

# Phaëton

The Official Newsletter of the Maryland Entomological Society

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November 2016

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# **Meeting Announcement**

The Maryland Entomological Society's 313<sup>th</sup> regular meeting will be held **Friday**, 18 Nov. 2016, at 8:00 pm, in Room 004 (one floor below the street level), **Biological Sciences Building**, University of Maryland Baltimore County (UMBC). Bring a friend, specimens, observations, or books to share. Refreshments will be provided. Presentations are scheduled to begin at 8:15 pm.



Speaker: David O'Brochta, PhD - Professor, Insect Biology, Genetics, Molecular Genetics, Biotechnology, Department of Entomology, University of Maryland, College Park, MD; Head, Insect Transformation Facility, Institute for Biological and Biotechnology Research, Rockville, MD; Insect Molecular Biology, Royal Entomological Society, Editor Title: "Genetic Technologies in Insect Research and Control"

**Abstract.** Insect systematics has been a major beneficiary of genome sequencing technologies. The development of advanced technologies for manipulating insect genomes is enabling insect scientists with interests in physiology, neurobiology, development, behavior, ecology, and evolution to address questions of longstanding interest in their respective fields. The democratizing of genetic research

through technology is also enabling innovative strategies for insect control to be envisioned and developed. In this presentation I will use three case studies involving Zika- and malaria-transmitting mosquitoes to illustrate and explain how some powerful genetic technologies work and are being used to address important entomological problems.

**Bio.** David O'Brochta is a professor at the University of Maryland, College Park and has been faculty since 1989. He has a jointappointment in the Institute for Biological and Biotechnology Research and the Department of Entomology. Professor O'Brochta teaches at the undergraduate and graduate levels, is the Head of the Institute for Bioscience and Biotechnology Research's Insect Transformation Facility and is the editor of the Royal Entomological Society's journal, Insect Molecular Biology.Dr. O'Brochta has an active research lab focused on the development of insect genetic technologies and their application to the study of the physiological genetics of mosquitoes with a particular interest in their disease vector capabilities.

# 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 the **Ships Café Restaurant and Crab House** located at **828 Frederick Road, Catonsville, MD**. If you plan to go to dinner, please email Fred Paras at bugandrockman@msn.com by noon on the day of the lecture. Fred will make a reservation for the group. Please meet at the restaurant promptly at 6:00 p.m. The restaurant can then seat us as a group. Ships Café only holds the table for 15 minutes; if we don't have enough to be seated, we lose the table. Also please bring sufficient cash. Ships Café does not do separate checks. There is limited parking behind the restaurant and on the street.

**Directions to Ships Café**: from the Baltimore Beltway (I-695) take Exit 13 (Frederick Road) West towards Ellicott City. The restaurant is 1/2 mile on the right (at the corner of Winters Lane). There is limited parking behind the restaurant.

**Directions to UMBC from Ships Café:** from the restaurant, go east (towards the Beltway) on Frederick Road. Turn right (south) at the first traffic signal onto Mellor Avenue. Mellor Avenue will become Hilltop Avenue. When Hilltop Avenue reaches Wilkens Avenue, go around the traffic circle into the University of Maryland Baltimore County campus.

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#### VACANCY FOR MES SECRETARY

We are requesting members to consider filling the vacant post of secretary of the MES. Primary responsibilities include taking and preparing meeting minutes, including summaries of lectures. If you are interested, please contact society president Fred Paraskevoudakis at bugandrockman@msn.com

#### \*\*\*DON'T FORGET TO RENEW\*\*\* \*\*\*IT'S MEMBERSHIP RENEWAL TIME\*\*\* OCT 2016 – SEP 2017 MEMBERSHIP YEAR

Membership renewal forms were inserted in the front of the September 2016 issue of The Maryland Entomologist that was mailed out in September. If the date on your address label reads 2016, it is time for you to renew for the "October 2016 – September 2017" membership year. Please check that your contact information is correct and return the form along with your check (made out to Maryland Entomological Society) to: Edgar A. Cohen, Jr. (MES Treasurer), 5454 Marsh Hawk Way, Columbia, MD 21045.

# 21 OCTOBER 2016 MES MEETING MINUTES

The 312th general meeting of the Maryland Entomological Society was held on 21 Friday, October 2016 at UMBC and began at 8:20 p.m. with a welcome by President Fred Paras. There was a slight delay while an effective interface was established between the laptop on the podium and the projection equipment and software in the meeting room. The meeting then moved immediately into the scheduled lecture as summarized below. There were discussions with the speaker afterward. There were 11 MES members and nine guests attending the meeting and presentation. Afterwards, attendees enjoyed a period of conversation, viewed specimens brought in by members, and had some fine refreshments. A number of members remained for a business meeting.

Fred Paras began by sharing some of his thoughts and remembrances of Dr. Richard (Dick) Smith, Jr., the long-time secretary of the MES, and a very active lepidopterist and bird and butterfly conservationist, who passed away suddenly on 8 August, 2016, from cardiac arrest, while on vacation in Diggs, Idaho. Several of those present had attended memorial services for Dick on 16 or 17 August or his funeral on 17 August. Nearly everyone present also shared their own remembrances of Dick, and all agreed that his passing is a great loss for the study of lepidoptera, birds, and conservation in Maryland and this region. Several memorials or dedications were suggested, such as a nature walk to be named in his honor (i.e., the "Dick Smith Memorial Butterfly Walk") near the Maryland DNR offices, among other ideas. Fred stated that he had been told by Dick's wife, Gloria, that his collection would be donated to the Maryland Natural History Society.

The brief business meeting continued with MES Treasurer Ed Cohen reporting that the current general funds balance was \$4,378.96. Fred announced that the speaker for next month (November, 2016) will be Dr. David O'Brochta. Gene Scarpula announced that he already has received three articles for the

2017 issue of the Maryland Entomologist. He also expressed plans for the 2018 issue to be a single-article issue tentatively titled: "The Moths of Maryland" (covering mainly macromoths) based on a compilation of posthumously-edited works of: John D. Glaser, H. Godwin Stevenson, and Douglas C. Ferguson. Gene also asked for consideration and approval to print about 200 copies of a new bi-fold MES Membership application, based on the front cover of the journal, and showing a colored MES crest and image of a female ground beetle, Scaphinotus viduus (Dejean), preying on a snail. After an example was passed around, a motion was approved for the printing of the copies. Next was a discussion of a new beforemeetings dinner site vs. Kibby's Restaurant and Lounge. A tentative consensus was reached among the members present who also frequently gather for these dinners. They will plan to meet at 6:00 p.m., before future regular MES meetings, at the Ships Café Restaurant and Crab House. Respectfully submitted, Harold Harlan

# 21 OCTOBER 2016 MES LECTURE

Speaker: Seán Brady, PhD - Chair and Research Entomologist, Department of Entomology, Smithsonian Institution, National Museum of Natural History (NMNH) Title: "New Uses for Old Specimens – How Technology is Transforming the Use and Value of the Entomological Collections in the National Museum of Natural History"

**Background.** Over the past few centuries, museums worldwide have collected, identified, and stored individuals of many insect species. Traditionally, a major goal has been to preserve these specimens for morphologic and taxonomic scientific study. Many technological advances over the past decade now allow us to generate data from entomological specimens in more efficient and novel ways that were not possible before.

The NMNH currently has 7 Smithsonian Institute (SI) full-time research Entomologists, 12 U.S. Dept. of Agriculture (USDA) Entomologists in the USDA's Systematic Entomology Lab (SEL), and a joint collaborating agency, the Walter Reed Biosystematics Unit (WRBU), manned mainly by the U.S. Army (i.e., by several active duty and DA Civilian Entomologists). Digitized collection data are also being used to generate detailed and predictive range and habitat maps important for research on conservation and human diseases.

The NMNH Collection is one of the two largest entomological collections in the world. It includes about 33 million specimens, representing 60% of the known families and about 450,000 named species. It handled 3 million "transacted" specimens in five years (2008-2012). Their collections-based research has produced more than 3,200 publications by active staff, and more than 64,000 citations.

**The process:** The combination of rapid imaging of labels and crowd-sourcing now enables industrial-scale specimen digitization to digitize over 40,000 NMNH bumblebee specimens. The total number of insect specimen records in the NMNH collections in 2014 was 20,835,735 (+/- 10%). That includes pinned specimens (about 18,813,906 records) that pose

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the largest problem for imaging. For the slide specimens (about 1,392,676 records), an imaging method already exists. The specimens in fluid (about 522,717 records) pose major problems, too. Papered specimens (about 106,436 records; mostly Odonata) have already been completed.

Classical insect specimen labels (especially pinned specimens) are difficult to convert to digital format. Most are not easy to read. Many are hidden under the specimens and each other. Some are brittle and fragile, and first need to be removed from the pins. The most practical solution is to use image capture to make them easier to read and enable digital preservation of the data. Such specimens must go through a series of quality control steps. They must have a bar code labels added, and the labels must be removed from the pins and staged. Labels must later be placed on the specimens' original pins, and then specimens are placed back into their original specimen trays and drawers. Each specimen must be captured in digital form (with their attached data). That image must be cropped, and renamed for filing with its assigned barcode number. That must be embedded in metadata, included in a digital report form, and placed into appropriate folders in a data management system (e.g., MeSA™).

The next stage is data processing which include the following steps: production of import files with Access Query developed by Informatics<sup>TM</sup> (or a similar and compatible program); creation of new descriptive and surrogate records in Emu<sup>TM</sup> in one pass; capturing by TC; transcription by DV; validation of transcribed data; exporting of these files; appending these data into existing records in Emu<sup>TM</sup>; and finally, publishing these overall results to the internet.

Current Projects. The Bumble Bee Rapid Capture Pilot Project, led by Patricia Gentile-Poole, has the goal of increasing the rate of digitization of pinned bumble bee specimens. This data can be used to more readily compare current field observations and collections to historically reported distributions of bumble bees based on museum specimens. Changes may indicate reductions in biodiversity and might help justify and guide conservation efforts. Dr. Brady showed a summary of historical range compared to current or recent sightings of Bombus spp. surveyed from 382 collection locations for eight target species in the western U.S. Some of those showed large changes in presence, and collecting abundance, over a relatively short period of years. This is important considering that bumble bees buzz pollinate a number of crops and flowers. Sonicating flowers improves pollination of crops like blueberries and tomatoes. Pollen is released only or more readily once a flower is sonicated.

He also discussed the U.S. National Mosquito Collection that is curated in collaboration between the NMNH Entomology Dept. and the WRBU. It includes over 1.5 million specimens, and is the largest and most diverse mosquito biosystematics resource. It holds more than 40% of the world's type species (the reference standards) of mosquitoes. It is a focus of much research, especially with recent concerns about mosquito-borne human pathogens, like Zika virus. The WRBU is actively involved in field studies and surveillance. An example is current studies of arboviruses and associated diseases spread by mosquitoes and/or sand flies along parts of the Syrian borders. They have also developed and share an extensive searchable worldwide geographic distribution map of many of the most important vectors (mainly mosquito species) of human pathogens like Malaria, Yellow Fever, Dengue, and Zika virus. He showed an example world map with Dengue and Zika virus vectors' distributions sited on it. He also showed an image of *Aedes aegypti* and its worldwide distribution. For vector mosquito identification resources, go to: http://www.wrbu.org/VecID\_MQ.html, and for VectorMap<sup>TM</sup>

itself, go to: http://vectormap.si.edu/.

**Genetic applications.** Advances in genetic techniques and technologies have opened up numerous new approaches to resolving many phylogenetic and evolutionary questions with greater confidence and much more quickly than ever before. Genomics and phylogenomics have become very important to many entomological museums and researchers. Phylogenomics includes understanding: UCEs, target capture, genomes, transcriptomes, and RAD sequencing.

Dr. Brady explained the use of targeted enrichment of Ultra-Conserved Elements (UCEs). Ultra-Conserved Elements (UCEs) are highly conserved regions of DNA found throughout distantly related taxa. They are exactly the same in each taxon (*e.g.*, species) as they are different parallel taxon. Their function is largely unknown, but they can function as conserved anchors that can be used to pull out some, but not all, of the genome of their species. The flanking regions of UCEs increase in variability farther from the core. A UCE approach to phylogenomics was developed by Faircloth *et al.* (2012) for use in many vertebrate groups.

A general approach to using UCEs in phylogenomics includes the following steps:

- (1) Search genomes of interest for orthologous UCEs
- (2) Design 120 bp probes targeting UCEs
- (3) Shear DNA of target taxa
- (4) Enrich DNA using UCE probes
- (5) Tag, pool, and sequence samples
- 6 Clean, align, and analyze data

UCEs are useful in understanding the diversification of the stinging Hymenoptera (aculeate). Dr. Brady showed a pie chart of all insect orders, and the Hymenoptera represented 13% of currently named species. Aculeata include all the Hymenoptera species that have a stinger, such as ants, bees and many wasps. Other major groups of Hymenoptera include the horntails, sawflies, and parasitoid wasps. Dr. Brady explained two different cladograms (cladistic trees) that show relatedness of the taxa studied, based on 82 ant species. One was created using an older genetic technique called the "10-gene" method, and the other one was created using UCEs. He showed how the UCEs refined and clarified species relationships within several subgroups that the other method had left unresolved.

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Regarding molecular data, next generation sequencing technology now allows us to obtain genome-wide data from very old (100+ year old) specimens. The use of UCEs can extract a lot of phylogenetic information from older, pinned specimens but is limited. Dr. Brady showed graphs of the numbers of UCEs retrieved from pinned Hymenoptera specimens of various ages, based on their collection data. Specimens that were up to 25 years old yielded 800 – 1,000 UCEs each, while comparable specimens 25—120 years old yielded far fewer (none more than 700 UCEs). Thus the age of the sampled specimen affected the genomic information that could be retrieved. Specimens' storage conditions also affected this. Specimens kept in liquids (especially alcohols or media containing any water) were harder to process and yielded far less genomic information.

As techniques, tools, processes, and devices have improved, the unit cost of extracting useful genetic information from specimens has gone down significantly. Formerly ambitious projects and studies can be practical now that were difficult and far too expensive. Museum collections can now function as a vouchered and vetted source for future genome-grade tissues for genomic research. The NMNH has responded to the evolving landscape of comparative genomics research in the form of the Global Genome Initiative (GGI).

Before the **GGI**, studies were based on phenotypes (appearance and morphology). Only expensive boutique sequencing of a few model genomes was available. Because of the GGI, there are now publically accessible, known genome-quality tissues in enterprise-level biorepositories following international treaties and improved practices. It is possible to develop an affordable, coordinated, sequencing of a thoughtful synopsis of biodiversity. This allows for advances in phylogeny, ecology, and evolutionary biology. We now have precise genomic tools for taxonomic identifications, conservation, environmental planning, and biotechnology.

Dr. Brady showed images of current physical specimen as deposited in the NMNH, and of their currently available cryogenic genomic sample depository equipment, including 58 freezers and 24 liquid nitrogen tanks. They have the largest natural history biorepository in the U.S. (with a 4-5 million sample capacity).

As of 2015, there is also an international Global Genome Biorepository Network (GGBN). It includes 53 member agencies/organizations, in 22 countries, with 522,691 samples, representing 2,253 families, 11,553 genera, and 33,270 species. He displayed a world map showing the sites of member agencies or organizations. He also showed a graph of the rapid annual growth of the number of samples being curated by the GGBN from 2009 to 2016.

Respectfully submitted, Harold Harlan

# 28<sup>TH</sup> USDA INTERAGENCY RESEARCH FORUM ON INVASIVE SPECIES Tue-Fri, 10-13, January 2017

Loews Annapolis Hotel, 126 West Street, Annapolis, MD

General Session topics include:

- *Phytopthoras* in forests and natural ecosystems
- Update on the response to Spotted Lanternfly in Pennsylvania and supporting research
- NORTHEAST BIOCONTROL REGIONAL PROJECT (NE-1332): Honoring 27 years of leadership by Dick Reardon in research and implementation of biological control of forest pests

# Other Presentations:

- Globalization and live plant trade
- Policy recommendations for importing woody plants
- Multi-lure trapping program to detect exotic Cerambycids at ports of entry in France
- Advantages to broadly targeted exotic species surveys
- APHIS EAB national program update
- Area wide pest management programs against the EAB: recent progress and challenges
- Update of EPPO activities in forest quarantine
- Why is the gypsy moth the world's most prolific forest defoliator?

Poster displays on invasive species and related topics are always welcome. Please contact Vince D'Amico

(vincedamico@gmail.com) regarding guidelines and space availability.

A limited number of openings are available on the program for research presentations. Please contact Michael McManus at mmcmanus0121@comcast.net as soon as possible if you are interested in giving a presentation.

Additional information can be found at:

http://www.nrs.fs.fed.us/disturbance/invasive\_species/interagen cy\_forum/

# INTERSTATE PEST MANAGEMENT CONFERENCE

Wed-Thu, 25-26, January 2017

# Maritime Institute of Technology - Training and Conference Center, 692 Maritime Boulevard, Linthicum, MD

The University of Maryland Department of Entomology and Maryland Extension Service present the 36<sup>th</sup> Annual Interstate Pest Management Conference. The Conference attracts hundreds of professionals in urban and structural pest management each year for comprehensive training by leading experts from industry, government, and academia.

Additional Information can be found at: http://ipmc.umd.edu/



# Central Maryland Beekeepers Association

Supporting and promoting beekeepers and the viability of honeybees in central Maryland

# MEMBERS MEETINGS

# Sat, 3 December 2016; 7:00 p.m.

Annual Holiday Potluck Dinner: Bring a dish and be prepared to relax, converse with friends, and have a good time! Elections, 4<sup>th</sup> annual best-worst bee story, 2016

Tue, 3 January 2016; 7:00 p.m.

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Dr. Eglute Trinkauskaite gives us a fascinating look at honeybees through the folk/spiritual lens. She has researched folklore related to traditional Lithuanian beliefs and will relate to us the importance of *Apis mellifera* in that culture.

# Tue, 7 February 2017; 7:00 p.m.

Dr. Lewis Ziska from the USDA Agricultural Research Service will speak to us about an interesting effect of rising atmospheric carbon dioxide levels on plant pollen.

Members meetings are held at the Oregon Ridge Nature Center, 13555 Beaver Dam Road, Cockeysville, MD. Additional information can be found at:

http://www.centralmarylandbees.org/meetings-3/membership-meeting-schedule/.

# SNAIL-KILLING FLY DATA WANTED

MES member Bill Murphy, along with coauthors Lloyd Knutson and Wayne Mathis, are working on a treatise on the snail-killing flies (family Sciomyzidae) of Delmarva (in the antebellum sense: DC, DE, MD, VA, and WV). They are seeking information about any specimens, determined or undetermined, from that area, from which they have not already captured data. Collections they have examined during the past 10 years (56 collections to date) include, in the greater Delmarva area, the Acad. Nat. Sci. in Philadelphia, the PA Dept. Agric. in Harrisburg, the Univ. of DE, the Univ. of MD, the U.S. Natl. Mus. of Nat. Hist. in DC, the VA Mus. of Nat. Hist. in Martinsville, VPI in Blacksburg, the WV Dept. Agric. in Charleston, and WV Univ. in Morgantown.

If you know of any other collections that might hold snailkilling flies, or if you have specimens, identified or not, from any of these states, please contact Bill

at billmurphy8@sbcglobal.net or (317) 849-4868 in Fishers, IN. If the specimens have not yet been determined to species, you can send them to Bill, who will identify, label them, and return them to you. (Please note that females of a few genera are as yet unidentifiable to species). All collectors and contributors will be fully acknowledged in the final publication.

# UNIVERSITY OF MARYLAND DEPARTMENT OF ENTOMOLOGY COLLOQUIA

#### Fri, 18 November 2016,

"Phenology and cold tolerance of *Megacopta cribraria:* An invasive soybean pest at its Northern limit"

Jessica Grant (Lamp Lab, Department of Entomology, UMD)

#### Fri, 2 December 2016,

"Influence of a native insectary plant, *Chamaecrista fasciculata* (Michx.) on organic field corn and arthropod communities"

Lauren Hunt (Hooks Lab, Department of Entomology, UMD)

# Fri, 9 December 2016,

**"Taxonomic adventures with Aphelinidae and Encyrtidae: small, squishy and hyper-diverse."** Jason Mottern (USDA, ARS)

Entomology colloquia take place from 12:00 pm to 1:00 pm at 1130 Plant Sciences Building, College Park, MD. For

additional information, go to: http://entomology.umd.edu/calendar.html.

# ENTOMOLOGICAL SOCIETY OF WASHINGTON PUBLIC MEETING

Thu, 1 December 2016; 7:00 p.m. Topic: TBA Speaker: TBA National Museum of Natural History, Smithsonian Institution, Washington, DC http://entsocwash.org/.

# **MES MEMBERS WINS AWARD AT ICE 2016**

**Harold Harlan** was presented the award for **Distinguished Service to the Certification Program** for 2016 at the joint ICE and National ESA meeting in Orlando, FL. The plaque was presented at the opening plenary session on September 25, 2016.

# SUPPORT FOR NORTON BROWN HERBARIUM, UNIVERSITY OF MARYLAND

The Norton Brown Herbarium at University of Maryland will close next year unless it can raise money for operating expenses, as the University seems to view it as a financial burden rather than as a resource. I encourage you to write a letter of support for the herbarium and/or donate money to their fundraising campaign. The Herbarium is used as the repository for specimens from Maryland and the Mid-Atlantic region to document the distribution of endangered plants, the spread of invasive plants, and the diversity of Maryland's flora over time. It can also be used for many different kinds of research projects. The herbarium has been at the University since 1901 and has an irreplaceable collection of over 87,000 specimens.

# The link to support the herbarium

is http://giving.umd.edu/giving/fund.php?name=norton-brownherbarium-fund. Please see below for draft text to include for a letter of support and contact information for the letters.

Ongoing herbarium work is essential to our understanding of the natural world, especially in these days of rapid change. The Norton Brown Herbarium was started to support the Maryland Agricultural Experiment Station in 1901 and now has a collection of more than 87,000 specimens with a focus on the flora of Maryland and mid-Atlantic, several plant families, and several special collections including those of the University's College Park Arboretum and Botanic Gardens. The herbarium serves as a repository for state endangered and rare plant collections and serves to document changes in plant distributions across the state. It is used by state agencies including the Department of Natural Resources and Department of Agriculture as well as by researchers from around the world. Students use the herbarium to learn about plant taxonomy and to conduct research projects. Herbarium specimens can be used to study everything from plant genetics, crop diseases, and medical uses to climate change. For this sort of research to continue, it is vital that the University

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maintain support for the Norton Brown Herbarium. It should be considered a valuable asset to the University in attracting world class researchers and funding, but instead it seems to be viewed as a financial burden. The Herbarium needs to be able to maintain and update its collections and make that information available to researchers and to the public. It is an irreplaceable resource.

Letters can be addressed to:

Dr. Craig Beyrouty, Dean of the College of Agriculture and Natural Resources

# beyrouty@umd.edu

University of Maryland College of Agriculture and Natural Resources 1296 Symons Hall 7998 Regents Drive College Park, MD 20742-5551

Dr. Angus Murphy, Chair of Plant Science and Landscape Architecture asmurphy@umd.edu 2104 Plant Sciences Building College Park, MD 20742-5551

# NEW BEE MITE ID TOOL

USDA Animal and Plant Health Inspection Service's Identification Technology Program (ITP) is pleased to announce the release of Bee Mite ID: Bee-associated Mite Genera of the World. This tool allows for identification of adult and immature mite life stages found on bees and in their nests, focuses on important bee pollinators, and can help in distinguishing harmful from non-harmful mites. This web-based tool is designed so that people with varying degrees of knowledge can use it. Bee Mite ID features an illustrated interactive key, comprehensive fact sheets, a filterable image gallery, quick reference guides, illustrated mite and bee morphology pages, and more!

Please find the attached PDF announcement to see an overview of ITP's newest identification tool.

See the following for more information:

- Bee Mite ID: Bee-associated Mite Genera of the World can be accessed at: http://idtools.org/id/mites/beemites/
- Visit http://idtools.org to view other ITP tools.
- Visit the Google Play Store or the App Store to view ITP's Lucid Mobile apps for Android and iOS.

# 2016/2017 PROPOSED MES EVENT SCHEDULE

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

DateSpeakerTopicSep 18Crab Feast/Meet-&-Greet at J. KING'S RestaurantOct 21Seán BradyEntomological Collections: New UsesNov 18David O'BroctaGenetic TechnologiesFeb 17Hanna KahlEffects of Living Mulch on ArthropodsMar 17Daniel Perez-GelabertOrthoptera

Apr 21Loyola Univ. StudentsTBDMay 19Members' & Students' Presentations & ElectionsTBDSurvey/Field Trip

# OCT 2016-SEP 2017 MES MEMBERSHIP YEAR OFFICERS

President Frederick Paras Vice President Philip J. Kean Secretary (vacant) Treasurer Edgar A. Cohen, Jr. Historian (vacant) Faculty Sponsors Frank E. Hanson & Austin P. Platt Journal Editor Eugene J. Scarpulla E-newsletter Editors Aditi Dubey & Hanna Kahl

# SUBMITTAL DEADLINES

SEP 2016 issue of the *Phaëton*:

Please send member news items by December 2, 2016. Send e-newsletter drafts to Aditi at aditid26@gmail.com and/or Hanna at hkahl@umd.edu.

SEP 2017 issue of The Maryland Entomologist:

Please send first drafts of articles and notes by 1 April, 2017. Send journal drafts to Gene at ejscarp@comcast.net.

#### FORGIVEN - A.A. Milne

I found a little beetle; so that Beetle was his name, And I called him Alexander and he answered just the same. I put him in a match-box, and I kept him all the day ... And Nanny let my beetle out -

Yes, Nanny let my beetle out -

She went and let my beetle out -

And Beetle ran away.

She said she didn't mean it, and I never said she did, She said she wanted matches and she just took off the lid, She said that she was sorry, but it's difficult to catch An excited sort of beetle you've mistaken for a match.

She said that she was sorry, and I really mustn't mind, As there's lots and lots of beetles which she's certain we could find,

If we looked about the garden for the holes where beetles hid -And we'd get another match-box and write BEETLE on the lid.

We went to all the places which a beetle might be near, And we made the sort of noises which a beetle likes to hear, And I saw a kind of something, and I gave a sort of shout: "A beetle-house and Alexander Beetle coming out!"

It was Alexander Beetle I'm as certain as can be, And he had a sort of look as if he thought it must be Me, And he had a sort of look as if he thought he ought to say: "I'm very very sorry that I tried to run away."

And Nanny's very sorry too for you-know-what-she-did, And she's writing ALEXANDER very blackly on the lid, So Nan and Me are friends, because it's difficult to catch An excited Alexander you've mistaken for a match.