



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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Meeting Announcement

The Maryland Entomological Society's 288th regular meeting will be held **Friday, 19 October 2012, 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: **Leo J. Kenefic, Ph.D., Postdoctoral Fellow, University of Maryland School of Medicine, Center for Vaccine Development, Malaria Group, Baltimore, MD**

Title: **Malaria Control: vectors, drugs, and vaccines**

Dr. Kenefic will provide some general background information on malaria burden, the life cycle of *Plasmodium falciparum* (Welch), and how early “eradication” programs succeeded where others have failed. He will discuss three ways currently being used to bring the disease under control: 1) efforts in vector control; 2) drug studies and the emergence of resistance; and 3) efforts to deploy an efficacious vaccine. For each of these topics, Dr. Kenefic will highlight successes, failures, considerations, and future directions being undertaken in the research community. His goal for the talk is to have the audience come away with a better understanding of what the problem is and how it is being addressed.

Dr. Kenefic received a B.S. in Microbiology at Arizona State University, Tempe, Arizona. He later earned an M.S. in Biomedical Sciences from Hood College, Frederick, Maryland, with a concentration in molecular genetics and population genetics and followed that with a Ph.D. in Biology from Northern Arizona University, Flagstaff, Arizona with a concentration in microbiology and molecular genetics. He is currently a Postdoctoral Fellow at the Center for Vaccine Development (CVD) - Malaria Group, University of Maryland School of Medicine, Baltimore, Maryland. His research is aimed at identifying the genetic basis of resistance to artemisinins, the world’s leading first line antimalarial drugs, which are threatened by the recent emergence of resistant *P. falciparum* parasites in Southeast Asia. His research is also aimed at development of suitable vaccine targets as identified through protein microarrays. Current projects involve the evaluation of candidate resistance genes arising from a genome-wide association study (GWAS) of artemisinin resistance from four clinical trial sites. The Center is also evaluating potential vaccine antigens by protein microarrays screened against malaria-exposed and malaria-naïve sera.

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. Meet at the restaurant **promptly at 6:00 p.m.**

For more information concerning the meeting, please contact one of the following people:

Annapolis Area:	Harold Harlan (410) 923-0173 (Home)	haroldharlan@comcast.net
Baltimore Area:	Fred Paras (410) 374-0425 (Home)	bugandrockman@msn.com
	Phil Kean (410) 944-4630 (Home)	
	Frank Hanson (410) 455-2265 (Biological Sciences, UMBC)	hanson@umbc.edu
Bowie Area:	Gene Scarpulla (301) 464-3170 (Home)	ejscarp@comcast.net
Southern MD:	Bob Platt (410) 586-8750 (Home)	platt@umbc.edu

DONATIONS REQUESTED TO SAVE THE ROBERT S. BRYANT MOTH COLLECTION

Founding and charter member **Robert S. Bryant** has been recently admitted to an area nursing home. Although he is doing as well as can be expected, his extensive quality collection of local moths is at risk of being lost. The Natural History Society of Maryland (NHSM) is currently negotiating with representatives of his estate in an attempt to purchase and preserve this collection in an effort to raise some funds for Mr. Bryant's health care costs. Since available NHSM funds are very limited, we are soliciting MES member donations to contribute towards securing this collection for posterity at the NHSM per Mr. Bryant's wishes. Members who are willing and able to make any contribution/donation are strongly urged to do so. The NHSM is a 501(c)(3) nonprofit organization, therefore your contributions are tax deductible.

- Tax deductible donations may be made by cash or check. Make checks payable to the Natural History Society of Maryland and indicate "Bryant Moth Collection" on the memo line.
- Please include your full name and address if you would like a receipt from NHSM for your tax records.
- Donations may be given to MES officers at the 19 October 2012 MES meeting or mailed to: Natural History Society of Maryland, P.O. Box 18750, 6908 Belair Road, Baltimore, MD 21206.
- Alternative online payment option: Log onto <http://marylandnaturalist.org/>, click on "Join/Donate", and pay by using PayPal with your credit card.

With the help of your contribution this collection can be preserved and stay in Maryland for continued reference and research well into the future. Any monies collected are greatly appreciated and will be used for Mr. Bryant's nursing home costs. Anyone wishing to visit him may do so at the Frederick Villa Nursing Center, 711 Academy Road, Catonsville, Maryland 21228.

Thank you for your consideration, Fred Paras, President MES
Phil Kean, Vice President MES

18 MAY 2012 MES MEETING MINUTES

The 287th general meeting of the Maryland Entomological Society was held on Friday, 18 May 2012 at UMBC and began at 8:36 p.m. with a welcome by President **Fred Paras**. MES Historian **Bob Bryant** was unable to attend and present his slides on founding MES members and the early series of MES meetings. However, MES Faculty Sponsor **Bob Platt** filled in with some nice meeting and event photos from this period. Fred Paras then presented slides on his 2011 trip to Andros Island, Bahamas. These talks are summarized below. The business meeting followed after these talks. After reading and approval of the April 2012 meeting minutes, the main items of business were Society elections and plans for Society summer survey/field trips. Fred thanked the current officers for their kind work and dedication to the Society, and after checking for

any new nominations and for any future time availability conflicts among current officers, the current slate of officers were elected to continue for the coming year. After some discussion on Society survey/field trips, a decision was made to hold two over the summer, one to Garrett County on 7 July and another to Dorchester County on 11 August. MES Secretary **Dick Smith** will make the final arrangements and serve as leader for these field trips. A Society picnic may also be planned for the third week of September. A BioBlitz, sponsored by the Natural History Society of Maryland, is planned for 23 June 2012 at the Eden Mill Nature Center in Harford County. Several MES members are planning to attend. Society Treasurer **Ed Cohen** indicated that the MES funds had increased \$20 (to a total of \$2621.15) since the April MES meeting. MES journal Editor **Gene Scarpulla** gave a status summary for *The Maryland Entomologist*. The September 2012 issue is being completed and will contain eight articles. Three manuscripts for the September 2013 issue are already in receipt. Gene proposed that the MES also fund and publish a special publication on the Asilidae (robber flies) of Maryland by MES member **Aubrey Scarbrough** (Professor Emeritus, Department of Biological Sciences, Towson University), complete with range maps and species photos. The plan is to offer this publication for sale to MES members and others. A motion was passed to pursue this and determine the initial cost. Fred displayed some drawers of Lepidoptera and other insects from the Bahamas. Finally, refreshments were enjoyed by all at the close of the meeting.

Respectfully submitted, Richard H. Smith, MES Secretary

18 MAY 2012 MES LECTURE

The May meeting was the Members' Potpourri Night and two talks were planned: 1) "A Slide Presentation of Early and Founding Members of the MES from the 1970s" by **Bob Bryant** and 2) "Observations on the Natural History of Andros Island, Bahamas" by **Fred Paras**. Bob Bryant was unable to attend and present his slides, but **Bob Platt** filled in with a display and discussion of some early-period MES photos. He showed a picture of the founding members at the second meeting which was held on 14 January 1972. The first meeting was held in December 1971. At least five of the persons in the photo, **William A. Andersen, Robert S. Bryant, Philip J. Kean, John B. (Barry) Lombardini, and Austin P. (Bob) Platt**, are still living and remain members of the MES. Dr. Platt also showed a picture (dated 7 May 1973) of then Maryland Governor Marvin Mandel signing the bill making the Baltimore Checkerspot, *Euphydryas phaëton* (Drury), the official [Maryland State Insect](#).

"Observations on the Natural History of Andros Island, Bahamas" – Speaker: Fred Paras, Professor, Computer, Mathematics, Engineering, and Sciences Department, Baltimore City Community College, Baltimore, MD

MES President **Fred Paras**' talk on [Andros Island](#), where he visited in July 2011, began with a brief history of the Bahamas. These islands were settled in 1647 by British colonists and

became an official British colony in 1783. Andros Island was a pirates' haven in the early 18th century. Cotton plantations were attempted in the late 18th century, but these did poorly due to the harsh terrain. Tourism is a primary business now, and most people visit and inhabit Nassau on New Providence Island (east of Andros) and Freeport on Grand Bahama Island (north of Andros). Andros, which is about 100 miles long (north to south), is still relatively undeveloped and is divided into three land areas: North Island, South Island, and Mangrove Cay in-between. North Island is traversed north to south by one main roadway, Queen's Highway, on the east side. Geologically, much of the area consists of limestone substrate, rocky wilderness with numerous sinkholes and large water-filled potholes. Although heavily logged in the early 20th century, the now re-grown woody vegetation on Andros consists of pine and mahogany groves, large areas of palms and palmettos, and coastal mangroves. Undergrowth and open areas are dominated by large varieties of xerophilous (adapted for hot, dry conditions) and calciphilic (adapted for high calcium conditions) flora. Fred landed at an airport in Fresh Creek which mainly services a nearby United States Navy research and submarine base. Off the eastern coast of Andros is the oceanic trench called the Tongue of the Ocean. Just beyond the off-shore barrier reef there, where scuba diving is popular, the water depth drops from 3000 to over 6000 feet. Fishing excursions offering catch and release of Bonefish, *Albula vulpes* (Linnaeus), is another popular sport activity. Large Queen Conch, *Strombus gigas* Linnaeus (Gastropoda: Strombidae), are also harvested, but these are declining due to over-fishing. Fred visited areas and towns along Queen's Highway including Nichols Town, Fresh Creek, and Andros Town. Among butterflies, Fred encountered small sulphur species (Pieridae) such as the Dina Yellow, *Pyrisitia dina* (Poey), and the Leuce Yellow, *P. leuce* (Boisduval). He also encountered hairstreak species (Lycaenidae) such as the Amethyst Hairstreak, *Chlorostymon maesites* (Herrich-Schäffer) and Silver-banded Hairstreak, *C. simaethis* (Drury), on flowering shrubbery. Shrubby areas harbored the slow-flying, strikingly-colored Atala, *Eumaeus atala* (Poey) (Lycaenidae). Their larvae utilize cycads (Class Cycadopsida), which are noxious and invasive plants, as hosts. Visiting the flowers of seagrapes, *Coccoloba uvifera* (L.) L. (Polygonaceae), were specimens of the Antillean Daggerwing, *Marpesia eleuthea* Hübner (Nymphalidae). Swallowtail species (Papilionidae) include the Bahamian Swallowtail, *Papilio andraemon* Hübner, and the Schaus' Swallowtail, *P. aristodemus* Esper. Fred encountered the rare De Villiers' Swallowtail, *Battus devilliers* (Godart). Among plants, jasmine vine, *Jasminum* sp. (Oleaceae), a non-native, and poisonwood (Florida poison tree), *Metopium toxiferum* (L.) Krug & Urb. (Anacardiaceae), are encountered everywhere. Unfortunately, the Australian pine (beach sheoak) *Casuarina equisetifolia* L. (Casuarinaceae) has invaded many coastal areas. Forested areas contain numerous small raised surface features called coppices, and on these a variety of orchid species (Orchidaceae), mainly from the genus *Oncidium*, thrive. Elsewhere, Fred encountered terrestrial orchids of the genus *Bletilla*. Large land crabs

(Gecarcinidae spp.), which spawn in the ocean but are otherwise terrestrial, are common in woodlands. Among birds, the Mangrove Cuckoo, *Coccyzus minor* (Gmelin) (Cuculidae), was often encountered. Unfortunately, mosquitoes (Diptera: Culicidae) were quite prevalent at most sites too. Fred also engaged in scuba diving in what are termed "blue holes" that are accessed in woodlands near the coast. These quarry-like water holes are freshwater on top and saline from midway to the bottom. These water layers are divided by a layer of dissolved hydrogen sulfide which could be deadly if not swum through quickly. The saltwater regions of the blue holes are lined with numerous caverns that connect to the ocean and provide an adventurous swimming experience. From this exposure, Fred gained the perspective that the subsurface of Andros is like a giant sponge.

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

ALL-YOU-CAN-EAT CRAB FEAST MEET-&-GREET

On 16 September 2012, MES held an All-You-Can-Eat Crab Feast/Meet-&-Greet at **J.KING'S Restaurant** in Gambrills, Maryland. The event was attended by 17 "crustacean carapace crackers & claw clobberers" who feasted on Maryland crab soup, corn-on-the-cob, and hard shell blue crabs. Camaraderie and libations were in abundance. The numerous widescreen televisions allowed the watching of both the Baltimore Ravens and the Washington Redskins games. (Unfortunately, both teams lost to their opponents.) The feasters thoroughly enjoyed the event and it was decided to repeat the crab feast next year.

MEMBERSHIP RENEWAL TIME OCT 2012 – SEP 2013 MEMBERSHIP YEAR

Membership renewal forms were inserted in the front of the September 2012 issue of *The Maryland Entomologist* that was mailed out last month. If the date on your address label reads 2012, it is time for you to renew for the "October 2012 – September 2013" membership year. Please check that your contact information is correct and return the form along with your dues to MES Treasurer **Ed Cohen**.

HONORING MEMBER DONORS

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

William A. Andersen
George H. Harman
Frances B. Pope
Sue A. Ricciardi
Richard G. Robbins
Chris Sargent
Eugene J. Scarpulla
Warren E. Steiner, Jr.
Jil M. Swearingen
William H. Wymer

WELCOME TO NEW MEMBERS OF MES

MES welcomes the following new members to the Society:

Karen D. Rennich **Elkridge, MD**
Chris Sargent **Annapolis, MD**

**“RARE SPECIMENS:
 AN UNUSUAL MATCH-UP IN ENTOMOLOGY”
 ALMA SOLIS & JASON HALL ON NPR**

On 23 September 2012, wife-and-husband MES members **Alma Solis** and **Jason Hall** were interviewed on National Public Radio's *All Things Considered*. Alma's specialty is **moths** at the USDA's Systematic Entomology Laboratory and Jason's specialty is **Neotropical butterflies** in the Department of Entomology, at the National Museum of Natural History (USNM). Both of their offices are at the USNM at the Smithsonian Institution. During the interview, Alma says that they were the only “moth-butterfly couple” until about a month ago when Lepidopteran colleagues in Finland got married. The full story of Alma's and Jason's lives and research, including the 8-minute audio interview, can be accessed at:

<http://www.npr.org/2012/09/23/161645461/rare-specimens-an-unusual-match-up-in-entomology>.

**“HOWARD COUNTY BIRD CLUB'S SPONTANEOUS
 ON-LINE BUTTERFLY PHOTO-GUIDE”**

Presentation by Dick Smith – 11 October 2012

In the spring of 2011 the Howard County Bird Club (HCBC) initiated a photographic webpage and gallery, “The Butterflies of Howard County, Maryland”

http://howardbirds.org/butterflies/HC_Butterfly_photos.htm to facilitate the knowledge and identification of its local butterfly fauna. Images of all county-recorded butterfly species were requested from local amateur nature photographers with the explicit requirement that submitted photographs were to be taken from somewhere in Howard County, Maryland. After only a year and a half devoted to this endeavor, the HCBC has been successful in accumulating an extensive gallery of all but 12 of its county-recorded and still extant butterfly species. However, the effort has also been successful in reaping an extraordinary side benefit. With so many local amateur nature photographers devoted to this task, the project has been able to establish, in the short time period of the project, three new county butterfly records; and it has been able to locate several other butterfly species not previously recorded by anyone in the county for almost 40 years.

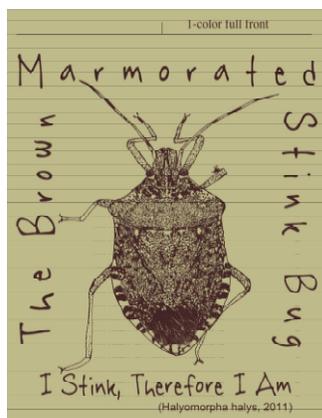
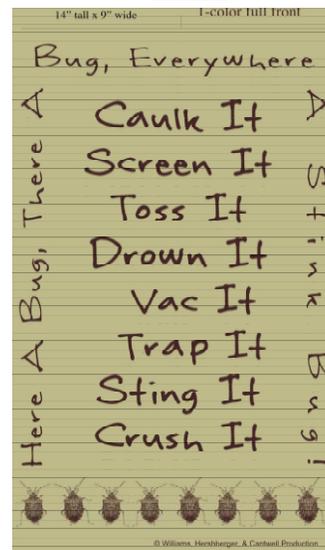
Please join us at the next regular meeting of the Howard County Bird Club on Thursday, 11 October 2012 to listen while MES member **Richard H. (Dick) Smith**, identification authority for the butterfly gallery, presents in his talk “HCBC's Spontaneous On-Line Butterfly Photo-Guide” the course of discoveries, the methods employed, the outstanding photographs displayed, and the extraordinary outcomes of this project. More details on the HCBC meeting are given at

<http://www.howardbirds.org/howard/hcevents.htm>. The meeting will be held at the Robinson Nature Center in

Columbia, MD (meeting begins at 8:00 p.m.; hospitality session and refreshments offered at 7:30 p.m.). More on the Robinson Nature Center, including directions, are given at <http://www.co.ho.md.us/RobinsonNatureCenter.htm>.

BROWN MARMORATED STINK BUG T-SHIRTS

MES member **Gaye Williams** is currently taking orders for another batch of the infamous Brown Marmorated Stink Bug, *Halyomorpha halys* (Stål), t-shirts.

FRONT**BACK**

BMSB t-shirts are 100% preshrunk cotton, in so-called men's sizes (Youth: m, l; Adult: s, m, l, xl [all \$12 each]; xxl [\$14]; xxxl [\$15]. (All plus the cheapest shipping.) They make great gifts, especially for those who loath the bugs. If you wish to place an order, e-mail Gaye with the numbers per size desired. Payment is not needed until Gaye actually receives the shirts from the manufacturer. **PLEASE DO NOT POST THIS ON FACEBOOK, EBAY, LISTSERV, or any other giant medium.** To order, contact Gaye at: gaye.williams@maryland.gov.

2012/2013 PROPOSED EVENT SCHEDULE

Regular MES lecture/meetings are held the 3rd Friday of each of the 6 months coinciding with UMBC's academic year.

Proposed events for the current MES membership year are:

<u>Date</u>	<u>Speaker</u>	<u>Topic/Location</u>
Oct 19	Leo Kenefic	Malaria Control: vectors, drugs, vaccines
Nov 16	Stephen Allgeier	Status of Brown Marmorated Stink Bug
Feb 15	Lecture	TBA
Mar 15	Lecture	TBA
Apr 19	Lecture	TBA
May 17	“Members’ Potpourri”	Presentations & Elections
TBA	Survey/Field Trip	TBA
Sep 8	Crab Feast/Meet&Greet	J. KING’S Restaurant (Anne Arundel Co.)

SUBMITTAL DEADLINES

NOV 2012 issue of the *Phaëton*: 2 November 2012.

SEP 2013 issue of *The Maryland Entomologist*: 1 April 2013

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

Eden Mill Nature Center BioBlitz**1617 Eden Mill Road, Pylesville, Harford County, Maryland**

23 June 2012; 0800-1500 hours; sunny, 90° F.

MES Participants: Dave Florin, Tim Foard, Richard Orr, Gene Scarpulla, Marcia Watson, Jim Young, Sam Droege (post facto identifications)

The entire BioBlitz species list is extensive. Only the insect and spider species are listed below.

INSECTS**ORDER COLLEMBOLA: Springtails****Family Entomobryidae**

--- – a slender springtail

Family Sminthuridae

--- – a globular springtail

ORDER ODONATA: Dragonflies, Damselflies**Suborder Anisoptera: Dragonflies****Family Petaluridae: Petaltails**

Tachopteryx thoreyi – Gray Petaltail

Family Aeshnidae: Darners

Anax junius – Common Green Darner

Family Gomphidae: Clubtails

Hagenius brevistylus – Dragonhunter

Stylogomphus albistylus – Eastern Least Clubtail

Family Corduliidae: Emeralds

Epitheca cynosura – Common Baskettail

Epitheca princeps – Prince Baskettail

Family Libellulidae: Skimmers

Erythemis simplicicollis – Eastern Pondhawk

Libellula cyanea – Spangled Skimmer

Libellula incesta – Slaty Skimmer

Libellula luctuosa – Widow Skimmer

Libellula pulchella – Twelve-spotted Skimmer

Libellula vibrans – Great Blue Skimmer

Pachydiplax longipennis – Blue Dasher

Pantala flavescens – Wandering Glider

Pantala hymenaea – Spot-winged Glider

Plathemis lydia – Common Whitetail

Tramea lacerata – Black Saddlebags

Suborder Zygoptera: Damselflies**Family Calopterygidae: Jewelwings**

Calopteryx maculata – Ebony Jewelwing

Hetaerina americana – American Rubyspot

Family Coenagrionidae: Pond Damsels

Argia apicalis – Blue-fronted Dancer

Argia fumipennis violacea – Violet Dancer

Argia moesta – Powdered Dancer

Enallagma aspersum – Azure Bluet

Enallagma civile – Familiar Bluet

Enallagma exsulans – Stream Bluet

Enallagma geminatum – Skimming Bluet

Enallagma signatum – Orange Bluet

Ischnura posita – Fragile Forktail

Ischnura verticalis – Eastern Forktail

ORDER MANTODEA: Mantids and relatives**Family Mantidae: Mantids**

Tenodera sinensis – Chinese Mantid

ORDER ORTHOPTERA: Crickets, Grasshoppers, Katydid**Family Acrididae: Grasshoppers**

Chloealtis conspersa – Sprinkled Broad-winged Grasshopper

Family Tettigoniidae: Katydid

Atlanticus sp. – a shieldback katydid

ORDER PSOCOPTERA: Barklice

several families and species

ORDER THYSANOPTERA: Thrips**Family Thripidae: Common Thrips**

Frankliniella fusca – Tobacco Thrips

Frankliniella occidentalis – Western Flower Thrips

Sericothrips cingulatus – a thrips

ORDER HEMIPTERA: True Bugs**Family Aleyrodidae: Whiteflies**

Bemisia tabaci – Silverleaf Whitefly (Sweetpotato Whitefly)

Family Aphididae: Aphids

Myzus persicae – Green Peach Aphid

Family Cicadellidae: Leafhoppers, Sharpshooters

Graphocephala versuta – Versute Sharpshooter

Tylozygus bifidus – a leafhopper

Family Coreidae: Leaf-footed Bugs

Acanthocephala terminalis – a leaf-footed bug

Euthochtha galeator – Helmeted Squash Bug

Family Gerridae: Water Striders

Aquarius remigis – a water strider

Family Lygaeidae: Chinch Bugs, Seed Bugs

Oncopeltus fasciatus – Large Milkweed Bug

Family Miridae: Jumping Tree Bugs, Leaf Bugs, Plant Bugs

Halticus bractatus – Garden Fleahopper

Taedia scrupea – a plant bug

Family Reduviidae: Assassin Bugs

Arilus cristatus – Wheel Bug

--- – an assassin bug

Family Thyreocoridae: Black Bugs

Corimelaena pulicaria – Black Bug

ORDER COLEOPTERA: Beetles**Family Carabidae: Ground Beetles**

Amara sp. – a seed-eating ground beetle

Bembidion sp. – a ground beetle

Cicindela sexguttata – Six-spotted Tiger Beetle

Family Histeridae: Clown Beetles

Hololepta aequalis – a clown beetle

Family Silphidae: Carrion Beetles

Oiceoptoma noveboracense – Margined Carrion Beetle

Family Scarabaeidae: Scarab Beetles

Cotinis nitida – Green June Beetle

Popillia japonica – Japanese Beetle

Family Cetoniidae: Flower Chafers

Trichiotinus affinis – a hairy flower scarab beetle

Valgus canaliculatus – Channeled Valgus

Valgus sp. – a flower scarab beetle

Strongylocassis atripes – a tortoise beetle

Family Cantharidae: Soldier Beetles

Podabrus sp. – a soldier beetle

Family Coccinellidae: Lady Beetles

Coleomegilla maculata – Spotted Lady Beetle

Harmonia axyridis – Multicolored Asian Lady Beetle

Family Mordellidae: Tumbling Flower Beetles

Mordella sp. #1 – a tumbling flower beetle

Mordella sp. #2 – a tumbling flower beetle

Family Cerambycidae: Long-horned Beetles

Tetraopes tetrophthalmus – Red Milkweed Beetle

Typocerus acuticauda – a longhorned beetle

Typocerus velutinus velutinus – Banded Longhorn

Family Chrysomelidae: Leaf Beetles

Chaetocnema sp. – a flea beetle

Neochlamisus bimaculatus – a warty leaf beetle

Odontota dorsalis – Locust Leafminer

Family Curculionidae: Weevils

Corthylus punctatissimus – Pitted Ambrosia Beetle

Hexarthrum ulkei – Eastern Wood Weevil

Hypothenemus sp. – a bark beetle

Rhinoncomimus latipes – Mile-a-minute Weed Weevil

Rhodaenus quinquepunctatus – Cocklebur Weevil

ORDER DIPTERA: Gnats, Mosquitoes, Flies

Family Tipulidae: Crane Flies

--- – a crane fly

Family Mycetophilidae: Fungus Gnats

--- – a fungus gnat

Family Dolichopodidae: Long-Legged Flies

Condylostylus sp. – a long-legged fly

Diostracus sp. – a long-legged fly

Dolichopus sp. – a long-legged fly

Family Syrphidae: Flower Flies (Syrphid Flies, Hover Flies)

Spilomyia alcimus – a flower fly

Toxomerus geminatus – a flower fly

Toxomerus marginatus – a flower fly

Family Micropezidae: Stilt-Legged Flies

Rainieria antennaepeis – a stilt-legged fly

Family Tephritidae: Fruit Flies

Eurosta solidaginis – Goldenrod Gall Fly

Family Calliphoridae: Blow Flies, Bottle Flies

Cynomya cadaverina – Shiny Blue Bottle Fly

ORDER TRICHOPTERA: Caddisflies

--- – a caddisfly

ORDER LEPIDOPTERA: True Butterflies, Skippers, Moths

Family Papilionidae: Swallowtails

Papilio troilus – Spicebush Swallowtail

Family Pieridae: Whites and Yellows

Pieris rapae – Cabbage White

Family Lycaenidae: Gossamer Wings

Lycaena phlaeas – American Copper

Strymon melinus – Gray Hairstreak

Cupido comyntas – Eastern Tailed-Blue

Celastrina ladon – Spring Azure

Family Nymphalidae: Brush-footed Butterflies

Libytheana carinenta – American Snout

Phyciodes tharos – Pearl Crescent

Polygonia interrogationis – Question Mark

Polygonia comma – Eastern Comma

Vanessa atalanta – Red Admiral

Family Hesperidae: Skippers

Epargyreus clarus – Silver-spotted Skipper

Pyrgus communis – Common Checkered-Skipper

Ancyloxypha numitor – Least Skipper

Pompeius verna – Little Glassywing

Family Crambidae: Grass Moths

Petrophila fulicalis – Feather-edged Petrophila

Family Pterophoridae: Plume Moths

Geina buscki – Buck's Plume Moth

Family Geometridae: Geometer Moths

Cabera variolaria – The Vestal (Pink-striped Willow Spanworm)

Family Arctiidae: Tiger Moths

Ctenucha virginica – Virginia Ctenuchid Moth

Family Noctuidae: Dagger Moths, Owlet Moths, Underwings

Alypia octomaculata – Eight-spotted Forester

--- – a noctuid moth

ORDER HYMENOPTERA: Bees, Wasps, Velvet Ants, Ants

Family Andrenidae: Mining Bees

Calliopsis andreniformis – a mining bee

Family Halictidae: Sweat Bees

Agapostemon sericeus – a green sweat bee

Agapostemon virescens – a green sweat bee

Augochlora pura – a green sweat bee

Augochlorella aurata – a green sweat bee

Augochloropsis metallica – a green sweat bee

Halictus confusus – a sweat bee

Halictus ligatus/poeyi – a sweat bee

Halictus rubicundus – a sweat bee

Lasioglossum coriaceum – a sweat bee

Lasioglossum illinoense – a sweat bee

Lasioglossum imitatum – a sweat bee

Lasioglossum mitchelli – a sweat bee

Lasioglossum pilosum – a sweat bee

Lasioglossum subviridatum – a sweat bee

Lasioglossum tegulare – a sweat bee

Lasioglossum truncatum – a sweat bee

Lasioglossum versatum – a sweat bee

Lasioglossum weemsi – a sweat bee

Lasioglossum zephyrum – a sweat bee

Family Megachilidae: Leafcutter, Mason, Resin Bees

Hoplitis producta – a cavity/pith-nesting megachilid

Hoplitis spoliata – a cavity/pith-nesting megachilid

Megachile mendica – a leafcutter bee

Megachile rotundata – a leafcutter bee

Osmia collinsiae – a mason bee

Osmia distincta – a mason bee

Family Apidae: Bumble, Carpenter, Digger, Honey Bees

Apis mellifera – Honey Bee

Bombus bimaculatus – Two-spotted Bumble Bee

Bombus griseocolis – Brown-belted Bumble Bee

Bombus impatiens – Common Eastern Bumble Bee

Bombus perplexus – Confusing Bumble Bee

Ceratina calcarata – a small carpenter bee

Ceratina strenua – a small carpenter bee

Xylocopa virginica – Eastern Carpenter Bee

Family Aphelinidae: Parasitic Chalcidoid Wasps

--- – a parasitic chalcidoid wasp

Family Crabronidae: Cicada Killers, Sand Wasps, Mud Daubers

Cerceris sp. – a weevil wasp

Family Ichneumonidae: Ichneumon Wasps

--- – an ichneumon wasp

Family Pompilidae: Spider Wasps

Anoplius sp. – a spider wasp

Family Sphecidae: Digger Wasps, Mud Daubers, Sand Wasps

Chlorion aerarium – Steel-blue Cricket Hunter

Family Vespidae: Hornets, Paper Wasps, Potter Wasps, Yellowjackets

Dolichovespula maculata – Bald-faced Hornet

Family Formicidae: Ants

Aphaenogaster picea – a spine-waisted ant

Aphaenogaster rudis – a spine-waisted ant

Aphaenogaster tennesseensis – a spine-waisted ant
Camponotus americanus – a carpenter ant
Camponotus chromaiodes – Red Carpenter Ant
Camponotus nearcticus – a carpenter ant
Camponotus pennsylvanicus – Black Carpenter Ant
Camponotus subbarbatus – a carpenter ant
Crematogaster cerasi – an acrobat ant
Formica dolosa – a wood ant
Formica incerta – a wood ant
Formica pallidefulva – a wood ant
Formica integra – a wood ant
Lasius alienus – Cornfield Ant
Lasius neoniger – an ant
Lasius subglaber – an ant
Lasius umbratus – an ant
Monomorium minimum – Little Black Ant
Myrmecina americana – an ant
Myrmica americana – an ant
Ponera pennsylvanica – an ant
Solenopsis molesta – Thief Ant
Stenamamma impar – an ant
Tapinoma sessile – Odorous House Ant
Temnothorax curvispinosus – an acorn ant
Temnothorax schaumii – an ant
Tetramorium caespitum – Pavement Ant

SPIDERS AND ALLIES

ORDER ARANEAE: Spiders

Family Thomisidae: Crab Spiders

Misumena sp. – a flower crab spider (yellow)

Family Lycosidae: Wolf Spiders

--- – a wolf spider

ORDER IXODIDA: Ticks

Family Ixodidae: Hard-bodied Ticks

Dermacentor variabilis – American Dog Tick

ORDER OPILIONES: Harvestmen

Family Leiobunidae: Harvestmen

Leiobunum sp. – a harvestman
