

Eastern Branch
Entomological Society of America
Eighty-ninth Annual Meeting



Westin Annapolis
Annapolis, Maryland
17-19 March 2018

Encapsulated Program 2018

Saturday, March 17

<i>Afternoon</i>	<i>Event</i>	<i>Location</i>
2:00 -5:00	Executive Committee Meeting	Congress Boardroom
5:00-8:00	Society Reception	ESA Headquarters
5:00-8:00	Registration	ESA Headquarters

Sunday, March 18

<i>Morning</i>	<i>Event</i>	<i>Location</i>
8:00-5:00	Registration	Capitol Prefunction
8:00-12:00	Student Poster Setup	Senate A & B
	Contributed Poster Setup	Capitol Prefunction
8:00-12:00	Symposium: Systematics, Biodiversity and Evolution	Capitol B
8:00-6:00	Silent Auction	Senate A & B
8:30-11:30	Ph.D. Student Oral Competition	Capitol A
11:00-4:00	It's a Bugs World -- Outreach	Annapolis Ballroom & Park Place
<i>Afternoon</i>		
12:00-1:30	Lunch & Learn: Science and Media Panel	Capitol D
11:00-4:00	It's a Bugs World -- Outreach	Annapolis Ballroom
12:00-6:00	Student Competition Posters	Senate A & B
	Contributed Posters	Capitol

1:30-5:30	Symposium: Advancing Entomology through Science Communication	Capitol B
2:30-5:00	M.S./Undergraduate Student Oral Competition	Capitol A
4:00-6:00	Regional Biocontrol Meeting	Congress Boardroom
6:00-8:00	President's Reception and ESA Awards	Capitol D & Prefunction
8:00-10:00	Linnaean Games	Capitol D

Monday, March 19

<i>Morning</i>	<i>Event</i>	<i>Location</i>
7:00-7:50	Town Hall with ESA Executive Director David Gammel	Capitol A
8:00-2:00	Registration	Capitol Prefunction
8:00-2:00	Student Competition Posters Contributed Posters	Senate A & B Capitol Prefunction
8:00-12:00	Silent Auction	Senate A&B
8:00-12:00	Symposium: Biocontrol of Introduced and Invasive Insect and Weed Pests of Forests and Woody Plants	Capitol A
8:00-12:00	Symposium: Applied Agriculture and Ag-Industry Symposium	Capitol B
8:00-12:00	Submitted Ten-Minute Papers	Capitol C
<i>Afternoon</i>		
12:00-1:30	Luncheon with Plenary &	Capitol D

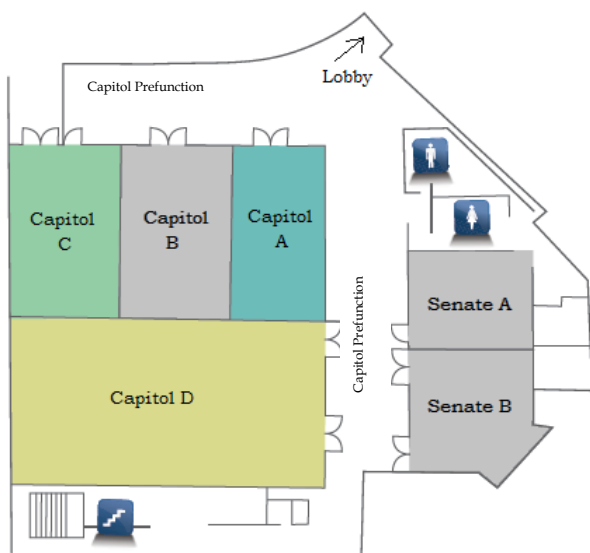
	Student Awards	
2:00-6:00	Symposium: Insect Detection Evaluation and Prediction	Capitol A
2:00-6:00	Symposium: Pollinator Habitat in the Northeastern Landscapes	Capitol B
2:00-6:00	Symposium: Utilizing Behavioral and Chemical Ecology to Monitor and Predict Pest Populations	Capitol C
6:30-8:00	Final Business Meeting	Congress Boardroom

Code of Conduct

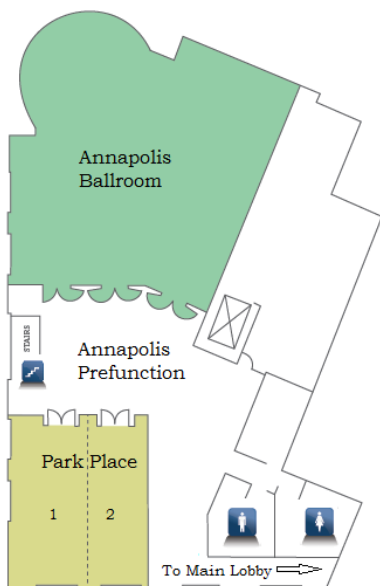
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Event Room Floor Plans

CAPITOL BALLROOM AREA



ANNAPOLIS BALLROOM AREA



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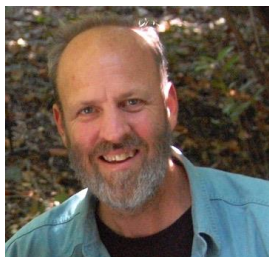
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Thank you for your support of the Eastern Branch!

2018 Eastern Branch ESA President

Donald C. Weber



Don Weber grew up in northern Virginia with a knowledge of plants, insects and birds imparted by Burgundy Wildlife Camp and its staff. After obtaining his BA in Biology at Williams College, and an MS in Entomology at UC Berkeley with research on cole crop pests, Don's PhD work researched the biology and dispersal of the Colorado potato beetle, a notorious pest in North America and Eurasia. After a stint in Zurich at the Swiss Federal Institute of Technology, Don joined Ocean Spray Cranberries; the thrust of his research there was to develop environmentally-friendly strategies for the diverse pest complex of cranberries in all growing regions. In 2002, he joined the Invasive Insect Biocontrol & Behavior Laboratory of USDA ARS in Beltsville, Maryland, as Research Entomologist. His lab researches non-pesticidal alternatives such as natural enemies and pheromones for major vegetable pests. He leads a project on insect pests of small farms and urban gardens, with emphasis on cole crops and cucurbits. His current professional activities include: Subject Editor for *Journal of IPM* and for *Journal of Pest Science*; Chair of Northeast SARE; Past President of Nearctic Region, International Organization for Biological Control; and President of Eastern Branch, Entomological Society of America.

Eastern Branch L.O. Howard Distinguished Achievement Award

Tracy C. Leskey



Tracy Leskey holds a Ph.D. degree in Entomology from the University of Massachusetts at Amherst, MA; a M.S. Degree in Ecology from the Pennsylvania State University, University Park, PA; and a B.S .degree from Wilson College, Chambersburg,

PA. She has been employed by the USDA-ARS, AFRS in Kearneysville, WV as a Research Entomologist and as Laboratory Director. Her research has focused on development of behaviorally-based management tools for invasive and native pests of fruit crops. She has published over 100 peer-reviewed journal articles, two patents and over 40 other publications including book chapters and proceeding articles. She served as a liaison to the House Agricultural Appropriations Committee, providing numerous updates on the pest status of and research progress on the invasive brown marmorated stink bug. She has served as a co-advisor or committee member for over 15 graduate students and mentored over 30 undergraduates and 6 post-docs. Dr. Leskey has been interviewed by the New York Times, Washington Post and NPR and appeared live on Fox News and C-SPAN and has done several stories with National Geographic. As the lead Project Director, she has secured over \$14 million in extramural funding. She is a past president of the Eastern Branch of the Entomological Society of America and currently

is serving as a member of the Special Committee of the Governing Board on Governance.

Eastern Branch Early Career Professionals Award

Anna Wallingford



Dr. Anna Wallingford, a New Hampshire native and a long-time Hokie, received her Ph.D. from the Department of Entomology at Virginia Tech in 2012. Her research includes work studying insect and pathogen pests of several fruit, vegetable, and ornamental commodities. Her

doctoral work at Virginia Tech investigated the behavior and management of harlequin bug, a pentatomid pest of brassica crops. She studied plant immune response to insect-vectored bacterial pathogens of grape and potato while working as a postdoctoral associate at USDA-ARS in Parlier, CA. During her postdoctoral experience at Cornell University in Geneva NY, she studied the behavior and biology of spotted-wing drosophila, making significant contributions to our understanding of its overwintering biology and working to develop repellents for its management. She is active in her field, having published 20 peer-reviewed articles as well as several extension articles. Anna regularly engages in extension and outreach education, and has mentored 5 undergraduate research projects. She is currently a postdoctoral associate with Virginia Tech, housed at USDA-ARS in Beltsville, MD, investigating pentatomid chemical ecology and the application of this knowledge for integrated pest management.

Eastern Branch Herb T. Streu Meritorious Service Award

Mark Taylor



Mark received his B.S in Biological Sciences 1977 and M.Ed (1979) from Salisbury University, Salisbury Maryland. He received his M.S in entomology from University of Delaware in 1982. Mark began

working at the Maryland Department of Agriculture in 1984. He was the Regional Entomologist for the Southern Maryland Mosquito Control Program from 1984-1988, the Statewide Coordinator for the Gypsy Moth Suppression Program from 1988-2005, and the Regional Entomologist for the Nursery Inspection Eastern Shore from 2005-present. Mark has been a very active member of the ESA EB for many years. He served as Registration Chairman in 2006 and 2007 and as Treasurer from 2007 to present. He has been a member of ESA EB for 17 years.

John Henry Comstock PhD Graduate Student Award

Ashley Kennedy



Ashley Kennedy is a third-year PhD student at the University of Delaware. Her dissertation research focuses on bird-insect food webs, examining which species of insects are most

important in North American bird species' diets. Ashley studied behavior of vervet monkeys for her undergraduate thesis research at Johns Hopkins University, graduating in 2008. She completed internships at the Smithsonian Environmental Research Center, the National Zoo, and the Smithsonian Conservation Biology Institute between her undergraduate and graduate studies. In 2010, she joined Charles Bartlett's lab at the University of Delaware to begin a MS project on delphacid planthopper taxonomy, describing two new genera in the process. She received her MS in 2013 and began working as an educator for the Delaware Nature Society. In 2015, she began her current position in Doug Tallamy's lab. She serves as the Eastern Branch Representative to the SAC and is also a member of the 2017 Class of Science Policy Fellows.

The Asa Fitch Memorial Award

Robert J Holdcraft



Rob has been an agricultural research technician at Rutgers University since 2000, working on insect pest management at the P.E. Marucci Center for Blueberry & Cranberry Research. Rob earned his B.S. in Environmental Science with biology minor from Richard Stockton College of New Jersey, and is currently completing his

Master's thesis. Rob received mentorship from two wonderful entomologists while at Rutgers, Cesar Rodriguez-Saona Ph.D. and Sridhar Polavarapu Ph.D., instilling an understanding of good experimental design and dedication to scientific

research. During his 17+ years working with blueberries and cranberries in the ecologically sensitive Pine Barrens Rob has gained great appreciation for the complex ecology of these native crops and their closely associated wetlands. Rob has worked on pheromone-based monitoring and control methods for multiple pest species within the Lepidopteran & Coleopteran orders, and has expanded his experience to other areas of chemical ecology under the direction of Dr. Rodriguez-Saona. These other areas include electrophysiological and behavioral studies involving both pheromones and plant volatiles, to discern their various effects on insect behavior. When not in NJ doing research, Rob particularly loves spending time with his devoted husband Chris at a lakeside cabin in Ontario, Canada with their three dogs.

**Eastern Branch Nominee: ESA Distinguished
Achievement Award in Extension**

Paula Shrewsbury



Dr. Paula Shrewsbury received her B.S. in Plant Science from the University of Rhode Island, M.S. in Entomology from the University of California, Riverside, and Ph.D. in Entomology from the University of Maryland. Paula is an Associate Professor and Extension Specialist in

Entomology at the University of Maryland. As an extension specialist for over 20 years, knowledge generated by her applied research and demonstration programs provides information useful in training members of the nursery, landscape, and turf management industries, extension educators, and adult volunteers working with extension. The focus of Paula's research, training and outreach programs places particular emphasis on sustainable management practices, integrated pest management, and the implementation of biological control, especially as it relates to the role of native and non-native plants, the conservation of indigenous natural enemies and pollinators, and exotic natural enemies in the management of invasive species.

Paula's extension program includes coordination of and presentation at IPM short courses, and presentations at a variety of venues that include re-certification conferences, in-service training, green industry association meetings and field days, and professional meetings at state (MD), regional, national, and international venues, many of these are invited

presentations. Paula has trained an estimated 16,600 professionals. Other training activities and educational materials include web-based electronic outreach (IPM newsletter, Pest Prediction Calendar), STEM activities for youth, and Citizen Science projects. Paula has actively served in the ESA. She was EB ESA President, Program Chair, and has held several other committee positions. Paula is currently the ESA Governing Board Representative for the EB ESA, and the P-IE ESA Editorial Board Representative to the Journal of IPM.

Eastern Branch Nominee: Entomological Foundation Award for Excellence in IPM

Brian Nault



Dr. Brian A. Nault is a professor in the Department of Entomology at Cornell University's New York State Agricultural Experiment Station in Geneva, New York. For the past 20 years, his research

and extension program has broadly covered applied insect ecology and vegetable entomology. During this time, Dr. Nault and members of his program have focused on understanding the ecology of pests that transmit viruses to vegetable crops and developing practical and economical IPM strategies. He has helped vegetable growers successfully implement solutions to their pest problems and was recognized for his contributions with the New York State IPM Program's Excellence in IPM Award (2011). Dr. Nault has held multiple leadership roles at Cornell and currently serves as Director of Graduate Studies for the Department of Entomology. Dr. Nault has been an active member of ESA for 30 years and has proudly served the Eastern Branch since 1997. Most notably, he served as Governing Board Representative (2001-2003), Co-Chair of the Program Committee (2011), Chair, Organizer and Moderator of the Student Paper and Student Display Competitions (2007-2008), Judge for Student Paper Competitions (2000, 2001 and 2003), Chair of the Auditing Committee (1998-2000; 2004-2006) and Member of Local Arrangements Committees (1998 and 1999).

He also has served ESA in other capacities including the Entomological Foundation Awards Committee, Symposium organizer and manuscript reviewer. Dr. Nault received all three of his degrees in Entomology; his B.S. was from The Ohio State University, M.S. from the University of Georgia, and Ph.D. from North Carolina State University.

2018 Plenary Speaker

Kim Todd

will present

**“The Art of Observation: Maria Sibylla
Merian and the Metamorphosis of
Insect Science”**



Science writer Kim Todd is the award-winning author of *Sparrow* (Reaktion Books); *Chrysalis*, *Maria Sibylla Merian and the Secrets of Metamorphosis* (Harcourt); and *Tinkering*

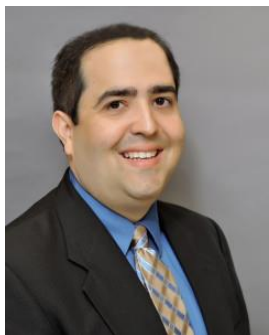
with Eden, a Natural History of Exotic Species (W.W. Norton). Her work has appeared in *Smithsonian*, *Orion*, the *Best American Science and Nature Writing* anthology, and has been featured on NPR's *Science Friday*. She is on the faculty at the University of Minnesota.

**Plenary Address and Awards
Luncheon**

ESA EB President Address
Branch and Student Competition
Awards
Monday 12:00-1:30pm
Capitol D

Lunch & Learn Panel: Science and the Media

The panel discussion is entitled "Science, media, and policy on the National Stage: getting the bugs out," to take place Sunday noon as a Lunch & Learn session with no concurrent activities. Moderated by veteran science communicator Prof. Mike Raupp of Univ. of Maryland, it will include Kim Todd, our Monday keynote speaker (www.kimtodd.net), popular book and magazine author and Professor of Journalism at Univ. of Minnesota; David Malakoff, AAAS Deputy News Editor, specializing in coverage of science policy, energy and environment; Mike Murillo, Reporter and Weekend Anchor at WTOP News Radio; and WAMU 88.5 Public Radio Producer Ingalisa Schrobsdorff, who produces the Kojo Nnamdi show. The discussion will address diverse media outlets, and the ways and means of concise and accurate yet engaging communication of scientific findings, with implications for scientists, citizens, society and policymakers.



Mike Murillo is a news anchor and reporter at WTOP Radio in Washington D.C. He began his career in radio broadcasting at the age of 14 in Florida and has since followed his passion to New York City, Philadelphia and now Washington D.C. The Shuttle

Columbia Disaster, The Baltimore Riots, and the Inauguration Day riots are among the big stories he's covered during his career. When not reporting the news, you may find Mike playing the double bass at Jazz jams around the nation's capital.



Ingalisa Schrobsdorff is Senior Producer with The Kojo Nnamdi Show on WAMU 88.5 FM. She joined the show in the fall of 2009 after a stint at KQED in San Francisco with the Forum program and producing Washington Monthly on the Radio. Prior to

working in radio, Schrobsdorff directed international programs at New York University, including developing journalism programs in three countries. Schrobsdorff was born in Berlin and has lived in Japan and France. She has a bachelor's degree in political science from Barnard College, an M.A. in Cinema Studies and an MPA from Harvard's Kennedy School of Government.



David Malakoff is a Deputy News Editor at Science, where he helps coordinate coverage of science policy, energy and the environment and runs the free ScienceInsider news blog. A native of Washington D.C., he has spent more than 25 years reporting on how scientists influence

government policy, and how government policy shapes science. He has also has worked as a senior editor and correspondent on NPR's Science Desk, for Conservation Magazine, and as a freelancer for numerous outlets.



Science writer **Kim Todd**, also our keynote speaker Monday at lunch, is the award-winning author of several books including *Chrysalis* and *Tinkering with Eden*. Her work

has also appeared in Smithsonian, Orion, and other magazines, and has been featured on NPR's Science Friday. She is Associate Professor of Literary Nonfiction at the University of Minnesota.



Michael Raupp is a Professor and Extension Specialist at the University of Maryland. A regular guest on WTOP and WAMU's Kojo Nnamdi Show, he has shared bug stories on Good Morning America, the Today Show, Dr. Oz, Tonight with Jay Leno, National Geographic, and the Science

Channel. His "Bug of the Week" blog and YouTube channel are viewed by thousands weekly in more than 180 countries. Mike has received a dozen regional or national awards for extension and media communications.

Sunday, March 18, 2018

Morning

11-4:00 It's a Bugs World

Annapolis Ballroom

8-12:00 Student Poster Set-Up

Senate A&B

8-12:00 Contributed Poster Set-up

Capitol Prefunction

8-6:00 Silent Auction

Senate

Symposium: Systematics, Biodiversity and Evolution

Capitol B (Westin Annapolis)

Moderators and Organizers: Jessica Ware¹ and Stephanie Mafla Mills², ¹American Museum of Natural History, New York, NY, ²Rutgers, The State Univ. of New Jersey, Newark, NJ

8:00 Deconstructing warning signals in butterfly mimicry rings. **Jack Kellogg** (jekkellogg@gmail.com), Rutgers, The State Univ. of New Jersey, Newark, NJ

8:20 Insects of the Guiana shield: Diversity and distribution within closed canopy forests. **Stephanie Mills** (stephanie.maflamills@gmail.com), Rutgers, The State Univ. of New Jersey, Newark, NJ

8:40 Damsel flies of New Guinea (Zygoptera, Odonata) - new taxa, ancestral areas and current distributions. **Dirk Gassmann** (dirk.gassmann@gmail.com), Rutgers, The State Univ. of New Jersey, Newark, NJ

9:00 A new species of *Amitermes* (Blattodea). **Megan Wilson** (meywilson@yahoo.com), Rutgers, The State Univ. of New Jersey, Newark, NJ

9:20 A phylogeny of Macromiidae. **Ken Knapp** (kbk46@scarletmail.rutgers.edu), Rutgers, The State Univ. of New Jersey, Newark, NJ

9:40 *Withdrawn*

10:00 **Break**

10:20 Climate induced shifts of feeding preferences in *Pantala* dragonflies. **Nene Ugbah** (nku2102@columbia.edu), Rutgers, The State Univ. of New Jersey, Newark, NJ

10:40 Life at 40X: A review of the termite hindgut fauna of *Reticulitermes hesperus*. **Erin McHale** (emm308@scarletmail.rutgers.edu), Rutgers, The State Univ. of New Jersey, Newark, NJ

11:00 *Nasutitermes* population genetics: Guiana shield termite dispersal reflected in barcoding analyses. **Amany Emam** (aye3@njit.edu), Rutgers, The State Univ. of New Jersey, Newark, NJ

11:20 Flooding in the rainforest: ant and termite biogeographical patterns of the Guiana Shield. **Carlos Macazana** (camacazana@gmail.com), New Jersey Institute of Technology, Newark, NJ

11:40 *Pantala flavescens*: panmixia, migration and barcoding. **Ciara Mendoza** (ciaramae.mendoza@gmail.com), New Jersey Institute of Technology, Newark, NJ

Ph.D. Student Oral Competition

Capitol A (Westin Annapolis)

Moderator: Carlyle Brewster¹ and Brenna Traver² ¹Virginia Polytechnic Institute & State Univ., Blacksburg, VA,

²Pennsylvania State Univ., Schuylkill, PA

8:30 Extended impacts of trichomes consumption on offspring of tobacco hornworms (*Manduca sexta*). **Alexandra Serpi** (alex.serpi@psu.edu), Pennsylvania State Univ., Univ. Park, PA

8:42 Evaluating the impacts of neonicotinoid seed treatments in a mid-Atlantic grain crop rotation. **Aditi Dubey** (aditid26@gmail.com), Galen Dively, Margaret Lewis and Kelly Hamby, Univ. of Maryland, College Park, MD

8:54 Effect of protein immunomarking materials on behavior of plum curculio *Conotrachelus nenuphar*. **Timothy Lampasona** (timlampasona@gmail.com)¹, Anne Nielsen² and Tracy Leskey³, ¹Rutgers, The State Univ. of New Jersey, New Brunswick, NJ ²Rutgers, The State Univ. of New Jersey, Bridgeton, NJ, ³USDA - ARS, Kearneysville, WV

9:06 Effects of organic reduced-tillage cropping systems on epigeal predators. **Karly Regan** (kjr5470@psu.edu), Christina Mullen and Mary Barbercheck, Pennsylvania State Univ., Univ. Park, PA

9:18 Relative suitability of cultivated and non-cultivated host plants in the Mid-Atlantic region for *Halyomorpha halys* nymphal survivorship and development. **Whitney Hadden** (wthadden@vt.edu)¹, Tracy C. Leskey² and Christopher Bergh³, ¹Virginia Polytechnic Institute & State Univ., Blacksburg, VA,

²USDA - ARS, Kearneysville, WV, ³Virginia Polytechnic Institute & State Univ., Winchester, VA

9:30 Evaluating effects of nitrogen fertilizer and insecticide use in managing onion thrips (*Thrips tabaci*) in onion. **Ashley Leach** (al2282@cornell.edu), Stephen Reiners and Brian Nault, Cornell Univ., Geneva, NY

9:42 Corn susceptibility to lepidopteran larvae under manure fertilization in PA. **Elizabeth Rowen** (epr5119@psu.edu) and John Tooker, Pennsylvania State Univ., Univ. Park, PA

9:55 Break

10:20 What bluebirds eat: Arthropods of importance in the diet of eastern bluebirds (*Sialia sialis*) in Delaware. **Ashley Kennedy** (kennedya@udel.edu) and Douglas W. Tallamy, Univ. of Delaware, Newark, DE

10:32 Algae on leaves in headwater streams: Bottom-up effects on aquatic insect communities. **Rebecca Eckert** (reckert@terpmail.umd.edu) and Bill Lamp, Univ. of Maryland, College Park, MD

10:44 Influence of fluctuating temperatures and nutrition on *Anopheles stephensi* reproductive traits can reshape malaria transmission predictions in a warming world. **Shelley Whitehead** (saw359@psu.edu) and Matthew Thomas, Pennsylvania State Univ., Univ. Park, PA

10:56 Divergent oviposition preference between forest and domestic *Aedes aegypti* in Gabon: a possible adaptation to habitat-specific oviposition sites. **Siyang Xia** (siyang.xia@yale.edu)¹, Diego Ayala² and Jeffrey R. Powell¹, ¹Yale Univ., New Haven, CT, ²Institut de Recherche pour le Développement, Montpellier, France

11:08 When "gnat" becomes "nuisance." Resident surveys reveal discrepancies in the perception and impact of black flies. **Rebecca Wilson** (rcwilson@umd.edu) and Bill Lamp, Univ. of Maryland, College Park, MD

11:20 A case study on updating checklists: The bees (Hymenoptera: Apoidea: Anthophila) of Pennsylvania, USA. **Shelby Kilpatrick** (skk30@psu.edu)¹, Jason Gibbs², Martin Mikulas³, Sven-Erik Spichiger³, Nancy Ostiguy¹, David Biddinger⁴ and Margarita López-Urbe¹, ¹Pennsylvania State Univ., Univ. Park, PA, ²Univ. of Manitoba, Winnipeg, MB, Canada, ³Pennsylvania Dept. of Agriculture, Harrisburg, PA, ⁴Pennsylvania State Univ., Biglerville, PA

Sunday, March 18, 2018

Afternoon

12-1:30 Lunch & Learn Panel

Capitol D

Science, media and policy on the National Stage: Getting the Bugs Out!

with Mike Murillo (WTOP News),
Ingalisa Schrobsdorff (WAMU-FM),
David Malakoff (AAAS),
Kim Todd (Univ. of Minnesota),
and moderator Mike Raupp (Univ. of Maryland)

- 11-4:00 It's Bugs World**
Annapolis Ballroom
- 8-6:00 Silent Auction**
Senate A&B
- 6-8:00 President's Reception**
Capitol D
- 8-10:00 Linnaean Games**
Capitol D

Symposium: Advancing Entomology through Science Communication

Capitol B (Westin Annapolis)

Moderators and Organizers: Ryan Gott¹, Peter Coffey², and Ashley Kennedy³ ¹Phipps Conservatory and Botanical Gardens, Pittsburgh, PA, ²Univ. of Maryland, College Park, MD, ³Univ. of Delaware, Newark, DE

1:30 Designing an entomological social media campaign. **Derek Hennen** (derhennen@gmail.com), Virginia Polytechnic Institute & State Univ., Blacksburg, VA

1:45 Guess the Pest! A creative way to educate and share extension programming. **William Cissel** (bcissel@udel.edu), Univ. of Delaware, Newark, DE

2:00 Urban extension in Baltimore City. **Erin Mellenthin** (emelle@umd.edu), Univ. of Maryland Extension, Baltimore, MD

2:15 Extension approaches to reaching ethnic groups and diverse audiences. **Andy Wetherill** (awetherill@desu.edu), Delaware State Univ., Wilmington, DE

2:30 Citizen science: the good and the bad. **Deborah Delaney** (dadelane@udel.edu), Univ. of Delaware, Newark, DE

2:45 Different tactics used to share our knowledge: hands-on activities and game shows. **Brian Kunkel** (bakunkel@udel.edu), Univ. of Delaware, Newark, DE

3:00 Making practical pesticide recommendations. **Bryan Butler** (bbutlers@umd.edu), Univ. of Maryland, Westminister, MD

3:15 **Break**

3:30 Providing real-time information regarding an agricultural crisis to the media, lawmakers and public: The story of the brown marmorated stink bug outbreak. **Tracy C. Leskey** (tracy.leskey@ars.usda.gov), USDA - ARS, Kearneysville, WV

3:45 On wearing several hats at once: Regulations, science, policy and business. **Faith Kuehn** (Faith.Kuehn@state.de.us), Delaware Dept. of Agriculture, Dover, DE

4:00 The "Save the Caterpillars" campaign. **Katherine Wychulis** (kewychulis@aol.com), Axiom, Arlington, VA

4:15 Gaining voice for entomologists: experiences of an ESA Science Policy Fellow. **Joe Kaser** (joe.kaser@rutgers.edu), Rutgers, The State Univ. of New Jersey, Bridgeton, NJ

4:30 Education, engagement and empowerment: An approach to connect people to conservation. **Curtis Bennett** (curtishb3@gmail.com), National Aquarium, Baltimore, MD

4:45 Public relations: How to make the most of your 15 minutes of fame. **Isik Unlu** (iunlu@mercercounty.org), Rutgers, The State Univ. of New Jersey, New Brunswick, NJ

5:00 Science delivery to the community: Establishing an extension program at academic institutions. **Erika Machtinger** (etm10@psu.edu), Pennsylvania State Univ., Univ. Park, PA

5:15 **Discussion**

M.S./Undergraduate Student Oral Competition

Capitol A (Westin Annapolis)

Moderator: Brenna Traver¹ and Carlyle Brewster²

¹Pennsylvania State Univ., Schuylkill, PA, ²Virginia Polytechnic Institute & State Univ., Blacksburg, VA,

2:30 Comparing patterns of injury caused by potato leafhopper (Cicadellidae) on nitrogen production across different alfalfa (*Medicago sativa*) cropping systems. **Morgan Thompson** (mthomps1@terpmail.umd.edu) and Bill Lamp, Univ. of Maryland, College Park, MD

2:42 Impact of flea beetle populations on cabbage and eggplant in Virginia. **James Mason** (jmason91@vt.edu) and Thomas P. Kuhar, Virginia Polytechnic Institute & State Univ., Blacksburg, VA

2:54 Analyzing oriental beetle behavior in proximity to pheromone point sources in novel attract-&-kill scenario. **Robert Holdcraft** (rholdcra@njaes.rutgers.edu)¹, Cesar Rodriguez-Saona² and Agenor Mafrá-Neto³, ¹Rutgers, The State Univ. of New Jersey, Chatsworth, NJ, ²Rutgers, The State Univ. of New Jersey, New Brunswick, NJ, ³ISCA Technologies, Inc, Riverside, CA

3:06 Effects of monophagous host plant diets on lipid and water content in the polyphagous moth *Epimecis hortaria*. **Evan Perkowski** (eaperkowski@widener.edu), Alyssa Myers and Janice Krumm, Widener Univ., Chester, PA

3:18 Overwintering survival and establishment of the newly introduced emerald ash borer parasitoid, *Oobius agrili*, in the Mid-Atlantic. **Devan George** (devgeo1117@gmail.com)¹, Jian Duan² and Douglas W. Tallamy¹, ¹Univ. of Delaware, Newark, DE, ²USDA - ARS, Newark, DE

3:30 Break

3:50 A survey of higher termite biodiversity along the Guyana-Brazil border. **Amany Emam** (aye3@njit.edu), Rutgers, The State Univ. of New Jersey, Jersey City, NJ

4:02 *Withdrawn*

4:14 Developing a pheromone trap-based treatment threshold for *Halyomorpha halys* in bell peppers. **Hayley Bush** (hgbush93@vt.edu)¹, Tracy C. Leskey², Christopher Bergh³ and Thomas P. Kuhar¹, ¹Virginia Polytechnic Institute & State Univ., Blacksburg, VA, ²USDA - ARS, Kearneysville, WV, ³Virginia Polytechnic Institute & State Univ., Winchester, VA

4:26 Brown marmorated stink bug development on select vegetables. **Adam Formella** (adam4@vt.edu) and Thomas Kuhar, Virginia Polytechnic Institute & State Univ., Blacksburg, VA

4:38 *Pantala flavescens*: A molecular analysis of the panmictic "global wanderer". **Ciara Mae Mendoza** (ciaramae.mendoza@gmail.com)¹, Daniel Troast¹, Göran Sählen², Frank Suhling³, Hiroshi Jinguji⁴ and Jessica Ware¹, ¹Rutgers, The State Univ. of New Jersey, Newark, NJ, ²Halmstad Univ., Halmstad, Sweden, ³Technische Universität Braunschweig, Braunschweig, Germany, ⁴Miyagi Univ., Miyagi, Japan

Posters

Sunday, March 18, 2018/12:00 PM - 6:00 PM

Monday, March 19, 2018/8:00 AM - 2:00 PM

Presenters: Please stand by your poster during 4:30 – 6:30 Sunday

Student Competition Posters

Senate A&B (Westin Annapolis)

DSP1 Chemicals from wood that lead to behavioral responses in the termite *Reticulitermes flavipes*. **Teresa Nguyen** (nguyen_tt@lynchburg.edu), Amanda Larsen and Jurgen Ziesmann, Lynchburg College, Lynchburg, VA

DSP2 Characterization of gut microbiota in larval and adult mosquitoes. **Fatimah Conteh** (fatimah.conteh@maine.edu) and Allie Gardner, Univ. of Maine, Orono, ME

DSP3 A comparison of household dryer-induced mortality on laboratory-reared versus field-collected *Ixodes scapularis* ticks. **Sandra M. Zapata-Ramirez** (Zapata007@connect.wcsu.edu), Brittany L. Schappach, Rayda K. Krell and Neeta P. Connally, Western Connecticut State Univ., Danbury, CT

DSP4 Habitat suitability assessments for a potential reintroduction of American burying beetle (*Nicrophorus*

americanus): Impact of forest successional stage on *Nicrophorus* spp. (Coleoptera: Silphidae) and potential hosts in eastern mixed forests of New York state. **Emily Miller** (millere149@cobleskill.edu)¹, Ryan Bechtold², Amy Quinn³ and Carmen Greenwood³, ¹State Univ. of New York, Lake Luzerne, NY, ²State Univ. of New York, Middleburgh, NY, ³State Univ. of New York, Cobleskill, NY

DSP5 Habitat suitability assessment for a potential reintroduction of the American burying beetle (*Nicrophorus americanus*): Impacts of controlled burning on *Nicrophorus* spp. (Coleoptera: Silphidae) community composition and potential hosts in the Albany Pine Bush Preserve, New York. **Lauren Miller** (millerl265@cobleskill.edu), Mary Greagan, Amy Quinn and Carmen Greenwood, State Univ. of New York, Cobleskill, NY

DSP6 Does geese exclusion impact the diversity of the benthic macroinvertebrate community of a restored freshwater marsh? **Lily Durkee** (ldurkee@terpmail.umd.edu) and Daniel Gruner, Univ. of Maryland, College Park, MD

DSP7 Understanding the effects of horsenettle trichomes (*Solanum carolinense*) on the peritrophic membrane of tobacco hornworms (*Manduca sexta*) using fluorescent powder. **Nina Dennington** (nbd5038@psu.edu) and Alexandra Serpi, Pennsylvania State Univ., Univ. Park, PA

DSP8 Empire state native pollinator survey: Saproxylic hover flies within rare old growth forest habitats of New York state. **Liam Somers** (somersl631@cobleskill.edu)¹, Carmen Greenwood¹, Jeff Corser², Erin White² and Matthew Schlesinger³, ¹State Univ. of New York, Cobleskill, NY, ²New York State Natural Heritage Program, Albany, NY

DSP9 Assessing predation risks through deployment of *Epimecis hortaria* clay caterpillars. **Katelyn Mecouch** (kemecouch@widener.edu)¹ and Janice Krumm², ¹Widener Univ., Peach Bottom, PA, ²Widener Univ., Chester, PA

DSP10 Do katydid feeding preferences gravitate towards parasitized or unparasitized brown marmorated stink bug egg masses? **Meghin Rollins** (meghinrollins@gmail.com), Joe Kaser and Anne Nielsen, Rutgers, The State Univ. of New Jersey, Bridgeton, NJ

DSP11 Composition and endogenous biosynthesis of the chemical defense of *Pyractomena borealis*. **Nicole Howells** (nr24howe@siena.edu)¹, David Posner¹, Faizan Rahim¹, Kathareeya Tonyai², Stephen Deyrup¹ and Scott R. Smedley², ¹Siena College, Loudonville, NY, ²Trinity College, Hartford, CT

DSP12 Chemical defense of the common European glowworm *Lampyris noctiluca*. **Faizan Rahim** (fu23rahi@siena.edu)¹, Nicole Howells¹, David Posner¹, Stephen Deyrup¹ and Raphael De Cock², ¹Siena College, Loudonville, NY, ²Univ. of Antwerp, Wilrijk, Belgium

DSP13 Systematics of *Anastatus* (Hymenoptera: Eupelmidae), a potential spotted lanternfly (Hemiptera: Fulgoridae) control agent, and Hemiptera species potentially impacted. **Tyler Hagerty** (hagertyt@udel.edu), Univ. of Delaware, Newark, DE

DSP14 Efficacy of corn seed treatments against soil pests of Virginia. **Kyle Bekelja** (kbekelja@vt.edu)¹, Thomas P. Kuhar¹, Hélène Doughty² and Sally Taylor³, ¹Virginia Polytechnic Institute & State Univ., Blacksburg, VA, ²Virginia Polytechnic Institute & State Univ., Virginia Beach, VA, ³Virginia Polytechnic Institute & State Univ., Suffolk, VA

DSP15 An attempt to use flowering plant strips to augment rice pest management. **Corey Riedel** (coreyr14@vt.edu), Virginia Polytechnic Institute & State Univ., Blacksburg, VA

DSP16 The effects of accumulated silicon in corn on above-below ground interactions between two corn pests. **Duncan Brown** (dbrow@udel.edu) and Ivan Hiltbold, Univ. of Delaware, Newark, DE

DSP17 Characterization of *Aethina tumida* acetylcholinesterase (AChE) pharmacology: Search for novel AChE inhibitors. **Morgan Roth** (mroth11@vt.edu), James M. Wilson and Aaron Gross, Virginia Polytechnic Institute & State Univ., Blacksburg, VA

DSP18 Development of an effective and efficient method for monitoring the presence and spread of *Trissolcus japonicus* (Ashmead) (Hymenoptera: Scelionidae). **Nicole Quinn** (quinni01@vt.edu)¹, Tracy C. Leskey² and Chris Bergh¹,
¹Virginia Polytechnic Institute & State Univ., Winchester, VA,
²USDA - ARS, Kearneysville, WV

DSP19 Patch area and connectivity do not predict arthropod species richness in a naturally fragmented kīpuka landscape. **Elske Tielens** (elske.tielens@gmail.com), Maile Neel and Daniel Gruner, Univ. of Maryland, College Park, MD

Contributed Posters

Capitol Prefunction (Westin Annapolis)

DSP20 Comparing the effects of road salt on aquatic insect diversity in southern Lake Erie tributaries. **Michelle Phelps** (mlp5480@psu.edu), Hannah Jacob and Matthew E. Gruwell, Pennsylvania State Univ., Behrend, Erie, PA

DSP21 Hydrology and aquatic insect communities of riverine rock pools: Effects of seasonality and the Penobscot River.

Chase Gagne (chase.gagne@maine.edu) and Hamish S. Greig, Univ. of Maine, Orono, ME

DSP22 Can fungi make caterpillars picky eaters? Effects of endophytic *Metarhizium* on corn (*Zea mays*) and fall armyworm (*Spodoptera frugiperda*) **Brianna Flonc** (bzf8@psu.edu), Imtiaz Ahmad, Christina Mullen and Mary Barbercheck, Pennsylvania State Univ., Univ. Park, PA

DSP23 Comparative genomics of the bacterial endosymbiont *Candidatus Walczuchella monophlebidarum*, an obligate endosymbiont of scale insects in the family Monophlebidae (Hemiptera: Coccoidea). **Matthew E. Gruwell** (meg26@psu.edu)¹ and Takumasa Kondo², ¹Pennsylvania State Univ., Behrend, Erie, PA, ²Corporacion Colombiana de Investigacion Agropecuaria (Corpoica), Valle, Colombia

DSP24 Evaluation of a bait for integrated pest management (IPM) of ants in tropical fruit crops in Espírito Santo, Brazil.

Mark Culik (markculik3@yahoo.com)¹, José Ventura² and David Martins², ¹Incapar, Linhares, Brazil, ²Incapar, Vitória, Brazil

DSP25 Evaluating the role of *Chauliognathus* spp. as predators in Virginia agricultural systems. **Katlyn Catron**

(kcatron@vt.edu) and Thomas P. Kuhar, Virginia Polytechnic Institute & State Univ., Blacksburg, VA

DSP26 Assessing spider community assemblage along drainage ditches in relation to plant diversity. **Dylan Kutz** (dkutz@umd.edu) and Bill Lamp, Univ. of Maryland, College Park, MD

DSP27 Cell fusion to improve the efficacy and thermotolerance of the entomopathogenic fungus, *Beauveria bassiana*. **Agrin Davari** (adavari@uvm.edu) and Bruce L. Parker, Univ. of Vermont, Burlington, VT

DSP28 Developing an attract and kill approach for behavioral control of harlequin bug, *Murgantia histrionica* Hahn (Hemiptera: Pentatomidae). **Anna Wallingford** (annawllngfrd@gmail.com)^{1,2}, Thomas P. Kuhar¹ and Donald C. Weber², ¹Virginia Polytechnic Institute & State Univ., Blacksburg, VA, ²USDA - ARS, Beltsville, MD

DSP29 Impact of floral groundcover management on the abundance and diversity of bees collected in peach and apple orchards. **Anna DiPaola** (a.dipaola@aesop.rutgers.edu)¹, Anne Nielsen¹ and Brett Blaauw², ¹Rutgers, The State Univ. of New Jersey, Bridgeton, NJ, ²Univ. of Georgia, Athens, GA

DSP30 Current U.S. distribution of the samurai wasp, *Trissolcus japonicus*, a natural enemy of the brown marmorated stink bug, *Halyomorpha halys*. Kim Hoelmer¹, **Donald Weber** (don.weber@ars.usda.gov)², Marie-Claude Bon³ and Elijah Talamas⁴, ¹USDA - ARS, Newark, DE, ²USDA - ARS, Beltsville, MD, ³USDA - ARS, Montferrier-sur-Lez, France, ⁴Florida Dept. of Agriculture and Consumer Services, Gainesville, FL

DSP31 African fig fly (*Zaprionus indianus*) oviposition on injured and uninjured raspberries. **Ian Sandum** (celeborn@vt.edu) and Douglas G. Pfeiffer, Virginia Polytechnic Institute & State Univ., Blacksburg, VA

DSP32 *Paralobesia viteana*, American grape berry moth in Virginian vineyards and the current scenario. **Pragya Chalise** (pragya.chalise@gmail.com) and Douglas G. Pfeiffer, Virginia Polytechnic Institute & State Univ., Blacksburg, VA

DSP33 Phiguring out Phthiraptera pheromones. **Christopher Harbison** (charbison@siena.edu), Melissa Breen, Ahmed Jabir, Domenic Roberto and Kristopher Kolonko, Siena College, Loudonville, NY

DSP34 Toxicity and mode of action of flonicamid and its metabolite against mosquitoes. **Aaron Gross** (adgross@vt.edu)¹, Jennina Taylor-Wells², Shiyao Jiang³, Fabien Demares³, Joseph Clements¹, Paul R. Carlier¹ and Jeffrey Bloomquist³, ¹Virginia Polytechnic Institute & State Univ., Blacksburg, VA, ²Oxitec Ltd, Abingdon, United Kingdom, ³Univ. of Florida, Gainesville, FL

Monday, March 19, 2018

Morning

7-7:50 ESA Town Hall Capitol A

8-12:00 Silent Auction Senate A&B

Symposium: Biocontrol of Introduced and Invasive Insect and Weed Pests of Forests/Woody Plants

Capitol A (Westin Annapolis)

Moderators and Organizers: Lisa Tewksbury¹ and Juli Gould², ¹Univ. of Rhode Island, Kingston, RI, ²USDA - APHIS, Buzzards Bay, MA

8:00 Introductory Remarks

8:10 Status of biological control research for tree of heaven, *Ailanthus altissima*. **Scott Salom** (salom@vt.edu)¹, Thomas McAvoy¹, Rachel Brooks¹, Kristen Wickert² and Matthew Kasson², ¹Virginia Polytechnic Institute & State Univ., Blacksburg, VA, ²West Virginia Univ., Morgantown, WV

8:35 Biological control of mile-a-minute weed: challenges, accomplishments, and lessons learned. **Ellen C. Lake** (ellen.lake@ars.usda.gov)¹, Judith A. Hough-Goldstein² and Richard Reardon³, ¹USDA - ARS, Fort Lauderdale, FL, ²Univ. of Delaware, Newark, DE, ³USDA Forest Service, Morgantown, WV

9:00 Winter moth in the northeast and its associated parasitoids, pathogens, and predators. **Joseph Elkinton**

(elkinton@ent.umass.edu) and Hannah Broadley, Univ. of Massachusetts, Amherst, MA

9:25 Update on Asian longhorned beetle biological control. **Theresa Murphy** (tcmurphy@umass.edu), USDA - APHIS, Buzzards Bay, MA

9:50 Break

10:05 Redistribution of *Trissolcus japonicus* for use in the biological control of brown marmorated stink bug in New York. **Peter Jentsch** (pjj5@cornell.edu)¹, Arthur Agnello², Tessa Grasswitz³ and Dana Acimovic⁴, ¹Cornell Univ., Hudson Valley Research Lab, Highland, NY, ²Cornell Univ., Geneva, NY, ³Cornell Univ., Albion, NY, ⁴Cornell Univ., Highland, NY

10:30 Spotted lanternfly biological control. **Mauri Hickin** (Mauri.L.Hickin@aphis.usda.gov), USDA - APHIS, Buzzards Bay, MA

10:55 On the horizon: Biological control of swallow-worts. **Lisa Tewksbury** (lisat@uri.edu) and Richard Casagrande, Univ. of Rhode Island, Kingston, RI

11:20 Ecology and biological control of the viburnum leaf beetle *Pyrrhalta viburni*. **Gaylord Desurmont** (gdesurmont@ars-ebcl.org), USDA - ARS, Montpellier, France

Symposium: Applied Agriculture and Ag-Industry Symposium

Capitol B (Westin Annapolis)

Moderators and Organizers: Thomas P. Kuhar¹ and Jim Steffel², ¹Virginia Polytechnic Institute & State Univ., Blacksburg, VA, ²LABServices, Hamburg, PA

8:00 Introductions. **Thomas P. Kuhar** (tkuhar@vt.edu), Virginia Polytechnic Institute & State Univ., Blacksburg, VA

8:10 Research with *Dectes* stem borer and other current research projects in Maryland. **Kelly Hamby** (kahamby@umd.edu), Cerruti Hooks, Alan Leslie and Emily Zobel, Univ. of Maryland, College Park, MD

8:30 Corn earworm pyrethroid resistance update from Virginia. **Seth Dorman** (sjdorman@vt.edu)¹, Sally Taylor¹, Sean Malone¹, Katlyn Catron² and Thomas P. Kuhar², ¹Virginia Polytechnic Institute & State Univ., Suffolk, VA, ²Virginia Polytechnic Institute & State Univ., Blacksburg, VA

8:50 Pepper weevil issues for farmers and processors in New Jersey. **Joseph Ingerson-Mahar** (mahar@njaes.rutgers.edu), Rutgers, The State Univ. of New Jersey, New Brunswick, NJ

9:10 PestWatch, iPIPE, and agent-based models: Tools for tracking migration and phenology. **Shelby J. Fleischer** (sjf4@psu.edu)¹, Stephen Crawford¹, Greg von Kuster², Shi Chen³ and Anne Nielsen⁴, ¹Pennsylvania State Univ., Univ. Park, PA, ²Pennsylvania State Univ., State College, PA, ³North Carolina State Univ., Raleigh, NC, ⁴Rutgers, The State Univ. of New Jersey, Bridgeton, NJ

9:30 Progress on using genetically engineered insects for IPM. **Tony Shelton** (ams5@cornell.edu)¹ and Stefan Long², ¹Cornell Univ., Geneva, NY, ²Cornell Univ., Ithaca, NY

9:50 Break

10:05 Multi-state evaluation of Bt sweetcorn in 2017. **Galen Dively** (galen@umd.edu)¹, Thomas P. Kuhar², Sally Taylor³, Daniel Gilrein⁴, Daniel L. Frank⁵, Hélène Doughty⁶, Joanne Whalen⁷, Kristian Holmstrom⁸, Kelly Hamby¹, Joseph Ingerson-

Mahar⁸, Dominic Reisig⁹, William Cissel⁷, Ivan Hiltbold⁷, Shelby J. Fleischer¹⁰ and Brian A. Nault¹, ¹Univ. of Maryland, College Park, MD, ²Virginia Polytechnic Institute & State Univ., Blacksburg, VA, ³Virginia Polytechnic Institute & State Univ., Suffolk, VA, ⁴Long Island Horticultural Research and Extension Center, Riverhead, NY, ⁵West Virginia Univ., Morgantown, WV, ⁶Virginia Polytechnic Institute & State Univ., Virginia Beach, VA, ⁷Univ. of Delaware, Newark, DE, ⁸Rutgers, The State Univ. of New Jersey, New Brunswick, NJ, ⁹North Carolina State Univ., Plymouth, NC, ¹⁰Pennsylvania State Univ., Univ. Park, PA, ¹¹Cornell Univ., Geneva, NY

10:25 Industrial hemp insect pest research in Virginia: what we have learned so far. **Kadie Britt** (kadie@vt.edu) and Thomas P. Kuhar, Virginia Polytechnic Institute & State Univ., Blacksburg, VA

10:45 A change landscape in the plant protection industry. **Jim Steffel** (jim@labservices.com)¹, Brad Hopkins², Gregory Hannig³ and Erin Hitchner⁴, ¹LABServices, Hamburg, PA, ²Dow AgroSciences, Indianapolis, IN, ³Dupont Crop Protection, Palmyra, NY, ⁴Syngenta Crop Protection LLC, Elmer, NJ

11:05 Open discussion about current pest issues and future collaborative research in the mid-Atlantic U.S. **Thomas P. Kuhar** (tkuhar@vt.edu), Virginia Polytechnic Institute & State Univ., Blacksburg, VA

Submitted Ten-Minute Papers

Capitol C (Westin Annapolis)

Moderators: Aditi Dubey and Elske Tielens, Univ. of Maryland, College Park, MD

8:00 Advanced NMR and HPLC-MS methods for determination of firefly chemical defenses. **Stephen Deyrup** (sdeyrup@siena.edu)¹, Zenab Ahmed¹, Brian Christofel¹, Maha Gaber¹, Nicole Howells¹, Connor Mosey¹, Faizan Rahim¹, Riley Risteen², Kathareeya Tonyai², Madalyn Farrar², Bailey D'Antonio², Julia Pitino², Yunming Hu² and Scott R. Smedley², ¹Siena College, Loudonville, NY, ²Trinity College, Hartford, CT

8:12 The distinct properties of natural and GM cry insecticidal proteins. **Jonathan Latham** (jrlatham@bioscienceresource.org)¹, Madeleine Love² and Angelika Hilbeck³, ¹Bioscience Resource Project, Ithaca, NY, ²None, Victoria, Australia, ³Swiss Federal Institute of Technology, Zurich, Switzerland

8:24 Thermo-orientation influences ectoparasite navigation and microhabitat selection on hosts. **Christopher Harbison** (charbison@siena.edu), Rachel Boughton and Patrick Shine, Siena College, Loudonville, NY

8:36 Geographically specific models of cold temperature mortality in the hemlock woolly adelgid (*Adelges tsugae*). **Jeffrey Lombardo** (jalombar@utica.edu)¹, Ryan Crandall², Thomas McAvoy³ and Joseph Elkinton², ¹Utica College, Utica, NY, ²Univ. of Massachusetts, Amherst, MA, ³Virginia Polytechnic Institute & State Univ., Blacksburg, VA

8:48 Evaluation of substituted benzoate compounds as bed bug (*Cimex lectularius* L.) fumigants. **Nicholas Larson**

(nlarson@vt.edu), Mark F. Feldlaufer and Aijun Zhang, USDA - ARS, Beltsville, MD

9:00 Size constraints and sensory adaptations affect mosaic brain evolution in paper wasps (Vespidae: Epiponini).

Sean O'Donnell, Susan J Bulova, **Meghan Barrett**

(mrb397@drexel.edu) and Katherine Fiocca, Drexel Univ., Philadelphia, PA

9:12 First record of *Cochliomyia macellaria* (Fabricius)

(Diptera: Calliphoridae) in northern New Jersey and a new

forensic Stratiomyidae species. **M. Denise Gemmellaro**

(denise.gemmellaro@rutgers.edu) and George C. Hamilton, Rutgers, The State Univ. of New Jersey, New Brunswick, NJ

9:24 The ants of Virginia project. **Kaloyan Ivanov**

(kal.ivanov@vmnh.virginia.gov), Liberty Hightower and Joe B.

Keiper, Virginia Museum of Natural History, Martinsville, VA

9:36 Biological connectivity between macroinvertebrate communities of isolated wetlands and surrounding streams.

Brock Couch (bcouch@terpmail.umd.edu) and Bill Lamp, Univ. of Maryland, College Park, MD

9:48 Break

10:00 Arthropod diversity on urban college campuses.

Roberta S. Engel (rengel@ndm.edu), Notre Dame of Maryland Univ., Baltimore, MD

10:12 Understanding the population dynamics of arthropod pollinators and their host preferences at UMES campus. **Ebony**

Wilmer (jkwilmer@umes.edu)¹, Jocelyn Simmons¹ and Simon

Zebelo², ¹Univ. of Maryland Eastern Shore, Princess Anne, MD,

²Univ. of Maryland, Princess Anne, MD

10:24 Integrating insecticides and biocontrol to combat emerald ash borer in urban environments: Preliminary results.

Juli Gould (juli.r.gould@aphis.usda.gov)¹, Melissa K. Fierke², John Kaltenbach³, Fredric D. Miller⁴ and Michael I. Jones²,

¹USDA - APHIS, Buzzards Bay, MA, ²State Univ. of New York, Syracuse, NY, ³Colorado Dept. of Agriculture, Broomfield, CO, ⁴Joilet Junior College, Joilet, IL

10:36 Biological control of two-spotted spider mite (*Tetranychus urticae*) on low-tunnel grown strawberry.

Samantha Willden (samwillden@gmail.com) and Gregory Loeb, Cornell Univ., Geneva, NY

10:48 Comparative study of the relative abundance and parasitism rates on two squash bug species *Anasa tristis* and *Anasa armigera* in squash fields in Maryland. **Mary Cornelius** (mary.cornelius@ars.usda.gov), Jing Hu and Bryan Vinyard, USDA - ARS, Beltsville, MD

11:00 Brown marmorated stink bug (*Halyomorpha halys* (Stål)) natural enemy abundance and diversity in Pennsylvania orchards. **Hillary Peterson** (hjm5194@psu.edu)¹ and Greg Krawczyk², ¹Pennsylvania State Univ., Univ. Park, PA, ²Pennsylvania State Univ., Biglerville, PA

11:12 Uninvited guests: Can insecticide-treated netting reduce *Halyomorpha halys* problems for homeowners? **Chris Bergh** (cbergh@vt.edu) and Nicole Quinn, Virginia Polytechnic Institute & State Univ., Winchester, VA

11:24 Influence of tillage systems on diversity and abundance of insect and nematode pests of maize in Malet, Kwara State, Nigeria. **Ismaila Aderolu** (adeisma@yahoo.com), Oluwafemi Lawal, Adesina Wahab, Khadijat Alabi, Oluremi Osunlola and Muhydeen Giwa, Kwara State Univ., Ilorin, Nigeria

11:36 Alternative non-crop resources may encourage overwintering survival in *Drosophila suzukii*. **Dara Stockton**

(dara.stockton@cornell.edu) and Gregory Loeb, Cornell Univ., Geneva, NY

11:48 Effect of *Drosophila suzukii* on yeast and fruit rot fungi in red raspberries. **Margaret Lewis** (mtlewis@umd.edu)¹, Emmi Koivunen², Cassandra Swett³ and Kelly Hamby¹, ¹Univ. of Maryland, College Park, MD, ²Plant Sciences Inc., Watsonville, CA, ³Univ. of California Davis, Davis, CA

Monday, March 19, 2018

Afternoon

12-1:30 Plenary & Awards Luncheon

Capitol D

Eastern Branch President Address

**Presentation of Awards for Best Student
Posters and Oral Presentations**

**Keynote Speech by Kim Todd, "The Art of
Observation: Maria Sibylla Merian and the
Metamorphosis of Insect Science"**

**6:30-8:00 Final Business Meeting
Congress Boardroom**

**Symposium: Insect Detection Evaluation and
Prediction: Methods for Dealing with Old and
New Invaders**

Capitol A (Westin Annapolis)

Moderator and Organizer: Eric R. Day, Virginia Polytechnic
Institute & State Univ., Blacksburg, VA

2:00 Introductory remarks. **Eric R. Day** (idlab@vt.edu)¹ and
Bob Trumbule², ¹Virginia Polytechnic Institute & State Univ.,
Blacksburg, VA, ²Maryland Dept. of Agriculture, Annapolis, MD

2:10 Crape myrtle bark scale: A new invasive in the eastern USA. **Peter B. Schultz** (schultzp@vt.edu), Virginia Polytechnic Institute & State Univ., Virginia Beach, VA

2:30 Emerald ash borer: Current detection methods, biological control, and parasitoid-host asynchrony. **Max Ragozzino** (maxri@vt.edu), Virginia Polytechnic Institute & State Univ., Blacksburg, VA

3:00 Biology and management of *Phytomyza gymnostoma*: a new invasive pest of *Allium* crops in the eastern US. **Brian Nault** (ban6@cornell.edu)¹, Shelby J. Fleischer², Ethan Grundberg³, Teresa Rusinek⁴, Dana Roberts² and Timothy Elkner⁵, ¹Cornell Univ., Geneva, NY, ²Pennsylvania State Univ., Univ. Park, PA, ³Cornell Univ., Middletown, NY, ⁴Cornell Cooperative Extension, Highland, NY, ⁵Pennsylvania State Univ., Manheim, PA

3:20 The pheromone chemistry of cerambycid beetles has important implications for invasion biology. **Lawrence M. Hanks** (hanks@life.illinois.edu)¹ and Jocelyn G. Millar², ¹Univ. of Illinois, Champaign, IL, ²Univ. of California, Riverside, CA

3:50 Break

4:05 Status of fire ants in Maryland: perspectives on prevention. **Aaron Shurtleff** (aaron.shurtleff@maryland.gov), Maryland Dept. of Agriculture, Annapolis, MD

4:35 Update on spotted lanternfly (*Lycorma delicatula*) in Pennsylvania. **Sven-Erik Spichiger** (sspichiger@pa.gov), Pennsylvania Dept. of Agriculture, Harrisburg, PA

5:05 Non-native bark and ambrosia beetles what's here and what are the impacts. **Robert Rabaglia** (brabaglia@fs.fed.us), USDA Forest Service, Washington, DC

5:35 Regional reports. **Daniel Gilrein** (dog1@cornell.edu)¹ and Lisa Tewksbury², ¹Long Island Horticultural Research and Extension Center, Riverhead, NY, ²Univ. of Rhode Island, Kingston, RI

Symposium: Pollinator Habitat in the Northeastern Landscapes: Pollinator Diversity, Crop Pollination, and Pesticide Exposure

Capitol B (Westin Annapolis)

Moderator and Organizer: Kimberly Stoner, Connecticut Agricultural Experiment Station, New Haven, CT

2:00 Welcoming Remarks

2:10 Farm and landscape factors interact to affect pollination services. **Charlie Nicholson** (ccnichol@uvm.edu)¹, Insu Koh¹, Leif Richardson¹, Anna Beauchemin² and Taylor Ricketts¹, ¹Univ. of Vermont, Burlington, VT, ²USDA Exotic and Invasive Weed Research, Albany, CA

2:40 Pollination reservoirs in Maine's lowbush blueberry cropping system. **Eric Venturini** (Eric.Venturini@xerces.org)¹, Frank Drummond², Aaron Hoshide³, Alison Dibble³ and Lois Berg Stack², ¹The Xerces Society for Invertebrate Conservation, Bangor, ME, ²Univ. of Maine, Orono, ME, ³The Univ. of Maine, Orono, ME

3:10 The role of semi-natural habitat and managed plantings in supporting Pennsylvania orchard pollinators.

Melanie Kammerer Allen (kma218@psu.edu)¹, David Mortensen¹, Neelendra Joshi², Timothy W. Leslie³, Edwin

Rajotte¹, Sarah Shugrue⁴ and David Biddinger⁵, ¹Pennsylvania State Univ., Univ. Park, PA, ²Univ. of Arkansas, Fayetteville, AR, ³Long Island Univ., Brooklyn, NY, ⁴USDA - APHIS, Buzzards Bay, MA, ⁵Pennsylvania State Univ., Biglerville, PA

3:40 Break

4:00 Effects of landscape and farm practices on the performance of *Bombus impatiens* (common eastern bumble bee). **Nelson Milano** (njm54@cornell.edu)¹, Scott McArt¹ and Brian A. Nault², ¹Cornell Univ., Ithaca, NY, ²Cornell Univ., Geneva, NY

4:30 Honey bee foraging patterns and colony weight dynamics reveal ecological heterogeneity of urban landscape. **Douglas Sponsler** (sponslerdb@gmail.com)¹, Christina M. Grozinger¹ and Don Shump², ¹Pennsylvania State Univ., Univ. Park, PA, ²Philadelphia Bee Company, Philadelphia, PA

5:00 Tracking sources of systemic pesticides using trapped honey bee (*Apis mellifera*) pollen. **Kimberly Stoner** (Kimberly.Stoner@ct.gov)¹, Brian D. Eitzer¹ and Richard Cowles², ¹Connecticut Agricultural Experiment Station, New Haven, CT, ²Connecticut Agricultural Experiment Station, Windsor, CT

Symposium: Utilizing Behavioral and Chemical Ecology to Monitor and Predict Pest Populations

Capitol C (Westin Annapolis)

Moderators and Organizers: Angelita Acebes-Doria¹, Joe Kaser² and Kevin Cloonan³, ¹USDA Appalachian Fruit Research

Station, Kearneysville, WV, ²Rutgers, The State Univ. of New Jersey, New Brunswick, NJ

2:00 Introduction. **Angelita Acebes-Doria**

(angel.acebes@ars.usda.gov), USDA Appalachian Fruit Research Station, Kearneysville, WV

2:10 Trapping of small organisms moving randomly, principles and applications to pest monitoring and management: an overview. **Christopher Adams**

(adamsch@msu.edu) and Larry Gut, Michigan State Univ., East Lansing, MI

2:30 Estimation of the plume reach, trapping radius and trapping area of the brown marmorated stink bug pheromone-baited traps. **Angelita Acebes-Doria**

(angel.acebes@ars.usda.gov)¹, Kevin Rice², Christopher Adams³, Brent Short², Larry Gut³, James R. Miller³ and Tracy C. Leskey², ¹USDA Appalachian Fruit Research Station, Kearneysville, WV, ²USDA - ARS, Kearneysville, WV, ³Michigan State Univ., East Lansing, MI

2:50 Area of response to baited traps used to monitor *Halyomorpha halys* in peach. **Joe Kaser**

(joe.kaser@rutgers.edu), Clement-Akotsen Mensah, Ann Rucker and Anne Nielsen, Rutgers, The State Univ. of New Jersey, Bridgeton, NJ

3:10 *Halyomorpha halys* (Hemiptera: Pentatomidae) responses to traps baited with pheromonal stimuli in peach and apple orchards. **Clement Akotsen-Mensah**

(ca555@scarletmail.rutgers.edu)¹, Joe Kaser¹, Tracy C. Leskey² and Anne Nielsen¹, ¹Rutgers, The State Univ. of New Jersey, Bridgeton, NJ, ²USDA - ARS, Kearneysville, WV

3:25 Effects of verbenone repellent on *Xylosandrus germanus* ambrosia beetle infestations in apple trees. **Arthur**

Agnello (ama4@cornell.edu)¹, Dave Combs¹ and Mikhail Fischer², ¹Cornell Univ., Geneva, NY, ²Hobart & William Smith College, Canton, NY

3:40 Break

4:00 Testing novel attractants for *Drosophila suzukii*. **Kevin Cloonan** (raynecloonan@gmail.com)¹ and Cesar Rodriguez-Saona², ¹Rutgers, The State Univ. of New Jersey, Chatsworth, NJ, ²Rutgers, The State Univ. of New Jersey, New Brunswick, NJ

4:20 It smells like food and tastes like a feast: Exploiting the chemical ecology of insect root pests in integrated pest management. **Ivan Hiltpold** (hiltpold@udel.edu), Univ. of Delaware, Newark, DE

4:40 Host selection in the *Culex pipiens* complex and its implications for West Nile virus transmission monitoring.

Megan Fritz (mfritz13@umd.edu), Univ. of Maryland, College Park, MD

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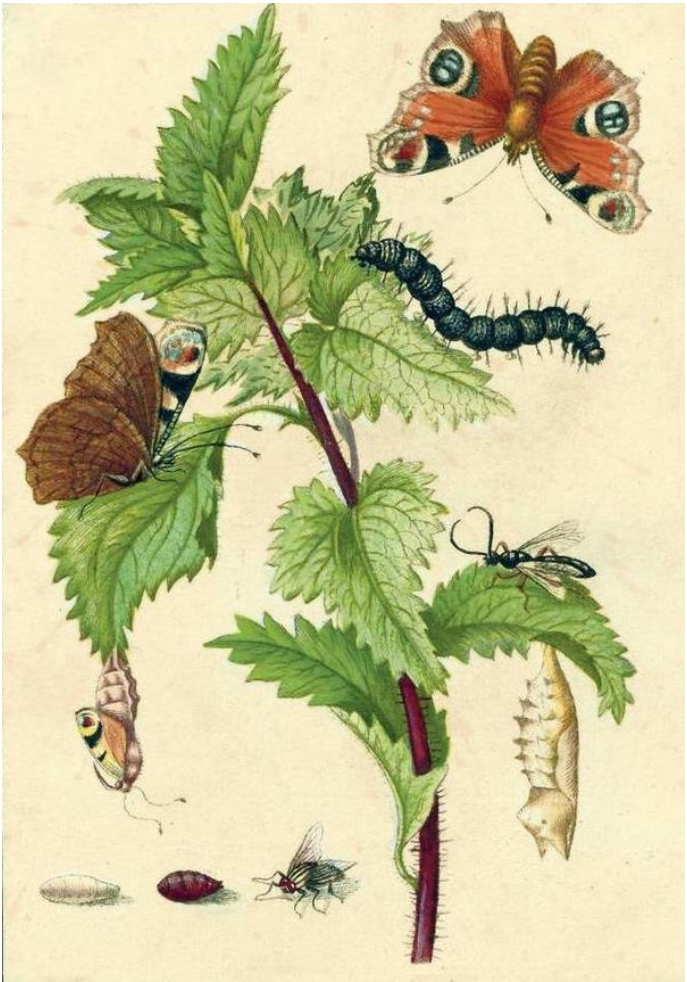


Vancouver, our host city

IMPORTANT DATES/DEADLINES:

Paper/poster submission	4 June 2018
Lunch & Learn deadline	
Functions (complimentary) deadline	30 June 2018
Virtual Poster deadline	31 July 2018

The Art and Science of Maria Sibylla Merian, 1647-1717



Above: Peacock (*Aglais io* (L.), Nymphalidae) on stinging nettle (*Urtica dioica* L. (Urticaceae)) from Merian's 1679 publication, *Der Raupen wunderbare Verwandlung und sonderbare Blumennahrung* (The wonderful metamorphosis and remarkable host plants of caterpillars). Note the tachinid and braconid parasitoids pictured. Linnaeus named this butterfly 79 years later.

Front cover: "Swallowtail on fennel" (Maria Sibylla Merian, c. 1683, adapted by Ann Simpkins)

Both paintings are in the public domain.