



Phaëton

The Official Newsletter of the
Maryland Entomological Society

Volume 37, Number 1

October 2016

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Meeting Announcement

The Maryland Entomological Society's 312th regular meeting will be held **Friday, 21 Oct. 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: Seán Brady, PhD - Chair and Research Entomologist, Department of Entomology, Smithsonian Institution, National Museum of Natural History

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"



Over the past few centuries, natural history museums around the world have collected, identified, and stored individuals of many insect species. Traditionally, a major goal of these institutions has been to preserve these specimens for morphological and taxonomic scientific study. However, many technological advances over the past decade now allow us to generate data from entomological specimens in more efficient and novel ways that were previously impossible. Dr. Brady will discuss the impact of several of these technological advances on the entomological collections of the Smithsonian's National Museum of Natural History (NMNH). The combination of rapid imaging of labels and crowd-sourcing now enables industrial-scale specimen digitization, as exemplified by a recent project in the Smithsonian's Department of Entomology using over 40,000 NMNH bumblebee specimens. Such digitized collection data are also being used to generate detailed and predictive range and habitat maps for insect vectors of human diseases such as

Zika, as illustrated by the web portal VectorMap, a product of the Walter Reed Biosystematics Unit based at the NMNH. Regarding molecular data, next generation sequencing technology now allows us to obtain genome-wide data from very old (100+ year old) specimens; Dr. Brady will provide a recent demonstration of this power from his own phylogenomic research on carpenter bees. In turn, the relative ease of whole genome sequencing has targeted museum collections as a vouchered and vetted source of future genome-grade tissues for the research community. Dr. Brady will discuss the NMNH response to this evolving landscape of comparative genomics research in the form of the Global Genome Initiative. These four examples (as well as others that I will not discuss tonight) highlight the increased value of worldwide entomological collections to modern biodiversity science.

Seán Brady is a native of Southern California, and completed his graduate training in the adjacent state of Northern California, earning his Ph.D. in Population Biology from the University of California, Davis. After conducting postdoctoral research at Cornell University, he moved to Washington D.C. to work at the Smithsonian's National Museum of Natural History. He started there as a postdoctoral researcher, was then hired as a Research Entomologist and Curator of Hymenoptera, and currently serves as Chair of the Department of Entomology. His organismal focus began with ants, then expanded to include bees, and currently also encompasses stinging wasps and even parasitoid wasps. His research questions mainly focus on applications of phylogenetics and systematics to other areas of evolutionary biology, including historical biogeography, the evolution of sociality, lineage and trait diversification, and

co-evolution with various partners. Much of his current research energy (when he is not being an administrator) concentrates on broad phylogenomic and comparative genomic projects within Hymenoptera. As the theme of his talk indicates, he also maintains a general interest in increasing the role of museum collections in modern biodiversity science.

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

WELCOME TO NEW MEMBERS

MES welcomes the following new members to the Society:

Roxanna & Joshua Ritter	Chincoteague, VA
Brent W. Steury	Alexandria, VA
Roberta Engel	Baltimore, MD

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*.

Joann L. Alexander
Benjamin L. Apt & Alexandra Lord
Frank G. Guarnieri
Kelly A. Hamby & Scott R. McCluen
Lori Heverly (non-member, in memory of Dick Smith)
Sue A. Ricciardi
Richard G. Robbins
Chris Sargent
Jennifer A. Selfridge
Floyd W. Shockley
Jeffrey W. Shultz
Joanne K. & Robert P. Solem
Timothy W. Thompson & Janet A. Lydon
Robin G. Todd
James H. Trosper
Robert B. Trumbule
Gaye L. Williams
Jean R. Worthley

20 MAY 2016 MES MEETING MINUTES AND LECTURES

The May meeting minutes are presented here as an abbreviated version since the usual notes as taken by former secretary Richard Smith were not available for inclusion in this newsletter.

The May meeting featured MES member's presentations and speakers for this month included:

1) **Harold J. Harlan, Ph.D., Medical Entomologist**

Title: "Help Yourself Avoid Mosquito-borne Zika Virus"
Zika virus is mainly spread to humans by certain local-breeding *Aedes* mosquitoes. Dr. Harlan presented some simple steps to reduce local vector mosquito populations, as well as some simple ways to reduce or prevent their biting. This included preventive measures for limiting breeding sites by removal of water holding reservoirs/ vessels and localized spraying, use of mosquito traps, as well as use of some effective repellants.

2) **Richard H. (Dick) Smith, Secretary – Maryland Entomological Society**

Title: "Developments in the Past Year on Selected Maryland Heritage Listed Butterfly Species"

Dick Smith was a Coordinator of butterfly records for the national website Butterflies and Moths of North America (BAMONA) at <http://www.butterfliesandmoths.org/>, and he also collaborated on state surveys of listed butterfly species for the Maryland Department of Natural Resources, Wildlife and Heritage Service (WHS). Dick summarized some of the survey findings obtained in the past year for selected WHS-listed butterfly species. This was both a follow-up for the species presented at his talk at the May 2015 MES meeting and included some new findings for other listed butterfly species.

The following is wetland butterfly species from the list of Species of Greatest Conservation Need (SGCN) and Dick Smith's Comments about them.

Two-spotted Skipper (*Euphyes bimacula*): known mainly only from eastern Garrett County in the past 30 years; last record was 2001; none have been seen since in spite of a lot of searching; perhaps have been extirpated in Maryland.

Black Dash (*Euphyes conspiciua*): locally common in Garrett County swamps and bogs; rare in Piedmont – any recent records here are of high interest; only occurs near stands of Tussock Sedge.

Dion Skipper (*Euphyes dion*): known annually from central Dorchester County; records elsewhere of high interest.

Baltimore Checkerspot (*Euphydryas phaeton*): locally common in Garrett County; isolated colonies in Montgomery County, northern Frederick, and Washington Counties; records of wild colonies from elsewhere around the state are of high interest.
Delaware skipper (*Anatrytone logan*): common in salt marshes of Eastern Shore (mainly lower eastern shore) and marshes of Garrett county; of high interest.

Broad-winged Skipper (*Poanes viator*): abundant in phragmites stands in areas near the Chesapeake Bay; interest in occurrences well inland from the Bay area.

Long Dash (*Polites mystic*): abundant in most Garrett County wetlands; records in other MD counties are of high interest.

Harris' Checkerspot (*Chlosyne harrisii*): all records are of interest.

Mulberry Wing (*Poanes massasoit*): all records are of interest; only occurs near stands of Tussock Sedge.

Silver-bordered Fritillary (*Boloria selene*): frequent in selected Garrett County wetlands; all MD records are of interest; disappeared from MD Piedmont in early 1970s and Eastern Shore in early 1980s; specimens of suspected Meadow Fritillary in Northern Piedmont and Eastern Shore locations should be checked regularly to verify continued non-occurrence of Silver-bordered.

Bog Copper (*Lycaena epixanthe*): occurs in selected mid and west Garrett County bogs; all MD records are of interest.

Bronze Copper (*Lycaena hyllus*): dramatic decline in MD in the past 10 years; all recent MD records are of interest.

3) Fred Paraskevoudakis, President – Maryland Entomological Society

Title: “The National Forests and Parks of Oregon”

Oregon has a great variation of biomes across the state, shaped in large by relatively recent geological forces, primarily volcanism. These natural areas offer stunning beauty and great biodiversity as well as a host of recreational opportunities. This photo presentation began with a run up the Columbia River Gorge and then around to Mount Hood and the Hood National forest. From there the trip continued south through central Oregon to the high desert region that included Smith Rock State Park. In this red rock canyon Fred observed numerous species of butterflies including large numbers of Pierids such as *Colias* spp. and Checkered Whites (*Pontia protodice*). There were also large Two-Tailed Swallowtails (*Papilio multicaudata*) and Western Tiger Swallowtails (*Papilio rutulus*). However there were only a few species of Nymphalids, as it appeared that it was near the end of their season. Further east he traveled through the Ochoco National Forest to eventually visit the spectacular John Day Fossil Beds National Monument. In meadow areas of this primarily Ponderosa pine forest there were many fritillaries and *Colias* spp. but few other species. Once back to the central area he headed south to the Lava Beds National Monument and Newberry Caldera in the Deschutes National Forest. After this the journey continued to the “crown jewel” of National Parks, Crater Lake, truly a spectacular place with stunning vistas at every turn. From here Fred travelled eastward towards the coast passing through many miles of scenic river valleys. Upon reaching the coast he slowly worked his way northward beginning from the Oregon Dunes National Recreation Area and through countless state parks. There are more miles of protected, undeveloped coastline in Oregon than any other state. The iconic image of the Pacific Northwest is fully manifested throughout the 300+ miles of Oregon coastline. One pristine forest on the coast is the Siuslaw National Forest, wherein a remote tract is the only known habitat for a subspecies of the fritillary *Speyeria zerene*. Three quarters of the distance up the north coast, Fred turned eastward and eventually concluded his journey in Portland. Although the trip began before mid-July, he noted that it would have been better to travel in mid-June in order to observe more species of butterflies, as there are quite a few known from this state. Most of all, beautiful scenery, great adventures, and friendly people make Oregon a wonderful travel destination for everyone.

28TH USDA INTERAGENCY RESEARCH FORUM ON INVASIVE SPECIES

Tue-Fri, 10-13 January 2017

General Session topics include:

- *Phytophthora* 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
- Multitrap 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 European and Mediterranean Plant Protection Organization (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 (mmcmanus0121@comcast.net) as soon as possible if you are interested in giving a presentation.

Location: Loews Annapolis Hotel, 126 West Street, Annapolis, Maryland.

Additional information can be found at:

http://www.nrs.fs.fed.us/disturbance/invasive_species/interagency_forum/

INTERSTATE PEST MANAGEMENT CONFERENCE

Wed-Thu, 25-26 January 2017

The University of Maryland Department of Entomology and Maryland Extension Service present the 36th 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.

Location: Maritime Institute of Technology - Training and Conference Center, 692 Maritime Boulevard, Linthicum, Maryland.

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

Tue, 1 November 2016; 7:00 p.m.

World traveler, diving guide, and cultural beekeeping expert Dr. **Susan Langley** brings us her knowledge about traditions of keeping honeybees in Asia.

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, 4th annual best-worst bee story, 2016

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

Dr. Eglute Trinkauskite 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 multiple importances of *Apis mellifera* in that culture.

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

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

PHILADELPHIA CBP FINDS DESTRUCTIVE KHAPRA BEETLES IN HOUSEHOLD GOODS SHIPMENT FROM SAUDI ARABIA

A 19 September 2016 U.S. Customs and Border Protection (CBP) news release reports that agricultural specialists encountered an alarming discovery when they found 60 live Khapra Beetle larvae, 25 cast skins, and 25 dead adults comingled within rice in a household goods shipment from Saudi Arabia. CBP submitted specimens to a U.S. Department of Agriculture (USDA) entomologist who confirmed the specimens as *Trogoderma granarium* Everts, commonly known as Khapra Beetle. The Khapra Beetle is considered one of the world's most destructive insect pests of grains, cereals and stored foods and remains the only insect in which CBP takes regulatory action against even while in a dead state.



Khapra Beetle, *Trogoderma granarium* Everts (Coleoptera: Dermestidae). (Image courtesy of CBP)

The full news release can be accessed at:

<https://www.cbp.gov/newsroom/local-media-release/philadelphia-cbp-finds-destructive-khapra-beetles-household-goods>

NORFOLK CBP FINDS DESTRUCTIVE BEETLE

A 12 September 2016 U.S. Customs and Border Protection (CBP) news release reports that their agricultural specialists at the Norfolk, Virginia port of entry intercepted four Khapra Beetle larva cast skins in a shipment of rice originating from Pakistan, on Thursday, September 8th. An emergency action

notification was initiated for the shipment to be immediately re-exported.



Khapra Beetle, *Trogoderma granarium* Everts (Coleoptera: Dermestidae). (Image courtesy of CBP)

The full news release can be accessed at:

<https://www.cbp.gov/newsroom/local-media-release/norfolk-cbp-finds-destructive-beetle>

PHILADELPHIA CBP INTERCEPTS A NATION'S FIRST

A 19 September 2016 U.S. Customs and Border Protection (CBP) news release reports that CBP agriculture specialists recorded the nation's first find of a species of tiger moth, *Cosmosoma ruatana* (Erebidae) in a shipment of Colombian apples and bananas. Insects belonging to the family Erebidae are considered polyphagous, making them potential pests of many different agricultural crops.



Tiger moth, *Cosmosoma ruatana* (Lepidoptera: Erebidae). (Image courtesy of CBP)

The full news release can be accessed at:

<https://www.cbp.gov/newsroom/local-media-release/philadelphia-cbp-intercepts-nation-s-first>

**UNIVERSITY OF MARYLAND
DEPARTMENT OF ENTOMOLOGY COLLOQUIA**

Fri, 21 October 2016,

“RNA virus population diversity and pathogenesis: What can we learn from the Deformed Wing Virus of the honeybees”

Eugene Ryabov (University of Warwick, UK)

Fri, 28 October 2016,

“Mosquitos”

Joseph Dickens (USDA, ARS)

Fri, 4 November 2016,
“Pentatomid permutations: semiochemical mixology of stink bug attraction”

Don Weber (USDA, ARS)

Fri, 11 November 2016,
“Bed Bugs: Chemical ecology, detection and control”

Mark Feldlaufer (USDA, ARS)

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)

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/news/events>.

**ENTOMOLOGICAL SOCIETY OF WASHINGTON
PUBLIC MEETING**

Thu, 3 November 2016; 7:00 p.m.

Topic: TBA

Speaker: TBA

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

<http://entsocwash.org/>.

**YOUNG STEMS EXPO AND BALTIMORE COUNTY
STEM EXPO**

The YoungSTEMS Expo and Baltimore County STEM Expo is coming up! If you would like to volunteer for this event, then contact Tracy Jones at earlysystems3@gmail.com ASAP. They are requesting volunteers to bring specimen, tools, and other resources to share with children and their families.

Date: Saturday, 12 Nov., 2016

Time: 10 a.m. - 1 p.m.

Location: Lyons Mill Elementary School
9435 Lyons Mill Road
Owings Mills, MD 21117

More information: <http://youngstems.weebly.com/>

**OCT 2016-SEP 2017 MES MEMBERSHIP YEAR
OFFICERS**

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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 4 November 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.

THE LESSON OF THE MOTH

By Don Marquis

I was talking to a moth
the other evening
he was trying to break into
an electric light bulb
and fry himself on the wires.

Why do you fellows
pull this stunt I asked him
because it is the conventional
thing for moths or why
if that had been an uncovered
candle instead of an electric
light bulb you would
now be a small unsightly cinder
have you no sense.

Plenty of it he answered
but at times we get tired
of using it
we get bored with the routine
and crave beauty
and excitement
fire is beautiful
and we know that if we get
too close it will kill us
but what does that matter
it is better to be happy
for a moment
and be burned up with beauty
than to live a long time
And be bored all the while
so we wad all our life up
into one little roll
And then we shoot the roll
that is what life is for
it is better to be a part of beauty
for one instant and then cease to
exist than to exist forever
and never be a part of beauty
our attitude toward life
is come easy go easy
we are like human beings
used to be before they became
too civilized to enjoy themselves.

And before I could argue him
out of his philosophy
he went and immolated himself
on a patent cigar lighter
I do not agree with him

myself I would rather have
half the happiness and twice
the longevity.

But at the same time I wish
there was something I wanted
as badly as he wanted to fry himself.