ENTOMOLOGICAL SOCIETY OF AMERICA
EASTERN BRANCH

95th ESA Eastern Branch Meeting

Sheraton Harrisburg Hershey Hotel

Harrisburg, Pennsylvania

March 15-18, 2025

Special thank you to our meeting sponsors!

Welcome to ESA Eastern Branch Meeting 2025!

Dear Colleagues and Guests,

On behalf of the Entomological Society of America's Eastern Branch, I'd excited to welcome all of you to the 95th Annual Meeting of the Eastern Branch.

We have a broad array of symposia and activities in the program this year and I hope there will be something for everyone. You'll have the chance to cheer on students in the student presentation and poster competition sessions and Entomology Games. You can experience the joy of entomology shared with the local Harrisburg community through our annual outreach event, It's a Bug's World. You can stretch your legs and competitive spirit through the Amazing Ento-Race. You can learn new scientific information through nine symposia, as well as submitted talk and poster sessions. There's even a pre-conference workshop on ectoparasites and vectors for those who registered.

I am grateful to all of the folks who have submitted symposia, contributed to workshop planning, helped with the program and logistics, or otherwise contributed to making this meeting what it is.

Once again, welcome to the 2025 Eastern Branch Meeting. I hope the conference is insightful and enjoyable for us all. Thank you for joining us!

Sincerely,
Karly Regan
President
Entomological Society of America Eastern Branch

Code of Conduct

By attending the 2025 Eastern Branch Meeting, you agree voluntarily to abide by our ethics policy. The full policy may be found online at entsoc.org/conduct. If you need to file a complaint, please contact Stacie East, ESA's Director of Equity and Grants, at +1 (301) 731-4535 x3030 or seast@entsoc.org.

WiFi Access

No password is currently required at the hotel, there are 3 available networks:

1. Lobby
2. Marriott Bonvoy
3. Marriott Bonvoy Conference

Breaks

There will be coffee service available in the Commonwealth Ballroom Lobby at all designated Break times in the Program Overview.

Congratulations to our 2025 Award Winners!

Dr. John Tooker

The **L.O. Howard Distinguished Achievement Award** was established by the Eastern Branch of the Entomological Society of America in 1974 to recognize scientists who have made significant contributions in the field of entomology.

L.O. HOWARD DISTINGUISHED ACHEIVEMENT AWARD

John Tooker is a professor of insect ecology and extension specialist in the Department of Entomology at The Pennsylvania State University. He received his Bachelors of Science in Biology from Bates College in Lewiston, Maine, and then his Masters and PhD in Entomology from the University of Illinois at Urbana-Champaign working under the supervision of Larry Hanks. He conducted postdoctoral research with Consuelo De Moraes at Penn State. His research group studies in agricultural and native systems relationships among plants, invertebrate herbivores, and natural enemies to understand factors that regulate populations. The long-term goal of his research is to exploit ecological interactions for sustainable insect and slug pest management. Key to the success of his IPM-based research and extension program has been a group of excellent graduate and undergraduate students and postdoctoral scientists who have conducted innovative research studies on topics including preventative insecticides, transgenic crops, cover crops, intraspecific diversity, plant defenses, gall-inducing insects, and natural-enemy communities and slugs in no-till fields. Tooker's IPM work has been greatly facilitated and adopted in Pennsylvania and surrounding states by a great group of progressive farmers, particularly members of Pennsylvania No-Till Alliance, who are keen on improving their production systems and profitability while decreasing reliance on insecticides.

Dr. Helen Craig

The **Herb. T. Streu Meritorious Service Award** was established by the Eastern Branch in 1991 to provide timely recognition of Eastern Branch members for outstanding service to the Branch. The award honors the legacy of Herb. T. Streu who was an ESA member for 60 years and served the society in many roles.

HERB T. STREU MERITORIOUS SERVICE AWARD

Helen Craig is a graduate student at the University of Maryland studying the sustainability of insects as food and feed, particularly black soldier fly larvae as a methane mitigating protein supplement in dairy cattle. After receiving her B.S. in Ecology and Evolution with a focus on sustainability in 2022 from the University of Maryland, Helen joined Dr. Bill Lamp's lab as a lab manager where she first got involved with the Eastern Branch. In the inaugural year of EntoQuest, the Eastern Branch's summer meeting, Helen joined the planning committee to help organize and prepare for the trip. At the conclusion of the first summer meeting, Helen wrote and published an essay about the success of the meeting in the Signals section of American Entomologist. Helen remained on the planning committee in the second year and then took on the role of Program Chair in the third year, running a successful "murder mystery" themed meeting at Kean University. At this year's annual branch meeting, Helen is co-hosting a symposium on the challenges and prospects of insects as food and feed. Helen has mentored several students in projects related to insects as food and feed, some of whom have presented their own research at annual ESA meetings. Helen is dedicated to building community and creating safe spaces for students to grow, learn, and create long-lasting connections.

Dr. James Wilson

This award recognizes an Eastern Branch member for outstanding contributions in teaching.

EASTERN BRANCH DISTINGUISHED ACHIEVEMENT AWARD IN TEACHING

James is a Collegiate Assistant Professor, Extension Apiculturist at Virginia Tech in Blacksburg Virginia. James enjoys taking beekeeping Extension on the road throughout Virginia, and teaching Virginia Tech's undergraduate Bees and Beekeeping class and lab, as well as teaching Insects and Human Society courses. Through his continued work in Integrated Pest Management, James leverages an agricultural perspective with a great passion for beekeeping into all his work to protect pollinators and further beekeeping in Virginia. James completed his PhD at Virginia Tech in 2016 working with bees, pumpkin pests, and their associated parasitoid wasps, as well as novel insecticide risk qualification in bees. With this full circle approach to improving pollinator protection and pest management in Virginia pumpkin production, James looks forward to keeping bees safe and working in agriculture systems into the future. Lastly, James is working to reach young bee enthusiasts to help welcome new beekeepers to our greater beekeeping community.

Dr. Changlu Wang

This award recognizes an Eastern Branch member for outstanding contributions in Extension.

EASTERN BRANCH DISTINGUISHED ACHIEVEMENT AWARD IN EXTENSION

Dr. Changlu Wang is an Extension Specialist in the Department of Entomology, Rutgers University. He received his B.S. from Beijing Forestry University (1985), M.S. from Chinese Academy of Forestry (1988), and Ph.D. from West Virginia University (1998). His research focuses on developing new and improved techniques and materials for urban pest management, insecticide resistance, and insect behavior. He published 13 books/book chapters, >110 peer-reviewed papers, and >30 non-peer-reviewed articles, and coauthored two patents that turned into widely used products in the U.S. His research on IPM in apartment buildings provided practical solutions on how to implement IPM in multi-family housing and the benefit of IPM for reducing indoor health risk including pests, pest allergens, and insecticide residues. His extension program reached thousands of low-income homes throughout New Jersey and other states. He also presented numerous talks to pest management professionals, housing staff, public health workers in the U.S. and other countries. Dr. Wang's team produced some highly impactful bed bug videos with one video received 47 million views. He received multiple regional and national awards for his research and extension efforts in urban pest management.

Dr. Cesar Rodriguez-Saona

This award recognizes an Eastern Branch member for outstanding contributions in Integrated Pest Management.

EASTERN BRANCH AWARD FOR EXCELLENCE IN INTEGRATED PEST MANAGEMENT

Dr. Cesar Rodriguez-Saona is a Professor and Extension Specialist in the Department of Entomology at Rutgers University. He earned his B.S. in Biology from the Universidad Nacional Agraria in Lima, Peru, in 1991, where he studied the life cycle, seasonal fluctuations, and parasitism rates of the recently introduced sweetpotato whitefly (*Bemisia tabaci*). Following graduation, Dr. Rodriguez-Saona moved to the United States in 1992 to pursue advanced studies in biological control of insect pests. In 1994, he obtained his M.S. in Entomology from Oregon State University, where his research focused on enhancing the effectiveness of lady beetles as biological control agents. He later earned his Ph.D. in Entomology in 1999 from the University of California, Riverside, working on the isolation and identification of novel insecticidal compounds derived from avocados. After completing his doctoral studies, Dr. Rodriguez-Saona conducted postdoctoral research at the USDA Cotton Research Laboratory (1999–2001), the University of Toronto (2001–2004), and Michigan State University (2004–2005). He joined Rutgers University in 2005, where his research centers on developing and implementing cost-effective, reduced-risk insect pest management practices for blueberries and cranberries. His work integrates chemical, behavioral, and biological control methods while advancing the ecological understanding of insect herbivores and their natural enemies. Dr. Rodriguez-Saona's extension program delivers actionable pest management strategies to growers through on-farm demonstration trials, presentations, and publications. He has authored or co-authored 165 peer-reviewed articles, 25 book chapters and invited publications, and 116 trade or non-peer-reviewed articles on insect pest management. He has mentored 34 graduate students (as advisor, co-advisor, or committee member), trained 13 postdoctoral researchers, supervised 23 undergraduate students, and hosted 12 visiting scholars. Dr. Rodriguez-Saona has secured over $9 million in research funding. In addition to his academic and research contributions, Dr. Rodriguez-Saona has held leadership roles, serving as President of both the Eastern Branch and the Plant-Insect Ecosystems (P-IE) Section of the Entomological Society of America. He is also an Editorial Board member for the *Journal of Economic Entomology* and a Subject Editor for *Environmental Entomology*.

Dr. Kelsey Tobin

This award honors an early career professional working in the field of entomology who has demonstrated excellence in research.

EASTERN BRANCH AWARD FOR EXCELLENCE IN EARLY CAREER RESEARCH AWARD

Dr. Kelsey Tobin is a postdoctoral research associate in the Department of Entomology at Cornell University, where her research focuses on chemical ecology, integrated pest management, and insect behavior in agroecosystems. Her interest in entomology began during her undergraduate studies at Xavier University, where she earned a B.S. in Biology and worked as a forest entomology technician. She later earned a Ph.D. in Forestry and Natural Resources from Purdue University, studying the applied ecology and management of ambrosia beetles in the Central Hardwood Forest Region.

At Cornell, Dr. Tobin has led research on improving mating disruption techniques for lepidopterans, implementing push-pull management for ambrosia beetles, and developing integrated pest management tools for apple pests. She shares her findings through peer-reviewed publications, conference presentations, and extension materials. By incorporating invasion biology principles into pest management, Dr. Tobin's work enhances early detection, rapid response, and ecosystem-based strategies to mitigate the impacts of pest insects while promoting ecological resilience.

Dr. Emily Struckhoff

This award honors an early career professional working in the field of entomology who has demonstrated excellence in Extension.

EASTERN BRANCH AWARD FOR EXCELLENCE IN EARLY CAREER EXTENSION, OUTREACH AND ENGAGEMENT AWARD

Dr. Emily Struckhoff is an Extension Program Specialist at Pennsylvania State University, specializing in vectors and vector-borne diseases. She received her B.S. in Biology from Saint Louis University, during which she worked as an Educator at the Saint Louis Science Center and as a Field Technician with the Saint Louis Zoo's Center for American Burying Beetle Conservation. Emily received her M.S. in Entomology from the University of Illinois Urbana-Champaign in 2022, where her research included conducting tick surveillance throughout the state of Illinois and developing tick identification tools. At Penn State Extension, Emily develops and delivers programming about ticks, mosquitoes, and other vectors throughout the state. Throughout her time with Penn State Extension, she has delivered over 50 extension presentations and workshops, participated in over 20 media interviews, and developed various fact sheets and short videos about vectors and vector-borne diseases. Her extension work also includes applied extension research regarding attitudes and opinions toward Lyme disease vaccination and hunters' risk of vector-borne diseases. Emily is currently the Eastern Branch Representative and Vice Chair of the Entomological Society of America's Early Career Professionals Committee.

Dr. Maria Cramer

The John Henry Comstock Award is sponsored by the Entomological Society of America and is given to an outstanding graduate student from each branch of ESA.

JOHN HENRY COMSTOCK GRADUATE STUDENT AWARD

Dr. Maria Cramer is a postdoctoral researcher at the University of Maryland under Dr. Kelly Hamby, with whom she completed her PhD in Entomology in 2024. In 2019, she received her PhD in Horticulture from Penn State University working with Dr. Richard Marini and Kathy Demchak on pest management in high tunnel red raspberry production. Cramer's doctoral research focused on unraveling the pest management benefits and non-target risks to predators of at-planting insecticides used for corn in the Mid-Atlantic region. She particularly focused on understanding the dynamics between predatory carabid beetles and pest slugs, including field studies on carabid communities and predation, as well as laboratory bioassays demonstrating that slugs can detect and avoid chemicals associated with predatory beetles. Her research adds valuable knowledge about how biocontrol can be used for slugs in field crops. Passionate about facilitating integrated pest management adoption, Cramer has prioritized extension communication and science outreach throughout her PhD. Outside of work, Cramer enjoys video games, quilting, shape-note singing, and foraging mushrooms.

Adam Scherr

The Eastern Branch of the Entomological Society of America recognizes an outstanding master's level graduate student through the presentation of the Asa Fitch Memorial Award.

ASA FITCH MEMORIAL AWARD

Adam Scherr received his master's degree in entomology from The Pennsylvania State University in December 2024 under the guidance of his advisors, Dr. Kelli Hoover and Dr. Gary Felton. His master's thesis project focused on determining the origin of plant hormones found in the saliva and tissues of the fall armyworm (*Spodoptera frugiperda*). While at Penn State, Adam also led the Entomology Games Team, and he was an active member in the Entomology Graduate Student Association, Graduate and Professional Outdoor Club, and Tuba Ensemble. He received his bachelor's degree in 2022 from The University of Delaware majoring in Insect Ecology and Conservation and Plant Science.

Program Overview

SATURDAY, MARCH 15		
Time	**Session/Function**	**Location**
9:00 AM - 4:00 PM	From Bites to Insights: Hands-on Ectoparasite and Vector Identification, Collection, and Surveillance Training	Chestnut/Dogwood Room, Sheraton Harrisburg Hershey Hotel
1:00 PM - 3:00 PM	Executive Committee Meeting	Hemlock, Sheraton Harrisburg Hershey Hotel
2:00 PM - 5:00 PM	The Amazing Ento-Race	Commonwealth Ballroom Foyer, Sheraton Harrisburg Hershey Hotel
2:00 PM - 6:00 PM	It's a Bug's World Setup	Commonwealth Ballroom, Sheraton Harrisburg Hershey Hotel
3:00 PM - 5:00 PM	Student Competition Presentation Preview	Commonwealth Ballroom Foyer, Sheraton Harrisburg Hershey Hotel
4:00 PM - 6:00 PM	Registration	Commonwealth Ballroom Foyer, Sheraton Harrisburg Hershey Hotel
5:00 PM - 7:00 PM	Welcome Reception	Salon CDE, Sheraton Harrisburg Hershey Hotel

SUNDAY, MARCH 16		
Time	**Session/Function**	**Location**
7:00 AM - 8:00 AM	Student Poster Setup	Commonwealth Ballroom Foyer, Sheraton Harrisburg Hershey Hotel
8:00 AM - 9:45 AM	Undergraduate 10-Minute Presentations	Chestnut/Dogwood Room, Sheraton Harrisburg Hershey Hotel
8:00 AM - 11:00 AM	Symposium: Advancing Vector Surveillance and Management in the Northeast: Ecology, Diseases, and Control	Elm/Fir Room, Sheraton Harrisburg Hershey Hotel
8:00 AM - 6:00 PM	Masters Posters	Commonwealth Ballroom Foyer, Sheraton Harrisburg Hershey Hotel
8:00 AM - 6:00 PM	PhD Posters	Commonwealth Ballroom Foyer, Sheraton Harrisburg Hershey Hotel
8:00 AM - 6:00 PM	Undergraduate Posters	Commonwealth Ballroom Foyer, Sheraton Harrisburg Hershey Hotel
9:30 AM - 10:00 AM	Break	Commonwealth Ballroom Foyer, Sheraton Harrisburg Hershey Hotel
10:00 AM - 12:30 PM	Masters 10-Minute Presentations	Chestnut/Dogwood Room, Sheraton Harrisburg Hershey Hotel

SUNDAY, MARCH 16 Continued		
10:00 AM - 4:00 PM	It's a Bug's World Event	Commonwealth Ballroom, Sheraton Harrisburg Hershey Hotel
1:00 PM - 2:00 PM	Q&A with Student Poster Presenters	Commonwealth Ballroom Foyer, Sheraton Harrisburg Hershey Hotel
2:00 PM - 5:00 PM	PhD 10-Minute Presentations I	Elm/Fir Room, Sheraton Harrisburg Hershey Hotel
2:00 PM - 5:00 PM	PhD 10-Minute Presentations II	Chestnut/Dogwood Room, Sheraton Harrisburg Hershey Hotel
4:00 PM - 5:00 PM	It's a Bug's World Breakdown	Commonwealth Ballroom, Sheraton Harrisburg Hershey Hotel
6:00 PM - 7:00 PM	Student Poster Removal	Commonwealth Ballroom Foyer, Sheraton Harrisburg Hershey Hotel
6:00 PM - 10:00 PM	Entomology Games	Chestnut/Dogwood Room, Sheraton Harrisburg Hershey Hotel

MONDAY, MARCH 17		
Time	**Session/Function**	**Location**
7:00 AM - 8:00 AM	Contributed Poster Setup	Commonwealth Ballroom Foyer, Sheraton Harrisburg Hershey Hotel
8:00 AM - 9:45 AM	Symposium: Impact of Federal Dismissals and Disruptions on Entomology and Entomologists	Elm/Fir Room, Sheraton Harrisburg Hershey Hotel
8:00 AM - 10:00 AM	Symposium: Does Creating Habitat for Natural Enemies Control Pests?	Chestnut/Dogwood Room, Sheraton Harrisburg Hershey Hotel
8:00 AM - 12:00 PM	Symposium: Insects as Food and Feed: Promises, Issues, and Opportunities	Salon CDE, Sheraton Harrisburg Hershey Hotel
8:00 AM - 5:00 PM	Contributed Posters	Commonwealth Ballroom Foyer, Sheraton Harrisburg Hershey Hotel
10:00 AM - 11:50 AM	Symposium: Carabid Beetles as Biocontrol Agents: Ecological and Agricultural Perspectives	Elm/Fir Room, Sheraton Harrisburg Hershey Hotel
10:00 AM - 12:00 PM	Symposium: Buzzing Into the Future: Empowering Early Career Entomologists	Chestnut/Dogwood Room, Sheraton Harrisburg Hershey Hotel
12:15 PM - 1:45 PM	Plenary and Awards Luncheon	Salon AB, Sheraton Harrisburg Hershey Hotel
2:00 PM - 4:30 PM	Evolution at Low Taxonomic Levels	Salon CDE, Sheraton Harrisburg Hershey Hotel
2:00 PM - 4:45 PM	Entomology Medley I: Submitted 10-Minute Papers	Chestnut/Dogwood Room, Sheraton Harrisburg Hershey Hotel

MONDAY, MARCH 17 Continued		
2:00 PM - 5:00 PM	Symposium: Digital Tools for Improved Insect Detection, Evaluation, and Prediction (IDEP)	Elm/Fir Room, Sheraton Harrisburg Hershey Hotel
4:00 PM - 5:00 PM	Q&A with Poster Presenters	Commonwealth Ballroom Foyer, Sheraton Harrisburg Hershey Hotel
4:45 PM - 5:45 PM	Governance Upgrade Town Hall with ESA President, Lina Bernaola	Salon CDE, Sheraton Harrisburg Hershey Hotel
5:00 PM - 6:00 PM	Contributed Poster Removal	Commonwealth Ballroom Foyer, Sheraton Harrisburg Hershey Hotel
5:45 PM - 6:30 PM	Chat with ESA Eastern Branch Governing Board Representative, Don Weber	Salon CDE, Sheraton Harrisburg Hershey Hotel
6:30 PM - 8:00 PM	Membership Meeting	Salon CDE, Sheraton Harrisburg Hershey Hotel
8:00 PM - 9:30 PM	Student and Early Career Professionals Mixer	Elm/Fir Room, Sheraton Harrisburg Hershey Hotel

TUESDAY, MARCH 18		
Time	**Session/Function**	**Location**
8:00 AM - 10:30 AM	Entomology Medley II: Submitted 10-Minute Papers	Chestnut/Dogwood Room, Sheraton Harrisburg Hershey Hotel
8:00 AM - 11:00 AM	Symposium: Seeing Things from a New *perspectalis*: Methods for Managing the Invasive Box Tree Moth (*Cydalima perspectalis*)	Salon CDE, Sheraton Harrisburg Hershey Hotel
8:00 AM - 12:00 PM	Symposium: Applied Agriculture Research Updates in the Eastern Branch	Elm/Fir Room, Sheraton Harrisburg Hershey Hotel

Scientific Program

Sunday, March 16, 2025, Morning

Advancing Vector Surveillance and Management in the Northeast: Ecology, Diseases, and Control

Elm/Fir Room (Sheraton Harrisburg Hershey Hotel)

Moderators and Organizers: Jennifer Mora[1,2], Alvaro Toledo[3], Ashley Kennedy[4] and Drew Lysaker[5], [1]Rutgers Univ., New Brunswick, NJ, [2]The Hartz Mountain Corporation, Secaucus, NJ, [3]Professor, New Brunswick, NJ, [4]Delaware Dept. of Natural Resources and Environmental Control, Newark, DE, [5]VectorED Network, Univ. Park, PA

8:00 Welcoming remarks

8:05 **1** PRESENTATION WITHDRAWN

8:21 **2** Insights on the phenology of the Asian longhorned tick (Haemaphysalis longicornis) using stored lipids. **Alvaro Toledo** (at922@sebs.rutgers.edu)[1], Matthew Bickerton[2] and Julia Gonzalez[3], [1]Professor, New Brunswick, NJ, [2]Graduate Student, New Brunswick, NJ, [3]Rutgers, The State Univ. of New Jersey, New Brunswick, NJ

8:37 **3** Vector surveillance in Delaware. **Vincenzo Ellis** (vaellis@udel.edu), Univ. of Delaware, Newark, DE

8:53 **4** Investigating tick, flea, and louse host associations in Delaware. **Ashley Kennedy** (Ashley.Kennedy@delaware.gov), Delaware Dept. of Natural Resources and Environmental Control, Newark, DE

9:09 **5** The host connection: From surveillance to solutions. **Erika Machtinger** (etm10@psu.edu), Pennsylvania State Univ., Univ. Park, PA

9:25 Break

9:35 **6** Phenology of ticks and pathogen prevalence at natural habitats associated with residentialproperties and a school in Maryland. **Andrew Li** (andrew.li@usda.gov)[1], Laura Beimfohr-Griffing[1], Saravanan Thangamani[2], Jennifer Mullinax[3] and Erika Machtinger[4], [1]USDA-ARS, Beltsville, MD, [2]Upstate Medical Univ., Syracuse, NY, [3]Wildlife Ecology and Management, College Park, MD, [4]Pennsylvania State Univ., Univ. Park, PA

9:51 **7** Considerations for blacklegged tick management in the peridomestic landscape. **Neeta P. Connally** (connallyn@wcsu.edu), Western Connecticut State Univ., Danbury, CT

10:07 **8** Fungal biopesticides to suppress host-seeking ticks. **Cheryl Sullivan** (Cheryl.Frank@uvm.edu), Univ. of Vermont, Burlington, VT

10:23 **9** TickSpotters: A crowd-sourced tick survey for tracking changing tick trends inRhode Island and beyond. **Thomas N. Mather** (tmather@uri.edu)[1], Roland J. Duhaime[1], James Occi[2] and Valeria MacDonald[1], [1]Univ. of Rhode Island, Kingston, RI, [2]New Jersey Dept. of Health, Ewing, NJ

10:39 Concluding remarks

Undergraduate 10-Minute Presentations

Chestnut/Dogwood Room (Sheraton Harrisburg Hershey Hotel)

Moderators:

8:00 Introductory Remarks

8:05 **10** Variations in the microstructural morphology and reflective capabilities of cover scales from a sexually dimorphic wing region of the summer azure butterfly, *Celastrina neglecta* (Edwards) (Lepidoptera: Lycaenidae: Polyommatinae). **Adam Willis** (willis6@otterbein.edu) and Jeffrey Lehman, Otterbein Univ., Westerville, OH

8:17 **11** Functional wing morphology in Odanata: Pterostigma and flight behavior. **Eva Gates** (elg5354@psu.edu), Penn State Altoona, Altoona, PA

8:29 **12** Dragonfly wing durability characteristics in *Aethriamanta rezia*. **Myah Massiah** (mmm8655@psu.edu)[1] and Kofi Adu[2], [1]Pennsylvania State Univ., State College, PA, [2]Pennsylvania State Univ., Altoona, PA

8:41 **13** Ghana's dragonfly diversity. **Rachel Desulme** (rvd5487@psu.edu), The Pennsylvania State Univ., Univ. Park, PA

8:53 **14** Spatiotemporal analysis of *Apis mellifera* foraging in a Brassica juncea field using bioacoustics. **James Underwood** (underwood.362@buckeyemail.osu.edu)[1], Luke Hearon[2], Chia Hua-Lin[3] and Reed Johnson[3], [1]Ohio State Univ., Columbus, OH, [2]The Ohio State Univ., Columbus, OH, [3]The Ohio State Univ., Wooster, OH

9:05 **15** Mowing for monarchs: Can strategic mowing practices improve monarch butterfly habitat in Connecticut? **Karena Kulakowski** (kkulakowski@my.ccsu.edu) and Kelsey Fisher, Connecticut Agricultural Experiment Station, New Haven, CT

9:17 **16** Soil amendment effects on squash production and soil-dwelling insects. **Finn Palaoro** (finn746@vt.edu)[1] and Ashley Jernigan[2], [1]Student, Blacksburg, VA, [2]Virginia Tech, School of Plant and Environmental Sciences, Blacksburg, VA

9:29 **17** Do glandular trichomes indirectly foster aphid outbreaks in alfalfa by suppressing biological control? **Yasmine Helbling** (yhelblin@terpmail.umd.edu) and William Lamp, Univ. of Maryland, College Park, MD

Masters Posters

Commonwealth Ballroom Foyer (Sheraton Harrisburg Hershey Hotel)

DSP1 Assessing the impact of diamide seed treatment insecticides on monarch butterfly (*Danaus plexippus*) and other insect populations. **Jillian Stewart** (jmstew98@umd.edu)[1], Luke Humke[1], Kelsey Fisher[2] and Niranjana Krishnan[1], [1]Univ. of Maryland, College Park, MD, [2]Connecticut Agricultural Experiment Station, New Haven, CT

DSP2 Synthesis review of rearing variable effects on farmed insect mass and survival. **Destiny Mann** (dmann@udel.edu), Univ. of Delaware, Newark, DE

DSP3 Mapping of hair types on the body of *Osmia cornifrons* (Hymenoptera: Megachilidae). **Nellie Heitzman** (nsheitzman@mix.wvu.edu) and Yong-Lak Park, West Virginia Univ., Morgantown, WV

DSP4 Pest spectrum and potential nontarget effects of a novel insecticide isocycloseram on sweet corn. **William Long** (williamlong22@vt.edu)[1], Thomas Kuhar[2] and Brian Currin[1], [1]Virginia Tech, Blacksburg, VA, [2]Virginia Polytechnic Institute and State Univ., Blacksburg, VA

DSP5 Ticks fighting ticks: Investigating co-feeding dynamics and host responses to invasive and native tick species. **Mia Esoldo** (mie5182@psu.edu) and Erika Machtinger, Pennsylvania State Univ., Univ. Park, PA

PhD Posters

Commonwealth Ballroom Foyer (Sheraton Harrisburg Hershey Hotel)

DSP6 Risk assessment models for predicting seedcorn maggot (*D. platura*) emergence and distribution in New York State. **Chloe Cho** (cyc58@cornell.edu)[1], Anna DiPaola[1], Shea Crowther[1], Alexa Stratton[1], Daniel Olmstead[2] and Katja Poveda[1], [1]Cornell Univ., Ithaca, NY, [2]Cornell Univ., Geneva, NY

DSP7 Can computers effectively detect crop pests? Evaluating a deep-learning model for watermelon pest detection on sticky cards **Kudzai Mafuwe** (kmafuwe@udel.edu)[1] and Michael Crossley[2], [1]university of delaware, newark, DE, [2]Univ. of Delaware, Newark, DE

DSP8 Multi-Family QTL study reveals protein-coding changes in chemoreceptor associated with host preference in the Northern house mosquito, *Cx. pipiens*. **Theresa Menna** (tmenna@umd.edu)[1], Anastasia Naumenko[2], Thea Bliss[1] and Megan Fritz[1], [1]Univ. of Maryland, College Park, MD, [2]Virginia Polytechnic Institute and State Univ., Blacksburg, VA

DSP9 Does nutrient availability mediate bottom-up effects in cranberry-phytoplasma-insect interactions? **Haotian Liu** (haotian.liu94@rutgers.edu)[1], James Polashock[2] and Cesar Rodriguez-Saona[1], [1]Rutgers, The State Univ. of New Jersey, New Brunswick, NJ, [2]USDA - ARS, Chatsworth, NJ

DSP10 What's for dinner? Molecular gut content analysis reveals slug predation by carabid beetles **Thabu Mugala** (mugala@udel.edu)[1], David R. Owens[2] and Michael Crossley[1], [1]Univ. of Delaware, Newark, DE, [2]Univ. of Delaware, Georgetown, DE

DSP11 Catch me if you can: Testing the utility of genomic data for detection of emerging pesticide resistance and prevention of the pesticide treadmill. **Abuzar Bhatty** (aubhatty@umd.edu)[1] and Megan Fritz[2], [1]PhD Student at The Univ. of Maryland, College Park, College Park, MD, [2]Univ. of Maryland, College Park, MD

DSP12 Long-lasting insecticide nets: A novel approach to mushroom phorid fly management. **Afure Ejomah** (aje5500@psu.edu), Fatima Diarra and Michael Wolfin, Pennsylvania State Univ., State College, PA

DSP13 POSTER WITHDRAWN

Undergraduate Posters

Commonwealth Ballroom Foyer (Sheraton Harrisburg Hershey Hotel)

DSP14 Generating rearing methods and life cycle data for the eastern-tailed blue butterfly (*Cupido comyntas*). **Margaret Kato** (mkato1@terpmail.umd.edu), Daffa Villandiar and Niranjana Krishnan, Univ. of Maryland, College Park, MD

DSP15 Systematics and comparative morphology of *Libellula* (Odonata: Libellulidae). **Susie Hodson** (susie.x.h3@gmail.com)[1], Makenzie LaNier[2] and Lacie Newton[3], [1]Smith College, Northampton, MA, [2]Eckerd College, St. Petersburg, FL, [3]New Jersey Institute of Technology, Newark, NJ

DSP16 Comparing *Halictus ligatus* morphology in New Jersey brownfields and greenfields. **Brock Shahinian** (hrs4@njit.edu), Sabrina Gerace, Vita Infurna, Linda Morin and Caroline DeVan, New Jersey Institute of Technology, Newark, NJ

DSP17 Ugly bugs need love too: The impact of attractiveness bias in insect conservation. **Alvaro Martinez** (aam6509@psu.edu)[1], Bart Masters[2], Patrick Dudas[2], Richard Harnish[3] and Brenna Traver[4], [1]Penn State Lehigh Valley, Center Valley, PA, [2]Penn State Univ., Univ. Park, PA, [3]Penn State New Kensington, New Kensington, PA, [4]Pennsylvania State Schuylkill, Schuylkill Haven, PA

DSP18 Monarchs, milkweeds, and microbes: The impact of AMF treatment on *Danaus plexippus* growth. **Paige Davis** (pdavis4292@westfield.ma.edu)[1] and Kathryn Weglarz[2], [1]Westfield State Univ., Westfield, MA, [2]Westfield State Universtiy, Westfield, MA

DSP19 Evaluating the efficacy of long-lasting insecticide nets as a method to control *Megaselia halterata* on mushroom farms. ***Fatima Diarra*** *(fmd5165@psu.edu), Afure Ejomah and Michael Wolfin, Pennsylvania State Univ.,* State College, PA

DSP20 A comparison of invasive and native leaf decomposition and its impact on macroinvertebrate assemblages in Maryland streams. **Katherine Siniuk** (katherinesiniuk@gmail.com) and William Lamp, Univ. of Maryland, College Park, MD

DSP21 POSTER WITHDRAWN

DSP22 The evolution and diversity of lacewing odorant binding proteins. **Lauren Black** (lblack16@terpmail.umd.edu), Megan Fritz and Katherine Taylor, Univ. of Maryland, College Park, MD

Masters 10-Minute Presentations

Chestnut/Dogwood Room (Sheraton Harrisburg Hershey Hotel)

Moderators:

10:00 Welcoming Remarks

10:05 **18** Evaluating vectors of *Theileria orientalis*. **Matt Sharpe** (matts184@vt.edu)[1], Benjamin L. Aigner[2], John Currin[1], Thomas Kuhar[2] and Gillian Eastwood[2], [1]Virginia Tech, Blacksburg, VA, [2]Virginia Polytechnic Institute and State Univ., Blacksburg, VA

10:17 **19** Time may tell: Calibrating honey bee flight duration as an estimate of distance flown. **Lindsay Johnson** (lejohnson23@vt.edu)[1], Tyler Shaw[1], Margarita M. Lopez-Uribe[2], Roger Schürch[1] and Margaret Couvillon[1], [1]Virginia Polytechnic Institute and State Univ., Blacksburg, VA, [2]Penn State Univ., State College, PA

10:29 **20** PRESENTATION WITHDRAWN

10:41 **21** Farm pond characteristics that promote dragonflies as conservation biological control agents over pasture habitats. **Amanda Brucchieri** (abrucchi@umd.edu) and William Lamp, Univ. of Maryland, College Park, MD

10:53 **22** Ecological intensification in forage systems increases soil arthropod diversity and feeding activity. **Robert Salerno** (rsalerno@umd.edu) and William Lamp, Univ. of Maryland, College Park, MD

11:05 **23** Assessing pesticide tank mix compatibility and combined toxicity effects on monarch butterfly larvae. **Michael Adu-Brew** (madubrew@umd.edu)[1], Sabrina Purtee[2] and Niranjana Krishnan[1], [1]Univ. of Maryland, College Park, MD, [2]Univ. of Maryland, College Park, College Park, MD

11:17 **24** Elm zigzag sawfly, *Aproceros leucopoda*, phenology and late season predation in New York. **Nicholas Durinzi** (ndurinzi@esf.edu) and Melissa K. Fierke, SUNY College of Environmental Science and Forestry, Syracuse, NY

11:29 **25** Feasibility of sampling environmental DNA from air for monitoring invasive spongy moth, *Lymantria dispar*. **Caine DeWitt** (cained@vt.edu), Nicolas Gustafson, Margaret Couvillon, Gabriel Isaacman-VanWertz, Shallon Jozi, Ksenia Onufrieva, Chin-Cheng (Scotty) Yang and Roger Schürch, Virginia Polytechnic Institute and State Univ., Blacksburg, VA

11:41 **26** Evaluating non-target effects of Combi-Protec®, a phagostimulant, on *Ganaspis kimorum*, a parasitoid of *Drosophila suzukii*. **Jack Collins** (jsc338@njaes.rutgers.edu)[1] and Cesar Rodriguez-Saona[2], [1]Rutgers, Lansdale, PA, [2]Rutgers, The State Univ. of New Jersey, New Brunswick, NJ

11:53 **27** Nutritional, foraging, and nesting behavior of solitary cavity nesting bees within the family Megachilidae. **Orion Pizzini** (obp5030@psu.edu)[1], Jaya Mokkapati[1], Michelle Lee[1], Natalie Boyle[2], Harland Patch[3] and Christina M. Grozinger[4], [1]Pennsylvania State Univ., State College, PA, [2]Penn State Univ., Univ. Park, PA, [3]Pennsylvania State Univ., Univ. Park, PA, [4]North Carolina State Univ., Raleigh, NC

12:05 **28** PRESENTATION WITHDRAWN

Sunday, March 16, 2025, Afternoon

PhD 10-Minute Presentations I

Elm/Fir Room (Sheraton Harrisburg Hershey Hotel)

Moderators:

2:00 Introductory Remarks

2:05 **29** Rooting out Virginia's wireworms: Novel insecticide application and pest management. **Hannah Swarm** (HannahSwarm711@vt.edu)[1] and Thomas Kuhar[2], [1]Virginia Tech, Blacksburg, VA, [2]Virginia Polytechnic Institute and State Univ., Blacksburg, VA

2:17 **30** Optimizing a semiochemical-based management system for striped cucumber beetles. **Demian Nunez** (demiann1@vt.edu) and Thomas Kuhar, Virginia Polytechnic Institute and State Univ., Blacksburg, VA

2:29 **31** Pollinators in focus: Are cameras a tool for investigating pollinators in pumpkins? **Courtney Walls** (courw97@vt.edu) and James Wilson, Virginia Polytechnic Institute and State Univ., Blacksburg, VA

2:41 **32** Adaptations in important processes of egg cell formation are seen in the primitively eusocial paper wasp (*Polistes*). **Laura Miller** (lem344@drexel.edu), Sean O'Donnell and Kari Lenhart, Drexel Univ., Philadelphia, PA

2:53 **33** Plant defense polycultures impact potato aphid (*Macrosiphum euphoribae*) population growth and predation. **Rowda Altamimi** (rta5108@psu.edu), Bijay Subedi, Danilo dos Santos and Mônica Kersch-Becker, Pennsylvania State Univ., State College, PA

3:05 **34** Multi-functional roles of a male-specific antennal odorant binding protein in Colorado potato beetle, *Leptinotarsa decemlineata*. **James Abendroth** (Jaa6479@psu.edu)[1], Casey Cruse[2], Michael Wolfin[1], Timothy Moural[1] and Fang Zhu[1], [1]Pennsylvania State Univ., State College, PA, [2]USDA-ARS, Corvallis, OR

3:17 **35** What is an associate? Predators, parasitoids, competitors, symbionts, and hangers-on in the southern pine beetle community **Caroline Kanaskie** (caroline.kanaskie@unh.edu)[1], Richard Hofstetter[2], Kier Klepzig[3], Fred Stephen[4] and Jeff Garnas[1], [1]Univ. of New Hampshire, Durham, NH, [2]Northern Arizona Univ., Flagstaff, AZ, [3]The Jones Center at Ichauway, Newton, GA, [4]Univ. of Arkansas, Fayetteville, AR

3:29 Break

3:47 **36** Understanding how applications of the predatory mite *Stratiolaelaps scimitus* to control *Megaselia halterata* on mushroom farms affects the transmission of fungal disease. **Luke Reynolds** (lcr5222@psu.edu)[1], Janessa Roney[1], Caitlyn Dionysius[1], Ryan Gladwin[1], Fatima Diarra[2] and Michael Wolfin[2], [1]Penn State Univ., State College, PA, [2]Pennsylvania State Univ., State College, PA

3:59 **37** A twisted tree: Evaluating targeted enrichment methods in reconstructing a phylogeny of Strepsiptera. **Rebecca Jean Millena** (rmillena@amnh.org) and Jessica Ware, American Museum of Natural History, New York, NY

4:11 **38** Artificially priming plant defenses reduces herbivory but not herbivore abundance in squash (*Cucurbita pepo*). **Nina Devine** (ngd5121@psu.edu), Bijay Subedi, Danilo dos Santos and Mônica Kersch-Becker, Pennsylvania State Univ., State College, PA

4:23 **39** A systematic revision of the dragonfly genus *Erythemis* Hagen, 1861 (Anisoptera: Odonata). **Katherine Montana** (kmontana@amnh.org) and Jessica Ware, American Museum of Natural History, New York, NY

4:35 **40** Enhancing mushroom pest management: Novel application of *Steinernema carpocapsae* for control of *Megaselia halterata* on Pennsylvania mushroom farms. **Malachi Brought** (mmb6465@psu.edu)[1] and Michael Wolfin[2], [1]Pennsylvania State Univ., Univ. Park, PA, [2]Pennsylvania State Univ., State College, PA

4:47 **41** Aerial release of *Aphalara itadori* (Hemiptera: Psyllidae): Biological control of Japanese knotweed using drone. **Kushal Naharki** (kushalnaharki@gmail.com)[1], Roghaiyeh Karimzadeh[2] and Yong-Lak Park[1], [1]West Virginia Univ., Morgantown, WV, [2]Univ. of Tabriz, Tabriz, Iran

PhD 10-Minute Presentations II

Chestnut/Dogwood Room (Sheraton Harrisburg Hershey Hotel)

Moderators:

2:00 Introductory Remarks

2:05 **42** Uncovering the impact of domestication on herbivore-induced gene expression in blueberries. **Jae Kerstetter** (jae.kerstetter@rutgers.edu)[1], Cesar Rodriguez-Saona[1], James Polashock[2], Joseph Kawash[2] and Chloe Hawkings[1], [1]Rutgers, The State Univ. of New Jersey, New Brunswick, NJ, [2]USDA - ARS, Chatsworth, NJ

2:17 **43** Impact of pollen nutritional composition on bumble bee foraging preferences and colony development. **Ethan Dean** (emd6071@psu.edu) and Heather M. Hines, Pennsylvania State Univ., Univ. Park, PA

2:29 **44** Acute thermal tolerance correlates with environmental temperature in *Culex pipiens* Assemblage larvae. **Benjamin Gregory** (bgregor1@umd.edu) and Megan Fritz, Univ. of Maryland, College Park, MD

2:41 **45** Investigating the effects of *Isotomiella minor* (Collembola) on seedling development. **Haylie Brown** (brownhj@vt.edu)[1], Ravneet Kaur[1], Courtney Leisner[1] and Ashley Jernigan[2], [1]Virginia Tech, Blacksburg, VA, [2]Virginia Tech, School of Plant and Environmental Sciences, Blacksburg, VA

2:53 **46** Nutritional self-medication in virus-infected fire ants. **Fang-Ling (Chloe) Liu** (fangling@vt.edu)[1] and Chin-Cheng (Scotty) Yang[2], [1]Virginia Tech, Blacksburg, VA, [2]Virginia Polytechnic Institute and State Univ., Blacksburg, VA

3:05 **47** A new bristle-claw mantis from ancient Colorado illuminates novel morphology in extinct mantises. **Lohitashwa Garikipati** (lgarikipati@amnh.org), American Museum of Natural History, New York, NY

3:17 **48** Identifying *Lycorma delicatula* host choice using eDNA. **Katarzyna Madalinska** (kasia.madalinska.05@gmail.com)[1] and Anne Nielsen[2], [1]Rutgers, The State Univ. of New Jersey, Bridgeton, NJ, [2]Rutgers, The State Univ. of New Jersey, New Brunswick, NJ

3:29 Break

3:47 **49** Utilizing insecticide-treated fabric as a method of control for bed bugs (Cimex *lectularius*) infesting poultry production facilities. **Valeria Lee** (vfl5063@psu.edu) and Erika Machtinger, Pennsylvania State Univ., Univ. Park, PA

3:59 **50** Deliver us from weevil: Documenting flight parameters and spatial distribution to uncover dispersal patterns in ambrosia beetle (Coleoptera: Curculionidae). **Devin Calpo** (devinc21@vt.edu), Julie Brindley and Alejandro Del-Pozo, Virginia Polytechnic Institute and State Univ., Virginia Beach, VA

4:11 **51** Fiery friends pickle pests… Or do they? High temperatures augment honey bee (*Apis mellifera*) symbiont-mediated antiparasitic activity **Lindsey Markowitz** (lindseymarkowitz@gmail.com)[1,2], Jessica Garbarczyk[2], Evan Palmer-Young[2] and Jay Evans[2], [1]Univ. of Maryland, College Park, College Park, MD, [2]USDA-ARS, Beltsville, MD

4:23 **52** Fruit domestication impacts oviposition preference and performance of a parasitoid wasp. **Yahel Ben-Zvi** (y.bz@rutgers.edu) and Cesar Rodriguez-Saona, Rutgers, The State Univ. of New Jersey, New Brunswick, NJ

4:35 **53** AntDNA: A novel method for spotted lanternfly detection. **Wei-Jiun Lin** (bnw16238@gmail.com)[1,2], Fang-Ling Liu[2], Xun-Yi Huang[1], Alejandro Del-Pozo[3], Tracy Leskey[4] and Chin-Cheng (Scotty) Yang[2], [1]National Taiwan Univ., Taipei, Taipei, Taiwan, [2]Virginia Polytechnic Institute and State Univ., Blacksburg, VA, [3]Virginia Polytechnic Institute and State Univ., Virginia Beach, VA, [4]USDA-ARS, Kearneysville, WV

4:47 **54** Evaluating mating disruption technologies for managing diamondback moth populations in Virginia. **Taylore Sydnor** (tsydnor5@vt.edu)[1], Thomas Kuhar[1], Alejandro Del-Pozo[2], Brent Short[3] and Markandeya Gorantla[4], [1]Virginia Polytechnic Institute and State Univ., Blacksburg, VA, [2]Virginia Polytechnic Institute and State Univ., Virginia Beach, VA, [3]Trécé Inc., Adair, OK, [4]ISCA Technologies, Kalthur, India

Monday, March 17, 2025, Morning

Does Creating Habitat for Natural Enemies Control Pests?

Chestnut/Dogwood Room (Sheraton Harrisburg Hershey Hotel)

Moderators and Organizers: Amara Dunn-Silver[1] and Heather Grab[2], [1]Cornell Univ., Geneva, NY, [2]Pennsylvania State Univ., Univ. Park, PA

8:00 **55** Evaluating the effectiveness of conservation biological control in New York and across the globe. **Heather Grab** (heathergrab@psu.edu)[1], Gregory Loeb[2] and Katja Poveda[3], [1]Pennsylvania State Univ., Univ. Park, PA, [2]Cornell Univ., Geneva, NY, [3]Cornell Univ., Ithaca, NY

8:18 **56** Can interplanted red clover improve biological control in vegetable systems? **Veronica Yurchak** (vjohnso4@umd.edu)[1], Leo Kerner[2], Hanna Kahl[3] and Cerruti Hooks[2], [1]Univ. of Maryland, Queenstown, MD, [2]Univ. of Maryland, College Park, MD, [3]Community Alliance with Family Farmers, Davis, CA

8:36 **57** Managing agricultural drainage ditches to improve conservation biological control. **Simon Zebelo** (sazebelo@umes.edu), Shelly-Ann Henry and Tigist Tolosa, Univ. of Maryland Eastern Shore, Princess Anne, MD

8:54 Break

9:04 **58** Companion planting in high tunnel tomato. **Samantha Willden** (saw326@cornell.edu)[1] and Laura Ingwell[2], [1]Cornell Univ., Geneva, NY, [2]Purdue Univ., West Lafayette, IN

9:22 **59** Landscape effects on larval parasitism of spotted-wing drosophila (*Drosophila suzukii*) in the Northeastern United States. **Chloe Cho** (cyc58@cornell.edu)[1], Philip Fanning[2], Cesar Rodriguez-Saona[3], Gregory Loeb[4] and Katja Poveda[1], [1]Cornell Univ., Ithaca, NY, [2]Univ. of Maine, Orono, ME, [3]Rutgers, The State Univ. of New Jersey, New Brunswick, NJ, [4]Cornell Univ., Geneva, NY

9:40 Panel discussion

Insects as Food and Feed: Promises, Issues, and Opportunities

Salon CDE (Sheraton Harrisburg Hershey Hotel)

Moderators and Organizers: William Lamp, Helen Craig, William Lamp and Helen Craig, Univ. of Maryland, College Park, MD

8:00 Introductory remarks

8:10 **60** Synthesis review of factors affecting growth and survival of farmed insect species. **Destiny Mann** (dmann@udel.edu)[1] and Michael Crossley[2], [1]Univ. of Delaware, Newark, DE, [2]Univ. of Delaware, Newark, DE 19716, DE

8:30 **61** Digesting the indigestible: The potential of dermestes maculatus larvae as a cost-effective source of high-quality protein. **Alexander Rudin** (anr56@sebs.rutgers.edu)[1], Lena Brattsten[2] and Joseph Dixon[2], [1]Rutgers School of Environmental and Biological Sciences, New Brunswick, NJ, [2]Rutgers Univ., New Brunswick, NJ

8:50 **62** PRESENTATION WITHDRAWN

9:10 **63** Evaluating black soldier fly larva meal as a climate mitigating protein supplement for dairy cattle. **Helen Craig** (hcraig3@umd.edu)[1], Eduardo Rico[2] and William Lamp[1], [1]Univ. of Maryland, College Park, MD, [2]Univ. of Pennsylvania, Kennett Square, PA

9:30 Break

9:40 **64** Worldwide worms: Black soldier fly larvae as a sustainable feed solution. **Eduardo Rico** (ricoe@vet.upenn.edu)[1] and Ellen Dierenfeld[2], [1]Univ. of Pennsylvania, Kennett Square, PA, [2]World Wildlife Fund, Washington, DC

10:00 **65** Advancing insect agriculture: Research, innovation, and sustainability. **Cheryl Preyer** (cheryl.preyer@gmail.com)[1], Jeffery Tomberlin[2], Heather Jordan[3] and Christine Picard[4], [1]CEIF Industry Liaison Officer, College Station, TX, [2]Texas A&M Univ., College Station, TX, [3]Mississippi State Univ., Mississippi State, MS, [4]Indiana Univ.-Purdue Univ. Indianapolis, Indianapolis, IN

10:20 **66** Beyond fish meal – what the future of insect products could look like. **Ian Banks** (ian.banks@enviroflight.net), Director of Regulatory Affairs; EnviroFlight, LLC, Apex, NC

10:40 **67** PRESENTATION WITHDRAWN

11:00 Discussion

Contributed Posters

Commonwealth Ballroom Foyer (Sheraton Harrisburg Hershey Hotel)

DSP23 Establishing thresholds for corn earworm management in sweet corn. **Brian Currin** (briancurrin@vt.edu)[1] and Thomas Kuhar[2], [1]Virginia Tech, Blacksburg, VA, [2]Virginia Polytechnic Institute and State Univ., Blacksburg, VA

DSP24 How can ESA help you succeed? **Stacie East** (seast@entsoc.org) and Chris Stelzig, Entomological Society of America, Annapolis, MD

DSP25 Port survey by-catch bonanza: A windfall of wood boring and associated woodland insects. **Eric Day** (ericday@vt.edu)[1], Theresa Dellinger[1], Amber Thompson[1] and Jackson Means[2], [1]Virginia Polytechnic Institute and State Univ., Blacksburg, VA, [2]Virginia Museum of Natural History, Martinsville, VA

DSP26 Leveraging pollen metabarcoding and citizen science to build regionally specific seed mixes for spring-flying bees. **Kelly Bennett** (klb6219@psu.edu)[1], Morgan Scalici[2], Justina Block[2] and Natalie Boyle[1], [1]Penn State Univ., Univ. Park, PA, [2]Osmia Bee Company, Cincinnati, OH

DSP27 A bounteous bark beetle bycatch bonanza, or so many little brown beetles (Coleoptera: Curculionidae: Scolytinae and Platypodinae). **Theresa Dellinger** (tdellin@vt.edu), Eric Day and Amber Thompson, Virginia Polytechnic Institute and State Univ., Blacksburg, VA

DSP28 POSTER WITHDRAWN

DSP29 Insect aggregation pheromones: How can we deploy them for vegetable IPM? **Donald Weber** (Don.Weber@usda.gov) and Anna Wallingford, USDA Agricultural Research Service, Beltsville, MD

DSP30 POSTER WITHDRAWN

DSP31 Seasonal diversity, phenology, and management of billbugs, *Sphenophorus* spp. (Coleoptera: Curculionidae) in New England. **Olga Kostromytska** (okostromytsk@umass.edu)[1] and Maria Jacome[2], [1]Univ. of Massachusetts Amherst, Amherst, MA, [2]Univ. of Massachusetts, Amherst, MA

DSP32 Incidence of *Delia* spp. in onion fields and its impact on insecticide seed treatment performance. **Leonardo Salgado** (lds223@cornell.edu)[1], Alan G. Taylor[2], Robert Wilson[3], Mary Ruth McDonald[4], Stuart Reitz[5] and Brian Nault[1], [1]Cornell Univ., Cornell AgriTech, Geneva, NY, [2]Cornell Univ., NYSAES, Geneva, NY, [3]Division of Agriculture and Natural Resources, Tulelake, CA, [4]Univ. of Guelph, Guelph, ON, Canada, [5]Oregon State Univ., Ontario, OR

DSP33 POSTER WITHDRAWN

DSP34 Upcycling food waste with insect allies. **Michael Crossley** (crossley@udel.edu), Univ. of Delaware, Newark, DE

DSP35 Acaricide resistance monitoring and structural insights for precision two-spotted spider mite management. **Qi-ren Chen** (qfc5054@psu.edu)[1], Said Kewedar[1], Timothy Moural[1], Douglas Walsh[2] and Fang Zhu[1], [1]Pennsylvania State Univ., State College, PA, [2]Washington State Univ., Prosser, WA

DSP36 Flannel, something to drag on about: A literature review of blacklegged tick collection materials. **Lydia Zimmerman** (lydzimmerm@pa.gov)[1], Keith Price[1], Bryn Cosklo[1], Katelyn Hagens[2], Dennis Keen Jr.[1] and Thomas Simmons[2], [1]Pennsylvania Dept. of Environmental Protection, Harrisburg, PA, [2]Indiana Univ. of Pennsylvania, Indiana, PA

DSP37 Vegetation surveys of long-term tick surveillance sites. **Veronica Bobskill** (vbobskill@umass.edu)[1,2], Johanna Ravenhurst[1,2] and Andrew Lover[1,2], [1]New England Regional Center of Vector-borne Diseases, Amherst, MA, [2]Univ. of Massachusetts, Amherst, MA

DSP38 Evaluating the efficacy of thermacell tick tubes. **Gabriella Proleika** (gmp5495@psu.edu), Kylie Green and Erika Machtinger, Pennsylvania State Univ., Univ. Park, PA

DSP39 Reproductive diapause and ovary activation in *Polistes exclamans*. **Ella McVerry** (esm73@drexel.edu), Drexel Univ., Philadelphia, PA

DSP40 Rethinking red-headed flea beetle management: Integrating alternative pesticides and irrigation strategies for sustainable nursery production. Julie Brindley[1], **Jason Bielski** (jbiel654@vt.edu)[2] and Alejandro Del-Pozo[1], [1]Virginia Polytechnic Institute and State Univ., Virginia Beach, VA, [2]Virginia Polytechnic Institute and State Univ., Blacksburg, VA

DSP41 Monitoring the susceptibility of field-collected annual bluegrass weevils to pyrethroids in Virginia. Kaylee Armstrong[1], Julie Brindley[1], Thomas Kuhar[2] and **Alejandro Del-Pozo** (adelpozo@vt.edu)[1], [1]Virginia Polytechnic Institute and State Univ., Virginia Beach, VA, [2]Virginia Polytechnic Institute and State Univ., Blacksburg, VA

DSP42 Validation of inexpensive environmental DNA air samplers under laboratory and field conditions. Nicolas Gustafson (nicgustafson1@vt.edu), Caine DeWitt, Gabriel Isaacman-VanWertz, Shallon Jozi, Chin-Cheng (Scotty) Yang and Roger Schürch, Virginia Polytechnic Institute and State Univ., Blacksburg, VA

Buzzing Into the Future: Empowering Early Career Entomologists

Chestnut/Dogwood Room (Sheraton Harrisburg Hershey Hotel)

Moderators and Organizers: Niranjana Krishnan[1], Emily Struckhoff[2] and Abigail Hayes[3], [1]Univ. of Maryland, College Park, MD, [2]Pennsylvania State Univ., Univ. Park, PA, [3]Univ. of Virginia, Charlottesville, VA

10:00 Welcoming remarks

10:05 **68** My unicorn job: What it is like to work in a state government research position. **Kelsey Fisher** (Kelsey.Fisher@ct.gov), Connecticut Agricultural Experiment Station, New Haven, CT

10:20 **69** Government career opportunities in public health entomology. **Ashley Kennedy** (Ashley.Kennedy@delaware.gov), Delaware Dept. of Natural Resources and Environmental Control, Newark, DE

10:35 **70** The ECP perspective: Challenges, growth, and opportunities in extension. **Patricia Prade** (prade@psu.edu), Penn State Extension, Lebanon, PA

10:50 **71** Postdoctoral fellowships: How to apply and how to survive. **Abigail Hayes** (abigailhayesphd@gmail.com), Univ. of Virginia, Charlottesville, VA

11:05 **72** Taking the scenic route to/through science. **Sheryl Hosler** (sxh5090@psu.edu), Pennsylvania State Univ., Univ. Park, PA

11:20 **73** Winging my way into entomology. **Elizabeth Clifton** (elizabeth.marie.clifton@gmail.com), Univ. of New Hampshire, Durham, NH

11:35 Discussion

11:55 Concluding remarks

Impact of Federal Dismissals and Disruptions on Entomology and Entomologists

Elm/Fir Room (Sheraton Harrisburg Hershey Hotel)

Moderators and Organizers: Armando Rosario-Lebron[1]. [1]National Association of Agriculture Employees

8:00 Welcoming remarks

This symposium will bring together recently fired entomologists from across the executive branch to share their experiences, describe their work, and discuss the impact these changes by the administration will have on America, food security, health and safety, and other topics of entomological relevance.

9:45 Concluding Remarks

Carabid Beetles as Biocontrol Agents: Ecological and Agricultural Perspectives

Elm/Fir Room (Sheraton Harrisburg Hershey Hotel)

Moderators and Organizers: Thabu Mugala[1] and Maria Cramer[2], [1]Univ. of Delaware, Newark, DE, [2]Univ. of Maryland, College Park, MD

10:00 Welcoming remarks

10:05 **74** Ground beetles in corn-soybean rotation systems: Diversity and implications for biological control. **Armando Falcon-Brindis** (afalconbrindis@uidaho.edu), Univ. of Idaho, Parma, ID

10:25 **75** Impacts of delayed mowing and straw application practices on ground beetles (Coleoptera: Carabidae) in agricultural drainage ditches. **Alireza Shokoohi** (shokoohi@umd.edu), Univ. of Massachussetts, Amherst, MA

10:45 **76** Leveraging carabid beetles: Understanding slugs in corn and the role of natural enemies. **Maria Cramer** (MariaCramer5610@gmail.com) and Kelly Hamby, Univ. of Maryland, College Park, MD

11:05 **77** PRESENTATION WITHDRAWN

11:25 **78** The hidden role of ground beetles in slug control: Evidence from molecular gut content analysis. **Thabu Mugala** (mugala@udel.edu)[1], Michael Crossley[2] and David Owens[3], [1]Univ. of Delaware, Newark, DE, [2]Univ. of Delaware, Newark, DE 19716, DE, [3]Univ. of Delaware Cooperative Extension, Newark, DE

11:45 Concluding remarks

Monday, March 17, 2025, Afternoon

Digital Tools for Improved Insect Detection, Evaluation, and Prediction (IDEP)

Elm/Fir Room (Sheraton Harrisburg Hershey Hotel)

Moderators and Organizers: Laura Nixon[1], Hannah Broadley[2] and Caroline Kanaskie[3], [1]USDA-ARS, Kearneysville, WV, [2]USDA-APHIS-PPQ-S&T, Buzzards Bay, MA, [3]Univ. of New Hampshire, Durham, NH

2:00 Introductory remarks

2:05 **79** Using a geographic approach for invasive species response. **Mannin Dodd** (hdodd@vt.edu), Virginia Tech, Blacksburg, VA

2:30 **80** Drones, sensors, and deep learning for detection and evaluation of insect pests and their damage. **Yong-Lak Park** (yong-lak.park@mail.wvu.edu), West Virginia Univ., Morgantown, WV

2:55 **81** Automatically capturing movement: Taking a point and shoot camera and making it motion sensitive. **Courtney Walls** (courw97@vt.edu)[1], Margaret Couvillon[1], Thomas Kuhar[1], T'ai Roulston[2,3], Chin-Cheng (Scotty) Yang[1] and James Wilson[1], [1]Virginia Polytechnic Institute and State Univ., Blacksburg, VA, [2]Univ. of Virginia, Charlottesville, VA, [3]Univ. of Virginia, Boyce, VA

3:20 Break

3:35 **82** Birds biting bad bugs: Social media as a tool for researching predators of spotted lanternfly. **Anne Johnson** (aej5228@psu.edu)[1], Allison Cornell[2], Sara Hermann[1], Fang Zhu[3] and Kelli Hoover[1], [1]Pennsylvania State Univ., Univ. Park, PA, [2]Pennsylvania State Univ., Altoona, PA, [3]Pennsylvania State Univ., State College, PA

4:00 **83** Using EDDMapS to customize data reporting, management, and visualization to match your audience. **Rebekah Wallace** (bekahwal@uga.edu), Joseph LaForest and C. T. Bargeron, Univ. of Georgia, Tifton, GA

4:25 **84** What's bugging you? **Daniel Gilrein** (dog1@cornell.edu), Cornell Cooperative Extension of Suffolk County, Riverhead, NY

4:50 Concluding remarks

4:55 IDEP Committee meeting

Evolution at Low Taxonomic Levels

Salon CDE (Sheraton Harrisburg Hershey Hotel)

Moderators and Organizers: Anahí Espíndola[1], Taís Ribeiro[2], Stephania Sandoval Arango[3], Anahí Espíndola[1], Taís Ribeiro[2] and Stephania Sandoval Arango[3], [1]Univ. of Maryland, College Park, MD, [2]Univ. of Maryland, College Park, College Park, MD, [3]USDA-ARS, Beltsville, MD

2:00 Concluding remarks

2:00 Introductory remarks

2:05 **85** The phylogeographic shortfall in Hexapods: Applications, methods and what we don't know. Jordan Satler[1], Bryan Carstens[1], Ryan Garrick[2] and **Anahí Espíndola** (anahiesp@umd.edu)[3], [1]The Ohio State Univ., Columbus, OH, [2]Univ. of Mississippi, Univ., MS, [3]Univ. of Maryland, College Park, MD

2:25 **86** Gene amplification as a driver of insect adaptation to transgenic Bt crops. **Megan Fritz** (mfritz13@umd.edu)[1] and Katherine Taylor[2], [1]Univ. of Maryland, College Park, MD, [2]Hofstra Univ., Hempstead, NY

2:45 **87** Using ultraconserved elements for questions below the species level. **Stephania Sandoval Arango** (s.sandoval793@gmail.com), USDA-ARS, Beltsville, MD

3:05 Break

3:20 **88** An integrative approach to male polymorphism in *Forsteropsalis pureora* (Arachnida: Opiliones). **Pietro Tardelli Canedo** (tardelli@gwmail.gwu.edu)[1], Shahan Derkarabetian[2], Tom Nguyen[3], Hannah Wood[4], Gonzalo Giribet[2] and Gustavo Hormiga[5], [1]The George Washington Univ., Washington DC, DC, [2]Harvard Univ., Cambridge, MA, [3]National Museum of Natural History, Washington DC, DC, [4]National Museum of Natural History, Washington, DC, DC, [5]George Washington Univ., Washington, DC

3:40 **89** Phylogenomics and codiversification between *Acropyga* herder ants and their root mealybug symbionts. **Seán Brady** (bradys@si.edu)[1], Jeffrey Sosa-Calvo[2], Dietrich Gotzek[3], Scott Schneider[4] and John S. LaPolla[5], [1]Smithsonian Institution, National Museum of Natural History, Washington, DC, [2]Smithsonian Institution, Washington, DC, [3]Univ. of Hohenheim, Stuttgar, na, Germany, [4]USDA, Beltsville, MD, [5]Towson Univ., Towson, MD

4:00 **90** The role of multimodal premating signals in the rapid radiation of cryptic green lacewing species. **Katherine Taylor** (katherine.l.taylor@hofstra.edu)[1], Elizabeth Wade[2], Marta Wells[3] and Charles Henry[4], [1]Hofstra Univ., Hempstead, NY, [2]Curry College, Milton, MA, [3]Yale Univ., New Haven, CT, [4]Univ. of Connecticut, Storrs, CT

4:20 Discussion

Entomology Medley I: Submitted 10-Minute Papers

Chestnut/Dogwood Room (Sheraton Harrisburg Hershey Hotel)

Moderators:

2:00 **91** Do small, manicured pollinator gardens support bumblebee (*Bombus* sp.) success? **Caleb Bryan** (caleb.bryan@usask.ca) and Kelsey Fisher, Connecticut Agricultural Experiment Station, New Haven, CT

2:12 **92** Harnessing the power of pollinators: Optimizing habitat management for bee health. **Akeem Oyerinde** (oyerindehyphae2002@gmail.com) and Ismaila Aderolu, Univ. of Abuja, Abuja, FCT, Nigeria

2:24 **93** Arthropod biodiversity and ecosystem service of grassy native areas on the golf course. **Olga Kostromytska** (okostromytsk@umass.edu)[1] and Sanjok Timalsina[2], [1]Univ. of Massachusetts Amherst, Amherst, MA, [2]Univ. of Massachusetts, Amherst, MA

2:36 **94** Assessment of pollination in blueberries reveals importance of management practices and lack of bee diversity. **Beth Ferguson** (my490@njaes.rutgers.edu)[1], James Shope[2] and Cesar Rodriguez-Saona[3], [1]Rutgers Univ., Chatsworth, NJ, [2]Rutgers Univ., New Brunswick, NJ, [3]Rutgers, The State Univ. of New Jersey, New Brunswick, NJ

2:48 **95** Identification of spider endosymbionts from low-coverage genome sequence data: A preliminary analysis. **Rachel Skinner** (rbs5994@psu.edu), Penn State Univ. Brandywine, Media, PA

3:00 Break

3:18 **96** Sabotage of insect epigenetics by sulforaphane: How cruciferous plants inhibit histone deacetylases, manipulate gene expression, and disrupt development in lepidopterans. **Thomas Arnold** (arnoldt@dickinson.edu), Dana Somers and David Kushner, Dickinson College, Carlisle, PA

3:30 **97** Can healthy soil make healthy people? Investigating the impact of soil biota on micronutrient uptake in snap beans **Ashley Jernigan** (ajernigan@vt.edu)[1] and Dennis Cladis[2], [1]Virginia Tech, School of Plant and Environmental Sciences, Blacksburg, VA, [2]Virginia Tech, Blacksburg, VA

3:42 **98** Movement of seedcorn maggot *Delia platura* between habitats. **Shea Crowther** (sc2859@cornell.edu), Chloe Cho, Alexa Stratton and Katja Poveda, Cornell Univ., Ithaca, NY

3:54 **99** PRESENTATION WITHDRAWN

4:06 **100** Compensating for the Rdl point mutation by altering nervous system function: A new paradigm for multimodal insecticide resistance. **Aaron Gross** (adgross@vt.edu), Allison Porter, Brandon Bickley and Na Xie, Virginia Polytechnic Institute and State Univ., Blacksburg, VA

Tuesday, March 18, 2025, Morning

Applied Agriculture Research Updates in the Eastern Branch

Elm/Fir Room (Sheraton Harrisburg Hershey Hotel)

Moderators and Organizers: Kyle Bekelja[1], Tim Bryant[2] and Kelly McIntyre[3], [1]Virginia Polytechnic Institute and State Univ., Blacksburg, VA, [2]Virginia Polytechnic Institute and State Univ., Suffolk, VA, [3]Virginia Polytechnic Institute and State Univ., Winchester, VA

8:00 **101** Hunting for slug parasitic nematodes in the Eastern US. **Michael Crossley** (crossley@udel.edu)[1] and Thabu Mugala[2], [1]Univ. of Delaware, Newark, DE 19716, DE, [2]Univ. of Delaware, Newark, DE

8:15 **102** Reducing incidence of iris yellow spot virus in onion fields by targeting its thrips vector early in the season. **Brian Nault** (ban6@cornell.edu)[1] and Lidia Komondy[2], [1]Cornell Univ., Cornell AgriTech, Geneva, NY, [2]Cornell Univ., Ithaca, NY

8:30 **103** Preventative insectides reduce injury but do not increase yield in Bt and non-Bt corn. **Kelly Hamby** (kahamby@umd.edu) and Maria Cramer, Univ. of Maryland, College Park, MD

8:45 **104** Nature finds a way: Evidence of European corn borer practical resistance to Bt corn in Connecticut. **Kelsey Fisher** (Kelsey.Fisher@ct.gov), Connecticut Agricultural Experiment Station, New Haven, CT

9:00 **105** PRESENTATION WITHDRAWN

9:15 **106** Utilizing pest ecology to improve sampling and integrated pest management. **Tim Bryant** (btim2@vt.edu)[1], Francis Reay-Jones[2] and Jeremy Greene[3], [1]Virginia Polytechnic Institute and State Univ., Suffolk, VA, [2]Clemson Univ., Florence, SC, [3]Clemson Univ., Blackville, SC

9:30 Break

9:45 **107** Future studies on Allium leafminer in Virginia. **Grace Stern** (gimonger@vt.edu)[1] and Thomas Kuhar[2], [1]Virginia Cooperative Extension, Blacksburg, VA, [2]Virginia Polytechnic Institute and State Univ., Blacksburg, VA

10:00 **108** Corn earworm sweet corn trials 2024. **David Owens** (owensd@udel.edu)[1] and Ben Sammarco[2], [1]Univ. of Delaware Cooperative Extension, Newark, DE, [2]Univ. of Delaware, Newark, DE

10:15 **109** PRESENTATION WITHDRAWN

10:30 **110** Tangler mating disruption: Pest control made fun. **Kelsey Benthall** (kbenthall@ridgequestinc.com) and Chandra Maleckas-Bunker, RidgeQuest, Kent City, MI

10:45 **111** Behavioral control of Colorado potato beetle? **Donald Weber** (Don.Weber@usda.gov)[1], Laura Martinez[2], Jennifer Thaler[2] and Ariela Haber[1], [1]USDA Agricultural Research Service, Beltsville, MD, [2]Cornell Univ., Ithaca, NY

Entomology Medley II: Submitted 10-Minute Papers

Chestnut/Dogwood Room (Sheraton Harrisburg Hershey Hotel)

Moderators:

8:00 **112** Comparison of female spotted lanternfly reproductive development across its current range in the eastern US. **Julie Urban** (jmu2.julieurban@gmail.com), Pennsylvania State Univ., Univ. Park, PA

8:12 **113** Adult spotted lanternfly weight is correlated with survival trends on selected specialty crops. **Teresa Kaveney** (tik5186@psu.edu), Holly Shugart and Julie Urban, Pennsylvania State Univ., Univ. Park, PA

8:24 **114** A method for rearing spotted lanternflies in a greenhouse environment yields vigorous and long-lived adults. **Holly Shugart** (hxs5534@psu.edu), Teresa Kaveney and Julie Urban, Pennsylvania State Univ., Univ. Park, PA

8:36 **115** Exploring the properties of spotted lanternfly honeydew honey. **Robyn Underwood** (rmu1@psu.edu)[1] and Ferhat Ozturk[2], [1]Pennsylvania State Univ., Univ. Park, PA, [2]Univ. of Texas at San Antonio, San Antonio, TX

8:48 **116** Updates on the establishment and persistence of emerald ash borer parasitoids. **Elizabeth Clifton** (elizabeth.marie.clifton@gmail.com)[1], Juli Gould[2], Jeff Garnas[1], Theresa Murphy[3] and Christine Dodge[4], [1]Univ. of New Hampshire, Durham, NH, [2]USDA APHIS PPQ, Buzzards Bay, MA, [3]USDA APHIS PPQ S&T, Buzzards Bay, MA, [4]USDA-APHIS-PPQ-S&T, Buzzards Bay, MA

9:00 **117** Spatiotemporal patterns of insecticide usage in Pennsylvania forests. **Michelle Cao** (caom@dickinson.edu) and Margaret Douglas, Dickinson College, Carlisle, PA

9:12 Break

9:30 **118** The detection and mapping of arthropods in a changing world. **Roger Schürch** (rschurch@vt.edu), Robert Ostrom, Margaret Couvillon, Nicolas Gustafson, Caine DeWitt, Gabriel Isaacman-VanWertz, Shallon Jozi and Chin-Cheng (Scotty) Yang, Virginia Polytechnic Institute and State Univ., Blacksburg, VA

9:42 **119** PRESENTATION WITHDRAWN

9:54 **120** PRESENTATION WITHDRAWN

10:06 **121** PRESENTATION WITHDRAWN

10:18 **122** Nuisance arthropods detected by sticky traps in apartments. **Changlu Wang** (changluw@rutgers.edu) and Xiaodan Pan, Rutgers, The State Univ. of New Jersey, New Brunswick, NJ

Seeing Things from a New *perspectalis*: Methods for Managing the Invasive Box Tree Moth (*Cydalima perspectalis*)

Salon AB (Sheraton Harrisburg Hershey Hotel)

Moderators and Organizers: Christine Dodge[1], Hannah Broadley[1], Alejandro Del-Pozo[2], Christine Dodge[1] and Alejandro Del-Pozo[2], [1]USDA-APHIS-PPQ-S&T, Buzzards Bay, MA, [2]Virginia Polytechnic Institute and State Univ., Virginia Beach, VA

8:00 Introductory remarks

8:05 **123** Box tree moth in Western New York: Documenting the phenology and beneficial arthropods in infested boxwood plants. **David Rivera** (darivera31@vt.edu)[1], Lelia Milner[2], Jason Bielski[1], Julie Brindley[2], Gregory Simmons[3], Ignacio Baez[4] and Alejandro Del-Pozo[2], [1]Virginia Polytechnic Institute and State Univ., Blacksburg, VA, [2]Virginia Polytechnic Institute and State Univ., Virginia Beach, VA, [3]USDA-APHIS-PPQ-S&T, Salinas, CA, [4]USDA-APHIS-PPQ-S&T, Raleigh, NC

8:25 **124** Boxwood: A comparison of adjuvants. **Daniel Gilrein** (dog1@cornell.edu) and Jared Dyer, Cornell Cooperative Extension of Suffolk County, Riverhead, NY

8:45 **125** Protecting boxwoods in urban settings: the use of mating disruption as part of an area-wide suppression effort for the invasive box tree moth. Gregory Simmons[1], **Alejandro Del-Pozo** (adelpozo@vt.edu)[2], Ignacio Baez[3], David Rivera[4], Lelia Milner[2], Jason Bielski[4] and Julie Brindley[2], [1]USDA-APHIS-PPQ-S&T, Salinas, CA, [2]Virginia Polytechnic Institute and State Univ., Virginia Beach, VA, [3]USDA-APHIS-PPQ-S&T, Raleigh, NC, [4]Virginia Polytechnic Institute and State Univ., Blacksburg, VA

9:05 **126** Widening the tool box: In-field insecticide efficacy and residuality for the new invasive box tree moth in the US. **Jason Bielski** (jbiel654@vt.edu)[1], Lelia Milner[2], David Rivera[1], Julie Brindley[2], Gregory Simmons[3], Ignacio Baez[4] and Alejandro Del-Pozo[2], [1]Virginia Polytechnic Institute and State Univ., Blacksburg, VA, [2]Virginia Polytechnic Institute and State Univ., Virginia Beach, VA, [3]USDA-APHIS-PPQ-S&T, Salinas, CA, [4]USDA-APHIS-PPQ-S&T, Raleigh, NC

9:25 Break

9:40 **127** Screening insecticides for the suppression and management of the eggs and early instars of *Cydalima perspectalis*. **Matt Havers** (mh1345@sebs.rutgers.edu)[1], Christine Swank[2] and George Hamilton[1], [1]Rutgers Univ., New Brunswick, NJ, [2]USDA-APHIS-PPQ-S&T, Buzzards Bay, MA

10:00 **128** PRESENTATION WITHDRAWN

10:20 **129** PRESENTATION WITHDRAWN

10:40 **130** PRESENTATION WITHDRAWN

Scientific Name Index

Coleoptera Curculionidae *Dendroctonus frontalis*	35
Coleoptera Curculionidae *Euwallacea fornicatus*	DSP33
Coleoptera Curculionidae *Listronotus maculicollis*	DSP41
Coleoptera Curculionidae *Sphenophorus parvulus*	DSP31
Coleoptera Curculionidae *Sphenophorus venatus vestitus*	DSP31
Coleoptera Curculionidae *Xylosandrus crassiusculus*	50
Coleoptera Curculionidae *Xylosandrus germanus*	50
Coleoptera Dermestidae *Dermestes maculatus*	61
Coleoptera Nitidulidae *Carpophilus dimidiatus*	DSP4
Coleoptera Scarabaeidae *Popillia japonica*	DSP4
Coleoptera Tenebrionidae *Alphitobius diaperinus*	60, DSP2
Coleoptera Tenebrionidae *Tenebrio molitor*	28, 65, 66, 118, DSP2
Collembola *Isotomiella minor*	45
Collembola Isotomidae *isotomiella minor*	97
Diptera Anthomyiidae *Delia antiqua*	DSP32
Diptera Anthomyiidae *Delia platura*	98, DSP6, DSP32
Diptera Culicidae *Culex pipiens*	44, DSP8
Diptera Culicidae *Culex quinquefasciatus*	44

Hymenoptera Apidae *Apis mellifera*	14, 19, 51, 92, 94, 115, 118, DSP21
Hymenoptera Apidae *Bombus impatiens*	14, 43, 91
Hymenoptera Argidae *Aproceros leucopoda*	24
Hymenoptera Braconidae *Aphidius ervi*	17
Hymenoptera Braconidae *Spathius galinae*	116
Hymenoptera Eulophidae *Tetrastichus planipennisi*	116
Hymenoptera Figitidae *Ganaspis kimorum*	20
Hymenoptera Figitidae *Ganaspis kimorum*	26, 52
Hymenoptera Formicidae *Acropyga*	89
Hymenoptera Formicidae *Solenopsis invicta*	28, 46
Hymenoptera Halictidae *Halictus ligatus*	DSP16
Hymenoptera Ichneumonidae *Eriborus*	130
Hymenoptera Megachilidae *Osmia cornifrons*	DSP3
Hymenoptera Vespidae *Polistes exclamans*	32
Hymenoptera Vespidae *Polistes p. exclamans*	DSP39
Lepidoptera Crambidae *Cydalima perspectalis*	123, 124, 125, 126, 128, 129, 130
Lepidoptera Crambidae *Hymenia perspectalis*	127

Lepidoptera Danaidae *Danaus plexippus*	15, DSP1, DSP18
Lepidoptera Danainae *Danaus plexippus*	23
Lepidoptera Erebidae *Lymantria dispar*	25, 42, 117, DSP9
Lepidoptera Lycaenidae *Celastrina celastrina neglecta*	10
Lepidoptera Lycaenidae *Everes comyntas*	DSP14
Lepidoptera Noctuidae *Helicoverpa zea*	86, DSP4, DSP11, DSP23
Lepidoptera Nymphalidae *Kallima inachus*	DSP17
Lepidoptera Plutellidae *Plutella xylostella*	54
Lepidoptera Sesiidae	119
Lepidoptera Tortricidae *Sparganothis sulfureana*	DSP9
Mantodea Chaeteessidae	47
Mesostigmata Laelapidae *Stratiolaelaps scimitus*	36
Neuroptera Chrysopidae *Chrysoperla carnea*	DSP22
Neuroptera Chrysopidae *Chrysoperla plorabunda*	90
Neuroptera Chrysopidae *Chrysoperla zastrowi sillemi*	DSP22
Odonata	13
Odonata Libellulidae *Aethriamanta rezia*	12
Odonata Libellulidae *Erythemis*	39

Odonata Libellulidae *Palpopleura lucia*	11
Odonata Libellulidae *Pantala flavescens*	11
Orthoptera Gryllidae *Acheta domesticus*	60, 65, 66
Strepsiptera	37
Stylommatophora Agriolimacidae *Agriolimax reticulatus*	DSP10
Stylommatophora Agriolimacidae *Deroceras laeve*	DSP10

Common Name Index

Author Index