



Phaëton

The Official Newsletter of the
Maryland Entomological Society

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Meeting Announcement

The Maryland Entomological Society's 306th regular meeting will be held **Friday, 16 October 2015**, at **8:00 p.m.**, in **Room 004** (one floor below the street level), **Biological Sciences Building**, University of Maryland Baltimore County (UMBC). Bring a friend and specimens, observations, and books to share. Refreshments will be provided. Presentations are scheduled to begin at 8:15 p.m.

Speaker: David B. Rivers, Ph.D. (Professor, Department of Biology, and Director of the Forensic Studies Program, Loyola University Maryland, Baltimore, Maryland)

Title: "Silent Witnesses: Insects as Tools in Legal Investigations"



Left: A mass of mostly *Lucilia illustris* (Meigen) (Diptera: Calliphoridae) formed in the mouth opening on the head of a dead Virginia Opossum, *Didelphis virginiana* Kerr (Mammalia: Didelphidae).

All crimes do not involve death. For that matter, all legal issues are not criminal in nature. However, homicides, or really just the presence of a corpse, draw the undivided attention of insects. Actually, us too! Humans are captivated by death, especially when foul play is suspected. Despite the reality that death due to murder, abuse, or negligence represents some of the worst actions that one human can bestow upon another, people are drawn to it. We watch intently on the news, read novels about crime and murder, and have made crime shows the top rated programming on television in the United States. So it should come as little surprise that our number one nemesis—insects—have the same interests that we do. Okay, insect attraction to human or any other animal remains is motivated not out of the macabre (like us), but instead as part of foraging behavior. Yes, several insect species use dead animals as their primary food source. By understanding which insects are attracted to the dead, when they will arrive, and how long they take to complete development under varying environmental conditions, these species become useful pieces of physical evidence in investigations of suspicious or unexplained deaths. Using aspects of insect biology in this deductive manner is the basis for forensic entomology, the branch of forensic science and sub-field of entomology that deals with issues in which insect and arthropod biology intersects with the judicial system. Of course the reality is that forensic entomology is much broader than just death investigations, and also includes legal aspects of insects associated with food (stored product entomology), dwellings (urban entomology), and matters of national security. By understanding the biology of necrophagous and synanthropic (ecologically associated with humans) insects, we can begin to predict why and when certain insects will become associated with human habitation, stored food, or colonizing a corpse.

My foray into entomology began as an undergraduate at Ball State University (BS in Biology) when I was given the opportunity as a freshman to work with Dr. Harold Zimmack, an entomologist specializing in invertebrate pathology. His enthusiasm for insects was infectious and quickly won me over. From there I received my Ph.D. in Entomology with an emphasis in insect physiology while working in the laboratory of David Denlinger at The Ohio State University. My thesis work was focused on (continued next page)

behavioral, physiological, and biochemical interactions between the parasitic wasp *Nasonia vitripennis* (Walker) (Pteromalidae) and its filth fly hosts. I jumped at the chance to do a project that no one else in the lab was doing. Importantly, all of the other graduate students and post docs in the Denlinger lab were working with sarcophagids of some sort, so my project represented an impending threat to their research. And, thus I began my decades-long journey of working on research projects that annoyed or offended my colleagues! I completed a postdoc in the laboratory of Michael Strand at the U. of Wisconsin working with a polyembryonic wasp *Copidosoma floridanum* (Ashmead) (Encyrtidae), and in 1994, started as an Assistant Professor of Biology at Loyola College, now Loyola University Maryland. Since 2011, I have served as the Director of the Forensic Studies program, and just completed my second stint as department chair. My research interests are focused on fly/wasp interactions in carrion communities, the physiology of heat production within maggot masses, and I am now in the midst of initiating a research program aimed at biological control of biting tabanids (horse/deer flies).

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:

Chandler S. Robbins Laurel, 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*.

Chandler S. Robbins

15 MAY 2015 MES MEETING MINUTES

The 305th general meeting of the Maryland Entomological Society was held on Friday, 15 May 2015 at UMBC and began at 8:31 p.m. with a welcome by Co-President **Fred Paras**. The meeting moved immediately into the two scheduled lectures by MES members, and these are summarized below. After the presentations, attendees enjoyed a period of conversation and fine refreshments, and this was followed by a business meeting. The business meeting started with the reading by Secretary **Dick Smith** and approval by attendees of the minutes from the 17 April 2015 MES meeting, and then Treasurer **Ed Cohen**'s report was delivered. The general funds stood at a total of \$3889.98 at this time. We learned that Fred Paras had donated \$100 to the Society's General Fund to be the happy recipient of

the four *Moths of North America* fascicles donated to the Society in 2014 as a fund-raising opportunity by Charter Member Dr. **William Andersen**. Meeting attendees were reminded of the Society field trip in conjunction with the BugBlitz to be held at the Smithsonian Environmental Research Center in Edgewater, Maryland, on 6 June 2015. Officer elections for the coming Society fiscal year were the next order of business. After verifying that there were no new officer nominations, a vote was taken and approved for the current officers, except for those of Newsletter Editor and Society Historian, to continue with their responsibilities for the coming fiscal year. As of the May meeting, the office of Newsletter Editor was still open for next year; as **Gene Scarpulla**, the current Newsletter Editor, wished to relinquish this role by the end of calendar year 2015. The office of Society Historian had not yet been filled since the passing in 2014 of **Bob Bryant**, the previous Historian. Fred offered that we should consider contacting **Bob Platt** about this position. For displays, there were several drawers of Grecian butterflies and other insects brought in by Fred Paras in conjunction with his presentation. Finally, Vice President **Phil Kean** brought in for display a box of several *Limenitis* (Fabricius) (Lepidoptera: Nymphalidae) species, subspecies, and hybrids, both natural and lab-reared, from Dr. Platt's past research on this butterfly group.

Respectfully submitted, Richard H. Smith, MES Secretary.

15 MAY 2015 MES LECTURE

The May meeting was the usual members' potpourri night and two presentations by MES members were given.

Speaker: Richard H. Smith (MES Secretary and part-time Maryland butterfly conservation surveyor)

Title: "Survey Plans and Recent News Items for Some of Maryland's Heritage-listed Butterfly Species"

Dick focused on 14 butterfly species that are known to have declined or believed to have become extirpated in Maryland in the past 15 years and for which survey efforts will be stepped up to qualify their status or to perhaps locate new colonies. Dick has discussed these species and survey plans with Jennifer Frye, Invertebrate Ecologist for the Maryland Department of Natural Resources Wildlife and Heritage Service. He also announced some recent news items about some of these species (see within the list below). These species and some of Dick's comments about them are as follows:

- ***Papilio cresphontes* Cramer (Giant Swallowtail)** – very sparse in previously recorded colony areas. Determine any new concentration areas.
- ***Colias interior* Scudder (Pink-edged Sulphur)** – known only from western Garrett County. Inhabitant there or only stray?
- ***Lycaena hyllus* (Cramer) (Bronze Copper)** – marked decline throughout Maryland range, even on Eastern Shore. Determine colony locations that are still viable.

- *Satyrrium favonius ontario* (W. H. Edwards) ('Northern' Oak Hairstreak) – currently rare with only singletons recorded in widely separated years throughout state. Determine if there are any concentration areas.
- *Phyciodes cocyta diminutor* Scott (Summer Crescent) – recently discovered (2014) in Allegany County and double-brooded (May and August) – specimens verified by *Phyciodes* researcher Harry Pavulaan. Determine Maryland range. This new crescent subspecies and a suspected second, *P. c. incognitus* Gatrell (Mimic Crescent), were also discovered in West Virginia in 2014 during their ongoing West Virginia Butterfly Atlas effort.
- *Euphydryas phaeton* (Drury) (Baltimore Checkerspot) – noted decline in state outside of Western Maryland. Determine new locations and status of viable colonies in Central Maryland.
- *Nymphalis l-album* (Esper) (Compton Tortoiseshell) – very few recent records (Garrett and Allegany Counties only). Determine any current concentration areas.
- *Hermeuptychia sosybius* (Fabricius) (Carolina Satyr) – surprising recent records in Garrett and Allegany Counties. Inhabitant now in these counties or only stray?
- *Pyrgus centaureae wyandot* (W. H. Edwards) ('Appalachian' Grizzled Skipper) – apparently extirpated in Maryland. Re-check historical sites annually. Still occurs at Covington (Alleghany County), Virginia – several specimens sighted there on 18 April 2015 by a lepidopterist survey group.
- *Poanes massasoit chermocki* Andersen and Simmons (Chermock's Mulberry Wing) – apparently extirpated in Maryland. Determine if extant anywhere on Delmarva.
- *Poanes massasoit massasoit* (Scudder) (Mulberry Wing [nominated subspecies]) – apparent recent decline at some Central Maryland colony sites. Determine current status in region.
- *Euphyes bimacula* (Grote and Robinson) (Two-spotted Skipper) – last record only from eastern Garrett County and none recent. Extant in Maryland or extirpated?
- *Euphyes conspicua* (W. H. Edwards) (Black Dash) – marked decline in Central Maryland. Where does it still occur in this region?
- *Atrytonopsis hianna* (Scudder) (Dusted Skipper) – known to occur in bluestem grassy barrens areas. More complete records are needed to assess status, as recent records are very sparse.

Speaker: Frederick Paras (MES Co-president and Baltimore City Community College Biology Professor)

Title: "The Fauna and Flora Biodiversity of Mt. Rhodopi and Mt. Olympus, Greece"

Fred had visited Greece in June of 2014, and his talk was a stunning exposé on the scenery, the flora, and some of the unusual insect species he encountered during this trip. In the Mt. Rhodopi area to the north at elevations of 6560 ft (2000 m)

on average, Fred presented scene after scene of the vast and varied display of wildflowers this alpine region showcases each summer. Interesting and colorful flower groups and species included the following:

- Blue (and yellow) *Scabiosa* L. (pincushion flowers)
- *Verbascum* L. (mulleins)
- *Imula helenium* L. (Wild Sunflower)
- *Linum bienne* L. (Pale Flax), which is the wild progenitor of cultivated flax, the seeds of which produce linseed oil
- *Anchusa azurea* Mill. (Showy Bugloss)
- *Digitalis* L. (foxgloves)
- Yellow *Euphorbia sultan-hassei* Å. Strid & al. (Sultan's Spurge)
- Red *Dianthus* L. (bright pinks)
- Blue *Campanula persicifolia* L. (Peach-leaved Bellflower)
- *Lilium martagon* L. (Martagon Lily)
- *Sedum hispanicum* L. (Spanish Stonecrop)
- *Sedum litoreum* Guss. (Coastal Stonecrop)
- *Hypericum olympicum* L. (Mount Olympus St. John's Wort)

The flora also included a variety of quite exquisite orchid species such as *Orchis punctulata* Steven ex Lindl (Small Dotted Orchis), *Dactylorhiza saccifera* (Brongn.) (Sack-Carrying Dactylorhiza), and *Epipactis helleborine* L. (Broad-leaved Helleborine). The stonecrops are a larval hostplant of the biennial-brooded *Parnassius apollo* (Linnaeus) (Apollo Butterfly), which were readily seen in the area. With the Grecian soil rich in limestone and with several areas of virgin forest, the country harbors about 6000 species of flowering plants and ferns, 750 of which are endemic species and subspecies. This represents one-third of all plants endemic to Europe and the highest degree of endemism on the continent. Among butterflies, several species of the satyrid genus *Erebia* Dalman were seen in the alpine meadows, and the satyrid *Pseudochazara orestes* (de Prins and Van der Poorten) was seen on rock ledges. The Chamois (*Rupicapra rupicapra* L.), a goat-antelope mammal species, was seen on rock outcrops. Fred also visited the Mt. Olympus area in central Greece, which rises in elevation to 13,000 ft (3962 m). This area's soil and rock outcrops display a very white form of limestone. The orchid *Cephalanthera rubra* (L.) (Red Helleborine) was plentiful in this area as well as the Apollo Butterfly. Particularly large grasshoppers (*Saga Charpentier* spp.) were encountered in this area of Greece. Fred later showed several drawers of attractive butterflies and other curious insects from Greece. The butterflies included *Zerynthia polyxena* (Denis & Schiffermüller) (Southern Festoon), *Limnitis populi* Linnaeus (Poplar Admiral), *L. camilla* Linnaeus (Eurasian White Admiral), the striking tropical species *Charaxes jasius* L. (Two-tailed Pasha), and many species of Satyrinae. Many satyrids have the same wing color pattern as grasshoppers, i.e., black basally with light-colored wing borders. Fred said there are 235 butterfly species in Greece, of which many are endemic. Fred's breakdown by family of encountered Grecian butterflies was as follows: papilionids – 9, pierids – 24, nymphalids (not including satyrids and danaids) – 37, satyrids – 58, lycaenids – 70,

skippers – 26, snouts – 1, danaiids – 1, and metalmarks – 1. Quite unusual among the other insects Fred showed were neuropterans, which included very large antlions (Myrmeleontidae), some with long tails, and owlflies (Ascalaphidae). Fred said the owlflies have the habit of flying up, hovering in the air, and eliciting a clicking sound with their wings – perhaps to alarm and confuse predators. Considering fauna in general, Greece represents the far southern range for many European species, and the country harbors many Asian steppe species as well.

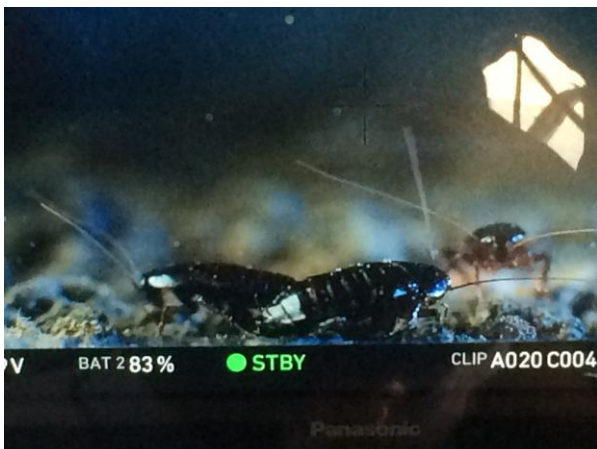
Respectfully submitted, Richard H. Smith, MES Secretary.

**MES ASSISTS IN THE FILMING OF
“JEREMIAH – THE LIFE OF JEREMIAH DENTON”**

MES members **Mike Raupp** (Professor, Department of Entomology, University of Maryland College Park) and **Harold Harlan** (Military Entomologist, U.S. Army-Retired) assisted Luis A. Blandon, Jr., Blandon Creative Research LLC, with the entomological research and filming of “Jeremiah – The Life of Jeremiah Denton” for Alabama Public Television. Two photos from the filming follow:



Mike Raupp “directing” the entomological co-stars of the documentary.



Close-up of the entomological co-stars of the documentary.

The one-hour documentary will air on **Wednesday, 11 November 2015**. Story line: Jeremiah Denton, a United States Naval Academy graduate and fighter pilot fights a war in impossibly difficult circumstances and returns home to a hero’s welcome, only to find he is a stranger in a strange land. During the eight years (1965-1973) of imprisonment and torture in the Hanoi Hilton (where the entomological co-stars act), Jeremiah Denton missed a cultural revolution taking place in America. Choosing between complacency and activism, he becomes a U.S. Senator from Alabama and continues to fight for the America he believes in.

**NOTABLE SUMMER 2015
COLEOPTERA COLLECTING RECORDS**

Although known from some locations in Maryland, the following beetles species are seldom seen or collected and are therefore of interest to entomologists. These beetles were literally “fished” out of my backyard pool filter skimmer. The pool sits at the edge of a hardwood forest above the East Branch North Branch Patapsco River and happens to be a great collecting device for numerous insect species.

***Chrysobothris azurea* LeConte (Buprestidae)**

3200 Patapsco Road, Finksburg (Carroll County), Maryland
22 June 2015

***Chrysobothris sexsignata* Say (Buprestidae)**

3200 Patapsco Road, Finksburg (Carroll County), Maryland
24 June 2015

***Bolbocerosoma farctum* (Fabricius) (Geotrupidae)**

3200 Patapsco Road, Finksburg (Carroll County), Maryland
9 August 2015

Submitted by Fred Paras, MES President.

**UNIVERSITY OF MARYLAND
DEPARTMENT OF ENTOMOLOGY COLLOQUIA**

Fri, 9 October 2015, 12:00 p.m.

“Departmental Awards and Introductions”

Fri, 16 October 2015, 12:00 p.m.

“TBA”

Reed M. Johnson, Ph.D. (Assistant Professor, Department of Entomology, The Ohio State University, Wooster, Ohio)

Fri, 23 October 2015, 12:00 p.m.

“Wasps, Worms, and Plants”

Karen M. Kester, Ph.D. (Associate Professor, Department of Biology, Virginia Commonwealth University, Richmond, Virginia)

Fri, 30 October 2015, 12:00 p.m.

“Sexual Selection in Stalk-eyed Flies”

Gerald S. Wilkinson, Ph.D. (Professor, Department of Entomology, University of Maryland, College Park, Maryland)

Fri, 6 November 2015, 12:00 p.m.

“Can Forests Take the Heat?”

Steven D. Frank, Ph.D. (Associate Professor, Department of Entomology, North Carolina State University, Raleigh, North Carolina)

Fri, 13 November 2015, 12:00 p.m.

"Entomological Society of America Practice Talks"

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

PROTECTING POLLINATORS IN ORNAMENTAL LANDSCAPES CONFERENCE

Mon-Wed, 12-14 October 2015

Kanuga Conference Center, Hendersonville, North Carolina

Hosted by Michigan State University and North Carolina State University, this conference is intended for extension educators, academic and industry researchers, growers, and representatives of related industries interested in or involved with ornamental plant production or maintenance. Sessions will include research presentations and discussions on topics such as: function of urban/ornamental pollinators, threats to pollinators, impacts of neonicotinoids and other pesticides, pollinator-safe products and strategies, and educating the public about pollinators. Full details can be found at: <http://ecoipm.org/protecting-pollinators-conference/>.

**THE GEORGE WASHINGTON UNIVERSITY
DEPARTMENT OF BIOLOGICAL SCIENCES
SEMINARS**

Fri, 16 October 2015, 3:30 p.m.

"Functional Genomics of Silk Synthesis in Cobweb Weaving Spiders"

Nadia A. Ayoub, Ph.D. (Associate Professor, Biology Department, Washington and Lee, Lexington, Virginia)

Fri, 23 October 2015, 3:30 p.m.

"TBA"

Torsten Dikow, Ph.D (Curator of Diptera, Department of Entomology, National Museum of Natural History, Smithsonian Institution, Washington, DC)

Fri, 30 October 2015, 3:30 p.m.

"TBA"

Fri, 6 November 2015, 3:30 p.m.

"Ant Bridge Too Far - Living Architectures in New World Army Ants"

Simon J. Garnier, Ph.D. (Assistant Professor, Federated Department of Biological Sciences, New Jersey Institute of Technology, University Heights Newark, New Jersey)

Fri, 13 November 2015, 3:30 p.m.

"TBA"

Biology seminars take place in the Science and Engineering Hall, Lehman Auditorium (B1270), Washington, DC. For additional information, go to: <http://biology.columbian.gwu.edu/seminars>.

**AMERICAN ENTOMOLOGICAL SOCIETY
PUBLIC MEETING**

Wed, 28 October; 4:00 p.m.

Topic: TBA

Speaker: TBA

The University of Delaware, Allen Lab Conference Room 101, Newark, Delaware (The Allen Lab Building is east of Townsend Hall. See: <http://maps.rdms.udel.edu/map/index.php>)

Wed, 2 December; 7:00 p.m.

Topic: TBA

Speaker: TBA

The Academy of Natural Sciences of Drexel University, Ewell Sale Stewart Library, Second Floor, 1900 Benjamin Franklin Parkway, Philadelphia, Pennsylvania

For additional information, go to:

<http://darwin.ansp.org/hosted/aes/mtgSched.htm>.

**NATURAL HISTORY SOCIETY OF MARYLAND
HOSTS NATURE BOOK SALE**

Sat, 31 October 2015; 10:00 a.m. – 1:00 p.m.

The sale will be held at the NHSM headquarters (6908 Belair Road, Baltimore, Maryland 21206).

There will be hundreds of science and nature-themed books, magazines, journals and pamphlets from the 1800s to the present for sale. We are currently streamlining our library collection to better utilize space at our headquarters. Reading levels vary from general interest to highly technical. Most items will be priced to sell (\$2); rare and antique books will be priced individually. All proceeds will go directly towards establishing a state natural history museum in Maryland.

A discounted 'Pay by the Box' sale will take place Saturday, 31 October from 2 – 3 p.m. NHSM members are invited to the preview sale on Friday, 30 October from 5 p.m. to 8 p.m.; individual memberships can be bought at the door for \$25.

Additional information can be found at:

<http://marylandnature.org/book-sale/>, or send an e-mail to: nhsm@marylandnature.org.

**ENTOMOLOGICAL SOCIETY OF WASHINGTON
PUBLIC MEETING**

Thu, 5 November 2015; 7:00 p.m.

Topic: TBA

Speaker: TBA

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

<http://entsocwash.org/>.



Central Maryland Beekeepers Association

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

MEMBERS MEETINGS

Tue, 17 November; 7:00 p.m.

“Buckfast Abbey Beekeeping”

Clare Densley (Head Beekeeper, Buckfast Abbey, Buckfastleigh, Devon, United Kingdom)

Tue, 5 December; 6:00 p.m.- 9:00 p.m.

Potluck Holiday Dinner, 3rd Annual Best Worst Bee Story

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/>.

87TH ANNUAL MEETING OF THE EASTERN BRANCH OF THE ENTOMOLOGICAL SOCIETY OF AMERICA

held in conjunction with the

NORTHEASTERN PLANT, PEST, & SOILS CONFERENCE

Sun-Thu, 3-7 January 2016

Society Hill Sheraton, One Dock Street. Philadelphia, Pennsylvania

The Eastern Branch of the Entomological Society of America is joining forces with the Northeastern Weed Science Society, the Northeastern Division of the American Phytopathological Society, the Northeast Branch of the American Society of Agronomy, Crop Science Society of America, and the Soil Science Society of America, and the American Society of Horticultural Science-Northeast Region to hold the first-ever Northeastern Plant, Pest and Soils Conference (NEPPSC).

Additional details can be found at:

<http://www.entsoc.org/eastern/2016-eastern-branch-annual-meeting>.

2015/2016 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:

<u>Date</u>	<u>Speaker</u>	<u>Topic</u>
Oct 16	David Rivers	Forensic Entomology
Nov 20	James Brighton	Maryland Biodiversity Project
Feb 19	TBD	Lecture
Mar 18	TBD	Lecture
Apr 15	TBD	Lecture
May 20	Members' & Students' Presentations & Elections	
TBD	Survey/Field Trip	

OCT 2015 – SEP 2016 MES MEMBERSHIP YEAR OFFICERS

President	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	(vacant)
Journal Editor	Eugene J. Scarpulla

SUBMITTAL DEADLINES

NOV 2015 issue of the *Phaëton*:

Please send member news items by 6 November 2015.

SEP 2016 issue of *The Maryland Entomologist*:

Please send first drafts of articles and notes by 1 April 2016.

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