



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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University of Maryland Baltimore County (UMBC)
1000 Hilltop Circle
Baltimore, MD 21250

Meeting Announcement

The Maryland Entomological Society's 292nd regular meeting will be held **Friday, 19 April 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.

Undergraduate and Graduate Student Research Presentations

Join your fellow MES members for an impressive evening of five brief presentations that highlight undergraduate and graduate student research at Baltimore-area colleges and universities.

Speaker: Jaslyn Ann F. Lumongsod, Sophomore, Baltimore City Community College, Baltimore, Maryland

Title: Effectiveness of Fermented Banana Stalk, Guava Peelings, and Sugarcane Vinegar as a Fruit Fly Trap

This study has the purpose to use a less expensive and organic fruit fly trap rather than a commercial fly trap which is expensive and has some chemical components that may be harmful to the environment. The improvised fruit fly trap is composed of 50 ml of fermented banana stalk, guava peelings, and muscavado (an unrefined dark brown sugar; a precursor to molasses) and about 200 ml of vinegar paste which consists of sugarcane vinegar and muscavado. In the experiment, the proponent made use of two different fruit fly traps with three replications to distinguish their similarities and differences. The first fly trap is the commercial trap and the second is the improvised fruit fly trap. The two fruit fly traps were placed in the same setting, specifically near the three guava fruit trees. Each guava tree has one commercial fruit fly trap and the improvised fruit fly trap. The observed condition was recorded at the start of the experiment till its final day. At the end of the experiment, the two traps had attracted different numbers of insects that were trapped. The data were analyzed using the t-test, and I concluded that the improvised fruit fly trap and the commercial fruit fly trap were both effective in catching fruit flies. The improvised fruit fly trap is less expensive and uses organic materials that can be easily found in our environment.

Jaslyn is a sophomore at Baltimore City Community College (BCCC). She grew up and studied in the Philippines. After her graduation from high school in April 2011, her family and she moved to the United States due to her mom's work as a Biology teacher. It was a time of confusion for Jaslyn since she was unsure of what major she should take. In the fall of 2011, she decided to major in Nursing at BCCC. She plans to finish her Associate degree in Nursing at BCCC and get her Bachelor's Degree afterwards. Someday, she would like to work as a neonatal nurse or an emergency nurse and obtain a Master's degree in anesthesiology.

Speaker: Theresa White, Sophomore, Baltimore City Community College, Baltimore, Maryland

Title: Evolution in the Making: Speciation through Hybrid Introgression

Theresa will give a PowerPoint presentation which reflects the analysis of research conducted on three *Papilio* Linnaeus species from three different articles. She will present a summary of the evidence given from ecological and environmental data, as well as the molecular data evidence which is primarily from the following article:

Kunte K., C. Shea, M.L. Aardema, J.M. Scriber, T.E. Juenger, L.E. Gilbert, and M.R. Kronforst. (2011) [Sex chromosome mosaicism and hybrid speciation among tiger swallowtail butterflies](#). *PLoS Genet* 7(9): e1002274.
doi:10.1371/journal.pgen.1002274

Papilio appalachiensis (Pavulaan & D. Wright) (Lepidoptera: Papilionidae), Appalachian Tiger Swallowtail, is a hybrid species formed from the interbreeding of *Papilio glaucus* Linnaeus (Eastern Tiger Swallowtail) and *Papilio canadensis* Rothschild and Jordan

(Canadian Tiger Swallowtail). It is believed that *P. appalachiensis* Z-linked genes were inherited from *P. canadensis*, while the *P. appalachiensis* mitochondrial DNA W-linked genes were inherited from *P. glaucus*. Genome-wide Amplified Fragment Length Polymorphism (AFLP) showed that *P. appalachiensis* has almost equal amount of its genome from both parental species. Other genetic analysis also shows that *P. appalachiensis* has genetic differences from its parental species. The ecological data also support the validity of *P. appalachiensis* as a distinct species formed through hybridization and is corroborated by the molecular data.

Theresa is currently a second year student at Baltimore City Community College (BCCC) majoring in biotechnology. She plans to graduate from BCCC with an Associate degree in General Studies and Biotechnology. After graduation, she plans to enroll at the University of Maryland Baltimore County. Her goal is to become a research scientist.

Speaker: Nicole Arnold, Master of Science Student (Molecular and Cell Biology track), Department of Biological Sciences, Towson University, Towson, Maryland

Title: Alkaloids as Antifeedants against Gypsy Moth Larvae, *Lymantria dispar*

Nicole Arnold and Vonnice D. C. Shields, Department of Biological Sciences, Towson University, Towson, Maryland

Nine alkaloids (acridine, aristolochic acid, atropine, berberine, caffeine, nicotine, scopolamine, sparteine, and strychnine) were evaluated as feeding deterrents for Gypsy Moth larvae, *Lymantria dispar* (Linnaeus) (Lepidoptera: Lymantriidae). Our aim was to determine and compare the taste threshold concentrations, as well as the ED₅₀ values, of the nine alkaloids to determine their potency as feeding deterrents. The alkaloids were applied to disks cut from northern red oak leaves (*Quercus rubra* L. [Fagaceae]), a plant species highly favored by larvae of this polyphagous insect species. We used two-choice feeding bioassays to test a broad range of biologically relevant alkaloid concentrations spanning five logarithmic steps. We observed increasing feeding deterrent responses for all of the alkaloids tested and found that they exhibited different deterrence threshold concentrations ranging from 0.1 mM to 10 mM. In conclusion, it appears that this generalist insect species bears a relatively high sensitivity to these alkaloids, which confirms behavioral observations that it avoids foliage containing alkaloids. Berberine and aristolochic acid were found to have the lowest ED₅₀ values and were the most potent antifeedants. This research was published in two peer-reviewed journals and reflects work carried out by Nicole (and others) while an undergraduate Bridges student [See below.] in Dr. Shields' lab:

Shields, V.D.C., K.P. Smith, N.S. Arnold, I.M. Gordon, T.E. Shaw, and D. Waranch. 2008. [The effect of varying alkaloid concentrations on the feeding behavior of gypsy moth larvae, *Lymantria dispar* \(L.\) \(Lepidoptera: Lymantriidae\)](#). *Arthropod-Plant Interactions* 2(2): 101-107.

Shields, V.D.C., E.J. Rodgers, N.S. Arnold, and D. Williams. 2006. [Feeding responses to selected alkaloids by gypsy moth larvae, *Lymantria dispar* \(L.\)](#). *Naturwissenschaften* 93(3):127-130.

Nicole is currently a fulltime graduate student at Towson University pursuing a Master of Science degree in Biology. She has a strong healthcare background and finds it to be very rewarding to look at the science behind illnesses. In her undergraduate career, she was a member of the Bridges to Baccalaureate Program at Baltimore City Community College. She was given the opportunity to carry out research with her current mentor, Dr. Vonnice Shields, at Towson University on the feeding behavior of Gypsy Moth larvae. The experience gained from the research lead to a change in major and, later down the line, a Bachelor's degree in Biology. Nicole's future goals are to pursue a career allowing her to combine her interests.

Speaker: Steven Messer, Master of Science Student, Department of Biological Sciences, Towson University, Towson, Maryland

Title: The Odd Men Out: Social Parasites and Their Difference from Typical Insect Social Structures

Social Parasitism is defined as "the parasitic dependence of a social insect species on one or several free-living social species," and is found in several groups including bees, wasps, and ants. Social parasitism itself can manifest in several different forms, including: guest, temporary, dulotic, and inquiline. Each of these forms has unique characteristics that make them each a distinct group, and each of these four forms differs from the typical social structure that you would see in bees, wasps, or ants. These social parasites range in behavior from establishing a colony of their own including workers within the nest of their host, as in guest social parasites; to completely losing a worker caste and being completely reliant upon their host species for brood care and nourishment, as seen in inquilines; and to even go so far as to steal the brood from another species to provide their colony with workers, as seen in dulotic species. There are many variations and within these groups, knowledge about these phenomena is still being acquired and many new species are being described in hopes that we will further understand how they evolved.

Steven is a biology Master's student at Towson University, originally from the northern suburbs of Chicago, Illinois. He did his undergraduate work at Elmhurst College where he did undergraduate research analyzing skull allometry of *Sternotherus odoratus* (Latreille in Sonnini and Latreille) (Testudines: Kinosternidae), the Common Musk Turtle. Steven has shifted his research interest to ants because he has always been interested in systematics and learning about biodiversity. His research fits into this because what better way to learn about biodiversity than describing an entirely new ant species, especially one that is different than what people normally think of in regard to ants, by being a social parasite and losing eusociality. In the future Steven hopes to look at the relationship between inquiline ants and their hosts to try to see what is causing this loss of eusociality, particularly by looking at gene expression and possibly methylation patterns to attempt to determine a cause.

Speaker: **Jillian Sanford, Master of Science Student, Department of Biological Sciences, Towson University, Towson, Maryland**

Title: **Insect Olfactory Repellents: Is There a Gustatory Contribution?**

Jillian Sanford^{1,2}, Vonnie D. C. Shields¹, and Joseph C. Dickens²

¹Department of Biological Sciences, Towson University, Towson, Maryland

²Invasive Insect Biocontrol and Behavior Laboratory, Plant Sciences Institute, Henry A. Wallace Beltsville Agricultural Research Center, Agricultural Research Service, United States Department of Agriculture, Beltsville, Maryland

Insect repellents provide long-range protection from biting insects including ticks and mosquitoes by affecting the olfactory (smell) system. As such, the vast majority of research carried out to understand the mechanisms behind insect repellency has focused on olfaction. Recent molecular and evolutionary studies performed on the origin of olfactory receptors demonstrated that these proteins have evolved directly from gustatory (taste) receptors. The goal of my study is to determine if repellent compounds interact with the insect gustatory system. To accomplish this, I will carry electrophysiological studies in two species, namely *Aedes aegypti* (Linnaeus) (Diptera: Culicidae) [Yellow Fever Mosquito] and *Lymantria dispar* (Linnaeus) (Lepidoptera: Lymantriidae) [Gypsy Moth], to determine if insect repellents stimulate gustatory sense organs (sensilla) located on the mouthparts. Electrophysiological studies on *A. aegypti* show the presence of at least three gustatory receptor neurons (GRNs), one of which is activated by repellent compounds. Preliminary electrophysiological recordings performed on the medial styloconic sensillum of *L. dispar* show that insect repellents activate the same GRN as secondary plant compounds, such as caffeine. I hypothesize that there will be differences in the electrophysiological responses of *A. aegypti* and *L. dispar* to the various repellent compounds tested in this study. The information gathered from this study will allow us to have a better appreciation of the means by which insect repellents act on both a behavioral and physiological level, leading potentially to the design of more effective insect repellents. This research was recently published in the following peer-reviewed journal:

Sanford, J., V.D.C. Shields, and J.C. Dickens. 2013. [Gustatory receptor neuron responds to DEET and other insect repellents in the yellow-fever mosquito, *Aedes aegypti*. *Naturwissenschaften* 100\(3\):269-273.](#)

Jillian is currently in her second year of graduate studies pursuing a Master of Science degree in Biology at Towson University. She is researching the gustatory system of *A. aegypti* and *L. dispar* to see if insects are able to detect traditional olfactory repellents through their sense of taste. In the future, she hopes to either continue researching in the fields of immunology or become a teacher.

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
	Phil Kean	(410) 944-4630 (Home)	
	Frank Hanson	(410) 997-0890 (Home)	hanson@umbc.edu
Bowie Area:	Gene Scarpulla	(301) 464-3170 (Home)	ejscarp@comcast.net
Southern MD	Bob Platt	(410) 586-8750 (Home)	platt@umbc.edu

15 MARCH 2013 MES MEETING MINUTES

The 291st general meeting of the Maryland Entomological Society was held on Friday, 15 March 2013 at UMBC and began at 8:24 p.m. with a welcome by MES President **Fred Paras**. Meeting turnout was exceptional with 18 MES members, a few guests, and several students from Baltimore City Community College (BCCC) in attendance. The meeting launched immediately into the main program with an introduction of our main speaker, MES member **Timothy Foard**. His talk is summarized below. The program was followed by discussion and refreshments, and then an MES business meeting was convened. Minutes from the February 2013 meeting were read and approved, and MES Treasurer **Ed Cohen**'s report was given, citing an MES funds total of \$3241.88. As a follow-on regarding the student presentations

topic from the February meeting, Fred announced that the MES will host short presentations of entomological projects by five students at the April 2013 meeting: three from Towson University and two from BCCC. There were no other major business items, but there were several announcements. Field trips will be planned at the April meeting (so please bring suggestions then) and a slate of MES officer candidates for next year will be initiated. MES member **Jim Young** announced a variety of events scheduled by the Natural History Society of Maryland (NHSM). MES members **Warren Steiner** and **Jil Swearingen** announced that the annual banquet of the Entomological Society of Washington will be held at the Audubon Naturalist Society headquarters in Chevy Chase on 5 June 2013. **Fred Paras** brought in an article appearing in the New York Times on 7 March 2013 about a recent locust plague in Israel of "near" biblical proportions. Lastly, **Jim Young**, the

newly-appointed curator of arthropods for the NHSM at their Overlea collections facility, showed a complete set of photographic slides of the specimen drawers in MES Historian **Robert S. Bryant**'s insect collection acquired by NHSM last year. The total collection consists of 158 collection drawers housed in cabinets. The collection is primarily of moths from Maryland, but in addition it contains specimens from other countries (including from tropical areas) and also numerous butterfly and beetle species. Jim said there are approximately 11,000 pinned specimens, and the acquisition included another approximately 6000 papered Lepidoptera specimens.

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

15 MARCH 2013 MES LECTURE

“Ants of Maryland: A Statewide Survey” – Timothy Foard, MS, BCE, Entomologist, Senior Study Director, i2LResearch USA Inc, Baltimore, Maryland

Timothy Foard opened his talk by presenting some of the benefits of conducting a statewide survey of ant species. These include the fact that ant diversity can serve as indicators of 1) general biodiversity, 2) climatic and environmental change, and 3) success of habitat restoration methods. The latter can include mining reclamation and agricultural, prairie, and forest recovery projects. Advantages of surveying ants as compared to other fauna include the short time and minimal staff required to obtain specimens. However, their small size requires special equipment and longer examinations for identification, and the surveyor must confront the still unsettled taxonomy of some ant genera. Tim initially became interested in doing an ant survey in Maryland after attending a presentation on ant surveys in Mississippi at the 2004 Entomological Society of America Annual Meeting in Salt Lake City, Utah. Tim has followed the lengthy process of obtaining insect collecting permits on a variety of state and federal lands in Maryland. His collection sites consisted of over 100 locations that are spread fairly evenly in all the state's physiographic regions (i.e., coastal dune areas to the Allegheny Plateau). A variety of soil and forest types are included in the surveys in each region, and ant composition from each of the habitat types are compared later. Extensive collection protocols were conducted at 13 of the sites around Maryland. Site data included percent canopy cover, tree diameter at breast height (DBH), tree type, leaf litter depth, and soil pH. Collection techniques consisted of 1) sifting leaf litter from 1-meter square quadrants, distributed either randomly or along transects (10 meters apart); 2) pitfall traps (1 inch diameter, left in place for one week); 3) ground baits (shortbread cookies worked very well); 4) tree baits (grape jelly painted on tree trunks); 5) vegetation net sweeps (3 meters circumference); and 6) subterranean probes and hand collection. Hand collection was actually the most successful technique for obtaining state ant records. Leaf litter samples are placed in “Winkler extractors” for one week (This is a cloth-enclosed rectangular-solid container with a funnel receptacle at the bottom toward which ants crawl due to internal extractor dryness.). Later in the talk, Tim discussed various findings at his protocol sites. Forest tree composition, mapped study

transects, and ant species distributions and total species numbers from leaf litter and pitfall traps were presented for seven of these sites. The sites were: Oldtown, Blackwater National Wildlife Refuge, Eastern Neck National Wildlife Refuge, Purse State Park, Garrett State Forest, Fair Hill Natural Resource Management Area, and Assateague Island National Seashore. Variations of species numbers with soil pH, leaf litter thickness, forest log cover, plant ground cover, and site latitude were presented. The site latitude was actually the only variable seeming to significantly affect species numbers (lesser numbers in leaf litter, more in pitfall traps, at higher altitudes). In summary, the Maryland ant field survey recorded 118 species from 31 genera. *Aphaenogaster* Mayr and *Myrmecina* Curtis were found to be the dominant ground-inhabiting ant genera from forested habitats in Maryland. Eighteen species were currently identified for the first time in Maryland. Of the forest sites surveyed, Purse State Park produced the highest mean number of leaf litter species per square meter, whereas Garrett State Forest produced the lowest. In the central part of his talk, Tim shifted into a discussion with photographic examples and notes (which included primary identification features, state species number, and typical habitats) of each of the ant genera or species occurring in Maryland as follows:

1. *Amblyopone pallipes* (Haldeman) – preys on centipedes
2. *Proceratium* Roger spp. – at least 3 MD species; prey on spider eggs
3. *Discothyrea testacea* Roger – leaf litter inhabitant from conifer forests
4. *Ponera pennsylvanica* Buckley – forest leaf litter inhabitant
5. *Hypoconerops opacior* (Forel) – restricted to coastal plain, in sandy mixed or coniferous forest
6. *Myrmica* Latreille spp. – at least 7 MD species
7. *Stenammas* Westwood spp. – at least 5 MD species; common at higher elevations
8. *Aphaenogaster* Mayr spp. – at least 8 MD species; forest dwellers; use debris to absorb fluids and return to nest
9. *Pheidole* Westwood spp. – at least 5 MD species; mostly Coastal Plain; in sandy areas
10. *Crematogaster* Lund spp. – at least 4 MD species; statewide; wooded areas
11. *Monomorium* Mayr spp. – at least 3 MD species; difficult to identify without queens
12. *Solenopsis* Westwood spp. – at least 3 MD species; MD species tiny, yellowish; difficult to identify without queens
13. *Temnothorax* Mayr spp. – at least 8 MD species; widespread; includes free-living, inquiline (living in nests of other ant species), and dulotic (ant slave-making) species. Dulotic species usually have more slave ants in the colony than native workers.
14. *Leptothorax muscorum* (Nylander) – only in higher elevations (Garrett County)
15. *Protomognathus americanus* (Emery) – large head; dulotic, found in *Temnothorax* colonies
16. *Myrmecina americana* Emery – widespread; in leaf litter; mite predator
17. *Tetramorium caespitum* (Linnaeus) [Pavement Ant] –

introduced; widespread; adapts to urban settings

18. *Anergates atratulus* (Schenck) – a tiny workerless inquiline species usually found in nests of *Tetramorium caespitum*; not yet discovered in MD

19. *Vollenhovia emeryi* Wheeler, W.M. – native to Asia and probably introduced originally in DC area with Japanese cherry trees 100 years ago; occurs in rotting wood near bodies of water

20. *Strumigenys* Smith spp. – at least 11 MD species; tiny stealth predators of springtails

21. *Trachymyrmex septentrionalis* (McCook) – northernmost fungus-garden tending ant (uses caterpillar frass for fungus fertilizer); found in areas containing deep sand

22. *Dolichoderus* Lund spp. – 4 MD species

23. *Forelius pruinosus* (Roger) – occurs in open dry areas

24. *Dorymyrmex* Mayr spp. – 2 MD species; fast-moving ants common in sandy open areas

25. *Tapinoma sessile* (Say) [Odorous House Ant] – widespread; adapts to urban settings

26. *Brachymyrmex depilis* Emery – tiny species (length 1.25 mm)

27. *Camponotus* Mayr spp. (carpenter ants) – at least 10 MD species; in forest environments; emits formic acid venom with bite

28. *Lasius* Fabricius spp. – at least 12 MD species; most MD species are subterranean. *Lasius claviger* (Roger) has a citronella odor.

29. *Nylanderia* Emery spp. (crazy ants) – at least 3 MD species; several invasive species established in North America

30. *Prenolepis imparis* (Say) – prominent saddle-shaped thorax; abdomen stores liquid food, like honeypot ants; very cold-tolerant species, forages even on some winter days

31. *Formica* Linnaeus spp. – at least 17 MD species; largest North American ant genus; emit formic acid. Most *Formica* species are polygynous (having multiple queens per colony).

32. *Polyergus lucidus* Mayr – red with sickle-like mandibles; rare obligate dulotic species (will not survive, even if food is present, without host (enslaved ant) which feeds it. Usually enslaves *Formica* species.

33. *Formica* spp. – at least 17 MD species; largest North American ant genus; emit formic acid. Most *Formica* species are polygynous (having multiple queens per colony).

How you can help with the ants of Maryland survey: Tim is looking for ants infesting houses, industries, greenhouses, schools, hospitals, and nursing homes in Maryland. Specimens collected can be placed in either a small vial or small plastic bag with information on the collector's name and where and when the specimen was collected and mailed to:

Timothy Foard
i2LResearch USA
1330 Dillon Heights Avenue
Baltimore, MD 21228

or to:

Timothy Foard
2706 Stanton Road, SE
Washington, DC 20020

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

WELCOME TO NEW MEMBERS

MES welcomes the following new member to the Society:

Rick E. Borchelt College Park, MD

ANNUAL ELECTION OF MES OFFICERS

The annual election of MES officers will be held at the 17 May 2013 meeting. Nominations for President, Vice President, Secretary and Treasurer are currently being solicited.

Nominations can be made by any paid member, but need to be received at or before the 19 April meeting. 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 the names of nominees to the *Phaëton* Editor at ejscarp@comcast.net. Names will be published in the May issue, one week prior to the May meeting. Members must be present at the May meeting to vote.

LANDSCAPES WITH BROOD II CICADAS WANTED

I am searching for landscapes with Brood II cicadas. I have received several media requests and would like to find a media-friendly residential or park landscape where I can bring TV crews to see these little wonders of nature. If anyone has already unearthed cicadas or seen their exit holes under trees and would like to help me with this project, it would be greatly appreciated. The best bet for finding these guys is likely to be Anne Arundel and Calvert Counties. Thanks for your help. Cheers! Mike

Submitted by MES member **Mike Raupp**, Department of Entomology, University of Maryland, mraupp@umd.edu.

UNIV. OF MARYLAND NATIVE BEE WORKSHOP 13 APRIL 2013

Interested in native bees? Then here's your chance to learn about these fascinating insects!

We'll be discussing types of native bees, their habitat, culture, and how to conduct basic native bee population research. Following our discussion will be a hands-on workshop where we'll learn how to build solitary bee houses. Finished products will be installed at gardens across campus.

There will be a showing of the film "*Ulee's Gold*" immediately following the workshop. Location for the screening TBD; please check the website in April for more information.

The workshop is organized by The PollinaTerps, a University of Maryland (UMD) campus-wide initiative for the protection of pollinators. Partners include UMD Department of Entomology, University of Maryland Extension (UME), the UMD Arboretum, and UMD Dining Services.

Registration is required. Lunch is included; vegetarian options will be available. Part of this class will take place outdoors; please dress accordingly and wear closed-toe shoes. For additional information and to register, go to:

<http://nativebees.eventbrite.com/#>.

**SOUTHEAST REGIONAL MEETING OF THE
DRAGONFLY SOCIETY OF THE AMERICAS (SEDSA)
26-28 APRIL 2013**

The 2013 Southeast regional meeting of the Dragonfly Society of the Americas (SEDSA) will be held in Richmond, Virginia, on 26-28 April 2013. Our focus will be *Ophiogomphus* (near) *susbehcha* (“Chesapeake Snaketail”), recently discovered to occur in the James River, with lesser numbers on the Potomac. Additional information about the species can be found at MES member **Richard Orr**’s website:

<http://www.marylandinsects.com/PotomacSnaketail.html>.

This is an early emerging dragonfly. At present, we know that it occurs in the James River, from the James River Park system (in the center of metropolitan Richmond) west through the Piedmont region from as early as late March into early May. We will be searching for this species, as well as other early emergers such as *Gomphus abbreviatus* Hagen in Selys (Spine-crowned Clubtail), *Gomphus viridifrons* Hine (Green-faced Clubtail), and *Neurocordulia virginianensis* Davis (Cinnamon Shadowdragon). A nice variety of other early odonates should be present in central Virginia at this time including *Helocordulia selysii* (Hagen in Selys) (Selys’ Sundragon) and *Epitheca costalis* (Selys) (Slender Baskettail) at nearby Pocahontas State Park. This is at the beginning of the odonate season here, so don’t expect a big species list. And unpredictable general weather patterns may result in an early or late emergence. But late April is actually later in the *Ophiogomphus* (near) *susbehcha* flight season, so it should be present regardless.

Field trip locations will include many parks and boat landings on the James River, and collecting permits will be obtained.

For additional information, go to:

<http://mamomi.net/SEDSA2013/SEDSA/Welcome.html>.

We look forward to seeing you here to get a great start to the 2013 field season!

[Editor’s note: I am aware of 5 MES members currently registered for the meeting.]

USDA-ARS HARLEQUIN BUG PROJECT

The United States Department of Agriculture – Agricultural Research Service has discovered and synthesized a non-toxic pheromone that acts as an attractive lure for the Harlequin Bug, *Murgantia histrionica* (Hahn) (Hemiptera: Pentatomidae). Like other stink bugs, Harlequin Bugs use an aggregation pheromone, produced by the male, which is attractive to females, males, and even the young nymphs. In combination with a collard plant, it can function as a super-attractive trap plant from which you can collect and remove the bugs from your garden or farm.

If you have personally experienced or know someone with Harlequin Bug problems, we are here to help! We will provide you with a trap-cropping kit and walk you through the experimental procedures – they are simple and require little time

out of your busy day. The data that you collect will be analyzed and presented at a Fall Harvest Festival held at our research facility; there, you will be able to get together with other growers and learn new ways to manage Harlequin Bugs and other insect pests in future seasons.

To participate, contact Tony Dimeglio at:

Anthony.Dimeglio@ars.usda.gov.

Submitted by MES member **Chris Sargent**, Department of Entomology, University of Maryland

**“BALTIMORE CBP INTERCEPTS FIRST IN PORT
SCALE INSECT”**

A 14 March 2013 U.S. Customs and Border Protection (CBP) news release reports that on 13 March 2013, a U.S. Department of Agriculture entomologist confirmed that CBP agriculture specialists at Baltimore Washington Thurgood Marshall International Airport discovered a first in port scale insect in the Baltimore area when they intercepted, *Paraselenaspidus madagascariensis* (Mamet) (Hemiptera: Diaspididae). The agriculture specialists discovered the pest on 30 November 2012 while inspecting banana leaves found inside a traveler’s luggage being carried by a passenger originating from Nigeria and arriving from the United Kingdom.



***Paraselenaspidus madagascariensis* (Mamet) (Hemiptera: Diaspididae).** (Image courtesy of USDA-APHIS-PPQ Baltimore.)

The full news release can be accessed at:

http://www.cbp.gov/xp/cgov/newsroom/news_releases/local/2013_nr/march13/03142013_4.xml.

**“BALTIMORE CBP INTERCEPTS FIRST IN PORT
CATERPILLAR”**

An 18 March 2013 U.S. Customs and Border Protection news release reports that on 13 March 2013, a U.S. Department of Agriculture entomologist confirmed that CBP agriculture specialists at Baltimore Washington Thurgood Marshall International Airport discovered a first in port caterpillar in the Baltimore area when they intercepted, *Helicoverpa armigera* (Hübner) (Lepidoptera: Noctuidae). The agriculture specialists discovered the pest on 17 January 2013 while inspecting a bag of peppers found inside a traveler’s luggage being carried by a passenger originating from Ghana and arriving from the United Kingdom.



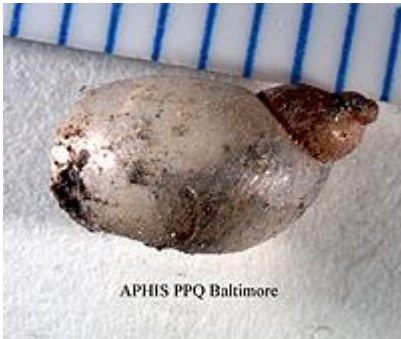
Helicoverpa armigeras (Hübner) (Lepidoptera: Noctuidae).
(Image courtesy of USDA-APHIS-PPQ Baltimore.)

The full news release can be accessed at:

http://www.cbp.gov/xp/cgov/newsroom/news_releases/local/2013_nr/march13/03182013_6.xml.

“BALTIMORE CBP INTERCEPTS FIRST IN PORT AMBER SNAIL”

A 3 April 2013 U.S. Customs and Border Protection news release reports that on 2 April 2013, a U.S. Department of Agriculture entomologist confirmed that CBP agriculture specialists at the Port of Baltimore discovered a first in port amber snail when they intercepted, *Succinea costaricana* von Martens (Gastropoda: Succineidae). The agriculture specialists discovered the snail on 27 March 2013 on the exterior of a shipping container loaded with bags of cardamom (Zingiberaceae [Ginger family]) seasoning from Guatemala.



Succinea costaricana von Martens (Gastropoda: Succineidae). (Image courtesy of USDA-APHIS-PPQ Baltimore.)

The full news release can be accessed at:

http://www.cbp.gov/xp/cgov/newsroom/news_releases/local/04032013_6.xml.

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	Speaker	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: A Statewide Survey
Apr 19	College Students	PowerPoint & 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

12 April 2013; 12:00 p.m.

University of Maryland Baltimore County, Department of Biological Sciences Seminar

“The evolution history of the Cynipoidea (Hymenoptera):

host/parasitoid synchrony vs. asynchrony” – Dr. Matthew

Buffington (Research Entomologist, USDA Systematic

Entomology Laboratory, National Museum of Natural History)

University of Maryland Baltimore County, 004 Biological

Sciences Building, 100 Hilltop Circle, Baltimore, Maryland

<http://www.umbc.edu/biosci/news/calendar.php?m=04&y=2013&d=12&eventType=all>.

12 April 2013; 12:00 p.m.

University of Maryland, Department of Entomology Colloquium

“One hormone two functions: Regulation of cuticle tanning

and immunity by neuropeptide Bursicon” – Dr. Qisheng

Song (Professor, Department of Plant Science, University of

Missouri)

University of Maryland, 1130 Plant Sciences Building, College

Park, Maryland

<http://entomology.umd.edu/news/events/posts/671>.

13 April 2013; 10:00 a.m. – 3:00 p.m.

University of Maryland, PollinaTerps

“Native Bee Workshop”

(The PollinaTerps is a University of Maryland (UMD), campus-

wide initiative for the protection of pollinators. Partners include

UMD Department of Entomology, University of Maryland

Extension (UME), the UMD Arboretum, and UMD Dining

Services.)

University of Maryland, 1130 Plant Sciences Building, Lecture

Room 1130, College Park, Maryland. Registration required.

<http://nativebees.eventbrite.com/>.

19 April 2013; 12:00 p.m.

University of Maryland, Department of Entomology Colloquium

“Plant Responses to the joint effects of herbivores and

pollinators” – Dr. Amanda L. Buchanan (Department of

Entomology, University of Maryland)

University of Maryland, 1130 Plant Sciences Building, College

Park, Maryland

<http://entomology.umd.edu/news/events/posts/672>.

24 April 2013; 7:00 p.m.

American Entomological Society Public Meeting

“Conservation, Restoration and Landscape Ecology

of Native Bee Communities” – Dan Cariveau (Postdoctoral

Research Associate, Rutgers University, Department of

Ecology, Evolution and Natural Resources, New Brunswick,

New Jersey)

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>.

26 April 2013; 12:00 p.m.

University of Maryland, Department of Entomology Colloquium
“Community ecology and symbiosis in the wood-feeding sawfly, *Sirex noctilio*” – Brian Thompson (Department of Entomology, University of Maryland)
University of Maryland, 1130 Plant Sciences Building, College Park, Maryland
<http://entomology.umd.edu/news/events/posts/673>.

26-28 April 2013

Southeast Regional Meeting of the Dragonfly Society of the Americas (SEDSA)
Hyatt Place Richmond/Arboretum, 201 Arboretum Place, Richmond, Virginia
<http://mamomi.net/SEDSA2013/SEDSA/Welcome.html>.

26 April 2013; 9:00 a.m. – 12:00 p.m.

University of Maryland, Art History Undergraduate Symposium
“Insect Taxonomy and Proto-Surrealist Art” – Sandra R. Schachat (Research Student, Department of Paleobiology, Smithsonian Institution) will discuss the influence of early insect taxonomists such as Latreille on the early 19th-century book illustrator J.J. Grandville. The talk will focus on beetles. The Symposium will start with a breakfast at 9:00 a.m. and the talks will begin at 9:30 a.m.
University of Maryland, Art/Sociology Building, Michelle Smith Collaboratory for Visual Culture, College Park, Maryland
<http://arthistory.umd.edu/events/2013/Undergraduate%20Art%20History%20Symposium>.
For additional information, contact Sandra at: schachatsr@si.edu.

2 May 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/>.

3 May 2013; 12:00 p.m.

University of Maryland, Department of Entomology Colloquium
“Diamond, ermine and sun: molecular phylogenetics and life history evolution of Yponomeutoidea (Lepidoptera)” – Jae-Cheon (Jay) Sohn (Department of Entomology, University of Maryland)
University of Maryland, 1130 Plant Sciences Building, College Park, Maryland
<http://entomology.umd.edu/news/events/posts/674>.

18 May 2013; 7:30 p.m.

The Natural History Society of Maryland
“Mounting Moths and Butterflies” Workshop – Jim Young
Maryland Naturalist Center, 6908 Belair Rd., Baltimore, Maryland
<http://www.meetup.com/marylandnature/events/108781882/>.

5 June 2013

Entomological Society of Washington Annual Banquet
Woodend Sanctuary, Audubon Naturalist Society Headquarters, 8940 Jones Mill Road Chevy Chase, Maryland.
<http://entsocwash.org/>.

18 July 2013; 7:00 p.m.

The Natural History Society of Maryland
“Dragonflies and Damselflies” Lecture – Richard Orr
Maryland Naturalist Center, 6908 Belair Rd., Baltimore, Maryland
<http://www.meetup.com/marylandnature/events/98956062/>.

21 July 2013; 9:00 a.m.

The Natural History Society of Maryland
“Dragonflies and Damselflies Field Trip to Patuxent Research Refuge” – Richard Orr
North Tract of the Patuxent Research Refuge, MD Route 198, Laurel, Maryland
<http://www.meetup.com/marylandnature/events/98959722/>.

14-17 August 2013

The Center for Pollinator Research, Penn State, University Park, Pennsylvania
2nd International Conference on Pollinator Biology, Health and Policy
The Nittany Lion Inn, 200 Park Avenue, State College, Pennsylvania
<http://www.cvent.com/events/international-conference-on-pollinator-biology-health-and-policy/event-summary-7cf0d2799c954107b8c6bf3641778902.aspx>.

OCT 2012 – SEP 2013 SOCIETY YEAR OFFICERS

President	Frederick Paras
Vice-President	Philip J. Kean
Secretary	Richard H. Smith
Treasurer	Edgar A. Cohen, Jr.
Historian	Robert S. Bryant
Faculty Sponsors	Frank E. Hanson & Austin P. Platt
Publications Editor	Eugene J. Scarpulla

SUBMITTAL DEADLINES

MAY 2013 issue of the *Phaëton*:

Please send member news items by 3 May 2013.

SEP 2013 issue of *The Maryland Entomologist*:

First drafts of articles and notes were due by 1 April 2013.

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