92ND ANNUAL MEETING OF THE SOUTHEASTERN BRANCH

ENTOMOLOGICAL SOCIETY OF AMERICA
4–7 MARCH 2018, ORLANDO, FLORIDA

The Diaprepes root weevil,
Diaprepes abbreviatus.
Photo by S. Lapointe

Stephen Lapointe
President, 2017-2018

ENTOMOLOGICAL SOCIETY OF AMERICA

FLORIDA ENTOMOLOGICAL SOCIETY
FOUNDED 1916

UNIVERSITY of FLORIDA
ENTOMOLOGY & NEMATOLOGY

Cover Photo by Jeremy Bishop on Unsplash

SPONSORS OF THE 2018 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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SOUTHEASTERN BRANCH

12 February 2018

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

From: Steve Lapointe, President of the Southeastern Branch 2017-2018

Re: Invitation to attend the 92nd Annual Meeting of the Southeastern Branch.

I'm excited and pleased to welcome you to the 92nd Annual Meeting of the Southeastern Branch (SEB) of the Entomological Society of America, March 4-7, 2018 at the DoubleTree by Hilton Hotel Orlando at SeaWorld. There are many of you who volunteer your time for the society and who have taken advantage over the years of our meetings to participate in the opportunity the society provides to interact and share our common interests and professions. And there are many of you for whom this annual meeting is a chance, perhaps for the first time, to present yourselves to your colleagues and potential employers, or to explore collaborations through face-to-face conversations. Whatever your involvement with entomology or the ESA, thank you for your contributions to our society - I'm looking forward to seeing you in Orlando.

The Local Arrangements and Program committees have been working hard to assure a great venue and program. Please extend thanks to Rob Meagher, chair of the Local Arrangements Committee, and Program Committee chair Jawwad Qureshi along with their respective committees when you see them at the meeting.

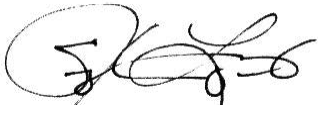
Our plenary speaker on Monday morning will be Dr. Agenor Mafra-Neto, Founder, President and CEO of ISCA Technologies, Inc. Agenor is an innovative chemical ecologist who received his PhD from the University of Massachusetts Amherst with Ring Cardé. He is also an entrepreneur who started his company in California and Brazil to develop and deliver semiochemical-based solutions for management of insect pests of agriculture and human health. Recent work has included novel products such as smart traps and sensors, semiochemical deployment systems to control disease-carrying mosquitoes using attract and kill blends and even Trojan cows to control Malaria in Africa. Dr. Mafra-Neto's presentation will be inspiration for anyone trying to think "out of the box" or thinking about starting their own enterprise.

Symposia this year will include Biocontrol in the Southeast, Management of Asian citrus psyllid, Pollinators and Soybean, Emerging Technologies, Berry Production, Design of Experiments (DOE), Noctuids, Pollinators, Turf and Ornamental Entomology, and Vegetables. Of particular interest (to me, at least!) will be the keynote presentation for the DOE symposium by Mark Anderson, principal and general manager of State-Ease, Inc. Mark has extensive experience in quality improvement, process development, and user-friendly DOE software. This is an opportunity to become acquainted with powerful methods to improve your ability to extract knowledge and not just data from your experiments. I invite you to look through the complete program and take advantage of the opportunities to keep up with recent advances, to support our students and early career professionals, and to enjoy the company of old and new friends and colleagues.

In addition to the symposia and submitted papers, there will be ample opportunities to reunite with friends and colleagues at a BBQ social on Sunday evening, a Monday night reception and the awards luncheon on Tuesday. Don't miss this chance to re-connect, network and develop new contacts or collaborations.

I'm looking forward to seeing you.

Sincerely,



Stephen L. Lapointe, President
Southeastern Branch, Entomological Society of America

Meeting Notices and Policies

CODE OF CONDUCT:

By attending the 2018 Southeastern Branch Annual 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 Rosina Romano at rromano@entsoc.org, 703-593-0222.

REGISTRATION:

Registration is mandatory to attend the SEB-ESA meeting except ESA Honorary and Emeritus Members. On-site registration fees include a luncheon ticket, and are: Active Members-$230; Student Members-$90; Guests-$65; and Non-members-$280. One-day registration fee is $230. Registration Desk is located in Magnolia A, and will be open on Sunday (1:00 PM-5:00 PM), Monday (7:00 AM-5:00 PM), Tuesday (7:00 AM-5:00 PM) and Wednesday (7:00 AM-9:00 AM).

FUNCTIONS/EVENTS:

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

Sunday: **3:00 PM-7:00 PM** Linnaean Games: Preliminary Rounds

Monday: **7:00-8:00 AM** Host State Breakfast (Orange Foyer)

8:00-10:15 AM Preliminary Business Meeting and Plenary Address (Orange AB)

10:15-10:30 AM Break (Orange Foyer)

3:00 PM-7:00 PM Linnaean Games: Finals (Orange AB)

7:00-9:00 PM Welcome Reception (Pavilion)

Tuesday: **12:00-1:30 PM** Awards Luncheon (Orange AB)

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, Opening Session, Linnaean Games, etc.

ESA CERTIFICATION BOARD INFORMATION

Information on the Certification Board of the Entomological Society of America will be offered in the Registration area during Registration periods. Please contact the Certification Board Manager at the National Office to make arrangements to take the Certification Board Examination at the meeting.

PROGRAM SCHEDULE:

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. Timing devices will be provided.

AUDIOVISUAL:

Please design your material so that it can be read easily by the audience when it is projected. Presentations may be uploaded in the Magnolia A Room from 3:00 PM to 7:00 PM on Sunday, 7:00 AM to 5:00 PM on Monday, 7:00 AM to 5:00 PM on Tuesday and 6.30 AM to 7:30 AM on Wednesday. Upload presentations in this room as early as possible on Sunday afternoon, Monday morning, or Tuesday morning. There will be only one hour window Wednesday morning 6:30 AM to 7:30 AM and computers will be moved to the respective rooms 30 minutes before the start of the sessions.

DISPLAY PRESENTATIONS:

Poster boards measuring 4 ft. x 8 ft. will be provided for each display presentation in Orange CD. So that we can fit 4 posters per board, posters should be no larger than 46" x 46". Displays should be mounted on the boards (assigned by the number of the presentation) using push pins, and authors are asked to bring their own pins. All prints, figures, tables, etc. should be large enough to be read easily from a distance of at least 3 ft.

Displays for the Student Competition on Monday should be setup on Sunday evening 5:00 – 7:00 PM or Monday morning 7:00 – 8:00 AM in Orange CD. Students should be present at their posters on Monday 1:45 – 2:45 PM. Students are encouraged to keep their posters up until 5:00 PM, and posters should be removed by 7:00 PM on Monday evening.

Regular displays for Tuesday should be setup on Monday 7:00 – 9:00 PM or Tuesday morning 7:00 – 8:00 AM in Orange CD. Posters should be available for viewing 8:00 AM – 5:00 PM. Presenters should be at their posters from 1:45 – 2:45 PM on Tuesday. Be sure to remove all displays by 7:00 PM on Tuesday March 6.

Meeting Notices and Policies, cont'd

JOB PLACEMENT CENTER:

The Student Affairs Committee will sponsor a job placement board in Magnolia A 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 bring an announcement or résumé to the Magnolia A or post it directly on the appropriate board located at the same location.

PUBLIC RELATIONS:

The Public Relations Committee will sponsor a Press Release area near the Registration desk during regular meeting hours. Press releases and public relations information may be brought to this area.

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.

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 (SEB) 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 2017-2018

Officers and Committees

Executive Committee

Stephen Lapointe, *President*

Oscar Liburd, *President-Elect*

Juang-Horng 'JC' Chong, (2018), *Secretary-Treasurer*

Amanda Hodges, (2018/21), *Secretary-Treasurer-Elect*

Tim Schowalter, (2019), *Gov. Board Representative*

Alton "Stormy" Sparks, (2018), *Member-at-Large*

Emma Weeks, (2019), *Member-at-Large*

Jason Oliver, (2020), *Member-at-Large*

David Jenkins, (2017), *Member-at-Large*

David Riley, *Past-President*

Program Committee (Orlando, 2018)

Jawwad Qureshi, FL, *Chair*

Justin George, FL

Rebecca Schmidt-Jeffris, SC

Torrence Gill, FL

Rodrigo Diaz, LA

Ash Sial, GA, *Ex Officio*

Membership Committee

Lina Bernaola, LA (2019), Chair

Josh Temple, FL (2019)

Michael Toews, GA (2019)

Fudd Graham, AL (2020)

Nick Seiter, AR (2020)

Rizana Mahroof, SC (2020)

_____, TN (2020)

Rosa Franqui, PR (2020)

Hannah Burrack, NC (2020)

Christopher Werle, MS (2020)

Savannah Duke, Student (2020)

David Jenkins, SC (2017), *Ex Officio*

Member Awards Committee

David Buntin, GA (2019) *Chair*

Dennis Ring, LA (2019)

Gregory Wiggins, TN (2020)

Juan Luis Jurat-Fuentes, TN (2020)

Carey Minteer, FL (2020)

Cindy McKenzie, USDA FL (2019)

Ryan W. Kurtz, NC (2017) *Ex Officio*

Archives Committee

Jim Harper, NC (2018)

Resolutions Committee (2018)

Courtney Jackson, AR, *Chair*

Jason Schmidt, GA (2017), *Ex Officio*

Student Awards Committee

Mohamed Alburaki, TN (2018), *Chair*

Jeremy Greene, SC (2018)

Hugh Smith, FL (2019)

Justin George, FL (2020)

Esmaeil Amiri, NC (2020)

Jason Oliver, TN (2018), *Ex Officio*

Local Arrangements Committee

(Orlando 2018)

Rob Meagher, Government, *Chair*

Nancy Epsky, Government

Muhammad Haseeb, University

Phil Stansly, University

Alejandro Calixto, Industry

Joe Eger, Industry

Cory Penca, Student

Jerry Hogsette, FL, *Ex Officio*

Juang-Horng 'JC' Chong, *Ex Officio*

Amanda Hodges, Sec-Treas, *Ex Officio*

Student Affairs Committee

Casey Parker, FL (2018), *Chair*

Wendy Marchant, GA (2018)

Ying Niu, LA (2019)

Zhou Chen, AL (2019)

Darsy Smith, PR (2019)

Aaron Cato, AR (2019)

Gabe Zilnik, NC (2019)

Tommy Bilbo, SC (2019)

Scott Graham, TN (2019)

Tyler Towles, MS (2019)

Ratnasri Mallipeddi, TN (2017), *Ex Officio*

Steve Reyna, NC (2017), Ex Officio

Student Affairs Subcommittees:

Insect Photo Salon

Job Placement

Student Symposium

Public Relations Committee (2018)

Adam Dale, FL, *Chair*

Faith Oi, FL

Sandy Allan, FL

Roxanne Connelly, FL

Frank Hale, TN (2017), *Ex Officio*

Audit Committee

Mark Abney, GA (2018), *Chair*

Jeremy Heath, NC (2017)

Juang-Horng 'JC' Chong, *Ex Officio*

Amanda Hodges, FL, Secretary-Treasurer

Meeting Location/Time: Alabama (2019)

David Held, AL, Chair

Fudd Graham

Kelly Palmer

Amanda Hodges, Sec-Treas, *Ex Officio*

Meeting Location/Time: Georgia (2020)

Brett Blaauw, GA, *Chair*

David Shapiro-Ilan, GA

Amanda Hodges, Sec-Treas, *Ex Officio*

Board Certification Committee

Dennis Ring, LA, (2017), *Chair*

Jeffrey Brown, MS (2017)

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Education Committee

Eric Butler, NC (2018), *Chair*

John Guyton, MS (2018)

Eric Riddick, MS (2020)

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Linnean Games

Mike Williams, AL, *Chair*

Jerome Grant, TN

David Jenkins, SC

Nominating Committee (2018)

Alvin Simmons, (SC), *Chair* (gov)

Xavier Martini, FL, state

Catharine Mannion, FL, State

Margaret Allen, Government

Joe Eger, FL ,Industry

Rebecca Willis, BASF, Industry

Ad hoc Annual Meeting Sponsorship Committee 2018

Phil Stansly, FL, *Chair*

Ad hoc National Offices Nominating Committee 2017

Pres-Elect, Chair

Stephen Lapointe, FL

David Riley, GA

Ad hoc By-Laws Committee 2017

Jeremy Greene, SC, Chair

Philip Roberts, GA

Mike Williams, AL

ESA national committee reps (terms expire at national meeting)

ESA Central Student Affairs Committee

Rebecca Zimler, FL (2018), *Representative*

ESA Central Education & Outreach Committee

Marianne Shockley, GA, SEB Representative (2019)

SEB Representative on the ESA Awards & Honors Committee

G. David Buntin, GA (2018)

SEB Representative on the ESA Membership Committee

John Hopkins, AR (2017)

SEB Student Representative on the ESA Governing Board

Lina Bernaola, LA (2018)

SEB Representative on the ESA Finance Committee

Amanda Hodges, FL (2020)

SEB Representative on the Science Policy Committee

Lauren Diepenbrock, NC (2018)

SEB Representative on the ESA Certification Board

Dennis Ring, LA (2017)

STEP Travel Awards Judging Panel

Derrick Mathias, AL (2017)

SEB Representative on the ESA Committee on Diversity and Inclusion

Gloria McCutcheon, SC (2018)

SEB Representative on the ESA Early Career Professionals Committee

Monica Joy Rivera, (2017)

Past Presidents of the ESA-SEB

(formerly the ***Cotton States Branch***)

President	Date	Meeting Site
W. E. Hinds	3-4 Feb. 1926	Atlanta, GA
G. M. Bentley	29 Dec. 1927	Nashville, TN
G. M. Bentley	1-2 Feb. 1928	Memphis, TN
F. L. Thomas	6-7 Feb. 1929	Houston TX
B. R. Coad	6-7 Feb. 1930	Jackson, FL
J. M. Robinson	5-6 Feb. 1931	Atlanta, GA
R. W. Harned	31 Dec. 1931	New Orleans, LA
R. W. Harned	3-4 Feb. 1932	Birmingham, AL
J. W. Folsom	2-3 Feb. 1933	New Orleans, LA
R.W. Leiby	1-2 Feb. 1934	Memphis, TN
S. W. Bilsing	31 Jan.-2 Feb. 1935	Atlanta, GA
C. Lyle	5-6 Feb. 1936	Jackson, MS
W. E. Anderson	18-20 Feb. 1937	San Antonio, TX
W. E. Dove	3-5 Feb. 1938	New Orleans, LA
C. O. Eddy	7-9 Feb. 1940	Birmingham, AL
Z. P. Metcalf	5-8 Feb. 1941	Waco, TX
F. A. Fenton	4-6 Feb. 1942	Memphis, TN
O. W. Rosewall	1-3 Feb. 1944	New Orleans, LA
E. W. Laake	24-25 Jan. 1945	New Orleans, LA
C. E. Smith	3-6 Dec. 1945	Dallas, TX
R. C. Gaines	11-16 Jan. 1947	Biloxi, MS
D. Isley	4-6 Feb. 1948	Atlanta, GA
J. T. Creighton	31 Jan.-2 Feb. 1949	Baton Rouge, LA
E. W. Dunnam	13-16 Dec. 1949	Tampa, FL
J. W. Ingram	5-7 Feb. 1951	Memphis, TN

President	Date	Meeting Site
C. H. Alden	4-6 Feb. 1952	Atlanta, GA
K. L. Cockerham	9-11 Feb. 1953	New Orleans, LA
F. S. Arant	25-27 Jan. 1954	Biloxi, MS
W. G. Bruce	17-19 Jan. 1955	Tampa, FL
H. C. Young	6-8 Feb. 1956	Atlanta, GA
A. N. Tissot	4-6 Feb. 1957	Birmingham, AL
N. Allen	2-5 Dec. 1957	Memphis, TN
C. G. Lincoln	2-4 Feb. 1959	Memphis, TN
F. E. Guyton	25-27 Jan. 1960	Savannah, GA
I. J. Becnel	23-25 Jan. 1961	Mobile, AL
C. N. Smith	27-30 Nov. 1961	Miami, FL
R. J. Kowal	29-31 Jan. 1963	Jackson, MS
W. C. Nettles	28-29 Jan. 1964	Asheville, NC
L. D. Newsom	25-26 Jan. 1965	Little Rock, AR
J. C. Alden	29 Nov.-2 Dec. 1965	New Orleans, LA
M. E. Merkl	30 Jan.-2 Feb. 1967	Atlanta, GA
J. S. Roussel	29 Jan.-1 Feb. 1968	Charleston, SC
C. M. Beckham	27-30 Jan. 1969	Biloxi, MS
S. R. Morris	26-29 Jan. 1970	Hot Springs, AR
W. G. Eden	30 Nov.-3 Dec. 1970	Miami, FL
C. R. Jordan	1-3 Feb. 1972	Mobile, AL
C. F. Smith	30 Jan.-1 Feb. 1973	Savannah, GA
T. R. Pfrimmer	9-31 Jan. 1974	Memphis, TN
S. B. Hays	28-30 Jan. 1975	Raleigh, NC
T. D. Canerday	30 Nov.-3 Dec. 1975	New Orleans, LA

Past Presidents of the ESA-SEB, cont'd

President	Date	Meeting Site
J. B. Graves	25-27 Jan. 1977	Charleston, SC
A. N. Sparks	24-26 Jan. 1978	Gainesville, FL
F. G. Maxwell	23-25 Jan. 1979	Nashville, TN
S. G. Turnipseed	29-31 Jan. 1980	Biloxi, MS
D. F. Martin	30 Nov.-4 Dec. 1980	Atlanta, GA
J. E. Paine, Sr.	25-28 Jan. 1982	Mobile, AL
R. L. Rabb	24-27 Jan. 1983	Little Rock, AR
K. L. Hays	23-26 Jan. 1984	New Orleans, LA
G. J. Musick	28-31 Jan. 1985	Greenville, SC
M. H. Bass	8-12 Dec. 1985	Hollywood, FL
D. V. Allemann	26-29 Jan. 1987	Jackson, MS
B. R. Wiseman	25-28 Jan. 1988	Raleigh, NC
T. E. Skelton	30 Jan.-2 Feb. 1989	Nashville, TN
J. W. Todd	4-8 Feb. 1990	Orlando, FL
E. R. Mitchell	10-13 Mar. 1991	Orange Beach, AL
D. J. Boethel	8-11 Mar. 1992	Savannah, GA
G. A. Herzog	7-10 Mar. 1993	Little Rock, AR
R. E. Lynch	6-9 Mar. 1994	Baton Rouge, LA
J. E. Eger	5-8 Mar. 1995	Charleston, SC
D. C. Herzog	3-6 Mar. 1996	Biloxi, MS
D. F. Williams	2-5 Mar. 1997	Asheville, NC

President	Date	Meeting Site
J. D. Culin	1-4 Mar. 1998	Chattanooga, TN
D. R. Johnson	28 Feb.-3 Mar. 1999	Sandestin, FL
R. G. Luttrell	27 Feb.-1 Mar. 2000	Mobile, AL
F. S. Guillot	4-7 Mar. 2001	Augusta, GA
G. L. Lentz	3-6 Mar. 2002	Little Rock, AR
B. L. Sparks	9-12 Mar. 2003	Baton Rouge, LA
M. L. Williams	16-18 Feb. 2004	Charleston, SC
G. R. Mullen	7-9 Mar. 2005	Tunica, MS
W. A. Gardner	5-8 Mar. 2006	Wilmington, NC
R. K. Sprenkel	2-5 Mar. 2007	Knoxville, TN
J. D. Harper	2-5 Mar. 2008	Jacksonville, FL
A. M. Simmons	8-11 Mar. 2009	Montgomery, AL
S. K. Braman	7-10 Mar 2010	Atlanta, GA
F. A. Hale	19-22 Mar. 2011	San Juan, PR
N. C. Leppla	4-7 Mar. 2012	Little Rock, AR
G. D. Buntin	3-5 Mar. 2013	Baton Rouge, LA
D. Hall	2-4 Mar. 2014	Greenville, SC
C. Mannion	15-18 Mar 2015	Biloxi, MS
N. C. Hinkle	13-16 Mar 2016	Raleigh, NC
D. G. Riley	12-15 Mar 2017	Memphis, TN

Awards

Southeastern Branch Early Career Award

Dr. Vivek Kumar

Dr. Vivek Kumar is an Assistant Scientist in the Entomology & Nematology department at the University of Florida. He has been working in the area of sustainable pest management for the past nine years and has expertise in developing bio-intensive integrated management practices for invasive pests of horticultural importance in the Southeastern U.S. Prior to joining the University of Florida for his doctorate in 2007, Dr. Kumar received his B.S. and M.S. degrees from the University of Delhi in India. He has authored/coauthored over 80 scientific articles which include 35 refereed articles, 1 book chapter, 12 extension articles and 27 AMT reports. Dr. Kumar is an active member of the Entomological Society of America and Florida Entomological Society where he serves in different roles. He has organized and chaired several symposia at national and international conferences.

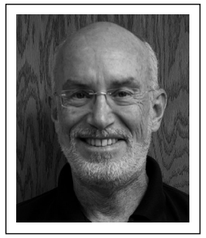
Southeastern Branch Award for Excellence in Integrated Pest Management

Dr. Jeffrey A. Davis

Jeffrey A. Davis is an Associate Professor (research/teaching) in the Department of Entomology at the Louisiana State University Agricultural Research Center. His research focuses on integrated pest management of soybean, virus-vector interactions in soybean, sorghum, sweetpotato and potato; and hemipteran feeding behavior. Dr. Davis grew up on a 100 head dairy farm in Wisconsin. As an undergraduate, he attended the University of Wisconsin-Madison where he received a BS in Agronomy in 1996. He joined the Peace Corps in 1997 and served as a sustainable agriculture extension agent in Senegal, Africa from 1997 to 1999. In 2002, he became a graduate student at the University of Minnesota and received his MS in Entomology in 2004 and his PhD in Entomology in 2006. He joined the Department of Entomology at LSU in November 2007 and was promoted to Associate Professor in July 2013. He is a subject editor for the Journal of Integrated Pest Management and an editor for Insects. He currently advises 3 Ph.D. graduate students and 1 M.S. graduate student.

Southeastern Branch Recognition Award in Entomology

Dr. Stephen L. Lapointe



Dr. Steve Lapointe received his PhD from Cornell in 1986 and was employed as a Senior Staff Entomologist at the International Center for Tropical Agriculture (CIAT) until 1997. His research in Colombia included plant resistance in forages to spittlebugs and leafcutter ants. Stationed in Brazil, he administered a cassava IPM program for South America and West Africa. Since 1997, he has served as Research Entomologist for the USDA, ARS at Fort Pierce, FL working on chemical ecology and biological control of citrus and other crop pests. Dr. Lapointe's accomplishments include identification of the sex pheromone and successful biological control of pink hibiscus mealybug, discovery of a pheromone produced by the Diaprepes root weevil, development of a mating disruption product for citrus leafminer, and discovery of phagostimulants for Asian citrus psyllid.

Southeastern Branch Distinguished Service Award to the Certification Program

Dr. Dennis R. Ring

Dr. Dennis Ring is an extension entomologist and professor of the LSU AgCenter in the Entomology Department at LSU. He has been a BCE for many years and the representative of the Southeastern Branch to the Certification Board for four years. As an extension entomologist, his responsibilities include pecans, ornamentals, termites, structural, household, fire ants, and school IPM. In addition, his experience has included numerous commodities. He was the LSU AgCenter's principal investigator of a large pilot test in the French Quarter for IPM of Formosan subterranean termites and coordinates the Lois Caffey Termite Training Center. He carries out educa¬tional programs providing unbiased information to county agents, legislators, govern¬mental agencies, industry, and the public; presentations to master gardeners; termite webpage; publications; exhibits; and insect identification.

Southeastern Branch Recognition Award in Insect Physiology, Biochemistry, and Toxicology

Dr. Wayne B. Hunter

Dr. Hunter is a researcher with USDA, ARS, Ft. Pierce, FL, with over 25 years. He is a recognized leading authority gene-based biotechnology in arthropods, insects and plants, focused on insect pests and pathogens of plants and animals. Dr. Hunter's research on RNA interference, RNAi, and antisense oligonucleotides continues to advance pest management. Dr. Hunter has authored/ co-authored over 128 scientific papers. He provides guidance and collaborations on disease transmission, insect genomics and RNAi studies across 12 countries. He served as the lead for the "Asian Citrus Psyllid", and "Glassy-winged Sharpshooter" genome efforts. He founded the 'Arthropods Genomics Workshop', International Plant & Animal Genomes Conf., (2005-2017), and was the lead author for the First large-scale, multi-state, field trial, using a dsRNA product to improve the health of honey bees.

Student Awards

JOHN HENRY COMSTOCK AWARD

Outstanding Ph.D. Student

Ashley Mortensen

Ashley Mortensen is a University of Florida (UF), doctoral candidate in the Entomology & Nematology Department. She received a B.S. in Animal Science from Texas A&M University in 2005 and a M.S. in Entomology from UF in 2013. Ashley's current research aims to determine if key honey bee behaviors are instinctual or learned by examining the role that the juvenile rearing environment plays on adult behavior. *In vitro* rearing of honey bee brood is an emerging risk assessment tool that has been implemented in compound safety screening requirements for the OECD. Ashley's research will better inform how investigators interpret the findings of these risk assessments. Ashley is an active contributor to UF's teaching and Extension programs. She has developed and taught a beekeeping field techniques course; redesigned, taught, and assisted the department's online beekeeping course; led introduction to entomology laboratory sections; and has provided numerous guest lectures and field presentations for departmental courses. To share relevant research findings and beekeeping knowledge with a broader audience, Ashley co-created a social medial strategy via Twitter, Instagram, and Facebook (@UFHoneyBeeLab) through which she shares research updates and other honey bee related information to over 7,500 followers across the three sites. Ashley also produces blog and newsletter posts, Extension reports, web-based presentations, in-person presentations, and workshops.

KIRBY L. HAYS MEMORIAL AWARD

Outstanding M.S. Student

James Villegas

James Villegas was born in the Philippines. He received his B.S. in Life Sciences with specialization in molecular biology and biotechnology from the Ateneo de Manila University in 2012. His undergraduate research was focused on the molecular characterization and phylogenetic analyses of RNA segments 5 and 6 of rice ragged stunt virus transmitted by brown planthopper in Southeast Asia. His career and passion in entomology began when he joined the Entomology group at the International Rice Research Institute. He was involved in developing ecological engineering approaches to restore and conserve ecosystem services for pest management in rice production. He also worked on rodent-rice interaction in response to crop management. In 2015, he began his M.S. in Entomology with a minor in applied statistics at the Louisiana State University. His research focuses on the independent and interactive effects of nitrogen fertilization and soil silicon amendment on the rice insect pest complex. He recently published the first study to report the effects of soil silicon amendment on rice water weevil (a below-ground herbivore) in rice under field conditions. After he finishes his Masters, he plans to continue on his PhD at LSU.

Student Awards - 2017

ROBERT T. GAST AWARDS

Outstanding Ph.D. Oral Presentations

SESSION I

First Place, Aaron Cato

Aaron Cato was born in Osceola, Arkansas and has lived most of his life in the delta. His time growing up in the delta was spent either working on his family's farm or chasing reptiles and amphibians in the ditches and rivers surrounding his home. Aaron attended Arkansas State University where he earned a BS in Biology, and although originally interested in genetics and herps, worked with stored product insect pests with Dr. Tanja McKay. Aaron continued work with these insect pests as he received a MS in entomology from Kansas State University where he studied the geographic variation of phosphine resistance in the red flower beetle, *Tribolium castaneum*, with Dr. Tom Phillips. Currently Aaron is working on his PhD at the University of Arkansas where he is studying the rice stink bug, *Oebalus pugnax*, and looking to better understand sampling techniques, relating samples to cage trials, and understanding the damage this pest can cause to mostly matured rice kernels. Aaron is currently working with Dr. Gus Lorenz where their research focuses on the needs of the producers of Arkansas.

Second Place, Whitney Crow

Whitney Crow is a native of Atoka, TN. In May of 2013, she received her B.S. degree in Agriculture with a concentration in Crop and Soil Management from the University of Tennessee at Martin. After graduation, she accepted a position at the University of Tennessee in the Plant Science Department with Dr. Larry Steckel. In December of 2014, she completed her Master's degree in Plant Sciences with a concentration in Weed Science. Throughout her studies, Whitney focused on glyphosate resistant Palmer amaranth management late-season and post-harvest in corn production systems. Currently, she is working on her Ph.D. at Mississippi State University with a focus on evaluating the interactions of tobacco thrips and reniform nematodes on the growth and development of cotton. After completion of her Ph.D., Whitney plans to pursue a career in agricultural research.

SESSION II

First Place, Meredith Spence

Meredith Spence is a PhD student and an NSF Graduate Research Fellow at North Carolina State University. A North Carolina native, she also attended NC State as an undergraduate, where she was first exposed to the insect world as an undergraduate research assistant investigating ant-mediated seed dispersal, and received a BS in Zoology with a minor in Mathematics in 2011. She worked as a veterinary assistant for three years before deciding to combine her passions for veterinary medicine, mathematics, and entomology by pursuing a PhD in Entomology, researching the ecology and dynamics of dog heartworm disease under the direction of Dr. Michael Reiskind and Dr. Rob Dunn. Outside of her research, she enjoys drinking inordinate amounts of coffee and cuddling her three dogs, cat, and rat.

Second Place, Panpim Thongsripong

Panpim Thongsripong is a PhD candidate in the Department of Tropical Medicine, Tulane University. She became interested in mosquito-borne disease research during her undergraduate trainings in Thailand. She received her M.S. from the Department of Tropical Medicine at the University of Hawai'i studying mosquito community diversity and their associated microbiota. Her doctoral dissertation research combines interdisciplinary approaches from medical entomology, virology, and mathematical modeling to examine risks of Aedes-borne disease transmission in the southern United States.

Outstanding Ph.D. Oral Presentations

SESSION III

First Place, Anthony Greene

Anthony Daniel Greene is a second year Ph.D. student under the guidance of Dr. Jeremy Greene and Dr. Francis Reay-Jones at Clemson University. He previously attended the University of North Carolina at Greensboro where he received a M.S. in Biology for his work on sandfly behavior and chemical communication. Prior to graduate school, he received a B.S. from Lincoln Memorial University in Wildlife and Fisheries Biology. Daniel has always had a profound interest in the natural world; this curiosity developed throughout his childhood as he grew up in the foothills of the Great Smoky Mountains in Newport, TN. Currently, Daniel's research involves characterizing the relationship between predatory and herbivorous insects in soybean. He is specifically interested in how to better target herbivorous insects so that crop yield is conserved—all while lessening the environmental impact from the application of these management methods. Daniel aspires to teach at the collegiate level, as he hopes to play a role in educating the next generation of conservationists, ecologists, and entomologists. In his spare time, Daniel enjoys hiking, playing and watching soccer, and socializing with friends, family, and his furry companion, Molly.

Second Place, Lina Bernaola

Lina Bernaola was born in Lima, Peru. She received her B.S. in biological sciences and a minor in molecular biology from Universidad Nacional Mayor de San Marcos, Peru. Lina joined Louisiana State University to pursue her M.S. in agronomy and crop sciences. Currently, she is a PhD candidate in the Department of Entomology at LSU. Her research interests include plant-insect and plant-pathogen interactions as well as host plant resistance. Her project involves investigations of the mechanistic basis of plant resistance against above-ground and below-ground organisms in rice. Primarily, she studies the effects of mycorrhizal fungi, a symbiotic soil-borne organism, on rice resistance to insect herbivores. The ultimate goal of Lina's research is to provide a better understanding of plant-insect-mycorrhizae interactions in rice pests of Louisiana, which will help to develop more effective pest management programs in rice. Lina has been actively involved in the Entomological Society of America since 2013. She has presented her research at several national and Southeastern Branch meetings.

Outstanding M.S. Oral Presentations

SESSION I

First Place, Joseph Black

Joe Black received his BS from the University of Arkansas in 2013. After graduating, he worked for the University of Arkansas Cooperative Extension Services as a Program Technician in Dr. Gus Lorenz's IPM program. He worked for a year before starting his MS program at the University of Arkansas where he is studying the potential for horizontal transmission of a biopesticide, *Helicoverpa armigera* Nucleopolyhedrovirus, in a soybean field infested with Helicoverpa zea. After finishing his MS, he plans on pursuing a Ph.D.

Second Place, Chad Abbott

Chad Abbott is a native of Augusta, Georgia. He received a B.A.S. in Natural Resource Management, an A.A.S. in Forest Resource Management, and an A.A.S. in Wildlife Technology at Abraham Baldwin Agricultural College in Tifton, Georgia. During his time at ABAC, he was involved with establishing, running, and participating in professional and recreational student organizations like the ABAC Forestry Club and SAF Student Chapter, the ABAC Wildlife Society Chapter, the ABAC FFA Collegiate Chapter and the ABAC AET Club. Mr. Abbott also worked as an undergraduate student worker in the University of Georgia's cropping systems research program, with research focused on peanut production, along with numerous other crops. Chad worked alongside his now major professor, Dr. Jason Sarver, while Dr. Sarver was completing his Ph. D. at the University of Georgia. Chad is now pursuing his Master's Degree in Plant and Soil Sciences. He is working to evaluate the impact of defoliation timings and levels in hopes to establish new economic defoliation thresholds in peanut. Mr. Abbott plans to stay at Mississippi State Univeristy to work toward a Ph.D.

Outstanding M.S. Oral Presentations, continued

SESSION II

First Place, Devika Bhalerao

Devika Bhalerao is originally from Pune, India. She has a BS and MS degree in Microbiology and is currently pursuing a MS in Entomology at Louisiana State University under Dr. Claudia Husseneder. Devika is using metagenomics to decipher the food web of the larvae of the greenhead horse fly (Tabanus nigrovittatus). Her aim is to identify organisms that are important to sustain the greenhead horse fly larvae which is the top invertebrate predator in the marshes and to determine if oiling alters the presence of various organisms in the food web. Her findings will help develop analytical tools that can be used to evaluate the health of tidal marshes of the entire eastern United States.

Second Place, Dylan Cleary

Dylan Cleary is a M.S. candidate working in the Insect Genetics Lab at the University of Arkansas. Her current research involves using molecular diagnostics to detect the presence of various parasites and pathogens of honey bees in samples from Arkansas and Oklahoma. Specifically, she is detecting for *Nosema apis, Nosema ceranae, Spiroplasma melliferum, Spiroplasma apis, Crithidia mellificae, Lotmaria passim, Apocephalus borealis*, and *Varroa destructor*. A Tulsa, OK native, Dylan has lived in 7 states since completing her B.S. She has worked as a research technician identifying pollinators in wetland habitats as well as been employed at state parks, butterfly houses, and environmental education facilities. Dylan has been fortunate enough to gain experience both working in the field as well as the lab. She hopes to continue working in research following completion of her degree in December.

SESSION III

First Place, Kadie Britt

Kadie Britt is a native of Marshville, NC. She received a BS in Environmental Studies from Emory & Henry College in Emory, VA in 2013. After graduation, she worked closely with Dr. Erika Scocco Niland, an entomologist, at Wingate University in Wingate, NC. Dr. Niland shared her love of entomology with Kadie and inspired her to pursue a future with insects. In May of 2014, Kadie joined the Department of Entomology and Plant Pathology at the University of Tennessee, Knoxville where her research focused on ecology, biology, and life history of the kudzu bug, *Megacopta cribraria*, in east Tennessee. She worked closely with Dr. Jerome Grant and Dr. Greg Wiggins and learned how to be a successful researcher. The highlight of her research at UT was discovering an entomopathogenic fungus that was lethal to kudzu bugs in their natural environment. In 2017, Kadie began doctoral research at Virginia Tech in the Department of Entomology. She is now studying insect pest management in industrial hemp and is guided by Dr. Thomas Kuhar.

Second Place, John Corbin

John Corbin is a native of Lambert, MS. He is a graduate of Mississippi State University with a B.S. in Agricultural Sciences. He began his Masters in the summer of 2016 under the advisement of Dr. Angus Catchot and Dr. Jeff Gore. Mr. Corbin received his agricultural background from working on his family's farm growing cotton, soybeans, corn, rice, and grain sorghum. His agricultural background expanded as he worked as a field scout for GreenPoint Ag in Marks, MS for 3 summers. Mr. Corbin is currently working on a new Bt trait in cotton used to help control tarnished plant bugs. Upon completion of his Masters, Mr. Corbin plans to pursue a PhD in entomology.

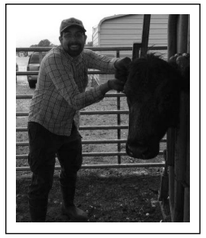
Outstanding M.S. Oral Presentations, continued

SESSION IV

First Place, Eleanor Moen

Eleanor Moen is originally from Paxton, IL. She received her B.S. degree in Integrative Biology from The University of Illinois at Urbana-Champaign in 2015. After working for a year on aquatic invertebrates at the Illinois Natural History Survey, Ms. Moen began her M.S. degree with Dr. Jonas King at Mississippi State University. Her research focuses on the difference in gut microbiome between wild and lab-strain *Anopheles quadrimaculatus* and its effect on vector competence and innate immunity. After completion of her degree Ms. Moen plans on continuing her career as an entomologist in the United States Navy.

Second Place, David Theuret



David Theuret grew up in southern California, and knew from a young age that he wanted to be an entomologist. After graduating from high school, he attended the University of California Los Angeles for two years before transferring to the University of California Riverside. He was accepted to the College of Natural and Agricultural Sciences Summer Bridge to Research Program through which he was able to conduct research on nuisance flies of veterinary importance. This experience sparked his interest in medical and veterinary entomology, which he continued to pursue during his Masters in Entomology & Plant Pathology at the University of Tennessee Knoxville. His thesis focused on determining the regional distribution and seasonal activity of tick species that are pests of beef cattle, and identifying methods for detecting invasive tick species. He was also able to investigate the microbial communities of the gulf coast tick to build the foundation for future research to control this emerging pest. He is currently the public health entomologist at the Arkansas Department of Health.

Outstanding Undergraduate Oral Presentation

First Place, Lily Brooks

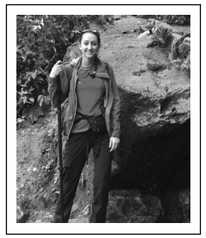
Lily Brooks is an undergraduate student at Mississippi State University where she is studying biochemistry with a minor in Spanish. She is currently researching RHS proteins in arthropods under the advisement of Dr. Jonas King. Upon graduation in May 2018, Lily plans to attend medical school.

Second Place, Mason Russo

Mason Russo just completed his degree in Entomology and Nematology at the University of Florida. He worked in the Biosecurity Research and Extension lab for Dr. Amanda Hodges his senior year, where he began his project on Arvelius albopunctatus. He also worked with the Florida Department of Agriculture and Consumer Services Division of Plant Industry and with Dr. Phil Koehler in urban entomology. Mason spent a summer working for the Mercer County Mosquito Commission as well, conducting research for Dr. Isik Unlu. He was born in Lawrenceville New Jersey, and always had an interest in insects. Some of the specimens he collected when he was younger he actually used for his classifications collection to meet class requirements. While he was at UF, he also was involved in the outdoors club and played club waterpolo. He is starting his Masters at the University of Hawaii at Manoa, where he will be working on various turf pests. His focus will be entomopathogenic nematode control of the coconut rhinoceros beetle. Mason would like to pursue a PhD or work in Industry once he completes his next degree.

Outstanding Student Extension, Outreach, & Teaching Oral Presentations

First Place, Morgan Pinkerton



Morgan Pinkerton graduated from the University of Florida with a Bachelor's in Biology in 2016. During her undergraduate career, she worked in the Biosecurity Research and Extension Laboratory in the Department of Entomology and Nematology where she developed a passion for insects. After graduation, she began working on her Master's in Entomology in the spring of 2017 at UF under the direction of Dr. Amanda Hodges. She became coenrolled in the Doctor of Plant Medicine Program the following summer. For her Master's research, she focuses on the rearing techniques of invasive stink bug pests including the red banded stink bug, Piezodorus guildinii, and the Bagrada bug, Bagrada hilaris. Furthermore, she is looking at the identification abilities of small-scale growers throughout Florida with a focus on invasive stink bugs. She is heavily involved in outreach efforts and hopes to pursue a career in extension in the future. One project she is working on is the outreach efforts on invasive species and biosecurity in middle school and high school aged students throughout Florida. She is also involved in the Florida First Detector project, which includes a series of workshops designed to teach the public about rising pests of concern and invasive species in their area.

Second Place, Becky Griffin

Becky Griffin is the Community and School Garden Coordinator for University of Georgia Extension. She returned to school to pursue a Masters in Plant Protection and Pest Management. Becky promotes her passion for beneficial insects, especially pollinators, through her work. Many of her projects involve educating gardeners about beneficial insects and assisting with creating sustainable habitat. As a beekeeper, Becky wants gardeners to understand the connection between food gardens and beneficial insects.

Outstanding Ph.D. Student Displays

First Place, Damon D'Ambrosio

Damon D'Ambrosio is a PhD student in the Department of Entomology and Plant Pathology at North Carolina State University under the direction of Dr. George Kennedy. His research focuses on the feeding and oviposition behaviors of thrips in the genus Frankliniella, how these behaviors are impacted by insecticides, and how these impacts differ between insecticide-susceptible and resistant populations. Damon hails from Fuquay-Varina, NC, and before beginning his graduate studies, received his B.S. in Zoology from North Carolina State University in 2012. After graduating, Damon hopes to enter the agrochemical industry.

Second Place, Anup Bastola

Anup Bastola is a native of Nepal. He got his M.S. in Plant protection from Texas Tech University. He is a PhD candidate at Louisiana State University. Currently, he works in soybean entomology lab under the supervision of Dr. Jeffery A. Davis. His research focuses on ecology and biology of redbanded stink bug.

Outstanding M.S. Student Displays

SESSION I

First Place, James Michael Villegas

James Villegas was born in the Philippines. He received his B.S. in Life Sciences with specialization in molecular biology and biotechnology from the Ateneo de Manila University in 2012. His undergraduate research was focused on the molecular characterization and phylogenetic analyses of RNA segments 5 and 6 of rice ragged stunt virus transmitted by brown planthopper in Southeast Asia. His career and passion in entomology began when he joined the Entomology group at the International Rice Research Institute. He was involved in developing ecological engineering approaches to restore and conserve ecosystem services for pest management in rice production. He also worked on rodent-rice interaction in response to crop management. In 2015, he began his M.S. in Entomology with a minor in applied statistics at the Louisiana State University. His research focuses on the independent and interactive effects of nitrogen fertilization and soil silicon amendment on the rice insect pest complex. He recently published the first study to report the effects of soil silicon amendment on rice water weevil (a below-ground herbivore) in rice. His research is also one of few studies that investigates the effects of soil silicon amendment on multiple rice pests in a field setting.

Second Place, Amy Michael

Amy Michael grew up exploring the outdoors in rural southwestern Ohio. Through involvement in 4H and Girl Scouts, she gained an appreciation for the balance between agriculture and the natural environment. She obtained an undergraduate degree in Entomology from the University of California, Riverside. While attending, she conducted independent research on the systematics and phylogeny of ambush bugs as well as the ecology of insect vectors of plant disease. After graduating, she worked with the California Department of Food and Agriculture to develop a multi-county program to monitor for the Asian Citrus Psyllid and its parasitoids. Her research interests include invasive species, their impact on agriculture, and the role of IPM in an increasingly international world. This led her to pursue her MS at the University of Tennessee in Knoxville. Her current research investigates kudzu bug ecology and phenology, and the ecological factors that contributed to its initial explosion and eventual decline in its invasive range. This includes population-level responses to the arrival of its natural enemy, Beauveria bassiana, as well as abiotic factors such as extreme drought, and the implications of these influences on the management of kudzu bug on soybean.

SESSION II

First Place, Mary-Kate Williams

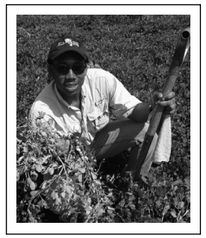
Mary-Kate Williams completed her B.S. in General Biology from the University of Arkansas at Little Rock. She started her M.S. in Entomology at the University of Arkansas with Dr. Allen Szalanski studying trypanosome prevalence in the United States. Ultimately she plans to pursue her Ph.D. in ecology or entomology concerning disease interactions.

Second Place, Manoj Pandey

Manoj Pandey completed his Bachelor's degree in Agricultural Science at Institute of Agriculture and Animal Sciences in 2011 at Tribhuvan University in Nepal. In fall 2015, he moved to the United States to pursue a Master's degree in Agricultural Sciences at Tennessee State University (TSU) under the direction of Dr. Jason Oliver. His Master's research focused on imported fire ant classical biological control agents (Pseudacteon flies) and the relationships between parasitism and ant morphology and geographic distribution. He graduated from TSU during August 2017 and begins a doctoral program in the Louisiana State University Department of Entomology during fall 2017 under the direction of Dr. Timothy Schowalter.

Outstanding Undergraduate Student Displays

First Place, Cleveland Ivey



Cleveland Ivey hails from a small rural town known as Coolidge, GA. Since childhood he has had a keen interest in all things insect related, but never knew that there were careers that focused on the study of insects until college. He is currently a senior majoring in Plant Science at Fort Valley State University. Since the spring of 2015, he has worked under the leadership of Dr. George N. Mbata in the campus Entomological Research Laboratory. Their work focuses on using Integrated Pest Management for the control of stored product pests. Most recently he has focused on the effect of entomopathogens on the maize weevil (Sitophilus zeamais), a major pest of stored corn. Cleveland also serves as a volunteer student researcher at the Southeastern Fruit and Tree Nut Research Lab in Byron, GA where he works under Dr. David I. Shapiro – Ilan. Cleveland holds membership in the Fort Valley State University Agri – Demic Forum, the Fort Valley State University 4-H/FFA Ag Youth Health & Field Day planning committee, and serves as President of the campus chapter of Beta Kappa Chi, Science Society. He also plays trombone in the FVSU Jazz Band. Upon graduation from FVSU, he plans to attend graduate school and receive a degree in Entomology or Plant Medicine. Afterwards, he plans to obtain a doctorate in a specialization of Entomology. He would like to either teach and conduct research or become a full time researcher with the United States Department of Agriculture – Agricultural Research Service. He hopes that he will be able to bring back his experience in IPM and Biological Control to his hometown and surrounding areas that rely heavily on crop production. In his free time he enjoys golfing and reading science fiction.

Second Place, Evan Waite

Evan Waite, originally from Allentown Pennsylvania, graduated in April 2017 from the University of Florida with a Bachelor's Degree in Entomology and Nematology. While at UF he worked for Dr. Marc Branham in the Insect Systematics lab. He is now a Masters Student at Wichita State University under Dr. Mary Liz Jameson. His research is looking at the influence of plant communities on ground dwelling arthropod populations and how their abundance affects bird populations on Conservation Reserve Program (CRP) lands.

Program Schedule

Program Summary

SUNDAY, MARCH 4, 2018		
Program	**Time**	**Location**
S1058: Biological Control of Arthropod Pests and Weeds Multistate Working Group Meeting	8:00 AM - 5:00 PM	Cypress ABC
Local Arrangements/Program Committee Meeting	11:00 AM - 12:00 PM	Citrus A
Executive Committee Meeting	1:00 PM - 4:00 PM	Citrus B
Registration	1:00 PM - 5:00 PM	Magnolia A
SAC/NCAC Department Heads Meeting	2:00 PM - 4:00 PM	Magnolia B
Audiovisual and Job Placement	3:00 PM - 5:00 PM	Magnolia A
Linnaean Games: Preliminary Rounds	3:00 PM - 7:00 PM	Orange AB
Student Competition Poster Set Up	4:00 PM - 6:00 PM	Orange CD
Moderator Training	4:00 PM - 5:00 PM	Magnolia A

MONDAY, MARCH 5, 2018		
Program	**Time**	**Location**
Audiovisual and Job Placement	7:00 AM - 5:00 PM	Magnolia A
Registration	7:00 AM - 5:00 PM	Magnolia A
Student Competition Poster Set Up	7:00 AM - 8:00 AM	Orange CD
Host State Breakfast	7:00 AM - 8:00 AM	Orange Foyer
Preliminary Business Meeting and Plenary Address	8:00 AM - 10:15 AM	Orange AB
Student Competition Poster Display	8:00 AM - 5:00 PM	Orange CD
Undergraduate Student Poster Competition	8:00 AM - 5:00 PM	Orange CD
M.S. Student Poster Competition I	8:00 AM - 5:00 PM	Orange CD
M.S. Student Poster Competition II	8:00 AM - 5:00 PM	Orange CD
Ph.D. Student Poster Competition I	8:00 AM - 5:00 PM	Orange CD
Ph.D. Student Poster Competition II	8:00 AM - 5:00 PM	Orange CD
Student Poster Competition Judging	9:00 AM - 4:00 PM	Orange CD
Break	10:15 AM - 10:30 AM	Orange Foyer
Undergraduate Student Oral Presentation Competition	10:30 AM - 12:30 PM	Magnolia B
M.S. Student Oral Presentation Competition I	10:30 AM - 12:30 PM	Citrus B
M.S. Student Oral Presentation Competition II	10:30 AM - 12:30 PM	Nautilus A
M.S. Student Oral Presentation Competition III	10:30 AM - 12:30 PM	Nautilus B

MONDAY, MARCH 5, 2018, CONT'D		
M.S. Student Oral Presentation Competition IV	10:30 AM - 12:30 PM	Citrus A
Symposium: Management of Asian Citrus Psyllid and Its Vectored Huanglongbing	10:30 AM - 4:00 PM	Orange AB
Symposium: Biocontrol in the Southeast: From Weeds to Arthropod Pests	10:30 AM - 4:30 PM	Cypress ABC
Student Poster Presenters at Posters	1:45 PM - 2:45 PM	Orange CD
Extension, Outreach and Teaching Student Oral Presentation Competition	2:00 PM - 3:30 PM	Citrus A
Ph.D. Student Oral Presentation Competition I	2:00 PM - 4:00 PM	Citrus B
Ph.D. Student Oral Presentation Competition II	2:00 PM - 4:00 PM	Nautilus A
Ph.D. Student Oral Presentation Competition III	2:00 PM - 4:00 PM	Nautilus B
Ph.D. Student Oral Presentation Competition IV	2:00 PM - 4:00 PM	Magnolia B
Linnaean Games: Finals	5:00 PM - 7:00 PM	Orange AB
Student Poster Removal	5:00 PM - 7:00 PM	Orange CD
ESA Listening Session	5:00 PM - 6:00 PM	Magnolia B
Welcome Reception	7:00 PM - 9:00 PM	Pavilion
Regular Poster Set Up	7:00 PM - 9:00 PM	Orange CD

TUESDAY, MARCH 6, 2018		
Program	**Time**	**Location**
Audiovisual and Job Placement	7:00 AM - 5:00 PM	Magnolia A
Past Presidents Breakfast	7:00 AM - 8:00 AM	Restaurant
Registration	7:00 AM - 5:00 PM	Magnolia A
Regular Poster Set Up	7:00 AM - 8:00 AM	Orange CD
Regular Poster Display	8:00 AM - 5:00 PM	Orange CD
Symposium: Emerging Technologies in Entomological Fields	8:00 AM - 10:00 AM	Citrus B
Symposium: Bridging the Gap in Berry Production Research in the Southeast: Updates on the Latest Issues	8:00 AM - 11:00 AM	Nautilus A
Symposium: Pollinators and Soybeans	8:00 AM - 12:00 PM	Citrus A
Contributed Poster Presentation: Plant-Insect Ecosystems	8:00 AM - 5:00 PM	Orange CD
Contributed Poster Presentations: Medical, Urban and Veterinary; Physiology, Biochemistry, and Toxicology; Systematics, Evolution, and Biodiversity	8:00 AM - 5:00 PM	Orange CD
Student Affairs Committee Meeting	10:00 AM - 12:00 PM	Magnolia C
Symposium: Design of Experiments for Entomologists	10:00 AM - 12:15 PM	Nautilus B
Awards Luncheon and Photo Salon	12:00 PM - 1:30 PM	Orange AB
Regular Poster Presenters at the Posters	1:45 PM - 2:45 PM	Orange CD

TUESDAY, MARCH 6, 2018, CONT'D		
Contributed Papers I: Plant-Insect Ecosystems	2:00 PM - 4:00 PM	Citrus B
Contributed Papers II: Plant-Insect Ecosystems	2:00 PM - 4:00 PM	Cypress ABC
Contributed Papers III: Plant-Insect Ecosystems	2:00 PM - 4:00 PM	Citrus A
Contributed Papers IV: Medical, Urban and Veterinary; Physiology, Biochemistry, and Toxicology; Systematics, Evolution, and Biodiversity	2:00 PM - 4:00 PM	Magnolia B
Final Business Meeting	4:00 PM - 6:00 PM	Cypress ABC
Regular Poster Removal	5:00 PM - 7:00 PM	Orange CD

WEDNESDAY, MARCH 7, 2018		
Program	**Time**	**Location**
Registration	7:00 AM - 9:00 AM	Magnolia A
S1055: Biology, Impact, and Management of Soybean Insect Pests in Soybean Production Systems	8:00 AM - 5:00 PM	Citrus A
Symposium: Managing for Pollinators	8:00 AM - 10:30 AM	Magnolia C
Symposium: Vegetable Pest Management	8:00 AM - 11:05 AM	Citrus B
Symposium: Management of Noctuid Pests	8:00 AM - 11:45 AM	Magnolia B
Symposium: Turf and Ornamental Entomology	8:00 AM - 11:45 AM	Cypress ABC

Program Schedule

MONDAY, MARCH 5, 2018, PRELIMINARY

Preliminary Business Meeting and Plenary Address

Orange AB

Presiding: **Stephen Lapointe, President, Southeastern Branch, ESA**

8:00 AM **Call to Order,** Steve Lapointe, SEB President

8:05 AM **Welcome**

8:15 AM **General Announcements and Reports**

Local Arrangements – Rob Meagher

Public Relations – Adam Dale

Program – Jawwad Qureshi

Nominations – Alvin Simmons

Resolutions – Courtney Jackson

2019 Meeting Time and Location – Oscar Liburd, SEB President-Elect

2020 Joint EB/SEB meeting; 2021 meeting location – Steve Lapointe

Entomological Foundation – Marianne Shockley

Other committee reports

8:50 AM **Message from ESA President,** Michael Parrella

9:00 AM **Message from ESA Executive Director,** David Gammel

9:10 AM **Message from SEB Representative to the Governing Board,** Tim Schowalter

9:15 AM **Message from SEB representative to the Certification Board,** Dennis Ring

9:20 AM **Message from ESA PIE Section Representative,** Rebecca Schmidt-Jeffris

9:30 AM **Plenary Address, Dr. Agenor Mafra-Neto:** "Behavioral manipulation of disease vectors"

10:10 AM **Closing Remarks,** Steve Lapointe

10:15 AM **Break**

MONDAY, MARCH 5, 2018, POSTERS

Undergraduate Student Poster Competition / 8:00 AM-5:00 PM

Orange CD (Doubletree Hilton at Seaworld)

P-1 **Chemoreception in the fall armyworm, *Spodoptera frugiperda: New strategies for management.***
Michele Moncrief *(mmoncrie@stallions.abac.edu), Corey Brooke, Leah Pool, Kurt Willis and Joanna Gress, Abraham Baldwin Agricultural College, Tifton, GA*

P-2 **Application of *Beauveria bassiana (Bals.) Vuill. for protecting maize (Zea mais L.) against the maize weevil (Sitophilus zeamais Motchulsky) (Coleoptera: Curculionidae).***
Cleveland Ivey *(Civey7@wildcat.fvsu.edu) and George Mbata, Fort Valley State Univ., Fort Valley, GA*

P-3 **Arthropod associations with native and exotic oaks in the Georgia State Arboretum.**
Rebecca Tweedy *(rctwee6911@ung.edu) and Evan Lampert, Univ. of North Georgia, Oakwood, GA*

P-4 **Findings of undergraduate students conducting ecological surveys in the Bibb county glades "botanical lost world".**
Joshua Fuller *(jbfull0575@ung.edu), James Diggs and Evan Lampert, Univ. of North Georgia, Oakwood, GA*

P-5 **Improvements to hydrilla tip mining midge rearing: oviposition requirements.**
Rachel Watson *(rwatson25@ufl.edu)[1], Julie Baniszewski[2], James Cuda[1] and Emma Weeks[1], [1]Univ. of Florida, Gainesville, FL, [2]Pennsylvania State Univ., Univ. Park, PA*

P-6 **Insects associated with *Brassica carinata in the southern region of the U. S.: occurrence and biology.***
Ashley Moore *(amoore27@ufl.edu), Silvana Paula-Moraes, Jessica Baldwin, Latisa Ledbetter-Kish and Michael Mulvaney, Univ. of Florida, Jay, FL*

P-7 **Description of eggs, nymphs, and male and female genitalia of the delphacid planthopper *Liburniella ornata (Hemiptera: Fulgoroidea) with notes on biology.***
Sara Kennedy *(skenn37@lsu.edu)[1] and Stephen Wilson[2], [1]Louisiana State Univ., Baton Rouge, LA, [2]Univ. of Central Missouri, Warrensburg, MO*

P-8 **Establishing the discriminating concentration of permethrin in acaricide susceptible lone star ticks, *Amblyomma americanum (Linnaeus).***
Elise Richardson *(ear6296@ufl.edu), Katherine Sayler and Emma Weeks, Univ. of Florida, Gainesville, FL*

P-9 **Mosquito surveillance on the University of North Georgia, Gainesville campus.**
Anthony Pacheco *(apach0858@ung.edu), Omojolaade Akintade, Raihanna Sukhram, Davison Sangweme and Evan Lampert, Univ. of North Georgia, Oakwood, GA*

M.S. Student Poster Competition I / 8:00 AM-5:00 PM

Orange CD (Doubletree Hilton at Seaworld)

P-10 **Assessing toxicity of formulated pesticide mixtures to honey bees, *Apis mellifera (L.) and bumblebees, Bombus impatiens (Cresson).***
Joseph Belsky *(jebelsky@email.uark.edu) and Neelendra Joshi, Univ. of Arkansas, Fayetteville, AR*

P-11 **Acoustic detection of two cerambycid pests (Coleoptera: Cerambycidae) of agriculture, forestry and landscape importance.**
Daniel Stanaland *(Daniel1.Stanaland@famu.edu)[1], Richard Mankin[2], Muhammad Haseeb[3], Daniel Carrillo[4] and Lambert Kanga[3], [1]Center for Biological Control, Florida A&M Univ., Tallahassee, FL, [2]USDA - ARS, Gainesville, FL, [3]Florida A&M Univ., Tallahassee, FL, [4]Univ. of Florida, Homestead, FL*

P-12 **Developing a rearing technique for the squash bug, *Anasa tristis*.**
Kalen Fleming *(jameska@uga.edu), The Univ. of Georgia, Tifton, GA*

P-13 **Effects of emerald ash borer (*Agrilus planipennis Fairmaire, Coleoptera: Buprestidae) on abundance and diversity of wood inhabiting arthropods of green ash (Fraxinus pennsylvanica Marshall) trees in Louisiana.***
Balwinder Kaur *(bkaur2@lsu.edu), Louisiana State Univ., Baton Rouge, LA*

P-14 **Effects of three mulching practices on the density of spotted-wing drosophila (Diptera: Drosophilidae) on blueberries in north Florida.**
Albertha Parkins *(albertha1.parkins@famu.edu)[1], Muhammad Haseeb[1], Oscar Liburd[2] and Lambert Kanga[1], [1]Florida A&M Univ., Tallahassee, FL, [2]Univ. of Florida, Gainesville, FL*

P-15 **Evidence of reproductive diapause in (*Chalcodermus aenus) the cowpea curculio.***
Sydni Barwick *(scb64780@uga.edu), Alton Sparks and David Riley, Univ. of Georgia, Tifton, GA*

P-16 **Foraging behavior of a minute pirate bug under starvation and feeding..**
Edward Traczyk *(eddietraczyk@yahoo.com), Graduate research assistant, Tallahassee, FL*

P-17 **How are insects affected in a loblolly pine stand associated with *Leptographium terebrantis?***
Jessica Ahl *(jba0022@auburn.edu), Lori Eckhardt and Ryan Nadel, Auburn Univ., Auburn, AL*

M.S. Student Poster Competition II / 8:00 AM-5:00 PM

Orange CD (Doubletree Hilton at Seaworld)

P-18 **Investigating effects of *Tomato yellow leaf curl virus and Tomato mottle virus infection on the fitness of Bemisia tabaci.***
Ashley Bowler *(ashley.bowler@hotmail.com), Auburn Univ., Auburn, AL*

P-19 **Manage pollinator protection plan: bridging the gap.**
Angus Catchot *(alc607@msstate.edu)[1], Jeffrey Harris[2] and Jeff Gore[3], [1]Mississippi State Univ., Mississippi State, MS, [2]USDA - ARS, Baton Rouge, LA, [3]Mississippi State Univ., Stoneville, MS*

P-20 **Monitoring the redbay ambrosia beetle, *Xyleborus glabratus (Coleoptera: Scolytidae), a serious invasive vector of laurel wilt disease in Florida.***
Lambert Kanga *(lambert.kanga@famu.edu)[1], Gabriela Louis[2], Muhammad Haseeb[1] and Johnny Grace[3], [1]Florida A&M Univ., Tallahassee, FL, [2]Center for Biological Control, Florida A&M Univ., Tallahassee, FL, [3]USDA, Forest Service, Forest Service Center for Forest Watershed Research, Southern Research Station, Tallahassee, FL*

P-21 **Novaluron effects on tarnished plant bugs, *Lygus lineolaris (Palisot Dr Beauvois) (Miridae: Hemiptera).***
Beverly Catchot *(Bdc12@msstate.edu)[1], Fred Musser[1], Jeff Gore[2], Natraj Krishnan[1], Angus Catchot[1], Ryan L. Jackson[3], Scott Stewart[4], Gus Lorenz[5], Nick Seiter[6] and Sebe Brown[7], [1]Mississippi State Univ., Mississippi State, MS, [2]Mississippi State Univ., Stoneville, MS, [3]USDA - ARS, Stoneville, MS, [4]Univ. of Tennessee, Jackson, TN, [5]Univ. of Arkansas, Lonoke, AR, [6]Univ. of Illinois, Champaign, IL, [7]Louisiana State Univ., Winnsboro, LA*

P-22 **On the distribution and diversity of Florida's subterranean ants.**
Leo Ohyama *(leoohyama@knights.ucf.edu)[1] and Joshua King[2], [1]Univ. of Central Florida, Oviedo, FL, [2]Univ. of Central Florida, Orlando, FL*

P-23 **Predicting invasions and geographical distributions of economically important palm weevil pests within and outside of the United States.**
Jing Zhang *(jing1.zhang@famu.edu)[1], Muhammad Haseeb[2], Runzhi Zhang[1] and Lambert Kanga[2], [1]Institute of Zoology, Chinese Academy of Sciences, Beijing, China, [2]Florida A&M Univ., Tallahassee, FL*

P-24 **Vector-virus-host dynamics: Understanding deformed wing virus infection in *Varroa destructor.***
Sara Kennedy *(skennedy@agcenter.lsu.edu)[1], Michael Simone-Finstrom[2] and Kristen Healy[1], [1]Louisiana State Univ., Baton Rouge, LA, [2]USDA - ARS, Baton Rouge, LA*

Ph.D. Student Poster Competition I / 8:00 AM-5:00 PM

Orange CD (Doubletree Hilton at Seaworld)

P-25 **Diet selection of field-collected *Blattella germanica.***
Samantha McPherson *(smmcphe2@ncsu.edu), Coby Schal and Jules Silverman, North Carolina State Univ., Raleigh, NC*

P-26 **The effect of mosquito diversity on dog heartworm prevalence in suburban areas.**
Meredith Spence Beaulieu *(mrspenc2@ncsu.edu) and Michael Reiskind, North Carolina State Univ., Raleigh, NC*

P-27 **Characterization of feeding behavior of neonicotinoid-resistant tobacco thrips on peanut.**
Nataraja Maheshala *(nvmahesh@ncsu.edu), Damon D'Ambrosio, Anders Huseth and George Kennedy, North Carolina State Univ., Raleigh, NC*

P-28 **Determining egg and larval distribution of *Frankliniella fusca in neonicotinoid-treated cotton.***
Damon D'Ambrosio *(dadambro@ncsu.edu) and George G. Kennedy, North Carolina State Univ., Raleigh, NC*

P-29 **Effects of plant location, height and spacing on the distribution of *Anthonomus eugenii (Coleoptera: Curculionidae) in jalapeno peppers in north Florida.***
Pengxiang Wu *(wupengxiang@ioz.ac.cn)[1,2], Muhammad Haseeb[3], Runzhi Zhang[1], Worrel Diedrick[3], Lambert Kanga[3] and Jesusa C. Legaspi[4], [1]Institute of Zoology, Chinese Academy of Sciences, Beijing, China, [2]Univ. of Chinese Academy of Sciences, Beijing, China, [3]Florida A&M Univ., Tallahassee, FL, [4]USDA - ARS, Tallahassee, FL*

P-30 **Genetic variation of feral honey bees, *Apis mellifera L., from Utah.***
Dylan Cleary *(dacleary@uark.edu)[1], Allen Szalanski[1], Clinton E. Trammel[1], Mary-Kate Williams[1], Amber D. Tripodi[2] and Danielle Downey[3], [1]Univ. of Arkansas, Fayetteville, AR, [2]USDA - ARS, Logan, UT, [3]Hawaii Dept. of Agriculture, Hilo, HI*

Ph.D. Student Poster Competition II / 8:00 AM-5:00 PM

Orange CD (Doubletree Hilton at Seaworld)

P-32 **Repellent reception in mosquitoes and bed bugs.**
Zhou Chen *(zzc0012@auburn.edu), Feng Liu and Nannan Liu, Auburn Univ., Auburn, AL*

P-33 **Transcriptomic analysis of a novel viral symbiont reveals differential expression**

during virus replication in parasitoid wasps and fly hosts.
Kelsey Coffman *(kcoffman@uga.edu) and Gaelen Burke, Univ. of Georgia, Athens, GA*

P-34 Plastic mulch treatments relative to sustainability and efficacy of *Amblyseius swirskii Athias-Henriot (Phytoseiidae) in managing melon thrips (Thrips palmi Karny) in field grown vegetable crops.*
Mohammad Razzak *(rafi321@ufl.edu)[1], Dakshina Seal[1], Philip A. Stansly[2], Oscar Liburd[3] and Bruce Schaffer[1], [1]Univ. of Florida, Homestead, FL, [2]Univ. of Florida, Immokalee, FL, [3]Univ. of Florida, Gainesville, FL*

P-35 Seasonal abundance and distribution pattern of thrips and *Tomato chlorotic spot virus (TCSV) in tomatoes.*
Rafia Khan *(rkhan@ufl.edu)[1], Dakshina Seal[1], Shouan Zhang[1], Oscar Liburd[2], Edward Evans[3] and Rajagopalbabu Srinivasan[4], [1]Univ. of Florida, Homestead, FL, [2]Univ. of Florida, Gainesville, FL, [3]UF/TREC, Homestead, FL, [4]Univ. of Georgia, Tifton, GA*

P-36 Supporting pollinator communities by floral enhancement within livestock pasture ecosystem.
Roshani Sharma Acharya *(rsharmaa@uark.edu)[1], Emily Fitting[2], Joan Burke[3] and Neelendra Joshi[1], [1]Univ. of Arkansas, Fayetteville, AR, [2]Henderson State Univ., Arkadelphia, AR, [3]USDA - ARS, Booneville, AR*

P-37 The effects of residential development soil mitigation strategies on invertebrate biodiversity and ecosystem services.
Matthew Borden *(m.borden@ufl.edu), Nicole B. Benda and Adam Dale, Univ. of Florida, Gainesville, FL*

P-38 The spatial distribution of rice water weevil, *Lissorhoptrus oryzophilus (Coleoptera: Curculionidae), and Lepidopteran stemborers in commercial rice fields in Louisiana.*
Megan Mulcahy *(mmulca2@lsu.edu)[1], Blake Wilson[2] and Thomas Reagan[1], [1]Louisiana State Univ., Baton Rouge, LA, [2]Louisiana State Univ., St. Gabriel, LA*

MONDAY, MARCH 5, 2018, MORNING

Undergraduate Student Oral Presentation Competition

Magnolia B (Doubletree Hilton at Seaworld)

Moderators: Marianne Shockley, Univ. of Georgia, Athens, GA and Neelendra Joshi, Univ. of Arkansas, Fayetteville, AR

10:30 **Welcoming Remarks**

10:35 AM 1 What's eating those flea beetles? A molecular approach to biocontrol
Jacqueline Meyer *(jhmeyer@knights.ucf.edu)[1], Miles Zhang[1], Ana Dal Molin[2], Alejandro Costamagna[3] and Barbara Sharanowski[1], [1]Univ. of Central Florida, Orlando, FL, [2]Universidade Federal do Espirito Santo, Vitoria , ES, Brazil, [3]Univ. of Manitoba, Winnipeg, MB, Canada*

10:47 AM 2 Comparative analysis of the silencing effects of putative immune genes in *A. americanum during bacterial infection.*
Emily Bencosme-Cuevas *(ebencosme070031@nsula.edu) and Lindsay Porter, Northwestern State Univ., Natchitoches, LA*

10:59 AM 3 Differential expression of immune genes in ZIKV-infected *Aedes aegypti mosquitoes.*
Jillian Masters *(jm3427@msstate.edu)[1], Catherine Dean[2], Lily Brooks[1], Aline Badial[1], Donald Yee[2] and Jonas G. King[1], [1]Mississippi State Univ., Mississippi State, MS, [2]Univ. of Southern Mississippi, Hattiesburg, MS*

11:11 AM 4 Hungry Hungry Skeeters: Modeling density dependent response mechanisms in the urban *Culex quinquefasciatus (Diptera: Culicidae) system.*
William Koval *(wkoval@emory.edu) and Gonzalo M. Vazquez-Prokopec, Emory Univ., Atlanta, GA*

11:23 AM 5 Identification, inter-specific sequence analysis, and cloning of the delta-latroinsectotoxin in the brown widow spider (*Latrodectus geometricus*).
Samantha Smith *(ssmith031728@nsula.edu) and Lindsay Porter, Northwestern State Univ., Natchitoches, LA*

11:35 AM 6 Measuring auto-dissemination of ingested pyriproxyfen by male *Aedes albopictus* .
Paula Fernandez-Begne *(paula.fernandez@emory.edu) and Gonzalo Vazquez-Prokopec, Emory Univ., Atlanta, GA*

11:47 AM 7 Transcriptomic evidence of salivary proteins from *Cimex lectularius* as the causative agents of Cimicosis.
Austin Drury *(ald557@msstate.edu), Travis van Warmerdam, Federico Hoffman, Jerome Goddard and Jonas G. King, Mississippi State Univ., Mississippi State, MS*

11:59 AM 8 Transmission potential of Mayaro virus in Florida *Aedes aegypti and Ae. albopictus.*
Keenan Wiggins *(keenan.wiggins@gmail.com), Bradley Eastmond and Barry Alto, Univ. of Florida, Vero Beach, FL*

12:11 **Concluding Remarks**

M.S. Student Oral Presentation Competition I

Citrus B (Doubletree Hilton at Seaworld)

Moderators: Alton Sparks, Univ. of Georgia, Tifton, GA and Joanna Gress, Abraham Baldwin Agricultural College, Tifton, GA

10:30 **Welcoming Remarks**

10:35 AM 9 Studies on the biology of *Pangaeus bilineatus (Say) (Heteroptera: Cydnidae) under laboratory conditions.*
LaChristi Hunter *(lachristi4@hotmail.com) and George Mbata, Fort Valley State Univ., Fort Valley, GA*

10:47 AM 10 Assessment of the impact of the egg parasitoid, *Paratelenomus saccharalis, on populations of the kudzu bug, Megacopta cribraria.*
Worrel Diedrick *(worrell1.diedrick@famu.edu)[1], Lambert Kanga[1], Muhammad Haseeb[1], Jesusa C. Legaspi[2] and Mrittunjai Srivastava[3], [1]Florida A&M Univ., Tallahassee, FL, [2]USDA - ARS, Tallahassee, FL, [3]Florida Dept. of Agriculture and Consumer Services, Gainesville, FL*

10:59 AM 11 Determining spatial and temporal distribution of rice water weevil (*Lissorhoptrus oryzophilus) in on-farm furrow irrigated rice.*
Read Kelly *(frk12@msstate.edu)[1], Jeff Gore[2], Angus Catchot[3], Don Cook[2], Bobby Golden[2] and Jason Krutz[2], [1]Mississippi State Univ., Leland, MS, [2]Mississippi State Univ., Stoneville, MS, [3]Mississippi State Univ., Mississippi State, MS*

11:23 AM 13 From Bees to Beetles: What's Buggin' Hemp in Tennessee.
Cody Seals *(wseals@utk.edu)[1], Jerome F. Grant[1], Frank Hale[2] and Darrell Hensley[1], [1]Univ. of Tennessee, Knoxville, TN, [2]Univ. of Tennessee, Nashville, TN*

11:35 AM 14 Horizontal transmission of *Helicoverpa armigera Nucleopolyhedrovirus (HearNPV) within a soybean field.*
Joseph Black *(jblack@uaex.edu)[1], Gus Lorenz[1], Aaron Cato[2], Andrew Plummer[1], Kevin Mcpherson[3], Nick Bateman[4], Nicki Taillon[1] and Layton McCullars[2], [1]Univ. of Arkansas, Lonoke, AR, [2]Univ. of Arkansas, Fayetteville, AR, [3]Univ. of Arkansas, Division of Agriculture-Cooperative Extension Service, Lonoke, AR, [4]Mississippi State Univ., Mississippi State, AR*

11:47 **Concluding Remarks**

M.S. Student Oral Presentation Competition II

Nautilus A (Doubletree Hilton at Seaworld)

Moderators: Adam Dale, Univ. of Florida, Gainesville, FL and Rebecca Zimler, Univ. of Florida, Vero Beach, FL

10:30 **Welcoming Remarks**

10:35 AM 15 Insecticide seed treatment, foliar insecticide, and varietal impacts on aphids in Tennessee wheat.
Clay Perkins *(clamperk@vols.utk.edu)[1], Scott Stewart[1], Heather Kelly[1] and Angus Catchot[2], [1]Univ. of Tennessee, Jackson, TN, [2]Mississippi State Univ., Mississippi State, MS*

10:59 AM 17 Molecular survey for the honey bee trypanosome parasites *Crithidia mellificae and Lotmaria passim.*
Mary-Kate Williams *(mfwillia@email.uark.edu) and A. L. Szalanski, Univ. of Arkansas, Fayetteville, AR*

11:11 AM 18 Monitoring ambrosia beetle response to fungicide-treated nursery trees.
Matthew Brown *(mbrow104@tnstate.edu)[1], Jason Oliver[2], Karla Addesso[2] and Fulya Baysal-Gurel[2], [1]Tennessee State Univ., Nashville, TN, [2]Tennessee State Univ., McMinnville, TN*

11:23 AM 19 Monsters inside them: Natural enemies of kudzu bug in east Tennessee.
Amy Michael *(amicha12@vols.utk.edu)[1], Scott Stewart[2], Gregory J. Wiggins[1], Bonnie Ownley[1] and Jerome F. Grant[1], [1]Univ. of Tennessee, Knoxville, TN, [2]Univ. of Tennessee, Jackson, TN*

11:35 AM 20 Overwintering of spotted wing Drosophila in Arkansas.
Rosalee Knipp *(rknipp@uark.edu), Donald C. Steinkraus and Donn Johnson, Univ. of Arkansas, Fayetteville, AR*

11:47 AM 21 **Progeny size in *Habrobracon hebetor (Hymenoptera: Braconidae): Role of host density, grain depth and storage system.***
Sanower Warsi *(sanowerw@Yahoo.com), Fort Valley State Univ., Fort Valley, GA*

11:59 **Concluding Remarks**

M.S. Student Oral Presentation Competition III

Nautilus B (Doubletree Hilton at Seaworld)

Moderators: Mike Stout, Louisiana State Univ., Baton Rouge, LA and Dakshina Seal, Univ. of Florida, Homestead, FL

10:30 **Welcoming Remarks**

10:35 AM 22 **Rearing protocol and size disparities in subsequent laboratory generations of *Piezodorus guildinii (Westwood).***
Morgan Pinkerton *(morgan0402@ufl.edu), Amanda Hodges and Norman Leppla, Univ. of Florida, Gainesville, FL*

10:47 AM 23 **Red fire ants in fields crops of Florida Panhandle.**
Jessica Baldwin *(jbaldwin46@ufl.edu)[1], Silvana Paula-Moraes[1], Latisa Ledbetter-Kish[1] and Roberto Pereira[2], [1]Univ. of Florida, Jay, FL, [2]Univ. of Florida, Gainesville, FL*

10:59 AM 24 **Susceptibility of corn earworm populations from southeastern United States to Cry1A.105 and Cry2Ab2 proteins.**
Gagandeep Kaur *(gkaur5@lsu.edu)[1], Jianguo Guo[1], Ying Niu[2], Sebe Brown[3], Graham P. Head[4], Paula A. Price[4], Silvana Paula-Moraes[5], Xinzhi Ni[6] and Fangneng Huang[2], [1]Louisiana State Univ. Agricultural Center, Baton Rouge, LA, [2]Louisiana State Univ., Baton Rouge, LA, [3]Louisiana State Univ., Winnsboro, LA, [4]Monsanto Company, St. Louis, MO, [5]Florida Univ., Jay, FL, [6]USDA - ARS, Tifton, GA*

11:11 AM 25 **Temporal tactics: Seasonality and phenological synchrony of emerald ash borer and its introduced parasitoids in a southern climate.**
James Palmer *(jpalme22@vols.utk.edu)[1], Jerome F. Grant[1], Gregory J. Wiggins[1], Juli Gould[2], Pat Parkman[1], James T. Vogt[3] and Paris L. Lambdin[1], [1]Univ. of Tennessee, Knoxville, TN, [2]USDA - APHIS, Buzzards Bay, MA, [3]USDA - Forest Service, Knoxville, TN*

11:23 AM 26 **The impact of defoliation on select growth stages in rice.**
Layton McCullars *(ldmccull@uark.edu)[1], Gus Lorenz[2], Jarrod T. Hardke[3], Nick Bateman[4], Nicki Taillon[2], Tara Clayton[5], Andrew Plummer[2], Kevin Mcpherson[6], Joseph Black[2] and Aaron Cato[1], [1]Univ. of Arkansas, Fayetteville, AR, [2]Univ. of Arkansas, Lonoke, AR, [3]Univ. of Arkansas, Stuttgart, AR, [4]Univ. of Arkansas, Division of Agriculture - Cooperative Extension Service, Stuttgart, AR, [5]Univ. of Arkansas CES, Stuttgart, AR, [6]Univ. of Arkansas, Division of Agriculture-Cooperative Extension Service, Lonoke, AR*

11:35 AM 27 **Threshold refinement and validation for soybean looper (*Chrysodeixis includens) in Mississippi soybeans.***
Mary Huff *(mkh207@msstate.edu)[1], Don Cook[1], Jeff Gore[1] and Angus Catchot[2], [1]Mississippi State Univ., Stoneville, MS, [2]Mississippi State Univ., Mississippi State, MS*

11:47 **Concluding Remarks**

M.S. Student Oral Presentation Competition IV

Citrus A (Doubletree Hilton at Seaworld)

Moderators: Muhammad Haseeb, Florida A&M Univ., Tallahassee, FL and Isaac Oyediran, Syngenta Biotechnology, Inc., Research Triangle Park, NC

10:30 **Welcoming Remarks**

10:35 AM 28 **Assessment of life stages of *Halyomorpha halys (Stål) under different relative humidity levels.***
Arjun Khadka *(akhadka@ufl.edu) and Amanda Hodges, Univ. of Florida, Gainesville, FL*

10:47 AM 29 **Effects of neonicotinoids on honey bee food glands.**
Selina Bruckner *(szb0130@auburn.edu)[1,2,3], Lars Straub[2,3], Laura Villamar-Bouza[3,4], Peter Neumann[2,3] and Geoffrey Williams[1,2,3], [1]Auburn Univ., Auburn, AL, [2]Agroscope, Bern, Switzerland, [3]Institute of Bee Health, Vetsuisse Faculty, Univ. of Bern, Bern, Switzerland, [4]European Food Safety Authority, Parma, Italy*

10:59 AM 30 **Polydnavirus gap junction proteins alter cell electrical physiology.**
Peng Zhang *(pzhang2@clemson.edu) and Matthew Turnbull, Clemson Univ., Clemson, SC*

11:11 AM 31 **Comparative analysis of gut microbiome in wild and lab strain *Anopheles quadrimaculatus Say and its effect on innate immunity.***
Eleanor Moen *(emm606@msstate.edu) and Jonas G. King, Mississippi State Univ., Mississippi State, MS*

11:35 AM 33 **Insecticidal zooprophylaxis: Eprinomectin-treated cattle as malaria mosquito control.**
Annie Rich *(aerich@uga.edu)[1], Nancy C. Hinkle[1], Seth Irish[2] and Timothy Pringle[1], [1]Univ. of Georgia, Athens, GA, [2]Centers for Disease Control and Prevention, Atlanta, GA*

11:47 AM 34 **Residual effect of termiticides on substrates subjected to flooding on mortality of Formosan subterranean termites (*Coptotermes formosanus Shiraki).***
Rajani Sapkota *(rsapko1@lsu.edu), Mike Stout and Gregg Henderson, Louisiana State Univ., Baton Rouge, LA*

11:59 AM 35 **Resistance testing for *Culex and Aedes (Diptera:Culicidae) mosquitoes in Mississippi.***
Sarah McInnis *(sjm540@msstate.edu)[1], J. Hunter Deerman[2], Donald Yee[3], Wendy Varnado[2] and Jerome Goddard[1], [1]Mississippi State Univ., Mississippi State, MS, [2]Mississippi Dept. of Health, Jackson, MS, [3]Univ. of Southern Mississippi, Hattiesburg, MS*

12:11 **Concluding Remarks**

Symposium: Management of Asian Citrus Psyllid and Its Vectored Huanglongbing

Orange AB (Doubletree Hilton at Seaworld)

Organizers: Jawwad Qureshi, Univ. of Florida, Fort Pierce, FL and Justin George, Univ. of Florida, Lake Alfred, FL

10:30 **Welcoming Remarks**

10:35 AM 36 **Effect of wind, temperature and barometric pressure on Asian citrus psyllid dispersal.**
Xavier Martini *(xmartini@ufl.edu), Univ. of Florida, Quincy, FL*

10:55 AM 37 **Male *Diaphorina citri searching responses to vibrational communication signals.***
Richard Mankin *(richard.mankin@ars.usda.gov), USDA - ARS, Gainesville, FL*

11:15 AM 38 **An attract-and-kill strategy for Asian citrus psyllid.**
Justin George *(Justin.George@ARS.USDA.GOV)[1] and Stephen L. Lapointe[2], [1]Univ. of Florida, Lake Alfred, FL, [2]USDA - ARS, Fort Pierce, FL*

11:35 AM 39 ***Tamarixia radiata and biological control of the Asian citrus psyllid in Florida.***
Robin Stuart *(robin.stuart@freshfromflorida.com)[1] and Chris Kerr[2], [1]FDACS Division of Plant Industry, Dundee, FL, [2]FDACS Division of Plant Industry, Gainesville, FL*

11:55 AM 40 **Research update on Asian citrus psyllid and the entomopathogenic fungus *Hirsutella citriformis* in Florida.**
David Hall *(David.Hall@ARS.USDA.GOV)[1], Matthew Hentz[2] and Louela Castrillo[3], [1]USDA - ARS, Fort Pierce, FL, [2]MGH, Port St. Lucie, FL, [3]USDA - ARS, Ithaca, NY*

12:15 **Break**

1:35 PM 41 **Managing Asian citrus psyllid (*Diaphorina citri) in commercial production systems.***
Jawwad Qureshi *(jawwadq@ufl.edu)[1] and Philip A. Stansly[2], [1]Univ. of Florida, Fort Pierce, FL, [2]Univ. of Florida, Immokalee, FL*

1:55 PM 42 **Protecting young trees from ACP and HLB with UV-reflective mulch.**
Philip A. Stansly *(pstansly@ufl.edu)[1], Scott D. Croxton[2] and Bob Adair[3], [1]Univ. of Florida, Immokalee, FL, [2]Nichino America, LaBelle, FL, [3]Florida Research Center for Agricultural Sustainability, Inc., Vero Beach, FL*

2:15 PM 43 **Mechanisms and management of Asian citrus psyllid insecticide resistance.**
Lukasz Stelinski *(stelinski@ufl.edu), Univ. of Florida, Lake Alfred, FL*

2:35 PM 44 **Status of the susceptibility of *Diaphorina citri* to insecticides in Mexico.**
Juan Villanueva-Jiménez *(javj@colpos.mx)[1], Francisco Osorio-Acosta[1], Laura Ortega-Arenas[1], Víctor Garcia-Mendez[1], Rosaura Jose-Pablo[1], Luis Perez-Zarate[1], Sherell Zamora-Juarez[1] and Ulises Díaz-Zorrilla[2], [1]Colegio de Postgraduados, Veracruz, Mexico, [2]INIFAP, Martínez de la Torre, Mexico*

2:55 PM 45 **Biotechnology: Antisense oligonucleotides and CRISPR strategies to reduce psyllids and bacteria in citrus trees.**
Wayne Hunter *(wayne.hunter@ars.usda.gov), USDA - ARS, Fort Pierce, FL*

3:15 PM 46 **The quest for a non-vector psyllid: Results from isofemale lines of *Diaphorina citri* collected in Florida.**
Eldesouky Ammar *(desoukyammar@gmail.com)[1], David Hall[2] and Michelle Heck[3], [1]Univ. of Florida, Fort Pierce, FL, [2]USDA - ARS, Fort Pierce, FL, [3]USDA - ARS, Ithaca, NY*

3:35 **Concluding Remarks**

Symposium: Biocontrol in the Southeast: From Weeds to Arthropod Pests

Cypress ABC (Doubletree Hilton at Seaworld)

Moderator and Organizers: Jason Schmidt, Univ. of Georgia, Tifton, GA; Rodrigo Diaz, Louisiana State Univ., Baton Rouge, LA; Emma Weeks, Univ. of Florida, Gainesville, FL and Carey Minteer, Univ. of Florida, Fort Pierce, FL

10:30 **Welcoming Remarks**

10:35 AM 47 **Diversity of biological control challenges and systems in the southeast.**
Jason Schmidt *(jschmid2@uga.edu), Univ. of Georgia, Tifton, GA*

10:53 AM 48 **Air potato patrol, Outreaching for data.**
Christopher Kerr *(christopher.kerr@freshfromflorida.com)[1] and William Lester[2], [1]Florida Dept. of Agriculture and Consumer Services, Gainesville, FL, [2]Univ. of Florida IFAS Extension, Brooksville, FL*

11:11 AM 49 ***Orseolia javanica*** **(Diptera: Cecidomyiidae), a candidate biological control agent for the invasive cogongrass *Imperata cylindrica*.**
James Cuda *(jcuda@ufl.edu), Univ. of Florida, Gainesville, FL*

11:29 AM 50 **Phragmites die-offs in Louisiana: Role of exotic scale and opportunities for biological control.**
Rodrigo Diaz *(rdiaz@agcenter.lsu.edu), Louisiana State Univ., Baton Rouge, LA*

11:47 AM 51 **Update on the progress of the Brazilian peppertree biological control program in Florida.**
Patricia Prade *(patriciaprade@gmail.com)[1], Carey Minteer[2] and James Cuda[1], [1]Univ. of Florida, Gainesville, FL, [2]Univ. of Florida, Fort Pierce, FL*

12:05 PM 52 **Mass rearing of the hydrilla tip mining midge *Cricotopus lebetis: challenges and solutions.***
Emma Weeks[1], ***Rachel Watson*** *(rwatson25@ufl.edu)[1], Courtney Stachowiak[1], Andriana Mitchell[1], Eutychus M. Kariuki[2], Nicole Miller[1], Alissa Marie Berro[1] and James Cuda[1], [1]Univ. of Florida, Gainesville, FL, [2]Florida A&M Univ., Tallahassee, FL*

12:23 **Break**

1:23 PM 53 **Foraging depth of *Cricotopus lebetis* Sublette *larvae.***
Eutychus M. Kariuki *(eutychus1.kariuki@famu.edu)[1], James Cuda[2], Stephen Hight[3], Raymond L. Hix[1], Jennifer Gillett-Kaufman[2] and Lyn Gettys[4], [1]Florida A&M Univ., Tallahassee, FL, [2]Univ. of Florida, Gainesville, FL, [3]USDA - ARS, Tallahassee, FL, [4]Univ. of Florida, Davie, FL*

1:41 PM 54 **Impact of roadside mowing on spotted knapweed and its biological control agent, *Larinus minutus.***
Beth Ferguson *(mef005@email.uark.edu) and Robert N. Wiedenmann, Univ. of Arkansas, Fayetteville, AR*

1:59 PM 55 **Environmental drivers of natural enemy diversity and pest suppression.**
Carmen K. Blubaugh *(carmen.blubaugh@wsu.edu) and William E Snyder, Washington State Univ., Pullman, WA*

2:17 PM 56 **Potential for acylsugar-mediated control of important insect vectors/viruses in tomato.**
Martha Mutschler-Chu *(mam13@cornell.edu)[1], John Smeda[1], Diane E. Ullman[2], Sulley Beh Mahmoud[2] and George G. Kennedy[3], [1]Cornell Univ., Ithaca, NY, [2]Univ. of California - Davis, Davis, CA, [3]North Carolina State Univ., Raleigh, NC*

2:35 PM 57 **Predator-in-first for commercial bell pepper field production.**
Cindy McKenzie *(cindy.mckenzie@ars.usda.gov)[1], Vivek Kumar[2] and Lance Osborne[2], [1]USDA - ARS, Fort Pierce, FL, [2]Univ. of Florida, Apopka, FL*

2:53 PM 58 **Comparing predation potential of Delphastus beetles against B and Q whitefly.**
Vivek Kumar *(vivekiari@ufl.edu)[1], Cindy McKenzie[2] and Lance Osborne[1], [1]Univ. of Florida, Apopka, FL, [2]USDA - ARS, Fort Pierce, FL*

3:11 PM 59 **Trap crops for attracting the southern green stink bug, *Nezara viridula* (Hemiptera: Pentatomidae), and its natural enemies.**
Alexander Gannon *(agannon@ufl.edu) and Norman Leppla, Univ. of Florida, Gainesville, FL*

3:29 PM 60 **Augmentative biological control of whiteflies in tomato with predaceous plant bugs.**
Philip A. Stansly *(pstansly@ufl.edu), Univ. of Florida, Immokalee, FL*

3:47 PM 61 **Untangling the effects of predator releases and transient natural enemies on pest populations in strawberry high tunnels in Mississippi.**
Eric Riddick *(eric.riddick@ars.usda.gov), USDA - ARS, Stoneville, MS*

4:05 PM 62 **Landscape and host plant effects on two important omnivorous arthropod taxa in field crops.**
Dawn Olson *(dawn.olson@ars.usda.gov)[1], Adam Zeilinger[2], Kristina Prescott[3], Alisa Coffin[1], John Ruberson[4] and David A. Andow[3], [1]USDA - ARS, Tifton, GA, [2]Univ. of California Berkeley, Berkeley, CA, [3]Univ. of Minnesota, St. Paul, MN, [4]Kansas State Univ., Manhattan, KS*

4:23 **Concluding Remarks**

MONDAY, MARCH 5, 2018, AFTERNOON

Extension, Outreach and Teaching Student Oral Presentation Competition

Citrus A (Doubletree Hilton at Seaworld)

Moderators: Amanda Hodges, Univ. of Florida, Gainesville, FL and Greg Hodges, Florida Dept. of Agriculture and Consumer Services, Gainesville, FL

2:00 **Welcoming Remarks**

2:05 PM 63 **The Georgia pollinator census - a citizen science project.**
Becky Griffin *(beckygri@uga.edu)[1] and Kris Braman[2], [1]Univ. of Georgia, Griffin, GA, [2]Univ. of Georgia, Athens, GA*

2:17 PM 64 **Using grower outreach to guide extension and research in Florida's nascent subtropical peach industry.**
Cory Penca *(cpenca@ufl.edu) and Amanda Hodges, Univ. of Florida, Gainesville, FL*

2:29 PM 65 **Container-mosquito community control: An inside out approach.**
Casey Parker *(caseyparker@ufl.edu)[1], Stephen Bennet[1], Sebastian Galindo[2] and C. Roxanne Connelly[3], [1]Univ. of Florida, Vero Beach, FL, [2]Univ. of Florida, Gainesville, FL, [3]Centers for Disease Control and Prevention, Fort Collins, CO*

2:41 PM 66 **Florida first detector: An invasive species network.**
Sage Thompson *(sagemthompson@ufl.edu), Morgan Pinkerton, Amanda Hodges and Norman Leppla, Univ. of Florida, Gainesville, FL*

2:53 PM 67 **Adopting integrated pest management strategies against major above and below ground pests of organic squash.**
Marice Lopez-Laurenti *(mlopez90@ufl.edu), 1990, Gainesville, FL*

3:05 **Concluding Remarks**

Ph.D. Student Oral Presentation Competition I

Citrus B (Doubletree Hilton at Seaworld)

Moderators: Mike Stout, Louisiana State Univ., Baton Rouge, LA and Keenan Wiggins, Univ. of Florida, Vero Beach, FL

2:00 **Welcoming Remarks**

2:05 PM 68 **Caterpillar pest in Mississippi peanut.**
Brittany Lipsey *(bse37@msstate.edu)[1], Jeff Gore[2], Jason Sarver[1], Angus Catchot[1], Don Cook[2] and Jason Bond[2], [1]Mississippi State Univ., Mississippi State, MS, [2]Mississippi State Univ., Stoneville, MS*

2:17 PM 69 **Comparison of Scentry lures with standard food-based lures for monitoring Caribbean fruit fly, *Anastrepha suspensa Loew, (Diptera: Tephritidae) in tropical fruit orchards.***
Simon Yeboah *(syeboah678@ufl.edu)[1], Norman Leppla[1], Nancy D. Epsky[2], Daniel Carrillo[3] and Oscar Liburd[1], [1]Univ. of Florida, Gainesville, FL, [2]USDA - ARS, Miami, FL, [3]Univ. of Florida, Homestead, FL*

2:29 PM 70 **Corn earworm feeding behavior in Bt corn: silk feeding, kernel penetrance, and effects on larval characteristics.**
Thomas Bilbo *(bilbothomas@gmail.com)[1], Francis Reay-Jones[1], Dominic Reisig[2], Matthew Turnbull[3] and Jeremy Greene[4], [1]Clemson Univ., Florence, SC, [2]North Carolina State Univ., Plymouth, NC, [3]Clemson Univ., Clemson, SC, [4]Clemson Univ., Blackville, SC*

2:41 PM 71 **Determining the dose of oxalic acid applied via vaporization needed for the control of the honey bee (*Apis mellifera) pest Varroa destructor.***
Cameron Jack *(cjack@ufl.edu) and James Ellis, Univ. of Florida, Gainesville, FL*

2:53 PM 72 **Development of cultural practices to manage *Tomato chlorotic spot virus (TCSV) and its vector thrips : (1) weed.***
Rafia Khan *(rkhan@ufl.edu)[1], Dakshina Seal[1], Oscar Liburd[2], Rajagopalbabu Shrinivasan[3], Edward Evans[4] and Shouan Zhang[1], [1]Univ. of Florida, Homestead, FL, [2]Univ. of Florida, Gainesville, FL, [3]Univ. of Georgia, Griffin, GA, [4]UF/TREC, Homestead, FL*

3:05 PM 73 **Ecological impacts of asymmetric warming throughout the nychthemeron.**
Cori Speights *(cjs815@msstate.edu) and Brandon Barton, Mississippi State Univ., Mississippi State, MS*

3:17 PM 74 **Effect of plastic mulches on the abundance of Melon thrips, *Thrips palmi (Thysanoptera: Thripidae) and growth of vegetable crops in Southern Florida agroecosystem.***
Mohammad Razzak *(rafi321@ufl.edu)[1], Dakshina Seal[1], Philip A. Stansly[2], Oscar Liburd[3] and Bruce Schaffer[1], [1]Univ. of Florida, Homestead, FL, [2]Univ. of Florida, Immokalee, FL, [3]Univ. of Florida, Gainesville, FL*

3:29 **Concluding Remarks**

Ph.D. Student Oral Presentation Competition II

Nautilus A (Doubletree Hilton at Seaworld)

Moderators: Fred Musser, Mississippi State Univ., Mississippi State, MS and Chris Werle,

2:00 **Welcoming Remarks**

2:05 PM **75** **Effects of Bt Cry51Aa2 on thrips in cotton.**
Scott Graham *(scott.graham@utk.edu) and Scott Stewart, Univ. of Tennessee, Jackson, TN*

2:17 PM **76** **Effects of cover crops and biorational pesticides on *Tetranychus urticae in organic strawberry.***
Omotola Dosunmu *(toladosunmu@gmail.com), Carlene Chase and Oscar Liburd, Univ. of Florida, Gainesville, FL*

2:29 PM **77** **Evaluating tolerance traits to root injury in drill-seeded rice.**
James Michael Villegas *(jamesvillegas12@gmail.com) and Mike Stout, Louisiana State Univ., Baton Rouge, LA*

2:41 PM **78** **Floral resources and their associated biodiversity in central Florida strawberry fields.**
Iris Strzyzewski *(istrz228@ufl.edu)[1], Justin Renkema[2] and Joseph E. Funderburk[3], [1]Univ. of Florida, Quincy, FL, [2]Univ. of Florida, Wimauma, FL, [3]Univ. of Florida NFREC, Quincy, FL*

2:53 PM **79** **Impacts on early season management decisions on soybean yield.**
John North *(jhn39@msstate.edu)[1], Jeff Gore[2], Angus Catchot[1], Don Cook[2], Trent Irby[1] and John Orlowski[2], [1]Mississippi State Univ., Mississippi State, MS, [2]Mississippi State Univ., Stoneville, MS*

3:05 PM **80** **Influence of cover crops and early season control strategies on insect pests in Mississippi soybean.**
Adam Whalen *(daw153@msstate.edu)[1], Angus Catchot[1], Jeff Gore[2], Don Cook[2] and Trent Irby[1], [1]Mississippi State Univ., Mississippi State, MS, [2]Mississippi State Univ., Stoneville, MS*

3:17 PM **81** **Insecticide termination for rice stink bug, *Oebalus pugnax, in Arkansas rice.***
Aaron Cato *(ajcato@uark.edu)[1], Gus Lorenz[2], Jarrod Hardke[3], Nicki Taillon[2], Tara Clayton[4], Nick Bateman[5], Kevin Mcpherson[6], Andrew Plummer[2], Joseph Black[2] and Layton McCullars[1], [1]Univ. of Arkansas, Fayetteville, AR, [2]Univ. of Arkansas, Lonoke, AR, [3]Louisiana State Univ., Baton Rouge, LA, [4]Univ. of Arkansas CES, Stuttgart, AR, [5]Mississippi State Univ., Mississippi State, AR, [6]Univ. of Arkansas, Division of Agriculture-Cooperative Extension Service, Lonoke, AR*

3:29 **Concluding Remarks**

Ph.D. Student Oral Presentation Competition III

Nautilus B (Doubletree Hilton at Seaworld)

Moderators: Cameron Jack, Univ. of Florida, Gainesville, FL and Dakshina Seal, Univ. of Florida, Homestead, FL

2:00 **Welcoming Remarks**

2:05 PM **82** **Landscape level contributions of corn for *Helicoverpa zea populations in Mississippi.***
Tyler Towles *(tt305@entomology.msstate.edu)[1], Angus Catchot[1], Jeff Gore[2], Don Cook[2] and Michael Caprio[1], [1]Mississippi State Univ., Mississippi State, MS, [2]Mississippi State Univ., Stoneville, MS*

2:17 PM **83** **Sampling plans for the brown stink bug, *Euschistus servus (Say) (Hemiptera: Pentatomidae) in corn for pest management and population estimation.***
Arun Babu *(ababu2@ncsu.edu)[1] and Dominic Reisig[2], [1]North Carolina State Univ., Raleigh, NC, [2]North Carolina State Univ., Plymouth, NC*

2:29 PM **84** **Sustainable management strategies for management of key insect pests in squash.**
Lorena Lopez *(lorelopezq.257@ufl.edu) and Oscar Liburd, Univ. of Florida, Gainesville, FL*

2:41 PM **85** **The influence of tillage, nematicide, and at-planting treatments for tobacco thrips (*Frankliniella fusca) and reniform nematode (Rotylenchulus reniformis) control in cotton.***
Whitney Crow *(wdc165@msstate.edu)[1], Angus Catchot[1], Jeff Gore[2], Darrin Dodds[1], Don Cook[2] and Thomas W. Allen[1], [1]Mississippi State Univ., Mississippi State, MS, [2]Mississippi State Univ., Stoneville, MS*

2:53 PM **86** **Unraveling the role of epicuticular wax in rice defense against rice water weevil and fall armyworm.**
Lina Bernaola *(lbernaola@agcenter.lsu.edu) and Mike Stout, Louisiana State Univ., Baton Rouge, LA*

3:05 PM **87** **The role of singlet oxygen in aphid-resistant *Fatty Acid Desaturase7 Arabidopsis mutants.***
Hillary Fischer *(hillfisch@gmail.com) and Fiona L. Goggin, Univ. of Arkansas, Fayetteville, AR*

3:17 **Concluding Remarks**

Ph.D. Student Oral Presentation Competition IV

Magnolia B (Doubletree Hilton at Seaworld)

Moderators: Lindsy Iglesias, Univ. of Florida, Gainesville, FL and Lindsay Porter, Northwestern State Univ., Natchitoches, LA

2:00 **Welcoming Remarks**

2:05 PM **88** **Localization of cellulose digestion and transcriptome profiling of cellulase gene expression in response to different cellulose diets in *Ctenolepisma longicaudata and Thermobia domestica.***
Ratnasri Pothula *(rmallipe@vols.utk.edu)[1], William Klingeman[1], Margaret Staton[1], Brian Johnson[2] and Juan Luis Jurat-Fuentes[1], [1]Univ. of Tennessee, Knoxville, TN, [2]Univ. of California - Davis, Davis, CA*

2:17 PM **89** ***Wolbachia protects against entomopathogen in aphid host.***
Clesson Higashi *(clessonh@uga.edu) and Kerry M. Oliver, Univ. of Georgia, Athens, GA*

2:29 PM **90** **Multilocus phylogeny of the parasitic wasps in the tribe Euphorini (Braconidae: Euphorinae) with revised generic classifications.**
Miles Zhang *(yuanmeng.zhang@gmail.com)[1], Julia Stigenberg[2] and Barbara Sharanowski[1], [1]Univ. of Central Florida, Orlando, FL, [2]Swedish Museum of Natural History, Stockholm, Sweden*

2:41 PM **91** **A survey of Mississippi mosquitoes' blood meals and their relation to malaria parasites.**
Jessica Aycock *(jla363@msstate.edu), Jerome Goddard and Diana Outlaw, Mississippi State Univ., Mississippi State, MS*

2:53 PM **92** **Vertical transmission of Zika virus by Florida *Aedes aegypti and Ae. albopictus.***
Rebecca Zimler *(razimler@epi.ufl.edu), Casey Parker, Barry Alto and C. Roxanne Connelly, Univ. of Florida, Vero Beach, FL*

3:05 **Concluding Remarks**

TUESDAY, MARCH 6, 2018, POSTERS

Contributed Poster Presentation: Plant-Insect Ecosystems / 8:00 AM-5:00 PM

Orange CD (Doubletree Hilton at Seaworld)

P-39 ***Candidatus Liberibacter asiaticus localizes inside ER-associated bodies in Diaphorina citri gut cells.***
Levy Amit *(amitlevy@ufl.edu)[1], Achor Diann[1] and Ghanim Murad[2], [1]Univ. of Florida, Lake Alfred, FL, [2]Volcani Center, Rishon LeTsiyon, Israel*

P-40 ***Chrysopa nigricornis in Tennessee.***
Kaushalya Amarasekare *(kaushalya2641@yahoo.com) and Richard Link, Tennessee State Univ., Nashville, TN*

P-41 **Estimating ladybird predation of aphids in the presence of foraging ants in lab bioassays.**
Eric Riddick *(eric.riddick@ars.usda.gov), Zhixin Wu and Jian Chen, USDA - ARS, Stoneville, MS*

P-42 **The effects of alternative golf course habitats on biological control of herbivorous pests.**
Adam Dale *(agdale@ufl.edu) and Rebecca Perry, Univ. of Florida, Gainesville, FL*

P-43 **Kudzu, kudzu bug, and biological control: Perspectives from agriculture and forestry.**
Jerome F. Grant *(jgrant@utk.edu)[1], Amy Michael[1], Kadie Britt[2] and Scott Stewart[3], [1]Univ. of Tennessee, Knoxville, TN, [2]Virginia Polytechnic Institute and State Univ., Blacksburg, VA, [3]Univ. of Tennessee, Jackson, TN*

P-44 **Mississippi bug blues – invasive awareness, conservation, and biodiversity.**
Jason Sanders *(jsanders@entomology.msstate.edu), Jennifer Seltzer and JoVonn Hill, Mississippi State Univ., Mississippi State, MS*

P-45 **Diversity and population dynamics of the Florida rice stink bug complex in crop and non-crop hosts.**
Matthew VanWeelden *(mvanweel1@ufl.edu) and Ronald H. Cherry, Univ. of Florida, Belle Glade, FL*

P-46 Economic impact of the bermudagrass stem maggot (*Atherigona reversura Villenueve).*
*Lisa Baxter[1], **William Hudson** (wghudson@uga.edu)[2], Dennis Hancock[2] and William F. Anderson[3], [1]Univ. of Georgia, Tifton, GA, [2]Univ. of Georgia, Athens, GA, [3]USDA - ARS, Tifton, GA*

P-47 Efficacy of propylene glycol and salt for preserving '*Ca. Liberibacter asiaticus*' in infected adult Diaphorina citri captured in outdoor traps.
***David Hall** (David.Hall@ARS.USDA.GOV)[1], Chandrika Ramadugu[2] and Susan Halbert[3], [1]USDA - ARS, Fort Pierce, FL, [2]Univ. of California, Riverside, CA, [3]Florida Dept. of Agriculture and Consumer Services, Gainesville, FL*

P-49 Parasitic mites, *Varroa destructor, are present on drone honey bees, Apis mellifera, at aerial mating sites.*
*Ashley Mortensen, **Cameron Jack** (cjack@ufl.edu) and James Ellis, Univ. of Florida, Gainesville, FL*

P-50 Prolonged phloem feeding activities by *Diaphorina citri nymphs may explain their greater acquisition of citrus greening pathogen.*
***Justin George** (georgejustine@gmail.com)[1], Eldesouky Ammar[2], David Hall[3], Robert Shatters[3] and Stephen L. Lapointe[3], [1]Univ. of Florida, Lake Alfred, FL, [2]Univ. of Florida, Fort Pierce, FL, [3]USDA - ARS, Fort Pierce, FL*

P-51 Temporal variation of antioxidant enzyme profile in *Solena amplexicaulis plants infected by Aulacophora foveicollis.*
***Nupur Sarkar** (nupur.sarkar@ufl.edu)[1], Amarnath Karmakar[2], Oscar Liburd[1] and Anandamay Barik[2], [1]Univ. of Florida, Gainesville, FL, [2]The Univ. of Burdwan, Burdwan, West Bengal, India*

P-52 Impact of leaf feeding by the citrus leafminer (*Phyllocnistis citrella) on the photosynthetic and gaseous exchange rates in citrus.*
***Muhammad Arshad** (makuaf@gmail.com)[1], Muhammad Irfan Ullah[1], Jawwad Qureshi[2] and Muhammad Afzal[1], [1]Univ. of Sargodha, Sargodha, Pakistan, [2]Univ. of Florida, Fort Pierce, FL*

P-53 Juglans in jeopardy: Dispersal and risk assessment of *Pityophthorus juglandis in forests.*
***Philip Hensley** (phensle2@vols.utk.edu)[1], Jerome F. Grant[1], Mark T. Windham[1], Paris L. Lambdin[1], Gregory J. Wiggins[1] and Paul Merten[2], [1]Univ. of Tennessee, Knoxville, TN, [2]USDA - Forest Service, Asheville, NC*

P-54 Development of host-based lures for redbay ambrosia beetle (Coleoptera: Curculionidae: Scolytinae).
*Paul E. Kendra[1], Wayne S. Montgomery[1], Jerome Niogret[2], Nurhayat Tabanca[1], David Owens[1,3] and **Nancy D. Epsky** (nancy.epsky@ars.usda.gov)[1], [1]USDA - ARS, Miami, FL, [2]Niogret Ecology Consulting LLC, Miami, FL, [3]Univ. of Delaware, Georgetown, DE*

P-55 Analysis methods to evaluate cotton and pest response to nematicide-insecticide combinations applied at-planting across different soil textures in a spatially variable field.
***Tina Teague** (tteague@astate.edu)[1], Amanda Mann[2], Kyle Wilson[2], Travis Faske[3], George Milliken[4] and Jeffrey Willers[5], [1]Arkansas State Univ., State Univ., AR, [2]Univ. of Arkansas Division of Agriculture, State Univ., AR, [3]Univ. of Arkansas, Lonoke, AR, [4]Milliken Associate, Inc., Manhattan, KS, [5]Southern Insect Management Research Unit USDA-ARS, Stoneville, MS*

P-56 Bidrin® on cotton: A multi-year commercial assessment of performance against insect pests.
***Ned French** (nedf@amvac-chemical.com)[1] and Lisa Bednarski[2], [1]AMVAC Chemical Corporation, Little Rock, AR, [2]AMVAC Chemical Corporation, Snohomish, WA*

P-57 Comparative susceptibilities of *Helicoverpa zea and Heliothis virescens to commonly used insecticides.*
***K. Clint Allen** (clint.allen@ars.usda.gov) and Nathan Little, USDA - ARS, Stoneville, MS*

P-58 Effect of *Neopamera bilobata on strawberries and the role of insecticides in their management.*
***Justin Renkema** (justin.renkema@ufl.edu)[1], Shashan Devkota[1] and Marc Santos[2], [1]Univ. of Florida, Wimauma, FL, [2]Univ. of Florida, Balm, FL*

P-59 Impact of cover crop management and insecticidal seed treatment on the arthropod complex in soybeans.
***Drake Copeland** (josdcope@utk.edu), Scott Stewart, Sandy Steckel and Larry Steckel, Univ. of Tennessee, Jackson, TN*

P-60 Post-harvest methyl bromide fumigation control of blueberry maggot (*Rhagoletis mendax (Diptera: Tephritidae) (Curran, 1932)).*
***James Kawagoe** (jckawagoe@ucdavis.edu)[1,2], Adelaine Abrams[2] and Spencer Walse[1], [1]USDA - ARS, Parlier, CA, [2]Univ. of California - Davis, Davis, CA*

P-61 Refining the economic threshold for fall armyworm (*Spodoptera frugiperda) in whorl stage non-Bt field corn.*
***Glenn Studebaker** (gstudebaker@uaex.edu)[1], Gus Lorenz[2], Nick Seiter[3], Courtney Jackson[1], Nicki Taillon[2] and Andrew Plummer[2], [1]Univ. of Arkansas, Keiser, AR, [2]Univ. of Arkansas, Lonoke, AR, [3]Univ. of Illinois, Champaign, IL*

P-62 Screening *Tetranychus urticae populations collected from South Carolina tomato fields for miticide resistance.*
***Danielle Lewis** (dglewis@clemson.edu) and Rebecca Schmidt-Jeffris, Clemson Univ., Charleston, SC*

P-63 Standardized insecticide trial for control of tarnished plant bugs across the Mid-South.
***Sandy Steckel** (ssteckel@utk.edu) and Matthew Williams, Univ. of Tennessee, Jackson, TN*

P-64 Sustainable approaches to reduce azalea lace bug infestation on azalea.
***Shimat Villanassery Joseph** (svjoseph@uga.edu), Univ. of Georgia, Griffin, GA*

P-65 Evaluating new tactics for southern corn rootworm, *Diabrotica undecimpunctata, management in peanut.*
***Mark R. Abney** (mrabney@uga.edu), D. Bryce Sutherland and Kent Hill, Univ. of Georgia, Tifton, GA*

P-66 Comparison of Bt cultivars for control of cotton bollworm (*Helicoverpa zea) with and without a foliar application in Arkansas, 2017.*
***Nicki Taillon** (ntaillon@uaex.edu)[1], Gus Lorenz[1], Andrew Plummer[1], Nick Bateman[2], Ben Thrash[1], Kevin Mcpherson[3], Aaron Cato[4], Joseph Black[1] and Jack Pace[5], [1]Univ. of Arkansas, Lonoke, AR, [2]Univ. of Arkansas, Division of Agriculture - Cooperative Extension Service, Stuttgart, AR, [3]Univ. of Arkansas, Division of Agriculture-Cooperative Extension Service, Lonoke, AR, [4]Univ. of Arkansas, Fayetteville, AR, [5]Univ. of Arkansas, Monticello, AR*

P-67 Exploring resistant/tolerant varieties for managing sugarcane aphid in Louisianan sorghum.
***Fangneng Huang** (fhuang@agcenter.lsu.edu)[1], Rick Mascagni[2], Sebe Brown[3], David Kerns[4], Dustin Harrell[5], Ying Niu[1] and Jianguo Guo[6], [1]Louisiana State Univ., Baton Rouge, LA, [2]Louisiana State Univ. Agricultural Center, St. Joseph, LA, [3]Louisiana State Univ., Winnsboro, LA, [4]Texas A&M Univ., College Station, TX, [5]LSU AgCenter, Rayne, LA, [6]Louisiana State Univ. Agricultural Center, Baton Rouge, LA*

P-68 Leaf tissue assay for lepidopteran pests of Bt cotton.
***Nathan Little** (nathan.little@ars.usda.gov), Michelle Mullen, K. Clint Allen and Heather Tyler, USDA - ARS, Stoneville, MS*

P-69 Sampling Bt corn for corn earworm injury.
***Francis Reay-Jones** (freayjo@clemson.edu)[1], Thomas Bilbo[1] and Dominic Reisig[2], [1]Clemson Univ., Florence, SC, [2]North Carolina State Univ., Plymouth, NC*

P-70 Verification of varietal resistance to tarnished plant bug (*Lygus lineolaris) in cotton in Arkansas.*
***Courtney Jackson** (cjackson@uaex.edu) and Glenn Studebaker, Univ. of Arkansas, Keiser, AR*

Contributed Poster Presentations: Medical, Urban and Veterinary; Physiology, Biochemistry, and Toxicology; Systematics, Evolution, and Biodiversity / 8:00 AM-5:00 PM

Orange CD (Doubletree Hilton at Seaworld)

P-71 Relationships among hosts, habitats, and ticks throughout Alabama.
***Emily Merritt** (ezm0017@auburn.edu)[1], Graeme Lockaby[1] and Derrick Mathias[2], [1]Auburn Univ., Auburn, AL, [2]Univ. of Florida, Vero Beach, FL*

P-72 PCR-based identification of *Trypanosoma cruzi and host-feeding*

preferences of triatomine bug vectors caught in Trinidad.
*Alexandra Eakes[1], **Daniel Fitzpatrick** (dfitzpat@sgu.edu)[2], Rod Suepaul[3] and Jennifer Peterson[1], [1]Princeton Univ., Princeton, NJ, [2]St. George's Univ., True Blue, St. George Parish, Grenada, [3]The Univ. of The West Indies, Trinidad, Champ Fleurs, Trinidad and Tobago*

P-73 Profiling constitutive and inducible termite hemolymph proteins against seven human pathogens.
***Xing Ping Hu** (huxingp@auburn.edu), Auburn Univ., Auburn, AL*

P-74 Antisense oligonucleotides, F-ASO, and PPMO, new tools to reduce pests and pathogens in citrus and other agricultural crops.
***Wayne Hunter** (wayne.hunter@ars.usda.gov)[1], Andres Sandoval Mojica[2], Thomson Paris[3], Godfrey Miles[3], Jackie Metz[4], Greg McCollum[1], Michael Boyle[5], Sidney Altman[6], Veenu Aishwarya[7], Jawwad Qureshi[3] and Kirsten Pelz-Stelinski[2], [1]USDA - ARS, Fort Pierce, FL, [2]Univ. of Florida, Lake Alfred, FL, [3]Univ. of Florida, Fort Pierce, FL, [4]AUM LifeTech, Inc., Philadelphia, PA, [5]Smithsonian Marine Station, Fort Pierce, FL, [6]Yale Univ., New Haven, CT, [7]AUM LifeTech, Philadelphia, PA*

P-75 Biological barcoding as a means to attract students to entomological research projects.
***Christof Stumpf** (cstumpf@lsua.edu), LSUA, Alexandria, LA*

P-76 Gene editing, CRISPR knockouts in Asian citrus psyllid, *Diaphorina citri, Kuwayama (Hemiptera: Liviidae). Reducing insect vectors.*
*Wayne Hunter[1], **Thomson Paris** (thomsonparis@ufl.edu)[2], Andres Sandoval Mojica[3], Steve Garzynski[4], Jawwad Qureshi[2] and Kirsten Pelz-Stelinski[3], [1]USDA - ARS, Fort Pierce, FL, [2]Univ. of Florida, Fort Pierce, FL, [3]Univ. of Florida, Lake Alfred, FL, [4]USDA - ARS, Wapato,, WA*

P-77 Monitoring insecticide resistance levels in tarnished plant bug in the Mississippi Delta.
***Maribel Portilla** (maribel.portilla@ars.usda.gov) and Randall Luttrell, USDA - ARS, Stoneville, MS*

P-78 Next-generation sequencing as a surveillance tool for plant pathogens in plant and insect tissues.
***Jonas G. King** (jonas.king@msstate.edu)[1], Aline Badial[1] and Diana Sherman[2], [1]Mississippi State Univ., Mississippi State, MS, [2]USDA - ARS, Fort Detrick, MD*

P-79 Oral delivery of dsRNA induces RNAi response in Sri Lanka weevil *Myllocerus undecimpustulatus undatus Marshall (Coleoptera: Cucurlionidae).*
***Daniele Pinheiro** (danielepinheiro@ufl.edu) and Blair Siegfried, Univ. of Florida, Gainesville, FL*

P-80 RNA interference in the pepper weevil.
***Ke Wu** (kewu@ufl.edu), Caitlin Taylor and Blair Siegfried, Univ. of Florida, Gainesville, FL*

P-81 Philogenic distribution and diversity of dung beetles (Coleoptera: Scarabaeidae) in north central Florida's ecosystems.
***Derrick Conover** (dconover13@ufl.edu)[1] and Xavier Martini[2], [1]UF/IFAS, Tallahassee, FL, [2]Univ. of Florida, Quincy, FL*

P-82 Results from the regional identification center of the USDA-APHIS (Raleigh Hub) for the 2016-2017 wood boring beetle surveys, including new county records.
***Jennifer Seltzer** (jls30@entomology.msstate.edu)[1], Terence Schiefer[1] and Richard Brown[2], [1]Mississippi State Univ., Mississippi State, MS, [2]Mississippi Entomological Museum, Mississippi State, MS*

TUESDAY, MARCH 6, 2018, MORNING

Symposium: Emerging Technologies in Entomological Fields

Citrus B (Doubletree Hilton at Seaworld)

Moderator and Organizers: Casey Parker, Univ. of Florida, Vero Beach, FL; Gabriel Zilnik, North Carolina State Univ., Raleigh, NC; Scott Graham, Univ. of Tennessee, Jackson, TN and Zhou Chen, Auburn Univ., Auburn, AL

8:00 **Welcoming Remarks**

8:05 AM 93 Assessing attitudes on gene drives: What consumers want to know.
***Johanna Elsensohn** (jeelsens@ncsu.edu)[1], M Jones[1], Zachary Brown[1], Jason Delborne[1] and Paul D. Mitchell[2], [1]North Carolina State Univ., Raleigh, NC, [2]Univ. of Wisconsin, Madison, WI*

8:20 AM 94 *Aedes aegypti Ir8a acts in concert with Orco and Gr3 to detect humans.*
***Joshua Raji** (jraji001@fiu.edu)[1], Nadia Jelvez[2], Sheyla Gonzalez[1], Valeria Saldana[1], Elina Barredo[1], John Castillo[1], Marcus Stensmyr[2] and Mathew DeGennaro[1], [1]Florida International Univ., Miami, FL, [2]Lund Univ., Sweden, Sweden*

8:35 AM 95 Satellites, cell phones, and strawberries: A process model for capturing local agricultural data to improve pest scouting in Florida strawberries.
***Christopher Crockett** (crockettcd@ufl.edu)[1], Oscar Liburd[1], Amr Abd-Elrahman[2] and Justin Renkema[3], [1]Univ. of Florida, Gainesville, FL, [2]Univ. of Florida, Plant City, FL, [3]Univ. of Florida, Wimauma, FL*

8:50 AM 96 Signaling and regulation of G protein-coupled receptors in insecticide resistance of mosquitoes.
***Nannan Liu** (liunann@auburn.edu), Auburn Univ., Auburn, AL*

9:05 AM 97 Electropenetrography (EPG): An emerging tool for studying arthropod behavior in pure and applied research.
***Timothy Ebert** (tebert@ufl.edu) and Michael Rogers, Univ. of Florida, Lake Alfred, FL*

9:20 AM 98 Detecting viruses in highly multiplexed form and at points of sampling.
***Steven Benner** (sbenner@ffame.org), Foundation for Applied Molecular Evolution, Alachua, FL*

9:35 **Concluding Remarks**

Symposium: Bridging the Gap in Berry Production Research in the Southeast: Updates on the Latest Issues

Nautilus A (Doubletree Hilton at Seaworld)

Moderators and Organizers: Karol Krey, Univ. of Florida, Wimauma, FL and Braden Evans, Univ. of Florida, Wimauma, FL

8:00 **Welcoming Remarks**

8:05 AM 99 Common blueberry mulches modulate biological control of root weevils via food webs and dispersal of entomopathogenic nematodes.
***Larry Duncan** (lwduncan@ufl.edu)[1], Justin Renkema[2] and Fahiem El-Borai[3], [1]Univ. of Florida, Lake Alfred, FL, [2]Univ. of Florida, Wimauma, FL, [3]Citrus Research and Education Center, Lake Alfred, FL*

8:20 AM 100 Effects of miticide use in nursery fields on twospotted spider mite (*Tetranychus urticae) populations in strawberry production fields.
***Braden Evans** (braden.evans@ufl.edu) and Justin Renkema, Univ. of Florida, Wimauma, FL*

8:35 AM 101 Management and use of new bio-pesticides in IPM programs in berry production systems.
***Karla Medina Ortega** (kmedinaortega@marronebio.com), Marrone Bio Innovations, Inc., Davis, CA*

8:50 AM 102 Using molecular tools to determine impacts of beneficial predators in organic Florida strawberry fields.
***Karol Krey** (karolk@ufl.edu) and Justin Renkema, Univ. of Florida, Wimauma, FL*

9:05 AM 103 Outcomes of a decade-long battle with an invasive pest of berry crops: spotted wing drosophila.
***Ashfaq Sial** (ashsial@uga.edu), Univ. of Georgia, Athens, GA*

9:20 AM 104 Integrating pest and pollinator management.
***Jeremy Slone** (jdslone@ncsu.edu)[1], Margarita López-Uribe[2] and Hannah Burrack[1], [1]North Carolina State Univ., Raleigh, NC, [2]Pennsylvania State Univ., Univ. Park, PA*

9:35 AM 105 Using sampling techniques and site specific tactics to manage key pests in berry crops.
***Oscar Liburd** (oeliburd@ufl.edu), Univ. of Florida, Gainesville, FL*

9:50 AM 106 Assessing spatial distribution of chilli thrips, *Scirothrips dorsalis (Thysanoptera: Thirpidae) in Florida berries.*
***Babu Panthi** (panthibabu@ufl.edu) and Justin Renkema, Univ. of Florida, Wimauma, FL*

10:05 **Concluding Remarks**

Symposium: Pollinators and Soybeans

Citrus A (Doubletree Hilton at Seaworld)

Organizers: Matthew O'Neal, Iowa State Univ., Ames, IA and Gus Lorenz, Univ. of Arkansas, Lonoke, AR

8:00 **Welcoming Remarks**

8:05 AM 107 Biodiversity of native bees in Mississippi soybeans.
***Katherine Parys** (Katherine.Parys@ARS.USDA.GOV)[1] and Terry Griswold[2], [1]USDA - ARS, Stoneville, MS, [2]USDA - ARS, Logan, UT*

8:30 AM 108 Survey of bees and syrphid flies associated with flowering soybean in the midwestern United States.
Patrick Beauzay *(patrick.beauzay@ndsu.edu)[1], Janet Knodel[1], Christian Krupke[2], Brooke Dennis[2], Debbie Finke[3], David B. Hogg[4], Bryan Jensen[4], Matthew O'Neal[5], Bruce Potter[6], Amy Raudenbush[7], Ashley St. Clair[5], Kelley Tilmon[8], Adam Varenhorst[9] and Robert Wright[10], [1]North Dakota State Univ., Fargo, ND, [2]Purdue Univ., West Lafayette, IN, [3]Univ. of Missouri, Columbia, MO, [4]Univ. of Wisconsin, Madison, WI, [5]Iowa State Univ., Ames, IA, [6]Univ. of Minnesota, Lamberton, MN, [7]Kansas State Univ., Manhattan, KS, [8]The Ohio State Univ., Wooster, OH, [9]South Dakota State Univ., Brookings, SD, [10]Univ. of Nebraska, Lincoln, NE*

8:55 AM 109 Pollen foraging by honey bees in agricultural landscapes.
Jon Zawislak *(jzawislak@uaex.edu)[1], Gus Lorenz[2], John Adamczyk[3] and Neelendra Joshi[4], [1]Univ. of Arkansas Cooperative Extension, Little Rock, AR, [2]Univ. of Arkansas, Lonoke, AR, [3]USDA - ARS, Poplarville, MS, [4]Univ. of Arkansas, Fayetteville, AR*

9:20 Intermission

9:30 AM 110 The utilization of soybean by honey bees in midsouthern agroecosystems.
Scott Stewart *(sdstewart@utk.edu)[1], Mohamed Alburaki[2] and John Adamczyk[3], [1]Univ. of Tennessee, Jackson, TN, [2]Univ. of Southern Mississippi, Hattiesburg, MS, [3]USDA - ARS, Poplarville, MS*

9:55 AM 111 Influence of cultural practices on soybean nectar production.
Ty Smith *(tms377@msstate.edu)[1], Angus Catchot[1], Jeff Gore[2], Jeffrey Harris[3], Natraj Krishnan[1] and Don Cook[2], [1]Mississippi State Univ., Mississippi State, MS, [2]Mississippi State Univ., Stoneville, MS, [3]USDA - ARS, Baton Rouge, LA*

10:20 AM 112 The roles of wild bees and nesting substrate to enhanced soybean yields in a Midwestern agricultural landscape.
Michael Cunningham-Minnick *(minnicmj@miamioh.edu), Thomas O. Crist and Valerie Peters, Miami Univ., Oxford, OH*

10:45 Break

10:55 AM 113 Combining soybean and prairie to mitigate declining honey bee health in Iowa..
Ashley St. Clair *(astclair@iastate.edu)[1], Adam Dolezal[2], Ge Zhang[1], Kate Hunter[3], Edward Hsieh[1], Amy Toth[1] and Matthew O'Neal[1], [1]Iowa State Univ., Ames, IA, [2]Univ. of Illinois, Champaign, IL, [3]Utah State Univ., Logan, UT*

11:20 AM 114 Implementing best practices for conserving pollinators in soybeans: what will it help?
Matthew O'Neal *(oneal@iastate.edu)[1] and Adam Dolezal[2], [1]Iowa State Univ., Ames, IA, [2]Univ. of Illinois, Champaign, IL*

11:45 Concluding Remarks

Symposium: Design of Experiments for Entomologists

Nautilus B (Doubletree Hilton at Seaworld)

Organizer: Stephen L. Lapointe, USDA - ARS, Fort Pierce, FL

10:00 Welcoming Remarks

10:05 AM 115 Statistical design of experiments for optimal formulation.
Mark Anderson *(mark@statease.com), Stat-Ease, Inc., Minneapolis, MN*

10:50 AM 116 The factorial experiment – A questionnaire for mother nature.
Randall P. Niedz *(randall.niedz@ars.usda.gov), USDA - ARS, Fort Pierce, FL*

11:10 AM 117 Entomological applications for mixture designs and response surface modeling.
Stephen L. Lapointe *(stephen.lapointe@ars.usda.gov), USDA - ARS, Fort Pierce, FL*

11:30 AM 118 Diet development for *Diabrotica* species using response surface methods with mixture experiments.
Man Huynh *(mphd32@mail.missouri.edu)[1], Bruce Hibbard[2], Lisa Meihls[2], Dalton Ludwick[3] and Adriano Pereira[3], [1]Can Tho Univ., Can Tho, Vietnam, [2]USDA - ARS, Columbia, MO, [3]Univ. of Missouri, Columbia, MO*

11:45 AM 119 Using pre-existing data to evaluate the yield benefits of neonicotinoid seed treatments in corn.
Alejandro Del Pozo *(aidelpoz@ncsu.edu)[1], Dominic Reisig[2], Consuelo Arellano[1] and Ronnie Heiniger[2], [1]North Carolina State Univ., Raleigh, NC, [2]North Carolina State Univ., Plymouth, NC*

12:00 Concluding Remarks

TUESDAY, MARCH 6, 2018, AFTERNOON

Contributed Papers I: Plant-Insect Ecosystems

Citrus B (Doubletree Hilton at Seaworld)

Moderators: Adam Dale, Univ. of Florida, Gainesville, FL; Justin George, Univ. of Florida, Lake Alfred, FL and Isaac Oyediran, Syngenta Biotechnology, Inc., Research Triangle Park, NC

2:00 Welcoming Remarks

2:05 PM 120 Mississippi bug blues – Invasive awareness, biodiversity, and conservation.
Jason Sanders *(jsanders@entomology.msstate.edu), Jennifer Seltzer and JoVonn Hill, Mississippi State Univ., Mississippi State, MS*

2:17 PM 121 Evaluating the effect of bioinsecticides on *Drosophila suzukii and their natural enemies in organic blueberry production.*
Janine Spies *(jrazze@ufl.edu) and Oscar Liburd, Univ. of Florida, Gainesville, FL*

2:29 PM 122 Impact of roadside mowing on larval survival of *Larinus minutus, a biological control agent of spotted knapweed.*
Beth Ferguson *(mef005@email.uark.edu) and Robert N. Wiedenmann, Univ. of Arkansas, Fayetteville, AR*

2:41 PM 123 Parasitism and predation of *Halyomorpha halys (Stål) eggs in Georgia and Alabama.*
Glynn Tillman *(Glynn.Tillman@ars.usda.gov)[1], Michael Toews[2], David Buntin[3], Ted Cottrell[4], Brett Blaauw[5], Rammohan Rao Balusu[6] and Ashfaq Sial[5], [1]USDA - ARS, Tifton, GA, [2]Univ. of Georgia, Tifton, GA, [3]Univ. of Georgia, Griffin, GA, [4]USDA, Byron, GA, [5]Univ. of Georgia, Athens, GA, [6]Auburn Univ., Auburn, AL*

2:53 PM 124 Host range and risk assessment of the larval parasitoid *Apanteles opuntiarum Martínez & Berta (Hymenoptera: Braconidae), a potential biological control agent of the cactus moth, Cactoblastis cactorum Berg (Lepidoptera: Pyralidae) in North America.*
Mrittunjai Srivastava *(Mrittunjai.Srivastava@freshfromflorida.com), Danielle Wolaver, Michael Banaszek, George Schneider, Amy Howe and Eric Rohrig, Florida Dept. of Agriculture and Consumer Services, Gainesville, FL*

3:05 PM 125 The effect of cover crop and variety on twospotted spider mites, *Tetranychus urticae, and its natural enemies in organic strawberries.*
Elena Rhodes *(erhodes@ufl.edu), Carlene Chase, Xin Zhao and Oscar Liburd, Univ. of Florida, Gainesville, FL*

3:17 PM 126 *Orseolia javanica (Diptera: Cecidomyiidae), a candidate biological control agent for the invasive cogongrass, Imperata cylindrica.*
James Cuda *(jcuda@ufl.edu)[1], Purnama Hidayat[2] and Kiki Simamora[2], [1]Univ. of Florida, Gainesville, FL, [2]Bogor Agricultural Univ., Bogor, Indonesia*

3:29 Concluding Remarks

Contributed Papers II: Plant-Insect Ecosystems

Cypress ABC (Doubletree Hilton at Seaworld)

Moderators: Fred Musser, Mississippi State Univ., Mississippi State, MS and Neelendra Joshi, Univ. of Arkansas, Fayetteville, AR

2:00 Welcoming Remarks

2:05 PM 127 Impact of soybean planting date and plant population on defoliation related yield losses.
Benjamin Thrash *(bct157@msstate.edu)[1], Angus Catchot[1], Jeff Gore[2], Don Cook[2], Fred Musser[1], Trent Irby[1] and Jason Krutz[2], [1]Mississippi State Univ., Mississippi State, MS, [2]Mississippi State Univ., Stoneville, MS*

2:17 PM 128 Impact of redbanded stink bug on Mississippi soybean.
Don Cook *(dcook@drec.msstate.edu)[1], Jeff Gore[1] and Angus Catchot[2], [1]Mississippi State Univ., Stoneville, MS, [2]Mississippi State Univ., Mississippi State, MS*

2:29 PM 129 Controlling the eriophyid mite vector, *Phyllocoptes fructiphilus, to better manage rose rosette disease.*
Frank Hale *(fahale@utk.edu)[1], Mark T. Windham[2], Alan Windham[1], Qunkang Cheng[2], Katherine Solo[2], Brent England[3] and Walt Hitch[3], [1]Univ. of Tennessee, Nashville, TN, [2]Univ. of Tennessee, Knoxville, TN, [3]Univ. of Tennessee, Crossville, TN*

2:41 PM 130 2017 Pest distributions and damage in soybean.
Fred Musser *(fm61@msstate.edu), Mississippi State Univ., Mississippi State, MS*

2:53 PM 131 Areawide mating disruption for borers (Lepidoptera: Sesiidae) attacking peach.
Ted Cottrell *(ted.cottrell@ars.usda.gov)[1] and Dan L. Horton[2], [1]USDA, Byron, GA, [2]Univ. of Georgia, Athens, GA*

3:05 PM **132** **Aphid feeding behavior and virus resistance in somatic fusions and crosses of *Solanum bulbocastanum and Solanum tuberosum.***
Jeffrey Davis *(jeffdavis@agcenter.lsu.edu), Louisiana State Univ., Baton Rouge, LA*

3:17 **Concluding Remarks**

Contributed Papers III: Plant-Insect Ecosystems

Citrus A (Doubletree Hilton at Seaworld)

Moderators: Caydee Savinelli, Syngenta Plant Protection, Greensboro, NC and Karol Krey, Univ. of Florida, Wimauma, FL

2:00 **Welcoming Remarks**

2:05 PM **133** **Value of insecticide seed treatments in Arkansas rice.**
Nick Bateman *(nbateman@uaex.edu)[1], Gus Lorenz[2], Jarrod T. Hardke[1], Nicki Taillon[2], Andrew Plummer[2], Tara Clayton[3], Kevin Mcpherson[4], Aaron Cato[5], Joseph Black[2] and Layton McCullars[5], [1]Univ. of Arkansas, Stuttgart, AR, [2]Univ. of Arkansas, Lonoke, AR, [3]Univ. of Arkansas CES, Stuttgart, AR, [4]Univ. of Arkansas, Division of Agriculture-Cooperative Extension Service, Lonoke, AR, [5]Univ. of Arkansas, Fayetteville, AR*

2:17 PM **134** **Potential exposure of honey bees, *Apis melllifera (L.), to neonicotinoid insecticides in rice, Oryza sativa.***
Gus Lorenz *(glorenz@uaex.edu)[1], Jarrod T. Hardke[2], Nick Bateman[3], Tara Clayton[4], Nicki Taillon[1] and Aaron Cato[5], [1]Univ. of Arkansas, Lonoke, AR, [2]Univ. of Arkansas, Stuttgart, AR, [3]Univ. of Arkansas, Division of Agriculture - Cooperative Extension Service, Stuttgart, AR, [4]Univ. of Arkansas CES, Stuttgart, AR, [5]Univ. of Arkansas, Fayetteville, AR*

2:29 PM **135** **New crop and pest uses for Torac and Apta (Tolfenpyrad).**
Scott D. Croxton *(scroxton@nichino.net)[1], Scott Ludwig[2] and James Adams[3], [1]Nichino America, LaBelle, FL, [2]Nichino America, Arp, TX, [3]Nichino America, Inc, Wilmington, DE*

2:41 PM **136** **Influence of host plant cultivar, nitrogen content, and silicon fertilization on development and reproduction of *Melanaphis sacchari (Zehntner) (Hemiptera: Aphididae).***
Luna Lama *(llama1@lsu.edu)[1], Blake Wilson[2], Jeffrey Davis[1] and Thomas Reagan[1], [1]Louisiana State Univ., Baton Rouge, LA, [2]Louisiana State Univ., St. Gabriel, LA*

2:53 PM **137** **Inscalis™ Insecticide: A new insecticide for management of sap feeding insects in citrus and vegetables in southeast USA.**
Teresia Nyoike *(teresia.nyoike@basf.com), Tommy Wofford, Joe Stout, Steve Broscious, John Descary, Catherine Holmes, Daniel O'Byrne and Joel Johnson, BASF Corporation, Research Triangle Park, NC*

3:05 PM **138** **PQZ™ a new insecticide for control of piercing sucking insects.**
Scott Ludwig *(SLudwig@nichino.net)[1], Scott D. Croxton[2], Pedro Hernandez[3] and James Adams[3], [1]Nichino America, Arp, TX, [2]Nichino America, LaBelle, FL, [3]Nichino America, Inc, Wilmington, DE*

3:17 **Concluding Remarks**

Contributed Papers IV: Medical, Urban and Veterinary; Physiology, Biochemistry, and Toxicology; Systematics, Evolution, and Biodiversity

Magnolia B (Doubletree Hilton at Seaworld)

Moderators: Ammar Eldesouky, Univ. of Florida, Fort Pierce, FL and Vivek Kumar, Univ. of Florida, Apopka, FL

2:00 **Welcoming Remarks**

2:05 PM **139** ***Aedes aegypti Ir8a acts in concert with Orco and Gr3 to detect humans.***
Joshua Raji *(jraji001@fiu.edu), Florida International Univ., MIRAMAR, FL*

2:17 PM **140** **Animal ectoparasites and their impacts on humans.**
Nancy C. Hinkle *(nhinkle@uga.edu) and Elizabeth Slater, Univ. of Georgia, Athens, GA*

2:29 PM **141** **Black soldier flies as a potential feed source for ruminants.**
Marianne Shockley *(entomolo@uga.edu) and Shakara Maggitt, Univ. of Georgia, Athens, GA*

2:41 PM **142** **Detrimental effect of ozone gas on insects occurring in durable stored commodities.**
Rizana M. Mahroof *(rmahroof@scsu.edu) and Barbara Amoah, South Carolina State Univ., Orangeburg, SC*

2:53 PM **143** **Immune response of the bed bug, *Cimex lectularius, to simulated traumatic insemination and starvation.***
Jonas G. King *(jonas.king@msstate.edu), Aline Badial and Travis van Warmerdam, Mississippi State Univ., Mississippi State, MS*

3:05 PM **144** **Inhibition of P450 oxidases has different effect on organophosphate toxicity against honey bees *Apis mellifera.***
Yu Cheng Zhu *(yc.zhu@ars.usda.gov)[1] and John Adamczyk[2], [1]USDA - ARS, Stoneville, MS, [2]USDA - ARS, Poplarville, MS*

3:17 PM **145** **Laboratory assessment of erythritol derivatives on the survival and reproductive rate of *Drosophila suzukii (Diptera: Drosophilidae).***
Blair Sampson *(blair.sampson@ars.usda.gov)[1], Chris Werle[1], M. Easson[2], Steven Stringer[1], Daniel Magee[1] and John Adamczyk[1], [1]USDA - ARS, Poplarville, MS, [2]USDA-ARS Cotton Chemistry and Utilization Research, New Orleans, LA*

3:29 PM **146** **Use of 3D technology in early detection system.**
Shweta Sharma *(shweta.sharma@freshfromflorida.com), Stefanie Dowling and James Snyder, Florida Dept. of Agriculture and Consumer Services, Gainesville, FL*

3:41 PM **147** **While the hurricane's distant voice is heard: Patterns of macroinvertebrate diversity in wetlands recovering from different levels of damage in the Francis Marion National Forest, SC, USA.**
John Fauth *(John.Fauth@ucf.edu), Univ. of Central Florida, Orlando, FL*

3:53 **Concluding Remarks**

WEDNESDAY, MARCH 7, 2018, MORNING

Symposium: Managing for Pollinators

Magnolia C (Doubletree Hilton at Seaworld)

Organizer: Conor Fair, Univ. of Georgia, Athens, GA

8:00 **Welcoming Remarks**

8:05 AM **148** **Temporal and spatial dynamics of pollinator communities across NC agroecosystems.**
Hannah Levenson *(hklevens@ncsu.edu) and David Tarpy, North Carolina State Univ., Raleigh, NC*

8:25 AM **149** **Effects of neonicotinoids on honey bee food glands.**
Selina Bruckner *(szb0130@auburn.edu)[1], Lars Straub[2,3], Laura Villamar-Bouza[2,4], Peter Neumann[2,3] and Geoffrey Williams[1,2,3], [1]Auburn Univ., Auburn, AL, [2]Institute of Bee Health, Vetsuisse Faculty, Univ. of Bern, Bern, Switzerland, [3]Agroscope, Bern, Switzerland, [4]European Food Safety Authority, Parma, Italy*

8:45 AM **150** **Influence of the landscape and exposure to pesticides on honey bee health.**
Mohamed Alburaki *(malburak@utk.edu)[1,2], William Meikle[3], John Adamczyk[4] and Scott Stewart[1], [1]Univ. of Tennessee, Jackson, TN, [2]Univ. of Southern Mississippi, Hattiesburg, MS, [3]USDA - ARS, Tucson, AZ, [4]USDA - ARS, Poplarville, MS*

9:05 AM **151** **Developing strategies to support bee communities in tree fruit orchard ecosystems.**
Neelendra Joshi *(nkjoshi@uark.edu)[1], Timothy W. Leslie[2], Sarah Shugrue[3,4], Edwin Rajotte[3] and David Biddinger[4], [1]Univ. of Arkansas, Fayetteville, AR, [2]Long Island Univ., Brooklyn, NY, [3]Pennsylvania State Univ., Univ. Park, PA, [4]Pennsylvania State Univ., Biglerville, PA*

9:25 AM **152** **The efficacy of oxalic acid vaporization in controlling the honey bee pest Varroa destructor.**
Cameron Jack *(cjack@ufl.edu) and James Ellis, Univ. of Florida, Gainesville, FL*

9:45 AM **153** **The effects of distance from fire free refugia on pollinator communities in loblolly pine forests.**
Conor Fair *(cfair13@uga.edu)[1], Scott Horn[2] and Michael D. Ulyshen[2], [1]Univ. of Georgia, Athens, GA, [2]USDA - Forest Service, Athens, GA*

10:05 **Concluding Remarks**

Symposium: Vegetable Pest Management

Citrus B (Doubletree Hilton at Seaworld)

Moderators and Organizers: Rebecca Schmidt-Jeffris, Clemson Univ., Charleston, SC and Michelle Samuel-Foo, Univ. of Florida, Gainesville, FL

8:00 **Welcoming Remarks**

8:05 AM **154** **Repellency of new colored mulches to whiteflies and their natural enemies.**
Rebecca Schmidt-Jeffris *(rschmi3@clemson.edu), Clemson Univ., Charleston, SC*

8:25 AM **155** **The role of biopesticides in managing *Bemisia tabaci Biotype B in field tomatoes.***
Hugh A. Smith *(hughasmith@ufl.edu), Univ. of Florida, Wimauma, FL*

8:45 AM **156** **Update on pepper weevil and cowpea curculio management in Georgia.**
David Riley *(dgr@uga.edu) and Alton N. Sparks, Jr., Univ. of Georgia, Tifton, GA*

9:05 AM 157 Chemical and nonchemical approaches for controlling pepper weevil, *Anthonomus eugenii Cano (Col.: Curculionidae).*
Dakshina Seal *(dseal3@ufl.edu)[1], Catherine Sabines[1] and Shawbeta Seal[2], [1]Univ. of Florida, Homestead, FL, [2]TREC, UF-IFAS, Homestead, FL*

9:25 AM 158 Roselle plant extract as an oviposition and feeding deterrent for *Plutella xylostella, a major insect pest of cabbage.*
Nupur Sarkar *(nupur.sarkar@ufl.edu), Zulaikha Mazlan and Oscar Liburd, Univ. of Florida, Gainesville, FL*

9:45 AM 159 Statewide pest alert and management updates for the yellowmargined leaf beetle (*Microtheca ochroloma, Coleoptera: Chrysomelidae) in organic brassica production in Alabama.*
Ayanava Majumdar *(azm0024@auburn.edu)[1], Henry Fadamiro[2] and Rammohan Rao Balusu[2], [1]Alabama Cooperative Extension System, Auburn, AL, [2]Auburn Univ., Auburn, AL*

10:05 AM 160 Monitoring for sweetpotato weevil, *Cylas formicarius elegantulus, using sex pheromone began in North Carolina and is now an effective tool worldwide.*
Kenneth A. Sorensen *(kenneth_sorensen@ncsu.edu), North Carolina State Univ., Raleigh, NC*

10:25 AM 161 Management of sweet corn-infesting ulidiid flies in Florida: Toward a more efficient use of insecticides.
Julien Beuzelin *(jbeuzelin@ufl.edu)[1], Dakshina Seal[2], David Owens[3] and Gregg Nuessly[1], [1]Univ. of Florida, Belle Glade, FL, [2]Univ. of Florida, Homestead, FL, [3]Univ. of Delaware, Georgetown, DE*

10:45 **Concluding Remarks**

Symposium: Management of Noctuid Pests

Magnolia B (Doubletree Hilton at Seaworld)

Moderators and Organizers: Robert L. Meagher, USDA - ARS, Gainesville, FL and Fangneng Huang, Louisiana State Univ., Baton Rouge, LA

8:00 **Welcoming Remarks**

8:05 AM 162 Phenological patterns of *Spodoptera frugiperda in tropical and sub-tropical climates as a function to seasonal factors, host-plant availability, and El Niño Southern Oscillation: what we know.*
Silvana Paula-Moraes *(paula.moraes@ufl.edu)[1], Alexandre Specht[2], Monica Piovesan[3], Eduardo Carneiro[3] and Mirna Casagrande[3], [1]Florida Univ., Jay, FL, [2]Embrapa Cerrados, Planaltina, Brazil, [3]Laboratório de Estudos de Lepidoptera Neotropical, Parana, Brazil*

8:25 AM 163 Trapping fall armyworm in Africa.
Robert L. Meagher *(rob.meagher@ars.usda.gov) and Rodney N. Nagoshi, USDA - ARS, Gainesville, FL*

8:45 AM 164 Survival, growth and development of different genotypes of *Spodoptera frugiperda possessing Cry1A.105/Cry2Ab2 resistant alleles on leaf tissue and whole plants of MON 89034 Bt corn.*
Ying Niu *(yniu1@lsu.edu)[1], Jianguo Guo[2], Yiwan Zhou[1], Graham P. Head[3], Paula A. Price[3] and Fangneng Huang[1], [1]Louisiana State Univ., Baton Rouge, LA, [2]Louisiana State Univ. Agricultural Center, Baton Rouge, LA, [3]Monsanto Company, St. Louis, MO*

9:05 AM 165 Continuous monitoring of the susceptibility of *Helicoverpa zea in the Southern U.S. to different Bt technologies.*
Fei Yang *(fyang108@gmail.com) and David Kerns, Texas A&M Univ., College Station, TX*

9:25 AM 166 The effects of drought and high temperature on *Helicoverpa zea feeding patterns in Bt cotton.*
Mohammad-Amir Aghaee *(maghaee@ncsu.edu)[1] and Dominic Reisig[2], [1]North Carolina State Univ., Raleigh, NC, [2]North Carolina State Univ., Plymouth, NC*

9:45 AM 167 Experiences with bollworm survival in dual gene cotton: Potential causes and short term management solutions.
Angus Catchot *(acatchot@entomology.msstate.edu)[1], Jeff Gore[2] and Don Cook[2], [1]Mississippi State Univ., Mississippi State, MS, [2]Mississippi State Univ., Stoneville, MS*

10:05 AM 168 Lessons from 20+ years of IRM adoption for Bt crops in the United States.
Fangneng Huang *(fhuang@agcenter.lsu.edu), Louisiana State Univ., Baton Rouge, LA*

10:25 AM 169 Impacts of insecticide resistant *Helicoverpa zea in southeastern U.S. field crops.*
Dominic Reisig *(ddreisig@ncsu.edu), North Carolina State Univ., Plymouth, NC*

10:45 AM 170 Survival and emergence of corn earworm from seed blend refuges of Vip3A pyramid corn.
David Buntin *(gbuntin@uga.edu), Univ. of Georgia, Griffin, GA*

11:05 AM 171 Use of Baculovirus-based insecticide Heligen (HearNPV) for *Helicoverpa zea control in US soybean production.*
Chris Dobbins *(cdobbins@agbitech.com)[1], Dennis Long[2] and Paula Marcon[3], [1]AgBiTech, Greenville, MS, [2]AgBiTech, Summitville, TN, [3]AgBiTech, Elkton, MD*

11:25 **Concluding Remarks**

Symposium: Turf and Ornamental Entomology

Cypress ABC (Doubletree Hilton at Seaworld)

Moderators and Organizers: Adam Dale, Univ. of Florida, Gainesville, FL and Catherine Mannion, Univ. of Florida, Homestead, FL

8:00 **Welcoming Remarks**

8:15 AM 172 Multi-year study evaluating imidacloprid rate and herbicide interactions on flatheaded borer damage in field-grown red maples.
Jason Oliver *(joliver@tnstate.edu)[1], Donna Fare[2], Karla Addesso[1], Nadeer Youssef[1], Benjamin Moore[3] and Paul O'Neal[1], [1]Tennessee State Univ., McMinnville, TN, [2]U.S. National Arboretum, McMinnville, TN, [3]USDA - ARS, McMinnville, TN*

8:30 AM 173 Long-lasting protection: Preventing ambrosia beetle attacks in ornamental nurseries using insecticidal netting.
Chris Werle *(Chris.Werle@ARS.USDA.GOV)[1], Karla Addesso[2], Jason Oliver[2], Christopher Ranger[3], Blair Sampson[1] and Peter B. Schultz[4], [1]USDA - ARS, Poplarville, MS, [2]Tennessee State Univ., McMinnville, TN, [3]USDA - ARS, Wooster, OH, [4]Virginia Polytechnic Institute and State Univ., Virginia Beach, VA*

8:45 AM 174 Insecticide options for chilli thrips management in containerized nurseries.
Juang-Horng Chong *(juanghc@clemson.edu), Clemson Univ., Clemson, SC*

9:00 AM 175 Trap placement and performance of different attractants in nurseries on captures of a carpenterworm moth, *Prionoxystus robiniae.*
Dylan Bartlett *(djb0021@tigermail.auburn.edu) and David Held, Auburn Univ., Auburn, AL*

9:15 AM 176 Controlling the eriophyid mite vector, *Phyllocoptes fructiphilus*, to better manage rose rosette disease.
Frank Hale *(fhale1@utk.edu)[1], Mark T. Windham[2], Alan Windham[1], Qunkang Cheng[2], Katherine Solo[2], Brent England[3] and Walt Hitch[3], [1]Univ. of Tennessee, Nashville, TN, [2]Univ. of Tennessee, Knoxville, TN, [3]Univ. of Tennessee, Crossville, TN*

9:30 AM 177 Investigating the epidemiology of insect vectors of phytoplasmas damaging to ornamental plants.
Brian Bahder*, Univ. of Florida, Ft. Lauderdale, FL*

9:45 AM 178 Challenges for pollinator protection in turf and ornamentals.
Frank Wong *(frank.wong@bayer.com), Bayer Crop Science, Research Triangle Park, NC*

10:00 AM 179 Benefits associated with creating wildflower habitats on Florida golf courses.
Adam Dale *(agdale@ufl.edu), Rebecca Perry and Grace Cope, Univ. of Florida, Gainesville, FL*

10:15 AM 180 Attraction among salvia, aster, and coreopsis cultivars to pollinators.
Kris Braman *(kbraman@uga.edu)[1] and Jim Quick[2], [1]Univ. of Georgia, Athens, GA, [2]Univ. of Georgia, Griffin, GA*

10:30 AM 181 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@freshfromflorida.com)[1], Vivek Kumar[2], Antonio Francis[3], Paul Skelley[4], Eric Rohrig[5], Cindy McKenzie[6], Lance Osborne[2] and Catherine Mannion[7], [1]Florida Dept. of Agriculture Division of Plant Industry, Gainesville, FL, [2]Univ. of Florida, Apopka, FL, [3]Florida Dept. of Agriculture and Consumer Services, Apopka, FL, [4]Florida State Collection of Arthropods, Gainesville, FL, [5]Florida Dept. of Agriculture and Consumer Services, Gainesville, FL, [6]USDA - ARS, Fort Pierce, FL, [7]Univ. of Florida, Homestead, FL*

10:45 AM 182 Interactions between an introduced parasitic nematode, *Steinernema scapterisci, and its exotic host, Neoscapteriscus borelli.*
Pablo Allen *(pabloallen@ufl.edu) and Adam Dale, Univ. of Florida, Gainesville, FL*

11:00 AM 183 Southern chinch bug (Hemiptera: Blissidae) mortality and feeding activity on novel St. Augustinegrass hosts.
Nicole B. Benda *(nbenda@ufl.edu) and Adam Dale, Univ. of Florida, Gainesville, FL*

11:15 AM 184 Impact of invasive subterranean termites on the Southeastern urban tree canopy.
Thomas Chouvenc *(tomchouv@ufl.edu), Univ. of Florida, Davie, FL*

11:30 **Concluding Remarks**

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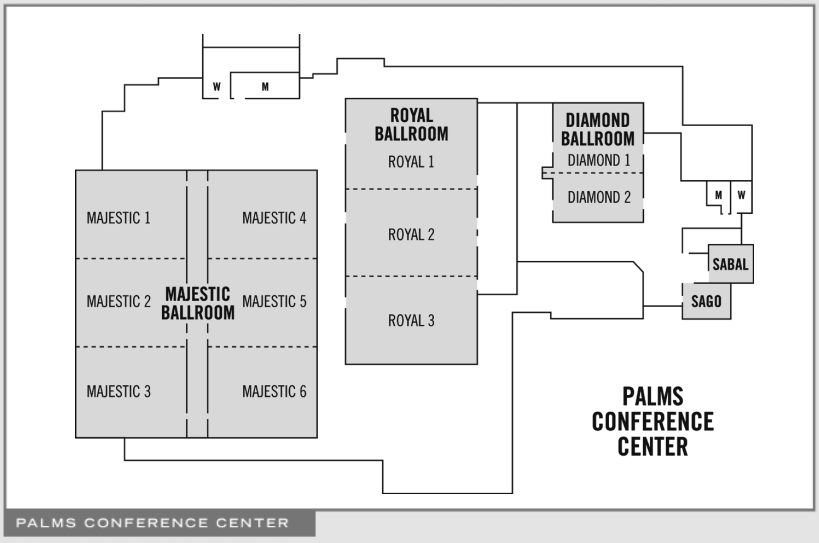
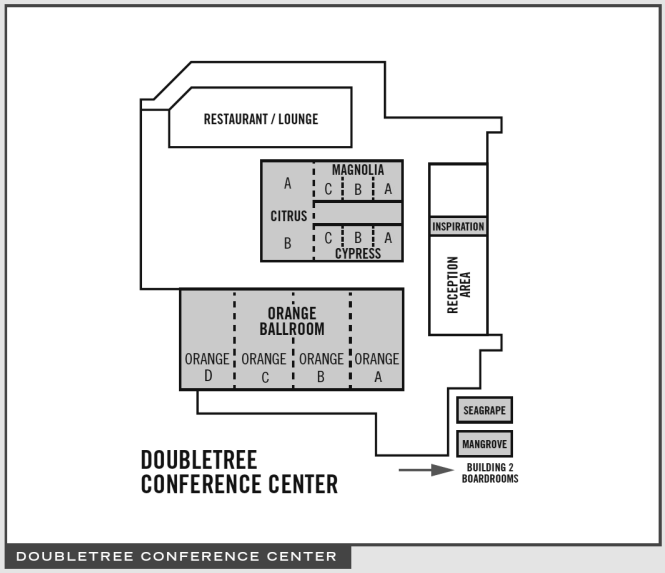
Scientific Name Index

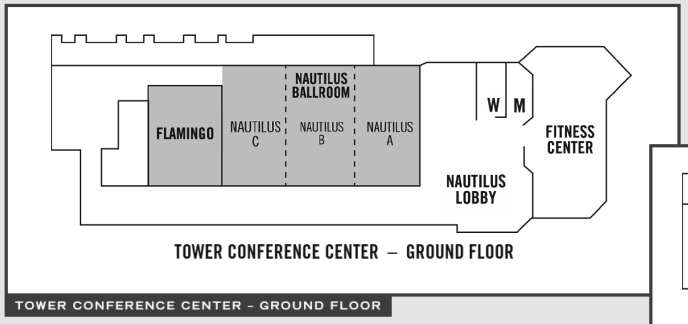
DOUBLETREE
BY HILTON™
ORLANDO
AT SEAWORLD®



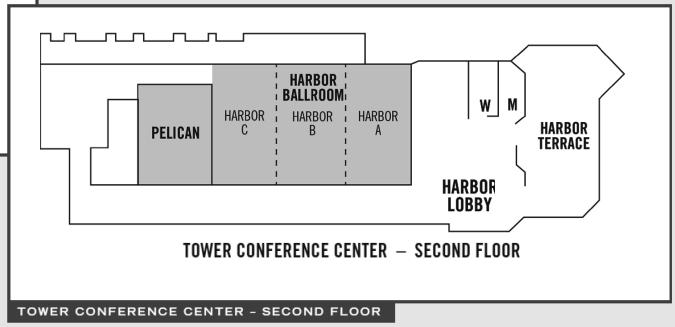
PALMS CONFERENCE CENTER



DOUBLETREE CONFERENCE CENTER



TOWER CONFERENCE CENTER - GROUND FLOOR



TOWER CONFERENCE CENTER - SECOND FLOOR

Notes


DOUBLETREE
BY HILTON
ORLANDO AT SEAWORLD
SeaWorld Walkway
Gate
Gate
Gate
Gate
Gate
International Drive
Westwood Boulevard
Main Entrance
Entrance / Valet
Palms Conference Center
Veranda
Terrace
Covered Walkway
Tower Conference Center
Lagoon Pool
Barefoot Bar
Family Fun Pool
Hideaway Cove
Mini Golf
UPS Store
Thrifty Car Rental & Expedia
The Market
Laguna
DoubleTree Conference Center
Sonoma
Internet Cafe
Gift Shop
The Pantry
Front Desk
Court
Pavilion
1
2
3
4
5
6
7
8
9
10
11
12
14
15
16
17
18
19
RESORT MAP
Restroom
ATM
Elevator
Hot Spot
Giant Checkers
Billiards
Fitness Center
Hot Tub
Guest Laundry
Dog Walk Area
Smoking Area
Fire Pit

2018 ESA, ESC and ESBC Joint Annual Meeting
Crossing Borders: Entomology in a Changing World
11–14 November | Vancouver, BC, Canada

Réunion annuelle conjointe ESA, SEC et SECB 2018
Au-delà des frontières: l'entomologie dans un monde en changement
11–14 novembre | Vancouver, Columbia-Britannique, Canada

Participate in this collaborative meeting to celebrate the science next year in breathtaking Vancouver!

Crossing Borders…
from the entomological, geographic, and interdisciplinary perspectives

Submit a paper or poster entsoc.org/submit

Vancouver, our host city

As a bustling seaport and Canada's greenest city, Vancouver offers a plethora of culinary delights, museums and markets, along with a colorful past. You can easily walk, bike or ride around the city; be sure to stop at Stanley Park for a breathtaking view of the harbor and its constant activities.

Entomology 2018 takes place in the Vancouver Convention Centre, one of the greenest structures in Canada, offering a 6-acre living grass roof and a seawater heating and cooling system. It even boasts its own European honeybee hives, that help pollinate the plants on the living roof while supplying honey for its 'scratch' kitchen.

Watch eNews and visit **entsoc.org/entomology2018** for details.

IMPORTANT DATES/DEADLINES:	
Paper/poster submission, and Lunch & Learns deadline	4 JUNE 2018
Functions (complimentary) deadline	30 JUNE 2018
Virtual Poster deadline	31 JULY 2018