

Phaëton

The Official Newsletter of the
Maryland Entomological Society

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November 2007
Volume: 28, Number 2

Meeting Announcement

The Maryland Entomological Society's 259th regular meeting will be held **Friday, November 16, 2007**; beginning at 8:00 P.M., in **Room 004** (one floor below the street level), Biological Sciences Bldg., University of Maryland, Baltimore County (UMBC). Bring a friend and specimens/observations to share. Refreshments will be provided. Presentations are scheduled to begin about 8:15 P.M.

Speaker : Dr. John S. LaPolla, Asst. Prof.
Department of Biology, Towson University
8000 York Road
Towson, MD 21252-0001

Title: “ *Acropyga*: Dairy Farmers of the Ant World ”

Dr. John LaPolla earned his Ph.D. in 2004 from Rutgers University. His dissertation topic was: “Revision and Phylogeny of the Ant Genus *Acropyga*” under the tutelage of Dr. Mike May. Then he completed a post-doctorate study under the supervisions of Dr. Ted Schultz at the Smithsonian Institution, National Museum of Natural History, where he studied ants of the Guiana Shield. John’s main research focus includes: ant systematics and taxonomy, biodiversity of Neotropical ants, coevolution of *Acropyga* ants and scale insects. Dr. LaPolla is currently an Assistant Professor in Biology at Towson University. He will speak to this meeting on the topic: “*Acropyga*: Dairy Farmers of the Ant World.”

If you want more information concerning this meeting, contact one of the following people:

Annapolis Area - Harold Harlan (410) 923-0173 (Home) “ haroldharlan@comcast.net ”
Baltimore Area - Phil Kean (410) 944-4630 (Home)
Fred Paras (410) 374-0425 (Home) “ bugandrockman@msn.com ”
Bob Platt (Biol. Sci., UMBC x-2261) “ platt@umbc.edu ”
Frank Hanson (Biol. Sci., UMBC x-2265/-2228) “Hanson@umbc.edu”

Minutes of the October 2007 MES Meeting

The 258th general meeting of the Maryland Entomological Society was held on Friday, October 19, 2007 at UMBC and was begun at 8:29 p.m. Fred Paras brought his new daughter Evie Marie for all to be introduced. Fred opened the meeting with a welcome followed immediately by the first main program presentation by Joy and Edgar Cohen for this, the members' meeting. Their talk is summarized below. This was followed by the business meeting in which the May 2007 meeting minutes were read and approved. The Treasurer's report cited an MES combined funds total of \$2460.67 with a few dues checks yet to be added. Send dues for FY 2008 to Ed Cohen as prescribed in the October issue of *Phaëton*. There was no new business. Kevin Kirchner highly recommended buying a new book, *The Songs of Insects* by Lang Elliott and Wil Hershberger, Houghton Mifflin Co., 2007. It includes a CD of numerous insects songs identified by species, and a large number of full-page close-up, striking photos of Orthopterans and cicadas. Gene Scarpulla announced the discovery on Hart-Miller Island in late summer this year of the Brown Marmorated (meaning "streaked marble-like appearance") Stink Bug (*Halyomorpha halys*), a native to Asia and a pest species in the U.S. Harold Harlan discussed its pest activity in fruit orchards where its feeding can cause "catfacing" or severe dimpling of tree fruits. It also tends to reach large numbers in some areas and invades houses through small cracks. Phil Kean brought in several boxes of tropical butterflies, including many Morphos, swallowtails, and Heliconians, as a backdrop to Fred Paras' talk on his recent visits to Panama, which Fred presented next. That talk is summarized below.

Edgar and Joy Cohen showed and discussed many slides of the exotic plants and Lepidoptera observed during their trip to Florida in June, 2006 to attend the Lepidopterists' Society annual meeting at the McGuire Center for Lepidoptera and Biodiversity at Gainesville. Unusual plants they saw at roadside stops in Florida included: Agave, Fringe Flower (*Loropetalum chinense*), Japanese Mock Orange (*Pittosporum tobira*) (native to Asia and not in the *Rutaceae*, but rather in its own family *Pittosporaceae*), and Bottlebrush Flower (*Callistemon citrinus*) (native to Australia). In the McGuire Center, striking Lepidoptera specimens on display included a moth sometimes called Darwin's Hawk Moth (*Amphimoea walkeri*) with a proboscis of

30+ cm. It is related to another Sphingid species, *Xanthopan morgani praedicta*, which has a 30-35 cm proboscis and pollinates Comet Orchids (*Angraecum sesquipedale*). Both are endemic to Madagascar. This orchid species has a nectary spur that extends down 30 cm below the flower opening. Darwin predicted the existence of such a moth orchid pollinator, as a requirement for the orchid's existence, 41 years before the moth was first discovered. It is claimed that *Amphimoea walkeri* has an even longer proboscis (albeit by only a few millimeters) than *X. m. praedicta*. Other striking species were Howard's Tiger Moth (*Dysschema howardi*) from the American Southwest and northern Mexico and having a wingspan of 95 mm, the colorful Chihuahuan Silkmoth (*Agapema anona dyari*), and the Io Moth (*Automeris io*). Biodiversity facts for the tropics were emphasized, such as the presence of 1863 species of butterflies in a one-square-mile section near Rondonia, Brazil, compared to a total of only about 800 butterfly species for the entire U.S. Within the McGuire Center's Butterfly Rainforest were species such as the beautiful Tailed Jay Swallowtail (*Graphium agamemnon*) (hostplant is the Indian Mast Tree (*Polyalthia longifolia*), a member of the Custard Apple family), the Paper Kite Butterfly [a Danaid that utilizes *Parsonsia*, a plant genus in the dogbane family (*Apocynaceae*)], the Leopard Lacewing (*Cethosia cyane*) (from south Asia, which utilizes *Passiflora* as a host), the Plain Tiger (*Danaus chryssipus*), the Blue Moon Butterfly or Great Eggfly (*Hypolimnas bolina*), Owl Butterflies (*Caligo* spp.), the Atlas Moth (*Attacus atlas*), and the Golden Birdwing butterfly (*Troides rhodamanthus*), which is common in the Philippines. A popular tropical nectar plant, the Coral Fountain flower (*Russelia equisetiformis*), was growing inside. The Cohens also took a side trip to Cypress Gardens near Winter Haven, which still hosts a fine garden and topiary, as well as a water-ski show. Bismarck Palm (*Bismarckia nobilis*), native to Madagascar, was growing there. A motel in West Palm Beach, FL, had the curious Autograph Tree (*Clusia rosea*), native to the West Indies, on a leaf of which was inscribed "Hello, MES." Lastly, they visited the Mounts Botanical Garden in West Palm Beach. There they saw the Red Orchid Tree (*Bauhinia galpinii*) (native to South Africa), the Fragrant Panama Rose (*Rondeletia leucophylla*) (native to Mexico), and the Shrimp Plant (*Justicia brandegeana*) (also native to Mexico). The Cohens observed many more Lepidoptera and exotic plants in Florida, which are not detailed here, but were

shown and discussed at the meeting.

Fred Paras visited the country of Panama on two separate occasions for about 15 days each, once in August 2006 and again in January 2007, and he gave a detailed account at the meeting of his travels and observations there. Earlier efforts by the French to build a canal across Panama (started in 1889) went bankrupt, and Ferdinand de Lesseps (responsible for the Suez Canal) eventually sold the rights to build the canal to the U.S. The U.S. effort began in 1905 and was completed in 1914, but about 22,000 workers are estimated to have died of yellow fever and malaria during its construction. The "Bridge of the Americas" spanning the canal is an impressive structure. Panama has had a torturous history. It was crossed by Balboa (1475-1519), who discovered the Pacific, but he was later beheaded by his successor, Pedrarias Davila "The Cruel," who tortured and "roasted" native Indians in his quest for gold. Panama City was founded in 1519, but both it and Portobello, were sacked and burned by the Welsh pirate Henry Morgan. A priest at a Spanish cathedral in Panama City, the Iglesia de San Jose, avoided having the church's solid gold altar stolen by Henry Morgan by painting it black just prior to Morgan's visit and claiming it was wood. Panama City is now a large modern city with skyscrapers and seaside causeways built from canal dredge. The canal, about 51 miles from the Atlantic to the Pacific, can take up to large freighters but not supertankers. It is currently being widened. Large ships pay \$200,000 to cross; smaller ships \$30,000. Fred visited many parks and river areas while there. With a guided motorized ride up a river in a dugout canoe in the northern part of the country, Fred first visited La Amistad National Park. There, he saw large banana plantations and frequent concentrations of leafcutter (Attine) ants. He showed pictures of hairstreaks and large Limacodid (slug-like) caterpillars with urticating hairs. He also saw "Walking Palms" (*Socratea exorrhiza*) with branch-like downward-spreading trunks. He next went down the San-San River to visit the San-San Pond Sak Wetland Preserve, which is a manatee sanctuary. Also seen there besides numerous manatees were tree sloths and mangrove swamps having red, black, and white mangrove species groups. Numerous mussel and fish species breed in their root tangles. Fred next visited the Bocas del Toro archipelago and the islands of Colon and Bostementos. A night's stay there with a nice beachside view was only \$15. Snorkeling and kayaking were enjoyable. Sand flies and mosquitoes

were not a problem where he stayed. A giant tree there with trunk buttresses had many resting White-striped Free-tailed Bats (*Tadarida australis*). Fred lamented that many areas of the local environment there, such as one location labeled Red Frog Beach which once had numerous red frogs, had also been destroyed by hotel development, despite little prospect of people actually renting there. Local tropical plants there included Heliconia, with long narrow blooms and a larval host of *Caligo* butterflies, along with *Parides* swallowtails. Carpets of army ants frequently cross the area and enter houses, but natives welcome them because they tend to rid structures of roaches, spiders, white ants, and mammal vermin. Puss-like caterpillars (perhaps *Megalopygidae*) were seen in the area. Also breadfruit (*Artocarpus altilis*) (originally from the Indo-Malaysian region), which can be peeled and fried like plantains, was growing there; and orchids (*Maxillaria* spp.) were common in the trees. Fred did befriend one local resident who planted native fruits, retained water in ponds, and raised large stocks of shrimps and mussels, much like the Mayan Indians did. Fred next visited the Volcan Baru National Park and the Boquette Highlands. The highlands displayed basalt columns from the volcanic core. This area had cooler temperatures and cloud forests and is the home of a spectacularly-colored bird, the Resplendent Quetzal (*Pharomachrus mocinno*). Fred later visited central Panama areas including the towns of Sante Fe and David in the province of Veraguas, Bermejo Falls on the Rio Malaba, and Chilagre on the Rio Sante Maria. Unfortunately, Sante Fe was dry and partially denuded of trees. Conversely, Bermejo Falls was a butterfly heaven with several *Parides* and other swallowtail, Nymphalid, and Heliconian species. At Chilagre, Fred met a local butterfly expert and conservationist. Native people there raised Zebu cattle, other livestock, and poultry for meat consumption. With limited means of food preservation, butchered livestock must be eaten soon thereafter. *Morpho* butterfly species, particularly *Morpho cypris*, were found there. Other *Morpho* species occurring in Panama were *M. granadensis*, *M. peleides*, and *M. theseus*. Waterfall pools there provided a nice opportunity for Fred to swim; and a picture of his dive into one completed his talk.

Respectfully submitted,
Richard H. Smith
MES Secretary

Announcements

1. Gene Scarpulla sent this note about his progress on the next issue of The Maryland Entomologist:

I am currently copyediting the 3 articles and 3 notes that will become the next issue of The Maryland Entomologist (Vol. 4, No. 4). This issue will be devoted solely to the insects of Hart-Miller Island. I wish to thank Tim Foard (Formicidae), Elizabeth Habic (HMI), Bill Hubick (*Papilio cresphontes*), Richard Orr (*Enallagma doubledayi*), and Marcia Watson (*Papilio palamedes*) for their submittals. [Additionally, Gene Scarpulla (annotated checklist of the island species)]. After copyediting, there will be peer review and then, we plan to go to press.

Looking ahead, I am soliciting articles and notes for the next 2008 issue (Vol. 5, No. 1). I currently have a commitment for one article and one note. MES has many excellent researchers and amateur entomologists in its ranks. Here is the opportunity for you to put your research, studies, and observations in Maryland's entomological journal. Please e-mail me your articles and notes for this upcoming issue. If possible, I would like to get the submittals by April 1, 2008. If you are interested in submitting an article or note, please send me an e-mail expressing your interest. If we can get a sufficient number of submittals, I would like to publish at least one issue of The Maryland Entomologist per year. Thank you for your consideration and assistance.

Gene Scarpulla
Millers Island, Maryland
ejscarp@comcast.net

2. Dr. Platt sent this obituary for Dr. Charles L. Remington (Intended for last month's issue. Sorry.)

Dr. Charles L. Remington (1922-2007).

Charles Lee Remington, of Yale University, a well-known biologist, entomologist and lepidopterist passed away May 31, 2007. in Hamden, CT, at the age of 85. He was born in Reedville, VA, January 19, 1922 and grew up in St. Louis, MO. He developed an early interest in nature and Lepidoptera. He graduated from Principia College, Elsau, IL, then served as a medical entomologist in the Pacific theater in World War II. After the war, he studied entomology at Harvard University where he became close friends with author Vladimir Nabokov and lepidopterist Paul Ehrlich. He also got to know Harry Clench, with whom he co-founded the Lepidopterists Society in 1947, while he

was teaching at Yale and Harry was at the Carnegie Museum in Pittsburg.

Dr. Remington made important contributions to the developing fields of Evolutionary and Population Biology. His lifetime interests included speciation and hybridization in plants and animals across "suture zones," island biogeography, the origin of species, and the life cycles and evolution of 17-years cicadas. The insect collection he started at Yale now totals more than 2.5 million specimens. For >38 years, he, his family and students spent summers doing field studies on Lepidoptera and other organisms at the Rocky Mountain Biological Lab, in Gothic, CO. In his later years, he co-founded with Paul Ehrlich the international group Zero Population Growth.

Dr. Remington is survived by his wife, Ellen, two sons, a daughter, three grand children and two sisters. His memory will live on through the accomplishments of the many students he mentored and taught during his long and productive career.

Austin P. Platt
Biological Sciences, UMBC

3. Regular MES meetings are held the 3rd Friday of each of 6 months each year: Oct., Nov., Feb., Mar., Apr. & May (parallel to UMBC's academic year). The remaining meetings for the 2008 "MES year" include:

month	date	speaker (if known)	topic
Nov. 07	16 th	John LaPolla	(See front page)
Jan. 08	18 th	TBA	TBA
Feb. 08	15 th	TBA	TBA
Mar. 08	14 th	TBA	TBA
Apr. 08	18 th	TBA	TBA
May 08	16 th	TBA	members' "pot-pourri"

4. Sending this newsletter mainly via e-mail is intended to save the MES printing & mailing costs, and to allow quick transfer of information. Members who have provided no current e-mail will still be mailed hard-copies for the near future. If you have questions, please contact a person listed at the bottom of the front page, above. **ALSO** please provide your current e-mail address. MES annual dues for the 'fiscal year' of 1 Oct. 2007 through 30 Sep. 2008, are **\$10.00 per year**. Send dues & any address corrections to:

Edgar Cohen, Jr., MES Treasurer Phone: (410) 740-0481
5454 Marsh Hawk Way
Columbia, MD 21045 e-mail: edcohenfam@yahoo.com

5. The Café Scientifique is a novel approach to encouraging more open direct exchange of information and ideas between scientists and the general public. Since 1998 (in the UK), certain food &/or beverage vendors (“cafes”) have been offering special, free public programs where a scientist (often a basic researcher) will present a short introductory talk on his or her favorite topic, then open the program for questions or comments by anyone present (literally a public forum) for about an hour. There are currently 47 such cafes in the U.S., one is the BB Bistro in Annapolis, MD. Individual scientists (usually one person) are present at scheduled times (about one evening a month) to participate in this event. For a bit more information, go to: www.cafescientifique.com.

6. This item (edited a bit) is from the WABC website: [Entomological Watercolor](#); 6:30-10:30 p.m. **4 sessions. \$206.** Capture the beauty & detail of butterflies & other insects via the dry brush technique used in scientific illustration. Students wishing to add a new skill to their watercolor repertoire have an opportunity to study w/ Vichai Malikul. Instructor demonstrations, & hands-on experimentation, let students learn by designing a layout & creating detail in their paintings using the precise pencil-like strokes of dry brush. Students must have basic drawing & watercolor skills. A list of supplies is mailed prior to the first class. Malikul is a respected scientific illustrator at the NMNH. He has exhibited nationally & internationally & he illustrated the latest revision of the *Peterson Field Guide to Eastern Butterflies*. This workshop celebrates the opening of the “[Butterflies & Plants: Partners in Evolution exhibition](#)” at the NMNH. Held at the [S. Dillon Ripley Center](#), Rm. 3041, 1100 Jefferson Dr., SW Washington, D.C. Register “[online](#)” (click on this link) or call: 202-633-3030 (\$3.00 handling fee).

7. [Honeybee Colony Collapse Disorder](#) (or [CCD](#)). The USDA has recently developed a research plan to investigate this problem which could have devastating impact on Agriculture, world wide. Honey bees are essential to successful pollinating of 130 crops valued at \$15 Billion/ year just in the U.S. A team led by scientists from the USDA, Agric. Res. Service ([ARS](#)), Pennsylvania State Univ. ([PSU](#)), & Columbia Univ. ([CU](#)) has found an association between CCD in honey bees and a virus called Israeli acute paralysis virus (IAPV). This was detailed in a recent paper in [Science](#).

ARS entomologist [Jeffery S. Pettis](#), Research Leader, USDA [Bee Research Laboratory](#), Beltsville, MD;

Diana L. Cox-Foster, Prof., [PSU Department of Entomology](#); and W. Ian Lipkin, Dir., [Center for Infection and Immunity at Columbia University Mailman School of Public Health](#), led the team that did genetic screening of honey bees collected from 30 colonies with CCD and 21 colonies with no CCD from 4 locations in the U.S.

This allowed the researchers to identify pathogens to which sampled bees had been exposed. The CCD & non-CCD colony bees combined, were found to harbor a total of: **6** symbiotic types of bacteria & **8** bacterial groups, **81** fungi from **4** lineages, & **7** viruses.

This search for potential pathogens was done using a new technique of sequencing genetic material (called high-throughput sequencing) from both healthy & unhealthy bees. It allowed an unbiased look at DNA from all organisms, bacteria, fungi & viruses present in the bees. DNA sequences found were compared to known genomic libraries for best matches. This gives a very precise picture of the organisms present, at least to the family or genus level. Individual species can often be identified, & unknown organisms present can also be catalogued for further study. Sequencing work was led by Michael Egholm, V.P., [454 Life Sciences Corp.](#), Branford, CT, followed by a large group effort to further identify specific groups of microorganisms.

The only pathogen found in almost all samples (96.1%) from colonies with CCD, but not in non-CCD colonies, was IAPV. This is a dicistrovirus that can be transmitted by Varroa mites. This is the first report of IAPV in the U.S. IAPV was first identified in honey bee colonies in Israel in 2002. Those bees exhibited unusual behavior, like twitching wings outside the hive & significant loss (death or disappearance) of worker bees. IAPV has not yet been formally accepted as a separate species; but is a close relative of Kashmir bee virus, which had been previously found in the U.S.

"This does not identify IAPV as the cause of CCD," said Pettis. "What we have found is strictly a strong correlation of the appearance of IAPV and CCD together. We have not proven a cause-and-effect connection." Even if IAPV proves to be a cause of CCD, there may be other contributing factors, which researchers are also pursuing, that stress the bee colony & allow the virus to replicate. The next step is to expose healthy hives to IAPV & see if CCD develops. For more details, click on the links embedded here or go to www.usda.gov, and search further there.

8. There is a new Open Access journal being

launched on-line, by Bentham Science Publishers, with several different topic foci. For more info., or to get details about submitting an article in the Entomology topic area, go to: "www.bentham.org/open/toentoj".

9. The National Aquarium, 501 Pratt St., Baltimore, MD (at the Inner Harbor) has multiple youth programs, teacher assistance resources, and educational programs for all ages. They are currently featuring sharks, rain forest ecosystem creatures, & marine & other aquatic mammals, especially dolphins. The aquarium was featured in the November 2007 issue of the "What's Up? Annapolis" magazine. You can get behind the scenes tours of other marine animals, their care & feeding. Some programs are repeated periodically. For operating hours, prices, or more details; or to register, call: 410-576-3800, or go to: "<http://www.aqua.org>".

10. Carrie Murray Nature Center, 1901 Ridgetop Rd., Baltimore, MD (within Leakin Park) is featuring "Hawk's Eye View" Sat., Nov. 17th, noon - 2:00 P.M., w/ tips on drawing & information on birds of prey. Bring your own sketch pads & pencils. Fee, \$3.00, pre-registration is required. They also have many other Nature-based learning, crafts, & live displays (w/ many domestic & exotic species). For seasonal special events, fees, or to volunteer, call: 410-396-0435.

11. The Washington Area Butterfly Club (WABC) is quite active in local & regional nature education, butterfly observation & conservation. Their web site has a wealth of current information on Lepidoptera, articles, plant sales, & "links" to other regional nature resources. For more details, directions to events go to: <http://users.sitestar.net/butterfly/>, or contact Pat Durkin at: (202) 483-7965 or at: "plusultra@aol.com".

11. The Audubon Naturalist Society (ANS) offers a wide variety of nature events & experiences for all ages. Some of their classes, events, talks, & bird walks are free, but most require a fee & pre-registration. For details, or to register, call (301) 652-9188 ext. 10, or go to: www.AudubonNaturalist.org.

8. The National Zoological Park, 3001 Connecticut Ave., NW, Washington, DC, displays a wide range of species (about 4,500 animals) for free; from pandas, to Komodo dragons, to big cats, some are also on "live" web cameras. The zoo's web site also has interesting articles from current & recent research, w/ related images & many "links" to other resources. You may

wish to help support these animals by joining the Friends of the National Zoo (FONZ). For more, go to: www.nationalzoo.si.edu or call: (202) 673-4717.

12. The Maryland Science Center, 601 Light St., Baltimore, MD, (on the Inner Harbor) has many topical, science displays for all ages; educational programs, & an IMAX theater. They have "hands-on," interactive exhibits. For current details, times & prices, call: (410) 685-5225, or go to: www.mdsci.org.

13. The Maryland Zoo in Baltimore's, Druid Hills Park is usually open daily 10 A.M.- 4:30 P.M. (last admission 3:30 P.M.). Parking is free, & hours may vary seasonally. Children 2 years or younger are free. For more details & prices, call: (410) 366-5466.

14. Additional contact web sites & phone numbers for Nature-related events & displays in this area include:

a. Maryland's DNR web site: www.dnr.state.md.us, has many monthly features, info., & contact points.

b. Patuxent Wildlife Research Refuge's National Visitors' Center, for details, call: (301) 497-5887, or go to: www.fws.gov/northeast/patuxent/vcdefault.html.

c. The "other" national aquarium (in Washington, DC); Rm. B-077 of the Commerce Bldg., @14th St. & Constitution Ave., NW, Washington, DC 20230, call: 202-482-2825, or e-mail: info@nationalaquarium.com.

15. For current details on a very wide range of topics for central Maryland & DC; like sports, restaurants, special events, & ads, check out the "What's Up? Annapolis" magazine. They even have a live "harbor cam". For a free subscription mailed to your home address (limited to Annapolis & surrounding areas), or for specific information, you can contact them at their offices at: What's Up?, Inc., 929 West St., Suite 208A, Annapolis, MD 21401; by phone: (410) 267-9390; or via their website: www.whatsupmag.com.

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