

96TH ANNUAL MEETING OF THE SOUTHEASTERN BRANCH

**ENTOMOLOGICAL SOCIETY OF AMERICA
MARCH 17–20, 2024
Augusta, Georgia**

**Kevin Chase
President, 2023-2024**



**ENTOMOLOGICAL
SOCIETY OF AMERICA**
SOUTHEASTERN BRANCH

SPONSORS OF THE 2024 SEB MEETING

Our sponsors provide support for the mixers, breakfast, and various other functions of the meeting. In so doing, they help reduce the registration costs and provide a much more enjoyable environment for our meeting. Please be sure to express your appreciation to our sponsors:

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21 February 2024

To: Members and Attendees, Annual Meeting of the Southeastern Branch of the ESA

From: Kevin Chase, President of the Southeastern Branch 2023-24

Re: Welcome to the 96th Annual Meeting of the Southeastern Branch



I am excited to welcome you to our annual meeting ***"The Superorganism: Working Together"*** in **Augusta, Georgia** on **March 17-20, 2024**. Nicole Benda, Florida Department of Agriculture and Consumer Services-Division of Plant Industry and Tolulope Agunbiade, University of Florida, have planned an excellent program from so many facets of entomology.

For 2024, the esteemed former president of our branch, Alvin Simmons (USDA-ARS), has agreed to be our plenary speaker. His presentation is titled "An Entomological Story of Yesterday, Today, and Tomorrow". The Student Affairs Committee provided Alvin with a list of topics they wanted to hear about and I am very excited for the students to hear the incredible stories and lessons he will share!

The Southeastern Branch has always been an outstanding venue for our graduate and undergraduate students to present their research. Student support and mentoring has been the lifeblood of the SEB for decades. The SEB-ESA Executive Committee has continued the registration scholarship opportunity that was rolled out last year. I am proud to say all scholarships were handed out. Karla Addesso of Tennessee State University, SEB Governing Board Representative and Executive Committee Member, led development of the guidelines for the scholarship. There is also a Student and Early Career Professional Lightning Interviews and Networking event that will be held Tuesday, 19 March, from 6:45-7:45 PM. The goal of this event is for students to gain more confidence during the interview process and receive real-world feedback for future interviews.

To continue Jessica Ware's (ESA past president) vision of Entomology as Inspiration: Insects through art, science, and culture, we are highlighting entomologically-themed tattoos at our meeting this year. Please consider supporting local Augusta tattoo artists and show off your insect tattoos at this year's meeting. Lastly, we will be planting 60 trees around Augusta on Sunday, 17 March, from 11:00-2:00. Come along if you want to learn how to properly plant a tree and give back to the community we are invading!

There are SO MANY people that have dedicated so much time, energy, and effort towards making this meeting a success. The team I have been surrounded by through this journey as your president has been magnificent to work with and I thank each one of you! May you build many new friendships, engage with colleagues, and make some excellent memories during our time together in Augusta, Georgia!

Kevin D. Chase

Kevin Chase

SEB-ESA President, 2023-2024

Bartlett Tree Research Laboratory, Reading, England, UK

Meeting Information and Policies

PROGRAM SCHEDULE:

The 2024 SEB-ESA Meeting will be in-person only. All activities will be at the Augusta Marriott at the Convention Center, Augusta, Georgia.

Sessions must adhere to the printed schedule. It is the moderators' responsibility to keep speakers on schedule. If a scheduled presentation is not given, the moderator should ensure that the next speaker does not begin until his/her scheduled time.

AUDIOVISUAL PRESENTATIONS:

For All Presenters: Please design your material so that it can be read easily by the audience when it is projected. Presentations should be created in a format compatible with PowerPoint (.pptx) and formatted in a 4:3 aspect ratio. All meeting room computers are PCs, so presenters who create a presentation using a Mac should test the file on a PC prior to the meeting. All meeting rooms will be equipped with an LCD projector, projector screen, computer, and microphone.

Presenters are expected to **upload their presentation(s) at least two hours prior to their scheduled session**. Laptops with presentations uploaded will be moved to the respective rooms 30 minutes before the start of the sessions. The Presentation Preview and Upload AV room will have computers for presenters to load and preview presentations located in the **Heathcote Meeting Room** at the following times:

Sunday, March 17 . . . 1:00 PM – 5:00 PM
Monday, March 18 . . . 7:00 AM – 5:00 PM
Tuesday, March 19 . . . 7:00 AM – 5:00 PM
Wednesday, March 20 . . . 7:00 AM – 12:00 PM

Please upload your talk in the appropriate folder. Your presentation should be named with your presentation number, last name, first name: "PresentationNumber_Last Name_First Name". Presenters who fail to upload more than two hours prior to their session may upload in the session room as long as it does not impact

the timing of the session or any other presentations.

For Moderators: 20 minutes before the start of your session, you must come to the Presentation Preview and Upload AV room (**Heathcote Meeting Room**) to copy your session's folder onto a flash drive. There will be a laptop in each presentation room where you can transfer the session folder containing the presentations.

DISPLAY PRESENTATIONS:

Poster boards measuring 4 ft. x 8 ft. will be provided for each display presentation on the Balcony. So that we can fit 2 posters per board, posters should be no larger than 46 x 46 inches (117 x 117 cm). Displays should be mounted on the boards (assigned by the number of the presentation) using pushpins, and authors are asked to bring their own pins or Velcro strips to secure their display to the poster boards.

For Student Competition Poster Presenters:

Displays for Monday, March 18 should be set up on Sunday, March 17 evening from 7:00 PM – 8:00 PM or Monday, March 18 from 7:00 AM – 8:00 AM. Student competitors should be present at their posters on Monday, March 18, between 12:30 PM - 1:00 PM (odd numbers) and 1:00 PM - 1:30 PM (even numbers). Students are encouraged to keep their posters up until 6:00 PM, and posters should be removed by 7:00 PM on Monday.

For Regular Poster Presenters: Tuesday, March 19 should be set up on Monday, March 18 from 7:00 PM – 8:00 PM or Tuesday morning from 7:00 AM – 8:00 AM. Posters should be available for viewing from 8:00 AM – 6:00 PM. Contributed poster presenters should be present from 10:00 AM - 10:30 AM (odd numbers) and 5:00 PM - 5:30 PM (even numbers) on Tuesday, March 18. Presenters are encouraged to keep their posters up until 6:00 PM, and posters should be removed by 7:00 PM on Tuesday.

REGISTRATION: Registration is mandatory to attend the meeting. On-site registration fees include a luncheon ticket and are: ESA Active Members – \$450; ESA ECP Members – \$400; ESA Student Members – \$245; ESA Emeritus and Honorary Members – \$245; Guests – \$100; and Non-members – \$650. One-day registration fee is \$350.

Registration Desk is located in Plaza Prefunction, and will be open for check-in (pre-registered attendees) and for on-site registration at the following times:

Sunday, March 17 . . . 11:00 AM – 5:00 PM

Monday, March 18 . . . 7:30 AM – 4:00 PM

Tuesday, March 19 . . . 7:30 AM – 4:00 PM

Wednesday, March 20 . . . 7:30 AM – 9:00 AM

FUNCTIONS/EVENTS:

We have several activities that should be of interest to participants.

Sunday:

11:00 AM – 2:00 PM Community Tree Planting (Plaza Prefunction, Registration required). We recommend that people sign-up in advance.

Sign up at <http://tinyurl.com/3mmvcpmx>.

4:00 PM – 7:00 PM Entomology Games, Preliminary Rounds (Estes)

Monday:

8:00 AM – 10:00 AM Plenary Session (Estes)

12:30 PM – 1:30 PM Q&A with Student Poster Presenters (Plaza Lobby)

3:30 PM – 4:00 PM Coffee with the ESA President (Plaza Lobby)

4:00 PM – 7:00 PM Entomology Games, Finals (Estes)

7:00 PM – 9:00 PM Welcome Reception (Oglethorpe ABCD)

Tuesday:

10:00 AM – 10:30 AM Q&A with Contributed Poster Presenters (Plaza Lobby)

12:15 PM – 1:45 PM Awards Luncheon (Oglethorpe ABCD)

5:30 PM – 6:30 PM Business Meeting (Lamar A)

6:45 PM – 7:45 PM Student and Early Career Professional Lightning Interviews and Networking (Estes A, Registration required)

As a registered accompanying guest at this meeting, you will be eligible for all of the above. In addition, you are welcome to attend any of the other meeting events including: Plenary Session, Entomology Games, etc.

JOB POSTINGS/MESSAGE BOARD:

There will be a Job Postings/Messages Board labeled as such and available in the Plaza Lobby for all interested employers and prospective employees from 7:00 AM to 5:00 PM on Monday and Tuesday. If you have either a job vacancy or are seeking employment, please post an announcement or short résumé here.

CODE OF CONDUCT:

By attending the 2024 Southeastern 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 Diversity, Equity, and Inclusion at +1 (301) 731-4535 x3030 or seast@entsoc.org.

Wifi: Complimentary internet access is available in all hotel meeting space. Password login is required. Connect to the SSID network, open a browser, and enter the associated password.

Network: Marriott_Conf

Password: ESA2024

SOCIAL MEDIA:

We are excited you could join us this year and would love for you to share your experiences! Please use #ESASEB for social media and visit our Instagram page (@esa_seb), and LinkedIn page (Entomological Society of America – Southeastern Branch) to share your pictures, thoughts, and opinions with us! Let's make this an unforgettable event!

ESA Sections

Medical, Urban & Veterinary

Entomology (MUVE) deals with insect interactions with other animals, including humans, including medical entomology, urban entomology, veterinary entomology, forensic entomology, epidemiology, integrated disease management, human and veterinary parasitology, public health pest management, mosquito control, management of structural pests (e.g., termites, ants), and others.

Physiology, Biochemistry, and

Toxicology (PBT), formerly Integrative Physiological and Molecular Insect Systems or IPMIS, is for people who study insects at the cellular or molecular levels, and it includes topics such as biochemistry, microbiology, toxicology, endocrinology, cytology, molecular biology, allelochemicals, pheromones, hormones, metabolism, and others.

Formal and Informal Teaching (FIT)

Pilot Section is for people who teach entomology—either formally in classrooms (K-12, university, and college) or informally through Extension, outreach, and science communication, as well as researchers who focus on pedagogical methods that integrate entomology. Members are dedicated to broadening inclusive excellence for all learners and educators and facilitating collaborations across ESA and beyond to promote entomological education. Join us as we share entomological expertise and knowledge, instructional techniques, educational research, and networking opportunities.

Plant-Insect Ecosystems (P-IE)

deals with insect interactions with plants, including behavioral, ecological, and evolutionary relationships in natural landscapes, as well as integrated pest management (IPM) in agriculture, horticulture, forests, and lawn and garden. Aspects of crop protection, host-plant response, plant pathology/vectors, pollination, biological control, microbial control, and others are relevant.

Systematics, Evolution, and

Biodiversity (SyEB) is for people who study insect anatomy, classification, and history. As the name implies, it focuses on systematics, evolution, and biodiversity, but it could also include morphology, ecology, population dynamics, genetics, phylogeny, nomenclature, biogeography, zoology, and other specialties.

Southeastern Branch-ESA 2023-2024 Officers and Committees

Executive Committee

President, Kevin Chase
President-Elect, Juang Chong
Past President, Amanda Hodges
Secretary/Treasurer, Brett Blaauw
Member at Large 1, Clark Klein (2024)
Member at Large 2, Kaushalya Amarasekare (2025)
Member at Large 3, Carey Minter (2026)
Gov. Board Representative, Karla Addesso

Program Committee

Co-chair, Tolulope Agunbiade
Co-chair, Nicole Benda

Local Arrangements Committee (Augusta, Georgia, 2024)

Chair, Apurba Barman
Member, Sabrina Elgar
Member, Shivakumar Veerlapati
Member, Rajendra Acharya

Student Awards Committee

Co-Chair, Santos Portugal
Co-Chair, Estelle Martin
Member, Arun Babu
Member, Ting Li
Member, James Villegas

Early Career Awards Committee

Chair, Sandra Woolfolk
Member, Kelly Carruthers
Member, Matt Bertone

Professional Awards Committee

Chair, Justin George
Member, Esmaeil Amiri
Member, Scott H. Graham
Member, Sydney Crawley

Member, Tom Sheehan

Entomology Games Committee

Chair, Kelly Carruthers
Member, Morgan Pinkerton
Member, Kaydie McCormick
Member, Lauren Diepenbrock

Nominations Committee

Chair, Robert Meagher
Member, Yuzhe (Cathy) Du
Member, Muhammad Haseeb
Member, Victor Mascarenhas
Member, Desiree Straubinger
Member, Blake Wilson

Diversity, Equity, and Inclusion Committee

Chair, Arian Avalos

Educational Outreach Committee

Chair, Anthony Auletta

Sponsorship Committee

Co-Chair, Alejandro Arevalo
Co-Chair, Cheri Abraham

Student Affairs Committee

Co-Chair, Kelly Tims
Co-Chair, Alexis Alsdorf

Archives Committee

Chair, Jim Harper

Early Career Professional Committee

Representative to ESA, Pierre Lau

Education & Outreach Committee

Representative to ESA, Emily Kraus

Special Thanks To the Following:

- ESA Central Staff: Becky Anthony and Danielle Tempesta
- Confex Staff, especially Michelle Garman for program assistance
- All of our moderators, Student Competition judges, and student volunteers
- All of our meeting sponsors

Professional Awards

Award for Excellence in Integrated Pest Management

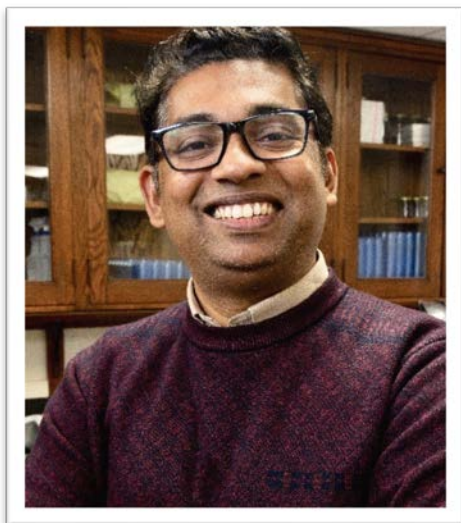


Dr. Francis Reay-Jones

Dr. Francis Reay-Jones is a Professor of Entomology and IPM Coordinator at Clemson University in the Department of Plant and Environmental Sciences, and is located at the Pee Dee Research and Education Center in Florence, SC. He earned a B.S. in Biology in 1999 and a graduate level degree in Population and Ecosystem Biology in 2000, both from the University of Bordeaux in France. He received an M.S. in Plant Technology from the University of Angers in France in 2001. Research for his M.S. thesis was conducted at a CIRAD sugarcane entomology laboratory in Réunion Island in the Indian Ocean on a biological control program of an insect pest of sugarcane. He then enrolled in a Ph.D. program in sugarcane entomology at Louisiana State University in 2002, earning his degree in 2005 with a major in entomology and a minor in applied statistics. He held post-doctoral research positions at

LSU and Texas A&M University prior to coming to Clemson in 2006. His research and extension appointment focuses on integrated pest management of insects in field crop systems, including corn, cotton, and sorghum. Dr. Reay-Jones has published more than a hundred peer-reviewed articles. He has given over 170 extension presentations and has authored more than 100 extension publications. His program has secured more than \$7.3 million in competitive grant funding and industry support. He serves as editor for the international journal Crop Protection and subject editor for Environmental Entomology.

Distinguished Achievement Award in Teaching



Dr. Rupesh Kariyat

Dr. Kariyat received his undergraduate degree in Agricultural Sciences from Kerala Agricultural University in India in 2003. He earned his MS in Agronomy from University of Wyoming in 2007, and a PhD in Plant Biology from Pennsylvania State University in 2012, with main focus in Plant-insect interactions. After a short post-doctoral stint at Penn State, Dr. Kariyat moved to Swiss federal Institute of Technology (ETH Zurich) to continue his research as a post-doctoral scholar, and then as a scientist in Biocommunication and Entomology. In 2017, Dr. Kariyat moved to University of Texas Rio Grande Valley as an Assistant Professor of Entomology and was tenured in 2021. In 2022, Dr. Kariyat accepted an Associate Professor of Entomology position at University of Arkansas. Dr. Kariyat has graduated 14 MS students, and currently advise 5 PhD, 2 MS and one honors student. Dr. Kariyat has published over 70 peer reviewed

manuscripts and has brought in >3.2 million USD in grant funding as PI and Co-PI. Dr. Kariyat's lab is focused on understanding how plants mount an integrated defense phenotype against insect herbivores and the mechanisms underlying these interactions, mainly in field crops. His lab also investigates the functional consequences of physical and chemical plant defense traits by examining how they affect growth and development traits in herbivores. His teaching responsibilities include Insect Pest Management, Insect Behavior and Chemical Ecology, and Insect Morphology classes at graduate and undergraduate levels.

Branch Recognition Award in Entomology



Dr. Daniel Carrillo

Dr. Daniel Carrillo is an Associate Professor of Entomology at the University of Florida - Tropical Research and Education Center in Homestead, Florida. He has 15 years of experience working with insects and mites in tropical fruit crop systems, continuously innovating to facilitate the implementation of sustainable pest management practices. Dr. Carrillo's program investigates the ecology and management of invasive arthropods, focusing on vectors of plant pathogens. He has an extensive publication record in the field of agricultural acarology. Many of his publications are on the detection, host range, ecology and management of mites affecting fruit crops. He has also been involved in detecting and describing several species

of mites that are new to science. Dr. Carrillo also has been on the frontline in the battle against laurel wilt, an aggressive ambrosia beetle-transmitted disease that affects avocados. One of his most significant contributions was discovering an unprecedented case of lateral transfer of the laurel wilt pathogen among native and exotic ambrosia beetles, which has been critical to understanding the epidemiology of laurel wilt and designing strategies to mitigate it. His program relies on talented graduate students, postdoctoral associates, and multiple local, national, and international collaborations. His goal is to provide stakeholders - growers and regulatory agencies - with innovative tools to face the challenges of modern agriculture and improve the profitable commercial production of tropical and subtropical fruit crops. Dr. Carrillo obtained his PhD from the University of Florida under the supervision of Dr. Jorge Peña in 2011.

Recognition award in Insect Physiology, Biochemistry, and Toxicology

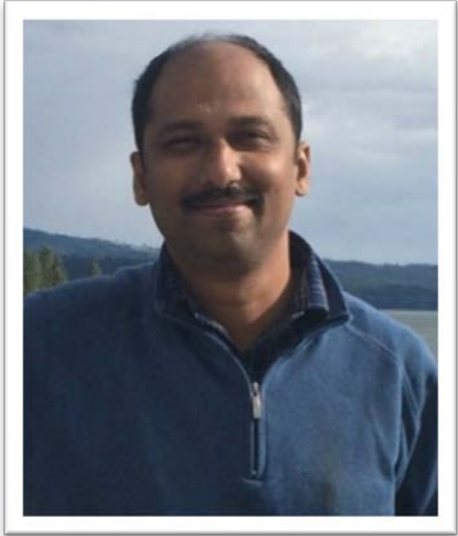


Dr. Yuzhe Du

Dr. Yuzhe (Cathy) Du, earned her Ph.D. in Zoology from Nankai University, China. Following this, she joined Dr. Ke Dong's laboratory at Michigan State University as a postdoc in 2003 and was later appointed as a fix-termed Assistant Professor in 2011. During this period, she played a crucial role in several NIH-funded projects focusing on understanding the molecular mechanisms of mode of action and resistance to sodium-channel-targeted neurotoxins and insecticides, including pyrethroids and sodium channel blocker insecticides (SCBIs). Utilizing a combination of molecular and electrophysiological approaches, Dr. Du investigated the

molecular mechanisms of knockdown resistance (*kdr*) in various arthropod species, such as cockroaches, mosquitoes, bumble bees and *varroa* mite. In 2016, she relocated to Mississippi and became an Entomologist at ARS-BCPRU, focusing on the development of novel insecticides, repellents or attractants for invasive ant control. In 2021, Dr. Du joined ARS-SIMRU as research Entomologist, where her current work involves insecticide modes of action, characterization of resistance mechanisms, resistance management, and the discovery of new insecticides. Dr. Du 's research spans the areas of insect toxicology, physiology, molecular biology, and chemical ecology. She has authored or co-authored over 60 peer-reviewed papers, including publication in prestigious journals such as *PNAS*, *JBC*, *Biochem. J*, *Mol. Pharmacol.*, *Biomolecules*, *JPS*, *PMS*, *IBMB*, *PBP* and contributed to one book chapter.

Distinguished Achievement Award in Horticultural Entomology



Dr. Shimat V. Joseph

Dr. Shimat V. Joseph is an Associate Professor at the Department of Entomology, University of Georgia. He earned his MS and Ph.D. from the University of Georgia in 2004 and 2010, respectively. He completed post-doctoral training at the University of Georgia and Virginia Tech (2010-2012). He then worked as an IPM (integrated pest management) advisor with the University of California (2012-2017) on the central coast of California. Throughout his career, he addressed critical and emerging pest issues in turfgrass, forest, ornamentals, fruiting and cool-season vegetables, caneberries, and tree fruits and sought IPM solutions. Some key pests he contributed extensively over the years were cabbage maggot, bagrada bug, springtail, lace bugs, Western tarnished plant bug, redheaded flea

beetle, billbugs, Rhodesgrass mealybug, and ambrosia beetles. Dr. Joseph's current research focuses on the biology, ecology, monitoring, and management of arthropod pests, such as the redheaded flea beetle, ambrosia beetles, billbugs, etc., in ornamental and turfgrass systems. His research also focuses on conserving beneficial insects, such as predators and pollinators, in production and ornamental landscapes. He has published more than 100 peer-reviewed publications and extension papers. Dr. Joseph has been a member of the Entomological Society of America (ESA) for the past 17 years. He held many professional leadership positions and volunteered at the ESA and Georgia Entomological Society.

Distinguished Achievement Award in Extension



Dr. Jeremy Greene

Dr. Greene earned his undergraduate degree in Biology in 1991 and his MS and PhD degrees in Entomology in 1995 and 1998, respectively. After a brief postdoctoral researcher role at the University of Georgia, he accepted a faculty position as an Extension Entomologist with the University of Arkansas in 2001. Since joining Clemson University in 2006, he has held appointments in Research, Extension, and Administration and currently serves as Professor of Entomology and Associate Department Chair for the Department of Plant and Environmental Sciences. Dr. Greene has advised 24 graduate students and 2 post-doctoral associates, authored/co-authored 119 peer-reviewed publications, brought in nearly \$8 million in career grants (~70% his share), and for the last 18+ years, he has written hundreds of non-refereed publications, including newsletters, conference proceedings, Extension reports, fact sheets, handbook chapters,

bulletins, and more, and has given hundreds of presentations at professional society and Extension meetings and trainings. Annually, Dr. Greene writes and distributes an award-winning newsletter subscribed by hundreds of Extension clientele and redirected to many hundreds more each week of the summer, with Volume 18 of his newsletter completed in 2023, totaling more than 300 issues to date. Furthermore, he records a voice message of weekly news regarding insect management in cotton and soybeans that is distributed via text messaging to a broad list of subscribers. Dr. Greene created two mobile applications (Calibrate My Sprayer and Mix My Sprayer) that have been downloaded nearly 70,000 times globally (over 160 countries), and he has organized or participated in over 140 Extension trainings in his career, with many held as in-field, hands-on training sessions for producers, consultants, county Extension agents, and other Extension clientele.

Distinguished Achievement Award in Urban Entomology



Dr. Thomas Chouvenc

Dr. Thomas Chouvenc is an Associate Professor in Urban Entomology at the University of Florida Fort Lauderdale Research and Education Center. Dr. Chouvenc specializes in subterranean termite research with a primary focus on invasive *Coptotermes* species. In the past decade, Dr. Chouvenc has published extensively on various aspects of termite biology, from symbiosis, ecology, evolution, behavior and communication to aspects of pest management solutions. In addition to a strong termite research program that covers a wide variety of topics using termites as central model system, Dr. Chouvenc provides unique training programs as part of his urban entomology extension program. He is the organizer of the UF School of Structural Fumigation (=

“Fume School”), the Termite Course for Professionals, and the International Termite Course. All three events focus on catering for the needs of diverse groups of stakeholders, for core training opportunities, up to date educational material, and in-depth biological insights. Recently, Dr. Chouvenc discovered the establishment of hybrid populations of two invasive termites in Florida, raising concerns about the potential introgression of genetic material between two of the most destructive termite species. With the ongoing spread of invasive termites in the Southeast, Dr Chouvenc also dedicates time to outreach events in communities that are most impacted by the establishment invasive termite species. Beyond Florida and the Southeastern region, Dr. Chouvenc has had a tangible impact in the pest control industry at the national level and at the international level, with scientific contributions in Spain, France, Israel, Taiwan, Japan, and Australia.

Early Career Professional Award



Morgan Pinkerton

Morgan Pinkerton is the sustainable agriculture and food systems extension agent with the University of Florida, Institute of Food and Agricultural Sciences (UF/IFAS) Extension in Seminole County, Florida. She received her B.S. (biology), M.S. (entomology), and Doctor of Plant Medicine (DPM) degrees from UF before joining as extension faculty in 2020. In her graduate studies, her research focused on invasive pentatomids as well as youth education on invasive species and biosecurity. She has been involved with ESA and SEB since 2017.

In her current position, Pinkerton regularly works with farmers and horticulture professionals in Central Florida and across the state. Through in-person and virtual educational programming, field visits, and one-on-one communications, she helps extension clientele increase the economic and environmental sustainability of their operations. In many of her extension programs, she focuses on insect diagnostics, integrated pest management (IPM), pesticides, and invasive species issues. She also teaches classes to connect the public with food production to better understand how their food reaches their plate and the challenges farmers face in growing food. This includes a significant dedication toward extension education on entomology and agricultural literacy topics for both adult and youth audiences.

Student awards

John Henry Comstock Award



Ethan Doherty

Dr. Ethan Doherty is a postdoctoral fellow at Clemson University, split between the Department of Mathematical and Statistical Sciences and the Department of Forestry and Environmental Conservation. Collaborating with the USDA-APHIS on a multi-institutional project, he is modeling the spread of invasive Asian long-horned beetles throughout the US. Doherty received his Ph.D from Louisiana State University in 2023, supervised by Drs. Blake Wilson and Qian (Karen) Sun. His dissertation took an interdisciplinary approach towards stored rice pest management by exploring pest behavior, chemical ecology, biological control, hostplant resistance, and chemical control. During his Ph.D, he served as President of the LSU Entomology Student Association. Previously, he had received a M.S. in Entomology and Nematology from the University of Florida, where he also served the as Fund-

raising Chair of the student organization. While originally from Chapel Hill, NC, he earned his B.A. in Biology from The College of Wooster in Ohio. His diverse research background has allowed him to work in a variety of fields, from entomology to primatology to microbiology. Outside the office, he enjoys a few creative pursuits, including music composition, writing, game design, and digital illustration.

Kirby Hays Memorial Award



Garima Setia

Garima Setia is currently a research technician at Memorial Sloan Kettering Cancer Center, examining selfish genes and small RNAs involved in sex ratio distortion in *Drosophila*. She recently completed her M.S. in Molecular Entomology from Louisiana State University, investigating the potential role of termites as pathogen vectors in ironwood tree decline in Guam. Her thesis integrated extensive field work collecting termites, lab bioassays examining termite feeding preferences, and high-throughput 16S rRNA sequencing and analysis of termite gut microbiomes to elucidate microbial community patterns. She has co-authored several publications from this work and presented at various conferences. Additionally, Garima obtained training in

molecular biology techniques during her undergraduate program at Punjab Agricultural University. Garima is passionate about unraveling evolutionary mysteries in the natural world through multi-disciplinary research leveraging multi-omics tools. Garima has remained active in science outreach efforts, enthusiastically volunteering to share her excitement for entomology. Beyond academics, Garima actively pursues interests such as reading, teaching students from diverse backgrounds, and traveling to experience new cultures and destinations.

Student Awards – 2023

ROBERT T. GAST AWARDS

Outstanding Ph.D. Oral Presentations

Session I

First Place, Julian Cosner

University of Tennessee

Second Place, Matthew Brown

Clemson University

Session II

First Place, John Temest

University of Tennessee

Second Place, Sundeep Pandey

University of Georgia

Session III

First Place, Lindsey Christianson

North Carolina State University

Second Place, Marcelo Dimase

University of Florida

Session IV

First Place, Abdusalam Adegoke

The University of Southern Mississippi

Second Place, Shucong Lin

Louisiana State University

Session V

First Place, Kevin Orta

North Carolina State University

Second Place, Tyler Musgrove

Louisiana State University

Session VI

First Place, Caleb Rice

University of Arkansas

Second Place, Sara Salgado

University of Florida

Outstanding Ph.D. Poster Presentations

Session I

First Place, Martine Bowombe Toko

Tennessee Technological University

Second Place, Axel Gonzalez Murillo

University of Tennessee

Session II

First Place, Lilia Stemet

University of Arkansas

Second Place, Olivia Kline

University of Arkansas

Outstanding M.S. Oral Presentations

Session I

First Place, Schyler Lee

Louisiana State University

Second Place, Jared Linn

University of Arkansas

Session II

First Place, Taynara Possebum

North Carolina State University

Second Place, Courtney Wynn
Mississippi State University

Session III

First Place, Sophia Copeman
North Carolina State University

Second Place, Lillie Rooney
University of Florida

Session IV

First Place, Michael Huoni
Mississippi State University

Second Place, Allan Busuulwa
University of Florida

Outstanding M.S Poster Presentations

Session I

First Place, Urita Agana
Mississippi State University

Second Place, Paige Cummins
University of Arkansas

Session II

First Place, Amina Twaibu
University of Arkansas

Second Place, Larissa Pereira Lima
University of Florida

Outstanding Undergraduate Oral Presentations

First Place, Katheleen Coffman

University of Tennessee

Second Place, Alexis Reifsteck

Missouri State University

Outstanding Undergraduate Poster Presentations

First Place, Julia Hanson

The University of Southern Mississippi

Second Place, Jacqueline Bowling

University of Central Arkansas

Outstanding Extension, Outreach and Teaching Presentations

First Place, Latoyla Downs

The University of Southern Mississippi

Second Place, Sara Tafel

University of Florida

2023 Travel Awards

Vilma Montenegro Castro – University of Florida

Alexis Reifsteck – Missouri State University

Amna Ghani – Clemson University

David Olabiyi – University of Florida

Sudeep Pandey – University of Georgia

2023 Entomology Games

Last year's winners were:

1st Place

AUBURN UNIVERSITY

Chelsea Smith (Captain)

Dylan Brown

Kyle Oswalt

Dan Aurell

COACH: Dr. Nannan Liu

2nd place

LOUISIANA STATE UNIVERSITY

Ethan Doherty, PhD (Captain)

Tyler Musgrove, PhD

Ally Martin, M.S.

Joel DuBois, M.S.

COACH: Dr. Blake Wilson

2024 Entomology Games

Catch this year's Entomology Games in Estes:

Preliminary Rounds: Sunday, March 17, 4:00 PM – 7:00 PM

Final Rounds: Monday, March 18, 4:00 PM – 7:00 PM

Program Summary Schedule by Date

Note: Augusta Marriott refers to Augusta Marriott at the Convention Center

SUNDAY, MARCH 17		
Session/Function	Time	Location
Executive Committee Meeting	8:00 AM - 10:00 AM	Moody, Augusta Marriott
S-1080 Soybean Arthropod Working Group Meeting	9:00 AM - 4:30 PM	Lamar B, Augusta Marriott
Community Tree Planting	11:00 AM - 2:00 PM	Plaza Prefunction, Augusta Marriott
Presentation Uploads	11:00 AM - 5:00 PM	Heathcote, Augusta Marriott
Registration	11:00 AM - 5:00 PM	Plaza Prefunction, Augusta Marriott
Entomology By Younger Entomologists	12:00 PM - 3:00 PM	Lamar A, Augusta Marriott
Entomology Games, Preliminary Rounds	4:00 PM - 7:00 PM	Estes, Augusta Marriott
Student Poster Setup	7:00 PM - 8:00 PM	Plaza Lobby, Augusta Marriott

MONDAY, MARCH 18		
Session/Function	Time	Location
Plenary Session	8:00 AM - 10:00 AM	Estes, Augusta Marriott
Undergraduate Student Poster Session	8:00 AM - 6:00 PM	Plaza Lobby, Augusta Marriott
Master's Students Poster Session 1	8:00 AM - 6:00 PM	Plaza Lobby, Augusta Marriott
Master's Students Poster Session 2	8:00 AM - 6:00 PM	Plaza Lobby, Augusta Marriott
PhD Student Poster Session 1	8:00 AM - 6:00 PM	Plaza Lobby, Augusta Marriott
PhD Student Poster Session 2	8:00 AM - 6:00 PM	Plaza Lobby, Augusta Marriott
Break	10:00 AM - 10:30 AM	Plaza Lobby, Augusta Marriott
Undergraduate Student 10-min Competition	10:30 AM - 12:30 PM	Lamar A, Augusta Marriott
Masters Student 10-min Competition 1	10:30 AM - 12:30 PM	Lamar B, Augusta Marriott
Masters Student 10-min Competition 2	10:30 AM - 12:30 PM	Lamar C, Augusta Marriott
Masters Student 10-min Competition 3	10:30 AM - 12:30 PM	Cumming, Augusta Marriott
Masters Student 10-min Competition 4	10:30 AM - 12:30 PM	Hamilton, Augusta Marriott
PhD Student 10-min Competition 1	10:30 AM - 12:30 PM	Walsh, Augusta Marriott
Q&A with Student Poster Presenters	12:30 PM - 1:30 PM	Plaza Lobby, Augusta Marriott
PhD Student 10-min Competition 2	1:30 PM - 3:30 PM	Lamar B, Augusta Marriott
PhD Student 10-min Competition 3	1:30 PM - 3:30 PM	Lamar C, Augusta Marriott
PhD Student 10-min Competition 4	1:30 PM - 3:30 PM	Cumming, Augusta Marriott
PhD Student 10-min Competition 5	1:30 PM - 3:30 PM	Hamilton, Augusta Marriott
PhD Student 10-min Competition 6	1:30 PM - 3:30 PM	Lamar A, Augusta Marriott
Coffee with the ESA President, Jennifer Henke, BCE	3:30 PM - 4:00 PM	Plaza Lobby, Augusta Marriott
Entomology Games, Finals	4:00 PM - 7:00 PM	Estes, Augusta Marriott
Student Poster Removal	6:00 PM - 7:00 PM	Plaza Lobby, Augusta Marriott
Welcome Reception	7:00 PM - 9:00 PM	Oglethorpe ABCD, Augusta Marriott

TUESDAY, MARCH 19

Session/Function	Time	Location
Past Presidents Breakfast	7:00 AM - 8:00 AM	Hotel Restaurant, Augusta Marriott
Regular Poster Setup	7:00 AM - 8:00 AM	Plaza Lobby, Augusta Marriott
Working Together Towards Solving Major Issues in Medical and Veterinary Entomology	8:00 AM - 10:00 AM	Lamar C, Augusta Marriott
Pest Management Challenges and Research Advances in Tree Fruit Crops of Southeastern US	8:00 AM - 12:00 PM	Cumming, Augusta Marriott
Southern Forest Insects and Forest Health: The Bothersome, Benign, and Beneficial	8:00 AM - 12:00 PM	Hamilton, Augusta Marriott
Ten-Minute Paper Oral 1 (P-IE)	8:00 AM - 12:00 PM	Lamar B, Augusta Marriott
The Superorganism (Super Vector) Sweetpotato Whitefly in the Southeastern United States	8:00 AM - 12:00 PM	Walsh, Augusta Marriott
FIT Poster Session	8:00 AM - 6:00 PM	Plaza Lobby, Augusta Marriott
MUVE Poster Session	8:00 AM - 6:00 PM	Plaza Lobby, Augusta Marriott
P-IE Poster Session	8:00 AM - 6:00 PM	Plaza Lobby, Augusta Marriott
SysEB and PBT Poster Session	8:00 AM - 6:00 PM	Plaza Lobby, Augusta Marriott
Q&A with Contributed Poster Presenters	10:00 AM - 10:30 AM	Plaza Lobby, Augusta Marriott
Exploring the Ups and Downs of Successful Graduate Students	10:15 AM - 12:15 PM	Lamar C, Augusta Marriott
Awards Luncheon	12:15 PM - 1:45 PM	Oglethorpe ABCD, Augusta Marriott
Ten-Minute Paper Oral 2 (MUVE & PBT)	2:00 PM - 4:00 PM	Lamar B, Augusta Marriott
Developing and Assessing Extension Programs in Entomology	2:00 PM - 5:00 PM	Cumming, Augusta Marriott
Pollinators in the Anthropocene: Importance, Threats, and Conservation	2:00 PM - 5:00 PM	Walsh, Augusta Marriott
Recent Advances in Biological Control of Plants and Arthropods	2:00 PM - 5:00 PM	Hamilton, Augusta Marriott
Ten-Minute Paper Oral 3 (FIT & P-IE)	2:00 PM - 5:00 PM	Lamar A, Augusta Marriott
Your Approach to Graduate School	2:00 PM - 5:00 PM	Lamar C, Augusta Marriott
Business Meeting	5:30 PM - 6:30 PM	Lamar A, Augusta Marriott
Regular Poster Removal	6:00 PM - 7:00 PM	Plaza Lobby, Augusta Marriott
Student and Early Career Professional Lightning Interviews and Networking	6:45 PM - 7:45 PM	Estes A, Augusta Marriott

WEDNESDAY, MARCH 20

Session/Function	Time	Location
More than the Sum of Their Parts: Sociobiology and Health of Eusocial Insects	8:00 AM - 12:00 PM	Lamar A, Augusta Marriott
Recent Advances in Turfgrass and Ornamental Entomology in the Southeastern USA	8:00 AM - 12:00 PM	Lamar C, Augusta Marriott
Whiteflies Management: Developing an Understanding of Accomplishments and Innovations Across Crop Agroecosystems	8:15 AM - 12:00 PM	Lamar B, Augusta Marriott

Sunday, March 17, 2024, Afternoon

Entomology By Younger Entomologists

Lamar A (Augusta Marriott at the Convention Center)

Moderators and Organizers: Becky Trout Fryxell and Rebecca Trout Fryxell, Univ. of Tennessee, Knoxville, TN

12:00 Introductory Remarks

12:05 **1** Survey Results of My Cohort: We Need A Bigger Serving of Entomology. **Princess Simmons** (alvin.simmons@usda.gov), Charleston County School of the Arts, Charleston, SC

12:10 **2** Fun and Learning with the Clarke Central Arthropod Club. **Callahan Copper** (pulliamr@clarke.k12.ga.us), Clarke Central High School, Athens, GA

12:15 **3** Entomology and Careers in Forensic Science. **Yuliannybel Castillo Alburjas** (pulliamr@clarke.k12.ga.us), Clarke Central High School, Athens, GA

12:20 **4** Mosquitoes and La Crosse virus for starters. **W.A. Fryxell** (rfryxell@utk.edu) and R.T. Trout Fryxell, Mount Olive Elementary School, Knoxville, TN

12:25 **5** How Proximity to Humans Affects Mosquito Ovipositing. **Jeremiah Young** (susan.reynolds@knoxschools.org), South Doyle High School, Knoxville, TN

12:30 **6** The Use of Skatole as a Chemical Attractant for Ovipositing Mosquitoes. **Sarah Hagey** (susan.reynolds@knoxschools.org) and Susan Reynolds, South Doyle High School, Knoxville, TN

12:35 **7** Exploring variation in mosquito abundance between microclimates around a school.. **J.R. Armsworth** (p.armsworth@utk.edu), N. Grzywacz-Jones, I.K. Armsworth and L. Waldron, Bearden Middle School, Knoxville, TN

12:40 **8** Using oviposition patterns to manage vectors of La Crosse virus in eastern Tennessee. **H. Ginn** (ftc199@vols.utk.edu), C.A. Day, J. Chandler and Rebecca T. Trout Fryxell, Univ. of Tennessee, Knoxville, TN

12:45 Poster session Part 1

1:00 Break

1:10 **9** Cross-pollination: How Engaging with Educators can Increase Exposure for Entomology. **Kelly Carruthers** (kellyacarruthers@gmail.com), Univ. of Georgia, Athens, GA

1:20 **10** Shifting the High School Student's Perspective of Insects. **Robert Pulliam** (pulliamr@clarke.k12.ga.us), Clarke Central High School, Athens, GA

1:30 **11** Making Entomology Accessible for High School ESOL Students. **Carrie Emerson** (emersonc@clarke.k12.ga.us), Clarke Central High School, Athens, GA

1:40 **12** Incorporating Authentic Research into the High School Curriculum. **Susan Reynolds** (susan.reynolds@knoxschools.org), South Doyle High School, Knoxville, TN

1:50 **13** Four years of an afterschool mosquito club. **Lauren Waldron** (lauren.waldron@knoxschools.org), Bearden Middle School, Knoxville, TN

2:00 **14** USDA Future Scientists Program: 2023 Teacher Workshop in Charleston, South Carolina. **Alvin Simmons** (alvin.simmons@usda.gov), USDA-ARS, Charleston, SC

2:10 Break

2:20 Panel Discussion

2:45 Poster session Part 2

Monday, March 18, 2024, Posters

Undergraduate Student Poster Session

Plaza Lobby (Augusta Marriott at the Convention Center)

P-27 Succession of forensically important Diptera in north Florida. **Maya Mance** (maya1.mance@fam.u.edu), Student, Tallahassee, FL

P-28 Host-specific multitrophic effects of a dietary plant toxin on the polyembryonic parasitoid *Copidosoma floridanum*. **Rediate Degu** (RKDEGU@ung.edu), Eamon Mcdaniel, Wyatt Mcmanus, Kaitlyn Timmons and Evan Lampert, Univ. of North Georgia, Oakwood, GA

P-29 Testing pheromone traps to monitor tarnished plant bug, *Lygus lineolaris* (Palisot de Beauvois) (Miridae: Hemiptera). **Theo Pollack** (tjp336@msstate.edu)¹, Fred Musser¹ and Justin George², ¹Mississippi State Univ., Mississippi State, MS, ²USDA-ARS, Stoneville, MS

P-30 Antibiosis-based sources of resistance to lepidopteran pests in University of Florida peanut breeding lines. **Chase Lowery** (lowerychase@ufl.edu)¹, Silvana V. Paula-Moraes², Eduardo Calixto¹ and Barry Tillman³, ¹West Florida Research and Education Center /Univ. of Florida, Jay, FL, ²Entomology & Nematology/ West Florida Research and Education Center/Univ. of Florida, Jay, FL, ³North Florida Research and Education Center/Univ. of Florida, Marianna, FL

P-31 Does disturbance stridulation in the passalid beetle *Odontotaenius disjunctus* function as a form of social communication? **Haley Schonekas** (Haley.Schonekas@usm.edu), Zoe Mabry, Kristin Robinson, Karen Lopez, Alycia Johnson, Gabriella Cipriani, Alex Nguyen, Clayton Ziemke and Kaitlin Baudier, The Univ. of Southern Mississippi, Hattiesburg, MS

P-32 Spatial and temporal dynamics of Plusiinae moths in Florida: Implications for pest management and surveillance. **Charlotte DuBose** (jdubose@ufl.edu)¹, Silvana V. Paula-Moraes¹, Eduardo Calixto¹, Kayla Mollet², Gideon Alake³, Amanda Hodges³ and Todd Gilligan⁴, ¹Entomology & Nematology/ West Florida Research and Education Center/Univ. of Florida, Jay, FL, ²Pest Identification Technology Laboratory, Fort Collins, CO, ³Univ. of Florida, Gainesville, FL, ⁴USDA-APHIS-PPQ, Fort Collins, CO

P-33 Regional Assessment of Catastrophic Wind Damage (RACD): Impacts on wood-boring longhorn beetles (Coleoptera: Cerambycidae). **James Cornish** (jwc47892@uga.edu)¹, Brittany Barnes², Bronson Bullock¹, Dan Johnson¹, Chelsea Miller¹, JT Vogt³ and Kamal Gandhi¹, ¹Univ. of Georgia, D. B. Warnell School of Forestry and Natural Resources, Athens, GA, ²Univ. of Georgia, Athens, GA, ³USDA Forest Service, Southern Research Station, Athens, GA

P-34 Two common pesticides have synergistic effects on *Osmia lignaria* bee mortality and behaviors. **Jason Cartwright** (jrcartwr@uark.edu), Univ. of Arkansas, Fayetteville, AR

P-35 How does cultivar mixing influence pollinator movement and pollination success in southern highbush blueberry? **Victoria Vo** (victoria.vo@ufl.edu), Rachel Mallinger and Shiala M. Naranjo, Univ. of Florida, Gainesville, FL

Master's Students Poster Session 1

Plaza Lobby (Augusta Marriott at the Convention Center)

P-1 Impact of body size on the physiological limits of bees. **Theresa Wolff** (therewolff@gmail.com), Auburn Univ., Auburn, AL

P-2 Evaluating Asian longhorned beetle (*Anoplophora glabripennis*) phenology using larval size in South Carolina. **Lindsey Stone** (stoneli1@msu.edu)¹, R. Talbot Trotter² and David Coyle¹, ¹Clemson Univ., Clemson, SC, ²USDA - Forest Service, Hamden, CT

P-3 Integration of the parasitoid *Habrobracon hebetor* with entomopathogenic nematodes for the control of *Plodia interpunctella*. **Jamilatu Issah** (ijamilat@wildcat.fvsu.edu), Sanower Warsi, James Danso, Kaitlyn Garland and George Mbata, Fort Valley State Univ., Fort Valley, GA

P-4 The grasshoppers of Malawi (Orthoptera). **Jireh Mwamukonda** (jm5412@msstate.edu), Mississippi State Univ., Starkville, MS

P-5 A comparison of early season scouting methods in cotton for tarnished plant bug damage. **Michael Huoni** (jmh974@msstate.edu)¹, Jeff Gore¹, Whitney Crow², Don Cook¹, Tyler Towles¹ and Angus Catchot³, ¹Mississippi State Univ., Stoneville, MS, ²Mississippi State Univ., Mississippi, MS, ³Mississippi State Univ., Mississippi State, MS

P-6 Taxonomic revision of *Hesperotettix* (Orthoptera: Acrididae). **Shelby Grice** (smg624@msstate.edu)¹ and JoVonn Hill², ¹Mississippi State Univ., Starkville, MS, ²Mississippi State Univ., Mississippi State, MS

Master's Students Poster Session 2

Plaza Lobby (Augusta Marriott at the Convention Center)

P-7 Survey of mosquito communities, blood meal hosts, and mosquito midgut bacteria across two different land uses in Vero Beach, Florida. **Yasmin Ortiz** (ortiz.yasmin@ufl.edu), Simon Casas, Eric Caragata, Lawrence Reeves and Panpim Thongsripong, Univ. of Florida, FMEL, Vero Beach, FL

P-8 Establishing and assessing biological control agents of emerald ash borer in North Carolina. **Pamela Zader** (pamelazader@gmail.com), Courtney Smith, Robert M. Jetton and Kelly F. Oten, North Carolina State Univ., Raleigh, NC

P-9 American cockroach oviposition multiple-choice bioassays utilizing common indoor and outdoor household substrates comparing light and dark conditions. **Madeline Griffin** (mpg0025@auburn.edu)¹, Ana Chicas-Mosier², Xing Ping Hu¹ and Arthur Appel¹, ¹Auburn Univ., Auburn, AL, ²Univ. of Kansas, Lawrence, KS

P-10 Determining the value of common turf forbs as a pollinator resource in the Southeastern United States. **Sara Scott** (srs730@msstate.edu)¹, JoVonn Hill¹, Jeffrey Harris² and James McCurdy¹, ¹Mississippi State Univ., Mississippi State, MS, ²USDA - ARS, Baton Rouge, LA

P-11 Interaction of plants and pollinators at a molecular level. **My Ly** (mly@uark.edu), Sushant Potdar, Emily Brown, Ngoc Phan, Neelendra Joshi and Erica Westerman, Univ. of Arkansas, Fayetteville, AR

P-12 Testing the activity of dusts under two different conditions against litter beetles (*Alphitobius diaperinus* Panzer 1797, Coleoptera: Tenebrionidae). **Carla Guardado Martinez** (czg0100@auburn.edu), Auburn Univ., Auburn, AL

PhD Student Poster Session 2

Plaza Lobby (Augusta Marriott at the Convention Center)

P-13 Intertegular distance of wild bees and its use in estimating proboscis lengths and foraging ranges to better understand bee conservation ecology. **Lilia Stemet** (stemet@uark.edu)¹, David Biddinger², Kusum Naithani³, Allen Szalanski³ and Neelendra Joshi³, ¹Univ. of Arkansas System Division of Agriculture, Fayetteville, AR, ²Penn State Fruit Research and Extension Center, Biglerville, PA, ³Univ. of Arkansas, Fayetteville, AR

P-14 Bee diversity and abundance during peach bloom in South Carolina. **Mandeep Tayal** (mtayal@clemson.edu)¹, Christopher Wilson², Zoe Marquez de la Plata¹ and Elizabeth Cieniewicz¹, ¹Clemson Univ., Clemson, SC, ²Univ. of Arkansas, Fayetteville, AR

P-15 Lesser mealworms, a greater problem. **Raymond Fitzpatrick** (rg@uga.edu) and Nancy Hinkle, Univ. of Georgia, Athens, GA

P-16 Trap type and color differentially sample wild bee species in urban forest fragments. **Miriam Edelkind-Vealey** (miriam.edelkind@uga.edu)¹, Michael Ulyshen², Riley Forrestall¹ and S. Braman¹, ¹Univ. of Georgia, Athens, GA, ²US Forest Service, Athens, GA

P-17 How high they fly. **Rehan Arshad** (ra37999@uga.edu), Univ. of Georgia, Griffin, GA

P-18 Investigating the distribution of native bees in Arkansas. **Coleman Little** (colemanl@uark.edu), Roshani Acharya and Neelendra Joshi, Univ. of Arkansas, Fayetteville, AR

P-19 Developing insecticidal microRNAs targeting symbiosis for aphid control. **Andie Gonzales** (ADiazGonzales@agcenter.lsu.edu), Louisiana State Univ., baton rouge, LA

PhD Student Poster Session 1

Plaza Lobby (Augusta Marriott at the Convention Center)

P-20 It'll cost how much? investigating the potential economic impact of Asian longhorned beetle (*Anoplophora glabripennis*) in North Carolina **Kristin Hilborn** (kipeters@ncsu.edu)¹, R. Talbot Trotter² and Kelly F. Oten¹, ¹North Carolina State Univ., Raleigh, NC, ²USDA - Forest Service, Hamden, CT

P-21 Toxicity of insecticides zeta-cypermethrin and lambda-cyhalothrin on Northwest Arkansas soybean southern green stink bug (*Nezara viridula*). **Duy Trinh** (duyt@uark.edu), Ngoc Phan, Sarah Anderson and Neelendra Joshi, Univ. of Arkansas, Fayetteville, AR

P-22 Flight behavior of *Systema frontalis* (Coleoptera: Chrysomelidae) in ornamental nurseries. **Rajesh Vavilapalli** (rajesh4ento@gmail.com) and Shimat Villanassery Joseph, Univ. of Georgia, Griffin, GA

P-23 Exploring the impact of landscape diversity on bee microbiomes. **Abaranjitha Muniyasamy** (amuniyas@uark.edu), Kusum Naithani and Neelendra Joshi, Univ. of Arkansas, Fayetteville, AR

P-24 Individual and social learning of foraging routes in the rock ant *Temnothorax rugatulus*. **Supraja Rajagopal** (sr51192@uga.edu) and Takao Sasaki, Univ. of Georgia, Athens, GA

P-25 A metanalysis of *Apis* pathogen prevalence documentation in comparison to wild and native bee species. **Leah Cuthill** (lrcuthil@uark.edu) and Neelendra Joshi, Univ. of Arkansas, Fayetteville, AR

P-26 Impacts of Nantucket pine tip moth, *Rhyacionia frustrana* (Lepidoptera: Tortricidae), management on rotation-length economic returns of loblolly pine. **Samantha Kennett** (samantha.kennett@gmail.com)¹, Rafael De La Torre², Jessica Hartshorn¹, R. Scott Cameron³, C. Wayne Berisford⁴ and David Coyle¹, ¹Clemson Univ., Clemson, SC, ²ArborGen Inc., Ridgewille, SC, ³International Paper Corp, Savannah, GA, ⁴Univ. of Georgia, Athens, GA

Monday, March 18, 2024, Morning

Undergraduate Student 10-min Competition

Lamar A (Augusta Marriott at the Convention Center)

Moderators: Adam Dale¹ and Brett Farmer², ¹Univ. of Florida, Gainesville, FL, ²Mississippi State Univ., Mississippi State, MS

10:30 **WITHDRAWN 56** Characterization of a heritable symbiont in culture and reinfection to live aphids. **Jon Golan** (jeg89007@uga.edu), Roy Kucuk and Kerry M. Oliver, Univ. of Georgia, Athens, GA

10:42 **57** An analysis of the flexural strength of *Parasteatoda tepidariorum* gumfoot line silk. **Ella Kellner** (ekellner@unc.edu), Univ. of North Carolina at Charlotte, Charlotte, NC

10:54 **58** Assessing the effects of biochar on pollinator-dependent wildflower species native to the southeastern United States. **Abigayle Crochet** (aec0118@auburn.edu), Zachary Beneduci and Anthony Abbate, Auburn Univ., Auburn, AL

11:06 **59** Effects of sublethal doses of insecticides on the mortality, feeding and fitness of *Chrysodeixis includens* (Lepidoptera: Noctuidae). **Carolina Fagundes Goncalves** (cfagund@ncsu.edu)¹, Dominic Reising² and Igor Scharndong³, ¹NC State Univ., Raleigh, NC, ²North Carolina State Univ., Plymouth, NC, ³North Carolina State Univ., Raleigh, NC

11:18 **60** Getting sudsy: Investigating the effects of insecticidal soap on monarch larval growth and development. **Sacha Glynn** (sglynn@ufl.edu), Bernadette Mach and Adam Dale, Univ. of Florida, Gainesville, FL

Masters Student 10-min Competition 1

Lamar B (Augusta Marriott at the Convention Center)

Moderators: Fred Musser¹ and Mark Abney², ¹Mississippi State Univ., Mississippi State, MS, ²Univ. of Georgia, Tifton, GA

10:30 **15** Mosquito larval conditions and their effects on *Dirofilaria immitis* transmission. **Kaylin Lewandowski** (kslewand@ncsu.edu) and Michael Reiskind, North Carolina State Univ., Raleigh, NC

10:42 **16** Characterizing rootworm feeding and its impact on peanut pod yield. **Jeret Royston** (jtr10839@uga.edu)¹, Mark Abney² and Kemper Sutton², ¹Graduate Student, Royston, GA, ²Univ. of Georgia, Tifton, GA

10:54 **17** Into the dark: Interactions between bats and insects in diverse habitats. **Carmen Black** (mqb852@vols.utk.edu)¹, Ernest Bernard¹, Rebecca T. Trout Fryxell¹, Jerome Grant¹, Joy O'Keefe² and Elizabeth Beilke², ¹Univ. of Tennessee, Knoxville, TN, ²Univ. of Illinois, Urbana, IL

11:06 **18** Bait acceptance and seasonal activity of the Asian needle ant, *Brachyponera* (=Pachycondyla) *chinensis* (Emery), an emerging medically important species, in Central Georgia. **Karen Corsetti** (corsettikaren@gmail.com), Univ. of Georgia, Griffin, GA

11:18 **19** Utilizing seeding rates as a method of controlling thrips and tomato spotted wilt virus in peanuts. **Maxwell Cavassa** (mlc00567@auburn.edu), Scott Graham and Amanda Strayer-Scherer, Auburn Univ., Auburn, AL

11:30 **20** Modulation of SIFamide by the Triatomine microbiome and implications for feeding physiology in *Rhodnius prolixus*. **Ashley McCormick** (acd84613@uga.edu), Univ. of Georgia, Athens, GA

11:42 **21** Impacts of simulated three cornered alfalfa hopper damage on cotton yield. **Reece Butler** (rsb323@msstate.edu)¹, Whitney Crow², Tyler Towles³, Don Cook⁴, Fred Musser⁵ and Angus Catchot¹, ¹Mississippi State Univ., Starkville, MS, ²Mississippi State Univ., Mississippi, MS, ³Louisiana State Univ. Agricultural Center, Winnsboro, LA, ⁴Mississippi State Univ., Stoneville, MS, ⁵Mississippi State Univ., Mississippi State, MS

11:54 **22** Effects of horticultural oil and insecticidal soap on insidious flower bug, *Orius insidiosus* (Hemiptera: Anthoridae). **Yuna Gaire** (ygaire@my.tnstate.edu), Kaushalya Amarasekare and Binita Sigdel, Tennessee State Univ., Nashville, TN

Masters Student 10-min Competition 2

Lamar C (Augusta Marriott at the Convention Center)

Moderators: Jeffrey Davis¹ and Kaushalya Amarasekare², ¹Louisiana State Univ., Baton Rouge, LA, ²Tennessee State Univ., Nashville, TN

10:30 **23** Integration of insectary plants for pest management in crop production. **Binita Sigdel** (bsigdel@my.tnstate.edu), Kaushalya Amarasekare, Firuz Yuldashev, Yuna Gaire and Mariah McCullough, Tennessee State Univ., Nashville, TN

10:42 **24** Assessing host plant resistance to stink bugs in commercial soybean varieties. **Cristofer Martinez** (cristofermendoza07@gmail.com) and Jeffrey Davis, Louisiana State Univ., Baton Rouge, LA

10:54 **25** Reducing sweetpotato reinfection through vector management. **Rachel Morrison** (rem555@msstate.edu)¹, Natraj Krishnan¹, Lorin Harvey², Sead Sabanadzovic¹ and Fred Musser¹, ¹Mississippi State Univ., Mississippi State, MS, ²Mississippi State Univ., Pontotoc, MS

11:06 **26** Taking flight: Unleashing drones to sample pest insect populations in soybeans. **William Lockhart** (wcl126@msstate.edu)¹, Marvin Merkl², Bryan Whittenton³ and Fred Musser², ¹MSU Entomology Dept., Mississippi State, MS, ²Mississippi State Univ., Mississippi State, MS, ³MSU Plant and Soil Sciences Dept., Mississippi State, MS

11:18 **27** Pollinator visitation of soybean production systems in Georgia. **Susanne Deeb** (smd74447@uga.edu), G. David Buntin and Bodie Pennisi, Univ. of Georgia, Griffin, GA

11:30 **28** At-planting insecticide efficacy for the control of tobacco thrips, *Frankliniella fusca*, in the mid-southern U.S.. **Hunter Lipsey** (hl866@msstate.edu)¹, Tyler Towles¹, Don Cook¹, Glenn Studebaker², David Kerns³, Nick Bateman⁴, Jeff Gore¹, Scott Stewart⁵, Angus Catchot⁶, Sebe Brown⁷, Benjamin Thrash⁸, Gus Lorenz⁹ and K. Clint Allen¹⁰, ¹Mississippi State Univ., Stoneville, MS, ²Univ. of Arkansas, Keiser, AR, ³Texas A&M Univ., College Station, TX, ⁴Univ. of Arkansas, Stuttgart, AR, ⁵Univ. of Tennessee, Jackson, TN, ⁶Mississippi State Univ., Starkville, MS, ⁷Louisiana State Univ. Agricultural Center, Baton Rouge, LA, ⁸Univ. of Arkansas Cooperative Extension Service, Lonoke, AR, ⁹Univ. of Arkansas, Lonoke, AR, ¹⁰USDA - ARS, Stoneville, MS

11:42 **29** Setting fire to the field: Effects of a prescribed burn on arthropod abundance and diversity in grassland, transitional, and forested zones. **Makhali Voss** (mvoss2@vols.utk.edu), Univ. of Tennessee, Rutledge, TN

11:54 **30** Influence of insect pest infestations in the main and ratoon crops on rice yields in Louisiana. **Christine Gambino** (cgambino@agcenter.lsu.edu)¹, Blake Wilson², Kim Landry³, Tyler Musgrove² and James Villegas⁴, ¹Louisiana State Univ., Baton Rouge, LA, ²Louisiana State Univ., Agricultural Center, Baton Rouge, LA, ³H. Rouse Caffey Rice Research Station, Rayne, LA, ⁴Dean Lee Research & Extension Center, Alexandria, LA

Masters Student 10-min Competition 3

Cumming (Augusta Marriott at the Convention Center)

Moderators: Kelly Oten¹ and Md Tafsir Nur Nabi Rashed², ¹North Carolina State Univ., Raleigh, NC, ²Univ. of Florida, Gainesville, FL

10:30 **31** A preliminary phylogeny of Nearctic Acmaeoderini (Coleoptera: Buprestidae), with an emphasis on the *Acmaeodera pulchella* complex. **Joel DuBois** (jduboi9@lsu.edu) and Nathan Lord, Louisiana State Univ., Baton Rouge, LA

10:42 **32** Evaluating spatial distribution, trapping, and potential chemical control of the invasive land snail *Bulimulus bonariensis* in citrus. **Sankara Ganesh** (sankaraganesh2001@gmail.com) and Lauren Diepenbrock, Univ. of Florida, Lake Alfred, FL

10:54 **33** Host suitability and preference of field-collected *Trichopoda pennipes* (Diptera: Tachinidae) on *Nezara viridula* (Hemiptera: Pentatomidae), *Anasa tristis* (Hemiptera: Coreidae) and *Leptoglossus phyllopus* (Hemiptera: Coreidae) in North Central Florida. **Lillie Rooney** (rooney.lillie@ufl.edu), Norman Leppla, Lorrie Konopasek and Kendall Stacey, Univ. of Florida, Gainesville, FL

11:06 **34** Impacts of early season tarnished plant bug management on fruit retention and cotton yield in mid-south cotton production systems. **Michael Huoni** (jmh974@msstate.edu)¹, Whitney Crow², Jeff Gore¹, Don Cook¹, Tyler Towles¹, Angus Catchot³, Caleb Rice⁴, Hunter Lipsey¹, Seth Permenter¹ and Mary Jane Lytle¹, ¹Mississippi State Univ., Stoneville, MS, ²Mississippi State Univ., Mississippi, MS, ³Mississippi State Univ., Mississippi State, MS, ⁴Mississippi StPP-ate Univ., Indianola, MS

11:18 **35** Getting to know the elm zigzag sawfly: Updates on phenology, range, and management of a new invasive. **Delaney Serpan** (dlserpan@ncsu.edu), Abigail Ratcliff and Kelly F. Oten, North Carolina State Univ., Raleigh, NC

11:30 **36** Targeted management of ambrosia beetles in apple orchards. **Thomas Scheyer** (Tws94259@uga.edu) and Brett Blaauw, Univ. of Georgia, Athens, GA

11:42 **37** Developing an economic threshold for lesser cornstalk borer in peanut based on moth capture in pheromone baited delta traps. **Madison Lane** (ml05062@uga.edu), UGA Entomology, 31620, GA

11:54 **38** On-farm comparison of Bt and non-Bt refuge corn hybrids for yield and feeding by *Helicoverpa zea*. **Alexis Alsdorf** (amiddle@ncsu.edu)¹, Dominic Reisig², Igor Scharndong¹, Sally Taylor¹, Joshua Mott³ and Sean Malone⁴, ¹North Carolina State Univ., Raleigh, NC, ²North Carolina State Univ., Plymouth, NC, ³Virginia Tech, Blacksburg, VA, ⁴Virginia Tech Univ., Painter, VA

Masters Student 10-min Competition 4

Hamilton (Augusta Marriott at the Convention Center)

Moderators: Scott Graham¹ and Oscar Liburd², ¹Auburn Univ., Auburn, AL, ²Univ. of Florida, Gainesville, FL

10:30 **39** Assessment of management techniques and their interactions for thrips and TSWV in field peanuts. **Claire Cooke** (cac0243@auburn.edu) and Scott Graham, Auburn Univ., Auburn, AL

10:42 **40** Can we manage organic sweetpotato pests with winter cover crops and biological control? **Claire Schloemer** (czs0171@auburn.edu)¹, Scott Graham¹, Kathy Lawrence¹, Koon-Hui Wang² and Brent Sipes², ¹Auburn Univ., Auburn, AL, ²Univ. of Hawai'i at Manoa, Honolulu, HI

10:54 **41** Leveraging banker plants as a tool for *Scirtothrips dorsalis* Hood (Thysanoptera Thripidae) suppression in Florida strawberries. **Allan Busuulwa** (abusuulwa@ufl.edu)¹, Alexandra Revynthi², Oscar Liburd³ and Sriyanka Lahiri¹, ¹Univ. of Florida - Gulf Coast Research and Education Center, Wimauma, FL, ²Univ. of Florida—Tropical Research and Education Center, Homestead, FL, ³Univ. of Florida, Gainesville, FL

11:06 **42** Susceptibility of *Helicoverpa zea* in the southeastern United States to eight common insecticides. **Bhavana Patla** (bhavanapatla1243@gmail.com)¹, Shucong Lin¹, Jeffrey Davis², Graham Head³, Xinzhi Ni⁴, Don Cook⁵, Francis Jones⁶, Sebe Brown⁷, Ying Niu⁷ and Fangneng Huang⁷, ¹Louisiana State Univ., baton rouge, LA, ²Louisiana State Univ., Baton Rouge, LA, ³Monsanto Company, St. Louis, MO, ⁴USDA - ARS, Tifton, GA, ⁵Mississippi State Univ., Stoneville, MS, ⁶Clemson Univ., Florence, SC, ⁷Louisiana State Univ. Agricultural Center, Baton Rouge, LA

11:18 **43** At what level does simulated insect defoliation impact yield in double-cropped soybean? **Igor Schardong** (isulzba@ncsu.edu)¹, Dominic Reisig², Anders Huseh¹ and Rachel Vann¹, ¹North Carolina State Univ., Raleigh, NC, ²North Carolina State Univ., Plymouth, NC

11:30 **44** Mid-south survey and biological assay of Tennessee brown marmorated stink bugs – a feeding study. **Alexandra Crowder** (acrowd12@vols.utk.edu)¹ and Sebe Brown², ¹Univ. of Tennessee, Jackson, TN, ²Louisiana State Univ. Agricultural Center, Baton Rouge, LA

11:42 **45** Assessing cold tolerance variations in geographically distinct *Eoreuma loftini* populations and modeling future North American range expansion. **Tanner Hartley** (Thart15@lsu.edu)¹, Blake Wilson² and Michael Stout³, ¹LSU Ag Center, Baton Rouge, LA, ²Louisiana State Univ., Agricultural Center, Baton Rouge, LA, ³Louisiana State Univ., Baton Rouge, LA

PhD Student 10-min Competition 1

Walsh (Augusta Marriott at the Convention Center)

Moderators: Mary Jane Lytle¹ and Amanda Hodges², ¹Mississippi State Univ., Stoneville, MS, ²Univ. of Florida, Gainesville, FL

10:30 **46** Impact of genetic background on gene drive homing rate in *Drosophila suzukii*. **Ariel Tarrand** (aetarran@ncsu.edu), Amarish Yadav, Akihiko Yamamoto and Maxwell Scott, North Carolina State Univ., Raleigh, NC

10:42 **47** Can insecticides protect soybean seed quality? **Alejandra Velez** (avelez28@lsu.edu) and Jeffrey Davis, Louisiana State Univ., Baton Rouge, LA

10:54 **48** Riding out the storm: How fire ants can survive floods for weeks. **Andrew Robertson** (arobertson66@gatech.edu), Hosain Bagheri, Daniel Goldman and Michael Goodisman, Georgia Institute of Technology, Atlanta, GA

11:06 **49** Soil phosphorus mediates top-down control of herbivores and reduces yield via weed growth in organic cropping system. **Carly Sharp** (carly.sharp@uga.edu)¹, William Snyder¹, Kate Cassity-Duffey¹, Carmen Blubaugh² and Anny Chung¹, ¹Univ. of Georgia, Athens, GA, ²Univ. of Illinois Urbana Champaign, Urbana, IL

11:18 **50** Alternate hosts of a polerovirus induce differential gene expression in aphids following virus acquisition. **Sudeep Pandey** (sp36142@uga.edu)¹, Michael Catto², Phillip Roberts³, Sudeep Bag⁴, Alana Jacobson⁵ and Rajagopalbabu Srinivasan¹, ¹Univ. of Georgia, Griffin, GA, ²Univ. of Georgia, Athens, GA, ³Univ. of Georgia, Tifton, GA, ⁴Univ. of Georgia, Tifton Campus, Tifton, GA, ⁵Auburn Univ., Auburn, AL

11:30 **51** The “spicebush” of life: Informing conservation efforts by determining insect diversity and community composition of northern spicebush. **Matthew Longmire** (mlongmir@vols.utk.edu)¹, Jerome Grant¹ and Albert Mayfield², ¹Univ. of Tennessee, Knoxville, TN, ²USDA - Forest Service, Asheville, NC

11:42 **52** Influence of soybean and cotton rotations on stink bugs in North Carolina corn. **Kevin Orta** (korta@ncsu.edu)¹ and Dominic Reisig², ¹North Carolina State Univ., Raleigh, NC, ²North Carolina State Univ., Plymouth, NC

11:54 **53** A behavioral and character-trait based phylogeny of the Melitaeini tribe (Nymphalidae: Lepidoptera). **Jamie Phelps** (jamie.phelps123@gmail.com), Louisiana State Univ., Baton Rouge, LA

12:06 **54** Incorporating *Sweet alyssum* flowers (*Lobularia maritima*) to optimize biological control of diamondback moth (*Plutella xylostella*) for sustainable Brassica production in the southeastern United States. **Amna Ghani** (aghani@clemson.edu) and Tom Bilbo, Clemson Univ., Charleston, SC

12:18 **55** Developing a marking method for corn silk flies (Diptera: Ulidiidae). **Brynn Johnson** (brynnjohnson@ufl.edu)¹, Julien Beuzelin¹, Sandy Allan², Lauren Diepenbrock³ and Philip Hahn⁴, ¹Univ. of Florida, Belle Glade, FL, ²USDA-ARS, Gainesville, FL, ³Univ. of Florida, Lake Alfred, FL, ⁴Univ. of Florida, Gainesville, FL

Monday, March 18, 2024, Afternoon

PhD Student 10-min Competition 2

Lamar B (Augusta Marriott at the Convention Center)

Moderators: Michael Stout¹ and Blake Wilson²,
¹Louisiana State Univ., Baton Rouge, LA, ²Louisiana State Univ.,
Agricultural Center, Baton Rouge, LA

1:30 **61** Assessing varietal resistance to the sugarcane borer (*Diatraea saccharalis*) in Louisiana sugarcane. **Tyler Musgrove** (tmusgr1@lsu.edu)¹, James Villegas² and Blake Wilson¹, ¹Louisiana State Univ., Agricultural Center, Baton Rouge, LA, ²Dean Lee Research & Extension Center, Alexandria, LA

1:42 **62** Longitudinal monitoring of honey bee colonies along an agricultural intensification gradient in Mississippi. **Angus Catchot III** (alc607@msstate.edu)¹, Urita Agana¹, Audrey Sheridan², Priyadarshini Chakrabarti Basu¹ and Jeff Gore³, ¹Mississippi State Univ., Starkville, MS, ²Mississippi State Univ., Mississippi State, MS, ³Mississippi State Univ., Stoneville, MS

1:54 **63** Evaluation of protective gels to enhance application and efficacy of the entomopathogenic nematode, *Steinernema carpocapsae*, a natural insect parasite. **Sabrina Elgar** (sab99204@uga.edu)¹, David Shapiro-Ilan² and Brett Blaauw¹, ¹Univ. of Georgia, Athens, GA, ²USDA - ARS, Byron, GA

2:06 **64** Movement and intraguild predation with the crop pest predators, *Harpalus pensylvanicus* and *Geocoris* spp. **Malcolm Peavy** (peavy@uga.edu), Univ. of Georgia, Athens, GA

2:18 **65** Don't go chasing waterfalls: Increased collection of medically relevant ticks further away from hiking trails in the Piedmont of North Carolina, USA. **Dayvion Adams** (dradams4@ncsu.edu)¹, Anastasia Figurskey¹, Alexis M. Barbarin² and Michael Reiskind¹, ¹North Carolina State Univ., Raleigh, NC, ²North Carolina Division of Public Health, Raleigh, NC

2:30 **66** Transcriptomic evidence for a conserved nudiviral RNA polymerase in the parasitoid wasp, *Microplitis demolitor*, and the implications on *Bracovirus* gene discovery. **Kelly Tims** (kelly.tims@uga.edu) and Gaelen Burke, Univ. of Georgia, Athens, GA

2:42 **67** Refining treatment thresholds of insect pests in South Carolina soybeans using simulated injury and natural populations. **Adam Whitfield** (aywhitf@g.clemson.edu)¹, Jeremy Greene¹, Francis Reay-Jones², Michael Plumblee¹ and Kendall Kirk¹, ¹Clemson Univ., Blackville, SC, ²Clemson Univ., Florence, SC

2:54 **68** Investigating the impact of silicon on the emission of constitutive and herbivore-induced plant volatiles by using *OsLsi1* deficient mutant rice lines. **Jyoti Sharma** (JSHARM4@LSU.EDU)¹, Alexander Gaffke², Thomas Tai³ and Michael Stout¹, ¹Louisiana State Univ., Baton Rouge, LA, ²United States Dept. of Agriculture, Agricultural Research Service, Tallahassee, FL, ³USDA - ARS, Davis, CA

3:06 **69** Exploring the role of microorganism in plant growth and defense against two-spotted spider mites in greenhouse hemp. **Ivy Thweatt** (ithweatt4787@myasu.alasu.edu)¹, Olufemi Ajayi² and Muhammad Saleem², ¹Alabama State Univ., Montgomery, AL, ²Alabama State Univ., Montgomery, AL

PhD Student 10-min Competition 3

Lamar C (Augusta Marriott at the Convention Center)

Moderators: Shimat Joseph¹ and Don Cook², ¹Univ. of Georgia, Griffin, GA, ²Mississippi State Univ., Stoneville, MS

1:30 **70** Plinazolin technology fit in Mississippi ThryvOn and non-ThryvOn cotton systems. **Caleb Rice** (Crr315@msstate.edu)¹, Whitney Crow², Tyler Towles³, Don Cook⁴, Fred Musser⁵, Brian Pieralisi⁶, Ryan L. Jackson⁷, Seth Permenter⁴, Michael Huoni⁴, Mary Jane Lytle⁴ and Hunter Lipsey⁴, ¹Mississippi State Univ., Indianola, MS, ²Mississippi State Univ., Mississippi, MS, ³Louisiana State Univ. Agricultural Center, Winnsboro, LA, ⁴Mississippi State Univ., Stoneville, MS, ⁵Mississippi State Univ., Mississippi State, MS, ⁶Mississippi State Univ., Starkville, MS, ⁷USDA - ARS, Stoneville, MS

1:42 **71** Factors influencing the resistance or susceptibility of strawberry genotypes against *Scirtothrips dorsalis* Hood. **Lovely Adhikary** (l.adhikary@ufl.edu)¹, Hugh Smith¹, Vance Whitaker¹, Yu Wang² and Sriyanka Lahiri³, ¹Univ. of Florida, Wimauma, FL, ²Univ. of Florida, Lake Alfred, FL, ³Univ. of Florida - Gulf Coast Research and Education Center, Wimauma, FL

1:54 **72** Abundance of bees is affected by anthropogenically oriented landscape characteristics in Georgia's residential landscapes. **Zia Williamson** (zvw40648@uga.edu) and Shimat Villanassery Joseph, Univ. of Georgia, Griffin, GA

2:06 **73** Management of tarnished plant bugs (*Lygus lineolaris*) in Alabama cotton. **Caitlyn Lawton** (Cbl0027@auburn.edu) and Scott Graham, Auburn Univ., Auburn, AL

2:18 **74** Interspecific competition between major pests of field corn in South Carolina. **Tim Bryant** (timb@clemson.edu)¹, Jeremy Greene² and Francis Reay-Jones¹, ¹Clemson Univ., Florence, SC, ²Clemson Univ., Blackville, SC

- 2:30 **75** Repellency of DEET during host-seeking behavior of bed bugs (*Hemiptera: Cimicidae*) in binary choice olfactometer assays. **Christopher Hayes** (cchayes@ncsu.edu) and Coby Schal, North Carolina State Univ., Raleigh, NC
- 2:42 **76** Foraging behavior of bees on centipede grass spikelets. **Oluwatomi Ibiyemi** (odi91955@uga.edu)¹, Karen-Harris Shultz², David Jespersen¹ and Shimat Joseph¹, ¹Univ. of Georgia, Griffin, GA, ²USDA-ARS, Tifton, GA, TIFTON, GA
- 2:54 **77** Transcriptomic approaches empower the analysis of insecticide resistance mechanisms in *Aedes aegypti*. **Dylan Brown** (djb0094@auburn.edu), Auburn Univ., Auburn, AL
- 3:06 **78** Chilli thrips *Scirtothrips dorsalis* Hood (Thysanoptera: Thripidae) resident and immigrant populations in citrus greenhouse production systems. **Zahra Torkaman** (torkaman.z@ufl.edu), Lauren Diepenbrock and Megan Dewdney, Univ. of Florida, Lake Alfred, FL
- 3:18 **79** Evaluating the importance of organic root volatiles and CO₂ in sugar beet wireworm (*Limonioides californicus*) (Coleoptera: Elateridae) orientation to locate food sources. **Ataosa Nikoukar** (Atoosan@vt.edu)^{1,2}, Rohollah Sadeghi² and Arash Rashed^{1,2}, ¹Virginia Tech, Blacksburg, VA, ²Univ. of Idaho, Moscow, ID

PhD Student 10-min Competition 4

Cumming (Augusta Marriott at the Convention Center)

- Moderators:** Philip Hahn¹ and Dakshina Seal², ¹Univ. of Florida, Gainesville, FL, ²Univ. of Florida, Homestead, FL
- 1:30 **80** Does pollen attract pollen in *Apis mellifera* colonies? **Prathibha P** (ppz0050@auburn.edu)¹, Peter Marting¹, Stephanie Rogers¹ and Michael Smith^{1,2}, ¹Auburn Univ., Auburn, AL, ²Max Planck Institute of Animal Behavior, Universitätsstraße 10, Konstanz, Germany
- 1:42 **81** Monitoring and management of pepper weevil, *Anthonomus eugenii* Cano (Coleoptera: Curculionidae) using novel insecticides. **Victoria Adeleye** (vadeleye@ufl.edu)¹, Dakshina Seal¹, Oscar Liburd², Xavier Martini³ and Geoffrey Meru¹, ¹Univ. of Florida, Homestead, FL, ²Univ. of Florida, Gainesville, FL, ³Univ. of Florida, Quincy, FL
- 1:54 **82** Perturbation of the non-biting midge (Diptera: Chironomidae) microbiome may not influence susceptibility to *Vibrio cholerae* infection. **Aria Deluna** (adeluna@ufl.edu) and Adam Wong, Univ. of Florida, Gainesville, FL
- 2:06 **83** Influence of hemp variety on ovipositional choice of tobacco budworm, *Chloridea virescens*, and corn earworm, *Heliothis zea*. **Julian Cosner** (jcosner@vols.utk.edu), Jerome Grant, Feng Chen, Kimberly Gwinn and Mitchell Richmond, Univ. of Tennessee, Knoxville, TN

- 2:18 **84** Monitoring Pyrethroid resistance in mid-south rice stink bug populations. **Mary Jane Lytle** (mjl449@msstate.edu)¹, Jeff Gore¹, Whitney Crow², Don Cook¹, Jason Bond¹, Tyler Towles¹, Nick Bateman³, Angus Catchot⁴, Caleb Rice⁵, Seth Permenter¹, Michael Huoni¹ and Hunter Lipsey¹, ¹Mississippi State Univ., Stoneville, MS, ²Mississippi State Univ., Mississippi, MS, ³Univ. of Arkansas, Stuttgart, AR, ⁴Mississippi State Univ., Mississippi State, MS, ⁵Mississippi State Univ., Indianola, MS
- 2:30 **85** Investigating interactions between multiple herbivores used as biocontrol agents of invasive air potato (*Dioscorea bulbifera*). **Jasleen Kaur** (jasleenkaur@ufl.edu)¹, Lucia Navia¹, Emily Kraus¹, Eric Rohrig², Diego Amoretti³ and Philip Hahn¹, ¹Univ. of Florida, Gainesville, FL, ²Florida Dept. of Agriculture and Consumer Services: Division of Plant Industry, Gainesville, FL, ³Binghamton Univ., Binghamton, NY
- 2:42 **86** Interactions of Imidacloprid and predatory insects for management of citrus mealybugs (*Planococcus citri*). **Zachary Everson** (zacharyeverson720@gmail.com), Sujana Dawadi and Steven Frank, North Carolina State Univ., Raleigh, NC
- 2:54 **87** Investigating the impact of cotton expressing Mpp51Aa2 on feeding damage and ovipositional preference of stink bug pests. **Nathan Arey** (nathan.arey1@gmail.com) and Sebe Brown, Univ. of Tennessee, Jackson, TN

- 3:06 **88** Developing and validating a S.M.A.R.T. surveillance platform for fly and tick detection on beef cattle. **Katy Smith** (katvsmit@vols.utk.edu), Hao Gan, Amin Nasiri and Becky Trout Fryxell, Univ. of Tennessee, Knoxville, TN
- 3:18 **89** Evaluating resistance to whiteflies and whitefly-transmitted viruses in squash species and bridge lines. **Gurjit Singh** (fg69001@uga.edu)¹, Rajagopalbabu Srinivasan¹, Cecilia McGregor², Alexander Luckew³ and Geoffrey Meru⁴, ¹Univ. of Georgia, Griffin, GA, ²Univ. of Georgia, Athens, GA, ³Dept. of Horticulture, Athens, GA, ⁴Univ. of Florida, Homestead, FL

PhD Student 10-min Competition 5

Hamilton (Augusta Marriott at the Convention Center)

- Moderators:** Ashfaq Sial and Arun Babu, Univ. of Georgia, Athens, GA
- 1:30 **90** Investigating the causal relationships of cotton leafroll dwarf virus incidence in cotton. **John Mahas** (jwm0055@auburn.edu)¹, Kassie Conner¹, Todd Steury¹, Kira Bowen¹, Phillip Roberts², Sudeep Bag³ and Alana Jacobson¹, ¹Auburn Univ., Auburn, AL, ²Univ. of Georgia, Tifton, GA, ³Univ. of Georgia, Tifton Campus, Tifton, GA

1:42 **91** Exploring fruit host preferences in oviposition behavior of *Ganaspis brasiliensis*. **Subin Neupane** (Sbn88190@uga.edu) and Ashfaq Sial, Univ. of Georgia, Athens, GA

1:54 **92** Thrips herbivory impact on above and belowground biomass in ThryvOn Bt cotton. **Laissa Cavallini** (lcavall@ncsu.edu)¹, Dominic Reisig², Renee Ackerman¹, Abigail Waters¹ and Anders Huse¹, ¹North Carolina State Univ., Raleigh, NC, ²North Carolina State Univ., Plymouth, NC

2:06 **93** Surviving the winter: Overwintering of flower thrips in blueberry crops. **Rosan Adhikari** (ra84320@uga.edu) and Ashfaq Sial, Univ. of Georgia, Athens, GA

2:18 **94** Interspecific competition during multiparasitism events between parasitoid wasps of the roseau cane scale (*Nipponaclerda biwakoensis*). **Tanner Sparks** (Tspark3@lsu.edu)¹, Rodrigo Diaz¹ and Hannah Broadley², ¹Louisiana State Univ., Baton Rouge, LA, ²USDA APHIS PPQ, Buzzards Bay, MA

2:30 **95** Drop-and-leave: Implementing alternative management strategies for Asian longhorned beetle (*Anoplophora glabripennis*) eradication. **Courtney Johnson** (clsmitt24@ncsu.edu)¹, David Coyle², Abigail Ratcliff¹ and Kelly F. Oten¹, ¹North Carolina State Univ., Raleigh, NC, ²Clemson Univ., Clemson, SC

2:42 **96** Genetics of rescue participation in *Solenopsis invicta* fire ants. **Paige Caine** (pcaine6@gatech.edu)¹, Esther Okamoto², Sophia Bellissimo², Natalie Nejad¹ and Michael Goodisman¹, ¹Georgia Institute of Technology, Atlanta, GA, ²Agnes Scott College, Decatur, GA

2:54 **97** Understanding varied pheromone traps for monitoring stink bug populations in soybean. **Taynara Possebom** (tposseb@ncsu.edu)¹ and Dominic Reisig², ¹North Carolina State Univ., Raleigh, NC, ²North Carolina State Univ., Plymouth, NC

3:06 **98** Evaluation of foliar adulticide sprays for wireworm (*Coleoptera: Elateridae*) management in sweetpotato. **Emma Schoeppner** (eschoep@ncsu.edu), Matthew Vann, Joseph Cheek, Renee Ackerman and Anders Huse¹, North Carolina State Univ., Raleigh, NC

3:18 **WITHDRAWN 99** Evaluating biopesticide rotations to manage *Bemisia tabaci* MEAM1 (Hemiptera: Aleyrodidae) and Tomato Yellow Leaf Curl Virus in Florida. **Marcelo Dimase** (marcelodimase@ufl.edu)¹, Felipe Barreto da Silva¹, Sriyanka Lahiri², Julien Beuzelin³ and Hugh Smith¹, ¹Univ. of Florida, Wimauma, FL, ²Univ. of Florida - Gulf Coast Research and Education Center, Wimauma, FL, ³Univ. of Florida, Belle Glade, FL

PhD Student 10-min Competition 6

Lamar A (Augusta Marriott at the Convention Center)

Moderators: Igor Schardong¹ and Sumit Jangra², ¹North Carolina State Univ., Raleigh, NC, ²Univ. of Florida, Homestead, FL

1:30 **100** Effects of fall and spring defoliation on plant cane growth. **Schlyer Lee** (Slee@agcenter.lsu.edu)¹ and Blake Wilson², ¹Louisiana State Univ., Prairieville, LA, ²Louisiana State Univ., St. Gabriel, LA

1:42 **101** Assessing gene silencing effects on fitness and virus acquisition in *Thrips palmi* (Thysanoptera: Thripidae). **Rajesh Vavilapalli** (rajesh4ento@gmail.com)¹, Amalendu Ghosh², Sumit Jangra³ and Shimat Villanassery Joseph¹, ¹Univ. of Georgia, Griffin, GA, ²Indian Agricultural Research Institute, New Delhi, Delhi, India, ³Univ. of Florida, Homestead, FL

1:54 **102** Can *Nezara viridula* (Hemiptera: Pentatomidae) transmit the pathogen *Cercospora kikuchii* to soybean? **Kelly O'Reilly** (kmoreill@ncsu.edu)¹, Dominic Reisig² and Rachel Vann¹, ¹North Carolina State Univ., Raleigh, NC, ²North Carolina State Univ., Plymouth, NC

2:06 **103** Improving beneficial insects for pest management in vegetable production through optimization of insectary flowers. **Pragya Kiju** (pragyakiju4488@gmail.com), Clemson, Charleston, SC

2:18 **104** Impacts of hedgerow plantings on arthropod community abundance and movement in Louisiana soybean. **Anjana Duwal** (adual1@lsu.edu)¹, Scott Lee² and Jeffrey Davis³, ¹Louisiana State Univ., Baton Rouge, LA, ²North Carolina State Univ., Mills River, NC, ³Louisiana State Univ. AgCenter, Baton Rouge, LA

2:30 **105** Ecological impacts of invasive joro spiders in southern U.S.. **Brittany F. Barnes** (bbarnes@warnell.uga.edu)¹, Matt Elliot², Rhys Eshleman¹, Erin Grabarczyk³, Colton Meinecke¹, Jason Schmidt⁴, Caterina Villari⁵ and Kamal J.K. Gandhi¹, ¹Univ. of Georgia, Athens, GA, ²Georgia Dept. of Natural Resources, Social Circle, GA, ³Valdosta State Univ., Valdosta, GA, ⁴Univ. of Georgia, Tifton, GA, ⁵The Ohio State Univ., Columbus, OH

2:42 **106** The influence of Imidacloprid seed treatment rates on ThryvOn cotton. **Brett Farmer** (wbf44@msstate.edu)¹, Whitney Crow², Jeff Gore³, Angus Catchot¹, Don Cook³ and Brian Pieralisi⁴, ¹Mississippi State Univ., Mississippi State, MS, ²Mississippi State Univ., Mississippi, MS, ³Mississippi State Univ., Stoneville, MS, ⁴Mississippi State Univ., Starkville, MS

2:54 **107** Confounded effect of hybrid vigor on the measurement of fitness costs and dominance levels of Bt resistance in *Helicoverpa zea*. **Shucong Lin** (SLin@agcenter.lsu.edu)¹, Graham Head², Tiago Silva³, Bhavana Patla⁴, Ying Niu³ and Fangneng Huang³, ¹Louisiana State Univ. Agricultural Center, Baton Rouge, LA, ²Monsanto Company, St. Louis, MO, ³Louisiana State Univ. Agricultural Center, Baton Rouge, LA, ⁴Louisiana State Univ., baton rouge, LA

3:06 **108** Drivers of spatial aggregation and variation in plant-insect interactions. **Jacob Herschberger** (j.herschberger@ufl.edu)¹, Eduardo Calixto², Valerie Campell¹ and Philip Hahn¹, ¹Univ. of Florida, Gainesville, FL, ²West Florida Research and Education Center /Univ. of Florida, Jay, FL

Tuesday, March 19, 2024, Posters

FIT Poster Session

Plaza Lobby (Augusta Marriott at the Convention Center)

P-36 Tennessee Entomological Society. **Karla Adesso** (kaddesso@tnstate.edu), Tennessee State Univ., McMinnville, TN

P-37 First Fridays with Florida First Detector: A year of invasive species webinars. **Morgan Pinkerton** (morgan0402@ufl.edu)¹ and Amanda Hodges², ¹Univ. of Florida/IFAS, Sanford, FL, ²Univ. of Florida, Gainesville, FL

MUVE Poster Session

Plaza Lobby (Augusta Marriott at the Convention Center)

P-38 The sublethal effects of Tempridfx on lone star tick (*Amblyomma americanum*) behavior. **Regan Daniels** (rdaniel4@ncsu.edu)¹, Michael Reiskind² and Sydney Crawley³, ¹North Carolina State University, Raleigh, NC, ²North Carolina State Univ., Raleigh, NC, ³RentoKil, Raleigh, NC

P-39 Exploring the Horizontal Gene Transfer Capabilities of IS5 Transposable Elements in *Orientia tsutsugamushi*. **Kyle Oswalt** (kbo0005@auburn.edu) and John Beckmann, Auburn Univ., Auburn, AL

P-40 Joro spiders: Biology, ecology, and impacts in the Eastern U.S.. **David Coyle** (dcoyle@clemson.edu)¹, Angela Chuang², John Deitsch³, David Nelsen⁴ and Michael Sitvarin⁵, ¹Clemson Univ., Clemson, SC, ²Univ. of Florida, Lake Alfred, FL, ³Univ. of Texas at El Paso, El Paso, TX, ⁴Southern Adventist Univ., Collegedale, TN, ⁵Union College, Schenectady, NY

P-IE Poster Session

Plaza Lobby (Augusta Marriott at the Convention Center)

P-41 Chemical constituents of pollen from industrial hemp and the impact on bee abundance. **Beatrice Dingha** (bdingha@ncat.edu) and Louis Jackai, North Carolina A&T State Univ., Greensboro, NC

P-42 Selecting the best wildflowers for enrichment patches in the Coastal Plain of Central Georgia to boost the abundance of target native bees and pollinating wasps. **Zane Redman** (zred07@yahoo.com)¹ and Mark Schlueter², ¹Pinefield Eco Farm, Hephzibah, GA, ²Georgia Gwinnett College, Lawrenceville, GA

P-43 Georgia Pollinator Partnership (GAPP). **Anna Yellin** (anna.yellin@dnr.ga.gov), Georgia Dept. of Natural Resources, Social Circle, GA

P-44 Evaluation of life history traits of lepidopteran pests as impacted by turfgrass breeding lines: Antibiosis resistance to tropical sod webworm. **Ashley Gamble** (ashley.gamble@ufl.edu)¹, Silvana V. Paula-Moraes², Julia Campos³, J. Bryan Unruh⁴ and Kevin Kenworthy⁵, ¹Univ. of Florida, Jay, FL, ²Entomology & Nematology/ West Florida Research and Education Center/Univ. of Florida, Jay, FL, ³Univ. of Nebraska, Lincoln, NE, ⁴Horticultural Dept., West Florida Research and Education Center, Jay, FL, ⁵Univ. of Florida, Gainesville, FL

P-45 Influence of adjacent lawns and trees on the road verge wildflower and insect pollinator community. **Arek Barkaszi** (barkaszia@ufl.edu), Mark Hostetler, Adam Dale and Basil Iannone, Univ. of Florida, Gainesville, FL

P-46 Determining the nutritional value of crape myrtle (*Lagerstroemia indica*) pollen for pollinators in a critical period of resource dearth. **Giovanni Tundo** (Giovanni.Tundo@usda.gov) and Pierre Lau, USDA-ARS, Stoneville, MS

P-47 The influence of tree canopy on arthropod natural enemies in turf landscapes. **Sujan Dawadi** (sdawadi2@ncsu.edu) and Steven Frank, North Carolina State Univ., Raleigh, NC

P-48 A trait-based examination of the drivers of ecological communities. **Antonia Jordan-Millet** (toni.j.millet@gmail.com)¹, Carolina Baruzzi² and Philip Hahn¹, ¹Univ. of Florida, Gainesville, FL, ²Univ. of Florida, Quincy, FL

P-49 Effects of soil type and putative genet of an endangered cactus: Potential for future out-plantings to the exotic cactus-feeding moth *Cactoblastis cactorum* (Lepidoptera: Pyralidae). **Anthony Rossi** (arossi@unf.edu), Keith Stokes, Dale Casmatta and Luke McCall, Univ. of North Florida, Jacksonville, FL

P-50 Lanternflies and lampshades: Shedding light on spotted lanternfly in North Carolina. **Abigail Ratcliff** (arratcli@ncsu.edu) and Kelly F. Oten, North Carolina State Univ., Raleigh, NC

P-51 Does leaf feeding by the biocontrol agent *Lilioceris cheni* influence subsequent feeding by the biocontrol agent *Lilioceris egea*? **Lucia Navia** (lucia.navia@ufl.edu), Jasleen Kaur and Philip Hahn, Univ. of Florida, Gainesville, FL

P-52 Deterring non-native *Ips grandicollis* in Australian pine stands: Investigating Ips attraction inhibitors to allow for woodwasp biocontrol methods. **Whit Bolado** (whit.bolado@uga.edu)¹, Somia Afzal², Brittany F. Barnes³, R. Andrew Hayes⁴, Helen Nahrung⁴, Brian T. Sullivan⁵ and Dr. Kamal J.K. Gandhi³, ¹Univ. of Georgia, Athens, GA, ²Univ. of the Sunshine Coast, Sippy Downs, QLD, Australia, ³Univ. of Georgia, Athens, GA, ⁴Univ. of the Sunshine Coast, Sippy Downs, Australia, ⁵USDA - Forest Service, Pineville, LA

P-53 Influence of hemp and artificial diets on the fitness of corn earworm (Lepidoptera: Noctuidae) and their tachinid parasitoids (Diptera). **Raul Villanueva** (raul.villanueva@uky.edu)¹ and Armando Falcon-Brindis², ¹Univ. of Kentucky - Research and Education Center, Princeton, KY, ²Univ. of Kentucky, Princeton, KY

P-54 The transcriptomic response of two-spotted spider mites to feeding on different hemp cultivars. **Junhuan Xu** (jxu@alasu.edu)¹, Cai Davis², Joseph Ayariga¹, Ting Li¹ and Olufemi Ajayi¹, ¹Alabama State Univ., Montgomery, AL, ²Jackson State Univ., Jackson, MS

P-55 Release and recovery efforts of the parasitoid wasp, *Ganaspis brasiliensis*, to control spotted-wing drosophila in Georgia. **Ashfaq Sial** (ashsial@uga.edu) and Cera Jones, Univ. of Georgia, Athens, GA

P-57 A trapping method to manage cucumber beetles (Coleoptera: Chrysomelidae). **Kaushalya Amarasekare** (kamarase@tnstate.edu), Firuz Yuldashev, Yuna Gaire, Binita Sigdel, Sarah Kilcoyne and Mariah McCullough, Tennessee State Univ., Nashville, TN

P-58 Effects of enhanced lure formulation on southern pine beetle catches in the northeastern U.S.. **Joshua Barbosa** (jjb05517@uga.edu)¹, Brian T. Sullivan², Brittany F. Barnes¹, Kevin J. Dodds³, Holly L. Munro¹ and Kamal Gandhi¹, ¹Univ. of Georgia, Athens, GA, ²USDA - Forest Service, Pineville, LA, ³USDA - Forest Service, Durham, NH

P-59 Early season monitoring of tarnished plant bug, *Lygus lineolaris*, in wild hosts using pheromone traps. **Justin George** (Justin.George@usda.gov)¹, James Glover¹, Gadi Reddy², Chris Johnson¹ and David Hall³, ¹USDA-ARS, Stoneville, MS, ²USDA-ARS SIMRU, Stoneville, MS, ³Univ. of Greenwich, Chatham, United Kingdom

P-60 Temporal population dynamics of *Spodoptera eridania* (Lepidoptera: Noctuidae) in the Florida Panhandle. **Eduardo Calixto** (calixtos.edu@gmail.com) and Silvana V. Paula-Moraes, Entomology & Nematology/ West Florida Research and Education Center/Univ. of Florida, Jay, FL

P-61 Management of pepper weevil, *Anthonomus eugeni* Cano (Cool.: Curculionidae), using various biological, reduced risk and conventional insecticides in South Florida. **Dakshina Seal** (dseal3@ufl.edu), Victoria Adeleye, Naga Mani Kanchupati and Sumit Jangra, Univ. of Florida, Homestead, FL

P-62 Wing morphometrics as a tool to support species identification and IPM/quarantine decisions in the subfamily Plusiinae (Lepidoptera: Noctuidae). **Karina Torres** (torresk@ufl.edu)¹, Silvana V. Paula-Moraes², Kayla Mollet³ and Allan Smith-Pardo⁴, ¹West Florida Research and Education Center /Univ. of Florida, Jay, FL, ²Entomology & Nematology/ West Florida Research and Education Center/Univ. of Florida, Jay, FL, ³Pest Identification Technology Laboratory, Fort Collins, CO, ⁴Pest Identification Technology Laboratory, Sacramento, CA

P-63 Diversity and molecular identification of *Systena frontalis* (Coleoptera: Chrysomelidae) populations in eastern United States. **Ramkumar Govindaraju** (ayvidram@gmail.com) and Shimat Joseph, Univ. of Georgia, Griffin, GA

P-64 Impact of environmental factors on burrower bug injury and Aflatoxin on peanut. **Kemper Sutton** (kemper.sutton@uga.edu), Mark Abney and Cristiane Pilon, Univ. of Georgia, Tifton, GA

P-65 Thrips oviposition across planting dates on cotton, soybean, and peanut in Alabama. **Jessica Mahas** (jba0022@auburn.edu), Giovani Rossi, Anitha Chitturi and Alana Jacobson, Auburn Univ., Auburn, AL

P-66 Insect management practices in Georgia peanut. **Mark Abney** (mrabney@uga.edu), Univ. of Georgia, Tifton, GA

P-67 Efficacy of soil-applied insecticides for control of wireworms. **Carlos Rivera** (CRiveraOliver@agcenter.lsu.edu)¹, Carlos Wiggins¹, Blake Wilson², Hannah Penn³ and R.T. Richard⁴, ¹Louisiana State Univ., Baton Rouge, LA, ²Louisiana State Univ., Agricultural Center, Baton Rouge, LA, ³Univ. of Kentucky, Lexington, KY, ⁴USDA-ARS, Houma, LA

P-68 Insecticide seed treatments on field corn yield in Mississippi. **Dung Bao** (db3@msstate.edu), Mississippi State Univ., MSU, MS

P-69 Residual activity of selected insecticides for control of rice weevil, *Sitophilus oryzae*, in field corn in storage. **Glenn Studebaker** (gstudebaker@uada.edu)¹ and Matthew Mann², ¹Univ. of Arkansas, Keiser, AR, ²Univ. of Arkansas System Division of Agriculture Cooperative Extension Service, Jonesboro, AR

P-70 Evaluating the long-term efficacy of *Beauveria bassiana* wettable powder on jute bags for controlling *Sitophilus zeamais* in maize storage. **Sanower Warsi** (sanower.warsi@fvsu.edu)¹, Yinping Li², George Mbata² and David Shapiro-Ilan³, ¹Fort Valley State Univ., fort valley, GA, ²Fort Valley State Univ., Fort Valley, GA, ³USDA - ARS, Byron, GA

SysEB and PBT Poster Session

Plaza Lobby (Augusta Marriott at the Convention Center)

P-71 An updated species list of South Carolina lady beetles. **Louis Hesler** (louis.hesler@usda.gov), USDA-ARS, North Central Agricultural Research Laboratory, Brookings, SD

P-72 Performance of Vip3Aa Bt maize against fall armyworm populations in an agricultural frontier region of Brazil. Alisson Silva¹, Luciana Silva¹, José Malaquias², Angelica Salustino², Neurandi Rocha¹, Lorrana Almeida³, Daniel Pacheco¹ and **Eliseu Pereira** (eliseu.pereira@ufv.br)³, ¹Federal Univ. of Piauí, Bom Jesus, Piauí, Brazil, ²Federal Univ. of Paraíba, Areia, Paraíba, Brazil, ³Federal Univ. of Vicosa, Viçosa, Minas Gerais, Brazil

P-73 Aging on division of labor in stingless bee (*Tetragonisca angustula*) soldiers. **Joseph Serio** (w10143206@usm.edu), Kristin Robinson and Kaitlin Baudier, The Univ. of Southern Mississippi, Hattiesburg, MS

Tuesday, March 19, 2024, Morning

Pest Management Challenges and Research Advances in Tree Fruit Crops of Southeastern US

Cumming (Augusta Marriott at the Convention Center)

Moderators and Organizers: Apurba Barman¹, Xavier Martini², Apurba Barman¹ and Xavier Martini², ¹Univ. of Georgia, Tifton, GA, ²Univ. of Florida, Quincy, FL

8:00 Welcoming remarks

8:05 **109** Mating disruption manages borers (Lepidoptera: Sesiidae) attacking peach. **Ted Cottrell** (ted.cottrell@usda.gov)¹ and Dan L. Horton², ¹USDA-ARS, Byron, GA, ²Univ. of Georgia, Athens, GA

8:25 **110** Distribution and overwintering of the Asian citrus psyllid in North Florida and Georgia. **Xavier Martini** (xmartini@ufl.edu), Univ. of Florida, Quincy, FL

8:45 **111** Ambrosia beetle behavior in response to environmental cues at the landscape. **Jensen Hayter** (jhayter@ncsu.edu)¹, Julie Baniszewski², Aron Weber³, Sara Villani¹, Christopher Ranger⁴ and Jim Walgenbach¹, ¹North Carolina State Univ., Mills River, NC, ²Pennsylvania State Univ., Univ. Park, PA, ³North Carolina State Univ., Raleigh, NC, ⁴USDA - ARS, Wooster, OH

9:05 **112** Developing integrated management of Asian citrus psyllid. **Jawwad Qureshi** (jawwadq@ufl.edu)¹, Gabriel Rugno¹ and Salman Al-Shami², ¹Univ. of Florida, Immokalee, FL, ²Univ. of Florida, Fort Pierce, FL

9:25 **113** Advancements of IPM in Southeastern peach production. **Brett Blaauw** (bblaauw@uga.edu), Univ. of Georgia, Athens, GA

9:45 **114** Current status of insect pest management in Georgia's citrus production. **Apurba Barman** (abarman@uga.edu), Univ. of Georgia, Tifton, GA

10:05 Break

10:20 **115** Developing IPM programs for the hibiscus mealybug (*Nipaecoccus viridis*) in Florida citrus orchards. **Emilie Demard** (edemard@ufl.edu) and Lauren Diepenbrock, Univ. of Florida, Lake Alfred, FL

10:40 **116** The natural history of Diaprepes root weevil and Florida's entomopathogenic nematodes. **Larry Duncan** (lwduncan@ufl.edu), Univ. of Florida, Lake Alfred, FL

11:00 Concluding remarks

Southern Forest Insects and Forest Health: The Bothersome, Benign, and Beneficial

Hamilton (Augusta Marriott at the Convention Center)

Moderators and Organizers: Thomas Sheehan^{1,2}, Christine Favorito² and Kier Klepzig², ¹Univ. of Georgia, Athens, GA, ²The Jones Center at Ichauway, Newton, GA

8:00 Introductory remarks

8:10 **117** Thinking the unthinkable: Are we prepared for a pandemic in Southern pines? **Kier Klepzig** (kier.klepzig@jonesctr.org)¹ and Kamal J.K. Gandhi², ¹The Jones Center at Ichauway, Newton, GA, ²Univ. of Georgia, Athens, GA

8:25 **124** Forest age drives saproxylic beetle biodiversity in the Southeastern United States. **Clayton Traylor** (ct78244@uga.edu)¹, Michael Ulyshen² and Joseph McHugh¹, ¹Univ. of Georgia, Athens, GA, ²US Forest Service, Athens, GA

8:40 **119** Nantucket pine tip moth: Management challenges and exploring a new insecticide option. **Elizabeth McCarty** (elizabeth.mccarty@uga.edu)¹, Victoria Cassidy¹, David Dickens², Christopher Asaro³, Kamal J.K. Gandhi⁴ and David Clabo¹, ¹Univ. of Georgia, Tifton, GA, ²Univ. of Georgia, Statesboro, GA, ³USDA Forest Service, Atlanta, GA, ⁴Univ. of Georgia, Athens, GA

8:55 **120** How to catch a moth flying under the radar: Alligators, cottonmouths, and wasps, oh my!. **Kristy M. McAndrew** (kmm1280@msstate.edu)¹, Brian T. Sullivan² and Samuel F. Ward³, ¹Mississippi State Univ., Starkville, MS, ²USDA - Forest Service, Pineville, LA, ³The Ohio State Univ., Columbus, OH

9:10 **121** Defensive response of evolutionarily naïve pines to the fungal associate *Grossmannia clavigera*. **Kevin Chase** (kchase@bartlett.com)^{1,2} and Brian Aukema², ¹Bartlett Tree Research Laboratory, Reading, Berkshire, United Kingdom, ²Univ. of Minnesota, St. Paul, MN

9:25 **122** How do prescribed fire and salvage logging impact subcortical beetles in longleaf pine forests one-year after a catastrophic hurricane? **Benjamin M. Gochnour** (bmg1110@gmail.com)¹, Chelsea N. Miller², Thomas N. Sheehan^{1,3}, Kier D. Klepzig³ and Kamal J.K. Gandhi¹, ¹Univ. of Georgia, Athens, GA, ²Univ. of Akron, Akron, OH, ³The Jones Center at Ichauway, Newton, GA

9:40 **123** It's been a hard day's night and I've been looking for a log: Patterns of diel activity for saproxylic beetles. **Thomas N. Sheehan** (thomas.sheehan@uga.edu)¹, Christine Favorito², Mary McTeague³, Anthony Deczynski⁴, Michael D. Ulyshen⁵, Joseph McHugh¹, Clayton Traylor¹, Alan Bosworth¹ and Kier D. Klepzig², ¹Univ. of Georgia, Athens, GA, ²The Jones Center at Ichauway, Newton, GA, ³Mississippi State Univ., Mississippi State, MS, ⁴Clemson Univ., Clemson, SC, ⁵USDA Forest Service, Athens, GA

9:55 **WITHDRAWN 118** Sugarberry dieback and mortality: Where do we go from here? **Emilee M. Poole** (emilee.poole@usda.gov), Michael D. Ulyshen and Scott Horn, USDA Forest Service, Athens, GA

10:10 Break

10:25 **125** We could be (humus) heroes: Uncovering the mini marvels of the forest floor. **Jessica Hartshorn** (jhartsh@clemson.edu), Clemson Univ., Clemson, SC

10:40 **126** Services and disservices of ants in Southeastern US forests and grasslands. **Joshua King** (joshua.king@ucf.edu), Univ. of Central Florida, Orlando, FL

10:55 **127** Using a trait-based approach to assess impacts of a catastrophic tornado on forest ants. **Ouranía M. Nikolaidis** (ourania.nikolaidis@uga.edu)¹, James T. Vogt², Brittany Barnes¹, Bronson P. Bullock¹, Daniel Johnson¹ and Kamal J.K. Gandhi¹, ¹Univ. of Georgia, Athens, GA, ²USDA Forest Service, Athens, GA

11:10 **128** Prescribed fire as a tool for conserving wild bees in managed pine forests. **Elise McDonald** (ebm21253@uga.edu)¹, Christine C. Fortuin² and Kamal J.K. Gandhi¹, ¹Univ. of Georgia, Athens, GA, ²Mississippi State Univ., Mississippi State, MS

11:25 **129** Forest herbicides support abundant and species rich wild bee communities in working loblolly pine stands. **Emma L. Briggs** (emma.briggs@uga.edu)¹, Daniel U. Greene², Christine C. Fortuin³, Brittany F. Barnes¹ and Kamal J.K. Gandhi¹, ¹Univ. of Georgia, Athens, GA, ²Weyerhaeuser Company, Columbus, MS, ³Mississippi State Univ., Mississippi State, MS

11:40 **130** Local factors influence the wild bee functional community at the urban-forest interface. **Miriam Edelkind-Vealey** (miriam.edelkind@uga.edu)¹, Michael D. Ulyshen² and S. Kristine Braman¹, ¹Univ. of Georgia, Athens, GA, ²USDA Forest Service, Athens, GA

11:55 Concluding remarks

The Superorganism (Super Vector) Sweetpotato Whitefly in the Southeastern United States

Walsh (Augusta Marriott at the Convention Center)

Moderators and Organizers: Rajagopalbabu Srinivasan¹, Alvin Simmons², Allen J. Moore³ and Muhammad Ahmed⁴, ¹Univ. of Georgia, Griffin, GA, ²USDA, Charleston, SC, ³Univ. of Georgia, Athens, GA, ⁴United States Dept. of Agriculture, Fort Pierce, FL

8:00 **131** Trade-offs in selective insecticides and entomopathogens for promoting arthropod mediated whitefly control. Albertha Parkins (Albertha.parkins@uga.edu)¹, Arash Kheirodin², **Jéssica Martins**¹, David Shapiro-Ilan³, Alvin Simmons⁴ and Jason Schmidt¹, ¹Univ. of Georgia, Tifton, GA, ²Texas A&M Univ., Dallas, TX, ³USDA - ARS, Byron, GA, ⁴USDA, Charleston, SC

8:20 **132** Is climate change exacerbating whitefly outbreaks? **William Snyder** (wesnyder@uga.edu), Univ. of Georgia, Athens, GA

8:40 **133** Impact assessment of weather variability on sweetpotato whitefly (*Bemisia tabaci* MEAM1) infestations on snapbean and squash cultivars. **Sanower Warsi** (sanower.warsi@fvsu.edu)¹, Yinping Li², George Mbata² and Alvin Simmons³, ¹Fort Valley State Univ., Fort Valley, GA, ²Fort Valley State Univ., Fort Valley, GA, ³USDA, Charleston, SC

9:00 **134** The distribution and predatory potential of Pallidus beetle, *Delphastus pallidus* LeConte (Insecta: Coleoptera: Coccinellidae), a native predatory beetle of whitefly species in Florida. **Muhammad Ahmed** (muhammad.ahmed@usda.gov)¹, Cindy McKenzie² and Lance Osborne³, ¹United States Dept. of Agriculture, Fort Pierce, FL, ²USDA - ARS, Fort Pierce, FL, ³Univ. of Florida, Apopka, FL

9:20 **135** Role of leaf trichomes and metabolites on tomato resistance to whiteflies. **Andre da Silva** (azb0207@auburn.edu)¹, Thiago Rutz¹, Camila Rodrigues¹, Jessica Pizzo¹, Ahmed Hamid¹, Ann Ojeda¹ and Alvin Simmons², ¹Auburn Univ., Auburn, AL, ²USDA, Charleston, SC

9:40 **136** Host plant traits and insecticide efficacy in whitefly management within a cotton-cucurbit intercropping system. **Paulo Cremonez** (paulogimz@uga.edu)¹, Arash Kheirodin², Jason Schmidt³, Alvin Simmons⁴ and David Riley³, ¹Londrina State Univ., Londrina, Brazil, ²Texas A&M Univ., Dallas, TX, ³Univ. of Georgia, Tifton, GA, ⁴USDA, Charleston, SC

10:00 **137** Combining entomopathogenic nematodes with conventional insecticides for better whitefly management. **Jermaine Perier** (jermaine.perier@uga.edu)¹, David Shapiro-Ilan², Michael Toews³ and Alvin Simmons⁴, ¹Florida A&M Univ., Tallahassee, FL, ²USDA-ARS, SE Fruit and Tree Nut Research Laboratory, Byron, GA, ³Univ. of Georgia, Tifton, GA, ⁴USDA, Charleston, SC

10:20 Break

10:35 **138** Genetic factors implicated in metabolic resistance to imidacloprid and cyantraniliprole in Georgia populations of the whitefly, *Bemisia tabaci*. **Mohammad al-Baki** (mdabdullah.albaki@uga.edu)¹, Donald Champagne¹, Jermaine Perier², Paulo Cremonese², Thomas (Sam) Dunn¹, Alvin Simmons³ and David Riley², ¹Univ. of Georgia, Athens, GA, ²Univ. of Georgia, Tifton, GA, ³USDA, Charleston, SC

10:55 **139** Side golden mosaic virus: A new and emerging whitefly-transmitted virus in the Southeast. **Kamran Rashid** (kamran.rashid@uga.edu)¹, Gurjit Singh¹, Alvin Simmons² and Rajagopalbabu Srinivasan¹, ¹Univ. of Georgia, Griffin, GA, ²USDA, Charleston, SC

11:15 **140** Whitefly-transmitted tomato chlorosis virus complicates the management of tomato yellow leaf curl virus in cultivated tomato in the Southern United States. Sudeep Bag (Sudeepbag@uga.edu)¹, **Manish Kumar**², Theodore McAvoy², Samuel Hutton³ and Alvin Simmons⁴, ¹Univ. of Georgia, Tifton Campus, Tifton, GA, ²Univ. of Georgia, Tifton, GA, ³Univ. of Florida, Wimauma, FL, ⁴USDA, Charleston, SC

11:35 **141** Identification of begomovirus coat protein interacting partners from *Bemisia tabaci*. **Banani Mondal** (banani.mondal@uga.edu)¹, Saptarshi Ghosh¹, Alvin Simmons² and Rajagopalbabu Srinivasan¹, ¹Univ. of Georgia, Griffin, GA, ²USDA, Charleston, SC

Working Together Towards Solving Major Issues in Medical and Veterinary Entomology

Lamar C (Augusta Marriott at the Convention Center)

Moderators and Organizers: Estelle Martin¹, Yasmin Ortiz², Estelle Martin¹ and Yasmin Ortiz², ¹Univ. of Florida, Gainesville, FL, ²Univ. of Florida, FMEL, Vero Beach, FL

8:00 **142** Socio-economic factors and mosquito abundance: A suburban case study. Timothy McNamara and **Estelle Martin** (estellemartin@ufl.edu), Univ. of Florida, Gainesville, FL

8:15 **143** What to do when your food is trying to kill you: Defenses against toxic blood meals by hematophagous insects. **Donald Champagne** (dchampa@uga.edu), Univ. of Georgia, Athens, GA

8:30 **144** Leveraging systematic review data to identify the host associations of *Amblyomma americanum* and *Dermacentor variabilis* (Acari: Ixodidae) ticks. **Dayvion Adams** (dradams4@ncsu.edu), Kaylin Lewandowski and Michael Reiskind, North Carolina State Univ., Raleigh, NC

8:45 **145** Insights on mosquito fungal ecology. Daniel Pérez Ramos¹, Martina Ramos¹, Ron Masse², Ian Sandum¹ and **Eric Caragata** (e.caragata@ufl.edu)¹, ¹Univ. of Florida, FMEL, Vero Beach, FL, ²Univ. of Florida, Gainesville, FL

9:00 **146** Factors impacting thermal tolerance in mosquitoes. **Kristen Healy** (khealy@agcenter.lsu.edu), Louisiana state Univ., Baton Rouge, LA

9:15 **147** Infection kinetics of *Trypanosoma cruzi* within the digestive tract of the kissing bug *Rhodnius prolixus*. **Ruby Harrison** (ruby.harrison25@uga.edu), Kevin Vogel and R. Etheridge, Univ. of Georgia, Athens, GA

9:30 **148** Working together across mosquito control and public health to elucidate zoonotic vector borne disease hazard. **Lindsay Campbell** (lcampbell2@ufl.edu)¹, Yasmin Tavares², Amely Bauer¹ and Robert Gurlanick³, ¹Univ. of Florida, Vero Beach, FL, ²Columbia Univ., New York, NY, ³Florida Museum of Natural History, Univ. of Florida, Gainesville, FL

9:45 **149** Mosquito communities and host use across residential and conservation land uses in Vero Beach, Florida. **Yasmin Ortiz** (ortiz.yasmin@ufl.edu), Simon Casas, Eric Caragata, Lawrence Reeves and Panpim Thongsriping, Univ. of Florida, FMEL, Vero Beach, FL

Ten-Minute Paper Oral 1 (P-IE)

Lamar B (Augusta Marriott at the Convention Center)

Moderators: Julien Beuzelin¹ and Alton Sparks², ¹Univ. of Florida, Belle Glade, FL, ²The Univ. of Georgia, Tifton Campus, Tifton, GA

8:00 **150** Bridging gaps in Bt resistance management by evaluating corn grower and seed dealer dynamics. Alexis Alsdorf¹, **Dominic Reisig** (ddreisig@ncsu.edu)², Zachary Brown¹, Greg Ferraro¹ and Roderick Rejesus¹, ¹North Carolina State Univ., Raleigh, NC, ²North Carolina State Univ., Plymouth, NC

8:12 **151** Effect of Bt traits on sap beetle in field corn for grain production. **G. David Buntin** (gbuntin@uga.edu)¹, Katherine Cassell¹ and Alton Sparks², ¹Univ. of Georgia, Griffin, GA, ²The Univ. of Georgia, Tifton Campus, Tifton, GA

8:24 **152** Attractiveness of hydrolyzed protein baits to corn silk flies (Diptera: Ulidiidae). Larissa Pereira Lima¹, **Julien Beuzelin** (jbeuzelin@ufl.edu)¹, Sandra Allan² and Dakshina Seal³, ¹Univ. of Florida, Belle Glade, FL, ²USDA-ARS, Gainesville, FL, ³Univ. of Florida, Homestead, FL

8:36 **153** Beyond borders: Comprehensive analysis of *Helicoverpa zea* (Boddie) (Lepidoptera: Noctuidae) migration reveals latitudinal patterns and crucial hubs. **Eduardo Calixto** (calixtos.edu@gmail.com)¹, Silvana V. Paula-Moraes¹, Abraao Santos¹, Francis Reay-Jones², Dominic Resig³, Yasmine Farhan⁴, Jocelyn Smith⁴ and William Hutchison⁵, ¹Entomology & Nematology/ West Florida Research and Education Center/Univ. of Florida, Jay, FL, ²Clemson Univ., Florence, SC, ³North Carolina State Univ., Raleigh, NC, ⁴Univ. of Guelph, Ridgetown, ON, Canada, ⁵Univ. of Minnesota, St. Paul, MN

8:48 **154** The value of insecticidal seed treatments for US rice farmers. **Blake Wilson** (bwilson@agcenter.lsu.edu), Louisiana State Univ., Agricultural Center, Baton Rouge, LA

9:00 **155** Monitoring insecticide resistance in soybean looper. **Fred Musser** (fm61@msstate.edu) and Lauren Catchot, Mississippi State Univ., Mississippi State, MS

9:12 **156** Exploring new scouting methods and control strategies for rice water weevils (*Lissorhoptrus oryzophilus*). **Patrick Maris** (pgmaris@uark.edu) and Patrick Maris, Univ. of Arkansas, Stuttgart, AR

9:24 **157** Effectiveness of insecticides in corn grown for the bourbon industry in Kentucky. **Raul Villanueva** (raul.villanueva@uky.edu)¹, Zenaida Viloria² and Armando Falcon-Brindis², ¹Univ. of Kentucky - Research and Education Center, Princeton, KY, ²Univ. of Kentucky, Princeton, KY

9:36 **158** Influence of neem derivatives on development, survival, and reproduction of *Myzus persicae* (Sulzer). **Jeffrey Davis** (jeffdavis@agcenter.lsu.edu), Louisiana State Univ., Baton Rouge, LA

9:48 Break

10:03 **159** Susceptibility of ultra-late soybeans to sweetpotato whitefly. **Phillip Roberts** (proberts@uga.edu) and Sarah Hobby, Univ. of Georgia, Tifton, GA

10:15 **160** *Telenomus remus* in Florida. **Robert Meagher** (rob.meagher@usda.gov)¹ and Jawwad Qureshi², ¹USDA - ARS, Gainesville, FL, ²Univ. of Florida, Immokalee, FL

10:27 **161** Nature's arsenal: Unraveling the potential of viruses for prescriptive management of row crop pests. **James Glover** (james.glover@usda.gov)¹, Omaththage Perera² and Justin George¹, ¹USDA-ARS, Stoneville, MS, ²USDA-ARS, Southern Insect Management Research Unit, Stoneville, MS

10:39 **162** Successful integration of baculoviruses into conventional pest management programs. **Scott Ludwig** (scott.ludwig@upl-ltd.com)¹, Samantha Besse² and Paula Marçon³, ¹UPL, Arp, TX, ²UPL, Pau, Nouvelle-Aquitaine, France, ³AgBiTech, Ft Worth, TX

10:51 **163** Insect pest and aflatoxin surveillance for enhanced quality management in peanut storage. **James Danso** (james.danso@fvsu.edu)¹, George Mbata¹ and Raegan Holton², ¹Fort Valley State Univ., Fort Valley, GA, ²Premium Peanut, Douglas, GA

11:03 **164** Stored grain insect management. **Don Cook** (dcook@drec.msstate.edu)¹, Meg Threeth¹, Tyler Towles¹ and Whitney Crow², ¹Mississippi State Univ., Stoneville, MS, ²Mississippi State Univ., Mississippi, MS

Exploring the Ups and Downs of Successful Graduate Students

Lamar C (Augusta Marriott at the Convention Center)

Moderators and Organizers: Taynara Possebom, Igor Schar dong, Taynara Possebom and Igor Schar dong, North Carolina State Univ., Raleigh, NC

10:15 Introductory Remarks

10:20 **165** Good old days. **Victor Mascarenhas** (victor.mascarenhas@syngenta.com), Syngenta Crop Protection, Nashville, NC

10:40 **166** How to make the most of Grad School? - An international student perspective. **Sriyanka Lahiri** (lahiris@ufl.edu), Univ. of Florida - Gulf Coast Research and Education Center, Wimauma, FL

11:00 **167** Passion and diversity are key: how an applied ecologist found a path in academia. **Alejandro Del Pozo** (adelpozo@vt.edu), Virginia Tech, Dept. of Entomology, Virginia Beach, VA

11:20 **168** Navigating Graduate School as a Fraternity Brother and Rugby Player. **Dominic Reisig** (ddreisig@ncsu.edu), North Carolina State Univ., Plymouth, NC

11:40 **264** Graduate School Challenges with Multiple Professors. **Joshua Mayfield** (Joshua.mayfield@fmc.com), FMC Corporation, Four Oaks, NC

Tuesday, March 19, 2024, Afternoon

Developing and Assessing Extension Programs in Entomology

Cumming (Augusta Marriott at the Convention Center)

Moderators and Organizers: Matthew VanWeelden¹ and Emily Kraus², ¹Univ. of Florida, Belle Glade, FL, ²Univ. of Florida, Gainesville, FL

2:00 **169** Defining your stakeholders and their needs. **Emily Kraus** (emilyckraus@ufl.edu), Univ. of Florida, Gainesville, FL

2:30 **170** Developing and measuring objectives for extension programs. **Matthew VanWeelden** (mvanweel1@ufl.edu), Univ. of Florida, Belle Glade, FL

3:00 **171** Using technology and online teaching tools as extension evolves. **Morgan Pinkerton** (morgan0402@ufl.edu), Univ. of Florida/IFAS, Sanford, FL

3:30 **172** Increasing the impact of your research through collaboration with extension professionals. **Carey Minter-Killian** (c.minterkillian@ufl.edu), Univ. of Florida, Fort Pierce, FL

Recent Advances in Biological Control of Plants and Arthropods

Hamilton (Augusta Marriott at the Convention Center)

Moderators and Organizers: Adam Dale¹, Nicole Quinn² and Adam Dale¹, ¹Univ. of Florida, Gainesville, FL, ²USDA-ARS, Newark, DE

2:00 Welcoming Remarks

2:05 **173** Classical biological control in Tennessee: Looking back to the future. **Jerome Grant** (jgrant@utk.edu), Univ. of Tennessee, Knoxville, TN

2:18 **174** Developing ways to be more proactive with reactive control strategies. **Carey Minter** (cminter@uark.edu)¹, Sara Salgado¹ and Melissa Smith², ¹Univ. of Florida, Fort Pierce, FL, ²USDA - ARS, Fort Lauderdale, FL

2:31 **175** Field validation of sorghum aphid natural enemy thresholds: summation of type I and type II error rates. **Kristopher Giles** (kris.giles@okstate.edu)¹, Nina Rudin¹, Norman Elliott² and Michael Brewer³, ¹Oklahoma State Univ., Stillwater, OK, ²USDA-ARS, Stillwater, OK, ³Texas A&M AgriLife Research, Corpus Christi, TX

2:44 **176** Fortuitous biocontrol: what we know about the roseau can scale parasitoid complex in Louisiana. **Tanner Sparks** (Tspark3@lsu.edu)¹, Ilgo Kang², Rodrigo Diaz³ and Hannah Broadley⁴, ¹Univ. of Georgia, Tifton, GA, ²Louisiana State Univ. Agricultural Center, Baton Rouge, LA, ³Louisiana State Univ., Baton Rouge, LA, ⁴USDA APHIS PPQ, Buzzards Bay, MA

2:57 **177** Revealing parasitoid-aphid food webs in pecans for building future biological control programs. **Pedro Felipe Toledo** (toledo@uga.edu)¹, Eddie Slusher², Ted Cottrell³, Angelita Acebes¹ and Jason Schmidt¹, ¹Univ. of Georgia, Tifton, GA, ²USDA-Agricultural Research Service, Byron, GA, ³USDA-ARS, Byron, GA

3:10 **178** Interactions between multiple biocontrol agents used to control the invasive plant, air potato. **Philip Hahn** (hahnp@ufl.edu)¹, Lucia Navia¹, Jasleen Kaur¹ and Octavio Menocal², ¹Univ. of Florida, Gainesville, FL, ²Univ. of Florida, Homestead, FL

3:23 **179** Opportunities for using real-time satellite monitoring to improve the impact of weed biological control. **Rodrigo Diaz** (rdiaz@agcenter.lsu.edu)¹, Victoria Ayala¹, Logan Herbert¹ and David Kinsler², ¹Louisiana State Univ., Baton Rouge, LA, ²Rhodes Univ., Grahamstown, South Africa

3:36 Break

3:51 **181** European pepper moth plant preferences and insecticide susceptibility. **Steven Frank** (sdfrank@ncsu.edu) and Sophia Copeman, North Carolina State Univ., Raleigh, NC

4:04 **182** *Trichopoda pennipes* host preference and suitability when reared on species of pentatomids and coreids. **Norman Leppla** (ncleppla@ufl.edu) and Lillie Rooney, Univ. of Florida, Gainesville, FL

4:17 **183** Exploring conservation biological control in urban lawns: opportunities and limitations. **Adam Dale** (agdale@ufl.edu), Vashti Tatman and Katherine Carroll, Univ. of Florida, Gainesville, FL

4:30 **184** Development of conservation and augmentative biological control tools for management of chilli thrips, *Scirtothrips dorsalis* Hood, in strawberry. **Sriyanka Lahiri** (lahiris@ufl.edu) and Allan Busuulwa, Univ. of Florida - Gulf Coast Research and Education Center, Wimauma, FL

4:43 **185** Occurrence of entomopathogenic fungi in soil collected from citrus groves with and without cover crops: a baseline analysis. **Pasco Avery** (pascoavery@yahoo.com)¹, Lukas Hallman¹, Lorenzo Rossi² and Ronald Cave¹, ¹Univ. of Florida, Fort Pierce, FL, ²Univ. of Florida, Ft. Pierce, FL

4:56 Concluding Remarks

Pollinators in the Anthropocene: Importance, Threats, and Conservation

Walsh (Augusta Marriott at the Convention Center)

Moderators and Organizers: Sarah Anderson, Neelendra Joshi and Neelendra Joshi, Univ. of Arkansas, Fayetteville, AR

2:00 **186** The effects of tillage on ground-nesting bees in the Southeastern United States. **Anthony Abbate** (apa0011@auburn.edu)¹, Anthony Cuminale², Joshua Campbell³ and Geoffrey Williams¹, ¹Auburn Univ., Auburn, AL, ²Dept. of Entomology and Plant Pathology, Auburn, AL, ³USDA, Sidney, MT

2:14 **187** Comparative toxicities of ingested apple orchard insecticides and fungicides to the adults of the Japanese orchard bee (*Osmia cornifrons*) and the honey bee (*Apis mellifera*). **Ngoc Phan** (pearlp@uark.edu)¹, Timothy Mural², Fang Zhu³, Margarita Lopez-Urbe⁴, Kari Peter⁵, Edwin Rajotte³, David Biddinger⁵ and Neelendra Joshi¹, ¹Univ. of Arkansas, Fayetteville, AR, ²The Pennsylvania State Univ., State college, PA, ³Pennsylvania State Univ., Univ. Park, PA, ⁴Penn State Univ., Univ. Park, PA, ⁵Penn State Fruit Research and Extension Center, Biglerville, PA

2:28 **188** Hover fly conservation in the Anthropocene: What do we know? **C. Scott Clem** (Carl.Clem@uga.edu), Univ. of Georgia, Athens, GA

2:42 **189** Beyond borders: Exploring non-native bees in the Southeastern United States. **Katherine Parys** (katherine.parys@usda.gov)¹, Amber Tripodi², Blair Sampson³ and John S. Ascher⁴, ¹USDA - ARS, Stoneville, MS, ²Unaffiliated, Raleigh, NC, ³USDA - ARS, Poplarville, MS, ⁴National Univ. of Singapore, Singapore, Singapore

2:56 **190** For whom the bell tolls: Identifying anthropogenic threats to North American butterflies. **Jordan Croy** (croy.jordan@uga.edu)¹, Timothy D. Meehan², Jeffery Glassberg³, Michael Crossley¹, Nick Grishin⁴ and William Snyder¹, ¹Univ. of Georgia, Athens, GA, ²Univ. of Wisconsin, Madison, WI, ³North American Butterfly Association, Morristown, NJ, ⁴Univ. of Texas Southwestern Medical Center, Dallas, TX

3:10 Break

3:24 **191** Neonotinoid exposure increases Varroa mite parasitism severity in honey bee colonies and is not mitigated by increased colony genetic diversity. **Lewis Bartlett** (Lewis.Bartlett@uga.edu)¹, Suleyman Alparslan², Selina Bruckner², Deborah Delaney³, John Menz³, Geoffrey Williams² and Keith Delaplane¹, ¹Univ. of Georgia, Athens, GA, ²Auburn Univ., Auburn, AL, ³Univ. of Delaware, Newark, DE

3:38 **192** Between two thorns: Unveiling the hidden ecosystem within blackberry fields. **Hannah Levenson** (hklevens@ncsu.edu) and Hannah Burrack, North Carolina State Univ., Raleigh, NC

3:52 **193** Relationships of wild bees in pollinator-independent agroecosystems. **Isaac Esquivel** (isaac.esquivel@ufl.edu), Univ. of Florida, Quincy, FL

4:06 **194** Toxicity of some ready-to-use and common garden pesticides to blue orchard bees and leafcutter bees. **Neelendra Joshi** (nkjoshi@uark.edu) and Joseph Belsky, Univ. of Arkansas, Fayetteville, AR

Your Approach to Graduate School

Lamar C (Augusta Marriott at the Convention Center)

Moderators and Organizers: Jamal Hunter¹, Md Tafsir Nur Nabi Rashed² and Jamal Hunter¹, ¹Univ. of Georgia, Athens, GA, ²Univ. of Florida, Gainesville, FL

2:00 **195** When an old soul meets grad school. **Jamal Hunter** (jhunter7stallions@gmail.com), Univ. of Georgia, Athens, GA

2:15 **196** From vision to victory: Strategies I learn in my grad school pursuit. **Lovely Adhikary** (l.adhikary@ufl.edu), Univ. of Florida, Wimauma, FL

2:30 **197** Cultivating growth in graduate school: An odyssey of self-discovery. **Laissa Cavallini** (lcavall@ncsu.edu), North Carolina State Univ., Raleigh, NC

2:45 **198** What had happen was.... **Kendra Dagg** (kdagg@ufl.edu), Univ. of Florida, Gainesville, FL

3:00 Break

3:15 **199** The scenic route. **Blythe Lawson** (bebunker@uark.edu), Univ. of Arkansas, Fayetteville, AR

3:30 **200** A Deep Dive into the Struggles of International Grad Students in U.S. Academic and Professional Arenas. **Md Tafsir Nur Nabi Rashed** (rashed.md@ufl.edu), Univ. of Florida, Gainesville, FL

3:45 **201** Bringing the devil to Georgia. **Krishna Patel** (krishna.patel1@uga.edu), Hendrix College, Conway, AR

4:00 **202** The graduate school marathon from the perspective of a sprinter. **Nia Keyes-Scott** (niaks@uga.edu), Univ. of Georgia, Athens, GA

4:15 **203** Biting into research: My journey studying *Culicoides*. **Cassandra Steele** (chsteele@uark.edu), Univ. of Arkansas, Fayetteville, AR

Ten-Minute Paper Oral 2 (MUVE & PBT)

Lamar B (Augusta Marriott at the Convention Center)

Moderators: Raymond Fitzpatrick¹ and Yu Cheng Zhu²,
¹Univ. of Georgia, Athens, GA, ²USDA-ARS, Pollinator Health in Southern Crop Ecosystem Research Unit, Stoneville, MS

2:00 **204** Are forest crews at an occupational risk of contracting spotted fever group Rickettsioses? **Vishvapali Kobbekaduwa** (vkobbeka@utk.edu)¹, Jennifer G. Chandler¹, Rebecca Butler¹, James T. Vogt², Dave Paulsen¹ and Rebecca T. Trout Fryxell¹, ¹Univ. of Tennessee, Knoxville, TN, ²USDA - Forest Service, Knoxville, TN

2:12 **WITHDRAWN 205** Exploring the co-infection and genetic diversity of multiple tick-borne pathogens in livestock population of Punjab, Pakistan. **Sabir Hussain** (sabir.hussain@usm.edu), Univ. of Southern Mississippi, Hattiesburg, MS

2:24 **206** Horn fly seasonality in the Southeast. **Nancy C. Hinkle** (nhinkle@uga.edu)¹, Greg Pittman² and Raymond Fitzpatrick¹, ¹Univ. of Georgia, Athens, GA, ²Univ. of Georgia, Jefferson, GA

2:36 **207** Toxicity of cockroach gel baits to the oothecal parasitoid *Aprostocetus hagenowii* (Hymenoptera: Eulophidae) and implications for cockroach IPM. **Chelsea Smith** (csmith101919@troy.edu)¹, Madeline Griffin², Henry Fadamiro² and Arthur Appel², ¹Troy Univ., Troy, AL, ²Auburn Univ., Auburn, AL

2:48 **208** Single-cell transcriptomics unveil changes in tick hemocyte diversity and functional signatures in response to Rickettsia infection. **Abdulsalam Adegoke** (abdulsalam.adegoke@usm.edu)¹ and Shahid Karim², ¹The Univ. of Southern Mississippi, Hattiesburg, MS, ²Principle Investigator, Hattiesburg, MS

3:00 **209** Transcriptional responses of the tarnished plant bug to oxamyl (Vydate) selection. **Yu-CHENG Zhu** (yc.zhu@usda.gov)¹ and Yuzhe Du², ¹USDA-ARS, STONEVILLE, MS, ²USDA-ARS, Stonrville, MS

3:12 **210** Assessment of the toxicities of seven common pesticides in stink bugs. **Yuzhe Du** (yuzhe.du@ars.usda.gov)¹, Y.C. Zhu² and Gadi Reddy³, ¹USDA-ARS, Stonrville, MS, ²USDA - ARS, Stoneville, MS, ³USDA-ARS SIMRU, Stoneville, MS

3:24 **211** Susceptibility of fall armyworm populations to pyramided Vip3Aa Bt maize in Brazil. Alisson Silva¹, Luciana Silva¹, José Malaquias², Angelica Salustino², Neurandi Rocha¹, Lorrana Almeida³, Daniel Pacheco¹ and **Eliseu Pereira** (eliseu.pereira@ufv.br)³, ¹Federal Univ. of Piaui, Bom Jesus, Piaui, Brazil, ²Federal Univ. of Paraiba, Areia, Paraiba, Brazil, ³Federal Univ. of Vicos, Viçosa, Minas Gerais, Brazil

Ten-Minute Paper Oral 3 (FIT & P-IE)

Lamar A (Augusta Marriott at the Convention Center)

Moderators: Apurba Barman¹ and Kaydie McCormick²,
¹Univ. of Georgia, Tifton, GA, ²Univ. of Florida, Sanford, FL

2:00 **212** Get your grove on: Fruit classes as gateway to good IPM in residents and pesticide operators. **Kaydie McCormick** (k.mccormick@ufl.edu)¹, Morgan Pinkerton², Tina McIntyre², Tia Silvasy³ and William Lester⁴, ¹Univ. of Florida, Sanford, FL, ²Univ. of Florida/IFAS, Sanford, FL, ³UF/IFAS Extension Hillsborough County, Seffner, FL, ⁴Univ. of Florida IFAS Extension, Brooksville, FL

2:12 **213** Monitoring of ambrosia beetle population in pecan orchards in Georgia. **Rajendra Acharya** (racharya@uga.edu), Shivakumar Veerlapati and Apurba Barman, Univ. of Georgia, Tifton, GA

2:24 **214** Evaluation of persistent versus commercial beneficial nematode strains for management of pecan weevil and other weevils in pecan. **Eddie Slusher** (eddie.slusher@usda.gov) and David Shapiro-Ilan, USDA-Agricultural Research Service, Byron, GA

2:36 **WITHDRAWN 215** Two-lane highway: Integrating physical and chemical tactics for management of *Systema frontalis* [(F.) Coleoptera: Chrysomelidae] at ornamental nurseries. **Christopher Werle** (chris.werle@usda.gov)¹, Cole Butenhoff² and John Adamczyk¹, ¹USDA - ARS, Poplarville, MS, ²Westrock Co., Atlanta, GA.

2:48 **216** Field validation of a novel larval extraction protocol for detecting spotted-wing drosophila infestation in blueberries. **Arun Babu** (ArunBabu@uga.edu) and Ashfaq Sial, Univ. of Georgia, Athens, GA

3:00 **217** Population dynamics of western flower thrips, *Frankliniella occidentalis* (Pergande), in North Carolina fruiting vegetable systems. **Scott Lee** (stlee@ncsu.edu)¹, George Kennedy² and Jim Walgenbach¹, ¹North Carolina State Univ., Mills River, NC, ²North Carolina State Univ., Raleigh, NC

3:12 **218** Distribution and management of Asian bean thrips, *Megalurothrip usitatus* Bagnall (Thysanoptera: Thripidae), in South Florida. **Dakshina Seal** (dseal3@ufl.edu), Sumit Jangra, Nagamani Kanchupati, Victoria Adeleye and Catherine Sabines, Univ. of Florida, Homestead, FL

3:24 Break

3:39 **219** Extension and research response to a new invasive species, *Thrips parvispinus*, impacting pepper production in Florida. **Anna Meszaros** (ameszaros@ufl.edu)¹, Julien Beuzelin² and De-Fen Mou², ¹Univ. of Florida, West Palm Beach, FL, ²Univ. of Florida, Belle Glade, FL

- 3:51 **220** RNA interference in pepper weevil for sustainable management. **Sumit Jangra** (sumit.jangra712@gmail.com), Naga Mani Kanchupati, Dakshina Seal and Romina Gazis, Univ. of Florida, Homestead, FL
- 4:03 **221** A Strategic management approach for optimizing insecticide usage to suppress the pepper weevil (*Anthonomus eugenii* Cano) in pepper crops. **Naga Mani Kanchupati** (kanchupati.n@ufl.edu)¹, Dakshina Seal¹, Oscar Liburd², Julien Beuzelin³, Bruce Schaffer¹ and Victoria Adeleye¹, ¹Univ. of Florida, Homestead, FL, ²Univ. of Florida, Gainesville, FL, ³Univ. of Florida, Belle Glade, FL
- 4:15 **222** Monitoring and management of the pickleworm/melonworm complex in the southeastern United States. **Tom Bilbo** (tbilbo@clemson.edu)¹, Helene Doughty² and Thomas Kuhar³, ¹Clemson Univ., Charleston, SC, ²Virginia Polytechnic Institute and State Univ., Painter, VA, ³Virginia Polytechnic Institute and State Univ., Blacksburg, VA
- 4:27 **223** Boosting native pollinator abundances using wildflower enrichment patches in the coastal plain of Central Georgia. **Mark Schlueter** (mschluet@ggc.edu)¹ and Zane Redman², ¹Georgia Gwinnett College, Lawrenceville, GA, ²Pinefield Eco Farm, Hephzibah, GA
- 4:39 **224** Good fences make good neighbors: Adjacent honey bee colonies establish colony-specific foraging aggregations across landscapes. **Bradley Ohlinger** (Bradley.Ohlinger@uga.edu)¹, Margaret Couvillon² and Roger Schürch², ¹Univ. of Georgia, Athens, GA, ²Virginia Polytechnic Institute and State Univ., Blacksburg, VA
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Wednesday, March 20, 2024, Morning

More than the Sum of Their Parts: Sociobiology and Health of Eusocial Insects

Lamar A (Augusta Marriott at the Convention Center)

Moderators and Organizers: Elizabeth Walsh¹, Michael Simone-Finstrom¹ and Arian Avalos^{2,3}, ¹USDA-ARS, Baton Rouge, LA, ²Univ. of Illinois, Champaign, IL, ³USDA - ARS, Baton Rouge, LA

8:00 Welcoming remarks

8:05 **225** Connecting above and belowground effects of climate warming on bumble bee colonies. **Clint Penick** (czp0134@auburn.edu)¹ and Francis Mullan², ¹Auburn Univ., Auburn, AL, ²Kennesaw State Univ., Kennesaw, GA

8:20 **226** Exploring how microclimate shapes the relationship between body size and thermal tolerance in a tropical ant community. **Caroline Marley** (caroline.marley@usm.edu), Kaitlin Baudier and Clayton Ziemke, The Univ. of Southern Mississippi, Hattiesburg, MS

8:35 **227** Thermal adaptations of the paper wasp *Mischocyttarus mexicanus*: A study of the interplay between behavioral and physiological strategies. **Kaitlin Baudier** (Kaitlin.Baudier@usm.edu)¹, Clayton Ziemke¹, Kristin Robinson¹ and Floria Uy², ¹The Univ. of Southern Mississippi, Hattiesburg, MS, ²Univ. of Rochester, Rochester, NY

8:50 **228** Life and death of colonies, a decades-long perspective on termite colony demography. **Thomas Chouvenc** (tomchouv@ufl.edu), Univ. of Florida, Davie, FL

9:05 **229** Nest defense architecture: Entrance length influences colony aggression in Honey bees. **Peter Marting** (prm0026@auburn.edu) and Michael Smith, Auburn Univ., Auburn, AL

9:20 **230** Collective decision making during reproduction in social insects: the case of queen superseding in honey bees (*Apis mellifera* L.). **David Tarpy** (david_tarpy@ncsu.edu), North Carolina State Univ., Raleigh, NC

9:35 **233** Effects of the pesticide sulfoxaflo on bumblebee caste survival and feeding behavior. **Sarah Orr** (sorr8@gatech.edu) and Michael Goodisman, Georgia Institute of Technology, Atlanta, GA

9:50 Break

10:05 **234** Interactions between Clothianidin and nutrition on nurse honey bee health. **Pierre Lau** (pierre.lau@usda.gov), USDA-ARS, Stoneville, MS

10:20 **235** Honey bee (*Apis mellifera*) health metrics vary between stock, location, and time after chalkbrood (*Ascosphaera apis*) infection. **Elizabeth Walsh** (elizabeth.m.walsh@usda.gov)¹, Stephen Pernal² and Abdullah Ibrahim², ¹USDA-ARS, Baton Rouge, LA, ²Agriculture and Agri-Food Canada, Beaverlodge, AB, Canada

10:35 **236** Further exploration of hydrogen peroxide in social insect colonies. **Lewis Bartlett** (lewis.Bartlett@uga.edu), Univ. of Georgia, Athens, GA

10:50 **237** Honey bee immune stimulation by microalgal feed additives. **Allyson Martin Ewert** (amar365@lsu.edu), Alexander McMenamin and Vincent Ricigliano, USDA - ARS, Baton Rouge, LA

11:05 **238** The impacts of sicklepod extracts on honey bees (*Apis mellifera*). **Mckaela Whilden** (mew836@msstate.edu), Ziming Yue, Te-Ming Tseng and Priyadarshini Chakrabarti Basu, Mississippi State Univ., Starkville, MS

11:20 **240** Genetic analysis of *Varroa* control resistance across honey bee populations. **Arian Avalos** (arian.avalos@usda.gov)¹, Frank Rinkevich¹ and Nathan Egnew², ¹USDA - ARS, Baton Rouge, LA, ²USDA-ARS Honey Bee Breeding, Genetics, and Physiology Unit, Baton Rouge, LA

Recent Advances in Turfgrass and Ornamental Entomology in the Southeastern USA

Lamar C (Augusta Marriott at the Convention Center)

Moderators and Organizers: Shimat Joseph¹ and Midhula Gireesh², ¹Univ. of Georgia, Griffin, GA, ²Univ. of Tennessee, Nashville, TN

8:00 Welcoming remarks

8:05 **241** Emerging scale insect of palms and ornamental plants: An update on *Fiorinia phantasma*. **Muhammad Ahmed** (muhammad.ahmed@usda.gov)¹, Amy Roda², Cindy McKenzie³ and Lance Osborne⁴, ¹United States Dept. of Agriculture, Fort Pierce, FL, ²USDA - APHIS, Miami, FL, ³USDA - ARS, Fort Pierce, FL, ⁴Univ. of Florida, Apopka, FL

8:20 **242** Winter phenology and current IPM of crapemyrtle bark scale (*Acanthococcus lagerstroemiae*). **Kevin Chase** (kchase@bartlett.com)¹, Erika Wright², Amber Stiller², Caitlin Littlejohn² and Samuel F. Ward³, ¹Bartlett Tree Research Laboratory, Reading, Berkshire, United Kingdom, ²Bartlett Tree Experts, Charlotte, NC, ³Mississippi State Univ., Starkville, MS

8:35 **243** Challenges and barriers to the implementation of biological control on residential landscapes. **Jeremy Slone** (jslone@bartlett.com), Bartlett Tree Research Lab, Charlotte, NC

8:50 **244** Biology and cultural management of bermudagrass mite. **Matthew Brown** (msb5@clemson.edu)^{1,2} and Juang Horng Chong^{1,3}, ¹Clemson Univ., Florence, SC, ²Rutgers Univ., New Brunswick, NJ, ³SePRO Corporation, Carmel, IN

9:05 **245** Interactions of cover cropping and irrigation on the health and pest incidence of newly transplanted red maple trees. **Alfred Johnson** (ajohn462@tnstate.edu), Anthony Witcher, Jason Oliver and Karla Adesso, Tennessee State Univ., McMinnville, TN

9:20 **246** Update on the Joro spider (*Trichonephila clavata*) in the Southeast US. **William Hudson** (wghudson@uga.edu), Univ. of Georgia, Athens, GA

9:35 **247** Timing of insecticide application for management of rhodesgrass mealybug on golfcourse putting greens. **Shimat Joseph** (svjoseph@uga.edu) and Robert Wolverton, Univ. of Georgia, Griffin, GA

9:50 **248** Management of staining associated with the black olive tree in Florida and the Caribbean. **A. D. Ali** (adali@davey.com), The Davey Tree Expert Co, Fort Myers, FL

10:05 Break

10:20 **249** Spotted lanternfly updates from Tennessee. **Midhula Gireesh** (mgireesh@utk.edu)¹ and Cindy Bilbrey², ¹Univ. of Tennessee, Nashville, TN, ²Tennessee Dept. of Agriculture, Nashville, TN

10:35 **250** Limonene as a biorational alternative to systemic insecticide to manage crape myrtle bark scale. **Jordan Melson** (jmm0206@auburn.edu) and David Held, Auburn Univ., Auburn, AL

10:50 **251** Seasonal activity of chilli thrips in Alabama nurseries. **Aerianna Littler** (azl0117@auburn.edu) and David Held, Auburn Univ., Auburn, AL

11:05 **252** Efficacy of entomopathogenic fungi and bacteria against the hibiscus bud weevil *Anthonomus testaceosquamosus* (Coleoptera: Curculionidae). **Alexandra Revynthi** (arevynthi@ufl.edu)¹, German Vargas¹, Yisell Velazquez-Hernandez¹ and Pasco Avery², ¹Univ. of Florida—Tropical Research and Education Center, Homestead, FL, ²Univ. of Florida, Fort Pierce, FL

11:20 Concluding remarks

Whiteflies Management: Developing an Understanding of Accomplishments and Innovations Across Crop Agroecosystems.

Lamar B (Augusta Marriott at the Convention Center)

Moderators and Organizers: Jawwad Qureshi, Univ. of Florida, Immokalee, FL

8:15 Welcoming remarks

8:20 **254** *Franklinothrips vespiformis*: A promising biocontrol agent for whiteflies and other pests of Southeastern greenhouses. **Erich Schoeller** (erich.schoeller@uga.edu)¹, Joshua Hogan², Cindy McKenzie³ and Lance Osborne², ¹The Univ. of Georgia, Griffin, GA, ²Univ. of Florida, Apopka, FL, ³USDA - ARS, Fort Pierce, FL

8:35 **255** Resolving predator-whitefly interactions in landscapes under variable environments of insecticides and climatic conditions. **Jason Schmidt** (jschmid2@uga.edu)¹, Anitha Chitturi¹, Arash Kheirodin², Albertha Parkins¹ and Jessica Martins¹, ¹Univ. of Georgia, Tifton, GA, ²Texas A&M Univ., Dallas, TX

8:50 **256** Effects of intercropping marigold, cowpea, and an insecticidal soap on whiteflies in organic squash. **Oscar Liburd** (oeliburd@ufl.edu)¹ and Marice' Lopez², ¹Univ. of Florida, Gainesville, FL, ²USDA-ARS-Tropical Agriculture Research Station, Mayaguez, PR

9:05 **257** Managing whiteflies using soil drenches and foliar sprays of insecticides. **Jawwad Qureshi** (jawwadq@ufl.edu) and Barry C. Kostyk, Univ. of Florida, Immokalee, FL

9:20 **258** Exploring synergistic effects of nanoclay and essential oils in whitefly pest management. **Thomson Paris** (thomsonparis@ufl.edu), Romain Exilien and Xavier Martini, Univ. of Florida, Quincy, FL

9:35 **259** Management of sweet potato whitefly, *Bemisia tabaci* (Gennadius) (Hemiptera: Aleyrodidae) biotype B (MEAM1) in vegetable crops. **Dakshina Seal** (dseal3@ufl.edu), Univ. of Florida, Homestead, FL

9:50 **260** Gene knockdown in *Bemisia tabaci* and potentially increased penetrance by triggering siRNA and piRNA pathways. **Judith Brown** (jbrown@ag.arizona.edu)¹, Alex Flynt², Nathaniel Ponvert³ and Amir Raza³, ¹Univ. of Arizona, Tucson, AZ, ²Univ. of Southern Mississippi, Hattiesburg, MS, ³The Univ. of Arizona, Tucson, AZ

10:05 Break

10:20 **261** Ribosomal protein-15 allele frequencies of cassava mosaic disease associated *Bemisia tabaci* reveal ancient admixture and ongoing hybridization driving SSA-SG1

origins in sub-Saharan Africa toward knowledge management.
Jorge Paredes-Montero (jrparedes@arizona.edu)¹ and Judith Brown², ¹Saginaw Valley State Univ., Saginaw, MI, ²Univ. of Arizona, Tucson, AZ

10:35 **262** Evaluation of snap bean germplasm materials against the sweetpotato whitefly and two whitefly-transmitted new-world begomoviruses. **Gurjit Singh** (fg69001@uga.edu)¹, Bhabesh Dutta² and Rajagopalbabu Srinivasan¹, ¹Univ. of Georgia, Griffin, GA, ²The Univ. of Georgia, Tifton, GA

10:50 **263** Role of microRNA in tomato defense to tomato yellow curl begomovirus and its transmission by whitefly. **Nabil Killiny** (nabikilliny@ufl.edu), Univ. of Florida, Lake Alfred, FL

11:05 Concluding remarks

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Augusta Marriot at the Convention Center

Floor Plan

