

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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Entomological Society of Washington Annual Banquet Meeting Thursday, 4 June 2015

Dear Friends.

On behalf of President-Elect Paul Goldstein, it is my pleasure to invite you to the Annual Banquet Meeting of the Entomological Society of Washington! The meeting is open to the public and will be held Thursday, 4 June 2015 at Woodend Nature Sanctuary, 8940 Jones Mill Road, Chevy Chase, Maryland. Our speaker will be Dr. May Berenbaum, Professor and Department Head, Department of Entomology, University of Illinois at Urbana-Champaign. Dr. Berenbaum's variegated career as lepidopterist, chemical ecologist, entomological columnist, and pollinator crusader has been punctuated by recognition and awards, most recently this year's National Medal of Science. Her presentation is entitled "How the Honey Bee Makes Honey...And How Honey Makes the Honey Bee."

The meeting will start with cocktails at 5:30 p.m. followed by a potluck dinner at 6:30 p.m. Dr. Berenbaum's presentation will start at 7:30 p.m., and she will be available to sign copies of her book, *Honey, I'm Homemade*, following her presentation. Copies of *Honey, I'm Homemade* will be available for purchase at the Audubon bookstore.

Honey is the theme for the potluck dinner! Please bring your favorite main dish, side, and/or dessert to share. Refreshments will be provided by the Society.

A single shuttle service from the Smithsonian Institution National Museum of Natural History (10th & Constitution Ave. NW) and the Medical Center metro station (red line) is available. Email Paul.Goldstein@ars.usda.gov to request shuttle service.

If you plan to attend the banquet, please RSVP by registering at the following link:

https://docs.google.com/forms/d/125i2HyJwFeFxuc71aH9KlA-WcEOn3nnq7-b5tUQ1g34/viewform?c=0&w=1&usp=send_form. It will help us with a head count for the event.

Best wishes, Robert Kula (ESW Program Chair) & Shelah Morita (ESW Membership and Communications)

MES Survey/Field Trip – Smithsonian Environmental Research Center BugBlitz Saturday, 6 June 2015

Buggers,

We are about [one] week out from the SERC BugBlitz and things are moving along swimmingly. We should have decent turnout with good coverage of the major insect groups. That said, if anyone is interested in aquatic insects, we have a number of wetland sites on campus and I can gain access to any of them. We will have a mercury vapor lamp set up for the Friday moth hunt, which may also occur on Saturday night. Please get in touch if you would like to participate in the nighttime moth/beetle surveys. (Please contact Rob Aguilar at aguilarr@si.edu or (443) 482-2436 if you plan to attend.)

For those participating, I highly encourage everyone to post pics of their finds to the Flickr page:

https://www.flickr.com/groups/serc_bugblitz. If you cannot attend the BugBlitz, please check the page out as pics get added and feel free to comment on anything you like, or add IDs to unknown specimens. Please let me know if you have any questions and pass along the invite to anyone you think would be interested.

Cheers, Rob Aguilar, Biologist, SERC

WELCOME TO NEW MEMBERS

MES welcomes the following new members to the Society:

Katy Lawler

Midlothian, VA

ANNUAL ELECTION OF MES OFFICERS

The election of MES officers for the "October 2015 –September 2016" membership year was held at the 15 May 2015 meeting. The following list of incumbents agreed to serve again and were reelected.

President Frederick Paras
Vice President Philip J. Kean
Secretary Richard H. Smith
Treasurer Edgar A. Cohen, Jr.

Historian (vacant, volunteer sought)
Faculty Sponsors Frank E. Hanson & Austin P. Platt
E-newsletter Editor (vacant, volunteer sought)

Journal Editor Eugene J. Scarpulla

NEW REVISED VERSIONS OF THE VERY HANDY MANUAL: HOW TO CATCH AND IDENTIFY BEES AND MANAGE A COLLECTION

The Very Handy Manual: How to Catch and Identify Bees and Manage a Collection has been revised and extensively updated. The very handy and talented Gene Scarpulla also made what he claimed to be thousands of edits, to conform to society's grammatical and punctuational norms.

You can download both .pdf and .doc versions at:

http://bio2.elmira.edu/fieldbio/handybeemanual.html, or at: http://www.pwrc.usgs.gov/nativebees/

You can absolutely do whatever you like with them including re-incorporating them into your own manuals or translating them into Lithuanian.

Send any additions or corrections to me at sdroege@usgs.gov and I will add them to the next version

Submitted by MES member **Sam Droege** (Bee Inventory and Monitoring Laboratory, Patuxent Wildlife Research Center, USGS, http://www.pwrc.usgs.gov/nativebees/index.cfm).

ANNOUNCING THE BEES OF MARYLAND AND DISTRICT OF COLUMBIA FASCICLE SERIES

Over the past 12 or so years our lab has been blessed with many volunteers, researchers, and projects that have permitted us to collect and identify bees across Maryland and the puny but important District of Columbia. In the last few years we have more purposefully been collecting data in counties and regions where specimens and records are lacking, targeting locations that may contain interesting bees and looking at records from other museums (primarily the Smithsonian (thank you Sean Brady) and the American Museum (thank you John Ascher).

At this point we have identified roughly (to limits of current but inadequate taxonomy) 425 species in the state and the list continues to increase. Just this month, I added *Melecta pacifica* Cresson to the state list by nabbing one flying over my favorite

dirt patch in the Lab's thankfully unkempt lawn.

We have started to compile and map these data and rather than wait another 12 years to complete some massive book we have decided it is better and more useful to adapt the publication as our understanding evolves (and diminish the specter of not ever publishing anything) and thus decided to put out a fascicle series, species by species, that can be updated as we go along.

So, the first seven species accounts are up at:

ftp://ftpext.usgs.gov/pub/er/md/laurel/Droege/Maryland%20and%20DC%20Bee%20Fascicles/

for:

Agapostemon sericeus (Forster)
Agapostemon splendens (Lepeletier)
Agapostemon texanus Cresson
Agapostemon virescens (Fabricius)
Andrena accepta Viereck

Andrena aliciae Robertson
Andrena alleghaniensis Viereck

A READ ME FIRST file is provided that documents the sources and fields found in the PowerPoints.

As the observant among you might suspect we will proceed in simple alphabetical order.

Please feel free to comment on the format and the information. Our focus is on distribution, status, and identification of the species and not on a detailed review of their life history habits (though I would be open to others adding those sections). In part, this series is meant to provide detailed information on how to identify each species and that should be useful anywhere the species occurs.

Corrections and additions to these accounts are particularly welcome as many of you will have a more detailed understanding of these groups.

We will announce additional accounts as they (slowly) emerge.

I have purposely left these accounts as PowerPoints so you can download and modify them in any way you like...no need to ask our permission.

We encourage other States and Provinces to do something similar.

There you go citizen...let's get your hidden bee information out from under the basket.

Submitted by MES member **Sam Droege** (Bee Inventory and Monitoring Laboratory, Patuxent Wildlife Research Center, USGS, http://www.pwrc.usgs.gov/nativebees/index.cfm).

WHAT BUGS TO BIRDS EAT?

Ask any birder what birds eat and you'll hear "seeds, fruits, and insects." But during reproduction, arguably the most important weeks of a bird's life, 96% of North American terrestrial birds eat insects and other arthropods. Why? Because insects are great food — high in protein and rich in high-energy fats.

But which insects, specifically, are they eating? Surprisingly, we don't really know. The best studies so far only classify

orders of insects. But such broad categories assume that all caterpillars, for instance, are equally valuable to particular bird species.

Intuitively, we know that's not true. Some caterpillar species are so well defended by the chemicals they eat that the naïve birds that eat them throw up (think Monarch butterflies [Danaus plexippus {Linnaeus} {Nymphalidae}]). Others are covered with dense hairs (e.g., Woolly Bears [Pyrrharctia isabella Smith {Arctiidae}]) that are irritating to many birds. Still others, like the many species of green geometer inchworms and noctuid owlet moths, are perfect sources of protein and fats.

New research is showing that some caterpillars are unusually good sources of essential carotenoids — provitamins, antioxidants, and pigments that enhance certain colors of bird plumage. Bright feathers are a signal of good health, and in many bird species, females choose their mates based on the brilliance of their plumage.

Do birds discriminate between caterpillar species rich in carotenoids over ones with few carotenoids? We don't know. If caterpillars are scarce, can birds get the carotenoids they need from grasshoppers (Orthoptera: Acrididae), crane flies (Diptera: Tipulidae), or cicadas (Hemiptera: Cicadidae)? We don't know. Do birds prefer green and yellow caterpillars over brown and black ones? We don't know.

In fact, there is so much we don't know about which arthropods are a "must" for bird nutrition that I am embarking on a long-term research project to document exactly which species of insects are eaten by birds all over the United States, particularly when they're feeding nestlings. But I need your help.

We created a site to crowd-source photos of birds with insects in their beaks, https://www.whatdobirdseat.com/.

My colleagues and I will then identify the order, family, and, when possible, the species of the prey items and feed those data back into the site's searchable database. We'll also showcase the photography, when we have permission to do so.

We will also note whether prey are herbivores, predators, detritivores, or aquatic, whether they're brown or green, hairy or smooth-skinned. We will learn, for example, whether Eastern Bluebirds (*Sialia sialis* [Linnaeus]) from Wisconsin have the same diet as Eastern Bluebirds from Georgia. Do Chipping Sparrows (*Spizella passerina* [Bechstein]) take different insects during their first brood than they do during their second brood? And so on.

Why should we care what birds eat? My primary concern is the conservation and restoration of viable bird habitat. We can't manage habitats for breeding birds without knowing what breeding birds eat while reproducing. Please pitch in!

Doug Tallamy, Ph.D.

Department of Entomology and Wildlife Ecology University of Delaware

Submitted by MES member **Donna Finnegan** (Virginia Master Naturalist).

UNIVERSITY OF RHODE ISLAND TICKENCOUNTER RESOURCE CENTER

The TickEncounter Resource Center (TERC) promotes tick-bite protection and tick-borne disease prevention by engaging, educating, and empowering people to take action. Additional information can be found at: http://www.tickencounter.org/.

CBP AT JFK INTERCEPTS PESTS IN FRUIT CACHE

A 1 May 2015 U.S. Customs and Border Protection (CBP) news release reports that a United States Department of Agriculture (USDA) - Animal and Plant Health Inspection Service (APHIS) - Plant Protection and Quarantine (PPQ) identifier confirmed that on 22 April 2015, CBP agriculture specialists at the John F. Kennedy International Airport discovered a Mediterranean Fruit Fly larva, *Ceratitis capitata* (Wiedemann) (Diptera: Tephritidae), in a shipment of fresh pomegranate arils, *Punica granatum* L., originating from Peru.



Fruit cache intercepted at John F. Kennedy International Airport. (Image courtesy of CBP)

The full news release can be accessed at: http://www.cbp.gov/newsroom/local-media-release/2015-05-01-000000/cbp-jfk-intercepts-pests-fruit-cache.

PHILADELPHIA CBP INTERCEPTS FIRST IN PORT STINK BUG

A 28 May 2015 U.S. Customs and Border Protection (CBP) news release reports that on 21 April 2015, a United States Department of Agriculture (USDA) - Animal and Plant Health Inspection Service (APHIS) - Plant Protection and Quarantine (PPQ) identifier confirmed that on 21 April 2015, CBP agriculture specialists at the Penn Terminal in Eddystone, Pennsylvania, discovered a Rice Stalk Stink Bug, *Tibraca limbativentris* Stål (Hemiptera: Pentatomidae), in a 1,600 case, 50,000 pound shipment of pineapples, *Ananas comosus* (L.) Merr., from the Dominican Republic that was destined for Florida.



Rice Stalk Stink Bug, *Tibraca limbativentris* Stål (Hemiptera: Pentatomidae). (Image courtesy of CBP)

The full news release can be accessed at: http://www.cbp.gov/newsroom/local-media-release/2015-05-28-000000/philadelphia-cbp-intercepts-first-port-stink-bug.

2015 SPRING CRICKET ROUNDUP NOW – 20 JUNE 2015

We hope you are having a great spring! A new Cricket Monitoring Citizen Science event is going on now and you are invited to participate. We are recording the few species of spring crickets until 20 June 2015. Project info and directions follow:

The Project

From now until June 20th, we need you, that's right YOU, to record spring crickets with your smartphone and send those sound files to us so we can map their distribution and create county records for them. We want to map the distribution of Southern Wood Cricket (Gryllus fultoni [Alexander]), Spring Field Cricket (Gryllus veletis [Alexander and Bigelow]), and Southeastern Field Cricket (Gryllus rubens Scudder) on a finer scale in Maryland, the District of Columbia, and Northern Virginia. These recordings will also create baselines for species occurrence as habitat loss and climate change alter populations and their distributions. Here's a link to Gryllus fultoni: http://entnemdept.ufl.edu/creatures/misc/crickets/gfultoni.html. Instead of having to learn the songs and report what you hear, we need a sound voucher that will help us document who is singing and where. Also, it means you don't have to learn the songs! We will use a spectrogram analysis program to identify and document species on your recordings. You will need a smartphone with an audio app. I would suggest Audiocopy for iphone users, http://retronyms.com/audiocopy/, and there are numerous ones for Android users. The singers we hope to document usually sing at night but may also sing some during the day so both of those times for sampling are okay. You can email those files to us at speciesobs@gmail.com.

Directions for Recording Crickets

Always get as close as you can to the singers. This is a little

tricky and takes some patience but we need to be able to hear the cricket over all the other noise going on. If you can, wait until it's quiet to record. Hold your phone close to the ground, for most of the spring singers this will work well. If your phone case is covering your phone mike, take it out of the case.

- 1. Record the cricket first, record for a minute; it's okay if it's a little over or under but try for a minute sample once you've started recording the singer.
- 2. Then tell us all the location and date information on that recording. We won't be able to match up your information and your sample on separate recordings.
- 3. After recording the cricket, first thing to do is, say where you are! and give us a county. You can give us an address or cross streets, but say what general town, city, and/or county you are in. GPS coordinates (make sure you tell us if it's degrees, minutes, seconds or if it's decimal degrees) are great but you should still give us a general area.
- 4. Let us know who you are.
- 5. If you see an empty field or woodland edge and nothing is singing, then send us that too! YES, we need zeros. And yes, we need that sample recording with a location.

Protocol Options

- 6. If you can number your sound files with the first four letters of your last name, the first two letters of your first name, and the year you were born, then add a 1 for sample one. For instance if my name is Bill Smith, born in 1968 then my first sample is numbered-smitbi19681, my second is smitbi19682, just to (hopefully) give us a unique sample code for each event.
- 7. Include a description of your sample area. (e.g., open grassy field or wooded area or upland oak forest). If it's a daytime sample, include a photo.

Review

Record the cricket song as close as possible.

Keep recording for a minute.

Keep recording and tell us your location, date, time, and name.

Send us the file.

Things to consider

- Don't go out alone at night, science is better with friends.
- -If you are intimidated by the phone technology of this, take a tech savvy friend.
- -You won't know what you are hearing! It's OK, that's our job. Give us the best recording you can.
- -Without you, this doesn't happen. We are always amazed and grateful for your participation.

Sincerely,

Team Cricket

Submitted by MES member **Sam Droege** (Bee Inventory and Monitoring Laboratory, Patuxent Wildlife Research Center, USGS)



Central Maryland Beekeepers Association

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

MEMBERS MEETINGS

Tue, 2 June 2015; 7:00 p.m.

"The Ecological Value of Plants for Pollinators"

Deborah A. Delaney, Ph.D. (Assistant Professor of Entomology, Department of Entomology and Wildlife Ecology, University of Delaware)

Tue, 7 July 2015; 7:00 p.m. "TBD"

Speaker: TBD

Tue, 4 August 2015; 7:00 p.m. Annual Potluck Picnic

Oregon Ridge Pavillion area)

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/.

ENTOMOLOGICAL SOCIETY OF WASHINGTON ANNUAL BANQUET MEETING

Thu, 4 June 2015; 5:30 p.m.: cocktails; 6:30 p.m.: potluck dinner; 7:30 p.m.: presentation; 8:30 p.m.: book signing "How the Honey Bee Makes Honey...And How Honey Makes the Honey Bee"

May Berenbaum, Ph.D. (Professor and Department Head, Department of Entomology, University of Illinois at Urbana-Champaign)

Woodend Nature Sanctuary, 8940 Jones Mill Road, Chevy Chase, Maryland

http://entsocwash.org/.

NATURAL HISTORY SOCIETY OF MARYLAND

Thu, 4 June 2015, 7:00 p.m.

Luna Moths and Other Beautiful Flying Creatures of the Night

Maryland Naturalist Center, 6908 Belair Road, Baltimore, Maryland

This year some of us have been raising Luna Moths (*Actias luna* [Linnaeus] [Lepidoptera: Saturniidae]), as well as other species of moths. We have a large batch of Luna Moth caterpillars right now, and we would like to get others involved in raising these beautiful saturniid moths. Several people will be on hand to talk about the life cycle of Lunas, as well as other moths found around Maryland.

If you would like to raise some as well, find a good source of sweetgum (*Liquidambar styraciflua* L.) or black walnut (*Juglans nigra* L.), and bring a clipping with you along with a container. (If you don't know how to identify these trees, I will be posting a picture of sweetgum soon. Perhaps someone can add a picture of hickory as well? We will also bring examples

to the meeting.) We will show you how to set them up, and what to expect in the coming weeks. You will need a five-gallon (or larger) aquarium with a tight-fitting screen on top, or something similar to house them once you get home.

Even if you don't want to raise these little guys and gals, come out and enjoy an evening of learning about Maryland moths.

This will be an informal meeting. Be prepared to ask questions and go with the flow of the evening.

Cost: FREE. To sign up, visit:

http://www.meetup.com/marylandnature/events/222651891/.

MES FIELD TRIP – SERC BUGBLITZ 6 JUNE 2015

This year's MES field trip will be held in conjunction with the Smithsonian Environmental Research Center BugBlitz that will be held on Saturday, 6 June 2015 from 8:00 a.m. to 4:00 p.m. A moth Blitz is scheduled for Friday, 5 June, beginning at 7:30 p.m. This is an opportunity to survey a property that is normally not open to the public. Please see the note below and the attachment to the e-mail that delivered this e-newsletter for details on how to register for the BugBlitz. Please contact Rob Aguilar at aguilarr@si.edu or (443) 482-2436 if you plan to attend.

SERC BUGBLITZ INVITATION 6 JUNE 2015

I wish to invite you all to the Smithsonian Environmental Research Center (SERC) BugBlitz on Saturday, 6 June 2015 (with a moth hunt the night before). I talked with some of you earlier, but this is the official announcement, now with a flyer! (See attachment.) While we have a fairly good handle on the vascular plants, vertebrates and estuarine species at SERC, little work has focused on the terrestrial and freshwater invertebrates. So please help us document biodiversity at SERC. Although the impetus of this BioBlitz is insects, spiders, mollusks, etc., feel free to focus on anything you like. Also please pass along this invitation to anyone you think would be interested.

Please see the attached flyer for details. If you have any questions or suggestions, I can be reached at aguilarr@si.edu or (443) 482-2436. If you plan to attend the main BugBlitz or nighttime moth hunt, please let me know. Thanks!

Rob Aguilar, Biologist, Smithsonian Environmental Research Center, PO Box 28, Edgewater, MD 21037

HOWARD COUNTY BIRD CLUB BUTTERFLY TRIPS

Sunday, 7 June 2015, 10:00 a.m.—2:00 p.m. Meadowbrook Park Butterfly Field Trip and Count Howard County Parks Butterfly Count

We will walk along paved pathways and may occasionally step off into the grass. We will meet at the entrance of the Park & Ride located from the Long Gate Parkway exit off of Rt. 100. Rest rooms are located at the Park & Ride. Bring binoculars and cameras if you have them as well as any drinks or snacks you may need. E-mail Sue Muller at:

smuller@howardcountymd.gov by 3 June 2015 to sign up to

June 2015

participate.

Saturday, 13 June 2015, 11:00 a.m.–2:00 p.m. David Force Park Butterfly Walk

Focus: Silvery Checkerspots

Unpaved but maintained paths. No Facilities. <u>Take precautions</u> against ticks. Rain Date: TBD. E-mail Linda at:

raven10322@hotmail.com for directions to meeting place.

Saturday, 27 June 2015, 10:00 a.m.–2:00 p.m. Warfield Pond Butterfly Walk

Focus: swamp skippers

Saturday, 27 June 2015, 11:00-2:00 TIME CHANGE!

Focus: swamp skippers

Paved paths; swampy areas. No Facilities. Knee high boots recommended for swampy areas. <u>Take precautions against ticks and mosquitoes.</u> Rain Date: TBD. E-mail Linda at: raven10322@hotmail.com for directions to meeting place.

NATIONAL POLLINATOR WEEK 2015

15-21 June 2015

Pollinator Week was initiated and is managed by the Pollinator Partnership.

Eight years ago the United States Senate's unanimous approval and designation of a week in June as "National Pollinator Week" marked a necessary step toward addressing the urgent issue of declining pollinator populations. Pollinator Week has now grown to be an international celebration of the valuable ecosystem services provided by bees, birds, butterflies, bats, and beetles. The growing concern for pollinators is a sign of progress, but it is vital that we continue to maximize our collective effort. The United States Secretary of Agriculture signs the proclamation every year. Additional information can be found at:

http://www.pollinator.org/pollinator_week_2015.htm.

2015 DRAGONFLY SOCIETY OF THE AMERICAS ANNUAL MEETING

25-28 June 2015

State College, Pennsylvania

The 2015 Annual Meeting of the Dragonfly Society of the Americas (DSA) will be held in State College, Pennsylvania on 25-28 June 2015 hosted by the North East Chapter of DSA. The indoor conference sessions will be held at the Ramada Inn on Saturday, 27 June 2015, with local field trips on Friday and Sunday and additional two-day pre- and post-conference field trips. The 2015 DSA meeting will be a great opportunity to showcase and explore several rich Odonata habitats in Central Pennsylvania where there are bogs, streams, lakes, and a variety of habitats. More information can be found at: https://sites.google.com/a/udel.edu/nedsa/home/2015.

NATIONAL MOTH WEEK 2015 Invites Citizen Scientists to Celebrate Moths

18-26 July 2015

Registration is in full swing for the fourth annual "National Moth Week 2015" on 18-26 July 2015, a global citizen-science project that celebrates the beauty, diversity and ecological importance of moths. This year, National Moth Week will spotlight the Sphingidae family of moths found throughout the world, commonly called hawk moths, sphinx moths, and hornworms.

Anyone can participate in National Moth Week. "Moth-ers" of all ages and abilities are encouraged. More information can be found at: http://nationalmothweek.org/.

2015/2016 PROPOSED MES EVENT SCHEDULE

Regular MES lecture/meetings are held at 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:

<u>Date</u>	Speaker	<u>Topic</u>
Jun 6	SERC BugBlitz	Survey/Field Trip at SERC
Sep 20	Crab Feast/Meet-&-Greet at J. KING'S Restaurant	
Oct 16	David Rivers	Forensic Entomology
Nov 20	TBD	Lecture
Feb 19	TBD	Lecture
Mar 18	TBD	Lecture
Apr 15	TBD	Lecture
May 20	Members' & Students' Presentations & Elections	
TBD	Survey/Field Trip	

OCT 2014 – SEP 2015 MES MEMBERSHIP YEAR OFFICERS

Co-Presidents	Timothy Foard & Frederick Paras
Vice President	Philip J. Kean
Secretary	Richard H. Smith
Treasurer	Edgar A. Cohen, Jr.
Historian	(vacant)
Faculty Sponsors	Frank E. Hanson & Austin P. Platt
E-newsletter Editor	Eugene J. Scarpulla
Journal Editor	Eugene J. Scarpulla

SUBMITTAL DEADLINES

JUL 2015 issue of the *Phaëton*:

Please send member news items by 3 July 2015.

SEP 2015 issue of *The Maryland Entomologist*:

First drafts of articles and notes are due ASAP.

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