

Phaëton

The Official Newsletter of the Maryland Entomological Society

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February 2013

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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

Meeting Announcement

The Maryland Entomological Society's **290**th regular meeting will be held **Friday**, **15 February 2013**, 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: David Adamski, Ph.D., Entomologist, United States Department of Agriculture, Agricultural Research Service,

Systematic Entomology Laboratory, c/o National Museum of Natural History, Smithsonian Institution,

Washington, DC

Title: Aspects of a Changing Classification: a Nightmare for Those Outside Systematics

Biological classifications are naming systems that represent related groups of organisms. Historically, biological classifications were based upon topological thinking. However, these early classifications have given way to tree thinking. Tree thinking came about as a result of time and space travel through the study of fossils and extant species. Species and species concepts have changed through advances in the studies of macromorphology, molecular morphology, and biogeography. And as these studies become more sophisticated, so should our natural classifications become more natural. Dr. David Adamski will try to explain the above concepts in a historical context, using as an example, a group of moths that he has been studying for nearly 35 years.

Dr. Adamski began his education with a B.S. in Business Administration and an M.S. in Special Education from American International College, Springfield, Massachusetts. His direction shifted to insects and he received a B.S. in Entomology and an M.S. in Entomology (Systematics) at the University of Massachusetts, Amherst. He then earned a Ph.D. in Entomology (Systematics) at Mississippi State University. Since 1990, Dr. Adamski has been a Support Scientist at the United States Department of Agriculture (USDA), Agricultural Research Service (ARS), Systematic Entomology Laboratory (SEL) located at the National Museum of Natural History, Smithsonian Institution, Washington, DC. He provides research support, curates and maintains adult and larval insect collections, and provides routine and urgent identifications for USDA's Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ) program. Dr. Adamski's specialty is the micromoths (Lepidoptera: Gelechioidea) and he has published numerous scientific papers on these diminutive creatures.

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 Wilkins Avenue, Baltimore, MD 21229, just 15 minutes from UMBC. Meet at the restaurant **promptly at 6:00 p.m.**

For more information concerning upcoming lecture/meetings, please contact one of the following people:

Annapolis Area: **Harold Harlan** (410) 923-0173 (Home) haroldharlan@comcast.net Baltimore Area: **Fred Paras** (410) 374-0425 (Home) bugandrockman@msn.com

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16 NOVEMBER 2012 MES MEETING MINUTES

The 289th general meeting of the Maryland Entomological Society was held on Friday, 16 November 2012 at UMBC and began at 8:25 p.m. with a welcome by MES President Fred Paras. The meeting launched immediately into the main program with an introduction of our speaker, Stephen D. **Allgeier**. His talk is summarized below. The program was followed by discussion and refreshments, and then an MES business meeting was convened. Minutes from the October 2012 meeting were read and approved, and the Treasurer's report was given, citing an MES funds total of \$2701.88. The fund has grown well in the past month from donations as well as dues payments. The remainder of the business meeting centered on plans for future meetings. Fred proposed that the April meeting be reserved for presentations of entomologically-related student projects. This would be a prime opportunity to introduce and interest younger people in our area toward the activities of and membership in the MES. Fred was already aware of two projects by students at Baltimore City Community College: 1) bait traps made from large plastic soda bottles for fruit fly control and monitoring and 2) a large poster presentation on the Appalachian Tiger Swallowtail, Papilio appalachiensis (Pavulaan & D. Wright) (Lepidoptera: Papilionidae), evolution by hybrid introgression. Other sources of student projects for presentation could be from MES member Mike Turell's 4-H entomology group in Frederick, MD and from the several faculty contacts that MES has at Towson University. Students would be sought for talks no later than the middle of the spring semester. Several exhibits were displayed at the meeting. These included three drawers containing tropical cicadas, stick insects, and leaf mantids prepared by **Mike Turell.** and three boxes of beetle and Lepidoptera species (two from MES Vice President Phil Kean and one from MES Treasurer Ed Cohen). MES member Gay Williams kindly brought in an assortment of free entomology books and references from her office holdings for disbursement to interested MES members. Phil Kean is scheduled to provide refreshments for the February 2013 MES meeting.

Respectfully submitted, Richard H. Smith, MES Secretary

16 NOVEMBER 2012 MES LECTURE

"The Brown Marmorated Stink Bug: 3+ Years and Other New Invasive Pests" – Stephen D. Allgeier, Faculty Extension Assistant, University of Maryland, College of Agriculture & Natural Resources, Home Horticulture & Master Gardener Coordinator (Carroll County), Westminster, MD

Stephen D. Allgeier started his talk with background on some of the biology of the Brown Marmorated Stink Bug (BMSB), *Halyomorpha halys* (Stål) (Hemiptera: Pentatomidae). These are native to China, Japan, Korea, and Taiwan where they produce six generations per year and are actually only a minor pest in these countries. Only two generations typically occur in Maryland. These true bugs are mobile and will fly at night and feed or rest during daylight, mainly on tree fruit such as apples

and peaches, and also grapes, raspberries, tomatoes, peppers, corn, and soybeans. Egg deposits peak in late July to August and adults peak in August. They were discovered in the United States in the late 1990s, but they did not reach pest proportions here until 2008. By 2010, they had become concentrated and a problem in the central-eastern United States (Pennsylvania, West Virginia, Maryland, New Jersey, Virginia, and Delaware) and also in the Great Lakes states, in Texas, and in the Southwest up into California and the West Coast. Their trail of destructiveness is not limited to crop damage, as their tendency to form large aggregations in confined areas has led to overheating and malfunctioning of electric motors and gasoline engines. With fruit, their feeding by proboscis piercing injects bacteria into the interior portions of the fruit. This results in infection, widening brown spots, and fruit yeast infection. With tomatoes, a rotted cavity forms in the fruit that is worse than that resulting from native stink bug attacks. These problems render the fruit unsuitable for whole-fruit sale, but the fruit is still usable for pasteurized juice preparation. Several homeowners are interested in effective and convenient techniques for killing and eliminating the stink bugs in the home. The BMSB's slow metabolism during winter diapause allows them to withstand freezing temperatures. However, quick freezes (such as placing them in a bag and depositing the bag in the freezer) will knock them dead. The BMSB attacks soybeans by attacking the forming beans, and this leads to soybean crops that "stay green" throughout the growing season and never produce beans. Such attacks are evident in the peripheral portions of soybean fields. The aggregation behavior of the BMSB is facilitated by the male's pheromones, which even stimulate a few native green stink bugs and lady beetles (Coleoptera: Coccinellidae) to join the accumulation. For natural controls, predatory brown stink bugs (subgenus Apateticus [Apoecilus] Stål) will feed on the BMSB. BMSBs have also been found in European Hornet, Vespa crabro Linnaeus (Hymenoptera: Vespidae), nests. Many common bird species such as the Carolina Wren, Thryothorus ludovicianus (Latham), and the European Starling, Sturnus vulgaris Linnaeus, also feed on them. For synthesized control agents, a product called Surround® Crop Protectant is effective. It is made from 95% kaolin clay, a naturally occurring mineral and the main ingredient in Kaopectate. It is Organic Materials Review Institute-certified and EPA-registered for the suppression of stink bugs in apple, pear and tree nut crops. Mr. Allgeier recommends using one-half the package-recommended mixture proportion of Surround. It does not actually kill stink bugs, but it discourages their feeding by forcing them to devote substantial time to repeated proboscis cleaning. This substance is added to the long list and schedule of pesticides used by apple growers. Apple damage from BMSB is reduced from 78% to 50%, and marketable whole apples are increased from 60% to 98% with use of Surround. The effects of Surround on beneficial insects such as honeybees are also found to be negligible.

Mr. Allgeier went on to discuss other new pest insects such as the Spotted Wing Drosophila, *Drosophila suzukii* (Matsumura) (Diptera: Drosophilidae). Native to Southeast Asia, it has appeared in U.S. crops in the past three years. Its egg is deposited by females in ripe fruit such as blackberries, strawberries, cherries, and grapes, and the maggot feeds inside and renders the fruit unsalable. Fortunately, it does not notably attack more solid fruits such as apples, pears, and peaches. In addition to the damage caused by the maggot, the large and serrated female ovipositor creates punctures in fruit large enough for other insects to enter and feed. This fly species already occurs throughout Central Maryland. It flies more in cool weather, and populations seem to peak in October and November when it can attack ripened grapes. It can be controlled with synthetic pyrethroids, but these kill beneficial insects too.

Another pest discussed briefly by Mr. Allgeier was the Japanese Cedar Longhorned Beetle, Callidiellum rufipenne (Motschulsky) (Coleoptera: Cerambycidae). Its grub injures mainly ornamental conifers such as arborvitae, Thuja L. spp., and Leyland cypress, Cupressus x leylandii (both Cupressaceae).

Mr. Allgeier also briefly covered the Emerald Ash Borer (EAB), Agrilus planipennis Fairmaire (Coleoptera: Buprestidae). This pest insect only attacks species of ash, Fraxinus L. spp. (Juglandaceae); however, this is a prime landscape tree in the Great Lakes area and from the western Appalachians to the Midwest. In Maryland, quarantine restrictions, for which the movement of ash trees, cut wood, and all hardwood firewood out of the quarantine area is prohibited, extends from the Western Shore of the Chesapeake Bay to Allegany County. Fortunately, the Chesapeake Bay apparently impedes the spread of the EAB, and it has not reached the Eastern Shore.

A malady to be on the lookout for in Maryland is the Thousand Cankers Disease (TCD). This is a recently recognized disease of certain walnuts, Juglans L. spp. (Juglandaceae). TCD is caused when the Walnut Twig Beetle, Pityophthorus juglandis Blackman (Coleoptera: Curculionidae), a very small species, tunnels beneath the bark of walnut trees and spreads the fungus Geosmithia morbida Kolařík, Freeland, Utley & Tisserat (Hypocreales: Bionectriaceae) which the beetle normally carries. The fungus causes small cankers to form which disrupt the movement of water and nutrients throughout the tree, eventually leading to dieback of branches and death of the tree, usually within 10 years. There is no known cure for Thousand Cankers Disease. The disease is widespread in Tennessee, but it has not reached Maryland.

Respectfully submitted, Richard H. Smith, MES Secretary

WELCOME TO NEW MEMBER

MES welcomes the following new member to the Society:

Paula M. Shrewsbury Columbia, MD

NEW COUNTY BUTTERFLY RECORDS FOR MARYLAND & DELAWARE

The past year 2012 was quite exciting and extraordinary for its upsurge in new butterfly records for Maryland and Delaware. In New Maryland County Records all of the records made aware to me, 22 were new county

records. The most startling entry was for the southern and western U.S.-occurring Dainty Sulphur, which had been no more than a stray in this part of the country before. Not only was a Maryland record established for it in 2012 (in June in Charles County), but it appeared in eight additional counties, and two of those counties (Montgomery and Prince George's) had multiple sightings at single locations during the season. The other dramatic surprise was Carolina Satyr. Known for years primarily from only the Southern Maryland counties, in 2012 the Carolina Satyr was observed twice in mountainous Garrett County. However, these probably represented strays, not from other parts of Maryland, but instead from southern West Virginia where the Carolina Satyr has long been known to reside. Other records representing northward influxes of southern species include those for Long-tailed Skipper, Southern Broken-Dash, Giant Swallowtail, Gulf Fritillary, Little Yellow, and Sleepy Orange. As noted for the observed emigration of southern butterfly species into Massachusetts in a recent study (http://wamc.org/post/southern-butterflies-movingmassachusetts), these movements into our local area, as in Massachusetts, may be a byproduct of global warming. Also, surprising second county sightings as well as new sightings of long unseen rare species were recorded in a few Maryland counties in 2012.

The new records are summarized below. Entries for the sightings (and photograph[s], if they accompanied record submission) have been entered into, and may be viewed at, the Butterflies and Moths of North America (BAMONA) permanent record-keeping website at http://www.butterfliesandmoths.org/. These may be reviewed in detail by going to the website and selecting "Regional Checklists", "butterfly", "United States", "Maryland", and "Apply" and then by selecting the species of interest. You will need to scroll to the U.S. map displayed at the bottom of the species discussions, zoom in the Maryland area, and click on any of the sighting dots having orange rings. These are BAMONA's "Verified Sightings." Clicking on the "More Detail" option will take you to the record information and photo(s) too, if they were submitted.

I have also recently updated my public on-line historical Maryland and Delaware butterfly county lists to include the new records. These appear at the Leplog website under its local listings section at http://leplog.wordpress.com/washington-areabutterfly-club/local-and-regional-lists-and-info/butterflyrecords-for-maryland-delaware-and-the-district-of-columbia/. The directions at this link tell the user how to access all historical state, county, and city butterfly lists and state crosssectional county-by-county occurrence charts.

All contributors are to be congratulated and commended for their diligence in keeping a watchful eye for new and unusual butterfly species while out in the field and for their interest, efforts, and persistence in forwarding that data for addition to the permanent scientific record for the local Maryland-Delaware

Anne Arundel County, MD

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Dainty Sulphur – *Nathalis iole* Boisduval

11 SEP 2012; Plummer House, Parris N. Glendening Nature

Preserve, Jug Bay Wetlands Sanctuary MES member **Sue Ricciardi** & Dave Perry

Baltimore County, MD

Southern Broken-Dash – *Wallengrenia otho* (J. E. Smith) 18 AUG 2012; Soldiers Delight Natural Environment Area

Annette Allor

Baltimore County, MD

Dainty Sulphur – Nathalis iole Boisduval

5 OCT 2012; White Marsh Road near White Marsh Mall

Bob Gardner

Calvert County, MD

Dainty Sulphur – Nathalis iole Boisduval

20 AUG 2012; North Beach

Lisa Garrett

Carroll County, MD

Dainty Sulphur – *Nathalis iole* Boisduval 24 OCT 2012; Flag Marsh, Mount Airy

MES member Dave Smith

Charles County, MD

Dainty Sulphur – Nathalis iole Boisduval

19 JUN 2012; Billingsley Road

Thomas Ostrowski Frederick County, MD

Little Yellow – *Pyrisitia lisa* (Boisduval and Le Conte)

22 JUN 2012; Mount Airy

Jeff Cagle

Garrett County, MD

Carolina Satyr - Hermeuptychia sosybius (Fabricius)

28 JUL 2012; Snaggy Mountain

Mikey Lutmerding Garrett County, MD

Hoary Edge – Achalarus lyciades (Geyer)

9 JUN 2102; Savage River

Rick Cheicante

Harford County, MD

Dainty Sulphur – *Nathalis iole* Boisduval 3 SEP 2012; Eden Mill Nature Center

MES member Richard Smith, Annette Allor, & Nicole Eller

Harford County, MD

Long-tailed Skipper – *Urbanus proteus* (Linnaeus)

6 OCT 2012; Forest Hill Kim and Matt Hafner Howard County, MD

Giant Swallowtail – *Papilio cresphontes* Cramer 14 AUG 2012; 2 miles south of Ellicott City

Kathy Litzinger Howard County, MD

Dainty Sulphur - Nathalis iole Boisduval

24 OCT 2012; Columbia Gateway Business Community

Jim Wilkinson

Howard County, MD

Dainty Sulphur – *Nathalis iole* Boisduval 25 OCT 2012; Patuxent Branch Trail, Columbia

Linda Hunt

Howard County, MD

Southern Broken-Dash – Wallengrenia otho (J. E. Smith)

25 MAY 2012; Patuxent Branch Trail, Columbia

Annette Allor

Howard County, MD

Broad-winged Skipper – *Poanes viator* (W. H. Edwards) 28 JUL 2011; Lake Elkhorn powerlines, Columbia

Allen Lewis

Kent County, MD

Sleepy Orange – Abaeis nicippe (Cramer)

11 JUN 2012; Eastern Neck National Wildlife Refuge

David Amadio Kent County, MD

Baltimore Checkerspot – *Euphydryas phaeton* (Drury)

?? JUN 1993; Urieville Lake, Chestertown

Brent Steury

Montgomery County, MD

Dainty Sulphur – *Nathalis iole* Boisduval 29 JUL 2012; Woodstock Equestrian Park

Dave Czaplak

Montgomery County, MD

Broad-winged Skipper – Poanes viator (W. H. Edwards)

14 SEP 2012; Bethesda

Bob Robbins

Prince George's County, MD

Dainty Sulphur – *Nathalis iole* Boisduval 18 AUG 2012; Merkle Wildlife Sanctuary

Mikey Lutmerding Somerset County, MD

Red Admiral – Vanessa atalanta (Linnaeus)

20 OCT 2012; Vessey Orchard

Jim Brighton, Dan Small, and Tom Feild

Washington County, MD

European Skipper – *Thymelicus lineola* (Ochsenheimer) 27 MAY 2012; Woodmont Road/Pearre Road area

Rick Cheicante

New Delaware County Records

Kent County, DE

Gulf Fritillary – *Agraulis vanillae* (Linnaeus)

8 AUG 2012; Bombay Hook National Wildlife Refuge

Howard Eskin

Sussex County, DE

Long-tailed Skipper – *Urbanus proteus* (Linnaeus)

3 OCT 2012; Rehoboth Beach

David Amadio

Submitted by MES member Richard H. (Dick) Smith, MD, DE,

and DC Butterfly Records Coordinator for BAMONA

CBP NEWS RELEASE BALTIMORE CBP INTERCEPTS "FIRST IN PORT"

5 February 2013: Tomato Thrip

Ceratothripoides brunneus Bagnall (Thysanoptera: Thripidae) "Baltimore CBP Intercepts First in Port Tomato Thrip"

On 1 February 2013, a United States Department of Agriculture (USDA) entomologist confirmed that Customs and Border Protection (CBP) agriculture specialists discovered on 26 July 2012 at Baltimore Washington International Thurgood Marshall Airport a first in port of *Ceratothripoides brunneus* found on leaves inside a traveler's luggage. The complete news release can be accessed at:

http://www.cbp.gov/xp/cgov/newsroom/news_releases/local/02 052013 5.xml.



Ceratothripoides brunneus Bagnall (Thysanoptera: Thripidae). (Photo courtesy of CBP.gov)

"CBP INTERCEPTS INSECT NEW TO THE U.S."

A U.S. Customs and Border Protection (CBP) news release of 11 January 2013, announced that a CBP agriculture specialist discovered a scentless plant bug, *Stictopleurus abutilon* (Rossi) (Hemiptera: Rhopalidae), on 14 December 2012 in a shipment of tiles imported from Italy that arrived at the Bayport terminal in Houston. This species has never been intercepted in the United States. The news release can be accessed at:

http://www.cbp.gov/xp/cgov/newsroom/news_releases/local/01112 013_5.xml.



Stictopleurus abutilon (Rossi) (Hemiptera: Rhopalidae). (Public domain photo accessed from the Encyclopedia of Life website.

Photographed by Josef Němec, Ukraine, Podkarpatská.)

2012/2013 PROPOSED MES EVENT SCHEDULE

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

Date	<u>Speaker</u>	Topic/Location
Oct 19	Leo Kenefic	Malaria Control: vectors, drugs, vaccines
Nov 16	Stephen Allgeier	Status of Brown Marmorated Stink Bug
Feb 15	David Adamski	Aspects of a Changing Classification
Mar 15	Timothy Foard	Ants of Maryland
Apr 19	Undergraduate College Student Poster Presentations	
May 17	"Members' Potpourri" Presentations & Elections	
TBA	Survey/Field Trip	TBA
Sep 8	Crab Feast/Meet&Greet	J. KING'S Restaurant (Anne Arundel Co.)

NEARBY ENTOMOLOGICAL EVENTS

8 February 2013; 12:00 p.m.

University of Maryland, Department of Entomology Colloquium "What makes a mosquito invasive?" – Speaker: Dr. Dina Fonseca (Associate Professor, Center of Vector Biology, Rutgers University)

University of Maryland, 1130 Plant Sciences Building, College Park, Maryland

http://entomology.umd.edu/news/events/posts/663.

15 February 2013; 12:00 p.m.

University of Maryland, Department of Entomology Colloquium "Evolution and molecular biology of juvenile hormone signaling" – Speaker: Dr. Aaron Bauman (Janeila Farm Research Campus, Howard Hughes Medical Institute) University of Maryland, 1130 Plant Sciences Building, College Park, Maryland

http://entomology.umd.edu/news/events/posts/664.

20 February 2013: 12:00 p.m.

University of Maryland, Department of Entomology Colloquium "Progress and prospects for transgenic silkworm, *Bombyx mori*" – Speaker: Dr. Hanfu Xu (Associate Professor, State Key Laboratory of Silkworm Genome Biology, Southwest University, Chongqing, China)

University of Maryland, 1130 Plant Sciences Building, College Park, Maryland

http://entomology.umd.edu/news/events/posts/665.

27 February 2013; 7:00 p.m.

American Entomological Society Public Meeting/Lecture The Academy of Natural Sciences of Drexel University, Ewell Sale Stewart Library, Second Floor, Philadelphia, Pennsylvania. http://darwin.ansp.org/hosted/aes/mtgSched.htm.

1 March 2013: 12:00 p.m.

University of Maryland, Department of Entomology Colloquium "My scientific 'evolution' over 50 years – from blind cave fish to the Tappan Zee Bridge (with various digressions!)" – Speaker: Dr. Arthur Popper (Department of Biology, Center for Comparative Evolutionary Biology of Hearing, University of Hearing)

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University of Maryland, 1130 Plant Sciences Building, College Park, Maryland

http://entomology.umd.edu/news/events/posts/666.

7 March 2013; 7:00 p.m.

Entomological Society of Washington Monthly Meeting/Lecture Smithsonian Institution, National Museum of Natural History, 10th and Constitution Avenue, N.W., Washington, DC http://entsocwash.org/.

8 March 2013; 12:00 p.m.

University of Maryland, Department of Entomology Colloquium "Clash of the kingdoms: interspecific interactions between carnivorous plants, arthropods, and amphibians" – Speaker: Dr. David Jennings (Department of Entomology, University of

Maryland, College Park)

University of Maryland, 1130 Plant Sciences Building, College Park, Maryland

http://entomology.umd.edu/news/events/posts/667.

OCT 2012 - SEP 2013 SOCIETY YEAR OFFICERS

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SUBMITTAL DEADLINES

MAR 2013 issue of the *Phaëton*:

Please send member news items by 1 March 2013.

SEP 2013 issue of *The Maryland Entomologist*:

Please send first drafts of articles and notes by 1 April 2013.

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