



# Phaëton

The Official Newsletter of the  
Maryland Entomological Society

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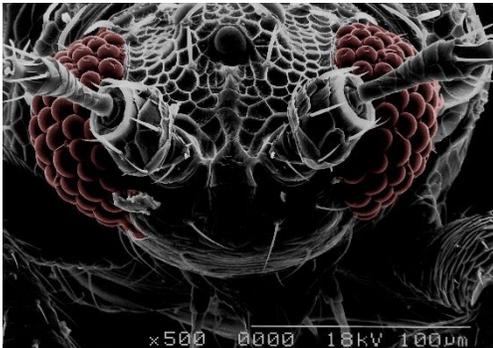
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## March Meeting Pre-Announcement

The Maryland Entomological Society's 321<sup>th</sup> regular meeting will be held **Friday, 16 March 2018**, 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: Cheryle O'Donnell, Ph.D. National Taxonomic Specialist (Thysanoptera & Psylloidea), USDA-APHIS-PPQ-PM-NIS**  
**Title: "Thysanoptera, the Good, Bad and the Ugly!"**



**Abstract.** Thrips are unique in the insect world for several reasons, most of which you cannot see with the naked eye. There are over 5000 species of Thysanoptera and are quite diverse. Thrips have many roles, they are most known as plant pests however, several vector viruses, some are fungal feeders, and some are predators. You can find thrips on every continent where plants are found. They are extremely small insects making them very difficult to detect in crops, in a quarantine environment and taxonomically intriguing. Discover the good, bad and the ugly in this fascinating order.

**Cheryle O'Donnell** is currently a National Specialist of Entomology (Thysanoptera and Psylloidea) for USDA-APHIS-PPQ National Identification Services and is a curator for the NMNH Thysanoptera and Psylloidea collections within the ARS-Systematic Entomology Lab in Beltsville MD. Cheryle received her B.S. in Agriculture Systems and the Environment, an M.S. in Plant Protection and Pest Management, and her Ph.D. in Entomology Systematics and Taxonomy all at the University of California, Davis. She is an active member of Entomological Society of America and this year is the Co-Chair for the Annual Meeting in Vancouver, B.C. She provides morphological and molecular support for the identification of insects imported into the US through Ports of Entry and provides biological information in which to categorize pests to implement quarantine decisions at US Ports of Entry and International Pre-Clearance facilities.



### 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 **Chef Paolino Café** located at **726 Frederick Rd, Catonsville, MD 21228**. If you plan to go to dinner, please email [Fred Paras at bugandrockman@msn.com](mailto: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.**

\*\*\*DON'T FORGET TO RENEW\*\*\*  
\*\*\*IT'S MEMBERSHIP RENEWAL TIME\*\*\*  
OCT 2017 – SEP 2018 MEMBERSHIP YEAR

Membership renewal forms were inserted in the front of the September 2017 issue of *The Maryland Entomologist*. If the date on your address label reads 2017, it is time for you to renew for the "October 2017 – September 2018" 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](#).

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**MINUTES OF THE 320<sup>TH</sup> MEETING OF THE  
MARYLAND ENTOMOLOGICAL SOCIETY**

The meeting convened at 8:30 PM on Friday, February 16, 2018 with a welcome by President Fred Paraskevoudakis. In attendance were 17 members and 3 guests. Following several announcements, which are discussed below, the lecture by Ronald Ochoa, Ph.D. commenced at 8:50 PM.

**16 FEBRUARY 2018 MES LECTURE**

Speaker: Ronald Ochoa, Ph.D., Research Entomologist (Acarologist), Systematic Entomology Laboratory, Agricultural Research Service (ARS), United States Department of Agriculture (USDA), Beltsville, Maryland.

**Title: "Mites, wonderful, unexplored, and as many as insects!"**

Dr. Ochoa started by describing his introduction to mite research and became intrigued by how little was known about the subject. In 1997, researchers in Australia, Michigan, and England examined records and determined that there were 48,200 described species of mites. By 2013 it was estimated that there were about 3 to 5 million species. In 2017, four years later, there were an estimated 10.2 to 1.4 billion species.

He uses cryotechnology techniques developed by NASA and USDA to study snowflakes. Traditional slide mounting techniques distort the body of the specimen being studied. Dr. Ochoa's technique cryofreezes the subject with liquid nitrogen to better preserve the three-dimensional structure of the specimen. He then studies them utilizing scanning electron microscopy (SEM). He also discussed and illustrated with slides, the advantages allowed by this technique compared to older microscopic and preservation techniques.

The lecturer proceeded to show numerous slides of various mites: infecting horticultural and agricultural products, one cleaning a stylet, mating mites. Mite eggs can be used to identify species; the genitalia give a signature appearance to the egg. Throughout, he commented and used his slides to illustrate undescribed or understudied anatomic details, which can result in taxonomy changes, and new knowledge of agricultural impacts. He also showed and discussed unique

anatomic features that enable various species to occupy specific ecological niches.

Mites are ubiquitous, having been found attacking trees at 3000 meters above sea level in Peru, swimming in geysers in Yellowstone National Park (NP), and in deep ocean waters. They are the only arthropods found in the deep ocean. 450 million year old fossilized mites exist.

Dr. Ochoa related the following:

- In 1911 the USDA farm was located on the Mall in Washington, DC. At that time, a red-legged mite was described which was not observed again until three years ago. Agricultural authorities in Maryland received reports of a mite attacking greenhouse-grown winter vegetables. It was the red-legged mite observed and described in 1911. It has been found in Delaware, Virginia, and West Virginia, and is moving southward. This mite only attacks in winter; if the temperature exceeds 37° F, it stays in the soil.
- A student at Ohio State University was digging in hard clay soil, and discovered a new species, the Buckeye Dragon Mite.
- Pet geckos imported from South Africa are escaping captivity; mites attached to them are attacking and killing native lizards. These mites have mouthparts shaped like a drill; they attach to the lizard and extract body fluids.
- During World War II, military forces in parts of Asia and the South Pacific were infected with and suffered many casualties from tsutsugamushi disease (aka scrub typhus and bush typhus). It is spread by larval mites harboring the causative microorganism.
- A species of male bird mite has evolved with leg structures modified so that one leg can attach to the bird's feather, one to a female mite, and two legs can fight off other males.
- Some mites are beneficial; a citrus mite feeds on fungi that block photosynthesis.
- A species of *Demodex* found on facial tissue of *H. sapiens* has no anus. It has evolved to consume only what it needs.

The speaker discussed the widely known problem of mites causing destruction of bee colonies. There are approximately 20 genera of mites attacking bees. He counted 80 mites in the trachea of one bee.

Dr. Ochoa concluded his talk with a discussion of new microscopes and their potential to advance knowledge of acarology.

A brief business meeting followed. MES will have displays at the upcoming ESA meeting. Hannah Kahl, co-editor of this newsletter is studying at the University of California, Davis. MES is having a banner made for display at meetings and exhibits. It will cost \$676 with tax, \$288 for the banner and

\$350 for the stand. President Fred Paras announced that the Natural History Society of Maryland has several upcoming programs of interest. Dr. Harold Harlan stated that a book on bedbugs is due to be published in early March by Wiley. Treasurer Ed Cohen reported a balance of \$4,639.73 after payment for the above mentioned banner and the plaque in memory of Dick Smith. (As discussed at the November meeting and appearing in the December 2017 *Phaëton*). The meeting adjourned at 12:05 AM, Saturday, February 17.

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#### WELCOME TO NEW MEMBERS

MES welcomes the following new members to the Society:

**Ronald Ochoa – Greenbelt, Maryland**

**Joanna Lee – Baltimore, Maryland**

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#### HONORING MEMBER DONORS

MES wishes to honor the following members who made charitable donations along with their recent membership renewals. These donations help with the printing and mailing of *The Maryland Entomologist*.

**Jason P. W. Hall**

**Harold J. Harlan**

**Fred Paras**

**M. Alma Solis**

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#### MES at ESA-EB's "It's a Bug's World"

The Entomological Society of America, Eastern Branch will be holding its 2018 annual meeting at the Westin Annapolis, 100 Westgate Circle, Annapolis, MD 21401, from Saturday, March 17, through Monday, March 19. As part of this meeting, the branch will host a public outreach program, "It's a Bug's World." This event will be held at the Westin on Sunday, March 18, from 11:00 a.m. to 4:00 p.m. It is free and open to the public.

The Maryland Entomological Society will be widely represented at "It's a Bug's World." The primary MES exhibit will be staffed by Harold Harlan, Phil Kean, Fred Paras, Gene Scarpulla, Andrew Sharp, Gaye Williams, and Todd Waters. The multi-table MES exhibit will be anchored by our new MES banner. Our exhibit will feature an abundance of both live and pinned specimens. There will be posters, informational handouts, petting certificates, possibly coloring sheets, as well as general MES information, such as membership applications and samples of the journal, and more.

Separate from the MES exhibit, two other MES members also will have exhibits. Gary Hevel will have an exhibit of some of the over 4500 insects that he has identified in his yard, and Mike Turell will have an exhibit by his 4-H youth group, "The Bug Patrol."

This should be a fun event for all. We hope to see you there.

*Submitted by Gene Scarpulla, Editor, The Maryland Entomologist*

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#### SPEAKER WANTED FOR POLLINATOR TALK

The Chesapeake Beach Green Team is looking for presenters to speak about how pollinators affect the garden, how they do what they do and what can be done to protect them. They are a new group, and are dedicated to community education, in keeping with the Sustainable Maryland guidelines. A date has not yet been decided, but the talk would be in April, close to Earth Day. If you would like to participate, please contact Brandy Summerlin at [brandysummerlin@gmail.com](mailto:brandysummerlin@gmail.com).

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**Central Maryland Beekeepers Association**

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

#### MEMBERS MEETINGS

**Tues, 3 April 2018; 7:00 p.m.**

Josephine (Jody) Johnson, Ph.D., speaks to us about how agriculture is killing bees with chemicals. She'll talk about the three worst chemicals (neonicotinoid class of pesticides, chlorpyrifos, and fungicides) and what we can do about it.

**Tues, 1 May 2018; 7:00 p.m.**

Aaron Fisher of the Fisher Bee Farm in Lewistown, PA, speaks to us about "A Year in the Life of a Commercial Beekeeper". Aaron's company supplies them with the nucs we sell in spring. For more information see: [www.fisherbeefarm.com](http://www.fisherbeefarm.com).

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/>

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#### ENTOMOLOGICAL SOCIETY OF WASHINGTON PUBLIC MEETING

**Thu, 5 April 2018; 7:00 p.m.**

Topic: TBA

Speaker: TBA

National Museum of Natural History, Smithsonian Institution, Washington, DC

<http://entsocwash.org/>

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#### AMERICAN ENTOMOLOGICAL SOCIETY PUBLIC MEETINGS

**Wed, 22 March 2018; 7:00 p.m.**

**Speaker:** David H. Funk, Ph.D.

Stroud Water Research Center  
Avondale, PA

**Topic:** *What We Thought We Knew About the Effect of Temperature on Cricket Songs: The Puzzling Situation of Hawaiian Laupala (Trigonidiinae)*

Members meetings are held at the Ewell Sale Stewart Library, on the second floor of the Academy of Natural Sciences of Drexel University at:  
1900 Benjamin Franklin Parkway, Philadelphia, PA.

Additional information can be found at:  
<http://darwin.ansp.org/hosted/aes/mtgSched.htm>.

#### SUBMITTAL DEADLINES

APRIL 2018 issue of the *Phaëton*:

Please send member news items by 8 April 2018.

Send e-newsletter drafts to Addie at [aditid26@gmail.com](mailto:aditid26@gmail.com).

SEP 2018 issue of *The Maryland Entomologist*:

Please send first drafts of articles and notes by 1 April 2018.

Send journal drafts to Gene at [ejscarp@comcast.net](mailto:ejscarp@comcast.net).

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#### UNIVERSITY OF MARYLAND DEPARTMENT OF ENTOMOLOGY COLLOQUIA

**Fri, 16 March 2018, 12:00 p.m.**

**“Beyond the Red Queen: are elevated parasite evolutionary rates driven by host shifts?”**

Crystal Frost (University of Liverpool, Department of Entomology, University of Maryland / USDA Bee Lab, Beltsville MD)

**Fri, 30 March 2018, 12:00 p.m.**

**“Cover Crops as Insectary Plants: Impacts on natural enemies and their potential for conservation biological control”**

Jermaine Hinds, Ph.D. (Pennsylvania State University, SARE)

**Fri, 6 April 2018, 12:00 p.m.**

**“Insects from outer space”**

Jeya Kathirithamby (St. Hughes College, Oxford University)

**Fri, 13 April 2018, 12:00 p.m.**

**“The paradox of sex: Sexual conflict and reproductive mode polymorphisms”**

Mercedes Burns (Assistant Professor, Dpt. Of Biological Sciences, UMBC)

**Fri, 20 April 2018, 12:00 p.m.**

**“The importance of neighborhood pubs and coffee breaks to novel research findings and applications”**

Brian Federici (Dpt. Of Entomology, University of California-Riverside)

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

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#### OCT 2017-SEP 2018 MES MEMBERSHIP YEAR OFFICERS

President	Frederick Paras
Vice President	Philip J. Kean
Secretary	Janet A. Lydon
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

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#### THE VANITY OF THE DRAGONFLY

By Nancy Willard

The dragonfly at rest on the doorbell—  
too weak to ring and glad of it,  
but well mannered and cautious,  
thinking it best to observe us quietly  
before flying in, and who knows if he will find  
the way out? Cautious of traps, this one.  
A winged cross, plain, the body straight  
as a thermometer, the old glass kind  
that could kill us with mercury if our teeth  
did not respect its brittle body. Slim as an eel  
but a solitary glider, a pilot without bombs  
or weapons, and wings clear and small as a wish  
to see over our heads, to see the whole picture.  
And when our gaze grazes over it and moves on,  
the dragonfly changes its clothes,  
sheds its old skin, shriveled like laundry,  
and steps forth, polished black, with two  
circles buttoned like epaulettes taking the last space  
at the edge of its eyes.