

# Phaëton

# The Official Newsletter of the Maryland Entomological Society

Volume 32, Number 5

April 2012

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| FACULTY SPONSORS: | Frank E. Hanson and Austin P. (Bob) Platt      |
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|                   | 1000 Hilltop Circle                            |
|                   | Baltimore, MD 21250                            |

# **Meeting Announcement**

The Maryland Entomological Society's **286<sup>th</sup>** regular meeting will be held **Friday**, **20** April **2012**, 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:Peter R. Houlihan, Department of Behavioral Biology, The Johns Hopkins University, Baltimore, MDProject Leader – Entomology, The Barito River Initiative for Nature Conservation and Communities (BRINCC)

Title: "The BRINCC Expedition: Biodiversity monitoring and conservation in the rainforests of Central Borneo"

The Barito River Initiative for Nature Conservation and Communities (BRINCC) is an independent scientific organization working to protect a remote rainforest ecosystem in Indonesian Borneo. Working with the local communities, BRINCC combines social research and participatory mapping with cutting edge biodiversity research to identify, map, and protect areas of forest that are the most important for local people and wildlife. In 2011, BRINCC's first expedition surveyed several sites in the Upper Barito watershed.

Sponsored by BioQuip Products, Peter Houlihan headed the BRINCC entomological studies and focused on documenting the remarkable insect biodiversity. Peter will discuss his findings concerning the diversity of butterflies in pristine forest and community forest, and his current work on the Barcode of Life Database using DNA sequencing to better understand the biogeography of Borneo's butterfly populations. Specimens from the more than 100 species that Peter collected will be on display following the talk. He will also talk about results from the expedition's other biodiversity projects on frogs, birds, small mammals, and gibbons, and the social team's work conducted in the communities, which was all recently published online in BRINCC's Preliminary Report: http://brinccexpedition.org/Documents/

In May 2012, Peter will be graduating from The Johns Hopkins University with a Bachelor of Arts in Behavioral Biology. During his undergraduate years, he has served as: Visiting Scientist for the Orangutan Tropical Peatland Project (OuTrop) in Sabangau Forest, Indonesia; Visiting Research Scientist for the Smithsonian Tropical Research Institute in Gamboa and Las Perlas, Panama; Biodiversity Monitoring Advisor (Butterflies) for OuTrop in Palangka Raya, Indonesia; and Co-founder and Project Leader (Entomology) for BRINCC in Murung Raya, Indonesia. Peter is currently writing a guide to the butterflies of the Sabangau Forest, while also helping to advise butterfly studies with OuTrop.

# Meet for Dinner before the Lecture

If you are interested in meeting for dinner before the lecture, 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 this meeting, please contact one of the following people:

|                     | •            |  |                          |
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|                     |              |  |                          |

# 16 MARCH 2012 MES MEETING MINUTES

The 285<sup>th</sup> general meeting of the Maryland Entomological Society was held on Friday, 16 March 2012 at the USDA-APHIS-PPO Professional Development Center (PDC) in Frederick, Maryland and began at 8:32 p.m. with a welcome by President Fred Paras and then an introduction of the main speaker and program, which is summarized below. This was followed by refreshments and informal discussions and an examination of the elaborate classroom facilities and the extensive instructional specimen collections at the PDC. A business meeting was then convened as the final agenda item for the evening. The February 2012 MES meeting minutes were read with a note to be added (see below). The Treasurer's report was given, citing an MES Funds total of \$2571.52, after some additional dues payments during the evening. Fred reminded us of two upcoming business items needed for the April meeting: 1) suggestions of prospective locations for the Society's annual field trip, and 2) a slate of officer nominations for the May elections. Already on the schedule for the May "Member's Potpourri" meeting program will be a presentation by Fred Paras on his recent trip to Andros Island and a presentation by MES Historian Bob Bryant showing slides of early and founding members of MES from the 1970s. The February 2012 meeting minutes, should have stated that Ed Cohen's display actually consisted of beetle and, for the most part, moth specimens. The moths included Pyraloidea, Noctuidae, and Geometridae from MES member John Glaser. John keeps an extensive collection of Maryland moths at his home in Berkeley Springs, WV; and Ed had recently helped John transfer John's donation of many extra specimens from these families, as well as Tortricidae and Gelechioidea, to the Smithsonian Institution's National Museum of Natural History.

Respectfully submitted, Richard H. Smith, MES Secretary

#### **16 MARCH 2012 MES LECTURE**

"Overview and Tour of the Professional Development Center"" – Speaker: Daniel J. Otto – Training Specialist, , U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine, Professional Development Center (USDA/APHIS/PPQ/PDC)

**Daniel J. Otto**'s lecture was delivered in the Center's large classroom facility, equipped with dual large overhead flat-panel video display screens, video feed equipment capable of displaying images from the lecturer's microscope, and individual Leica binocular microscopes and specimen slides at each student's desk. The display capabilities of the microscope imaging equipment were demonstrated for us after the lecture. The Center provides classes for staff from several Federal government agencies, including the Department of Homeland Security, USDA, Smuggling Interdiction and Trade Compliance (SITC) and Customs and Border Protection (CBP) personnel, and state and foreign government-related specialists. The PDC was founded in 1985 in Battle Creek, Michigan and relocated to

Frederick, Maryland in 2000. Areas of instruction include agricultural interception, inspection, and quarantine techniques, cooperative agent training, leadership development and organizational support, national detector dog training support, and plant health safeguarding. Dogs are used for fruit, vegetable, and meat detection and even the detection of certain fruit fungal diseases in shipments. Beagles are especially popular for many of these tasks. The Center also certifies staff for pesticide applications and for veterinarian services. The Center's course curriculum includes a regulatory phase where manuals and enforcement of agricultural laws and regulations are taught.

However, the major training component at the Center is a laboratory phase that treats pest identification and interception techniques. Within this part of the curriculum, training units focus on seed identification, plant pathology, malacology (primarily for snails and slugs), acarology (mites and ticks), general arthropod taxonomy, and each of the major insect pest orders. These consist of Diptera (flies), Isoptera (termites), Thysanoptera (thrips), Hymenoptera (sawfly and ant pests), Orthoptera (grasshoppers), Dictyoptera (cockroaches), Lepidoptera (butterflies), Hemiptera (true bugs, scale insects), and Coleoptera (beetles). For many of these orders, the instruction includes identification of adults down to family and genus, and for notorious pests, down to species. Instruction also includes identification of larvae or nymphs of particularly important Diptera, Hymenoptera, Lepidoptera, Hemiptera, and Coleoptera pest species. The termite unit focuses on caste identification. Daniel Otto went on to discuss some of the major insect pests.

The Asian Longhorned Beetle, *Anoplophora glabripennis* (Motschulsky) (Cerambycidae), native to southern China, Korea, and Japan, was first detected in the United States in New York City in 1996 and has now spread into New York State as well as Massachusetts and New Jersey. It is destructive to a variety of tree species including: ash, *Fraxinus* L. (Oleaceae); maple, *Acer* L. (Aceraceae); locust, *Gleditsia* L. and *Robinia* L. (Fabaceae); and elm, *Ulmus* L. (Ulmaceae), and therefore can damage major forest areas. Its larvae kill trees by burrowing into the tree cambium and blocking fluid flow to the tree branches. Trees under attack release a stress hormone which actually attracts female beetles for further oviposition. Transport of the beetle is primarily from illegal log shipping, and transport control is the major preventive measure in effect.

The Asian Citrus Psyllid, *Diaphorina citri* Kuwayama (Hemiptera: Psyllidae) is a major vector of citrus greening disease, also known as Huanglongbing (HLB). The disease, similar to citrus canker, is caused by a bacterium, *Candidatus* Liberibacter asiaticus, which forces the fruit of an infected tree to be stunted, bitter, and inedible. The disease currently has no known cure, and is obviously a threat to the citrus industry. Citrus greening is believed to have originated in China in the early 1900s. It has greatly reduced citrus production in all countries where it has become established. The Asian Citrus Psyllid itself produces a salivary toxin while feeding that causes

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the malformation of tree shoots and leaves. First detected in the United States in August 2005 in Miami-Dade County, Florida, citrus greening is now established in most citrus-producing counties throughout the state, and the entire state is under Federal quarantine for citrus greening and Asian Citrus Psyllid. Because of this threat, Federal law now prohibits the movement of live citrus plants, plant parts, budwood, or cuttings outside of Florida.

Because of past unforeseen consequences, the USDA is far more cautious now in attempting to curtail the spread of pest species by the use of bio-control measures. One unforeseen problem involved the introduction of the Mediterranean Tamarisk Beetle, *Diorhabda elongata* (Brullé) (Chrysomelidae), to control saltcedar, *Tamarix ramosissima* Ledeb. (Tamaricaceae), in Colorado, but the beetle spread to Arizona where it eliminated a critical habitat for an endangered species, the southwestern subspecies of the Willow Flycatcher, *Empidonax traillii extimus* A. R. Phillips (Tyrannidae). More successful programs have included the introduction of the Thistle Head Weevil, *Rhinocyllus conicus* (Frölich) (Curculionidae), and the Rosette Weevil, *Trichosirocalus horridus* (Panzer) (Curculionidae), to control musk thistle, *Carduus nutans* L. (Asteraceae), in Tennessee.

Respectfully submitted, Richard H. Smith, MES Secretary

#### **"THINK BEFORE YOU STINK"**

MES member **Mike Raupp**, "The Bug Guy" from the University of Maryland Extension, stars in another entertaining video, this time about "Brown Marmorated Stink Bug Control: Keeping Stink Bugs out of Your House." He describes the "E<sup>2</sup> Method of Exclusion and Execution." As always, Mike is entertaining while being informative, providing homeowners with tips that they can use to deal with home invasions by the Brown Marmorated Stink Bug, *Halyomorpha halys* (Stål) (Hemiptera: Pentatomidae). Mike's advice is to "Think Before You Stink." This video can be viewed at: http://www.entsoc.org/buzz/brown-marmorated-stink-bug-

nttp://www.entsoc.org/buzz/brown-marmorated-stink-bugcontrol

#### "THE NATURAL HISTORY OF OAK-FEEDING INSECTS IN MARYLAND"

The Maryland Native Plant Society's (MNPS) next monthly meeting will feature a presentation on "The Natural History Of Oak-Feeding Insects in Maryland" by John Lill. John Lill is Associate Professor of Biology at George Washington University, where he teaches courses in ecology and conservation. John is a native of Montgomery County, Maryland. He received his BS and MS in biology at the University of Maryland and his PhD at the University of Missouri-St. Louis. He and his students conduct field research on plant-insect interactions at local forest sites in Maryland and the District of Columbia. John also does science outreach to the local community through regular presentations at elementary schools and annual "caterpillar walks" in Sligo Creek Park. As one of MNPS's Year of the Oak events, this talk will focus on the relationships between insects and the native oaks of Maryland. Watch for an announcement of a follow-up field trip.

The talk will be held on Tuesday, 24 April 2012 at 7:30 p.m. at the Kensington Park Library, 4201 Knowles Avenue, Kensington, MD. From the Washington Beltway (I-495), take Connecticut Avenue north to the third signal past the Beltway. Turn left onto Knowles and go 2½ blocks to the library on the right. The meeting is open to non-members. Registration is not required.

#### NATIONAL PUBLIC RADIO "ALL THINGS CONSIDERED" "EARLY SPRING MEANS BUGS — LOTS OF BUGS"

MES member **Mike Raupp** was one of three entomologists featured on National Public Radio's "All Things Considered" on 5 April 2012. Mike and the other entomologists were interviewed by hosts Robert Siegel and Audie Cornish. The show centered on the increase in insect activity this spring. Mike discussed Brown Marmorated Stink Bugs. The full text and the audio clip of the interview can be found at: http://www.npr.org/2012/04/05/150083774/early-spring-meansbugs-lots-of-bugs

#### CARPENTER BEE SPECIMENS FIND A BENEFICIAL USE

During May 2011, the exterior of my house was home to a population explosion of Eastern Carpenter Bees, *Xylocopa virginica* (Linnaeus) (Hymenoptera: Apidae). The house is covered with cedar clapboards and all of the overhangs are cedar planking. The bees were doing what they naturally do, excavating nests in the clapboards and planks. I could easily coexist with the bees. The females were traveling to and from their solitary nests and the males were guarding their territories. Each female's nest is approximately 12 inches long. All was fine until Red-bellied Woodpeckers, *Melanerpes carolinus* (Linnaeus) (Picidae), discovered the bee nests. The woodpeckers started tearing apart the siding to get to the bees. The exterior of the house was being destroyed. I hated to do it, but I needed to reduce the bee population and repair all of the bee/woodpecker damage.

I captured and dispatched 203 carpenter bees. They were all washed, dried, pinned, QR code labeled, and entered into the Discover Life database. I posted a note on the bee monitoring listserve asking if anyone had need of a series of *X. virginica* specimens (123  $\bigcirc$ , 80  $\bigcirc$ ), all collected from the same location. Fortuitously, I heard from Amber Tripoldi, a doctoral student at the Insect Genetics Laboratory in the Department of Entomology at the University of Arkansas, Fayetteville, Arkansas. Amber is researching the population genetics of *Xylocopa* in the Eastern United States. A large number of specimens from one location in the mid-Atlantic region was exactly what she needed. She eventually hopes to discover some of the post-glaciation colonization history of the species. I

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was quite thankful that the specimens found a beneficial use. Submitted by MES member Gene Scarpulla

#### \*\*\*CORRECTION\*\*\* ALATE TERMITE EMERGENCE IN EDGEWATER, MD DOCUMENTED ON VIDEO

Some of you who looked closely at last month's alate emergence video noticed that the alates were actually termites (Isoptera) and not ants (Hymenoptera). Tyler Bell (*who is not an entomologist*) originally thought that the insects were termites but several of the viewers from last May told him that the insects were ants. But as it turned out, Tyler's original identification of termites was correct.

# WOOLLY APHIDS IN EDGEWATER, MD DOCUMENTED ON VIDEO

Tyler Bell from the Smithsonian Environmental Research Center (SERC), Edgewater, MD, submitted another interesting video that he filmed at SERC, this time of woolly aphids on 15 October 2008.



The location was only about 100 yards away, downslope from the termite stump, in the Frog Canyon streambed. About halfway through the video, Tyler blew on the woolly aphids and it seemed to "energize" them. The video can be viewed at: http://www.flickr.com/photos/8671193@N08/6851207204/in/ph otostream

MES member **Gaye Williams** viewed the video and believes that the vegetation is an alder, *Alnus* sp. Mill. (Betulaceae), making the insects Woolly Alder Aphids, *Prociphilus tessellatus* (Fitch) (Hemiptera: Aphididae). Woolly Alder Aphids are a favorite food of carnivorous Harvester caterpillars, *Feniseca tarquinius* (Fabricius) (Lepidoptera: Lycaenidae). Gaye has observed this feasting at Shad Landing, Pocomoke River State Park, Worcester County, Maryland in the fall.

# \*\*\*A REMINDER\*\*\* WASHINGTON, DC/BALTIMORE CRICKET CRAWL

# 24 AUGUST 2012

Cricket Crawl 2012 will be an evening sound census of the late summer crickets and katydids singing throughout the Baltimore/DC metro areas. It'll be a wonderful way to get people outside and excited about insects—a way of opening eyes and ears to the natural world while creating a sense of community and scientific process.

We expect teams of all sorts: neighborhood community groups, scout troops, faith communities, schools, retirement communities, nature centers, summer camps, groups of friends, and any other place-based and mentor organizations.

The Crawl is a joint effort of the Natural History Society of Maryland (NHSM), the Audubon Naturalist Society, Discover Life, and MES member **Sam Droege** of the United States Geological Survey (and life member of the NHSM).

Here's the website for the event that's scheduled for 24 August 2012: http://pick14.pick.uga.edu/cricket/DC/index.html Take a look at the details, and be sure to add the date to your calendar. (You can even brush up on your cricket and katydid calls on the site!) Then think about ways that you can help.

We'll need plenty of volunteers to spread the word, to help on the actual night of the event, and to offer insect workshops during the months before. In the early spring, we'll let all the nature groups and centers in the region know about the event, and we'll need your help to do that. During the summer months the NHSM will offer workshops to get people excited and would love to draw on the expertise of Maryland Entomological Society members for those. Then on the night of the event, volunteers will be in the field with teams or inside helping to process the data as it's phoned in.

Here's to the planning of a great event!

Submitted by NHSM and MES member Linda Davis

# 2011/2012 PROPOSED MEETING SCHEDULE

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

| Date   | Speaker            | Topic                                  |
|--------|--------------------|--|
| Oct 21 | Floyd Shockley     | Insects in Human Culture & Mythology   |
| Nov 18 | Michael Turell     | NA Mosquitoes/Rift Valley Fever Virus  |
| Feb 17 | Steven Lingafelter | r Beetle Collecting in Vietnam         |
| Mar 16 | Daniel Otto        | USDA/APHIS/PPQ/PDC Tour, Frederick, MD |
| Apr 20 | Peter Houlihan     | 2011 BRINCC Borneo Expedition          |
| May 18 | Members' "Potpou   | rri" Presentations & Elections         |
| TBA    | Field Trip         |  |

# SUBMITTAL DEADLINES

MAY 2012 issue of the *Phaëton*:

Please send member news items by 4 May 2012.

<u>SEP 2012 issue of *The Maryland Entomologist*</u>: Please send first drafts of articles and notes ASAP.

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