89th Annual Meeting of the Southeastern Branch Entomological Society of America

15-18 March 2015 Biloxi Mississippi

Catharine Mannion President, 2014-2015
### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>ESA SECTIONS</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROGRAM SUMMARY</td>
<td>3</td>
</tr>
<tr>
<td>Meeting Notices and Policies</td>
<td>7</td>
</tr>
<tr>
<td>SEB Award Recipients</td>
<td>12</td>
</tr>
</tbody>
</table>

#### ***** SCIENTIFIC PROGRAM *****

#### SUNDAY SUMMARY

<table>
<thead>
<tr>
<th>Event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-1058 Biological Control of Arthropod and Weed Pests in the Southern United States Symposium</td>
<td>34</td>
</tr>
</tbody>
</table>

#### MONDAY SUMMARY

<table>
<thead>
<tr>
<th>Event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plenary Session</td>
<td>36</td>
</tr>
<tr>
<td>MS Student Oral Competition I</td>
<td>37</td>
</tr>
<tr>
<td>MS Student Oral Competition II</td>
<td>38</td>
</tr>
<tr>
<td>Undergraduate Student Oral Competition</td>
<td>39</td>
</tr>
<tr>
<td>MS Student Oral Competition III</td>
<td>40</td>
</tr>
<tr>
<td>PhD Student Oral Competition I</td>
<td>41</td>
</tr>
<tr>
<td>PhD Student Oral Competition II</td>
<td>42</td>
</tr>
<tr>
<td>Vegetable Entomology Symposium</td>
<td>43</td>
</tr>
<tr>
<td>Student Poster Competition</td>
<td>44</td>
</tr>
<tr>
<td>Linnaean Games Finals</td>
<td>49</td>
</tr>
</tbody>
</table>

#### TUESDAY SUMMARY

<table>
<thead>
<tr>
<th>Event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Symposium - Notorious Recent Urban Insect Invaders in the Southeastern US – Where Are They Now?</td>
<td>50</td>
</tr>
<tr>
<td>Student Symposium: Rising Issues in Biological Control</td>
<td>51</td>
</tr>
<tr>
<td>Emergence of the Sugarcane Aphid, Melanaphis saccharii, as a Serious Threat to Grain Sorghum Production - Symposium</td>
<td>52</td>
</tr>
<tr>
<td>Awards Luncheon and Photo Salon</td>
<td>53</td>
</tr>
<tr>
<td>Contributed Papers I: MUVE, PBT</td>
<td>53</td>
</tr>
<tr>
<td>Contributed Papers II: P-IE-IPM, RM, Transgenic Crops</td>
<td>54</td>
</tr>
<tr>
<td>Contributed Papers III: P-IE-IPM, Biocontrol, Vectors, SEB</td>
<td>56</td>
</tr>
<tr>
<td>Regular Poster Presentations</td>
<td>57</td>
</tr>
<tr>
<td>Final Business Meeting</td>
<td>61</td>
</tr>
</tbody>
</table>

#### WEDNESDAY SUMMARY

<table>
<thead>
<tr>
<th>Event</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Symposium- From Pupae to Pupils: Teaching Entomology in a Changing World</td>
<td>62</td>
</tr>
<tr>
<td>Contributed Papers IV: P-IE-IPM, Ecology, HPR, Migration</td>
<td>62</td>
</tr>
<tr>
<td>Novel Molecular Approaches to Prevent Ticks and Tick-Borne Diseases Symposium</td>
<td>63</td>
</tr>
</tbody>
</table>
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.
## PROGRAM SUMMARY
### SUNDAY, 15 MARCH

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

## PROGRAM SUMMARY
### MONDAY, 16 MARCH

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 AM-8:00</td>
<td>Breakfast</td>
<td></td>
</tr>
<tr>
<td>7:00 AM-5:00</td>
<td>Audiovisual</td>
<td>Gardenia</td>
</tr>
<tr>
<td>7:00 AM-5:00</td>
<td>Job Placement</td>
<td>Gardenia</td>
</tr>
</tbody>
</table>
7:00 AM-5:00  Registration  
Foyer-Magnolia

7:00 AM-8:00  Student Poster Competition Set Up  
Camellia A

8:00 AM-4:00  Student Poster Competition Judging  
Camellia A

8:00 AM-5:00  Student Poster Exhibits  
Camellia A

8:00 AM-10:15  Opening and Plenary Session  
Magnolia A

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

10:30 AM-12:00  M.S. Student Oral Presentation Competition I  
Magnolia F

10:30 AM-12:00  M.S. Student Oral Presentation Competition II  
Magnolia E

10:30 AM-11:06  Undergraduate Student Oral Presentation Competition  
Magnolia G

12:00 PM-1:30  Lunch

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
PROGRAM SUMMARY
MONDAY, 16 MARCH (Cont.)

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

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

PROGRAM SUMMARY
TUESDAY, 17 MARCH

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
PROGRAM SUMMARY
TUESDAY, 4 MARCH (Cont.)

1:40 PM-4:05  Contributed Papers I
Magnolia F

1:40 PM-4:40  Contributed Papers II
Magnolia G

1:40 PM-4:15  Contributed Papers III
Magnolia H

2:30 PM-3:30  Poster Presenters at Display
Presentation
Camellia A

3:00 PM-3:15  Break
Foyer-Magnolia

5:00 PM-6:30  Final Business Meeting
Magnolia H

3:30 PM-6:00  Submitted Poster Removal
Camellia A

PROGRAM SUMMARY
WEDNESDAY, 18 MARCH

7:00 AM-5:00  Job Placement
Gardenia

7:30 AM-8:00  Breakfast

8:00 AM-9:48  Contributed Paper IV
Magnolia H

8:00 AM-11:35 Turf and Ornamental Symposium
Magnolia E

8:00 AM-10:15 Novel Molecular Approaches to
Prevent Ticks and Tick-Borne
Diseases Symposium
Magnolia F

8:00 AM-9:20  Teaching Symposium- From Pupae to
Pupils: Teaching Entomology in a
Changing World
Magnolia G
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.
OFFICERS AND COMMITTEES

Executive Committee
Catharine Mannion, President
Nancy Hinkle, President-Elect
David Hall, Past President
Juang-Horning ‘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 Srinavasan
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
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.
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.
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.
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.
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.
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.
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.
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.
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.
Feng Lui 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.

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 triphrophic 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.
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.

STUDENT AWARDS-2015

Outstanding M.S. Oral Presentations

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 and 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.
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
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.
STUDENT AWARDS-2015
Outstanding Undergraduate Oral Presentation

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.
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.
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.

SEB AWARDS-2015
OUTSTANDING PH.D. DISPLAYS

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.
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.

SEB AWARDS-2015
OUTSTANDING UNDERGRADUATE DISPLAY

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.
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
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>8:00 AM</td>
<td>5K Fun Run</td>
<td>Lobby</td>
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<tr>
<td>11:00 AM-12:00</td>
<td>Final Local Arrangements/Program Committee Meeting</td>
<td>Magnolia E</td>
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<tr>
<td>11:00 AM</td>
<td>Ship Island Excursion Tour</td>
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<tr>
<td>1:00 PM-5:00</td>
<td>Executive Committee Meeting</td>
<td>Magnolia E</td>
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<tr>
<td>1:00 PM-5:00</td>
<td>Student Affairs Committee Meeting</td>
<td>Magnolia A</td>
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<tr>
<td>1:00 PM-5:00</td>
<td>Registration</td>
<td>Foyer-Magnolia</td>
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<tr>
<td>1:00 PM-6:00</td>
<td>Golf Tournament</td>
<td>Lobby</td>
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<tr>
<td>1:00 PM</td>
<td>Carnivorous Plants of Mississippi Tour</td>
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<tr>
<td>1:00 PM-6:00</td>
<td>S-1058 Multi-State Biological Control of Arthropod Pests and Weeds</td>
<td>Magnolia F</td>
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<tr>
<td>8:00 AM-5:00</td>
<td>S-1055 Biology, Impact, and Management of Soybean Insect Pests in Soybean Production Systems Magnolia G</td>
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<tr>
<td>3:00 PM-7:00</td>
<td>Audiovisual</td>
<td>Gardenia</td>
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<tr>
<td>1:00 PM-7:00</td>
<td>Job Placement</td>
<td>Gardenia</td>
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<tr>
<td>4:00 PM-7:00</td>
<td>Linnaean Games, Preliminary Rounds</td>
<td>Magnolia A</td>
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<tr>
<td>5:00 PM-7:00</td>
<td>Southern Corn Insect Working Group</td>
<td>Magnolia E</td>
</tr>
<tr>
<td>7:00 PM-9:30</td>
<td>Bonfire on the Beach</td>
<td>Off Site</td>
</tr>
</tbody>
</table>
Species Composition, Seasonal Activity and Impact of Parasitoids and Predators of Parthenolecanium Spp. (Hemiptera: Coccidae) in the Southeastern U.S. Ernesto Robayo-Camacho, erobayog@g.clemson.edu, Juang Horng Chong1, Peter B. Schultz2, S. Kristine Braman3 and Steven D. Frank4, 1Clemson Univ., Florence, SC, 2Virginia Tech, Virginia Beach, VA, 3Univ. of Georgia, Griffin, GA, 4Univ. of Maryland, College Park, MD

Creating Innovative Management Solutions for Organic Cucurbit Production. James D. Harwood, jharw2@email.uky.edu, Univ. of Kentucky, Lexington, KY

Promising Predators: Biological Control of Hemlock Woolly Adelgid in Tennessee. Gregory J. Wiggins, wiggybug@utk.edu, Jerome F. Grant and Paris L. Lambdin, Univ. of Tennessee, Knoxville, TN

Biological Control of Emerald Ash Borer: A Southern Perspective and a New Opportunity. Jerome F. Grant, jgrant@utk.edu, Gregory J. Wiggins and Paris L. Lambdin, Univ. of Tennessee, Knoxville, TN

Recent Advances in Biological Control of Brazilian Peppertree, Schinus terebinthifolia. James P. Cuda, jcuda@ufl.edu, William A. Overholt2, Rodrigo Diaz3 and Veronica Manrique2, 1Univ. of Florida, Gainesville, FL, 2Univ. of Florida, Fort Pierce, FL, 3Univ. of Florida, Ft. Pierce, FL

Potential Interactions Between Spotted Knapweed (Centaurea stoebe ssp. micranthos) and Its Biological Control Agents in Arkansas. Beth Ferguson, mefol005@email.uark.edu, Timothy J. Kring and Robert N. Wiedenmann, Univ. of Arkansas, Fayetteville, AR

Revisiting an Old Friend: Biological Control of Water Hyacinth in Southern Florida. Carey Minteer, carey.minteer@ars.usda.gov1, Philip Tipping2, Jeremiah Foley2, Brittany Knowles2 and Eileen Pokorny2, 1USDA-ARS, Fort Lauderdale, FL, 2USDA-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

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

      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  Populations of Foraging Honey Bees in Midsouth Crops.  
      Adam Whalen, daw153@msstate.edu, 1Angus Catchot, 1 Jeff Gore, 2Scott D. Stewart, 3Gus Lorenz, 2Don Cook, 3Fred R. Musser and Jeffrey W. Harris, 1Mississippi State Univ., Mississippi State, MS, 2Mississippi State Univ., Stoneville, MS, 3Univ. of Tennessee, Jackson, TN, 4Univ. of Arkansas, Lonoke, AR

10:42  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  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.edu1, Jeff Gore1, Angus Catchot2, Don Cook1 and Fred R. Musser3, 1Mississippi State Univ., Stoneville, MS, 2Mississippi 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.edu1, Fred R. Musser4, Angus Catchot5, Jeff Gore6, Don Cook7, Shannon Morsello8 and Darrin Dodds9, 1Mississippi State Univ., Mississippi State, MS, 2Mississippi State Univ., 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

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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.edu1, Scott Stewart2, Heather Kelly2 and Larry Steckel3, 1Univeristy of Tennessee, Knoxville, TN, 2Univ. 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, eleveen@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.edu1, Darrin Dodds1, Angus Catchot1,
Davie Wilson2, Jeff Gore1, Daniel Reynolds1, Chase
Samples1 and Drew Denton1, 1Mississippi State Univ.,
Mississippi State, MS, 2Monsanto Company, Chesterfield,
MO, 3Mississippi 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/A1, Raymond L. Hix1 and Richard W. Mankin2,
1Florida A&M Univ., Tallahassee, FL, 2USDA - 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,
bil334@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
1:40 26 Seasonal Occurrence of Caterpillar Pest of Soybeans. Nicholas R. Bateman, nickbateman@msstate.edu1, Angus Catchot2, Jeff Gore3, Don Cook3, Fred R. Musser2 and Trent Irby2, 1Mississippi State Univ., Starkville, MS, 2Mississippi State Univ., Mississippi State, MS, 3Mississippi 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.edu1, Angus Catchot1, Jeff Gore2, Don Cook2, Darrin Dodds1 and Fred R. Musser1, 1Mississippi State Univ., Mississippi State, MS, 2Mississippi 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.edu1, Angus Catchot1, Jeff Gore2, Don Cook2, Darrin Dodds1 and Fred R. Musser1, 1Mississippi State Univ., Mississippi State, MS, 2Mississippi State Univ., Stoneville, MS

3:27 33 Insecticide Regimes for the Control of Frankliniella thrips in Central Florida Strawberry. Jeffrey Cluever, jcluever@ufl.edu1, Hugh A. Smith1 and John L Capinera2, 1Univ. of Florida, Wimauma, FL, 2University of Florida, Gainesville, FL
PH.D. STUDENT ORAL PRESENTATION COMPETITION I

1:40 PM – 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.gov1, Michael E. Reding2, Blair Sampson3 and John J. Adamczyk3, 1Louisiana State Univ., Baton Rouge, LA, 2USDA - ARS, Wooster, OH, 3USDA - 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.edu1, Jeffrey A. Davis1, Michael J. Stout1, M. J. Murray1, D. R. LaBonte2 and Julien M. Beuzelin3, 1Louisiana State Univ., Baton Rouge, LA, 2Louisiana State Univ. AgCenter, Baton Rouge, LA, 3Louisiana State Univ., Alexandria, LA

2:16 37 First Report of a Mermithid Nematode Infecting the Invasive Megacopta cribraria (Hemiptera: Plataspidae). Francesca Stubbins, stubbins@clemson.edu1, Paula Agudelo2, Francis Reay-Jones3 and Jeremy K. Greene1, 1Clemson Univ., Blackville, SC, 2Clemson Univ., Clemson, SC, 3Clemson Univ., Florence, SC

2:28 38 Imidacloprid Treatments to Combat Hemlock Woolly Adelgid: A Metabólite Enhances Long-Term Persistence and Efficacy. Elizabeth P. Benton, ebenton3@utk.edu1, R. Jesse Webster2, Carla I. Coots3, Richard Cowles3, Anthony Lagalante4 and Jerome F. Grant1, 1Univ. of Tennessee, Knoxville, TN, 2National Parks Service, Gatlinburg, TN, 3Connecticut Agricultural Experiment Station, Windsor, CT, 4Villanova 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

- 41 -
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.edu1, Darrin Dodds1, Angus Catchot1, Greg Kruger2, Drake Copeland1 and Drew Denton1, 1Mississippi State Univ., Mississippi State, MS, 2Univ. of Nebraska, North Platte, NE

2:04 45 Making Sense of the Amblyomma maculatum Salivary Gland Proteome. Rebekah Bullard, rebekah.bullard@eagles.usm.edu1, Chien-Chung Chao2, Zhiwen Zhang2, Jaclyn Williams1, Khemraj Budachetri3, Deepak Kumar1, Jose Ribeiro1, Wei-Mei Ching2 and Shahid Karim1, 1Univ. of Southern Mississippi, Hattiesburg, MS, 2Naval Medical Research Center, Silver Spring, MD, 3The Univ. of Southern Mississippi, Hattiesburg, MS, 4NIAID, NIH, Bethesda, MD

2:16 46 Cotton Aphid Management in the Midsouth. Benjamin Thrash, bct157@msstate.edu1, Angus Catchot2, Jeff Gore3, Don Cook4 and Fred R. Musser5, 1Mississippi State, Starkville, MS, 2Mississippi State Univ., Mississippi State, MS, 3Mississippi State Univ., Stoneville, MS

2:28 47 Residual Efficacy and Systemic Nature of the Diamide Insecticides. Andrew Adams, aadams@entomology.msstate.edu1, Jeff Gore2, Angus Catchot1, Don Cook2 and Fred R. Musser1, 1Mississippi State Univ., Mississippi State, MS, 2Mississippi 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.edu1, Blake E. Wilson1, Julien Beuzelin1, T. E. Reagan1 and M. O. Way2, 1Louisiana State Univ., Baton Rouge, LA, 2Texas 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, Raghuvinder Singh and Cora McGehee, Louisiana State Univ., Baton Rouge, LA

3:39 51 Silk Fly Ovipositional and Semiochemical Bioassays. David Owens, owensd119@ufl.edu1, Gregg Nuessly1 and Peter E. A. Teal2, 1Univ. of Florida, Belle Glade, FL, 2USDA - ARS, Gainesville, FL

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.edu1, Elena Rhodes2, Oscar Liburd2 and Henry Fadamiro1, 1Auburn Univ., Auburn, AL, 2Univ. 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
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

Application of Predator-in-First Approach in Managing Thrips and Other Key Pests in Pepper Crops. Vivek Kumar, vivekktiari@ufl.edu, Yingfang Xiao, Cindy L. McKenzie and Lance Osborne, ¹Univ. of Florida, Apopka, FL, ²USDA - ARS, Ft. Pierce, FL

Transmission of Onion Center Rot Causing Bacteria By Thrips and Implications for Management. Rajagopalbabu Srinivasan, babusri@uga.edu, Bhabesh Dutta, Utku Avci, Diane E. Ullman and Ron Gitaitis, ¹Univ. of Georgia, Tifton, GA, ²Univ. of Georgia, Athens, GA, ³Univ. of California-Davis, Davis, CA

Assessment of Resistance in Vegetables to Whiteflies. Alvin M. Simmons, alvin.simmons@ars.usda.gov, Amnon Levi and John Coffey, ¹USDA - ARS, Charleston, SC, ²USDA ARS US Vegetable lab, Charleston, SC

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

Integrated Management of Bemisia tabaci Biotype B in Florida Tomato. Hugh A. Smith, hughasmith@ufl.edu, Univ. of Florida, Wimauma, FL

DSP1 Perturbations in Dopamine Synthesis Lead to Discrete Physiological Effects and Impact Oxidative Stress Response in Drosophila. Marley Hanna, mehi324@msstate.edu, Andrea Bednarova, Kuntol Rakshit, Janis O'Donnell, Anathbandhu Chaudhuri and Natraj Krishnan, ¹Mississippi State Univ., Mississippi State, MS, ²South Bohemian Univ., Ceske Budejovice, Czech Republic, ³Mayo Clinic, Rochester, MN, ⁴Univ. of Alabama, Tuscaloosa, AL, 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


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.edu1, Jerome F. Grant1, Scott Stewart2 and Steve D. Powell3, 1Univ. of Tennessee, Knoxville, TN, 2Univ. of Tennessee, Jackson, TN, 3Tennessee Dept. of Agriculture, Nashville, TN

DSP7 Development of Pest Management Strategies for the Spotted Wing Drosophila, Drosophila suzukii (Diptera: Drosophilidae). Dasia Harmon, dasiaharm@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

M.S. STUDENT POSTER PRESENTATION COMPETITION II
Monday, 16 March

DSP11 Identification of Microsatellite Alleles for Population Genetics Study of Invasive Soybean Pentatomid, Piezodorus guildinii (Westwood). Hannah Shult, hshult1@lsu.edu, Jeffrey A. Davis1 and Claudia Husseneder2, 1Louisiana State Univ., Baton Rouge, LA, 2Louisiana State Univ. AgCenter, Baton Rouge, LA

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

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, Salvador Gezan1, C. Roxanne Connelly2 and Philip E. Kaufman1, 1Univ. of Florida, Gainesville, FL, 2Univ. 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-Hydroxycoprostone 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, Matthew T. VanWeelden1, J.M. Beuzelin2, T.E. Reagan3, M.O. Way4 and W.H. White5, 1Louisiana State Univ., Baton Rouge, LA, 2LSU AgCenter, Baton Rouge, LA, 3Louisiana State University, Baton Rouge, LA, 4Texas A&M Univ., Beaumont, TX, 5USDA-ARS, Houma, LA

DSP18 Orientation and Colonization Preference of Adult Megacopta cribraria (Hemiptera: Plataspidae) to Soybean Development Stages. Liu Yang, lyz0017@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, spaudel2@tigers.lsu.edu and Jeffrey A. Davis, Louisiana State Univ., Baton Rouge, LA

PH.D STUDENT POSTER PRESENTATION COMPETITION
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**


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.edu1, Dominic Reisig2, Clyde Sorenson1 and Jack Bachelier1, 1North Carolina State Univ., Raleigh, NC, 2North 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.edu1, Graham P. Heatl2, Fei Yang1, Guoqing Yang1 and Fangneng Huang1, 1Louisiana State Univ., Baton Rouge, LA, 2Monsanto 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 Lecolte* (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, pmschlu8466@ung.edu, Nicholas Stewart2 and Mark Schlueter,2 1Univ. of North Georgia, Oakwood, GA, 2Georgia Gwinnett College, Lawrenceville, GA

TAKE DOWN STUDENT POSTERS 5:00 – 7:00
### Monday, 16 March

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>7:00 AM</td>
<td>Audiovisual</td>
<td>Gardenia</td>
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<td>7:00 AM</td>
<td>Job Placement</td>
<td>Gardenia</td>
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<tr>
<td>7:00 AM-12:00</td>
<td>Registration</td>
<td>Foyer-Magnolia</td>
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<tr>
<td>7:00 AM-8:00</td>
<td>Past Presidents Breakfast</td>
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<tr>
<td>7:00 AM-8:00</td>
<td>General Poster Set Up</td>
<td>Camellia A</td>
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<tr>
<td>8:00 AM-5:00</td>
<td>General Poster Presentations</td>
<td>Camellia A</td>
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<tr>
<td>8:00 AM-10:55</td>
<td>Student Symposium-Rising Issues in Biological Control</td>
<td>Magnolia F</td>
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<tr>
<td>8:00 AM-10:50</td>
<td>Urban Symposium-Notorious recent urban insect invaders in the Southeastern US - where are they now?</td>
<td>Magnolia H</td>
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<tr>
<td>8:00 AM-11:10</td>
<td>Emergence of the Sugarcane Aphid, <em>Melanaphis sacchari</em>, as a Serious Threat to Grain Sorghum Production - Symposium</td>
<td>Magnolia G</td>
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<tr>
<td>10:15 AM-10:30</td>
<td>Break</td>
<td>Foyer-Magnolia</td>
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### Tuesday, 17 March

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<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>5:00 – 7:00</td>
<td>LINNAEAN GAMES, FINAL ROUND</td>
<td>Magnolia A</td>
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<tr>
<td>7:00 – 10:00</td>
<td>SUBMITTED POSTER SET UP</td>
<td>Camellia A</td>
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<tr>
<td>7:30 – 9:00</td>
<td>MONDAY NIGHT RECEPTION</td>
<td>Azalea</td>
</tr>
</tbody>
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- 49 -
Tuesday, 17 March

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

1:40 PM-4:05  Contributed Papers I  
  Magnolia F

1:40 PM-4:40  Contributed Papers II  
  Magnolia G

1:40 PM-4:15  Contributed Papers III  
  Magnolia H

2:30 PM-3:30  Poster Presenters at Display Presentation  
  Camellia A

3:00 PM-3:15  Break  
  Foyer-Magnolia

5:00 PM-6:30  Final Business Meeting  
  Magnolia H

3:30 PM-6:00  Submitted Poster Removal  
  Camellia A

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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

- 64 -

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

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

8:25  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  The Bed Bug Pandemic a Decade of Resurgence. Benjamin A Hottel, bhottel@ufl.edu, Univ. of Florida, Gainesville, FL

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

- 50 -
Tuesday, 17 March


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 Chouvenc, 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 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.com1, Elsa Youngsteadt1, Robert R. Dunn1 and Steven D. Frank2. 1North Carolina State Univ., Raleigh, NC, 2Univ. 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.edu1, Fred R. Musser2, Jeff Gore2 and Don Cook2, 1Mississippi State Univ., Mississippi State, MS, 2Mississippi 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., Winnboro, LA

9:05 83 Experiences with the Sugarcane Aphid as a Pest of Sugarcane in Louisiana. Julien M. Beuzelin, jbeuzelin@agcenter.lsu.edu1, W.H. White2, Matthew T. VanWeelden2, Blake E. Wilson2 and T. E. Reagan3, 1Louisiana State Univ., Alexandria, LA, 2USDA-ARS, Houma, LA, 3Louisiana State Univ., Baton Rouge, LA

9:25 84 An Industry Perspective on Use of Transform Insecticide for Sugarcane Aphid Management in Sorghum. Amanda Jacobson, ajacobson@dow.com1, Mike Lovelace2, Gary D. Thompson3, Ryan Viator3, Larry Walton4 and Melissa Siebert5, 1Dow AgroSciences, Greenville, MS, 2Dow AgroSciences, Lubbock, TX, 3Dow AgroSciences, Omaha, AR, 4Dow AgroSciences, Houma, LA, 5Dow 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.edu1, Sebe Brown2 and Michael Brewer2, 1Louisiana State Univ., Winnsboro, LA, 2Texas A&M Univ., Corpus Christi, TX

12:00 – 1:30 PM
AWARDS LUNCHEON AND PHOTO SALON
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 Kaimorones. Emma N. I. Weeks, eniweeks@ufl.edu1, Sandra A. Allan2, Brooke Cantrell1 and Phillip E. Kaufman1, 1Univ. of Florida, Gainesville, FL, 2USDA-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.gov1, Chris Werle2 and John J. Adamczyk1, 1USDA - ARS, Poplarville, MS, 2Louisiana 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 noctilio* (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.be@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, 1, Brent Phelan2 and Annie Rich, 1, 2Univ. of Georgia, Athens, GA, 2Univ. of Georgia, Athens, GA

3:51 97 Effect of an Indigenous Nigeria Rice Variety on Tolerance of *Sitophilus oryzae* Strains to Insecticide. **Olajire Gbaya**, 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 Sequentials: 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\(^1\), Gus Lorenz\(^2\), Angus Catchot\(^3\), Jeff Gore\(^4\), Don Cook\(^5\), Adam Whalen\(^6\), Heather Kelly\(^7\) and John Skinner\(^8\), \(^1\)Univ. of Tennessee, Jackson, TN, \(^2\)Univ. of Arkansas, Lonoke, AR, \(^3\)Mississippi State Univ., Stoneville, MS, \(^4\)Mississippi State Univ., Mississippi State, MS, \(^5\)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\(^1\), Jarrod T. Hardke\(^2\), Nicki Taillon\(^2\), Andrew Plummer\(^1\) and Michael Chaney\(^1\), \(^1\)Univ. of Arkansas, Lonoke, AR, \(^2\)Univ. of Arkansas, Stuttgart, AR

2:40 103 Revisiting Rice Stink Bug Thresholds in Arkansas. **Jarrod T. Hardke**, jhardke@uaex.edu\(^1\), Gus Lorenz\(^2\), Nicki Taillon\(^2\) and Andrew Plummer\(^2\), \(^1\)Univ. of Arkansas, Stuttgart, AR, \(^2\)Univ. of Arkansas, Lonoke, AR

2:52 Break

3:15 104 Effectiveness of Bt Cotton Towards Bollworms and Benefit of Supplemental Oversprays. **David L. Korns**, dkerns@agcenter.lsu.edu\(^1\), Gus Lorenz\(^2\), Jeff Gore\(^3\), Angus Catchot\(^4\), Glenn Studebaker\(^5\), Scott Stewart\(^6\), Don Cook\(^3\) and Sebe Brown\(^1\), \(^1\)Louisiana State Univ., Winnsboro, LA, \(^2\)Univ. of Arkansas, Lonoke, AR, \(^3\)Mississippi State Univ., Stoneville, MS, \(^4\)Mississippi State Univ., Mississippi State, MS, \(^5\)Univ. of Arkansas, Keiser, AR, \(^6\)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\(^1\), Gus Lorenz\(^2\) and Don Cook\(^3\), \(^1\)Mississippi State Univ., Stoneville, MS, \(^2\)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 (HzNPV) 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.edu1, Timothy J. Dennehy2 and Christopher Sansone3, 1Univ. of West Georgia, Carrollton, GA, 2Bayer 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.edu1, Shelby Williams1, Fangneng Huang2 and David L. Korns3, 1Louisiana State Univ., Winnabro, LA, 2Louisiana State Univ., Baton Rouge, LA

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


2:40 116 Elemental Concentrations in the Frass of Saprophyllic Insects: Their Potential Role in Micronutrient Cycling. Yi-an Chen, nynaeve1@uga.edu, Univ. of Georgia, Athens, GA

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
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 Lindsy Iglesias, Univ. of Florida, Gainesville, FL

3:27 118 Optimizing Spotted Wing Drosophila Management Programs in Blueberries. **Ashfaq Sial**, ashfaqsid@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 Schluter**, mschluter@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 Tactical 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**¹, Nathan Little¹, **Cesar Solorzano-Torres**, Cesar.SolorzanoTorres@valent.com², Carlos Granadino³ and Randall Luttrell², ¹USDA - ARS, Stoneville, MS, ²Valent, Leland, MS, ³ValentUSA, 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, Bentley Fitzpatrick1, Bobby Johnson, Steve Williams and Jeff Sibley, 1Louisiana State Univ. Agricultural Center, Bossier City, LA, 2City of Shreveport, Shreveport, LA, 3Louisiana 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 Portilla1, Nathan Little1, Cesar Solorzano-Torres2, Carlos Granadino1, Randall Luttrell1 and Tabatha Nelson, tabatha.nelson@ars.usda.gov1, 2USDA - ARS, Stoneville, MS, 3Valent, Leland, MS, 4ValentUSA, Chesterfield, MO, 4USDA-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, sfbran2872@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. Lindsy Iglesias, iglesias@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, Katheryne Nix1, Paul Merten2, Jerome F. Grant1, Dave P. Paulsen1 and Gregory J. Wiggins3, 1Univ. of Tennessee, Knoxville, TN, 2USDA 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, Frank Hale2, Alan Windham3, Paris L. Lambdin4, Renee Follum5, Gregory J. Wiggins3, Mark T. Windham3 and Katheryne Nix1, 1Univ. of Tennessee, Knoxville, TN, 2Univ. 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, Tom Mascari2 and Nathan Little1, 1USDA - ARS, Stoneville, MS, 2Liverpool 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.edu1, Doc Padgett1 and Eric Dendy2, 1Univ. of West Georgia, Carrollton, GA, 2Univ. 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.GOV3, Arnell Patterson2, Randall Luttrell1, Maribel Portilla1 and Katherine Parys1, 1USDA - ARS, Stoneville, MS, 2USDA 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.gov1, Randall Luttrell2, Nathan Little3, Omaththage P. Perera2 and K. Clint Allen2, 1USDA ARS, Stoneville, MS, 2USDA - ARS, Stoneville, MS

DSP62 Genetic Analysis of Two Cry1Ab-Resistant Populations of Sugarcane Borer. **Fei Yang**, fyang@agcenter.lsu.edu1, Mao Chen2, Konasale J. Anilkumar2, Brian McNuity2, Ying Niu1, Guoqing Yang1, David L. Kerns3 and Fangneng Huang1, 1Louisiana State Univ., Baton Rouge, LA, 2Monsanto Company, Chesterfield, MO, 3Louisiana State Univ., Winnsboro, LA

DSP63 Characterization of Cry2Ab2 Resistance in Diatraea saccharalis (F.). **Fangneng Huang**, fhunag@agcenter.lsu.edu1, Mao Chen2, Konasale J. Anilkumar2, Brian McNuity2, Fei Yang1 and Ying Niu1, 1Louisiana State Univ., Baton Rouge, LA, 2Monsanto Company, Chesterfield, MO

DSP64 Cross-Resistance of Cry1A.105 Resistance in Fall Armyworm to Other Five Individual Bt Proteins. **Guoqing Yang**, GYang@agcenter.lsu.edu1, Graham P. Head2, Fei Yang1, Ying Niu1 and Fangneng Huang1, 1Louisiana State Univ., Baton Rouge, LA, 2Monsanto 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

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**FINAL BUSINESS MEETING**

5:00 PM – 6:30 PM
Magnolia H

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Wednesday, 18 March

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

7:30 AM-8:00 AM  Breakfast

8:00 AM-9:48 AM  Contributed Paper IV  
*Magnolia H*

8:00 AM-11:35 AM  Turf and Ornamental Symposium  
*Magnolia E*

8:00 AM-10:15 AM  Novel Molecular Approaches to Prevent Ticks and Tick-Borne Diseases Symposium  
*Magnolia F*

8:00 AM-9:20 AM  Teaching Symposium- From Pupae to Pupils: Teaching Entomology in a Changing World  
*Magnolia G*

1:00 PM  Carnivorous Plants of Mississippi Tour
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, 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, Univ. of Georgia, Athens, GA

8:40 124 Teaching Entomology Internationally: Study Abroad 101. Marianne Shockey, 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, 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, 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, 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, dawnolson@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.edu¹, G. David Buntin¹ and Phillip M. Roberts², ¹Univ. of Georgia, Griffin, GA, ²Univ. of Georgia, Tifton, GA

8:48 130 Assessment of Insect and Bird Damage on Grain Sorghum Hybrids. Xinzhi Ni, xinzhi.ni@ars.usda.gov¹, Michael Toews², G. David Buntin², Joseph Knoll³ and Karen Harris-Shultz⁴, ¹USDA - ARS, Tifton, GA, ²Univ. of Georgia, Tifton, GA, ³Univ. of Georgia, Griffin, GA, ⁴USDA-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.edu¹, Dominic Reisig², Jeremy K. Greene³, D. Ames Herbert⁴, Phillip M. Roberts³ and Michael Toews³, ¹Clemson Univ., Florence, SC, ²North Carolina State Univ., Plymouth, NC, ³Clemson Univ., Blackville, SC, ⁴Virginia Polytechnic Institute and State Univ., Blacksburg, VA, ⁵Univ. 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 Educatin 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

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**TURF & ORNAMENTALS SYMPOSIUM**

8:00AM – 11:35
Magnolia E

**Organizers and Moderators:** Catharine Mannion

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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 *Mylocerus udecimpustulas*, a Weevil That Won't Go Away. **Catharine M. Mannion**, cmannion@ufleu.edu, Univ. of Florida, Homestead, FL

9:00 143 The Scale Insect Screening Lucid® Tool for Cultivated Palms. **Nicole Casuso**, ncasuso@ufleu.edu¹, Amanda C. Hodges¹ and Greg S. Hodges². ¹Univ. of Florida, Gainesville, FL, ²Florida Dept. of Agriculture, Gainesville, FL
Wednesday, 18 March


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, Christopher Ranger2, Karla Addesso1, Michael E. Reding3, Nadeer Youssef1 and James Moyseenko4, 1Tennessee State Univ., McMinnville, TN, 2Rutgers Univ., Chatsworth, NJ, 3USDA - ARS, Wooster, OH, 4USDA-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
## Presenter Index

Adamczyk, John J. 34, 90, 92
Adams, Andrew 47
Adams, Donny DSP52
Adams, James C. 100
Addesso, Karla 145
Adesanya, Adekunle 12, DSP5
Agudelo, Paula 37
Akotsen-Mensah, Clement 99
Alexander, Anita 144
Allan, Sandra A. 89
Allen, K. Clint DSP52, DSP53, DSP61
Alspach, Susan 70
Andow, David A. 128
Anilkumar, Konasale J. DSP62, DSP63
Armstrong, J. Scott 85
Arredondo-Perez, Marco DSP13
Avei, Utku 60
Avery, Pasco 143
Bachelor, Jack DSP15
Ballentine, Brittany 107
Balogh, Botond 100
Balusu, Rammohan Rao 54
Bastola, Anup DSP28
Bateman, Nicholas R. 26
Bednarova, Andrea DSP1
Benton, Elizabeth P. 38
Bernaola, Lina 50
Beuzelin, J.M. DSP25
Beuzelin, Julien 49, 58
Beuzelin, Julien M. 36, 83
Blinka, Eric 118
Blount, Joni L. 74, 129
Bordeaux, John 93
Bowman, Kim 102
Braman, S. Kristine 1, 11, 140, DSP10
Brandys, Stephanie DSP48
Breuninger, James 144
Brewer, Michael 82, 87
Britt, Kadie DSP6
Brown, Mark R. 31
Brown, Richard DSP67
Brown, Sebe 87, 115, 121
Budachetri, Khemraj 45, 94, DSP3
Bullard, Rebekah 45
Buntin, G. David 129, 130, 131
Burrack, Hannah 40, 42, DSP57
Butler, Eric 107
Camacho-Ponce, Diego DSP8
Cantrell, Brooke 89, DSP29, DSP36
Capinera, John L 33
Carnohan, Lucas DSP24
Casuso, Nicole 142
Catchot, Angus 9, 13, 14, 21, 26, 28, 32, 44, 46, 47, 80, 111, 115
Cave, Ronald D. 143
Chaney, Michael 113
Chao, Chien-Chung 45
Chaudhuri, Anathbandhu DSP1
Chen, Jian DSP37
Chen, Jie 36
Chen, Mao DSP62, DSP63
Chen, Yi-an 103
Ching, Wei-Mei 45
Chong, Juang Horng 1, 139
Chouvenc, Thomas 71
Clark, Thomas 118
Cluever, Jeffrey 33
Coffey, John 61
Connelly, C. Roxanne DSP22
Cook, Don 9, 13, 14, 26, 28, 32, 46, 47, 80, 111, 115, 116
Coots, Carla I. 38
Copeland, Drake 21, 44
Cowles, Richard 38
Cox, Abigail 10
Crispell, Gary DSP3
Cruz-Aldaco, Karla DSP9, DSP31
Cuda, James P. 5
Darnell, Chelsie 14
Daves, Christopher 118
Davis, Jeffrey A. 10, 36, 57, DSP11, DSP14, DSP20, DSP27, DSP28
De Leon-Garza, Silvia DSP31
de Souza, Monique DSP20
Dean, Jeffrey 93
Deczynski, Anthony DSP12
Del Pozo, Alejandro DSP15
Dempsey, Meredith 62
Dendy, Eric DSP59
Denneyh, Timothy J. 120
Denton, Drew 21, 44
Diaz, Rodrigo 5
Dixon, Kenya DSP60
Dobbins, Chris 13
Dodds, Darrin 14, 21, 28, 32, 44
Duarte-Martinez, Claudia DSP31
Dunn, Robert R. 77
Dutcher, James D. 98
Dutta, Bhabesh 60
Eger, Joe 64
Elliot, Brad DSP37
Embers, Monica 134
Engel, Roberta S. DSP65
Fadamiro, Henry 41, 54, 56
Fair, Conor 11
Faulkner, Zachary DSP46
Ferguson, Beth 6, 73
Fitzpatrick, Bentley  DSP42
Fleischer, Shelby J.  126
Fleming, Daniel  35
Foley, Jeremiah  7
Follum, Renee  DSP51
Folorunsho, Muyideen  97
Formby, John P.  76
Fowler, John  118
Francis, Antonio  143
Frank, Steven D.  1, 77, 78, 146
Galligan, Larry D.  75
Gardner, Wayne  68
Gbaye, Olajire  97
Gezan, Salvador  DSP22
Gitaitis, Ron  60
Goddard, Jerome  43, DSP21
Gonzalez-Gallegos, Esmeralda  DSP31
Gordon, Tavia  DSP4
Gore, Jeff  9, 13, 14, 21, 26, 28, 32, 46, 47, 80, 111, 115, 116
Graham, Scott  28
Granadino, Carlos  DSP38, DSP45
Grant, Jerome F.  3, 4, 38, DSP6, DSP43, DSP50, DSP51
Greene, Jeremy K.  37, 132
Greenplate, John  118
Grunwald, Sabine  DSP49
Gülliver, Sophie  119
Guyton, John  23, DSP30
Hale, Frank  148, DSP51
Hall, David  102
Hanna, Marley  DSP1
Hardke, Jarrod T.  113, 114
Harmon, Dasia  DSP7
Harris, Bethany  DSP10
Harris, Jeffrey W.  9
Harris-Shultz, Karen  130
Hartshorn, Jessica  72, 75
Harwood, James D.  2
Haseeb, Muhammad  DSP4, DSP7
Hay-Roe, Mirian M.  127
Haygood, Robert  109
Head, Graham P.  DSP16, DSP64
Heinz, Kevin  8
Held, David  12, DSP5
Herbert, D. Ames  132
Hernandez-Hernandez, Veronica  DSP13
Hernowo, Kukuh  DSP14
Hill, JoVonn  108, DSP68
Hinkle, Nancy  96
Hix, Raymond L.  22
Hodges, Amanda C.  20, 142
Hodges, Greg S.  142
Holdeman, Chris J.  DSP22
Hooie, Nicholas  DSP43
Hottel, Benjamin A 67
Howell, Forrest 16
Hu, Xing Ping DSP26
Huang, Fangneng 121, 131, DSP16, DSP62, DSP63, DSP64
Hudson, William 147
Husseneder, Claudia DSP11
Iburg, Joseph P. 91
Iglesias, Lindsay 104, DSP49
Inyang, Edidiong 22
Irby, Trent 26
Jacobson, Amanda 84
Jin, Xixuan DSP37
Johnson, Bobby DSP42
Jones, Hank 81
Jones, Moneen 133
Jones, Walker A. 74
Kakkar, Garima DSP23
Kanga, Lambert DSP4, DSP7
Karim, Shahid 45, 94, 95, 138, DSP3
Kaufman, Phillip E. 89, DSP22
Kelly, Heather 17, 111
Kerns, David L. 82, 87, 115, 121, DSP62
Kim, Ki 101
Knoll, Joseph 130
Knowles, Brittany 7
Knutson, Allen 8
Koehler, Philip G. 66
Kring, Timothy J. 6, 15
Krishnan, Natraj 35, DSP1, DSP30
Kruger, Greg 44
Kumar, Deepak 45
Kumar, Vivek 59, 143
LaBonte, D. R. 36
Lagalante, Anthony 38
Lambdin, Paris L. 3, 4, DSP43, DSP50, DSP51
Lampert, Evan DSP46, DSP47, DSP48
Lara-Vilanueva, Dulce DSP32
Lee, Tae-Young 29
LeVeen, Eric 20
Levi, Amnon 61
Liburd, Oscar 54, 104, DSP49
Little, Nathan DSP38, DSP45, DSP52, DSP53, DSP55, DSP61
Liu, Feng 48, DSP2
Liu, Nannan 12, 48, DSP2, DSP5
Lorenz, Gus 9, 86, 111, 113, 114, 115, 116
Loughner, Daniel 144
Lovelace, Mike 84
Ludwig, Scott W. 100
Luttrell, Randall 92, DSP38, DSP45, DSP52, DSP53, DSP60, DSP61
Lyle, Breanna 23, DSP30
Macaluso, Kevin 137
Majumdar, Ayanava 125
Payne, Gregory 120, DSP59
Perera, Omaththage P. DSP61
Peterson, Gary C. 85
Peterson, Vanelle 144
Phelan, Brent 96
Pitts, Daniel 118
Plummer, Andrew 113, 114
Pokorny, Eileen 7
Portilla, Maribel DSP38, DSP45, DSP60
Portugal III, José 43, DSP21
Powell, Steve D. DSP6
Race, Caitlin 15
Rakshit, Kuntol DSP1
Ramirez-Rodriguez, Denisse DSP8, DSP9, DSP17
Ranger, Christopher 145, 146
Rashid, Tahir 55
Razzak, M. 134
Reagan, T. E. 49, 83
Reagan, T.E. DSP25
Reay-Jones, Francis 37, 117, 132
Reding, Michael E. 34, 145
Reisig, Dominic 16, 117, 132, DSP15
Reynolds, Daniel 21
Rhodes, Elena 54
Rhodes, Stephanie 27
Ribeiro, Jose 45
Rich, Annie 96
Riddick, Eric DSP44
Riley, David 62
Robayo-Camacho, Ernesto 1
Roberts, Phillip M. 129, 132
Roe, R. Michael 135
Rojas, M. Guadalupe DSP41, DSP54
Rooney, William 85
Rosensteel, Danielle 19
Ruberson, John 128
Sabines, C. M. 134
Samples, Chase 21, 44
Sampson, Blair 34, 90
Samuel-Foo, Michelle 53
Sanchez-Peña, Sergio DSP8, DSP9, DSP13, DSP17, DSP31, DSP32
Sansone, Christopher 120
Savinelli, Caydee 112
Schiefer, Terence DSP67
Schlueter, Catherine 24, DSP34
Schlueter, Mark 24, 25, 106, DSP33, DSP34, DSP35, DSP58
Schlueter, Peter DSP35
Schultz, Peter B. 1
Seal, D. R. 134
Seiter, Nicholas 79, 86
Seltzer, Jennifer DSP67
Shockley, Marianne 124
Shult, Hannah DSP11
Sial, Ashfaq 19, 105
Sibley, Jeff DSP42
Siebert, Melissa 84, 109
Simkins, Jon 69
Simmons, Alvin M. 61
Singh, Raghuwinder 50
Skinner, John 111
Smith, Hugh A. 33, 52, 63
Smith, Tara 58
Smith, Trevor 143
Solorzano-Torres, Cesar DSP38, DSP45
Sorenson, Clyde DSP15
Srinivasan, Rajagopalbabu 60
Steeckel, Larry 17
Steeckel, Sandy 110
Stephen, Fred M. 75
Stewart, Nicholas 25, 106, DSP33, DSP35, DSP58
Stewart, Scott 17, 110, 111, 115, DSP6
Stewart, Scott D. 9
Stout, Michael 50
Stout, Michael J. 36
Stover, Ed 102
Strand, Michael R. 31
Stubbins, Francesca 37
Studebaker, Glenn 86, 115, DSP56
Studer, Liz 122
Su, Nan-Yao 71, DSP23, DSP24
Suiter, Daniel R. 65
Swoboda Bhattarai, Katharine 40
Taillon, Nicki 113, 114
Taylor, Alexis DSP36
Teal, Peter E. A. 51
Thompson, Gary D. 84, 109
Thrash, Benjamin 46
Tikhe, Chinmay 39
Tipping, Philip 7
Toews, Michael 130, 132
Torres-Acosta, Reyna DSP13
Towles, Logan DSP56
Ullman, Diane E. 60
VanWeelden, Matthew T. 49, 83, DSP25
Viator, Ryan 84, 109
Vineyard, Cory 17
Walton, Larry 84, 109
Wang, Lei DSP37
Way, M. O. 49
Way, M.O. DSP25
Webster, R. Jesse 38
Weeks, Emma N. I. 89, DSP29, DSP36
Welch, Bonnie DSP47
Werle, Chris 34, 90
Westbrook, John 126
Whalen, Adam 9, 111
White, W.H. 83, DSP25
Wiedenmann, Robert N. 6, 15
<table>
<thead>
<tr>
<th>Name</th>
<th>Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wiggins, Gregory J.</td>
<td>3, 4, DSP43, DSP50, DSP51</td>
</tr>
<tr>
<td>Williams, Jaclyn</td>
<td>45, 95</td>
</tr>
<tr>
<td>Williams, Shelby</td>
<td>121</td>
</tr>
<tr>
<td>Williams, Steve</td>
<td>DSP42</td>
</tr>
<tr>
<td>Wilson, Blake E.</td>
<td>49, 83, DSP25</td>
</tr>
<tr>
<td>Wilson, Davie</td>
<td>21</td>
</tr>
<tr>
<td>Windham, Alan</td>
<td>DSP51</td>
</tr>
<tr>
<td>Windham, Mark T.</td>
<td>DSP51</td>
</tr>
<tr>
<td>Wood, David</td>
<td>136</td>
</tr>
<tr>
<td>Wu, Zhixin</td>
<td>DSP44</td>
</tr>
<tr>
<td>Xiao, Yingfang</td>
<td>59</td>
</tr>
<tr>
<td>Yang, Fei</td>
<td>DSP16, DSP62, DSP63, DSP64</td>
</tr>
<tr>
<td>Yang, Guoqing</td>
<td>DSP16, DSP62, DSP64</td>
</tr>
<tr>
<td>Yang, Liu</td>
<td>DSP26</td>
</tr>
<tr>
<td>Yañez-Amaro, Alonso</td>
<td>DSP13</td>
</tr>
<tr>
<td>Ye, Zi</td>
<td>DSP2</td>
</tr>
<tr>
<td>Youngsteadt, Elsa</td>
<td>77</td>
</tr>
<tr>
<td>Youssef, Nadeer</td>
<td>145</td>
</tr>
<tr>
<td>Zebelo, Simon</td>
<td>56</td>
</tr>
<tr>
<td>Zeng, Ling</td>
<td>DSP37</td>
</tr>
<tr>
<td>Zhang, Zhiwen</td>
<td>45</td>
</tr>
<tr>
<td>Zheng, Yanan</td>
<td>DSP57</td>
</tr>
<tr>
<td>Zhu, Yu Cheng</td>
<td>92</td>
</tr>
</tbody>
</table>
Acari Eriophyidae Aceria cynodonensis 139
Acari Eriophyidae Phyllocoptura oleivora 100
Acari Ixodidae Amblyomma americanum 43
Acari Ixodidae Amblyomma maculatum DSP21, DSP40
Acari Ixodidae Rhipicephalus sanguineus DSP29, DSP36
Acari Tarsonomidae Polyphagotarsonemus latus 59
Anostraca Artemiidae Artemia franciscana DSP44
Blattodea Kalotermitidae Incisitermes snyderi 103
Blattodea Rhinotermitidae Reticulitermes flavipes 103
Blattodea Rhinotermitidae Reticulitermes virginicus 29
Blattodea Termopsidae Zootermopsis nevadensis 103
Brassicales Brassicaceae Era sativa DSP13
Brassicales Brassicaceae Sisymbrium irio DSP13
Coleoptera Buprestidae Agrilus planipennis 4, DSP43
Coleoptera Chrysomelidae Colaspis brunnea 113
Coleoptera Chrysomelidae Diabrotica balteata 58
Coleoptera Chrysomelidae Epitrix cucumeris DSP12
Coleoptera Chrysomelidae Epitrix fuscula DSP12
Coleoptera Chrysomelidae Epitrix hirtipennis DSP12
Coleoptera Chrysomelidae Microtheca ochroloma 54
Coleoptera Coccinellidae Coleomegilla maculata DSP41, DSP44
Coleoptera Curculionidae Anthronomus sigmatius 18
Coleoptera Curculionidae Conestus mutilatus 34
Coleoptera Curculionidae Coccotytes advena DSP67
Coleoptera Curculionidae Cylas formicarius elegantulus 36, 57
Coleoptera Curculionidae Cyrtobagous salviniae DSP42
Coleoptera Curculionidae Lissorhoptrus oryzophilus 113
Coleoptera Curculionidae Myllocerus undecimpustulatus 141
Coleoptera Curculionidae Pityophthorus juglandis DSP50, DSP51
Coleoptera Curculionidae Plesiobaris albilata (leconte) 148
Coleoptera Curculionidae Sitophilus oryzae 97
Coleoptera Curculionidae Sphenophorus callosus 16
Coleoptera Curculionidae Xylosandrus compactus 34
Coleoptera Curculionidae Xylosandrus crassiusculus 34, 146
Coleoptera Elateridae Conoderus vespertinus 16
Coleoptera Elateridae Melanotus communis 16
Coleoptera Monotomidae Bactridium convexulum DSP19
Coleoptera Monotomidae Bactridium ephippigerum DSP19
Coleoptera Monotomidae Bactridium striolatum DSP19
Coleoptera Niidulidae Carpophilus ssp. 131
Coleoptera Scarabaeidae Euscepes postica humilitis rugiceps 58
Coleoptera Scarabaeidae Monolepta heiroglyphica DSP57
Coleoptera Scarabaeidae Popillia japonica 12, 145, DSP5
Coleoptera Scolytidae Ambrosiodmus weisei DSP67
Coleoptera Scolytidae Ambrosiodmus minor DSP67
Coleoptera Tenebrionidae Alphitobius diaperinus 96
Coleoptera Tenebrionidae Tenebrio molitor DSP41
<table>
<thead>
<tr>
<th>Taxon</th>
<th>Species</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diptera Blephariceridae</td>
<td>Blepharicera williamsae</td>
<td>DSP66</td>
</tr>
<tr>
<td>Diptera Cecidomyiidae</td>
<td>Contarinia sorghicola</td>
<td>130</td>
</tr>
<tr>
<td>Diptera Culicidae Aedes</td>
<td></td>
<td>DSP65</td>
</tr>
<tr>
<td>Diptera Culicidae Aedes aegypti</td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>Diptera Culicidae Aedes albopictus</td>
<td></td>
<td>DSP22</td>
</tr>
<tr>
<td>Diptera Culicidae Anopheles crucians</td>
<td></td>
<td>DSP22</td>
</tr>
<tr>
<td>Diptera Culicidae Culex</td>
<td></td>
<td>DSP65</td>
</tr>
<tr>
<td>Diptera Culicidae Culex quinquefasciatus</td>
<td></td>
<td>DSP2,</td>
</tr>
<tr>
<td>Diptera Culicidae Caliceta</td>
<td></td>
<td>DSP65</td>
</tr>
<tr>
<td>Diptera Drosophilidae Drosophila melanogaster</td>
<td></td>
<td>90,</td>
</tr>
<tr>
<td>Diptera Drosophilidae Drosophila suzukii</td>
<td></td>
<td>105,</td>
</tr>
<tr>
<td>Diptera Muscidae Atherigona reversura</td>
<td></td>
<td>147</td>
</tr>
<tr>
<td>Diptera Simuliidae Simulium vittatum</td>
<td></td>
<td>91</td>
</tr>
<tr>
<td>Diptera Syrphidae</td>
<td></td>
<td>24,</td>
</tr>
<tr>
<td>Diptera Tephritidae Bactrocera invadens</td>
<td></td>
<td>99</td>
</tr>
<tr>
<td>Diptera Ulidiidae Chaetopsis massyla</td>
<td></td>
<td>51,</td>
</tr>
<tr>
<td>Diptera Ulidiidae Euxesta elata</td>
<td></td>
<td>51,</td>
</tr>
<tr>
<td>Diptera Ulidiidae Euxesta stigmatias</td>
<td></td>
<td>51,</td>
</tr>
<tr>
<td>Hemiptera Adelgidae Adelges tsugae</td>
<td></td>
<td>3, 38</td>
</tr>
<tr>
<td>Hemiptera Aleyrodidae Aleurodicus rugioperculus</td>
<td></td>
<td>143</td>
</tr>
<tr>
<td>Hemiptera Aleyrodidae Bemisia tabaci</td>
<td></td>
<td>59, 61,</td>
</tr>
<tr>
<td>Hemiptera Aleyrodidae Trialeurodes vaporariorum</td>
<td></td>
<td>62, 63,</td>
</tr>
<tr>
<td>Hemiptera Aphididae Melanaphis sacchari</td>
<td></td>
<td>DSP32</td>
</tr>
<tr>
<td>Hemiptera Aphididae Melanocallis caryaeoliae</td>
<td></td>
<td>98</td>
</tr>
<tr>
<td>Hemiptera Aphididae Monellia caryella</td>
<td></td>
<td>98</td>
</tr>
<tr>
<td>Hemiptera Aphididae Monelliopsis pecanis</td>
<td></td>
<td>98</td>
</tr>
<tr>
<td>Hemiptera Aphididae Myzus persicae</td>
<td></td>
<td>42</td>
</tr>
<tr>
<td>Hemiptera Aphididae Rholaposiphum padi</td>
<td></td>
<td>DSP9,</td>
</tr>
<tr>
<td>Hemiptera Cimicidae Cimex lectularius</td>
<td></td>
<td>DSP31</td>
</tr>
<tr>
<td>Hemiptera Coccidae Ceroplastes cirripediformis</td>
<td></td>
<td>48, 67</td>
</tr>
<tr>
<td>Hemiptera Coccidae Parthenolecanium</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Hemiptera Coreidae Anasa tristis</td>
<td></td>
<td>11, 55</td>
</tr>
<tr>
<td>Hemiptera Eriococcidae Eriococcus lagerstroemiae</td>
<td></td>
<td>148</td>
</tr>
<tr>
<td>Hemiptera Liviidae Diaphorina citri</td>
<td></td>
<td>101</td>
</tr>
<tr>
<td>Hemiptera Miridae Lygus lineolaris</td>
<td></td>
<td>28, 35,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>44, 109,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>110, 133,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DSP38,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DSP45,</td>
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<td>100, 102</td>
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<td></td>
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<td>Hymenoptera Siricidae Sirex noctilio</td>
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<td>75, 93</td>
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<td>Hypocreales Clavicipitaceae Metarhizium anisopliae</td>
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<td>Isoptera Rhinotermitidae Coptotermes formosanus</td>
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<td>Isoptera Rhinotermitidae Coptotermes gestroi</td>
<td></td>
<td>39</td>
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<tr>
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<td>Ixodida Ixodidae Amblyomma amblyomma maculatum</td>
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<td>Lepidoptera Arctiidae Hypanthria cunea</td>
<td></td>
<td>DSP57</td>
</tr>
</tbody>
</table>
Lepidoptera Crambidae *Diatraea saccharalis* DSP25, DSP62, DSP63

Lepidoptera Crambidae *Eoreuma loftini* 49, DSP25

Lepidoptera Noctuidae *Chrysodeixis includens* 10, DSP27, 13, 44, 47, 115, 116, 117, 118, 119, 120, DSP52, DSP53, DSP59, DSP61, 41, 120, DSP53, DSP59, DSP61

Lepidoptera Noctuidae *Helicoverpa zea* 56, 13, 121, 126, 127, DSP84

Lepidoptera Noctuidae *Heliothis virescens* DSP27, DSP53, DSP59, DSP61

Lepidoptera Noctuidae *Spodoptera exigua* DSP16, DSP17, DSP27, DSP64

Lepidoptera Noctuidae *Spodoptera frugiperda* DSP47, DSP48

Lepidoptera Noctuidae *Trichoplusia ni* DSP46, DSP48

Lepidoptera Nolidae *Nola sorghiella* 130

Lepidoptera Sesiidae *Vitacea polistiformis* 22

Lepidoptera Sphingidae *Ceratomia catalpa* DSP46, DSP48

Orthoptera Acrididae *Melanoplus stegocercus* DSP68

Poales Poaceae *Panicum virgatum* 15

Poales Poaceae *Triticum aestivum* DSP9

Rickettsiales Rickettsiaceae *Rickettsia n/a* 136

Salviniales Salviniaeceae *Salvinia molesta* DSP42

Spirochaetales Spriochetaeaceae *Borrelia burgdorferi* 134

Thysanoptera Thripidae *Frankliniella bispinosa* 33

Thysanoptera Thripidae *Frankliniella fusca* 14, 17, 21, 32, 60, 132

Thysanoptera Thripidae *Frankliniella occidentalis* 33, 59, 134

Thysanoptera Thripidae *Frankliniella schultzei* DSP27, DSP53, DSP59, DSP61

Thysanoptera Thripidae *Thrips tabaci* 60
PAST PRESIDENTS OF THE ESA-SEB  
(formerly the Cotton States Branch)

<table>
<thead>
<tr>
<th>President</th>
<th>Date</th>
<th>Meeting Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>W. E. Hinds</td>
<td>3-4 Feb. 1926</td>
<td>Atlanta, GA</td>
</tr>
<tr>
<td>G. M. Bentley</td>
<td>29 Dec. 1927</td>
<td>Nashville, TN</td>
</tr>
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<td>G. M. Bentley</td>
<td>1-2 Feb. 1928</td>
<td>Memphis, TN</td>
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<tr>
<td>F. L. Thomas</td>
<td>6-7 Feb. 1929</td>
<td>Houston TX</td>
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<tr>
<td>B. R. Coad</td>
<td>6-7 Feb. 1930</td>
<td>Jackson, FL</td>
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<tr>
<td>J. M. Robinson</td>
<td>5-6 Feb. 1931</td>
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<tr>
<td>R. W. Harned</td>
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</tr>
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<td>3-4 Feb. 1932</td>
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<tr>
<td>J. W. Folsom</td>
<td>2-3 Feb. 1933</td>
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<tr>
<td>R. W. Leiby</td>
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<td>31 Jan.-2 Feb. 1935</td>
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<tr>
<td>C. Lyle</td>
<td>5-6 Feb. 1936</td>
<td>Jackson, MS</td>
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<tr>
<td>W. E. Anderson</td>
<td>18-20 Feb. 1937</td>
<td>San Antonio, TX</td>
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<tr>
<td>W. E. Dove</td>
<td>3-5 Feb. 1938</td>
<td>New Orleans, LA</td>
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<td>5-8 Feb. 1941</td>
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<td>4-6 Feb. 1942</td>
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<td>O. W. Rosewall</td>
<td>1-3 Feb. 1944</td>
<td>New Orleans, LA</td>
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<tr>
<td>E. W. Laake</td>
<td>24-25 Jan. 1945</td>
<td>New Orleans, LA</td>
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<td>C. E. Smith</td>
<td>3-6 Dec. 1945</td>
<td>Dallas, TX</td>
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<td>R. C. Gaines</td>
<td>11-16 Jan. 1947</td>
<td>Biloxi, MS</td>
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<td>D. Isley</td>
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<td>J. T. Creighton</td>
<td>31 Jan.-2 Feb. 1949</td>
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</tr>
<tr>
<td>E. W. Dunnam</td>
<td>13-16 Dec. 1949</td>
<td>Tampa, FL</td>
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<tr>
<td>J. W. Ingraham</td>
<td>5-7 Feb. 1951</td>
<td>Memphis, TN</td>
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<tr>
<td>C. H. Alden</td>
<td>4-6 Feb. 1952</td>
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<td>K. L.</td>
<td>9-11 Feb. 1953</td>
<td>New Orleans, LA</td>
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</tbody>
</table>

Cochrane

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    |
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. Netters       28-29 Jan. 1964 | Asheville, NC  |
J. C. Alden         29 Nov.-2 Dec. 1965 | New Orleans, LA |
                1965 |
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     |
                1970 |
C. R. Jordan        1-3 Feb. 1972 | Mobile, AL     |
C. F. Smith         30 Jan.-1 Feb. 1973 | Savannah, GA   |
S. B. Hays          28-30 Jan. 1975 | Raleigh, NC    |
                1975 |
A. N. Sparks        24-26 Jan. 1978 | Gainesville, FL|
S. G. Turnipseed    29-31 Jan. 1980 | Biloxi, MS     |
D. F. Martin        30 Nov.-4 Dec. 1980 | Atlanta, GA    |
                1980 |
J. E. Paine, Sr.    25-28 Jan. 1982 | Mobile, AL     |
G. J. Musick        28-31 Jan. 1985 | Greenville, SC |
M. H. Bass          8-12 Dec. 1985 | Hollywood, FL  |

- 78 -
D. V. Allemann 26-29 Jan. 1987 Jackson, MS
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
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. Sprenkel 2-5 Mar. 2007 Knoxville, TN
J. D. Harper 2-5 Mar. 2008 Jacksonville, FL
A. M. Simmons 8-11 Mar. 2009 Montgomery, AL
S. K. Braman 7-10 Mar 2010 Atlanta, GA
F. A. Hale 19-22 Mar. 2011 San Juan, PR
N. C. Leppla 4-7 Mar. 2012 Little Rock, AR
G. D. Buntin 3-5 Mar. 2013 Baton Rouge, LA
D. Hall 2-4 Mar. 2014 Greenville, SC
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At the Sheraton Raleigh Hotel in Raleigh, North Carolina
March 12-16 2016!
<table>
<thead>
<tr>
<th>DAY/TIME</th>
<th>PAPER NO.</th>
<th>AUTHOR</th>
<th>PAGE</th>
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</thead>
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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.

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