D. (Entomologist, Department of Biology, Virginia Commonwealth University, Richmond, Virginia)

Fri, 17 April 2015, 12:00 p.m.
"The Alarm-Defense System of *Cimex lectularius* and Its Implications for Pest Management"
Kevin R. Ulrich (Ph.D. Candidate, Department of Entomology, University of Maryland)

Fri, 24 April 2015, 12:00 p.m.
"Spiderman Syndrome: Bacterial DNA in Animal Chromosomes"
Julie C. Dunning Hotopp, Ph.D. (Associate Professor, Microbiology and Immunology; Associate Professor, Institute for Genome Science, University of Maryland Baltimore, School of Medicine)

Fri, 1 May 2015, 12:00 p.m.
"TBA"
Elanor D. S. Spadafora (Ph.D. Candidate, Department of Entomology, University of Maryland)

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

AMERICAN ENTOMOLOGICAL SOCIETY PUBLIC MEETING

Wed, 22 April 2015; 7:00 p.m.
"For the Love of Underwing Moths"
Lawrence F. Gall, Ph.D. (Head, Computer Systems Office; Informatics Manager, Entomology; Executive Editor, Peabody Publications, Peabody Museum of Natural History
Yale University, New Haven, CT)

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.

Central Maryland Beekeepers Association
Supporting and promoting beekeepers and the viability of honeybees in central Maryland

MEMBERS MEETINGS

Tue, 5 May 2015; 7:00 p.m.
"Research on Bee-Plant Attraction and Heavy Metal Poisoning"
Jody Johnson, Ph.D. (CMBA grant recipient)

Tue, 2 June 2015; 7:00 p.m.
"The Ecological Value of Plants for Pollinators"
Deborah A. Delaney, Ph.D. (Assistant Professor of Entomology, Department of Entomology and Wildlife Ecology, University of Delaware)

Members meetings are held at the Oregon Ridge Nature Center, 13555 Beaver Dam Road, Cockeysville, Maryland. Additional information can be found at: http://www.centralmarylandbees.org/meetings-3/membership-meeting-schedule/.

ENTOMOLOGICAL SOCIETY OF WASHINGTON PUBLIC MEETING

Thu, 7 May 2015; 7:00 p.m.
Topic: TBA
Speaker: TBA
National Museum of Natural History, Smithsonian Institution, Washington, DC
http://entsocwash.org/.

2014/2015 PROPOSED MES EVENT SCHEDULE

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

Date	Speaker	Topic
Oct 17	Jeffrey Shultz	Diversity & Sex Lives of Daddy Longlegs
Nov 21	William Cooper	The Butterflies of Iguazú Falls, Argentina
Feb 20	Kelly Hamby	Exploiting Insect-Microbe Interactions

Mar 20	Gary Hevel	A Yard of Insects: Local Ent Biodiversity
Apr 17	Floyd Shockley	Four Families: Handsome Fungus Beetles
May 8	Members' & Students' Presentations & Elections	
TBA	Survey/Field Trip	
Sep 20	Crab Feast/Meet-&-Greet at J. KING'S Restaurant	

OCT 2014 – SEP 2015 MES MEMBERSHIP 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 2015 issue of the ***Phaëton***:
Please send member news items by 24 April 2015.

SEP 2015 issue of ***The Maryland Entomologist***:
First drafts of articles and notes are due ASAP.

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