



# Phaëton

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Maryland Entomological Society

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## Meeting Announcement

The Maryland Entomological Society's 283<sup>rd</sup> regular meeting will be held **Friday, 18 November 2011, 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.

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**Speaker:** **Michael J. Turell, Ph.D. – Research Entomologist**  
**United States Army Medical Research Institute of Infectious Diseases (USAMRIID), Fort Detrick, Maryland**

**Title:** **“The Potential for North American Mosquitoes to Transmit Rift Valley Fever Virus”**

As illustrated by the introduction of West Nile virus into the U.S. in 1999 and its subsequent spread across North America, exotic arboviruses have the potential to be introduced and become established in North America and to cause significant disease and economic disruption. Of particular concern is Rift Valley fever virus (RVFV), which has been responsible for numerous outbreaks of severe disease in ruminants and humans in sub-Saharan Africa over the past 70 years. Although originally limited to sub-Saharan Africa, an outbreak in Egypt in 1977 caused an estimated 200,000 human cases and had devastating effects on the sheep and cattle industry. The detection of RVFV on the Arabian Peninsula has raised very real concerns regarding the agricultural and medical impact this zoonotic disease agent might have if it were to continue to spread.

Although Rift Valley fever (RVF) is predominately a problem in domestic ruminants, where infection in pregnant animals usually results in abortion and infection of new-born animals is nearly always fatal, humans are also susceptible to infection. In humans, most infections result in an undifferentiated febrile (fever) disease; however, ~1% of the infections result in hemorrhagic complications, which are often fatal. In addition, ocular sequellae (secondary conditions) occur that can cause retinal damage, including blindness.

Although RVFV is a member of the genus *Phlebovirus*, in the family Bunyaviridae, with known laboratory transmission by sand flies (Psychodidae), this virus has been associated almost exclusively with mosquitoes (Culicidae) in nature, with the virus isolated from at least 40 species of mosquitoes belonging to 8 genera. Because methods of control vary for different mosquito species, it is necessary to identify which species are competent vectors and might be involved in the natural transmission cycle so that the appropriate control measures can be employed. The presentation will cover how mosquitoes are evaluated for their ability to transmit viruses, the ability of selected North American species to transmit this virus, and ways in which RVFV might be introduced into North America.

Dr. Turell has been a principal investigator at USAMRIID for more than 30 years. He received his B.S. and M.S. in Entomology from Cornell University, NY; his MPH from Tulane University, LA; and his Ph.D. in Epidemiology from the University of California at Berkeley, CA. His principal interest has been the study of factors affecting the ability of mosquitoes to transmit various arboviruses. He has evaluated the potential of selected arthropods to transmit pathogens such as RFV, eastern equine encephalitis, Venezuelan equine encephalitis, Japanese encephalitis, and West Nile viruses. These have involved both field studies in foreign countries and laboratory studies. In addition, he has conducted research on the development of vaccines for several mosquito-borne viruses and the development and evaluation of antigen and RNA detection assays. He has more than 150 refereed publications and has given more than 120 presentations at national and international meetings, including invited presentations at 13 international meetings.

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### Meet for Dinner before the Lecture

If you are interested in meeting for dinner before the lecture, 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 Wilkins Avenue, Baltimore, MD 21229, just 15 minutes from UMBC.

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### 21 OCTOBER 2011 MES MEETING MINUTES

The 282<sup>nd</sup> general meeting of the Maryland Entomological Society was held on Friday, 21 October 2011 at UMBC and began at 8:25 p.m. with a welcome by President **Fred Paras**. The business meeting was conducted as the first order of business. May 2011 business minutes were read and approved, and Treasurer **Ed Cohen**'s report was delivered, citing a current MES funds total of \$1957.38. This represented a reduction of about \$422 from the May 2011 total due to publication of the latest fine issue of *The Maryland Entomologist* 5(3). Editor **Gene Scarpulla** indicated that he has already begun to receive manuscripts for the 2012 issue of the Society journal. There were no new or old business items. Under announcements, a meeting of the MES at the USDA-APHIS Training Center in Frederick, MD will probably occur in spring 2012. Most attending members expressed an interest in attending this event. MES member **Michael J. Turell** offered for sale at reduced price some unclaimed items ordered earlier: T-shirts, hats, and carrying bags with colorful wildlife images. MES Secretary **Dick Smith** announced a donation of 30+ year-old U.S. postage stamp sheets, depicting butterflies and other wildlife, to the MES from member **William A. Andersen**. We were free to offer them for sale or in return for a donation from interested MES members. Fred displayed a selection of collected Appalachian Tiger Swallowtail, *Papilio appalachiensis* (Pavulaan and D. Wright) specimens, some of which were obtained during the June 2011 MES field trip to Spruce Knob, WV. Males and both yellow and dark-form females were shown. Compared to the dark female Eastern Tiger Swallowtail (*Papilio glaucus* Linnaeus) specimens, the dark female *P. appalachiensis* have strikingly darker dorsal wing surfaces with no to negligible blue hindwing shading. In contrast to *P. glaucus*, *P. appalachiensis* is univoltine. Other species collected at Spruce Knob included Common Ringlet, *Coenonympha tullia* (Müller), and the Twin-spotted Sphinx, *Smerinthus jamaicensis* (Drury). The main program (see summary below) was presented next, followed by fine refreshments and discussion.

Respectfully submitted, **Richard H. Smith**, MES Secretary

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### 21 OCTOBER 2011 MES LECTURE

**“Insects and Other Arthropods in Human Culture and Mythology”**— **Speaker: Floyd W. Shockley, Ph.D.** – **Museum Technician: Collections Management, Department of Entomology, Smithsonian Institution, National Museum of Natural History, Washington, DC**

Dr. **Floyd W. Shockley** presented an interesting and entertaining lecture on the use of insects and other arthropods in culture and myth throughout human history.

#### I. Insecta (insects)

- \*300 BC – Greece – Aristotle proposed the theory of spontaneous generation for insects and smaller life forms.
- \*AD? – Over 200 Native American myths involving insects.

#### II. Odonata (dragonflies, damselflies)

- \*2800 BC – Mesopotamia – Dragonflies referred to in Poems of Gilgamesh, Atrahasis.
- \*2000-3000 BC – China – Dragonflies associated with weakness and instability.
- \*600 BC – Japan – Dragonflies associated with victory.
- \*AD? – Navajo myth – Dragonflies brought their people into the current world.

#### III. Orthoptera (grasshoppers, crickets, katydids)

- \*1000 BC – Locust plagues described in Old Testament, Torah, and Islamic writings.
- \*AD? – Aztec myth – Itzpapalotl ("Clawed Butterfly" or "Obsidian Butterfly") was a fearsome skeletal warrior goddess, who ruled over the paradise world of Tamoanchan. She was more likely a grasshopper image.

#### IV. Mantodea (praying mantises)

- \*Pre-17th century – New Guinea headhunters (Asmats) depict praying mantis in artwork. Headhunting had strong religious importance to these peoples, and the praying mantis was venerated because the female eats the head of the male during mating.

#### V. Phthiraptera (lice)

- \*100 BC – Wooden louse combs found in Israeli excavations.
- \*1500 AD – The "Louse Line," mythical latitudinal line drawn between Portugal and Florida, south of which all lice and ticks would abandon the human body.

#### VI. Hemiptera (true bugs)

##### A. Cicadoidea (cicadas)

- \*200 BC – Chinese jade amulets depicting a cicada were placed on tongues of the dead to promote preservation and immortality. Also associated with melody, poetry, and the advent of summer.
- \*AD? – Several Hopi myths involve a hump-backed flute playing character, which was a cicada.

##### B. Pseudococcidae (soft scale insects)

- \*1000 BC – The manna consumed by the Hebrews is believed to be the hardened secretion produced by the tamarisk scale insect *Trabutina mannipara* (Hemprich & Ehrenberg).

#### VII. Coleoptera (beetles)

- \*AD? – Nearly 30% of Native American cosmogony (creation) myths involve beetles.

##### A. Scarabaeidae (scarabs)

- \*2000 BC – Associated with self-creation, resurrection, and immortality since they apparently emerged from nothingness (dung). Appear in numerous Egyptian hieroglyphics and on Egyptian tomb capstones. Scarabs depicted in halos above pharaohs. Khepri, associated with sunrise and responsible for moving the sun god Ra, is depicted with a scarab head.

##### B. Dytiscidae (water beetles)

- \*AD? – Cherokee myth – Water beetle spirit Dayaunishi brought up mud from under water to form the Earth.

#### VIII. Lepidoptera (butterflies and moths)

- \*3000-4000 BC – Silk production in China.
- \*1000 BC – Worms described in Old Testament and Torah probably referred to caterpillars.
- \*AD? – Aztec creation myth – Humans transformed to butterflies. Butterflies were also considered to be the ghosts of

victims of violence and battle casualties. The butterfly rank, awarded with a butterfly amulet, was the second highest warrior rank.

\*AD? – Blackfoot myth – Lepidoptera were dream bringers.

\*AD? – The Hopi Maltese cross is believed to have arisen as a butterfly figure. There is a prominent clan in one of the Hopi pueblos called the Butterfly Clan which preserves legends of its past history and migrations. The Hopi Butterfly Dance, participated in mainly by children, is a petition for rain, good health and long life for all living things. The dance also recognizes the butterfly for its beauty and its contribution in pollinating plant life. Four of the Navajo and Hopi Kachinas Dolls are of insects: butterfly, wasp, cicada, and robber fly.

\*European Middle Ages – Serbia, Westphalia – Lepidoptera considered as witches – children’s knocking day (on walls and doors) or St. Peter’s Day was butterfly banishment day to rid communities of butterflies and moths which were believed to be witches that stole butter.

## IX. Diptera (flies)

### A. Flies

\*2000 BC – Egyptian fly amulets were conferred as medals of honor, some made of solid gold.

\*1000 BC – Fly and maggot plagues described in Old Testament and Torah.

\*Biblical, Old and New Testaments – Flies viewed as evil. Philistine god called Beelzebub meaning “lord of the flies” in Hebrew.

\*Medieval Hungary – Witches can become flies.

\*Medieval Norway – Loki, Norse god of mischief sometimes depicted with fly head.

\*17th century Europe – The constellations Northern Fly (*Musca Borealis*) and Southern Fly (*Musca Australis*) are shown in astronomical charts.

### A. Culicidae (mosquitoes)

\*AD? – Inuits (Eskimos) show mosquitoes on totem poles. The poles serve as clan markers. Indian myths associate the origin of mosquitoes from ashes of a trapped or slain giant.

## X. Hymenoptera (bees, wasps, ants)

### A. Apidae, etc. (bees)

\*7000-8000 BC – Petroglyphs at Valencia, Spain show people gathering honey from wild bees.

\*7000 BC – Meade (from fermented honey), archeological records in northern China.

\*2300 BC – Honey bee hieroglyphs on tomb of Egyptian pharaoh Mereruka at Saqqara.

\*600 BC – Artemis (Greek goddess of the wild), bee emblem used in temples. The Greek silver tetradrachm coin contained a bee image.

\*200 BC – Krishna, Hindu god of love, depicted as a bee.

\*AD? – Algonquin myth – How bees acquired the ability to sting.

\*Medieval Europe – Beeswax was devoid of evil, being derived from “virgin” female unmated worker bees.

### B. Vespidae, etc. (wasps)

\*2000 BC – Ancient Britains produced the symbol of a wasp woman demon capable of smiting all human enemies.

## C. Formicidae (ants)

\*40,000 BC – Honeypot ant, *Camponotus inflatus* Lubbock, was a food staple to Australian Aborigines.

\*4000 BC – Dongba glyphs in southern China used ants and bees as words.

\*AD? – Hopi myth – Humans took shelter with “ant people”

\*AD? – Pueblo myth – Ants associated with vindictiveness.

Respectfully submitted, **Richard H. Smith**, MES Secretary

### \*\*HAVE YOU RENEWED YOUR MEMBERSHIP\*\*

It’s time to renew your MES membership for the October 2011 through September 2012 membership year. Membership renewal notices were sent out with the September 2011 issue of *The Maryland Entomologist*. Yearly dues are **\$10** (individuals), **\$15** (household), or **\$5** (fulltime students). Please send your check (made out to Maryland Entomological Society) and any address or other changes to:

Edgar A. Cohen, Jr., MES Treasurer  
5454 Marsh Hawk Way  
Columbia, MD 21045  
E-mail: [edcohenfam@yahoo.com](mailto:edcohenfam@yahoo.com)

### WELCOME TO NEW MEMBERS OF MES

MES welcomes the following new members to the Society:

<b>Charles A. Davis</b>	<b>Lutherville, MD</b>
<b>Linda M. Davis</b>	<b>Lutherville, MD</b>
<b>John S. LaPolla</b>	<b>Towson, MD</b>
<b>Janet A. Lydon</b>	<b>Ellicott City, MD</b>
<b>Susan Matthews</b>	<b>Sykesville, MD</b>
<b>Floyd W. Shockley</b>	<b>Washington, DC</b>
<b>Jason Silva</b>	<b>Sykesville, MD</b>
<b>Timothy W. Thompson</b>	<b>Ellicott City, MD</b>

### HONORING MEMBER DONORS

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

**William A. Andersen**  
**Jennifer A. Frye**  
**Harold J. Harlan**  
**John S. LaPolla**  
**Janet A. Lydon**  
**Richard G. Robbins**  
**Eugene J. Scarpulla**  
**Joanne K. & Robert P. Solem**  
**David R. Smith**  
**Timothy W. Thompson**  
**Harold B. White**  
**William H. Wymer**  
**Joseph D. Zeligs**

### 2011 ODONATA OF MARYLAND & DC ANNUAL REPORT

MES member **Richard L. Orr**'s annual report summarizes the status of the distribution of the known Maryland/DC dragonflies and damselflies at the close of the 2011 field season. Twenty-four (24) new Maryland county records were added. Best find for this year, Hans Holbrook and MES member **William J. Hubick** finding and photographing *Ophiogomphus howei* Bromley (Pygmy Snaketail) in Washington County. Their find was the first time this dragonfly had been reported from Maryland. Richard Orr's updated MD/DC odonate list is at: <http://www.marylandinsects.com/MDDCOdonateRecords.html>.

### ENTOMOLOGICAL POSTAGE STAMPS

A small number of 30+ year-old U.S. postage stamp sheets and first day covers depicting butterflies and other wildlife over the past 15 years have been donated to the Society by MES member **William A. Andersen**. If any philatelic MES members are interested in acquiring any of these items, please contact MES Secretary **Richard H. Smith** at [Richard.Smith@jhuapl.edu](mailto:Richard.Smith@jhuapl.edu) or at (410) 997-7439. A small MES donation would be welcome in exchange for the items.

### FORTHCOMING FIELD GUIDES

With the fairly recent advent of insect field guides, insect watching has become an increasingly popular pastime for an increasingly wider range of the general public. Several guides are anticipated to be produced in the near future. The following list contains those guides that already have publisher affiliations. Click on each link for additional information.

#### *Dragonflies and Damselflies of the East*

Dennis Paulson

Princeton University Press

Expected publication date: November 2011

<http://press.princeton.edu/titles/9538.html>

#### *Owlet Caterpillars of Eastern North America*

David L. Wagner, Dale F. Schweitzer, J. Bolling Sullivan & Richard C. Reardon

Princeton University Press

Expected publication date: November 2011

<http://press.princeton.edu/titles/9420.html>

#### *Peterson Field Guide to Moths of Northeastern North America*

David Beadle & Seabrooke Leckie

Houghton Mifflin

Expected publication date: April 2012

<http://www.houghtonmifflinbooks.com/catalog/titledetail.cfm?titleNumber=1084219&searchString=Peterson Field Guide>

#### *Field Guide to the Ants of New England*

A. M. Ellison, N. J. Gotelli, G. D. Alpert, & E. J. Farnsworth  
Yale University Press

Expected publication date: 2012

<http://www.eaglehill.us/programs/nhs/seminar-flyer-pdfs/Ellison.pdf>

#### *Field Guide to the Bumble Bees of North America*

P. R. Williams, R. Thorp, L. Richardson, & S. R. Colla  
Princeton University Press

Expected publication date: 2012

<http://www.savethebumblebees.com/id12.html>

#### *Peterson Field Guide to Dragonflies of North America*

Ed Lam

Houghton Mifflin

Expected publication date: ?

<http://homepage.mac.com/edlam/dragonflyroad.html>

#### *Field Guide to Beetles of Eastern North America*

Arthur V. Evans

Princeton University Press

Expected publication date: ?

#### *Introduction to Insects of Virginia and the Carolinas*

Arthur V. Evans

University of Virginia Press

Expected publication date: ?

<http://www.vmnh.net/index.cfm/topic/arthur-evans-biography>

### AGRICULTURE CANADA MONOGRAPHS

Agriculture Canada monographs that have been long out-of-print are available either for free PDF downloads from the Entomological Society of Canada or for purchase of "perfect bound" books from Volumes, a division of M&T Printing Group. Two classic tomes of particular interest in the Lower 48 States are *Hymenoptera of the World: An Identification Guide to Families* (1993; 668 pp.) by H. Goulet & J. Huber, and *Manual of Nearctic Diptera: Volume 1* (1983; 674 pp.), *Volume 2* (1987; 658 pp.), & *Volume 3* (1990; 249 pp.) by J. F. McAlpine et al. Most of the monographs are hundreds of pages long and may be a bit unwieldy to use in PDF format as compared to using a book. The book prices from Volumes are quite inexpensive, substantially less than buying an original printing (if you could even find one). Over thirty other Canadian entomological publications are also available. For PDF downloads, visit the Entomological Society of Canada website at <http://www.esc-sec.ca/aafcmono.html>. To purchase books, visit the Volumes website at:

<http://www.volumesdirect.com/SearchResult.aspx?Keywords=Agriculture%20Canada>

### 2011/2012 PROPOSED MEETING SCHEDULE

Regular MES meetings are held the 3<sup>rd</sup> Friday of each of 6 months coinciding with UMBC's academic year. Proposed meetings for the current MES membership year are:

Date	Speaker	Topic
Oct 21	<b>Floyd Shockley</b>	Insects in Human Culture/Mythology
Nov 18	<b>Michael Turrell</b>	NA Mosquitoes & Rift Valley Fever Virus
Feb 17	TBA	
Mar 16	TBA	
Apr 20	TBA	
May 18	Members' "Potpourri"	Presentations & Elections
TBA	Field Trip	