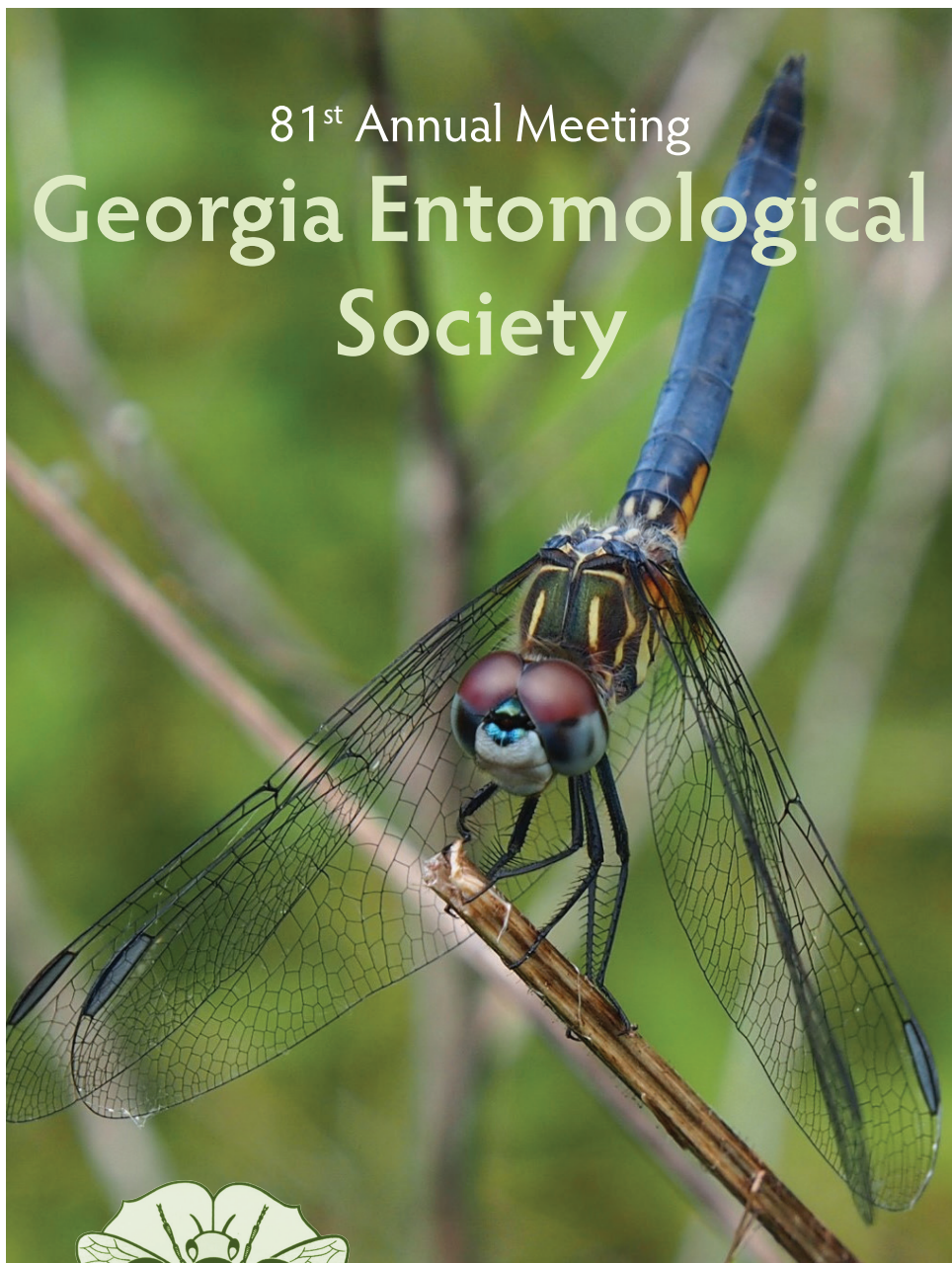


81<sup>st</sup> Annual Meeting  
**Georgia Entomological  
Society**



**5 – 7 April, 2017**

**Villas by the Sea  
Jekyll Island, Georgia**



## PRESIDENT • 2016-2017

### Michael Toews



Friends, welcome to the beach and the 81<sup>st</sup> Annual Meeting of the Georgia Entomological Society. Looking back, our membership has convened at the Golden Isles more than any other venue. Abundant sunshine and natural resources have attracted human visitors since at least 2,500 BC when small groups of hunter-gatherers visited this site. The mound-building Gule Indians inhabited this part of Georgia dating back to 1150 AD. Archaeological

evidence suggests the Spanish arrived in the late 1500s and maintained missions in the area throughout the 1600s. In 1742, the English and Spanish fought several battles on nearby St. Simons Island that were part of the infamous War of Jenkins' Ear. During the Civil War, confederate troops built forts and batteries on St. Simons and Jekyll Island. Many of you are familiar with the Jekyll Island Club that flourished here at the turn of the 20<sup>th</sup> century. Wealthy tycoons, politicians and socialites (JP Morgan, William Rockefeller, Vincent Astor, Joseph Pulitzer and William Vanderbilt to name a few) flocked to the island to enjoy hunting trips, lawn parties, fine dining and leisurely afternoons on the beach. One of my favorite quotes was that the Jekyll Island Club was "the richest, most exclusive, most inaccessible club in the world." No doubt, the Georgia Entomological Society continues that legacy!

I offer heartfelt thanks to Dan Suiter as President-Elect for putting together a great program. Wednesday afternoon we will have the traditional fun run and fishing tournament to kick off the meeting. Thursday morning we will honor James Hanula as the Founder Honoree, presented by Scott Horn. James served as the Founders lecturer (honoring Harry O.

Michael Toews (Toews rhymes with Dave's) received a B.S. from Fort Hays State University followed by an M.S. and Ph.D. from Oklahoma State University. After completing post-doctoral fellowships at Kansas State University followed by the USDA-ARS, he joined the University of Georgia in 2006 as a research entomologist with responsibilities in applied insect ecology and pest management. His current position also includes statewide Extension responsibilities for stored product entomology, Co-Director responsibilities at the Center for Invasive Species and Ecosystem Health, and teaching graduate level entomology courses. The 2015 Southeastern Branch recipient of the ESA Award for Excellence in Integrated Pest Management, Toews has served on 22 graduate student committees (10 as major professor), secured \$14 million dollars in competitive grant funding and published 60 peer reviewed research papers.



## SCHEDULE OF EVENTS

### Wednesday, 5 April 2017

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- Noon Fishing Tournament (*Meet at Pier – David Riley & Will Hudson*)
- 4:00 – 6:00 P.M. Registration (*Villas Lobby*)
- 4:00 – 7:00 P.M. Poster Set Up (*Retreat A*)
- 5:00 P.M. Entomology Fun Run (*Meet in Villas Lobby – John All*)
- 6:30 P.M. Executive Committee Meeting (*Meet in Villas Lobby*)

### Thursday, 6 April 2017

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- Breakfast (*on your own*)
- 7:00 – 8:30 A.M. Registration (*Conference Center Lobby*)
- 7:00 – 8:00 A.M. Poster Set Up (*Retreat A*)
- 8:00 A.M. – 5:00 P.M. Poster Displays (*Retreat A*)
- 8:00 – 8:15 A.M. Welcome and Announcements
- 8:15 – 8:45 A.M. 2017 GES Founders Lecture
- 8:45 – 8:55 A.M. GES Founders Honoree Award Presentation
- 8:55 – 9:10 A.M. Journal of Entomological Science Update
- 9:10 – 9:40 A.M. Industry Panel
- 9:40 – 10:00 A.M. **Break**
- 10:00 – Noon Symposium
- Noon – 1:30 P.M. Luncheon & Photo Salon (*Wildhorn-Hopeton*)
- 1:30 – 3:00 P.M. B.S./M.S. Student Paper Competition
- 3:00 – 3:30 P.M. **Break** (*Authors at Posters*)
- 3:30 – 4:20 P.M. B.S./M.S. Student Paper Competition (*continued*)
- 4:20 – 4:40 P.M. Ph.D. Student Paper Competition
- 5:30 – 7:30 P.M. Student Awards Presentations & GES Mixer (*Retreat A & B*)

### Friday, 7 April 2017

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- Breakfast (*on your own*)
- 7:00 – 8:30 A.M. Registration (*Conference Center Lobby*)
- 8:00 – 11:15 A.M. Poster Displays (*Retreat A*)
- 8:30 – 10:00 A.M. Contributed Paper Session (*Wildhorn-Hopeton*)
- 10:00 – 10:30 A.M. **Break**
- 10:30 – 11:10 A.M. Contributed Paper Session (*continued*)
- 11:15 – Noon Business Meeting

**FOUNDERS HONOREE • 2017****Jim Hanula**

Jim Hanula grew up in Pennsylvania not far from the Hershey chocolate factory. After high school he attended Henderson Co. Junior College in Athens, TX and then Texas A&M University, where he received a B.S. in forest management in 1978 and was a member of the university's Undergraduate Fellows Program. The latter was his first opportunity to conduct research on a forest insect and

that experience led him to pursue entomology as a career. He moved to Georgia and received his M.S. in forest entomology in 1981 under the direction of Dr. Wayne Berisford, and a Ph.D. in 1983 with Dr. Gary DeBarr and Dr. Bersiford as co-advisors. After a stint as a post-doc he accepted a position as assistant entomologist at the Connecticut Agricultural Experiment Station in New Haven, CT working on IPM of insects pests of turf grass and ornamentals. His work included discovery of two previously unknown pathogens of Japanese beetle, and more effective control strategies for black vine weevils and rhododendron gall midges.

In 1991, Jim became a research entomologist with the USDA Forest Service's Southern Research Station in Athens, GA. As the first Forest Service entomologist hired to look at the functional role of insects in forests within the context of "ecosystem management", he led a 10-year project investigating the diet of an endangered woodpecker, where their prey comes from, and how forest management affects prey availability. Results were used in the revision of the red-cockaded woodpecker recovery plan. Spin offs from this work led to investigations of the effects of riparian hardwood forest gap size and age on insects and their use by birds in that habitat, the effects of prescribed burning on ground dwelling arthropods, and to the role of dead trees and their insect associates in forests. More recently, Jim's work focused on invasive insects including hemlock woolly adelgid, redbay ambrosia beetle and kudzu bug. In addition, he examined the effect of an invasive shrub, Chinese privet, on riparian forest ecosystems and on biological control of this weed. In addition he conducted several studies on pollinators in forest habitats. His work on pollinators was recognized by the North American Pollinator Protection Campaign and the U.S. Forest Service with the 2007 Celebrating Wildflowers Award. In 2015 he served on the team that developed the pollinator conservation strategy for the Forest Service and collaborated with Scott Horn to write a number of the best management practices for conserving pollinators on national forests. He has served as project leader for the "Insects and Diseases of Southern Forests" project within the Forest Service, was a member of the national invasive species taskforce, and has had the privilege of working with a number of graduate students, including this year's Founder Lecturer, Scott Horn.



FOUNDERS LECTURER • 2017

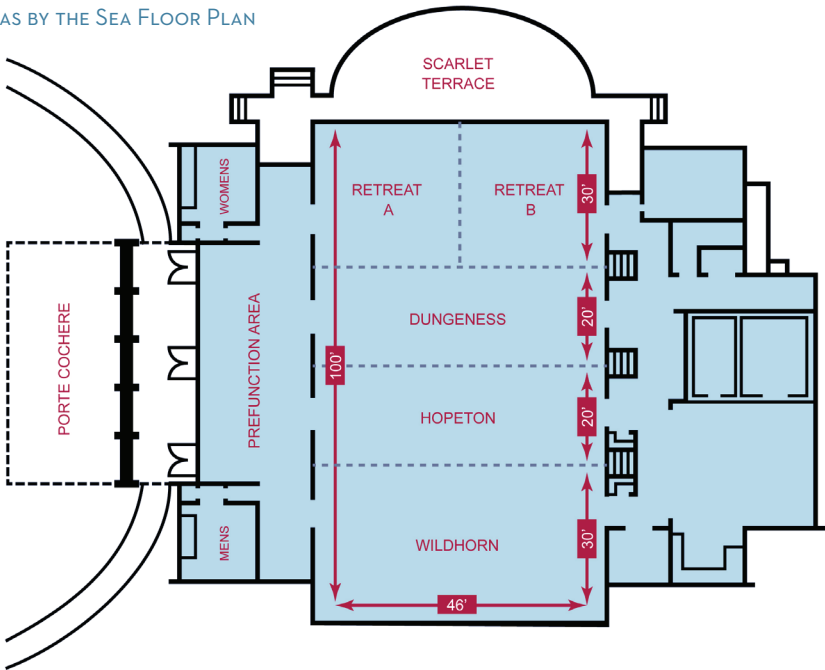
Scott Horn

Scott Horn received his B.S. degree in Wildlife Science from Auburn University. He worked on many wildlife projects as an undergraduate student ranging from alligators, to birds, to gopher tortoises. He then got his M.S. degree in Entomology from the University of Georgia (under the guidance of Jim Hanula) looking at how dead wood influences prey of the endangered red-cockaded woodpecker. He has been employed by the USDA Forest Service for the past 15 years as an Entomologist working on a broad range of topics. Early research investigated the impacts of group-selection tree harvesting on various insect communities. Invasive species have also been a focal point working on studies including insects such as the hemlock woolly adelgid, redbay ambrosia beetle, and kudzu bug to several projects involving the pest plant Chinese Privet. Current work is underway to determine how common forest management practices in the Southeast affect the diversity and abundance of native bees and butterflies.



Scott joined the Georgia Entomological Society as a student member in 1998 and has been an active member since. He has served on various committees during this time and also served as GES President in 2014-2015. He enjoys hiking, fishing, kayaking and traveling with his wife Kelly, who is a flight attendant with Delta Airlines.

VILLAS BY THE SEA FLOOR PLAN





## FOUNDERS LECTURE SERIES

The Georgia Entomological Society recognizes significant and selfless contributions to science and the GES by means of the GES Founders Lecture Series, a program that the society began in 1990. The founders lecture serves to honor the individual to who the lecture is dedicated, and additionally serves to recognize a scholar/researcher of the society who has contributed significantly and historically to the advancement of our science and/or whose research is at the cutting edge of his/her discipline.

Year	Founder	Lecturer
1990	Theodore Bissell	W. Louis Tedders, Jr.
1991	Horace O. Lund	Preston E. Hunter
1992	Hamlin H. Tippins	Wayne A. Gardner
1993	U. Eugene Brady, Jr.	C. Wayne Berisford
1994	Cedric R. Jordan	T. Don Canerday
1995	Clifford M. Beckham	Herbert Womack
1996	Oliver I. Snapp, Sr.	Carroll E. Yonce
1997	T. Don Canerday	Max H. Bass
1998	Loy W. Morgan	Max H. Bass
1999	William F. Turner	Daniel L. Horton
2000	Preston E. Hunter	Raymond Noblet
2001	Harry O. Yates, III	James L. Hanula
2002	Alton N. Sparks	Beverly Sparks
2003	James H. Oliver, Jr.	Richard L. Osburn
2004	Sturgis McKeever	Frank E. French
2005	Herbert H. Ross	J. Bruce Wallace
2006	Gary A. Herzog	Max H. Bass
2007	Jerry A. Payne	Ted E. Cottrell
2008	W. Louis Tedders, Jr.	Russell F. Mizell, III
2009	Ronald D. Oetting	Wayne A. Gardner
2010	Frank E. French	Daniel V. Hagan
2011	Keith Griffith	Lance Peterson
2012	John N. All	James D. Dutcher
2013	Wayne A. Gardner	G. David Buntin
2014	Richard B. Chalfant	David G. Riley
2015	James D. Dutcher	Will Hudson
2016	Raymond Noblet	Wayne A. Gardner
2017	Jim Hanula	Scott Horn





## FELLOWS OF THE GEORGIA ENTOMOLOGICAL SOCIETY

1991	James H. Oliver, Jr	2006	Lance Peterson
1992	Preston E. Hunter	2007	James Dutcher
1993	Alton N. Sparks	2007	Keith Griffith
1994	J. Bruce Wallace	2008	John All
1995	Harry O. Yates, III	2008	T. Don Canerday
1998	Sturgis McKeever	2009	William Tietjen
2000	Rudolph T. Franklin	2011	Beverly Sparks
2001	W. Joe Lewis	2011	Robert McPherson
2002	Richard B. Chalfant	2012	G. David Buntin
2003	Ronald D. Oetting	2013	Kristine Braman
2004	Frank E. French	2013	Tracie Jenkins
2005	C. Wayne Berisford	2014	Dan Horton
2005	Daniel V. Hagan	2015	Jim Hanula
2006	Wayne Gardner		

### President Michael Toews Letter, *continued from page 2*

Yates, III) in 2001 and GES President in 2003; additionally, he was named a GES Fellow in 2015. A Pennsylvania native, he obtained his Ph.D. working with Wayne Berisford at UGA. Jim was the first entomologist hired by the Forest Service to examine the functional role of forest insects within the context of ecosystem management. His more recent work includes studies on pollinators and invasive insects such as hemlock woolly adelgid, redbay ambrosia beetle and kudzu bug.

Going deeper into the program, the industry panel will provide an opportunity to update the membership on new products relevant to growers and applied pest managers. The opening symposium will highlight protection of US agriculture and the environment from invasive species. Dan made a concerted effort to include new speakers who address this critically important topic from diverse angles. Always a highlight of the meeting, Lisa Ames will present the Photo Salon award winners during lunch. Thursday afternoon we will enjoy the most well-constructed and rehearsed presentations of the entire meeting during the student paper competition. Be sure to browse the student competition and contributed posters that will be on display during the evening mixer. The Friday morning session will include contributed papers from Society members competing for the O.I. Snapp Award.

My gratitude and deep appreciation are expressed to all who selflessly volunteer your time and efforts (committee members, moderators, speakers, and industry sponsors) to enable this great meeting. Moreover, don't forget to look up the War of Jenkins' Ear!



## THURSDAY, 6 APRIL 2017

7:00 – 8:30 A.M. Registration (Conference Center Lobby)

7:00 – 8:00 A.M. Poster Set Up (Retreat A)

7:00 – 7:55 A.M. Load Talks onto Computer (see Dan Suiter)

8:00 – 5:00 P.M. Poster Displays (Retreat A)

### Opening Session

WILDHORN–HOPETON • PRESIDENT MICHAEL TOEWS, PRESIDING

8:00 – 8:15 A.M. Welcome and Announcements

8:15 – 8:45 A.M. 2017 GES Founders Lecture honoring **Jim Hanula**,  
presented by **Scott Horn**

8:45 – 8:55 A.M. GES Founders Honoree Award Presentation

8:55 – 9:10 A.M. Journal of Entomological Science Update,  
presented by **Wayne Gardner**

9:10 – 9:40 A.M. Industry Panel, moderated **Keith Rucker**

#### 9:40 – 10:00 A.M. Break

10:00 – NOON **Symposium – Protection of U.S. Agriculture and the Environment from Invasive Species: A Georgia Perspective.** Moderated by **Dan Suiter**,  
Department of Entomology, University of Georgia, Griffin, GA.

10:00 A.M. The Role of the Georgia Ports Authority. **Gordon Hammer**. Georgia Ports  
Authority, Savannah, GA.

10:20 A.M. The Role of U.S. Customs and Border Protection. **Lisa Brown**. Area Port  
Director, U.S. Customs and Border Protection-Department of Homeland  
Security, Savannah, GA.

10:40 A.M. The Role of USDA-APHIS. **Bill Kauffman**. State Director, USDA-APHIS  
Plant Protection and Quarantine (PPQ) Field Operations, Conyers, GA.

11:00 A.M. The Role of the Georgia Department of Agriculture. **Mike Evans**. Georgia  
Department of Agriculture, Atlanta, GA.

11:20 A.M. The Role of University of Georgia's Center for Invasive Species. **Michael  
Toews**. University of Georgia Center for Invasive Species, Tifton, GA.

11:40 A.M. The Role of the Georgia Forestry Commission. **Chip Bates**. Georgia  
Forestry Commission, Statesboro, GA.

NOON – 1:30 P.M. **Luncheon & Photo Salon** (Wildhorn-Hopteon)  
**Photo Salon**, presented by **Lisa Ames**

### B.S./M.S. Student Paper Competition

WILDHORN–HOPETON • CO-MODERATORS: KAREN HARRIS AND BILL IRBY

1:30 P.M. Effect of peach ripening on adult plum curculio (Coleoptera:  
Curculionidae) feeding preference. **Benjamin Reeves**<sup>1</sup>, Ted Cottrell<sup>2</sup>, and  
Dan Horton<sup>1</sup>. <sup>1</sup>Department of Entomology, University of Georgia, Athens,  
GA; <sup>2</sup>USDA ARS Southeastern Fruit and Tree Nut Research Laboratory,  
Byron, GA.

1:40 P.M. Diamondback moth insecticide resistance monitoring in Georgia.





## THURSDAY, 6 APRIL 2017 — CONTINUED

**Philip Torrance** and David Riley. Department of Entomology, University of Georgia, Tifton, GA.

- 1:50 P.M. Improving crop pest management using qualitative data networks. **Nancy Bostick** and Michael Toews. Department of Entomology, University of Georgia, Tifton, GA.
- 2:00 P.M. Disentangling the effects of microclimate on vertical stratification of wood-boring beetles. **Thomas N. Sheehan**<sup>1</sup> and Michael D. Ulyshen<sup>2</sup>. <sup>1</sup>Department of Entomology, University of Georgia, Athens, GA; <sup>2</sup>USDA Forest Service, Southern Research Station, Athens, GA.
- 2:10 P.M. Cows or Killers? Endoparasiticide potential for use in insecticidal zoopropylaxis against malaria mosquitoes. **Annie Rich**<sup>1</sup>, Nancy Hinkle<sup>1</sup>, and Seth Irish<sup>2</sup>. <sup>1</sup>Department of Entomology, University of Georgia, Athens, GA; <sup>2</sup>Centers for Disease Control, Atlanta, GA.
- 2:20 P.M. Forensic beetle abundance in north Georgia. **Wyatt West**. Department of Entomology, University of Georgia, Athens, GA.
- 2:30 P.M. Analysis of genetic diversity using microsatellite markers. **Titilope Ogunleke**<sup>1</sup>, Danielle Capps<sup>1</sup>, Matthew Anderson<sup>2</sup>, Lance A. Durden<sup>2</sup>, John S. Harrison<sup>2</sup>, Sarah Zohdy<sup>3</sup>, and Marina E. Ereemeeva<sup>1</sup>. <sup>1</sup>Jiann-Ping Hsu College of Public Health; <sup>2</sup>College of Science and Mathematics, Georgia Southern University, Statesboro, GA.; <sup>3</sup>School of Forestry & Wildlife Sciences, Auburn University, Auburn, AL.
- 2:40 P.M. Clinging strength of *Gromphadorhina portentosa*. **Nicholas Karimi**, P. Guillebeau, and R. Evans. Department of Entomology, University of Georgia, Athens, GA.
- 2:50 P.M. Management of sugarcane aphid in grain sorghum and natural enemy complex. **Phillip Haar**<sup>1</sup>, Jason Schmidt<sup>2</sup>, and G. David Buntin<sup>1</sup>. <sup>1</sup>Department of Entomology, University of Georgia, Griffin, GA; <sup>2</sup>Department of Entomology, University of Georgia, Tifton, GA.

### 3:00 – 3:30 P.M. Break (Authors at Posters)

- 3:30 P.M. A survey of *Blattella germanica* (Blattodea: Blattellidae) infestations in internet and cable equipment of urban homes. **Allison Johnson** and Brian Forschler. Department of Entomology, University of Georgia, Athens, GA.
- 3:40 P.M. Predator community along blueberry agroecosystem gradients: Implications of management and non-crop habitat. **Seth Whitehouse**<sup>1</sup>, Ash Sial<sup>1</sup>, and Jason Schmidt<sup>2</sup>. <sup>1</sup>Department of Entomology, University of Georgia, Athens, GA; <sup>2</sup>Department of Entomology, University of Georgia, Tifton, GA.
- 3:50 P.M. Scavenging ant assemblage on the dunes of Little St. Simons, with a focus on *Solenopsis invicta* and possible interactions with sea turtle nests. **Charlie Braman** and Brian Forschler. Department of Entomology, University of Georgia, Athens, GA.
- 4:00 P.M. Reshaping border habitats in agricultural landscapes towards increasing beneficial arthropod communities. **Shereen Xavier**<sup>1</sup>, Alisa Coffin<sup>2</sup>, Dawn Olson<sup>2</sup>, and Jason Schmidt<sup>1</sup>. <sup>1</sup>Department of Entomology, University of Georgia, Tifton, GA; <sup>2</sup>USDA-ARS, Tifton, GA.
- 4:10 P.M. Sap beetles (Coleoptera: Nitidulidae) in peaches of Southeastern North



## THURSDAY, 6 APRIL 2017 — CONTINUED

America: ELuciDating their identification for entomologists and growers.  
**Courtney L. Brissey** and Joseph V. McHugh. Department of Entomology,  
University of Georgia, Athens, GA..

### Ph.D. Student Paper Competition

WILDHORN-HOPETON • CO-MODERATORS: KAREN HARRIS AND BILL IRBY

- 4:20 P.M. Subterranean termites facilitate movement of selected nutrients from dead wood to soil in temperate forests. **Yi-an Chen** and Brian Forschler. Department of Entomology, University of Georgia, Athens, GA.
- 4:30 P.M. A lot of gall: the diversity of hickory phylloxerans (Hemiptera: Phylloxeridae) in the U.S. **Fredericka B. Hamilton** and Nate B. Hardy. Department of Entomology and Plant Pathology, Auburn University, Auburn, AL.

5:30 – 7:30 P.M. **Student Awards Presentation & GES Mixer** (Retreat A & B)

## FRIDAY, 7 APRIL 2017

7:00 – 8:30 A.M. **Registration** (Conference Center Lobby)

7:30 – 8:30 A.M. **Load Talks onto Computer** (see Dan Suiter)

8:00 – 11:15 A.M. **Poster Displays** (Retreat A)

### Contributed Paper Session

WILDHORN-HOPETON • MODERATOR: ED MONDOR

- 8:30 A.M. Insects and Death: The case of the "Albany Amber Alert". **Edward B. Mondor**. Department of Biology, Georgia Southern University, Statesboro, GA.
- 8:40 A.M. *Atherigona reversura* (Diptera: Muscidae) damage in Georgia hay fields—How bad can it be? **Will Hudson**<sup>1</sup>, W. Anderson<sup>2</sup>, and D. Hancock<sup>3</sup>. <sup>1</sup>Department of Entomology, University of Georgia, Athens, GA; <sup>2</sup>USDA-ARS, Tifton, GA; <sup>3</sup>Department of Crop and Soil Science, University of Georgia, Athens, GA.
- 8:50 A.M. Which midge is it? Suspicious *Culicoides* (Diptera: Ceratopogonidae) species in the Southeast. **Stacey Vigil**, Mark Ruder, and Joe Corn. Southeastern Cooperative Wildlife Disease Study, College of Veterinary Medicine, University of Georgia, Athens, GA.
- 9:00 A.M. Group behavior in dispersal of entomopathogenic nematodes. **Weibin Ruan**<sup>1,2</sup>, David Shapiro-Ilan<sup>2</sup>, Edwin E. Lewis<sup>3</sup>, and Paul Schliekelman<sup>4</sup>. <sup>1</sup>College of Life Sciences, Nankai University, Tianjin, China; <sup>2</sup>USDA-ARS, SEFTNRL, Byron, GA; <sup>3</sup>Department of Nematology & Entomology, University of California, Davis, CA; <sup>4</sup>Department of Statistics, University of Georgia, Athens, GA.



## FRIDAY, 7 APRIL 2017 — CONTINUED

- 9:10 A.M. Infected host materials enhance entomopathogenic nematode dispersal and infectivity. **David Shapiro-Ilan**<sup>1</sup>, Edwin E. Lewis<sup>2</sup>, Hans Alborn<sup>3</sup>, and Fatma Kaplan<sup>4</sup>. <sup>1</sup>USDA-ARS, SEFTNRL, Byron, GA; <sup>2</sup>Department of Entomology, University of California; <sup>3</sup>USDA-ARS CMAVE, Gainesville, FL; <sup>4</sup>Kaplan Schiller Research, LLC.
- 9:20 A.M. Spatio-temporal density of native stink bugs (Hemiptera: Pentatomidae) in a diverse landscape in south Georgia. **Glynn Tillman**<sup>1</sup>, Ted Cottrell<sup>2</sup>, and Alisa Coffin<sup>1</sup>. <sup>1</sup>USDA-ARS, Tifton, GA. <sup>2</sup>USDA-ARS, Byron, GA.
- 9:30 A.M. Identification and pathogenicity of entomopathogenic nematode isolates from the Philippines to major lepidopteran pests of corn. **Barbara L. Caoili**<sup>1</sup>, Romnick A. Latina<sup>1</sup>, Regina Faye C. Sandoval<sup>1</sup>, and Joey I. Orjay<sup>2</sup>. <sup>1</sup>Institute of Weed Science, Entomology, and Plant Pathology, College of Agriculture and Food Science, University of the Philippines Los Baños, College, Laguna 4031 Philippines; <sup>2</sup>Agri-Research Department, DelMonte Philippines, Inc., Cagayan de Oro City, Philippines.
- 9:40 A.M. Corn earworm pyrethroid resistance monitoring: 2006-2016. **Phillip Roberts**<sup>1</sup>, David Buntin<sup>2</sup>, and Stormy Sparks<sup>1</sup>. <sup>1</sup>Department of Entomology, University of Georgia, Tifton, GA; <sup>2</sup>Department of Entomology, University of Georgia, Griffin, GA.
- 9:50 A.M. Evaluation of soil applied insecticide programs for management of damage by soil insects in sweet potato. **Alton N. Sparks, Jr.** Department of Entomology, University of Georgia, Tifton, GA.

### 10:00 – 10:30 A.M. Break

- 10:30 A.M. An unexpected effect of spinetoram on male sap beetles (Coleoptera: Nitidulidae). **Ted E. Cottrell**<sup>1</sup>, Benjamin Reeves<sup>2</sup>, and Dan Horton<sup>2</sup>. <sup>1</sup>USDA-ARS, Southeastern Fruit and Tree Nut Research Laboratory, Byron, GA; <sup>2</sup>Department of Entomology, University of Georgia, Athens, GA.
- 10:40 A.M. Evidence for diapause in the cowpea curculio, *Chalcodermus aeneus*. **David Riley**<sup>1</sup>, Thomas Harty<sup>2</sup>, and Alton N. Sparks, Jr.<sup>1</sup>. <sup>1</sup>Department of Entomology, University of Georgia, Tifton, GA; <sup>2</sup>Environmental Protection Agency, Washington, DC.
- 10:50 A.M. Sugarcane aphid (Homoptera: Aphididae) diversity on sorghum and Johnsongrass. **Karen Harris-Shultz** and Xinzhi Ni. USDA-ARS, Crop Genetics and Breeding Research Unit, Tifton, GA.
- 11:00 A.M. Tracking brown marmorated stink bug movement and distribution within peaches. **Brett R. Blaauw**<sup>1</sup> and Anne L. Nielsen<sup>2</sup>. <sup>1</sup>Department of Entomology, University of Georgia and Clemson University; <sup>2</sup>Department of Entomology, Rutgers University, New Brunswick, NJ.

### 11:15 – Noon Business Meeting



## STUDENT POSTER COMPETITION

- SP-1 Preliminary analysis of competition between *Beauveria bassiana* (Balsamo-Crivelli) Vuillemin isolates that have been identified on *Megacopta cribraria* (Fabricius) cadavers. **Austin Thompson**, Erik Rangel, Saquana Gelzer, and Erika S. Niland. Department of Biology, Wingate University, Wingate, NC.
- SP-2 Effects of planting date on damage levels incurred with cowpea curculio (*Chalcodermus aeneus*) in southern peas. **Sydni Barwick**, Stormy Sparks, and David Riley. Department of Entomology, University of Georgia, Tifton, GA.
- SP-3 Insects as a nutritional source in horse feed. **Jaclyn McCollum**. Department of Entomology, University of Georgia, Athens, GA.
- SP-4 Insects in war. **Alyssa Ruffa**. Department of Entomology, University of Georgia, Athens, GA.
- SP-5 Temporal and spatial preferences of *Gromphadorhina portentosa*. **Kim Lucas**, P. Guillebeau, and A. O'Neal. Department of Entomology, University of Georgia, Athens, GA.
- SP-6 Relationship between *Wolbachia* infection frequency and mitochondrial variation in introduced populations of the brown widow spider. **Emily W. Knight** and J. Scott Harrison. Department of Biology, Georgia Southern University, Statesboro, GA.
- SP-7 Assessment of economic decision levels for tobacco thrips (*Frankliniella fusca*) in peanut production. **Pin-Chu Lai**, Mark Abney, and Rajagopalbabu Srinivasan. Department of Entomology, University of Georgia, Tifton, GA.
- SP-8 Detection and identification of *Wolbachia* in mosquitoes from Southeastern Georgia, USA. **Matthew L. Anderson**, Chris Rustin, and Marina E. Ereemeeva. Department of Epidemiology and Environmental Health Science, Jiann-Ping Hsu College of Public Health, Georgia Southern University, Statesboro, GA.
- SP-9 The effects of elevated CO<sub>2</sub> levels on plant-herbivore growth/defense tradeoffs. **Harley Kitching** and Ed Mondor. Department of Biology, Georgia Southern University, Statesboro, GA.
- SP-10 Evaluation of ant foraging disruptive techniques for ant control in the pecan orchard. **Tzu-Chin Liu** and James Dutcher. Department of Entomology, University of Georgia, Tifton, GA.
- SP-11 Cover cropping in cotton agroecosystems: balancing diversity and production. **Carson Bowers**, Michael Toews, and Jason Schmidt. Department of Entomology, University of Georgia, Tifton, GA.
- SP-12 Time of death: Using insects to develop a postmortem interval estimate. **Taylor Burns** and Ed Mondor. Department of Biology, Georgia Southern University, Statesboro, GA.
- SP-13 Effect of peanut burrower bug (Hemiptera: Cydnidae) feeding injury on peanut seed germination. **D. Bryce Sutherland**<sup>1</sup>, W. Scott Monfort<sup>2</sup>, and Mark R. Abney<sup>1</sup>. <sup>1</sup>Department of Entomology, University of Georgia, Tifton, GA; <sup>2</sup>Department of Crop and Soil Sciences, University of Georgia, Tifton, GA.
- SP-14 Spider communities in contrasting cotton agroecosystems: effects of irrigation and management intensity. **Katherine Russell**<sup>1</sup>, Dawn Olson<sup>2</sup>, Alisa Coffin<sup>3</sup>, and Jason Schmidt<sup>4</sup>. <sup>1</sup>School of Ecology, University of Georgia, Athens,



GA; <sup>2</sup>USDA-Crop Protection, Tifton, GA; <sup>3</sup>USDA-Watershed, Tifton, GA; <sup>4</sup>Department of Entomology, University of Georgia, Tifton, GA.

- SP-15 ELuclDating the Carpophilinae (Coleoptera: Nitidulidae): An interactive key to the Carpophilinae adults in the Eastern USA. **Courtney L. Brissey** and Joseph V. McHugh. Department of Entomology, University of Georgia, Athens, GA.

## REGULAR POSTER DISPLAYS

- RP-1 Soybean IPM and native insect resistance. **John N. All**, Phillip Roberts, Dean Kemp, Zenglu Li, Wayne Parrott, and Rodger Boerma. Departments of Entomology and Crop and Soil Sciences, University of Georgia, Athens, GA.
- RP-2 Management studies for the sugarcane aphid on grain sorghum in Georgia. **G. David Buntin**<sup>1</sup>, Phillip M. Roberts<sup>2</sup>, Phillip Haar<sup>1</sup>, John N. All<sup>3</sup>, and Xinzhi Ni<sup>4</sup>. <sup>1</sup>Department of Entomology, University of Georgia, Griffin, GA; <sup>2</sup>Department of Entomology, University of Georgia, Tifton, GA; <sup>3</sup>Department of Entomology, University of Georgia, Athens, GA; <sup>4</sup>USDA-ARS, Crop Genetics and Breeding Research Unit, Tifton, GA.
- RP-3 Alternative strategies to mitigate sugarcane aphid (Homoptera: Aphididae) damage in sweet sorghum. **Joseph E. Knoll**, Xinzhi Ni, Karen Harris-Shultz, and Bill Anderson. USDA-ARS Crop Genetics and Breeding Research Unit, Tifton, GA.
- RP-4 Arthropod biodiversity (new records & species novum) from Broxton Rocks Preserve, Coffee County, GA. **Daniel V. Hagan**, Michael F. McAloon, and Lance A. Durden. Department of Biology, James H. Oliver, Jr., Institute of Coastal Plain Science, Georgia Southern University, Statesboro, GA.
- RP-5 Surveillance of mosquitoes (Diptera: Culicidae) for canine heartworm (*Dirofilaria immitis*) in Bulloch Co., Georgia. **William S. Irby**, Ansleigh Banks, Kayla Bridges, and Owen Hurst. Department of Biology, Georgia Southern University, Statesboro, GA.
- RP-6 Effect of delayed mating on the reproductive performance of *Ectropis obliqua* Prout (Lepidoptera: Geometridae). **Yunqiu Yang**. State Key Laboratory of Tea Plant Biology and Utilization, Anhui Agricultural University, Hefei, 230036, P.R. China.



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*Best Ph.D. Student Presentation*

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*Best Student Poster*

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<b>David Riley, Fishing</b>	





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## Founders Honoree, Jim Hanula, *continued from page 4*

He was a member of several societies including GES where he served on committees, as a subject editor of the journal, and as president in 2003. Jim retired from the Forest Service in January 2016.



## PAST MEETINGS OF THE GES

Meeting Dates	Location
2 April 1937	Agricultural Experiment Station, Experiment
1 April 1938	Georgia Institute of Technology, Atlanta
28-30 Oct. 1938	Okefenokee Swamp, Fargo
6 May 1939	Georgia State College for Women, Milledgeville
14 October 1939	Agricultural Experiment Station, Experiment
6 April 1940	Emory University, Atlanta
7 November 1940	Agricultural Experiment Station, Experiment
5 April 1941	Wesleyan College, Macon
4 April 1942	Emory University, Atlanta
21 March 1944	Piedmont Hotel, Atlanta
29 March 1946	Agricultural Experiment Station, Experiment
10 April 1948	Baldwin Hall-UGA, Athens
30 April 1949	Jekyll Island Hotel, Jekyll Island
3-4 March 1950	American Legion, Fort Valley
9-10 March 1951	Abraham Baldwin Agricultural College, Tifton
7-8 March 1952	Savannah Hotel, Savannah
6-7 March 1953	Hotel Dempsey, Macon
12-13 March 1954	Ida Dunlap Little Library -UGA, Athens
4-5 March 1955	Radium Springs Hotel, Albany
8-9 March 1956	Manger Hotel, Savannah
19-20 March 1957	Rock Eagle 4-H Club Center, Eatonton
5-7 March 1958	King and Prince Hotel, St. Simons Island
4-5 March 1959	Radium Springs Hotel, Albany
30-31 March 1960	New Chemistry Building-UGA, Athens
8-9 March 1961	Wanderer Motel, Jekyll Island
20-22 March 1962	Radium Springs Hotel, Albany
20-22 March 1963	Holiday Inn, Pine Mountain
26-27 March 1964	Corsair Motel, Jekyll Island
9-11 March 1965	Downtown Holiday Inn, Atlanta
23-25 March 1966	Stuckey's Carriage Inn, Jekyll Island
21-23 March 1967	Manger Hotel, Savannah
19-21 March 1968	Elks Club, Albany
18-20 March 1969	Stuckey's Carriage Inn, Jekyll
17-19 March 1970	Downtowner Motor Inn, Albany
16-18 March 1971	DeSoto Hilton, Savannah
15-17 March 1972	King and Prince Hotel, St. Simons Island
28-30 March 1973	Macon Hilton Hotel, Macon
13-15 March 1974	Holiday Inn, Athens
19-21 March 1975	King and Prince Hotel, St. Simons Island
17-19 March 1976*	DeSoto Hilton, Savannah
16-18 March 1977	Downtowner Motor Inn, Albany



## PAST MEETINGS OF THE GES

15-17 March 1978	King and Prince Hotel, St. Simons Island
21-23 March 1979*	Quality Inn, Hilton Head Island, SC
19-21 March 1980	Ramada Inn West, Macon
18-19 March 1981	Rural Development Center, Tifton
24-26 March 1982	History Village Inn & Conference Center, Athens
23-25 March 1983	Downtowner Motor Inn, Albany
21-23 March 1984	Buccaneer Motor Lodge, Jekyll Island
20-22 March 1985	Rural Development Center, Tifton
24-26 March 1986*	Sheraton Resort & Country Club, Savannah
18-20 March 1987	Quality Inn- Buccaneer, Jekyll Island
23-25 March 1988	Georgia Southern Col., Statesboro
22-24 March 1989	Univ. of Georgia, Athens
28-30 March 1990	Unicoi Lodge & Conference Center, Helen
27-29 March 1991	Callaway Gardens, Pine Mountain
25-27 March 1992	Clarion Resort Buccaneer, Jekyll Island
24-26 March 1993	Georgia Center for Continuing Ed., Athens
23-25 March 1994*	Sheraton Charleston Hotel, Charleston, SC
29-31 March 1995	Merry Acres Motel, Albany
27-29 March 1996	Holiday Inn-Midtown, Savannah
16-17 April 1997	Unicoi State Park, Helen
16-17 April 1998	Buccaneer Motor Lodge, Jekyll Island
14-16 April 1999	Rural Development Center, Tifton
6-7 April 2000	Georgia Center for Continuing Education, Athens
4-6 April 2001*	Georgia Mountain Center, Gainesville
3-5 April 2002	Georgia Southern University, Statesboro
2-4 April 2003	Holiday Inn, Jekyll Island
31 March - 2 April 2004	Callaway Gardens, Pine Mountain
30 March - 1 April 2005	Georgia Center for Continuing Education, Athens
29-31 March 2006	Holiday Inn, Jekyll Island
16-18 May 2007	Georgia Center for Continuing Education, Athens
2-4 April 2008	Lake Blackshear Resort and Golf Club, Cordele
1-3 April 2009	The Ridges Hotel and Resort, Hiawassee
6-8 October, 2010*	Hickory Knob State Park, McCormick, SC
6-8 April 2011	Lake Blackshear Resort & Golf Club, Cordele
4-6 April 2012	Holiday Inn, Statesboro
10-12 April 2013	Amicalola Falls State Park, Dawsonville
9-11 April 2014	James H. Rainwater Conference Center, Valdosta
9-10 April 2015	Villas by the Sea, Jekyll Island
6-8 April 2016	Callaway Gardens, Pine Mountain

\*Joint meeting of the *Georgia Entomological Society* and the *South Carolina Entomological Society*



## SPEAKER SCHEDULE

AMES, LISA	THURSDAY, APRIL 6	12:30 P.M.
BATES, CHIP	THURSDAY, APRIL 6	11:40 A.M.
BLAAUW, BRETT R.	FRIDAY, APRIL 7	11:00 A.M.
BOSTICK, NANCY	THURSDAY, APRIL 6	1:50 P.M.
BRAMAN, CHARLIE	THURSDAY, APRIL 6	3:50 P.M.
BRISSEY, COURTNEY L.	THURSDAY, APRIL 6	4:10 P.M.
BROWN, LISA	THURSDAY, APRIL 6	10:20 A.M.
CAOILI, BARBARA L.	FRIDAY, APRIL 7	9:30 A.M.
CHEN, YI-AN	THURSDAY, APRIL 6	4:20 P.M.
COTTRELL, TED E.	FRIDAY, APRIL 7	10:30 A.M.
EVANS, MIKE	THURSDAY, APRIL 6	11:00 A.M.
GARDNER, WAYNE	THURSDAY, APRIL 6	8:55 A.M.
HAAR, PHILLIP	THURSDAY, APRIL 6	2:50 P.M.
HAMILTON, FREDERICKA B.	THURSDAY, APRIL 6	4:30 P.M.
HAMMER, GORDON	THURSDAY, APRIL 6	10:00 A.M.
HARRIS-SHULTZ, KAREN	FRIDAY, APRIL 7	10:50 A.M.
HORN, SCOTT	THURSDAY, APRIL 6	8:15 A.M.
HUDSON, WILL	FRIDAY, APRIL 7	8:40 A.M.
JOHNSON, ALLISON	THURSDAY, APRIL 6	3:30 P.M.
KARIMI, NICHOLAS	THURSDAY, APRIL 6	2:40 P.M.
KAUFFMAN, BILL	THURSDAY, APRIL 6	10:40 A.M.
MONDOR, EDWARD B.	FRIDAY, APRIL 7	8:30 A.M.
OGUNLEKE, TITILOPE	THURSDAY, APRIL 6	2:30 P.M.
REEVES, BENJAMIN	THURSDAY, APRIL 6	1:30 P.M.
RICH, ANNIE	THURSDAY, APRIL 6	2:10 P.M.
RILEY, DAVID	FRIDAY, APRIL 7	10:40 A.M.
ROBERTS, PHILLIP	FRIDAY, APRIL 7	9:40 A.M.
RUAN, WEIBIN	FRIDAY, APRIL 7	9:00 A.M.
SHAPIRO-LLAN, DAVID	FRIDAY, APRIL 7	9:10 A.M.
SHEEHAN, THOMAS N.	THURSDAY, APRIL 6	2:00 P.M.
SPARKS, JR., ALTON N.	FRIDAY, APRIL 7	9:50 A.M.
TILLMAN, GLYNN	FRIDAY, APRIL 7	9:20 A.M.
TOEWS, MICHAEL	THURSDAY, APRIL 6	11:20 A.M.
TORRANCE, PHILIP	THURSDAY, APRIL 6	1:40 P.M.
VIGIL, STACEY	FRIDAY, APRIL 7	8:50 A.M.
WEST, WYATT	THURSDAY, APRIL 6	2:20 P.M.
WHITEHOUSE, SETH	THURSDAY, APRIL 6	3:40 P.M.
XAVIER, SHEREEN	THURSDAY, APRIL 6	4:00 P.M.



STUDENT POSTERS

- ANDERSON, MATTHEW L. . . . . STUDENT POSTER (SP-8)
- BARWICK, SYDNI. . . . . STUDENT POSTER (SP-2)
- BOWERS, CARSON . . . . . STUDENT POSTER (SP-11)
- BRISSEY, COURTNEY L. . . . . STUDENT POSTER (SP-15)
- BURNS, TAYLOR. . . . . STUDENT POSTER (SP-12)
- KITCHING, HARLEY. . . . . STUDENT POSTER (SP-9)
- KNIGHT, EMILY W. . . . . STUDENT POSTER (SP-6)
- LAI, PIN-CHU . . . . . STUDENT POSTER (SP-7)
- LIU, TZU-CHIN . . . . . STUDENT POSTER (SP-10)
- LUCAS, KIM. . . . . STUDENT POSTER (SP-5)
- MCCOLLUM, JACLYN. . . . . STUDENT POSTER (SP-3)
- RUFFA, ALYSSA. . . . . STUDENT POSTER (SP-4)
- RUSSELL, KATHERINE . . . . . STUDENT POSTER (SP-14)
- SUTHERLAND, D. BRYCE. . . . . STUDENT POSTER (SP-13)
- THOMPSON, AUSTIN. . . . . STUDENT POSTER (SP-1)

REGULAR POSTER DISPLAYS

- ALL, JOHN N. . . . . REGULAR POSTER (RP-1)
- BUNTIN, G. DAVID . . . . . REGULAR POSTER (RP-2)
- HAGAN, DANIEL V. . . . . REGULAR POSTER (RP-4)
- IRBY, WILLIAM S.. . . . . REGULAR POSTER (RP-5)
- KNOLL, JOSEPH E. . . . . REGULAR POSTER (RP-3)
- YANG, YUNQIU . . . . . REGULAR POSTER (RP-6)



COVER PHOTO BY JOSHUA GRANT, UGA ENTOMOLOGY  
Dragonfly perching during the dog days of the season; adjacent to blueberry fields.

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