

**89<sup>th</sup> Annual Meeting  
of the  
Southeastern Branch**

**Entomological Society  
of America**

**15-18 March 2015  
Biloxi  
Mississippi**



**Catharine Mannion  
President, 2014-2015**

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## ESA SECTIONS

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**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.

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## PROGRAM SUMMARY

### SUNDAY, 15 MARCH

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<b>8:00 AM</b>	<b>5K Fun Run</b> <i>Lobby</i>
<b>11:00 AM-12:00</b>	<b>Final Local Arrangements/Program Committee Meeting</b> <i>Magnolia E</i>
<b>1:00 PM-5:00</b>	<b>Executive Committee Meeting</b> <i>Magnolia E</i>
<b>1:00 PM-5:00</b>	<b>Student Affairs Committee Meeting</b> <i>Magnolia A</i>
<b>1:00 PM-5:00</b>	<b>Registration</b> <i>Foyer-Magnolia</i>
<b>1:00 PM-6:00</b>	<b>Golf Tournament</b> <i>Lobby</i>
<b>1:00 PM-6:00</b>	<b>S-1058 Multi-State Biological Control of Arthropod Pests and Weeds</b> <i>Magnolia F</i>
<b>8:00 AM-5:00</b>	<b>S-1055 Biology, Impact, and Management of Soybean Insect Pests in Soybean Production Systems</b> <i>Magnolia G</i>
<b>3:00 PM-7:00</b>	<b>Audiovisual</b> <i>Gardenia</i>
<b>1:00 PM-7:00</b>	<b>Job Placement</b> <i>Gardenia</i>
<b>4:00 PM-7:00</b>	<b>Linnaean Games, Preliminary Rounds</b> <i>Magnolia A</i>
<b>5:00 PM-7:00</b>	<b>Southern Corn Insect Working Group</b> <i>Magnolia E</i>
<b>7:00PM-9:30</b>	<b>Bonfire on the Beach</b> <i>Off Site</i>

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## PROGRAM SUMMARY

### MONDAY, 16 MARCH

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<b>7:00 AM-8:00</b>	<b>Breakfast</b>
<b>7:00 AM-5:00</b>	<b>Audiovisual</b> <i>Gardenia</i>
<b>7:00 AM-5:00</b>	<b>Job Placement</b> <i>Gardenia</i>

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# PROGRAM SUMMARY

## MONDAY, 16 MARCH (Cont.)

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<b>7:00 AM-5:00</b>	<b>Registration</b> <i>Foyer-Magnolia</i>
<b>7:00 AM-8:00</b>	<b>Student Poster Competition Set Up</b> <i>Camellia A</i>
<b>8:00 AM-4:00</b>	<b>Student Poster Competition Judging</b> <i>Camellia A</i>
<b>8:00 AM-5:00</b>	<b>Student Poster Exhibits</b> <i>Camellia A</i>
<b>8:00 AM-10:15</b>	<b>Opening and Plenary Session</b> <i>Magnolia A</i>
<b>10:15 AM-10:30</b>	<b>Break</b> <i>Foyer-Magnolia</i>
<b>10:30 AM-12:00</b>	<b>M.S. Student Oral Presentation Competition I</b> <i>Magnolia F</i>
<b>10:30 AM-12:00</b>	<b>M.S. Student Oral Presentation Competition II</b> <i>Magnolia E</i>
<b>10:30 AM-11:06</b>	<b>Undergraduate Student Oral Presentation Competition</b> <i>Magnolia G</i>
<b>12:00 PM-1:30</b>	<b>Lunch</b>
<b>1:40 PM-2:40</b>	<b>Poster Presenters at Display Presentation</b> <i>Camellia A</i>
<b>1:40 PM-3:40</b>	<b>M.S. Student Oral Presentation Competition III</b> <i>Magnolia E</i>
<b>1:40 PM-3:55</b>	<b>Ph.D. Student Oral Presentation Competition I</b> <i>Magnolia F</i>
<b>1:40 PM-3:55</b>	<b>Ph.D. Student Oral Presentation Competition II</b> <i>Magnolia H</i>
<b>1:40 PM-4:45</b>	<b>Vegetable Entomology Symposium</b> <i>Magnolia G</i>
<b>5:00 PM-7:00</b>	<b>Student Poster Competition Removal</b> <i>Camellia A</i>
<b>5:00 PM-7:00</b>	<b>Linnaean Games, Final Round</b> <i>Magnolia A</i>

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## PROGRAM SUMMARY

### MONDAY, 16 MARCH (Cont.)

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**7:30 PM-9:00**      **Monday Night Reception**  
*Azalea*

**7:00 PM-10:00**      **General Poster Set Up**  
*Camellia A*

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## PROGRAM SUMMARY

### TUESDAY, 17 MARCH

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**7:00 AM-3:30**      **Audiovisual**  
*Gardenia*

**7:00 AM-5:00**      **Job Placement**  
*Gardenia*

**7:00 AM-12:00**      **Registration**  
*Foyer-Magnolia*

**7:00 AM-8:00**      **Past Presidents Breakfast**

**7:00 AM-8:00**      **General Poster Set Up**  
*Camellia A*

**8:00 AM-5:00**      **General Poster Presentations**  
*Camellia A*

**8:00 AM-10:55**      **Student Symposium-Rising Issues in  
Biological Control**  
*Magnolia F*

**8:00 AM - 10:50**      **Urban Symposium-Notorious recent  
urban insect invaders in the  
Southeastern US - where are they  
now?**  
*Magnolia H*

**8:00 AM - 11:10**      **Emergence of the Sugarcane Aphid,  
*Melanaphis sacchari*, as a Serious  
Threat to Grain Sorghum Production -  
Symposium**  
*Magnolia G*

**10:15 AM-10:30**      **Break**  
*Foyer-Magnolia*

**12:00 PM-1:30**      **Awards Luncheon and Photo Salon**  
*Magnolia B, C, D*

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## PROGRAM SUMMARY

### TUESDAY, 4 MARCH (Cont.)

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<b>1:40 PM-4:05</b>	<b>Contributed Papers I</b> <i>Magnolia F</i>
<b>1:40 PM-4:40</b>	<b>Contributed Papers II</b> <i>Magnolia G</i>
<b>1:40 PM-4:15</b>	<b>Contributed Papers III</b> <i>Magnolia H</i>
<b>2:30 PM-3:30</b>	<b>Poster Presenters at Display Presentation</b> <i>Camellia A</i>
<b>3:00 PM-3:15</b>	<b>Break</b> <i>Foyer-Magnolia</i>
<b>5:00 PM-6:30</b>	<b>Final Business Meeting</b> <i>Magnolia H</i>
<b>3:30 PM-6:00</b>	<b>Submitted Poster Removal</b> <i>Camellia A</i>

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## PROGRAM SUMMARY

### WEDNESDAY, 18 MARCH

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<b>7:00 AM-5:00</b>	<b>Job Placement</b> <i>Gardenia</i>
<b>7:30 AM-8:00</b>	<b>Breakfast</b>
<b>8:00 AM-9:48</b>	<b>Contributed Paper IV</b> <i>Magnolia H</i>
<b>8:00 AM-11:35</b>	<b>Turf and Ornamental Symposium</b> <i>Magnolia E</i>
<b>8:00 AM-10:15</b>	<b>Novel Molecular Approaches to Prevent Ticks and Tick-Borne Diseases Symposium</b> <i>Magnolia F</i>
<b>8:00 AM-9:20</b>	<b>Teaching Symposium- From Pupae to Pupils: Teaching Entomology in a Changing World</b> <i>Magnolia G</i>

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# MEETING NOTICES AND POLICIES

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**REGISTRATION:** Everyone attending the SEB-ESA meeting is expected to register. On-site registration fees include a luncheon ticket, and are: Active Members-\$210; Student Members-\$110; Guests-\$85; and Non-members-\$260. One-day registration-\$210. Honorary Members, Emeritus Members, and Non-members giving invitational papers must register, but will not pay registration fees. Registration Desk is located in Magnolia Foyer, and will be open on Sunday (1:00 PM-5:00 PM), Monday (7:00 AM-5:00 PM) and Tuesday (7:00 AM-12:00 PM).

## ACCOMPANYING GUEST ACTIVITIES/ FUNCTIONS:

We have several activities that should be of interest to accompanying registered guests at no extra cost, except for anyone wanting to participate in the golf event or the tours.

### Sunday

**8:00 AM** Participate in 5K Run

**11:00 AM** Ship Island Excursion on March 15, 2015. Tour departs at 11:00am and is about 6.5 hours in length. Cost: \$30. Minimum 20 and the deadline to register is February 13, 2015.

**1:00 PM-6:30** Participate in Golf Tournament (fee based)

**1:00PM** Carnivorous Plants of Mississippi on March 15 and 18, 2015. Tour departs at 1:00pm and lasts about 4 hours. Cost \$15. Deadline to register is February 13, 2015.

### Monday: 6:00-8:00 AM Breakfast

**10:15-10:30 AM** Break (*Foyer Magnolia*)

**7:30-9:00 PM** Monday Night Reception (*Azalea*)

### Tuesday:

**10:05-10:30 AM** Break (*Foyer Magnolia*)

**12:00-1:30 PM** Awards Luncheon (*Magnolia B, C, D*)

**3:00-3:15 PM** Break (*Foyer Magnolia*)

### Wednesday:

**7:30-8:00 AM** Breakfast

**1:00PM** Carnivorous Plants of Mississippi on March 15 and 18, 2015. Tour departs at 1:00pm and lasts about 4 hours. Cost \$15. Deadline to register is February 13, 2015.

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**

**DESK:** 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:** Digital projectors will be provided in each meeting room, along with pointing devices. Please design your material so that it can be read easily by the audience when it is projected. Presentations may be previewed in the Gardenia Room from 7:00 AM to 5:00 PM on Monday and from 7:00 AM to 2:30 PM on Tuesday. Upload presentations in this room as early as possible on Sunday afternoon, Monday morning, or Tuesday morning.

**DISPLAY PRESENTATIONS:** Poster boards measuring 4 ft. wide x 4 ft. tall will be provided for each display presentation (posters should be no larger than 44x44"). Displays for the Student Competition on Monday should be set up on Monday morning from 7:00 AM to 8:00 AM in the Camellia A. All student posters must be removed by 7:00 PM on Monday evening. Displays for Tuesday exhibition should be set up on Monday evening from 7:00 PM to 10:00 PM or Tuesday morning from 7:00 AM to 8:00 AM in the hall in front of Camellia A. Displays should be mounted on the boards (assigned by the number of the presentation) with Velcro fasteners (hook side). Authors are asked to bring their own stick-on Velcro fasteners (preferred) for mounting their posters. All prints, figures, tables, etc. should be large enough to be read easily from a distance of at least 3 feet. Presentations should be available for viewing from 8 AM to 5 PM on the date displayed. Student presenters should be available at their displays between 1:40 PM and 2:40 PM on Monday, and presenters of regular posters should be at their posters from 1:30 PM to 2:30 PM on Tuesday. Be sure to remove all displays by 9:00 PM on Tuesday, 5 March.

**JOB PLACEMENT CENTER:** The Student Affairs Committee will sponsor a job placement board in the hall in front of Gardenia for all interested employers and prospective employees from 7:00 AM to 5:00 PM on Monday and from 7:00 AM to 3:30 PM on Tuesday. If you have either a job vacancy or are seeking employment, please bring an announcement or résumé to the Gardenia Room or post it directly on the appropriate board in the hall in front of Gardenia.

**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.

**SOUTHEASTERN BRANCH-ESA**  
**2014-2015**  
**OFFICERS AND COMMITTEES**

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**Executive Committee**

Catharine Mannion, *President*

Nancy Hinkle, *President-Elect*

David Hall, *Past President*

Juang-Horng 'JC' Chong (2017), *Secretary-Treasurer*

Tim Schowalter (2016), *Gov. Board Representative*

Gus Lorenz (2016), *Member-at-Large*

Natalie Hummel (2015), *Member-at-Large*

David Jenkins (2014), *Member-at-Large*

**Program Committee**

Don Cook, MS, *Co-Chair*

Jeff Gore, MS, *Co-Chair*

Dominic Reisig, NC

Glenn, Studebaker, AR

John Riggins, MS

Krish Krishnan, MS

David Jenkins, *Ex officio*

**Membership Committee**

David Riley, GA (2015) *Chair*

Jason Oliver, TN (2017) *Co-Chair*

Tim Kring, AR (2015)

Jeff Davis, LA (2016)

Eric Benson, SC (2016)

Eileen Buss, FL (2016)

David Jenkins, PR (2017)

Pat O'Leary, NC (2017)

Vacant, MS (2017)

**Member Award Committee**

Michelle Samuel-Foo, AL (2016), *Chair*

Francis Reay-Jones, SC (2015)

Phil Stansly, FL (2016)

Anna Meszaros, LA (2016)

Sonja Brannon Thomas, AL (2017)

Ryan W. Kurtz, NC (2017)

Marianne Shockley, GA, *Ex Officio*

**Archives Committee**

Jim Harper (2018)

**Resolutions Committee**

Dakshina Seal, FL (2015), *Chair*

Marianne Shockley, GA (2015)

Frank Hale, TN (2015)

### **Student Awards Committee**

Will Hudson, GA (2015), *Chair*

Francis Reay-Jones, SC (2015)

Alejandro Calixto, FL (2015)

Xing Ping Hu, AL (2016)

Rufina Ward, AL (2017)

John Adamczyk, MS (2017)

Babu Srinivasan, GA, *Ex Officio*

### **Student Affairs Committee**

Daniel Fleming, MS (2015), *Co-Chair*

Jessica Hartshorn, AR (2015), *Co-Chair*

Hamilton Allen, SC (2015)

Colin Funaro, NC (2015)

Elizabeth Benton, TN (2015)

Eutychus Kariuki, FL (2015)

Lindsay Iglesias, FL (2016)

Lina Bernaola, LA (2016)

Tommy McElrath, GA (2016)

Tolulope Marawo, AL (2016)

Isis Lopez, PR (2015)

Erika Machtinger, FL, *Ex Officio*

### **Public Relations Committee**

Vivek Kumar, FL (2015), *Chair*

L. Fudd Graham, AL (2014)

Vacant

### **Audit Committee**

Raymond Hix, FL (2014), *Chair*

Vivek Kumar, FL (2015)

JC Chong, SC, Secretary-Treasurer

### **Local Arrangements Committee**

#### **Biloxi, MS Meeting (2015)**

Fred Musser, MS, Chair

Jeff Gore, MS

Melissa Siebert, MS

Shahid Karim, MS

Kathy Knighten, MS

Angus Catchot, MS

Beverly Catchot, MS

John Guyton, MS

Alvin Simmons, SC, *Ex Officio*

### **Meeting Location/Time: North Carolina (2016)**

Hanna Burrack, NC, *Chair*

Ed Vargo, NC

### **Meeting Location/Time: Tennessee (2017)**

Jerome Grant, TN, *Chair*

Scott Stewart, TN

### **Board Certification Committee**

Dennis Ring (2015), LA, *Chair\*\*\**

3 vacancies

### **International Congress of Entomology Meeting 2016 Organizing Committee**

Alvin Simmons, SC, *Co-Chair and SEB Liaison*

### ***Ad hoc* Linnaean Games Enhancement Committee**

Mike Williams, AL, *Chair*

Jerome Grant, TN

Raymond Hix, FL

### ***Ad hoc* Insect Photo Salon Committee**

Elizabeth Benton, TN, *Chair*

### ***Ad hoc* Job Placement Committee**

Elizabeth Benton, *Chair*

### ***Ad hoc* Annual Meeting Sponsorship Committee**

Angus Catchot, *Chair*

### ***Ad hoc* National Offices Nominating Committee**

Nancy Hinkle, *Chair*

### ***Ad hoc* Student Awards Evaluation Committee**

David Hall, *Chair*

Gregg Nuessly

Melissa Siebert

Babu Srinivasan

JC Chong

### ***Ad hoc* By-Laws Committee**

Michael Toews, GA, *Chair*

### **ESA Central Finance Committee**

Faith Oi, (Nov. 2014), *Representative*

### **ESA Central Student Affairs Committee**

Erika Machtinger, FL (Nov. 2015), *Representative*

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# SEB AWARDS-2015

## ESA DISTINGUISHED ACHIEVEMENT AWARD IN EXTENSION

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**Dr. Will Hudson** is a native of Alabama. He earned his B.S. and M.S. degrees from Auburn University and his Ph.D. from the University of Florida where his research involved the ecology and management of invasive mole crickets. After a post-doc stint at UF in Howard Frank's lab working with biocontrol of those mole crickets, Will took a job at the University of Georgia as an Extension specialist at the Coastal Plains Experiment Station (now the Tifton Campus, UGA) in Tifton, GA in 1988. He was initially responsible for insect management programs in the turf and ornamentals industries, a clientele he still serves today. In 2001 he added pecan pest management to his commodity responsibilities, along with permanent grass pastures and hayfields.

After 23 years in Tifton, Will moved to the main UGA Campus in Athens in 2011. In addition to his extension responsibilities, he also teaches a class in turf pest management and a graduate discussion course in IPM.

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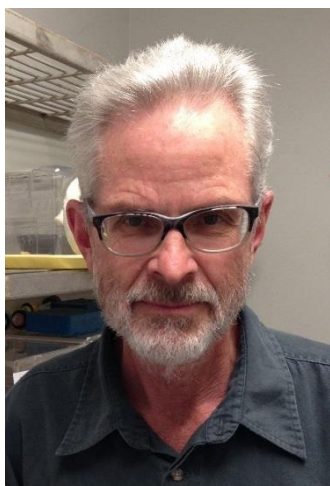
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# SEB AWARDS-2014

## ESA RECOGNITION AWARD IN INSECT PHYSIOLOGY, BIOCHEMISTRY, AND TOXICOLOGY

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**Dr. Mark R. Brown**, Professor of Entomology at the University of Georgia, grew up in New Mexico and earned a B.S. in Biology and a Bachelor of University Studies at the University of New Mexico. He went north and obtained a M.S. in Entomology at Washington State University for work on the reproductive physiology of the codling moth, *Cydia pomonella*. He was intrigued by the endocrine studies of Dr. Arden Lea and joined his laboratory group at the University of Georgia and completed a Ph.D. in Entomology in 1985. For the next 10 years, he worked as a postdoctoral associate and research scientist at UGA. In 1995, he joined the Entomology faculty as an Assistant Professor in the College of Arts and Sciences and after the department was merged into the College of Agriculture and Environmental Sciences rose to Professor in 2007. He serves as Graduate Coordinator and teaches the graduate course in Insect Physiology.

His research program investigates the hormonal regulation of feeding, metabolism, and reproduction in mosquitoes. Peptide hormones are of particular interest, since many are structurally and functionally conserved from insects to mammals. Over nearly 30 years, he has worked with students and colleagues to characterize the expression and function of ovary ecdysteroidogenic hormone, insulin-like peptides, neuropeptide F, and adipokinetic hormone. His contributions to insect endocrinology are widely recognized and provide insight into the regulation of key processes that underpin the life history strategies and pernicious success of mosquitoes. This research has been funded by the National Institutes of Health and UGA.

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# SEB AWARDS-2015

## ESA AWARD FOR EXCELLENCE IN INTEGRATED PEST MANAGEMENT

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**Dr. Michael Toews**, Associate Professor in the Department of Entomology at the University of Georgia, is the Southeastern Branch recipient of the ESA Award for Excellence in Integrated Pest Management. A Midwestern native, he received a B.S. (1995) from Fort Hays State University (Hays, Kansas) followed by an M.S. (1998) and Ph.D. (2001) from Oklahoma State University. Toews trained as a stored product entomologist and held post-doctoral positions in the Department of Grain Science and Industry at Kansas State University followed by the USDA-ARS Grain Marketing and Production Research Laboratory, where he worked on population dynamics of beetles infesting cereal processing mills.

Dr. Toews is currently a research entomologist with responsibilities in applied insect ecology and pest management in row crop ecosystems. Additionally, he handles research and Extension responsibilities for stored product entomology, is a Co-Director at the Center for Invasive Species and Ecosystem Health, and co-teaches two graduate level entomology classes. Dr. Toews' research interests include sampling, insect behavior and insect dispersal. Although many of his research studies have been conducted with phytophagous stink bugs, he is also working on management of thrips and kudzu bugs. Dr. Toews has served on fifteen graduate student committees (7 as major professor), secured \$4.9 million dollars in competitive grant funding, published 50 research papers, and holds a patent issued by the United States Patent and Trademark Office. He is an assistant editor for Journal of Cotton Science and serves on the UGA University Council.

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# SEB AWARDS-2015

## ESA RECOGNITION AWARD IN URBAN ENTOMOLOGY

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**Dr. Karen Vail**, the Southeastern Branch nominee for the ESA Distinguished Achievement Award in Urban Entomology, is a professor in the Entomology and Plant Pathology Department at the University of Tennessee. As the Extension Urban Entomologist she is responsible for providing leadership to pest management professionals, county agents, and the public pertaining to urban IPM programs related to household, structural and home landscape pests.

In 1985, Dr. Vail graduated from Rutgers University with a BS degree in Plant Science with an option in IPM. She left her urban home state and joined Virginia Tech as a Master's student. Although her master's degree was devoted to broccoli pests, it was in the rural town of Blacksburg, VA at Virginia Tech, that she became interested in urban entomology. After graduating from Virginia Tech, Karen joined the USDA-ARS as a technician in the Imported Fire Ant and Household Insects Unit in Gainesville, FL where she was fortunate to be mentored by some of the nation's preeminent applied myrmecologists. While at the USDA, she worked with urban pest ants, established herself as an expert on Pharaoh ants and obtained her Ph.D. from the University of Florida. She joined the University of Tennessee as an Assistant Professor in 1996 where she expanded her research interests to include the management of odorous house ants, fire ants, subterranean termites and more recently, bed bugs.

Karen has been a member of ESA since the mid-80s with a brief pause in the late 80s and early 90s. She has served the Southeastern Branch ESA as an at-large member (2005-7), a member of the education committee (1998-2001), public relations committee (1997), awards committee (1996-1999), and program committee (1996-1999); a poster judge (2002, 2007), and Program Chair (2007). Karen has served ESA as secretary, chair-elect and chair of section Fb; chair and member of the Recognition Award in Entomology Selection Committee; moderator and co-organizer of a symposium and formal conference; member of the President's Award for Outstanding Achievement in Primary or Secondary Teaching Using Insects as Educational Material Selection Committee; and has served as a poster judge several times.



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# SEB AWARDS-2015

## ESA RECOGNITION AWARD IN ENTOMOLOGY

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**Dr. Christopher E. Carlton**, John Benjamin Holton Alumni Professor of Agriculture, Department of Entomology, Louisiana State University (LSU), is the 2014 recipient of the Southeastern Branch, ESA Recognition Award. He received a BS in Biology during 1977 from Hendrix College, Conway, Arkansas, a MS in Entomology during 1983 from the University of Arkansas, Fayetteville, and a Ph.D. in Entomology during 1989 from the same institution. He served as Curator of the University of Arkansas Arthropod Museum 1989-1995. He arrived at LSU as an Assistant Professor and Director of the Louisiana State Arthropod Museum during 1995 and moved through the ranks prior to being awarded an Alumni Professorship during 2007. Through the past 20 years, he has taught graduate courses in insect taxonomy, systematics and morphology, aquatic entomology, and general entomology. He has served as major advisor to 10 graduate students, three Masters and seven Ph.D.'s. Their research areas have included beetle systematics, spider taxonomy, cockroach taxonomy, forensic entomology, and dead wood ecology. He has authored or co-authored 102 refereed publications, three book chapters, and 19 additional publications. He contributed 99 species accounts out of 600 in the recently published *Book of Beetles*, and has described or co-described approximately 200 species of beetles, many in collaboration with graduate students. Colleagues have honored him with 13 "*carltoni*" species patronyms. During an ambitious 10-year project to document beetle diversity in Great Smoky Mountains National Park, he led a team of 41 cooperators, resulting in records for over 2500 species of Coleoptera. He serves as a member of the Board of Delegates for the Organization for Tropical Studies (OTS) representing LSU, and taught an OTS specialty course in beetle systematics in Costa Rica during 2012. He has been active in the Coleopterists Society, an international society devoted to the study of beetles. During 1999-2005, he served as Editor for the Coleopterists Society's journal, *Coleopterists Bulletin*, and currently serves as President of the Society. In addition to his research interests, Carlton provides insect identification and diagnostic services through the Louisiana State Arthropod Museum and considers applied aspects of taxonomy to be important components of a graduate student systematics training program.

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**SEB AWARDS-2015**  
**JOHN HENRY COMSTOCK AWARD**  
**Outstanding Ph.D. Student**

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**Amber Tripodi** finished her PhD in Entomology with Dr. Allen Szalanski at the University of Arkansas last fall. She is currently a post-doctoral entomologist working with Jamie Strange at the Pollination Insects Research Unit of ARS-USDA. Her work focuses on the pathogens and parasites of bumble bees.

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# SEB AWARDS-2015

## KIRBY L. HAYS AWARD

### Outstanding M.S. Student

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**Sarah Mays** is originally from southern Oklahoma. She received a B.S. degree in Wildlife Management at Tarleton State University in Stephenville, TX. While there she had the opportunity to participate in research involving the spinose ear tick and its host animals, including an undergraduate research project dealing with chemical repellents of spinose ear tick larvae. Her experiences there developed an interest in ticks and tick-borne diseases. She is currently a second-year M.S. student at the University of Tennessee, under the instruction of Dr. Rebecca Trout Fryxell. Her current research focuses on comparing the efficiency of various trapping methods for tick collection and surveillance, and the identification of pathogens in the Gulf Coast tick (*Amblyomma maculatum*) in Tennessee. Her main interests are in tick and tick-borne disease ecology, such as the role of tick host and habitat relationships in the transmission of tick-borne disease.

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# STUDENT AWARDS-2015

## ROBERT T. GAST AWARDS

### Outstanding Ph.D. Oral Presentations

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### Session I



**Erika Machtinger** is a PhD student at the University of Florida. She received her BS from the University of Delaware in Wildlife Conservation and her MS in entomology from the University of Florida. Erika was raised in the natural areas surrounding the coast of Maine which fostered her love of the environment and wildlife. Erika has worked at the USDA-BIIRL Laboratory in Newark, DE and also as a wildlife biologist and Environmental Scientist. Erika has been an avid equestrian for over 26 years and has competed on a national and international level. Because of her background with horses, involvement in the equestrian community, and interest in insects and biological control, Erika has been focusing her research on biological control of filth flies in equestrian properties in Florida. Erika was awarded the best MS Thesis and Outstanding MS Student scholarship in the University of Florida Department of Entomology and Nematology for her pioneering work with filth fly management on small equine farms in Florida. With the support of Dr. Heather McAuslane and Dr. Chris Geden of the USDA, ARS – Center for Medical, Agricultural and Veterinary Entomology as co-chairs, she is continuing her work by focusing on the olfactory stimuli associated with host location by Pteromalid pupal parasitoids of filth flies and plans to graduate in the spring of 2015.

## Second Place



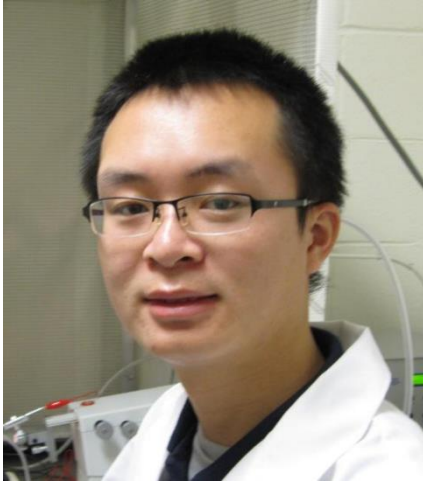
**Hamilton Allen** is a 5th year Ph.D. student working on the Biology and Behavior of the Asian needle ant, *Brachyponera (Pachycondyla) chinensis*. Hamilton has won numerous awards, given several notable talks, and assisted with urban entomology training programs. Hamilton will complete his degree this summer and looks to pursue a career in the pest management industry.

## Session II



**Adam Martinez** is a PhD candidate at the University of Georgia, where he currently is studying in the lab of Dr. Kerry Oliver. The lab works with the defensive bacterial symbiont, *Hamiltonella defensa*, which protects aphids from parasitoid wasps. His are interested in understanding the mechanisms underlying this interaction, and his role during his PhD tenure has been to examine the effects of parasitism on this symbiont. Adam's work also involves parasitoid development, which is important in understanding how certain wasps are able to overcome this symbiotic protection. More generally, he is interested in insect microbial symbioses, parasitoid biology, and biological control.

## Second Place



**Feng Liu** received his Master's degree in investigating the function of GABA receptor of Diamondback moth from the Chinese Academy of Agricultural Science. After that, Feng Liu joined in Dr. Nannan Liu's lab for his Ph.D. degree in the Department of Entomology and Plant Pathology at Auburn University in 2011. Feng is interested in the chemical ecology and olfactory physiology of both bed bugs and mosquitoes. By using the single sensillum recording, *Xenopus* expression system and neuron imaging technique, he is trying to reveal the odorant coding process of bed bug. As a senior student, Feng received awards from the Department, the ESA-SEB, and ESA Meetings.

## Session III



**Tolulope Morawo** is originally from Nigeria where he received his Bachelor's degree in Biology at the Federal University of Technology, Akure. Since joining Henry Fadamiro's Lab at Auburn University in 2011, his research has focused broadly on behavioral responses and mechanisms of olfaction in parasitic wasps. Tolulope completed his M.S. in Entomology at Auburn in 2013. He published two articles highlighting behavioral and chemical ecology aspects of the tritrophic interactions among the parasitoids *Microplitis croceipes* and *Cotesia marginiventris*, their larval host *Heliothis virescens*, and cotton plant. He is currently a Second year Ph.D. student in the same program where he continues to study mechanisms of olfaction in parasitic wasps using behavioral, electrophysiological and molecular techniques. Tolu currently serves on ESA-SEB's Student Affairs Committee and is also the Vice President of Student Affairs for the Graduate Student Council at Auburn University.

## Second Place



**Joni Blount** is originally from New Mexico where she grew up participating in 4-H and FFA. She graduated from New Mexico State University in 2011 where she majored in Agricultural Biology with an emphasis on Entomology from the Department of Entomology, Plant Pathology, and Weed Science. While at NMSU Joni worked in the IPM lab under the direction of Dr. Scott Bundy and conducted and presented her undergraduate research project on the biology of the beet leafhopper. She began her graduate research at the University of Georgia in 2012 under the direction of Dr. David Buntin on the phenology and host preference of the kudzu bug *Megacopta cribraria*. Joni is scheduled to graduate with a PhD in Entomology in December 2015. Upon graduation she hopes to work in industry as a field scientist in research and development and looks forward to new opportunities in agricultural biology.

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## STUDENT AWARDS-2015

### Outstanding M.S. Oral Presentations

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### Session I



**Ian Knight** graduated in May 2014 with an MS in Entomology from the University of Georgia. Currently, he is pursuing a Ph.D. in Entomology, with research focusing on the ecology and management of the kudzu bug, *Megacopta cribraria*, in soybean.



## Second Place



**Chris Dobbins** is a native of Leland, MS. He has worked at the Delta Research and Extension Center in Stoneville, MS as an Agricultural Assistant since 2007. He received an Associates degree in Precision Agriculture from Mississippi Delta Community College in 2009 and his B.S. degree in Biology from Delta State University in 2012. Chris worked for one summer as an intern at Dow AgroSciences during the summer of 2012. Since that time, Chris began working as a Research Associate and graduate student at DREC. He is currently working toward his M.S. degree and his research is focused on managing the headworm complex in grain sorghum. Specific objectives involve evaluating spray timings to control these pests with various insecticides, and evaluating the current thresholds for these pests. Chris will begin working on his doctorate after the completion of his master's degree. After graduation he plans to establish a career in research and development.

## Session II



**Mallory Everett** was raised in Wynne, Ar, where her family farms 6,000 acres. She received her B.S. in Agribusiness from Arkansas State University in 2012. During her undergraduate studies, she was an intern for Valent U.S.A and worked on the EUP for the NipsIt insecticide rice seed treatment. Intrigued by her experiences with the rice water weevil, Mallory went on to pursue a M.S. in Entomology under the guidance of Dr. Gus Lorenz. Her graduate study was to determine the efficacy of rice insecticide seed treatments at various nitrogen rates for control of the rice water weevil. She is now the Field Market Development Representative for Valent U.S.A. in Arkansas, West Tennessee, and the bootheel region of Missouri.



## Second Place

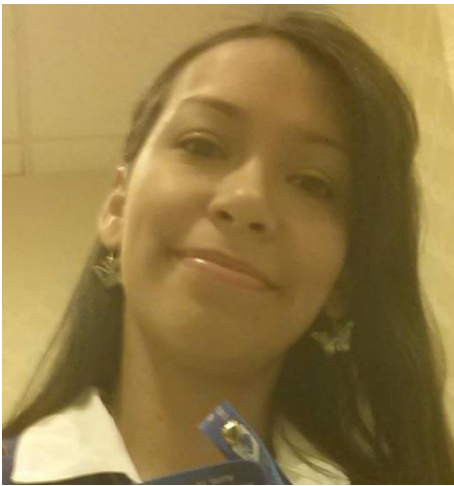


**Drake Copeland** is a native of Martin, Tennessee. He received his B.S. degree in Agriculture Business from the University of Tennessee at Martin. Drake has worked in agricultural research for the majority of his early career. Mr. Copeland is currently working on a M.S. degree in Agronomy with a minor in Entomology at Mississippi State University, and his research is focused on the interaction between pre-emergence herbicides and insecticidal seed treatment efficacy to thrips populations in cotton. His career objective is to serve as a valuable asset to the agricultural community.

## Session III

**Nicolas Hooie, University of Tennessee**

## Second Place



**Lorena Lopez** was born and raised in Cali, Colombia. She received a Bachelor's degree in Biology with a major in Entomology from Universidad del Valle in 2011. In fall 2012, Lorena moved to the United States to pursue her Master's degree at the University of Florida's Gulf Coast Research and Education Center (Balm, FL) working on biological control of pest mites in high-tunnel pepper production. She graduated in summer 2014. Lorena moved to Gainesville, FL in fall 2014 and joined the Small Fruit and Vegetable IPM Laboratory in the University of Florida's Entomology and Nematology Department to start her Ph.D. program under the supervision of Dr. Oscar Liburd. Her research will include regulation of the above-ground pest complex attacking organic zucchini squash by implementing sustainable practices such as cover crops and conservation of natural enemies. Additionally, she will be evaluating the use bacterial strains for control of root-knot nematodes in the same crop. In her spare time, Lorena enjoys dancing, listening to music and traveling around with good friends.

## Session IV



**Suzy Walls** is an Ecologist for the Environmental Business Consulting group at ARCADIS. Walls has over 9 years of experience in ecological risk assessments and has served as the ecological studies coordinator at the Tennessee Valley Authority Kingston Ash Recovery Project for the past 5 years. She is currently pursuing a Master's of Science degree in Entomology from the University of Tennessee, focusing on benthic invertebrate community responses to metals and ash contamination. Her research experience includes evaluating environmental exposures of chemical contamination to invertebrates and aquatic- and riparian- feeding wildlife, conducting

biological surveys for bioaccumulation and community studies, and leading ecology-based educational outreach programs for K-12.

## Second Place



**Jeremy Blaschke** will complete his PhD in entomology this year at University of Tennessee Knoxville (UTK). He completed his BS at Bryan College in 2010 and his MS in 2013 at UTK. He is advised by Dr. Kevin Moulton. Jeremy's research focuses on the molecular systematics of the parasitoid subfamily Phasiinae (Diptera: Tachinidae) and the evolution of host use and oviposition strategies. He is also the recipient of a grant to study the biodiversity of Phasiinae in Great Smoky Mountains National Park.

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# STUDENT AWARDS-2015

## Outstanding Undergraduate Oral Presentation

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**Julie Baniszewski** grew up in central Florida and attended the University of Florida where she graduated Cum Laude with a B.S. in Biology (Natural Sciences) and a Minor in Soil and Water Science. She also worked in the Entomology and Nematology Department at the University of Florida on several projects related to biological control of hydrilla, mosquito toxicity bioassays and pathology. She is currently pursuing a M.S. degree in Integrated Plant and Soil Sciences at the University of Kentucky. Her area of study is evaluating the effect of plant populations and nitrogen rates on corn grain yields.

### Second Place



**Michael Hull** graduated with a BS in Biology from Winthrop University in December 2014. As an undergraduate, he conducted research for two years with Dr. Paula Mitchell on the feeding behavior of brown marmorated stink bugs as well as working on improved rearing methods for this species. He has also recorded waveforms of brown marmorated stink bug feeding using electrical penetration graphing (EPG). He plans on beginning a master's degree in Entomology in the fall of 2015. His interests are integrated pest management and biological control.

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# SEB AWARDS-2015

## OUTSTANDING M.S. DISPLAYS

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### Session I



**Brad Fitz** completed his B.S. in Wildlife Management at Michigan State University, where he was exposed to scientific research through a summer internship radio-collaring and tracking snowshoe hare through the forests of Okanogan National Forest in Washington. After teaching science and English for a year in Tegucigalpa, Honduras, Brad returned to Michigan State to pursue his secondary teaching certification, where he worked part-time for Dr. Jim Miller maintaining mosquito colonies and assisting in codling moth pheromone disruption research. Brad taught high school chemistry and environmental science for 4 years in Redford, MI, where he got his students involved in monitoring stream health through aquatic insect sampling. Brad is currently working toward his M.S. in entomology under Dr. Dominic Reisig and Dr. Clyde Sorenson. His project involves evaluating soybean breeding lines for host plant resistance to the invasive kudzu bug, *Megacopta cribraria*, as part of a long-term integrated pest management solution.

## Second Place



**Xuan Chen** received her Bachelor of Science degree in Ecology at Yangzhou University, China. In 2014, she completed her master study under Dr. Jeffrey Davis in the department of entomology at Louisiana State University. Her master's research mainly focused on induced plant resistance and potassium fertilization rates on soybean looper (*Chrysodeixis includens*) development in soybean. She is currently working as research associate in the same lab under Dr. Davis.

## Session II



**Sarah Mays** is originally from southern Oklahoma. She received a B.S. degree in Wildlife Management at Tarleton State University in Stephenville, TX. While there she had the opportunity to participate in research involving the spinose ear tick and its host animals, including an undergraduate research project dealing with chemical repellents of spinose ear tick larvae. Her experiences there developed an interest in ticks and tick-borne diseases. She is currently a second-year M.S. student at the University of Tennessee, under the instruction of Dr. Rebecca Trout Fryxell. Her current research focuses on comparing the efficiency of various trapping methods for tick collection and surveillance, and the identification of pathogens in the Gulf Coast tick (*Amblyomma maculatum*) in Tennessee. Her main interests are in tick and tick-borne disease ecology, such as the role of tick host and habitat relationships in the transmission of tick-borne disease.

## Second Place



**Ying Niu** was born in China and have finished her undergraduate degree in 2010. She finished a master degree in Louisiana State University on the project of fall armyworm resistance to Bt corn in Dr. Fangneng Huang's lab during the spring of 2014, and continued a Ph.D. program in the same lab. Her Ph.D. research focuses on insect resistance management in Bt crops.

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## SEB AWARDS-2015 OUTSTANDING PH.D. DISPLAYS

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### Session I



**Matthew VanWeelden** is a native of Indianapolis, IN, receiving his B.S. and M.S. in Entomology at Purdue University, where he worked on foraging behavior of the odorous house ant under the supervision of Dr. Grzegorz Buczkowski. He began his Ph.D. at Louisiana State University in 2011 under the supervision of Dr. Gene Reagan, where he is working on ecology and pest management of the Mexican rice borer in cultivars of sugarcane and sorghum bred as bioenergy feedstocks.



## Second Place



**Fei Yang**, received his bachelor's degree in Ecology in 2008 and master's degree in Agricultural Insect and Pest control in 2011 at Yangzhou University, China. From June 2011-December 2014, he continued his Ph.D. study under Dr. Fangneng Huang in the Department of Entomology at Louisiana State University and received the doctoral degree in December 2014. Fei has published 13 referred papers in high quality journals, and has received five first or second place awards at local, regional, and national meetings. He is currently a postdoctoral researcher with the department of Entomology/ Macon Ridge Research Station in Louisiana State University.

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## SEB AWARDS-2015 OUTSTANDING UNDERGRADUATE DISPLAY

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**Kelly Murray** is a graduate of the University of Georgia with degrees in Entomology and Ecology. She conducted her undergraduate research on a species of shredding caddisfly native to freshwater streams on the island of Trinidad, and she will continue her study of aquatic entomology by beginning graduate school as a Masters student later this year.



## Second Place



**Nancy Miorelli** graduated from the University of Georgia with her Master's in Entomology this December. During her time at UGA she discovered her passion for science communication and teaching. She will be volunteering in Ecuador starting this spring at the Maquipucuna Ecolodge, researching moth biodiversity and building insect guides for tourists. During this transitional period, she's been keeping herself busy with multiple blogging adventures, including one she started with a friend called "Ask an Entomologist". The blog answers questions about bugs from the public. To learn more about Nancy and her projects, visit her website: [www.SciBugs.com](http://www.SciBugs.com)

# Sunday, 15 March

<b>8:00 AM</b>	<b>5K Fun Run</b> <i>Lobby</i>
<b>11:00 AM-12:00</b>	<b>Final Local Arrangements/Program Committee Meeting</b> <i>Magnolia E</i>
<b>11:00 AM</b>	<b>Ship Island Excursion Tour</b>
<b>1:00 PM-5:00</b>	<b>Executive Committee Meeting</b> <i>Magnolia E</i>
<b>1:00 PM-5:00</b>	<b>Student Affairs Committee Meeting</b> <i>Magnolia A</i>
<b>1:00 PM-5:00</b>	<b>Registration</b> <i>Foyer-Magnolia</i>
<b>1:00 PM-6:00</b>	<b>Golf Tournament</b> <i>Lobby</i>
<b>1:00 PM</b>	<b>Carnivorous Plants of Mississippi Tour</b>
<b>1:00 PM-6:00</b>	<b>S-1058 Multi-State Biological Control of Arthropod Pests and Weeds</b> <i>Magnolia F</i>
<b>8:00 AM-5:00</b>	<b>S-1055 Biology, Impact, and Management of Soybean Insect Pests in Soybean Production Systems</b> <i>Magnolia G</i>
<b>3:00 PM-7:00</b>	<b>Audiovisual</b> <i>Gardenia</i>
<b>1:00 PM-7:00</b>	<b>Job Placement</b> <i>Gardenia</i>
<b>4:00 PM-7:00</b>	<b>Linnaean Games, Preliminary Rounds</b> <i>Magnolia A</i>
<b>5:00 PM-7:00</b>	<b>Southern Corn Insect Working Group</b> <i>Magnolia E</i>
<b>7:00 PM-9:30</b>	<b>Bonfire on the Beach</b> <i>Off Site</i>

## Sunday, 15 March (cont.)

### S-1058 Biological Control of Arthropod and Weed Pests in the Southern United States Symposium

1:00PM – 6:00

Magnolia F

#### Organizers:

Emma Weeks and Carey Minter

**1:05 1** Species Composition, Seasonal Activity and Impact of Parasitoids and Predators of *Parthenolecanium* Spp. (Hemiptera: Coccidae) in the Southeastern U.S. **Ernesto Robayo-Camacho**, [crobayo@g.clemson.edu](mailto:crobayo@g.clemson.edu)<sup>1</sup>, Juang Horng Chong<sup>1</sup>, Peter B. Schultz<sup>2</sup>, S. Kristine Braman<sup>3</sup> and Steven D. Frank<sup>4</sup>, <sup>1</sup>Clemson Univ., Florence, SC, <sup>2</sup>Virginia Tech, Virginia Beach, VA, <sup>3</sup>Univ. of Georgia, Griffin, GA, <sup>4</sup>Univ. of Maryland, College Park, MD

**1:25 2** Creating Innovative Management Solutions for Organic Cucurbit Production. **James D. Harwood**, [jharw2@email.uky.edu](mailto:jharw2@email.uky.edu), Univ. of Kentucky, Lexington, KY

**1:45 3** Promising Predators: Biological Control of Hemlock Woolly Adelgid in Tennessee. **Gregory J. Wiggins**, [wiggbug@utk.edu](mailto:wiggbug@utk.edu), Jerome F. Grant and Paris L. Lambdin, Univ. of Tennessee, Knoxville, TN

**2:05 4** Biological Control of Emerald Ash Borer: A Southern Perspective and a New Opportunity. **Jerome F. Grant**, [jgrant@utk.edu](mailto:jgrant@utk.edu), Gregory J. Wiggins and Paris L. Lambdin, Univ. of Tennessee, Knoxville, TN

#### 2:25 Intermission

**2:40 5** Recent Advances in Biological Control of Brazilian Peppertree, *Schinus terebinthifolia*. **James P. Cuda**, [jcuda@ufl.edu](mailto:jcuda@ufl.edu)<sup>1</sup>, William A. Overholt<sup>2</sup>, Rodrigo Diaz<sup>3</sup> and Veronica Manrique<sup>2</sup>, <sup>1</sup>Univ. of Florida, Gainesville, FL, <sup>2</sup>Univ. of Florida, Fort Pierce, FL, <sup>3</sup>Univ. of Florida, Ft. Pierce, FL

**3:00 6** Potential Interactions Between Spotted Knapweed (*Centaurea stoebe* ssp. *micranthos*) and Its Biological Control Agents in Arkansas. **Beth Ferguson**, [mef005@email.uark.edu](mailto:mef005@email.uark.edu), Timothy J. Kring and Robert N. Wiedenmann, Univ. of Arkansas, Fayetteville, AR

**3:20 7** Revisiting an Old Friend: Biological Control of Water Hyacinth in Southern Florida. **Carey Minter**, [carey.minter@ars.usda.gov](mailto:carey.minter@ars.usda.gov)<sup>1</sup>, Philip Tipping<sup>2</sup>, Jeremiah Foley<sup>2</sup>, Brittany Knowles<sup>2</sup> and Eileen Pokorny<sup>2</sup>, <sup>1</sup>USDA - ARS, Fort Lauderdale, FL, <sup>2</sup>USDA-ARS, Fort Lauderdale, FL

# Sunday, 15 March

**3:40 8** Biological Control of Giant Salvinia in North Texas: the Impact of Cold on Overwintering Survival of Adults. **Allen Knutson**, a-knutson@tamu.edu, Texas A&M Univ., Dallas, TX and Kevin Heinz, Texas A&M Univ., College Station, TX

**4:00 Break**

**4:15 S-1058 Multi-State Biological Control of Arthropod Pests and Weeds Meeting**

# Monday, 16 March

<b>7:00 AM-8:00</b>	<b>Breakfast</b>
<b>7:00 AM-5:00</b>	<b>Audiovisual</b> <i>Gardenia</i>
<b>7:00 AM-5:00</b>	<b>Job Placement</b> <i>Gardenia</i>
<b>7:00 AM-5:00</b>	<b>Registration</b> <i>Foyer-Magnolia</i>
<b>7:00 AM-8:00</b>	<b>Student Poster Competition Set Up</b> <i>Camellia A</i>
<b>8:00 AM-4:00</b>	<b>Student Poster Competition Judging</b> <i>Camellia A</i>
<b>7:00 AM-8:00</b>	<b>Student Poster Competition Set Up</b> <i>Camellia A</i>
<b>8:00 AM-4:00</b>	<b>Student Poster Competition Judging</b> <i>Camellia A</i>
<b>8:00 AM-5:00</b>	<b>Student Poster Exhibits</b> <i>Camellia A</i>
<b>8:00 AM-10:15</b>	<b>Opening and Plenary Session</b> <i>Magnolia A</i>
<b>10:15 AM-10:30</b>	<b>Break</b> <i>Foyer-Magnolia</i>
<b>10:30 AM-12:00</b>	<b>M.S. Student Oral Presentation Competition I</b> <i>Magnolia F</i>
<b>10:30 AM-12:00</b>	<b>M.S. Student Oral Presentation Competition II</b> <i>Magnolia E</i>
<b>10:30 AM-11:06</b>	<b>Undergraduate Student Oral Presentation Competition</b> <i>Magnolia G</i>
<b>12:00 PM-1:30</b>	<b>Lunch</b>

## Monday, 15 March (cont.)

- 1:40 PM-2:40**      **Poster Presenters at Display Presentation**  
*Camellia A*
- 1:40 PM-3:40**      **M.S. Student Oral Presentation Competition III**  
*Magnolia E*
- 1:40 PM-3:55**      **Ph.D. Student Oral Presentation Competition I**  
*Magnolia F*
- 1:40 PM-3:55**      **Ph.D. Student Oral Presentation Competition II**  
*Magnolia H*
- 1:40 PM-4:45**      **Vegetable Entomology Symposium**  
*Magnolia G*
- 5:00 PM-7:00**      **Student Poster Competition Removal**  
*Camellia A*
- 5:00 PM-7:00**      **Linnaean Games, Final Round**  
*Magnolia A*
- 7:30 PM-9:00**      **Monday Night Reception**  
*Azalea*
- 7:00 PM-10:00**      **General Poster Set Up**  
*Camellia A*

## BUSINESS MEETING AND PLENARY SESSION

**8:00 AM – 10:15**  
**Magnolia A**

**Presiding: Catharine Mannion, President, Southeastern Branch, Entomological Society of America**

- 8:00**      **Call to Order**, Catharine Mannion, President
- 8:05**      **“Welcome to Biloxi,”** Renee Areng, Executive Director, Gulf Coast Regional Convention and Visitors Bureau
- 8:15**      **Preliminary Business Meeting**  
**Announcements**  
**Committee Reports**  
    **Local Arrangements**-Fred Musser  
    **Program**-Jeff Gore  
    **Nominations**-Norm Leppla  
    **Resolutions**-Dakshina Seal  
    **2015 Meeting Time/Location**-Hannah Burrack

# Monday, 16 March

- 8:50**     **Message from ESA Executive Director**  
Rosina Romano
- 9:00**     **SEB Representative to the ESA Governing Board Report** -Tim Schowalter
- 9:05**     **Announcements from ESA Section Representatives** (P-IE)- John Adamczyk
- 9:10**     **Entomological Foundation Report**  
Marianne Shockley
- 9:15**     **International Congress of Entomology Report**  
Alvin Simmons
- 9:25**     **SEB Representative to the ESA Certification Board Report**-Dennis Ring
- 9:35**     **Remarks from SEB President-** Catharine Mannion
- 9:40**     **2014 SEB Plenary Address:** “The Role of Entomologists in the EPA Office of Pesticide Programs.” Meredith Laws, Chief, Insecticide-Rodenticide Branch, Registration Division, Office of Pesticide Programs, US Environmental Protection Agency, Washington D.C.
- 10:15-10:30**     **Break**

## M.S. STUDENT ORAL PRESENTATION COMPETITION I

**10:30 – 12:00**

Magnolia F

**Moderators:**

Fudd Graham and Glenn Studebaker

- 10:30 9** Populations of Foraging Honey Bees in Midsouth Crops. **Adam Whalen**, daw153@msstate.edu<sup>1</sup>, Angus Catchot<sup>1</sup>, Jeff Gore<sup>2</sup>, Scott D. Stewart<sup>3</sup>, Gus Lorenz<sup>4</sup>, Don Cook<sup>2</sup>, Fred R. Musser<sup>1</sup> and Jeffrey W. Harris<sup>1</sup>, <sup>1</sup>Mississippi State Univ., Mississippi State, MS, <sup>2</sup>Mississippi State Univ., Stoneville, MS, <sup>3</sup>Univ. of Tennessee, Jackson, TN, <sup>4</sup>Univ. of Arkansas, Lonoke, AR
- 10:42 10** Is Palmer Amaranth an Alternative Host for Soybean Looper **Abigail Cox**, acox21@tigers.lsu.edu and Jeffrey A. Davis, Louisiana State Univ., Baton Rouge, LA
- 10:54 11** Influence of Planting Date and Floral Resources on Squash Bugs. **Conor Fair**, cfair13@uga.edu, Univ. of Georgia, Athens, GA and S. Kristine Braman, Univ. of Georgia, Griffin, GA

# Monday, 16 March

**11:06 12** Do Detoxification Enzymes Enable Generalism By Japanese Beetles? **Adekunle Adesanya**, awa0004@tigermail.auburn.edu, David Held and Nannan Liu, Auburn Univ., Auburn, AL

**11:18 13** Yield Response of Grain Sorghum to Corn Earworm and Fall Armyworm Infestation Density. **Chris Dobbins**, cdobbins@drec.msstate.edu<sup>1</sup>, Jeff Gore<sup>1</sup>, Angus Catchot<sup>2</sup>, Don Cook<sup>1</sup> and Fred R. Musser<sup>2</sup>, <sup>1</sup>Mississippi State Univ., Stoneville, MS, <sup>2</sup>Mississippi State Univ., Mississippi State, MS

**11:30 14** Susceptibility of Tobacco Thrips, *Frankliniella fusca*, to the Neonicotinoid Class of Insecticides in Mid-South Region. **Chelsie Darnell**, chd102@msstate.edu<sup>1</sup>, Fred R. Musser<sup>1</sup>, Angus Catchot<sup>1</sup>, Jeff Gore<sup>2</sup>, Don Cook<sup>2</sup>, Shannon Morsello<sup>3</sup> and Darrin Dodds<sup>1</sup>, <sup>1</sup>Mississippi State Univ., Mississippi State, MS, <sup>2</sup>Mississippi State Univ., Stoneville, MS, <sup>3</sup>North Carolina State Univ., Raleigh, NC

**11:42 16** Arthropod Predators Utilizing Monoculture Switchgrass (*Panicum virgatum*) Fields. **Caitlin Race**, cirace@email.uark.edu, Timothy J. Kring and Robert N. Wiedenmann, Univ. of Arkansas, Fayetteville, AR

## M.S. STUDENT ORAL PRESENTATION COMPETITION II

**10:30 – 11:54**

Magnolia E

**Moderators:**

Blair Sampson and Joe Iburg

**10:30 16** Corn Plant and Seedling Insect Complex Interactions with Seed-Applied and In-Furrow Insecticides. **Forrest Howell**, fchowell@ncsu.edu, North Carolina State Univ., Raleigh, NC and Dominic Reisig, North Carolina State Univ., Plymouth, NC

**10:42 17** The Potential Interaction of Preventative Treatments for Insect and Weed Control. **Cory Vineyard**, cvineya2@vols.utk.edu<sup>1</sup>, Scott Stewart<sup>2</sup>, Heather Kelly<sup>2</sup> and Larry Steckel<sup>2</sup>, <sup>1</sup>University of Tennessee, Knoxville, TN, <sup>2</sup>Univ. of Tennessee, Jackson, TN

**10:54 18** Assessment of *Anthonomus signatus* (Say) in Southeastern Plasticulture Strawberry Production. **Douglas McPhie**, drmcphie@ncsu.edu, North Carolina State Univ., Raleigh, NC

**11:06 19** Comparing the Efficacy of Season Long Management Programs Against Spotted Wing Drosophila in Blueberries. **Danielle Rosensteel**, drosenst@uga.edu and Ashfaq Sial, Univ. of Georgia, Athens, GA

# Monday, 16 March

- 11:18 20** Host Suitability and Preference for the Brown Marmorated Stink Bug, *Halyomorpha halys* (Stål) Hemiptera: Pentatomidae). **Eric LeVeen**, eleven@ufl.edu and Amanda C. Hodges, Univ. of Florida, Gainesville, FL
- 11:30 21** Impact of PRE Herbicides and Seed Treatments on Thrips Infestations in Cotton. **Drake Copeland**, jdc872@msstate.edu<sup>1</sup>, Darrin Dodds<sup>1</sup>, Angus Catchot<sup>1</sup>, Davie Wilson<sup>2</sup>, Jeff Gore<sup>3</sup>, Daniel Reynolds<sup>1</sup>, Chase Samples<sup>1</sup> and Drew Denton<sup>1</sup>, <sup>1</sup>Mississippi State Univ., Mississippi State, MS, <sup>2</sup>Monsanto Company, Chesterfield, MO, <sup>3</sup>Mississippi State Univ., Stoneville, MS
- 11:42 22** Improved Acoustical Monitoring Techniques for the Grape Root Borer in Florida Grapes for Better Biorational and Microbial Insecticide Applications. **Edidiong Inyang**, N/A<sup>1</sup>, Raymond L. Hix<sup>1</sup> and Richard W. Mankin<sup>2</sup>, <sup>1</sup>Florida A&M Univ., Tallahassee, FL, <sup>2</sup>USDA - ARS, Gainesville, FL

## UNDERGRADUATE STUDENT ORAL PRESENTATION COMPETITION

**10:30 – 11:06**

Magnolia G

**Moderators:**

Dan Pitts and David Kerns

- 10:30 23** A Survey of the Spiders of the Sam D. Hamilton Noxubee National Wildlife Refuge. **Breanna Lyle**, bl334@msstate.edu and John Guyton, Mississippi State Univ., Mississippi State, MS
- 10:42 24** An Examination of Hoverfly (Family Syrphidae) Diversity and Collection Methods in Georgia Apple Orchards. **Catherine Schlueter**, CGSCHL1002@ung.edu, Univ. of North Georgia, Oakwood, GA and Mark Schlueter, Georgia Gwinnett College, Lawrenceville, GA
- 10:54 25** *Osmia taurus*, *O. cornifrons*, and *Anthidium manicatum* in North Georgia: Three Introduced Bee Species Making Their Way Down South. **Nicholas Stewart**, nstewart@ggc.edu and Mark Schlueter, Georgia Gwinnett College, Lawrenceville, GA

## LUNCH

**12:00 PM – 1:30 PM**



**Monday, 16 March**

**M.S. STUDENT ORAL  
PRESENTATION COMPETITION  
III**

**1:40 PM – 3:40**

Magnolia E

**Moderators:**

Jessica Hartshorn and John Formby

**1:40 26** Seasonal Occurrence of Caterpillar Pest of Soybeans.

**Nicholas R. Bateman**, nickbateman@msstate.edu<sup>1</sup>, Angus Catchot<sup>2</sup>, Jeff Gore<sup>3</sup>, Don Cook<sup>3</sup>, Fred R. Musser<sup>2</sup> and Trent Irby<sup>2</sup>, <sup>1</sup>Mississippi State Univ., Starkville, MS, <sup>2</sup>Mississippi State Univ., Mississippi State, MS, <sup>3</sup>Mississippi State Univ., Stoneville, MS

**1:52 27** Effects of Nitrogen Fertilization on the Life History

Parameters of the Madeira Mealybug (*Phenacoccus madeirensis*) and the Molecular Composition of Its Host Plant. **Stephanie Rhodes**, sarhode@g.clemson.edu, Clemson Univ., Clemson, SC

**2:04 28** An IPM Approach to Tarnished Plant Bug (*Lygus*

*lineolaris*) in Cotton. **Scott Graham**, sg595@msstate.edu<sup>1</sup>, Angus Catchot<sup>1</sup>, Jeff Gore<sup>2</sup>, Don Cook<sup>2</sup>, Darrin Dodds<sup>1</sup> and Fred R. Musser<sup>1</sup>, <sup>1</sup>Mississippi State Univ., Mississippi State, MS, <sup>2</sup>Mississippi State Univ., Stoneville, MS

**2:16 29** Wood Preference of *Reticulitermes virginicus* (Banks)

Using Different Experimental Designs and Units of Wood Consumption. **Tae-Young Lee**, ojunim91@uga.edu, Univ. of Georgia, Athens, GA

**2:28 30** Fitness Tradeoffs Induced By Nymphal Diet and Annual Generations in Kudzu Bug (Hemiptera: Plataspidae).

**James Murphy**, jtmurph@uga.edu, Univ. of Georgia, Athens, GA

**2:40 31** Ovary Ecdysteroidogenic Hormone Stimulates Follicle Cell Proliferation Independently of the Insulin Receptor in

*Aedes aegypti* Ovaries. **Melissa Mattee**, mmattee@uga.edu, Michael R. Strand and Mark R. Brown, Univ. of Georgia, Athens, GA

**2:52 Break**

**3:15 32** Value of Neonicotinoid Seed Treatments in Mid-South Row Crops. **John North**, jhn39@msstate.edu<sup>1</sup>, Angus Catchot<sup>1</sup>, Jeff Gore<sup>2</sup>, Don Cook<sup>2</sup>, Darrin Dodds<sup>1</sup> and Fred R. Musser<sup>1</sup>,

<sup>1</sup>Mississippi State Univ., Mississippi State, MS,

<sup>2</sup>Mississippi State Univ., Stoneville, MS

**3:27 33** Insecticide Regimes for the Control of *Frankliniella* thrips in Central Florida Strawberry. **Jeffrey Cluever**,

jcluever@ufl.edu<sup>1</sup>, Hugh A. Smith<sup>1</sup> and John L Capinera<sup>2</sup>,

<sup>1</sup>Univ. of Florida, Wimauma, FL, <sup>2</sup>University of Florida, Gainesville, FL

# Monday, 16 March

## PH.D. STUDENT ORAL PRESENTATION COMPETITION I

1:40PM – 3:55

Magnolia F

### Moderators:

Robert Wiedenmann and Tim Kring

- 1:40 34** Dispersal Patterns of Ambrosia Beetles (Coleoptera: Curculionidae: Scolytinae) from Peripheral Habitats into Tree Nurseries. **Chris Werle**, chris.werle@ars.usda.gov<sup>1</sup>, Michael E. Reding<sup>2</sup>, Blair Sampson<sup>3</sup> and John J. Adamczyk<sup>3</sup>, <sup>1</sup>Louisiana State Univ., Baton Rouge, LA, <sup>2</sup>USDA - ARS, Wooster, OH, <sup>3</sup>USDA - ARS, Poplarville, MS
- 1:52 35** Insecticide Assays and Detoxification Enzyme Comparisons of Populations of Mississippi *Lygus lineolaris*. **Daniel Fleming**, def18@msstate.edu, Natraj Krishnan and Fred R. Musser, Mississippi State Univ., Mississippi State, MS
- 2:04 36** Oviposition Preference of Sweetpotato Weevil on Three Sweetpotato Varieties. **Jie Chen**, jchen31@tigers.lsu.edu<sup>1</sup>, Jeffrey A. Davis<sup>1</sup>, Michael J. Stout<sup>1</sup>, M. J. Murray<sup>1</sup>, D. R. LaBonte<sup>2</sup> and Julien M. Beuzelin<sup>3</sup>, <sup>1</sup>Louisiana State Univ., Baton Rouge, LA, <sup>2</sup>Louisiana State Univ. AgCenter, Baton Rouge, LA, <sup>3</sup>Louisiana State Univ., Alexandria, LA
- 2:16 37** First Report of a Mermithid Nematode Infecting the Invasive *Megacopta cribraria* (Hemiptera: Plataspidae). **Francesca Stubbins**, sstubbi@clemson.edu<sup>1</sup>, Paula Agudelo<sup>2</sup>, Francis Reay-Jones<sup>3</sup> and Jeremy K. Greene<sup>1</sup>, <sup>1</sup>Clemson Univ., Blackville, SC, <sup>2</sup>Clemson Univ., Clemson, SC, <sup>3</sup>Clemson Univ., Florence, SC
- 2:28 38** Imidacloprid Treatments to Combat Hemlock Woolly Adelgid: A Metabolite Enhances Long-Term Persistence and Efficacy. **Elizabeth P. Benton**, ebenton3@utk.edu<sup>1</sup>, R. Jesse Webster<sup>2</sup>, Carla I. Coots<sup>1</sup>, Richard Cowles<sup>3</sup>, Anthony Lagalante<sup>4</sup> and Jerome F. Grant<sup>1</sup>, <sup>1</sup>Univ. of Tennessee, Knoxville, TN, <sup>2</sup>National Parks Service, Gatlinburg, TN, <sup>3</sup>Connecticut Agricultural Experiment Station, Windsor, CT, <sup>4</sup>Villanova Univ., Villanova, PA
- 2:40 39** Study of Bacteriophages from the Gut of Formosan Subterranean Termite; *Coptotermes formosanus*. **Chinmay Tikhe**, cvtikhe@gmail.com, Louisiana State Univ., Baton Rouge, LA
- 2:52 Break**
- 3:15 40** Determining Patterns of *Drosophila suzukii* Movement and Attraction to Fermentation-Based Baits in Commercial Blackberry Fields in North Carolina. **Katharine Swoboda Bhattarai**, kaswobod@ncsu.edu and Hannah Burrack, North Carolina State Univ., Raleigh, NC

# Monday, 16 March

**3:27 41** Do Caterpillars Become More Attractive to Parasitoids after Feeding on Host Plants? Effect of Diet on the Attractiveness of *Heliothis virescens* to *Microplitis croceipes*. **Tolulope Morawo**, tom0002@auburn.edu and Henry Fadamiro, Auburn Univ., Auburn, AL

**3:39 42** Imidacloprid Tolerance in the Green Peach Aphid (*Myzus persicae*) in North Carolina: The Role of Geographic Origin and Color. **H. Alejandro Merchán**, hamercha@ncsu.edu and Hannah Burrack, North Carolina State Univ., Raleigh, NC

## PH.D. STUDENT ORAL PRESENTATION COMPETITION II

**1:40 – 3:55**  
Magnolia H

**Moderators:**  
Nick Seiter and Scott Stewart

**1:40 43** Attempts to Feed Larval *Amblyomma maculatum* Koch and *Amblyomma americanum* (L.) (Acari: Ixodidae) on Three Different Arthropod Hosts. **José Portugal III**, jsp281@msstate.edu and Jerome Goddard, Mississippi State Univ., Mississippi State, MS

**1:52 44** Effect of Deposition Aid and Herbicides on Crop Canopy Penetration of Insecticides. **Chase Samples**, CSamples@pss.msstate.edu<sup>1</sup>, Darrin Dodds<sup>1</sup>, Angus Catchot<sup>1</sup>, Greg Kruger<sup>2</sup>, Drake Copeland<sup>1</sup> and Drew Denton<sup>1</sup>, <sup>1</sup>Mississippi State Univ., Mississippi State, MS, <sup>2</sup>Univ. of Nebraska, North Platte, NE

**2:04 45** Making Sense of the *Amblyomma maculatum* Salivary Gland Proteome. **Rebekah Bullard**, rebekah.bullard@eagles.usm.edu<sup>1</sup>, Chien-Chung Chao<sup>2</sup>, Zhiwen Zhang<sup>2</sup>, Jaclyn Williams<sup>1</sup>, Khemraj Budachetri<sup>3</sup>, Deepak Kumar<sup>1</sup>, Jose Ribeiro<sup>4</sup>, Wei-Mei Ching<sup>2</sup> and Shahid Karim<sup>1</sup>, <sup>1</sup>Univ. of Southern Mississippi, Hattiesburg, MS, <sup>2</sup>Naval Medical Research Center, Silver Spring, MD, <sup>3</sup>The Univ. of Southern Mississippi, Hattiesburg, MS, <sup>4</sup>NIAID, NIH, Bethesda, MD

**2:16 46** Cotton Aphid Management in the Midsouth. **Benjamin Thrash**, bct157@msstate.edu<sup>1</sup>, Angus Catchot<sup>2</sup>, Jeff Gore<sup>3</sup>, Don Cook<sup>3</sup> and Fred R. Musser<sup>2</sup>, <sup>1</sup>Mississippi State, Starkville, MS, <sup>2</sup>Mississippi State Univ., Mississippi State, MS, <sup>3</sup>Mississippi State Univ., Stoneville, MS

**2:28 47** Residual Efficacy and Systemic Nature of the Diamide Insecticides. **Andrew Adams**, aadams@entomology.msstate.edu<sup>1</sup>, Jeff Gore<sup>2</sup>, Angus Catchot<sup>1</sup>, Don Cook<sup>2</sup> and Fred R. Musser<sup>1</sup>, <sup>1</sup>Mississippi State Univ., Mississippi State, MS, <sup>2</sup>Mississippi State Univ., Stoneville, MS

**2:40 48** Human Odorant Reception in the Common Bed Bug, *Cimex lectularius*. **Feng Liu**, fzl0009@auburn.edu and Nannan Liu, Auburn Univ., Auburn, AL

# Monday, 16 March

## 2:52 Break

**3:15 49** Oviposition Preference of the Mexican Rice Borer (Lepidoptera: Crambidae) on Conventional and Bioenergy Crops. **Matthew T. VanWeelden**, mvanwe2@lsu.edu<sup>1</sup>, Blake E. Wilson<sup>1</sup>, Julien Beuzelin<sup>1</sup>, T. E. Reagan<sup>1</sup> and M. O. Way<sup>2</sup>, <sup>1</sup>Louisiana State Univ., Baton Rouge, LA, <sup>2</sup>Texas AgriLife Extension Service (TAES), Beaumont, TX

**3:27 50** Infection by Rice Blast Makes Rice More Attractive to Fall Armyworm. **Lina Bernaola**, lbernaola@agcenter.lsu.edu, Michael Stout, Raghuwinder Singh and Cora McGehee, Louisiana State Univ., Baton Rouge, LA

**3:39 51** Silk Fly Ovipositional and Semiochemical Bioassays. **David Owens**, owensd119@ufl.edu<sup>1</sup>, Gregg Nuessly<sup>1</sup> and Peter E. A. Teal<sup>2</sup>, <sup>1</sup>Univ. of Florida, Belle Glade, FL, <sup>2</sup>USDA - ARS, Gainesville, FL

## VEGETABLE ENTOMOLOGY SYMPOSIUM

**1:40PM – 4:45**

Magnolia G

### Organizers:

Hugh A. Smith and Michelle Samuel-Foo

**1:40 52 Introduction.** **Hugh A. Smith**, hughasmith@ufl.edu, Univ. of Florida, Wimauma, FL

**1:45 53** Demystifying the Specialty Crop Pesticide Registration Process: Focus on the IR-4 Minor Crop Pest Management Program. **Michelle Samuel-Foo**, mfoo@ufl.edu, Univ. of Florida, Gainesville, FL

**2:00 54** Management of Yellowmargined Leaf Beetle, *Microtheca ochroloma* Stal (Coleoptera: Chrysomelidae) Using Turnip as a Trap Crop. **Rammohan Rao Balusu**, balusrr@auburn.edu<sup>1</sup>, Elena Rhodes<sup>2</sup>, Oscar Liburd<sup>2</sup> and Henry Fadamiro<sup>1</sup>, <sup>1</sup>Auburn Univ., Auburn, AL, <sup>2</sup>Univ. of Florida, Gainesville, FL

**2:15 55** Toxicity of Pyrethroid Insecticides to Squash Bug, *Anasa tristis* (De Geer). **Tahir Rashid**, trashid@alcorn.edu, Alcorn State Univ., Alcorn State, MS and Paul J. McLeod, Univ. of Arkansas, Fayetteville, AR

**2:30 56** Jasmonic Acid Mediates Airborne Signal Perception in Tomato Plants during Plant-Plant Communications. **Simon Zebelo**, saz0002@auburn.edu and Henry Fadamiro, Auburn Univ., Auburn, AL

**2:45 57** Effect of Host Plant Resistance on Sweetpotato Weevil Supercooling Points. **Jeffrey A. Davis**, jeffdavis@agcenter.lsu.edu and M. J. Murray, Louisiana State Univ., Baton Rouge, LA

## 3:00 Break

# Monday, 16 March

- 3:15 58** Managing Soil Insects in Sweetpotato. **Tara Smith**, tsmith@agcenter.lsu.edu, Louisiana State Univ., Chase, LA and Julien Beuzelin, Louisiana State Univ., Baton Rouge, LA
- 3:30 59** Application of *Predator-in-First* Approach in Managing Thrips and Other Key Pests in Pepper Crops. **Vivek Kumar**, vivekiari@ufl.edu<sup>1</sup>, Yingfang Xiao<sup>1</sup>, Cindy L. McKenzie<sup>2</sup> and Lance Osborne<sup>1</sup>, <sup>1</sup>Univ. of Florida, Apopka, FL, <sup>2</sup>USDA - ARS, Ft. Pierce, FL
- 3:45 60** Transmission of Onion Center Rot Causing Bacteria By Thrips and Implications for Management. **Rajagopalbabu Srinivasan**, babusri@uga.edu<sup>1</sup>, Bhabesh Dutta<sup>1</sup>, Utku Avci<sup>2</sup>, Diane E. Ullman<sup>3</sup> and Ron Gitaitis<sup>1</sup>, <sup>1</sup>Univ. of Georgia, Tifton, GA, <sup>2</sup>Univ. of Georgia, Athens, GA, <sup>3</sup>Univ. of California-Davis, Davis, CA
- 4:00 61** Assessment of Resistance in Vegetables to Whiteflies. **Alvin M. Simmons**, alvin.simmons@ars.usda.gov<sup>1</sup>, Amnon Levi<sup>2</sup> and John Coffey<sup>2</sup>, <sup>1</sup>USDA - ARS, Charleston, SC, <sup>2</sup>USDA ARS US Vegetable lab, Charleston, SC
- 4:15 62** The Role of Insecticides in Whitefly and Virus Management in Vegetables in Georgia. **David Riley**, dgr@uga.edu, Univ. of Georgia, Tifton, GA and Meredith Dempsey, Univ. of Georgia, Athens, GA
- 4:30 63** Integrated Management of *Bemisia tabaci* Biotype B in Florida Tomato. **Hugh A. Smith**, hughasmith@ufl.edu, Univ. of Florida, Wimauma, FL

## STUDENT POSTER PRESENTATION COMPETITION

**8:00 AM to 5:00 PM**  
Camellia A

**PRESENTERS AT POSTERS FROM 1:40  
TO 2:40 PM**

## M.S. STUDENT POSTER PRESENTATION COMPETITION I

- DSP1** Perturbations in Dopamine Synthesis Lead to Discrete Physiological Effects and Impact Oxidative Stress Response in *Drosophila*. **Marley Hanna**, meh324@msstate.edu<sup>1</sup>, Andrea Bednarova<sup>2</sup>, Kuntol Rakshit<sup>3</sup>, Janis O'Donnell<sup>4</sup>, Ananthbandhu Chaudhuri<sup>5</sup> and Natraj Krishnan<sup>1</sup>, <sup>1</sup>Mississippi State Univ., Mississippi State, MS, <sup>2</sup>South Bohemian Univ., Ceske Budejovice, Czech Republic, <sup>3</sup>Mayo Clinic, Rochester, MN, <sup>4</sup>Univ. of Alabama, Tuscaloosa, AL, <sup>5</sup>222 Stinson Math & Science Building, Tuscaloosa, AL

# Monday, 16 March

- DSP2** Olfactory Coding of Southern House Mosquito *Culex quinquefasciatus* to Human Odorants. **Zi Ye**, zzy0011@auburn.edu, Feng Liu and Nannan Liu, Auburn Univ., Auburn, AL
- DSP3** Elucidating the Role of Multiple Superoxide Dismutase Species in Oxidative Stress Damage and Microbial Community Homeostasis in *Amblyomma maculatum*. **Gary Crispell**, gary.crispell@eagles.usm.edu, Univ. of Southern Mississippi, Pass Christian, MS, Khemraj Budachetri, The Univ. of Southern Mississippi, Hattiesburg, MS and Shahid Karim, Univ. of Southern Mississippi, Hattiesburg, MS
- DSP4** Integrated Pest Management of Selected Vegetable Crops Using Best Management Practices in North Florida. **Tavia Gordon**, taviagordon@yahoo.com, Muhammad Haseeb and Lambert Kanga, Florida A&M Univ., Tallahassee, FL
- DSP5** Geranium Intoxication and Consequence on Detoxification Enzymes in a Polyphagous Scarab, *Popillia japonica* Newman. **Adekunle Adesanya**, awa0004@tigermail.auburn.edu, David Held and Nannan Liu, Auburn Univ., Auburn, AL
- DSP6** Kudzu Bug in Eastern Tennessee: What's Going on? **Kadie Britt**, kbritt5@vols.utk.edu<sup>1</sup>, Jerome F. Grant<sup>1</sup>, Scott Stewart<sup>2</sup> and Steve D. Powell<sup>3</sup>, <sup>1</sup>Univ. of Tennessee, Knoxville, TN, <sup>2</sup>Univ. of Tennessee, Jackson, TN, <sup>3</sup>Tennessee Dept. of Agriculture, Nashville, TN

## M.S. STUDENT POSTER PRESENTATION COMPETITION II

- DSP7** Development of Pest Management Strategies for the Spotted Wing Drosophila, *Drosophila suzukii* (Diptera: Drosophilidae). **Dasia Harmon**, dasiaharmon@yahoo.com, Muhammad Haseeb and Lambert Kanga, Florida A&M Univ., Tallahassee, FL
- DSP8** Infectivity of Local Strains of the Insect Pathogen *Nomuraea Rileyi* to Fall Armyworm, *Spodoptera frugiperda*. **Diego Camacho-Ponce**, diegoponce01@hotmail.com, Denisse Ramirez-Rodriguez and Sergio Sanchez-Peña, Universidad Autónoma Agraria Antonio Narro, Saltillo, Mexico
- DSP9** Endophytic Inoculation and Growth of *Metarhizium brunneum* in Wheat, and Lack of Effect on Bird Cherry-Oat Aphid, *Rhopalosiphum padi*. **Karla Cruz-Aldaco**, aldacokarla@gmail.com, Denisse Ramirez-Rodriguez and Sergio Sanchez-Peña, Universidad Autónoma Agraria Antonio Narro, Saltillo, Mexico
- DSP10** Exploring Floral Preferences of Insect Flower Visitors. **Bethany Harris**, bah5191@uga.edu and S. Kristine Braman, Univ. of Georgia, Griffin, GA

# Monday, 16 March

**DSP11** Identification of Microsatellite Alleles for Population Genetics Study of Invasive Soybean Pentatomid, *Piezodorus guildinii* (Westwood). **Hannah Shult**, hshult1@lsu.edu<sup>1</sup>, Jeffrey A. Davis<sup>1</sup> and Claudia Husseneder<sup>2</sup>, <sup>1</sup>Louisiana State Univ., Baton Rouge, LA, <sup>2</sup>Louisiana State Univ. AgCenter, Baton Rouge, LA

**DSP12** A Preliminary Revision of the Genus *Epitrix* Foudras (Coleoptera: Chrysomelidae: Galerucinae: Alticini) in America North of Mexico. **Anthony Deczynski**, adeczyn@g.clemson.edu, Clemson Univ., Clemson, SC

## PH.D STUDENT POSTER PRESENTATION COMPETITION I

**DSP13** Seasonality and Distribution of Immature *Amblyomma maculatum* (Acari: Ixodidae) in Mississippi: A Review and New Records. **José Portugal III**, jsp281@msstate.edu and Jerome Goddard, Mississippi State Univ., Mississippi State, MS

**DSP14** Determining Suburban Adult Mosquito Diversity through Various Sampling Techniques. **Chris J. Holderman**, chrish2@ufl.edu<sup>1</sup>, Salvador Gezan<sup>1</sup>, C. Roxanne Connelly<sup>2</sup> and Phillip E. Kaufman<sup>1</sup>, <sup>1</sup>Univ. of Florida, Gainesville, FL, <sup>2</sup>Univ. of Florida, Vero Beach, FL

**DSP15** Efficacy of Slow Acting Chitin Synthesis Inhibitor Baits on *Coptotermes formosanus* (Isoptera:Rhinotermitidae) in Linear Foraging Arenas. **Garima Kakkar**, garimaiari@ufl.edu, FLREC, UF-IFAS, Davie, FL and Nan-Yao Su, Univ. of Florida, Davie, FL

**DSP16** Comparative Effects of 20-Hydroxyecdysone and Noviflumuron Against the Formosan Subterranean Termite. **Lucas Carnohan**, carnohanl@ufl.edu, Univ. of Florida REC, Davie, FL and Nan-Yao Su, Univ. of Florida, Davie, FL

**DSP17** A Relative Resistance Ratio for Evaluation of Stem Borer (Lepidoptera: Crambidae) Susceptibility Among Sugarcane Cultivars. **Blake E. Wilson**, bwils26@lsu.edu<sup>1</sup>, Matthew T. VanWeelden<sup>1</sup>, J.M. Beuzelin<sup>2</sup>, T.E. Reagan<sup>3</sup>, M.O. Way<sup>4</sup> and W.H. White<sup>5</sup>, <sup>1</sup>Louisiana State Univ., Baton Rouge, LA, <sup>2</sup>LSU AgCenter, Baton Rouge, LA, <sup>3</sup>Louisiana State University, Baton Rouge, LA, <sup>4</sup>Texas A&M Univ., Beaumont, TX, <sup>5</sup>USDA-ARS, Houma, LA

**DSP18** Orientation and Colonization Preference of Adult *Megacopta cribraria* (Hemiptera: Plataspidae) to Soybean Development Stages. **Liu Yang**, lzy0017@auburn.edu and Xing Ping Hu, Auburn Univ., Auburn, AL

**DSP19** Impacts of Virus Infected Soybean and Cowpea on Soybean Looper and Fall Armyworm Larval Weight Gain. **Sunil Paudel**, spaude2@tigers.lsu.edu and Jeffrey A. Davis, Louisiana State Univ., Baton Rouge, LA

# Monday, 16 March

- DSP20** Supercooling Capacity of Kudzu Bug (*Megacopta cribraria*). **Anup Bastola**, bastola.anup@gmail.com, Louisiana State Univ. AgCenter, Baton Rouge, LA and Jeffrey A. Davis, Louisiana State Univ., Baton Rouge, LA

## PH.D. STUDENT POSTER PRESENTATION COMPETITION II

- DSP21** Abundance of Bagrada Bug, *Bagrada hilaris*, on Weeds and Preference for Selected Weeds and Crops in the Brassicaceae in Saltillo, Mexico. **Reyna Torres-Acosta**, rita\_taz84@hotmail.com, Veronica Hernandez-Hernandez, Marco Arredondo-Perez, Alonso Yañez-Amaro and Sergio Sanchez-Peña, Universidad Autónoma Agraria Antonio Narro, Saltillo, Mexico
- DSP22** Response of Southern Green Stink Bug and Redbanded Stink Bug (Hemiptera: Pentatomidae) to Spinosad. **Kukuh Hernowo**, KHernowo@agcenter.lsu.edu and Jeffrey A. Davis, Louisiana State Univ., Baton Rouge, LA
- DSP23** Effect of Using Early-Planted Soybeans as a Trap Crop for *Megacopta cribraria* in Commercial Soybeans. **Alejandro Del Pozo**, aidelpoz@ncsu.edu<sup>1</sup>, Dominic Reisig<sup>2</sup>, Clyde Sorenson<sup>1</sup> and Jack Bachelor<sup>1</sup>, <sup>1</sup>North Carolina State Univ., Raleigh, NC, <sup>2</sup>North Carolina State Univ., Plymouth, NC
- DSP24** Larval Survival and Plant Injury of Cry1A.105-Selected Fall Armyworm on Transgenic Corn Containing Single or Pyramided Bt Genes. **Ying Niu**, yniu@agcenter.lsu.edu<sup>1</sup>, Graham P. Head<sup>2</sup>, Fei Yang<sup>1</sup>, Guoqing Yang<sup>1</sup> and Fangneng Huang<sup>1</sup>, <sup>1</sup>Louisiana State Univ., Baton Rouge, LA, <sup>2</sup>Monsanto Company, St. Louis, MO
- DSP25** *Beauveria bassiana* Ingested As Endophyte in Corn Is Present in the Gut, but Lacked Infectivity Against Larval Fall Armyworm (*Spodoptera frugiperda*). **Denisse Ramirez-Rodriguez**, dramirez123@gmail.com, J. Irving Monjaras and Sergio Sanchez-Peña, Universidad Autónoma Agraria Antonio Narro, Saltillo, Mexico
- DSP26** Insecticide Bioassays Against Florida's Most Destructive Sweet Corn Pests. **David Owens**, owensd119@ufl.edu and Gregg Nuessly, Univ. of Florida, Belle Glade, FL
- DSP27** A Taxonomic Review of *Bactridium* Leconte (Coleoptera: Monotomidae) Occurring in America, North of Mexico. **Thomas McElrath**, tmcelrat@uga.edu and Joseph V. McHugh, Univ. of Georgia, Athens, GA
- DSP28** Life History of Sugarcane Aphid (*Melanaphis sacchari*) on Different Potential Hosts. **Monique de Souza**, MDeSouza@agcenter.lsu.edu and Jeffrey A. Davis, Louisiana State Univ., Baton Rouge, LA



# Monday, 16 March

## UNDERGRADUATE STUDENT POSTER PRESENTATION COMPETITION

- DSP29** Brown Dog Tick Management: Crack and Crevice Dust Treatments for IPM. **Brooke Cantrell**, belisec@yahoo.com and Emma N. I. Weeks, Univ. of Florida, Gainesville, FL
- DSP30** Impact of Mutation in Odor Receptor (Or42a) on the Circadian Locomotor Activity Rhythm of *Drosophila melanogaster*. **Breanna Lyle**, bl334@msstate.edu, John Guyton and Natraj Krishnan, Mississippi State Univ., Mississippi State, MS
- DSP31** Entomopathogenic Fungal Infection and Nymph Production in Bird Cherry-Oat Aphid, *Rhopalosiphum padi*. **Claudia Duarte-Martinez**, azul\_pandalandia@hotmail.com, Silvia De Leon-Garza, Esmeralda Gonzalez-Gallegos, Karla Cruz-Aldaco and Sergio Sanchez-Peña, Universidad Autónoma Agraria Antonio Narro, Saltillo, Mexico
- DSP32** Effect of Repeated Applications of Entomopathogenic Fungi on Whitefly Populations in the Greenhouse. **Carmen Nieto-Vazquez**, sule\_abril@hotmail.com, Dulce Lara-Villanueva and Sergio Sanchez-Peña, Universidad Autónoma Agraria Antonio Narro, Saltillo, Mexico
- DSP33** Shifting Phenologies of Agriculturally Important Native Bees over Five-Years: Effect of Fluctuating Spring Conditions on Emergence, Abundance and Overall Community Richness. **Nicholas Stewart**, nstewart@ggc.edu and Mark Schlueter, Georgia Gwinnett College, Lawrenceville, GA
- DSP34** A Survey of Hoverfly (Family Syrphidae) Diversity and Abundance in North Georgia. **Catherine Schlueter**, CGSCHL1002@ung.edu, Univ. of North Georgia, Oakwood, GA and Mark Schlueter, Georgia Gwinnett College, Lawrenceville, GA
- DSP35** Nesting Habits of Non-Native and Native Mason Bee Species (*Osmia species*) in North Georgia Apple Orchards. **Peter Schlueter**, pmschl8466@ung.edu<sup>1</sup>, Nicholas Stewart<sup>2</sup> and Mark Schlueter<sup>2</sup>, <sup>1</sup>Univ. of North Georgia, Oakwood, GA, <sup>2</sup>Georgia Gwinnett College, Lawrenceville, GA

**TAKE DOWN STUDENT POSTERS**  
**5:00 – 7:00**

## Monday, 16 March

### LINNAEAN GAMES, FINAL ROUND

**5:00 – 7:00**  
Magnolia A

### SUBMITTED POSTER SET UP

**7:00 – 10:00**  
Camellia A

### MONDAY NIGHT RECEPTION

**7:30 – 9:00**  
Azalea

## Tuesday, 17 March

<b>7:00 AM-3:30</b>	<b>Audiovisual</b> <i>Gardenia</i>
<b>7:00 AM-5:00</b>	<b>Job Placement</b> <i>Gardenia</i>
<b>7:00 AM-12:00</b>	<b>Registration</b> <i>Foyer-Magnolia</i>
<b>7:00 AM-8:00</b>	<b>Past Presidents Breakfast</b>
<b>7:00 AM-8:00</b>	<b>General Poster Set Up</b> <i>Camellia A</i>
<b>8:00 AM-5:00</b>	<b>General Poster Presentations</b> <i>Camellia A</i>
<b>8:00 AM-10:55</b>	<b>Student Symposium-Rising Issues in Biological Control</b> <i>Magnolia F</i>
<b>8:00 AM - 10:50</b>	<b>Urban Symposium-Notorious recent urban insect invaders in the Southeastern US - where are they now?</b> <i>Magnolia H</i>
<b>8:00 AM - 11:10</b>	<b>Emergence of the Sugarcane Aphid, <i>Melanaphis sacchari</i>, as a Serious Threat to Grain Sorghum Production - Symposium</b> <i>Magnolia G</i>
<b>10:15 AM-10:30</b>	<b>Break</b> <i>Foyer-Magnolia</i>

# Tuesday, 17 March

<b>12:00 PM-1:30</b>	<b>Awards Luncheon and Photo Salon</b> <i>Magnolia B, C, D</i>
<b>1:40 PM-4:05</b>	<b>Contributed Papers I</b> <i>Magnolia F</i>
<b>1:40 PM-4:40</b>	<b>Contributed Papers II</b> <i>Magnolia G</i>
<b>1:40 PM-4:15</b>	<b>Contributed Papers III</b> <i>Magnolia H</i>
<b>2:30 PM-3:30</b>	<b>Poster Presenters at Display Presentation</b> <i>Camellia A</i>
<b>3:00 PM-3:15</b>	<b>Break</b> <i>Foyer-Magnolia</i>
<b>5:00 PM-6:30</b>	<b>Final Business Meeting</b> <i>Magnolia H</i>
<b>3:30 PM-6:00</b>	<b>Submitted Poster Removal</b> <i>Camellia A</i>

## URBAN SYMPOSIUM

### Notorious Recent Urban Insect Invaders in the Southeastern US – Where Are They Now?

**8:00 – 10:50**

**Magnolia H**

#### **Organizers and Moderators:**

**Ellen Thoms and Joe Eger**

**8:00 64 Introduction.** **Joe Eger**, jeeger@dow.com,  
Dow, Tampa, FL

**8:05 65** Ant Invaders: Past, Present, and Future. **Daniel R. Suiter**,  
dsuiter@uga.edu, Univ. of Georgia, Griffin, GA

**8:25 66** Tawny Crazy Ant (*Nylanderia fulva*): One More in a Long  
History of Invasive Pest Ants. **Philip G. Koehler**,  
pgk@ufl.edu, Univ. of Florida, Gainesville, FL

**8:45 67** The Bed Bug Pandemic a Decade of Resurgence.  
**Benjamin A Hottel**, bhottel@ufl.edu, Univ. of Florida,  
Gainesville, FL

**9:05 68** The Kudzu Bug Experience in the Southeastern United  
States. **Wayne Gardner**, wgardner@uga.edu, Univ. of  
Georgia, Griffin, GA

# Tuesday, 17 March

**9:25 69** Lessons from the Front Lines on Management of the Africanized Honey Bee. **Jon Simkins**,  
Jon.Simkins@InsectIQ.com, Insect IQ Inc., Tampa, FL

**9:45 70** An Update on the Eradication of the Conehead Termite, *Nasutitermes corniger*. **Michael Page**,  
Michael.Page@FreshFromFlorida.com, Florida Dept. of Agriculture and Consumer Services, Tallahassee, FL and Susan Alspach, Florida Dept. of Agriculture and Consumer Services, Gainesville, FL

**10:05 Break**

**10:30 71** When Two of the Most Destructive Termite Species, *Coptotermes formosanus* and *C. gestroi*, Meet. **Nan-Yao Su**, nysu@ufl.edu and Thomas Chouvinc, Univ. of Florida, Davie, FL

## STUDENT SYMPOSIUM Rising Issues in Biological Control

**8:00 – 10:55**  
Magnolia F

**Organizers and Moderators:**  
Jessica Hartshorn, Tommy McElrath, and  
Collin Funaro

**8:00 72 Introduction.** **Jessica Hartshorn**, jhartsho@uark.edu, Univ. of Arkansas, Fayetteville, AR

**8:05 73** Response of *Diaeretiella rapae* (M'Intosh) (Hymenoptera: Braconidae) to Host and/or Host Plant Semiochemicals. **Beth Ferguson**, mef005@email.uark.edu, Univ. of Arkansas, Fayetteville, AR

**8:30 74** *Megacopta cribraria*; Will Anything Eat the Bug That Eats the Plant That Ate the South? **Joni L. Blount**, jonilb@uga.edu, Univ. of Georgia, Griffin, GA and Walker A. Jones, USDA - ARS, Stoneville, MS

**8:55 75** The Potential for Native Nematodes to Control the Non-Native Wood Wasp *Sirex noctilio* f. (Hymenoptera: Siricidae). **Jessica Hartshorn**, jhartsho@uark.edu, Larry D. Galligan and Fred M. Stephen, Univ. of Arkansas, Fayetteville, AR

**9:20 76** Biological Control of Invasive Ambrosia Beetles: A Foray into the Challenges, Opportunities, and Alternatives. **John P. Formby**, jpf9@msstate.edu, Mississippi State Univ., Mississippi State, MS

**9:45 77** Urban Warming Is Associated with Reduced Biological Control of a Key Pest on Street Trees. **Emily K. Meineke**, emily.meineke@gmail.com<sup>1</sup>, Elsa Youngsteadt<sup>1</sup>, Robert R. Dunn<sup>1</sup> and Steven D. Frank<sup>2</sup>, <sup>1</sup>North Carolina State Univ., Raleigh, NC, <sup>2</sup>Univ. of Maryland, College Park, MD

**10:10 Break**

**Tuesday, 17 March**

**Emergence of the Sugarcane Aphid,  
*Melanaphis sacchari*, as a Serious  
Threat to Grain Sorghum Production -  
Symposium**

**8:00 – 11:10**

**Magnolia G**

**Organizers and Moderators:**

**Nick Seiter**

**8:00 79 Introduction. Nicholas Seiter**, nseiter@uaex.edu, Univ. of Arkansas, Monticello, AR

**8:05 80** Experiences with Sugarcane Aphid, *Melanaphis sacchari*, in Mississippi Grain Sorghum: What We've Learned. **Angus Catchot**, acatchot@entomology.msstate.edu<sup>1</sup>, Fred R. Musser<sup>1</sup>, Jeff Gore<sup>2</sup> and Don Cook<sup>2</sup>, <sup>1</sup>Mississippi State Univ., Mississippi State, MS, <sup>2</sup>Mississippi State Univ., Stoneville, MS

**8:25 81** A Consultant's Perspective on White Sugarcane Aphid in Milo. **Hank Jones**, hankcjag@gmail.com, C & J Ag Consulting, Pioneer, LA

**8:45 82** Sampling Strategies and Economic Thresholds for Sugarcane Aphid on Grain Sorghum. **Michael Brewer**, mjbrewer@ag.tamu.edu, Texas A&M Univ., Corpus Christi, TX and David L. Kerns, Louisiana State Univ., Winnsboro, LA

**9:05 83** Experiences with the Sugarcane Aphid as a Pest of Sugarcane in Louisiana. **Julien M. Beuzelin**, jbeuzelin@agcenter.lsu.edu<sup>1</sup>, W.H. White<sup>2</sup>, Matthew T. VanWeelden<sup>3</sup>, Blake E. Wilson<sup>3</sup> and T. E. Reagan<sup>3</sup>, <sup>1</sup>Louisiana State Univ., Alexandria, LA, <sup>2</sup>USDA-ARS, Houma, LA, <sup>3</sup>Louisiana State Univ., Baton Rouge, LA

**9:25 84** An Industry Perspective on Use of Transform Insecticide for Sugarcane Aphid Management in Sorghum. **Amanda Jacobson**, ajjacobson@dow.com<sup>1</sup>, Mike Lovelace<sup>2</sup>, Gary D. Thompson<sup>3</sup>, Ryan Viator<sup>4</sup>, Larry Walton<sup>5</sup> and Melissa Siebert<sup>1</sup>, <sup>1</sup>Dow AgroSciences, Greenville, MS, <sup>2</sup>Dow AgroSciences, Lubbock, TX, <sup>3</sup>Dow AgroSciences, Omaha, AR, <sup>4</sup>Dow AgroSciences, Houma, LA, <sup>5</sup>Dow AgroSciences, Tupelo, MS

**9:45 85** Hosts and Host-Plant Resistance in Sorghum to the Sugarcane Aphid. **J. Scott Armstrong**, scott.armstrong@ars.usda.gov, USDA-ARS, Stillwater, OK, Gary C. Peterson, Texas A&M Univ., Lubbock, TX and William Rooney, Texas A&M Univ., College Station, TX

**10:05 Break**

## Tuesday, 17 March

**10:30 86** Impacts of Sugarcane Aphid in Grain Sorghum: Year One in Arkansas. **Nicholas Seiter**, nseiter@uaex.edu, Univ. of Arkansas, Monticello, AR, Gus Lorenz, Univ. of Arkansas, Lonoke, AR and Glenn Studebaker, Univ. of Arkansas, Keiser, AR

**10:50 87** Sugarcane Aphid in Sorghum: Experiences in Management and Future Needs. **David L. Kerns**, dkerns@agcenter.lsu.edu<sup>1</sup>, Sebe Brown<sup>1</sup> and Michael Brewer<sup>2</sup>, <sup>1</sup>Louisiana State Univ., Winnsboro, LA, <sup>2</sup>Texas A&M Univ., Corpus Christi, TX

### AWARDS LUNCHEON AND PHOTO SALON

**12:00 – 1:30 PM**  
Magnolia B, C, D

### CONTRIBUTED PAPERS I Medical, Urban, and Veterinary Entomology; Physiology, Biochemistry, and Toxicology

**1:40PM – 4:05**  
Magnolia F

**Moderators:**  
Yu Cheng Zhu and Jeffrey Dean

**1:40 88** Mosquito Flight Phenology in Athens, GA Using Selected Surveillance Methods. **Thuy-Vi Nguyen**, tvnguyen@uga.edu, Univ. of Georgia, Athens, GA

**1:52 89** Chemical Ecology of the Brown Dog Tick, *Rhipicephalus sanguineus* and Response to Dog-Derived Kairomones. **Emma N. I. Weeks**, eniweeks@ufl.edu<sup>1</sup>, Sandra A. Allan<sup>2</sup>, Brooke Cantrell<sup>1</sup> and Phillip E. Kaufman<sup>1</sup>, <sup>1</sup>Univ. of Florida, Gainesville, FL, <sup>2</sup>USDA-ARS-CMAVE, Gainesville, FL

**2:04 90** Ethanol Intolerance in Adult and Immature Spotted-Wing Drosophila, *Drosophila suzukii* Mat. (Diptera: Drosophilidae) and Implications for Control. **Blair Sampson**, blair.sampson@ars.usda.gov<sup>1</sup>, Chris Werle<sup>2</sup> and John J. Adamczyk<sup>1</sup>, <sup>1</sup>USDA - ARS, Poplarville, MS, <sup>2</sup>Louisiana State Univ., Baton Rouge, LA

**2:16 91** Measuring Particle Ingestion in Black Fly (Diptera: Simuliidae) Larvae Using a Spectrophotometric Technique. **Joseph P. Iburg**, jpiburg@gmail.com, Univ. of Georgia, Athens, GA

**2:28 92** Spray Toxicity and Risk Assessment of 42 Commonly Used Pesticides to Honey Bees. **Yu Cheng Zhu**, YC.Zhu@ARS.USDA.GOV, USDA-ARS Jamie Whitten Delta State Research Center, Stoneville, MS, John J. Adamczyk, USDA - ARS, Poplarville, MS and Randall Luttrell, USDA - ARS, Stoneville, MS

## Tuesday, 17 March

**2:40 93** Characterization of Noctilisin, a Heat-Stable Glycopeptide from *Sirex nocilio* (F.) Venom That Causes Needle Wilt in Pines. John Bordeaux, Univ. of Georgia, Athens, GA and **Jeffrey Dean**, jeffdean@bch.msstate.edu, Mississippi State Univ., Mississippi State, MS

### 2:52 Break

**3:15 94** Depletion of Tick Thioredoxin Reductase Attenuates the Native Tick Microbiota. **Khemraj Budachetri**, khem.bc@eagles.usm.edu, The Univ. of Southern Mississippi, Hattiesburg, MS and Shahid Karim, Univ. of Southern Mississippi, Hattiesburg, MS

**3:27 95** Elucidating the Role of Reprolysin Metalloproteases in *Amblyomma americanum*. **Jaclyn Williams**, jaclyn.williams@eagles.usm.edu and Shahid Karim, Univ. of Southern Mississippi, Hattiesburg, MS

**3:39 96** Does Diatomaceous Earth Show Promise for Controlling Darkling Beetles in Broiler Houses? **Nancy Hinkle**, nhinkle@uga.edu<sup>1</sup>, Brent Phelan<sup>2</sup> and Annie Rich<sup>2</sup>, <sup>1</sup>Univ. of Georgia, Athens, GA, <sup>2</sup>Univ. of Georgia, Athens, GA

**3:51 97** Effect of an Indigenous Nigeria Rice Variety on Tolerance of *Sitophilus oryzae* Strains to Insecticide. **Olajire Gbaye**, gbayejire@yahoo.com, Federal Univ. of Technology, Akure, Nigeria and Muyideen Folorunsho, Federal Univ. of Technology Akure, Akure, Nigeria

## CONTRIBUTED PAPERS II

**P-IE – IPM; P-IE – Resistance Management;  
P-IE – Transgenic Plants**

**1:40PM – 4:40**

Magnolia G

**Moderators:**

Sebe Brown and Jarrod Hardke

**1:40 98** Incorporation of Transform Insecticide in Tarnished Plant Bug (*Lygus lineolaris*) Programs: Efficacy, Yield and Economics in Large Plot Demonstration Trials. **Larry Walton**, lwalton@dow.com, Dow AgroSciences, Tupelo, MS, Melissa Siebert, Dow AgroSciences, Greenville, MS, Robert Haygood, Dow AgroSciences, Indianapolis, IN, Gary D. Thompson, Dow AgroSciences, Omaha, AR and Ryan Viator, Dow AgroSciences, Houma, LA

**1:52 99** Singles, Mixes, or Sequential: Foliar Application Strategies for Plant Bugs in Tennessee. **Sandy Steckel**, ssteckel@utk.edu and Scott Stewart, Univ. of Tennessee, Jackson, TN

# Tuesday, 17 March

- 2:04 100** An Update on Research Related to Pesticide Impacts on Pollinator Health. **Scott Stewart**, sdstewart@utk.edu<sup>1</sup>, Gus Lorenz<sup>2</sup>, Angus Catchot<sup>3</sup>, Jeff Gore<sup>4</sup>, Don Cook<sup>4</sup>, Adam Whalen<sup>3</sup>, Heather Kelly<sup>1</sup> and John Skinner<sup>5</sup>, <sup>1</sup>Univ. of Tennessee, Jackson, TN, <sup>2</sup>Univ. of Arkansas, Lonoke, AR, <sup>3</sup>Mississippi State Univ., Mississippi State, MS, <sup>4</sup>Mississippi State Univ., Stoneville, MS, <sup>5</sup>The Univ. of Tennessee, Knoxville, TN
- 2:16 101** The Economic and Societal Benefits of Neonicotinoids in North America. **Caydee Savinelli**, caydee.savinelli@syngenta.com, Syngenta Plant Protection, Greensboro, NC
- 2:28 102** Rice Insecticide Seed Treatments: Do They Have Value to the Rice Producer? **Gus Lorenz**, glorenz@uaex.edu<sup>1</sup>, Jarrod T. Hardke<sup>2</sup>, Nicki Taillon<sup>1</sup>, Andrew Plummer<sup>1</sup> and Michael Chaney<sup>1</sup>, <sup>1</sup>Univ. of Arkansas, Lonoke, AR, <sup>2</sup>Univ. of Arkansas, Stuttgart, AR
- 2:40 103** Revisiting Rice Stink Bug Thresholds in Arkansas. **Jarrold T. Hardke**, jhardke@uaex.edu<sup>1</sup>, Gus Lorenz<sup>2</sup>, Nicki Taillon<sup>2</sup> and Andrew Plummer<sup>2</sup>, <sup>1</sup>Univ. of Arkansas, Stuttgart, AR, <sup>2</sup>Univ. of Arkansas, Lonoke, AR
- 2:52 Break**
- 3:15 104** Effectiveness of Bt Cotton Towards Bollworms and Benefit of Supplemental Oversprays. **David L. Kerns**, dkerns@agcenter.lsu.edu<sup>1</sup>, Gus Lorenz<sup>2</sup>, Jeff Gore<sup>3</sup>, Angus Catchot<sup>4</sup>, Glenn Studebaker<sup>5</sup>, Scott Stewart<sup>6</sup>, Don Cook<sup>3</sup> and Sebe Brown<sup>1</sup>, <sup>1</sup>Louisiana State Univ., Winnsboro, LA, <sup>2</sup>Univ. of Arkansas, Lonoke, AR, <sup>3</sup>Mississippi State Univ., Stoneville, MS, <sup>4</sup>Mississippi State Univ., Mississippi State, MS, <sup>5</sup>Univ. of Arkansas, Keiser, AR, <sup>6</sup>Univ. of Tennessee, Jackson, TN
- 3:27 105** Square Feeding By Bollworm in Dual Gene Cottons: Reason for Concern? **Jeff Gore**, jgore@drec.msstate.edu<sup>1</sup>, Gus Lorenz<sup>2</sup> and Don Cook<sup>1</sup>, <sup>1</sup>Mississippi State Univ., Stoneville, MS, <sup>2</sup>Univ. of Arkansas, Lonoke, AR
- 3:39 106** Field Populations of *Helicoverpa zea* Are Developing Resistance to Bt in Corn. **Dominic Reisig**, dominic\_reisig@ncsu.edu, North Carolina State Univ., Plymouth, NC and Francis Reay-Jones, Clemson Univ., Florence, SC
- 3:51 107** Bollgard III Field Experiences 2014. *Helicoverpa zea*. **Daniel Pitts**, daniel.l.pitts@monsanto.com, Monsanto, Lexington, SC, John Fowler, Monsanto, St Louis, MO, Eric Blinka, Monsanto, Dyersburg, TN, Thomas Clark, Monsanto Company, Chesterfield, MO, Christopher Daves, Monsanto, Coila, MS and John Greenplate, Monsanto Company, St. Louis, MO
- 4:03 108** Results of Trials Using Heligen (*H<sub>z</sub>NPV*) to Control *H. zea* in Mid-South Row Crops - 2014. **Sophie Gulliver**, sgulliver@agbitech.com, AgBiTech Pty Ltd, Glenvale, Australia



## Tuesday, 17 March

**4:15 109** Baseline Susceptibility of Bollworm (*Helicoverpa zea*) and Tobacco Budworm (*Heliothis virescens*) Larvae to Cry1Ab and Cry2Ae Bt Proteins. **Gregory Payne**, gpayne@westga.edu<sup>1</sup>, Timothy J. Dennehy<sup>2</sup> and Christopher Sansone<sup>2</sup>, <sup>1</sup>Univ. of West Georgia, Carrollton, GA, <sup>2</sup>Bayer CropScience, Research Triangle Park, NC

**4:27 110** Susceptibility of Cry1F-Resistant Fall Armyworm, *Spodoptera frugiperda*, to Cotton Expressing Pyramided Bt Toxins. **Sebe Brown**, SBrown@agcenter.lsu.edu<sup>1</sup>, Shelby Williams<sup>1</sup>, Fangneng Huang<sup>2</sup> and David L. Kerns<sup>1</sup>, <sup>1</sup>Louisiana State Univ., Winnsboro, LA, <sup>2</sup>Louisiana State Univ., Baton Rouge, LA

### CONTRIBUTED PAPERS III P-IE – IPM; P-IE – Biocontrol; P-IE – Ecology; P-IE – Vectors of Plant Disease; P-IE – Pollination; Systematics, Evolution, and Biodiversity

**1:40 – 4:15**

Magnolia H

**Moderators:**

David Hall and JoVonn Hill

**1:40 111** Monitoring Aphids and Aphidophaga in the Pecan Tree Canopy. **James D. Dutcher**, jimdutcher@lycos.com, Univ. of Georgia, Tifton, GA

**1:52 112** Performance of *Pimenta dioica* L. Leaf Extract as an Attractant for *Bactrocera invadens* in Sweet Orange Plantations in Ghana. **Clement Akotsen-Mensah**, cakotsen@ug.edu.gh, Univ. of Ghana, Accra, Ghana

**2:04 113** Efficacy of Apta Insecticide Against Citrus Pests in Florida and Texas. **Scott W. Ludwig**, sludwig@nichino.net, Nichino America, Inc, Arp, TX, Botond Balogh, Nichino America, Inc, Apollo Beach, FL and James C. Adams, Nichino America, Inc, Wilmington, DE

**2:16 114** Trunk Injection of Imidacloprid for the Control of Asian Citrus Psyllid (*Diaphorina citri*). **Ki Kim**, ki@pacificaggroup.com, Florida Ag Research, Thonotosassa, FL

**2:28 115** Screening Citrus Germplasm for Resistance to Huanglongbing Disease: Inoculation Procedures. **David Hall**, David.hall@ars.usda.gov<sup>1</sup>, Ed Stover<sup>2</sup> and Kim Bowman<sup>2</sup>, <sup>1</sup>USDA - ARS, Ft. Pierce, FL, <sup>2</sup>USDA - ARS, Fort Pierce, FL

**2:40 116** Elemental Concentrations in the Frass of Saproxylic Insects: Their Potential Role in Micronutrient Cycling. **Yi-an Chen**, nynaev1@uga.edu, Univ. of Georgia, Athens, GA

# Tuesday, 17 March

## 2:52 Break

**3:15 117** Movement of *Drosophila suzukii* from Adjacent Hosts into Blueberry Plantings and Alternative Control Methods. **Oscar Liburd**, oeliburd@ufl.edu, Teresia Nyoike and Lindsay Iglesias, Univ. of Florida, Gainesville, FL

**3:27 118** Optimizing Spotted Wing *Drosophila* Management Programs in Blueberries. **Ashfaq Sial**, ashfaqsial@yahoo.com, Univ. of Georgia, Athens, GA

**3:39 119** An Assessment of Native Bee Diversity and Abundance in North Georgia Apple Orchards from 2010-2014. **Mark Schlueter**, mschluet@ggc.edu and Nicholas Stewart, Georgia Gwinnett College, Lawrenceville, GA

**3:51 120** A Comparison of Ultraviolet, Visible, and Near-Infrared Color Patterns in Lepidopterans. **Eric Butler**, ebutler@shawu.edu and Brittany Ballentine, Shaw Univ., Raleigh, NC

**4:03 121** The Ant (Hymenoptera: Formicidae) Fauna of the North American Coastal Plain. **JoVonn Hill**, jgh4@entomology.msstate.edu, Mississippi State Univ., Mississippi State, MS

## POSTER PRESENTATIONS

**8:00 AM to 5:00 PM**  
Camellia A

**Presenters at Posters from 2:40 to 3:40**

### Medical, Urban and Veterinary Entomology

**DSP36** Sanitation of Pet Bedding as a Management Tactic for Indoor Brown Dog Tick Infestations. **Emma N. I. Weeks**, eniweeks@ufl.edu, Alexis Taylor and Brooke Cantrell, Univ. of Florida, Gainesville, FL

**DSP37** Antimicrobial Properties of Nest Volatiles in Red Imported Fire Ants. **Lei Wang**, lei.wang@ars.usda.gov, College of Resource and Environment, South China Agricultural Univ., Guangzhou, China, Brad Elliot, USDA-ARS, Stoneville, MS, Xixuan Jin, Joyvio Group, Beijing, China, Ling Zeng, College of Resource and Environment, Guangzhou, China and Jian Chen, USDA, Agricultural Research Service, Stoneville, MS

### Physiology, Biochemistry and Toxicology

**DSP38** Bioassay for Estimation of Median Lethal Concentration and Doses of Several Insecticides to Control Tarnished Plant Bug in Cotton. Maribel Portilla<sup>1</sup>, Nathan Little<sup>1</sup>, **Cesar Solorzano-Torres**, Cesar.SolorzanoTorres@valent.com<sup>2</sup>, Carlos Granadino<sup>3</sup> and Randall Luttrell<sup>1</sup>, <sup>1</sup>USDA - ARS, Stoneville, MS, <sup>2</sup>Valent, Leland, MS, <sup>3</sup>ValentUSA, Chesterfield, MO

# Tuesday, 17 March

- DSP39** A Pilot Study Investigating the Effects of Sublethal Doses of Imidacloprid on Honeybee Larvae: Survival and Cleaning Behavior in Nurse Bees. **Shiala Morales**, smorales20@knights.ucf.edu, Univ. of Central Florida, Orlando, FL
- DSP40** Elucidating the Functional Role of Epithelial Dual Oxidase (Duox) in the Gulf Coast Tick, *Amblyomma maculatum*. **Virginia Meyers**, virginia.meyers@eagles.usm.edu, Univ. of Southern Mississippi, Hattiesburg, MS

## Plant-Insect Ecosystems: Biocontrol

- DSP41** Artificial Diets for *Coleomegilla maculata* (Coleoptera: Coccinellidae) Using Extracts of *Tenebrio molitor* (Coleoptera: Tenebrionidae) and Comparison with a Meridic Formulation. **M. Guadalupe Rojas**, guadalupe.rojas@ars.usda.gov and Juan Morales-Ramos, USDA - ARS, Stoneville, MS
- DSP42** Enhancing Winter Survival of the Salvinia Weevil (*Cyrtobagous salviniae*) on Giant Salvinia (*Salvinia molesta*) in North Louisiana. **Stephen Micinski**, smicinski@agcenter.lsu.edu<sup>1</sup>, Bentley Fitzpatrick<sup>1</sup>, Bobby Johnson<sup>2</sup>, Steve Williams<sup>2</sup> and Jeff Sibley<sup>3</sup>, <sup>1</sup>Louisiana State Univ. Agricultural Center, Bossier City, LA, <sup>2</sup>City of Shreveport, Shreveport, LA, <sup>3</sup>Louisiana Dept. of Wildlife and Fisheries, Minden, LA
- DSP43** Overwintering Ability of *Spathius agrili* in Tennessee. **Gregory J. Wiggins**, wiggybug@utk.edu, Jerome F. Grant, Paris L. Lambdin and Nicholas Hooie, Univ. of Tennessee, Knoxville, TN
- DSP44** Evaluation of Powdered Versus Whole Brine Shrimp Eggs Supplemented with Fatty Acid as Food for the Ladybird *Coleomegilla maculata*. **Eric Riddick**, eric.riddick@ars.usda.gov and Zhixin Wu, USDA, Agricultural Research Service, Stoneville, MS

## Plant-Insect Ecosystems: Chemical Ecology

- DSP45** Laboratory Evaluation of Novaluron and Pyriproxyfen, Insect Growth Regulators Against Late Nymphs and Young Adults of Tarnished Plant Bug on Solid Artificial Diet. Maribel Portilla<sup>1</sup>, Nathan Little<sup>1</sup>, Cesar Solorzano-Torres<sup>2</sup>, Carlos Granadino<sup>3</sup>, Randall Luttrell<sup>1</sup> and **Tabatha Nelson**, tabatha.nelson@ars.usda.gov<sup>4</sup>, <sup>1</sup>USDA - ARS, Stoneville, MS, <sup>2</sup>Valent, Leland, MS, <sup>3</sup>ValentUSA, Chesterfield, MO, <sup>4</sup>USDA-ARS, Stoneville, MS

## Plant-Insect Ecosystems: Ecology

- DSP46** Culturable Gut Microbes of a Specialist Herbivore and a Generalist Predator. Zachary Faulkner and **Evan Lampert**, Evan.lampert@ung.edu, Univ. of North Georgia, Oakwood, GA
- DSP47** Carotenoid Sequestration and Susceptibility to Natural Enemies. **Bonnie Welch**, bjwelc7168@ung.edu and Evan Lampert, Univ. of North Georgia, Oakwood, GA

# Tuesday, 17 March

- DSP48** Palatability of the Catalpa Sphinx Larva to Invertebrate Predators. **Stephanie Brandys**, sbran2872@ung.edu and Evan Lampert, Univ. of North Georgia, Oakwood, GA
- DSP49** The Impact of Wild Host Habitat on *Drosophila suzukii* (Matsumura) in Cultivated Blueberries. **Lindsay Iglesias**, liglesias@ufl.edu, Oscar Liburd and Sabine Grunwald, Univ. of Florida, Gainesville, FL
- DSP50** Life History of the Walnut Twig Beetle, *Pityophthorus juglandis*, in Eastern Tennessee. **Paris L. Lambdin**, plambdin@utk.edu<sup>1</sup>, Katheryne Nix<sup>1</sup>, Paul Merten<sup>2</sup>, Jerome F. Grant<sup>1</sup>, Dave P. Paulsen<sup>1</sup> and Gregory J. Wiggins<sup>1</sup>, <sup>1</sup>Univ. of Tennessee, Knoxville, TN, <sup>2</sup>USDA Forest Service, Asheville, NC

## Plant-Insect Ecosystems: Extension

- DSP51** Expansion of a Regional Outreach Plan - Walnut ALERT - to Slow the Movement of Thousand Cankers Disease. **Jerome F. Grant**, jgrant@utk.edu<sup>1</sup>, Frank Hale<sup>2</sup>, Alan Windham<sup>2</sup>, Paris L. Lambdin<sup>1</sup>, Renee Follum<sup>1</sup>, Gregory J. Wiggins<sup>1</sup>, Mark T. Windham<sup>1</sup> and Katheryne Nix<sup>1</sup>, <sup>1</sup>Univ. of Tennessee, Knoxville, TN, <sup>2</sup>Univ. of Tennessee, Nashville, TN

## Plant-Insect Ecosystems: IPM

- DSP52** Supplementary Control of Bollworms (*Helicoverpa zea*) in Bt and Non-Bt Cottons. **Nathan Little**, nathan.little@ars.usda.gov, K. Clint Allen, Randall Luttrell and Donny Adams, USDA - ARS, Stoneville, MS
- DSP53** Within-Population Variabilities of Heliothines in Response to Insecticide Bioassays. **K. Clint Allen**, clint.allen@ars.usda.gov, Randall Luttrell, Nathan Little and Katherine Parys, USDA - ARS, Stoneville, MS
- DSP54** Life Table Analysis of *Nezara viridula* (Heteroptera: Pentatomidae) Feeding on a Supplemented Natural Diet. **Juan Morales-Ramos**, juan.moralesramos@ars.usda.gov and M. Guadalupe Rojas, USDA - ARS, Stoneville, MS
- DSP55** Evaluation and Efficacy of Oral Biomarkers for *Lygus lineolaris* (Palisot de Beauvois). **Katherine Parys**, katherine.parys@ars.usda.gov<sup>1</sup>, Tom Mascari<sup>2</sup> and Nathan Little<sup>1</sup>, <sup>1</sup>USDA - ARS, Stoneville, MS, <sup>2</sup>Liverpool School of Tropical Medicine, Liverpool, United Kingdom
- DSP56** Management of Tarnished Plant Bug with Insecticides in NE Arkansas. **Glenn Studebaker**, gstudebaker@uaex.edu, Univ. of Arkansas Cooperative Extension Service, Keiser, AR and Logan Towles, Univ. of Arkansas, Keiser, AR
- DSP57** Blueberry Pests in Liaoning Province of China. **Yanan Zheng**, yzheng18@ncsu.edu, North Carolina State Univ., Raleigh, NC and Hannah Burrack, Univ. of California, Davis, CA

# Tuesday, 17 March

## Plant-Insect Ecosystems: Pollination

- DSP58** A Five-Year Survey of Native Bee Diversity and Abundance in North Georgia. **Mark Schlueter**, mschluet@ggc.edu and Nicholas Stewart, Georgia Gwinnett College, Lawrenceville, GA

## Plant-Insect Ecosystems: Resistance Management

- DSP59** Laboratory Evaluation of Selected Insecticides on Field-Collected Populations of Bollworm and Tobacco Budworm-2014 Update. **Gregory Payne**, gpayne@westga.edu<sup>1</sup>, Doc Padgett<sup>1</sup> and Eric Dendy<sup>2</sup>, <sup>1</sup>Univ. of West Georgia, Carrollton, GA, <sup>2</sup>Univ. of West Georgia, Carrollton, HI
- DSP60** Measurements of Tarnished Plant Bug Susceptibility to Major Insecticide Classes in the Mississippi Delta during 2014. **Kenya Dixon**, Kenya.Dixon@ARS.USDA.GOV<sup>1</sup>, Arnell Patterson<sup>2</sup>, Randall Luttrell<sup>1</sup>, Maribel Portilla<sup>1</sup> and Katherine Parys<sup>1</sup>, <sup>1</sup>USDA - ARS, Stoneville, MS, <sup>2</sup>USDA ARS SIMRU, Stoneville, MS
- DSP61** Susceptibility of *Helicoverpa zea* and *Heliothis virescens* to Commercial Formulations of *Bacillus thuringiensis* and Lyophilized Tissue from Bt Crops. **Michelle Mullen**, michelle.mullen@ars.usda.gov<sup>1</sup>, Randall Luttrell<sup>2</sup>, Nathan Little<sup>2</sup>, Omaththage P. Perera<sup>2</sup> and K. Clint Allen<sup>2</sup>, <sup>1</sup>USDA ARS, Stoneville, MS, <sup>2</sup>USDA - ARS, Stoneville, MS
- DSP62** Genetic Analysis of Two Cry1Ab-Resistant Populations of Sugarcane Borer. **Fei Yang**, fyang@agcenter.lsu.edu<sup>1</sup>, Mao Chen<sup>2</sup>, Konasale J. Anilkumar<sup>2</sup>, Brian McNulty<sup>2</sup>, Ying Niu<sup>1</sup>, Guoqing Yang<sup>1</sup>, David L. Kerns<sup>3</sup> and Fangneng Huang<sup>1</sup>, <sup>1</sup>Louisiana State Univ., Baton Rouge, LA, <sup>2</sup>Monsanto Company, Chesterfield, MO, <sup>3</sup>Louisiana State Univ., Winnsboro, LA
- DSP63** Characterization of Cry2Ab2 Resistance in *Diatraea saccharalis* (F.). **Fangneng Huang**, fhunag@agcenter.lsu.edu<sup>1</sup>, Mao Chen<sup>2</sup>, Konasale J. Anilkumar<sup>2</sup>, Brian McNulty<sup>2</sup>, Fei Yang<sup>1</sup> and Ying Niu<sup>1</sup>, <sup>1</sup>Louisiana State Univ., Baton Rouge, LA, <sup>2</sup>Monsanto Company, Chesterfield, MO
- DSP64** Cross-Resistance of Cry1A.105 Resistance in Fall Armyworm to Other Five Individual Bt Proteins. **Guoqing Yang**, GYang@agcenter.lsu.edu<sup>1</sup>, Graham P. Head<sup>2</sup>, Fei Yang<sup>1</sup>, Ying Niu<sup>1</sup> and Fangneng Huang<sup>1</sup>, <sup>1</sup>Louisiana State Univ., Baton Rouge, LA, <sup>2</sup>Monsanto Company, St. Louis,

## Systematics, Evolution, and Biodiversity

- DSP65** Evolution of Diapause Life Stage Across the Family Culicidae. **Roberta S. Engel**, roberta.s.engel@gmail.com, St. Edward's Univ., Austin, TX

## Tuesday, 17 March

- DSP66** The *Blepharicera williamsae* Alexander (Diptera: Blephariceridae) Conundrum: Two Sibling Species and a Female Holotype. **John K. Moulton**, jmoulton@utk.edu, Univ. of Tennessee, Knoxville, TN
- DSP67** Results from the Regional Identification Center of the USDA-APHIS (Raleigh Hub) for the 2014 Wood Boring Beetle Surveys, Including New County and State Records. **Jennifer Seltzer**, jls30@entomology.msstate.edu, Terence Schiefer and Richard Brown, Mississippi State Univ., Mississippi State, MS
- DSP68** The Grasshopper Fauna of Grasslands in the Southeastern United States. **JoVonn Hill**, jgh4@entomology.msstate.edu, Mississippi State Univ., Mississippi State, MS

### FINAL BUSINESS MEETING

**5:00PM – 6:30**  
**Magnolia H**

## Wednesday, 18 March

- |                      |   |
|----------------------|---|
| <b>7:00 AM-5:00</b>  | <b>Job Placement</b><br><i>Gardenia</i>   |
| <b>7:30 AM-8:00</b>  | <b>Breakfast</b>  |
| <b>8:00 AM-9:48</b>  | <b>Contributed Paper IV</b><br><i>Magnolia H</i>  |
| <b>8:00 AM-11:35</b> | <b>Turf and Ornamental Symposium</b><br><i>Magnolia E</i>   |
| <b>8:00 AM-10:15</b> | <b>Novel Molecular Approaches to Prevent Ticks and Tick-Borne Diseases Symposium</b><br><i>Magnolia F</i>     |
| <b>8:00 AM-9:20</b>  | <b>Teaching Symposium- From Pupae to Pupils: Teaching Entomology in a Changing World</b><br><i>Magnolia G</i> |
| <b>1:00PM</b>        | <b>Carnivorous Plants of Mississippi Tour</b>   |

## Wednesday, 18 March

### Teaching Symposium- From Pupae to Pupils: Teaching Entomology in a Changing World

**8:00AM – 9:20**

**Magnolia G**

#### **Organizers and Moderators:**

**Elizabeth Studer and Melissa Mattee**

**8:00 122** Teaching Teachers: A Primer on Designing a Graduate Teaching Seminar in Entomology. **Liz Studer**, [lstuder@uga.edu](mailto:lstuder@uga.edu), Univ. of Georgia, Athens, GA

**8:20 123** Experience UGA: A Program Using Insects to Bridge the Gap Between High School and College **Melissa Mattee**, [mmattee@uga.edu](mailto:mmattee@uga.edu), Univ. of Georgia, Athens, GA

**8:40 124** Teaching Entomology Internationally: Study Abroad 101. **Marianne Shockley**, [entomolo@uga.edu](mailto:entomolo@uga.edu), Univ. of Georgia, Athens, GA

**9:00 125** Using the Transformational Education and Logic Model for Extension Program Planning and Implementation. **Ayanava Majumdar**, [azm0024@auburn.edu](mailto:azm0024@auburn.edu), Alabama Cooperative Extension System, Auburn, AL

### CONTRIBUTED PAPERS IV

**P-IE – IPM; P-IE – Ecology; P-IE – Host Plant Resistance; P-IE – Migration**

**8:00AM – 9:48**

**Magnolia H**

#### **Moderators:**

**Rob Meagher and Glenn Studebaker**

**8:00 126** Sunn Hemp As a Ground Cover to Manage Fall Armyworm Populations. **Robert L. Meagher**, [rob.meagher@ars.usda.gov](mailto:rob.meagher@ars.usda.gov), USDA - ARS - CMAVE, Gainesville, FL, Rodney Nagoshi, USDA - ARS, Gainesville, FL, Shelby J. Fleischer, Pennsylvania State Univ., Univ. Park, PA and John Westbrook, USDA ARS APMRU, College Station, TX

**8:12 127** Migratory Patterns of the Fall Armyworm (*Spodoptera frugiperda*) in the Western Hemisphere. **Mirian M. Hay-Roe**, [Mirian.Hay-Roe@ars.usda.gov](mailto:Mirian.Hay-Roe@ars.usda.gov), Rodney N. Nagoshi and Robert L. Meagher, USDA - ARS - CMAVE, Gainesville, FL

# Wednesday, 18 March

- 8:24 128** Relative Longevity of Adult *Nezara viridula* (Hemiptera: Pentatomidae) in Cotton, Peanut and Soybean. **Dawn Olson**, dawn.olson@ars.usda.gov, USDA-ARS, Tifton, GA, John Ruberson, Kansas State Univ., Manhattan, KS and David A. Andow, Univ. of Minnesota, Saint Paul, MN
- 8:36 129** Effect of Planting Date and Maturity Group on Soybean Yield Response to Injury By the Kudzu Bug, *Megacopta cribraria* F. (Hemiptera: Plataspidae). **Joni L. Blount**, jonilb@uga.edu<sup>1</sup>, G. David Buntin<sup>1</sup> and Phillip M. Roberts<sup>2</sup>, <sup>1</sup>Univ. of Georgia, Griffin, GA, <sup>2</sup>Univ. of Georgia, Tifton, GA
- 8:48 130** Assessment of Insect and Bird Damage on Grain Sorghum Hybrids. **Xinzhi Ni**, xinzhi.ni@ars.usda.gov<sup>1</sup>, Michael Toews<sup>2</sup>, G. David Buntin<sup>3</sup>, Joseph Knoll<sup>4</sup> and Karen Harris-Shultz<sup>4</sup>, <sup>1</sup>USDA - ARS, Tifton, GA, <sup>2</sup>Univ. of Georgia, Tifton, GA, <sup>3</sup>Univ. of Georgia, Griffin, GA, <sup>4</sup>USDA-ARS, Tifton, GA
- 9:00 131** Sap Beetle Populations and Damage in Bt Field Corn. **G. David Buntin**, gbuntin@uga.edu, Univ. of Georgia, Griffin, GA, Xinzhi Ni, USDA - ARS, Tifton, GA and Fangneng Huang, Louisiana State Univ., Baton Rouge, LA
- 9:12 132** Within-Plant Distribution of Thrips Species in Southeastern Cotton. **Francis Reay-Jones**, freayjo@clemson.edu<sup>1</sup>, Dominic Reisig<sup>2</sup>, Jeremy K. Greene<sup>3</sup>, D. Ames Herbert<sup>4</sup>, Phillip M. Roberts<sup>5</sup> and Michael Toews<sup>5</sup>, <sup>1</sup>Clemson Univ., Florence, SC, <sup>2</sup>North Carolina State Univ., Plymouth, NC, <sup>3</sup>Clemson Univ., Blackville, SC, <sup>4</sup>Virginia Polytechnic Institute and State Univ., Blacksburg, VA, <sup>5</sup>Univ. of Georgia, Tifton, GA
- 9:24 133** Susceptibility of Tarnished Plant Bug to Select Insecticides and Development of Diagnostic Doses. **Moneen Jones**, jonesmon@missouri.edu, Univ. of Missouri, Portageville, MO
- 9:36 134** Distribution Pattern of *Frankliniella occidentalis*, *F. schultzei* and Thrips Transmitted Tospoviruses in Tomatoes and Their Management. **D. R. Seal**, dseal3@ufl.edu, M. Razzak and C.M. Sabines, Univ. of Florida-IFAS, Tropical Research and Education Center, Homestead, FL

## Novel Molecular Approaches to Prevent Ticks and Tick-Borne Diseases Symposium

8:00AM – 10:15  
Magnolia F

**Organizers and Moderators:**  
Jaclyn Williams, Rebekah Bullard, and  
Shahid Karim

**8:01 Introductory Remarks**



# Wednesday, 18 March

**8:05 135** *Borrelia burgdorferi* response to Antibiotic Treatment.  
**Monica Embers**, members@tulane.edu, Tulane National  
Primate Research Center, Covington, LA

**8:30 136** Neural-Endocrine Disruption of Tick Reproduction: New  
Perspectives and Control Approaches. **R. Michael Roe**,  
michael\_roe@ncsu.edu, North Carolina State Univ.,  
Raleigh, NC

**8:55 137** Against the Odds: Genetic Manipulation of Obligate  
Intracellular *Rickettsia*. **David Wood**,  
dowood@southalabama.edu, College of Medicine: Univ.  
of South Alabama, Mobile, AL

**9:20 138** Deciphering the Constituents of Vector Competence.  
**Kevin Macaluso**, kmacaluso@vetmed.lsu.edu, Vector-  
borne Disease Laboratories, School of Veterinary  
Medicine, Louisiana State Univ., Baton Rouge, LA

**9:45 139** Functional Genomics of Tick Selenoproteins: An  
Examination of How the Dynamics of Reactive Oxygen  
Species Affect Tick Feeding and Pathogen Movement.  
**Shahid Karim**, shahid.karim@usm.edu, Univ. of  
Southern Mississippi, Hattiesburg, MS

**10:10 Concluding Remarks**

## TURF & ORNAMENTALS SYMPOSIUM

**8:00AM – 11:35**  
Magnolia E

**Organizers and Moderators:**  
Catharine Mannion

**8:00 140** Finding a Management Tool for Bermudagrass Mite in  
Golf Courses of South Carolina. **Juang Horng Chong**,  
juanghc@clemson.edu, Clemson Univ., Florence, SC

**8:20 141** Communicating Benefits of Insects to Home  
Horticulturists. **S. Kristine Braman**, kbraman@uga.edu,  
Univ. of Georgia, Griffin, GA

**8:40 142** *Myloccerus udecimpustulas*, a Weevil That Won't Go  
Away. **Catharine M. Mannion**, cmannion@ufl.edu,  
Univ. of Florida, Homestead, FL

**9:00 143** The Scale Insect Screening Lucid® Tool for Cultivated  
Palms. **Nicole Casuso**, ncasuso@ufl.edu<sup>1</sup>, Amanda C.  
Hodges<sup>1</sup> and Greg S. Hodges<sup>2</sup>, <sup>1</sup>Univ. of Florida,  
Gainesville, FL, <sup>2</sup>Florida Dept. of Agriculture,  
Gainesville, FL

# Wednesday, 18 March

**9:20 144** The Entomopathogenic Fungus *Isaria fumosorosea* and Its Compatibility with Buprofezin: Effects on the Rugose Spiraling Whitefly *Aleurodicus rugioperculatus*. **Vivek Kumar**, vivekiari@ufl.edu<sup>1</sup>, Cindy L. McKenzie<sup>2</sup>, Pasco Avery<sup>3</sup>, Ronald D. Cave<sup>3</sup>, Antonio Francis<sup>4</sup>, Trevor Smith<sup>5</sup> and Lance Osborne<sup>1</sup>, <sup>1</sup>Univ. of Florida, Apopka, FL, <sup>2</sup>USDA - ARS, Ft. Pierce, FL, <sup>3</sup>Univ. of Florida, Ft. Pierce, FL, <sup>4</sup>Florida Dept. of Agriculture and Consumer Services (FDACS), Fort Pierce, FL, <sup>5</sup>Florida Dept. of Agriculture and Consumer Services, Gainesville, FL

**9:40 145** Efficacy of XXpire™ WG Insecticide on Ornamental Greenhouse Pests. **Anita Alexander**, alalexander@dow.com, Dow AgroSciences, Lawrenceville, GA, James Breuninger, Dow AgroSciences, Indianapolis, IN, Daniel Loughner, Dow AgroSciences, Lawrenceville, NJ and Vanelle Peterson, Dow AgroSciences LLC, Fort Collins, CO

## 10:00 Break

**10:15 146** Research to Find Alternative Nursery Treatments for the Japanese Beetle Harmonization Plan in the Event of Future Neonicotinoid Restrictions or Unavailability. **Jason B. Oliver**, joliver@tnstate.edu<sup>1</sup>, Christopher Ranger<sup>2</sup>, Karla Adesso<sup>1</sup>, Michael E. Reding<sup>3</sup>, Nadeer Youssef<sup>1</sup> and James Moyseenko<sup>4</sup>, <sup>1</sup>Tennessee State Univ., McMinnville, TN, <sup>2</sup>Rutgers Univ., Chatsworth, NJ, <sup>3</sup>USDA - ARS, Wooster, OH, <sup>4</sup>USDA-ARS, Wooster, OH

**10:35 147** Nursery Irrigation Practices and Effects on Ambrosia Beetle Damage. **Steven D. Frank**, steven\_frank@ncsu.edu, Univ. of Maryland, College Park, MD and Christopher Ranger, Rutgers Univ., Chatsworth, NJ

**10:55 148** *Atherigona reversura* (Diptera:Muscidae), a Newly Invasive Pest of Bermudagrass in the Southeast. **William Hudson**, wghudson@uga.edu and John McCullers, Univ. of Georgia, Athens, GA

**11:15 149** *Plesiobaris albilata* (LeConte), a New Pest of an Introduced St. John's Wort, *Hypericum calycinum* and Other Interesting Ornamental Plant Pest Detections in Tennessee. **Frank Hale**, fahale@utk.edu, Univ. of Tennessee, Nashville, TN

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## 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
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
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
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. Sprengel	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. Leppa	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

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**At the Sheraton Raleigh Hotel  
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## **Driving Directions to Beau Rivage Resort and Casino**

The Beau Rivage Resort and Casino in Biloxi is located on the south side of Biloxi on the Gulf of Mexico. Address: 875 Beach Blvd, Biloxi, MS 39530; Telephone (888) 595-2534.

### **From New Orleans Int'l Airport**

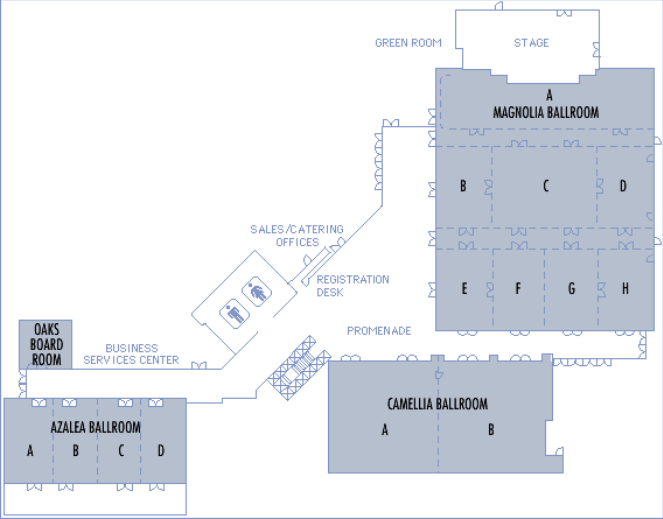
Take I-10 E from Airport Road. Get on I-10 E in Metairie from Airport Rd Continue on I-10 E to Biloxi. Take exit 1A from I-110/MS-15 S. Follow US-90 E/Beach Blvd to Beau Rivage.

### **From Jackson-Medgar Wiley Evers International Airport, Jackson, MS**

Take International Dr and Old Brandon Rd to MS-18 E/US-80 E in Pearl Continue on US 49 S. Drive from MS-67 S to Biloxi Turn right at Caillavet St. Hotel will be on the right

We look forward to seeing you in Biloxi!

# Layout of the Beau Rivage Resort and Casino, Biloxi, MS



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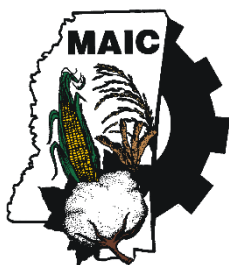


## Bronze Level Sponsors

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