

7TH ANNUAL JOINT MEETING

82nd Annual Meeting
Georgia Entomological Society

— AND —

64th Annual Meeting
**South Carolina
Entomological Society**



4 – 6 April, 2018

Unicoi State Park and Lodge
Helen, Georgia



PRESIDENTS ADDRESS

Daniel R. Suiter

Georgia Entomological Society

Livy H. Williams

South Carolina Entomological Society

Welcome to the 2018 Joint Meeting of the Georgia and South Carolina Entomological Societies. The last time our two societies met together the SCES hosted at Hickory Knob State Park (McCormick, SC) in 2010. Although we, as entomologist neighbors, keep up with one another at various other meetings it's nice to meet from time to time in a smaller venue.

Unicoi State Park, like Hickory Knob in SC, is a beautiful location in the north Georgia mountains. The 1,800 acre park first opened in 1954. From 1968 to 1975 Unicoi was an Outdoor Experiment Station, the first of its kind in the U.S., and was referred to as the Unicoi Station. The station was meant to promote engagement and use of the outdoors. When the lodge opened in 1973 none of the rooms had televisions or telephones, by design, in an attempt to get people out of their rooms and into the park. Blooming dogwoods, wild azaleas, some fantastic trout fishing, and maybe even a gobbling wild turkey can be found right outside your lodge door. It's spring time, after all!

Just two miles down the road is the unique town of Helen, GA where you can find "the charm of Bavaria, in the heart of the Blue Ridge Mountains". Helen, with a population of just 430, is the state's third most visited city. Helen started as a home to the Cherokee, and then to European settlers who came for the gold and the timber. Today, people come to Helen for the Blue Ridge Mountain setting and the Southeast's finest Bavarian Village glimpse of Germany, right here in Georgia. There are lots of great restaurants in Helen.

Wednesday afternoon we will have the traditional fun run and fishing tournament to kick off the meeting (thanks John All and Will Hudson). Ed Mondor and Alvin Simmons (Program Co-Chairs) have put together a full, diverse program for our meeting.

Thursday morning we will honor the late Herb Womack as a GES Founder, presented by Phillip Roberts; Wayne Gardner will present Ray Noblet and Bill Lambert as GES Fellows; and the SCES will honor



Daniel R. Suiter

President

Georgia Entomological Society



Livy H. Williams

President

*South Carolina
Entomological Society*



SCHEDULE OF EVENTS

Wednesday, 4 April 2018

- 1:00 P.M. Fishing Tournament (*Meet at City Park on Edelweiss Strasse – behind the Baymont Inn and Suites Hotel*) – Will Hudson
- 4:00 – 6:00 P.M. Registration (*Masters Hall Lobby*)
- 4:00 – 6:00 P.M. Poster Set Up (*Masters Hall 1 & 2*) and Load Talks (*Masters 3 & 4*)
- 5:00 P.M. Entomology 5K Fun Run/Walk
(*Meet in Unicoi Lodge Lobby*) – John All
- 6:30 P.M. GES Executive Committee Meeting (*Meet in Board Room*)

Thursday, 5 April 2018

- Breakfast (*on your own*)
- 7:00 – 8:00 A.M. Registration (*Masters Hall Lobby*)
- 7:00 – 7:45 A.M. Poster Set Up (*Masters Hall 1 & 2*) & Load Talks (*Masters Hall 3 & 4*)
- 8:00 A.M. – 8:00 P.M. Poster Displays (*Masters Hall 1 & 2*)
- 8:00 – 8:15 A.M. Welcome and Announcements
- 8:15 – 8:45 A.M. GES Founders Lecture
- 8:45 – 8:50 A.M. GES Founders Honoree & Lecturer Award Presentations
- 8:50 – 9:10 A.M. GES Fellows Award Presentations
- 9:10 – 9:30 A.M. Journal of Entomological Science Update
- 9:30 – 10:00 A.M. Break**
- 10:00 – 10:30 A.M. SCES J.H. Cochran Award for Excellence in Entomology
- 10:30 – 10:35 A.M. SCES J.H. Cochran Honoree Award Presentation
- 10:35 – 11:00 A.M. Industry Panel
- 11:00 A.M. – Noon Plenary Speaker: Dr. Craig Goldstein, MD
- Noon – 1:30 P.M. Luncheon & Photo Salon (*Masters Hall 1 & 2*)**
- 1:30 – 2:20 P.M. Bachelors Students Paper Competition
- 2:20 – 3:00 P.M. Masters Students Paper Competition
- 3:00 – 3:30 P.M. Break (*Authors Present at Posters*)**
- 3:30 – 4:10 P.M. Masters Students Paper Competition (*continued*)
- 4:10 – 5:20 P.M. Doctoral Students Paper Competition
- 5:20 – 5:25 P.M. Announcements
- 6:00 – 8:00 P.M. Student Awards Presentations & GES/SCES Mixer
(*Masters Hall 1 & 2*)



SCHEDULE OF EVENTS

continued

Friday, 6 April 2017

Breakfast (*on your own*)

7:00 – 8:00 A.M. Registration (*Masters Hall Lobby*)

7:00 – 7:45 A.M. Load Talks (*Masters Hall 3 & 4*)

8:00 – 12:30 P.M. Poster Displays (*Masters Hall 1 & 2*)

8:00 – 10:00 A.M. Contributed Paper Session (*Masters Hall 3 & 4*)

10:00 – 10:30 A.M. Break

10:30 – 12:20 P.M. Contributed Paper Session (*continued*)

12:20 – 12:25 P.M. Announcements

12:30 – 1:30 P.M. GES Business Meeting (*Masters Hall 1*)

12:30 – 1:30 P.M. SCES Business Meeting (*Masters Hall 2*)

Presidents Address *continued from page 2*

Mike Jackson with the J.H. Cochran Award for Excellence in Entomology. Our plenary lecture will be by Craig Goldstein, M.D. on Brown Recluse spiders.

The industry panel (Keith Rucker) will provide an opportunity to update the membership on new products relevant to growers and applied pest managers. Industry Sponsors (listed on the back of the program) support the meeting financially, help offset costs, and help keep the meeting upright. Thanks to all of our industry sponsors, present and absent! 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-prepared 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 GES and SCES members.

We both would like to convey our gratitude and appreciation to all who selflessly volunteered their time and efforts (committee members, moderators, speakers, and industry sponsors) to enable this great meeting.



GES FOUNDERS HONOREE • 2018

Herbert Womack

Herbert Womack was raised in Mantee, Mississippi on a family farm which produced some of the first documented one-bale cotton yields in the state. Herb attended East Central Junior College and the University of Mississippi before serving in the U.S. Army from 1951 to 1953. He then continued his education at Mississippi State University where he earned B.S. and M.S. degrees in entomology.

His graduate work focused on laboratory and field studies of cotton insect control with special emphasis on boll weevil resistance to chlorinated hydrocarbon insecticides.

Herb moved to Tifton, Georgia in 1957 and served as a Research Entomologist with the U.S.D.A. Agricultural Marketing Service until 1966. Research efforts included control of stored product pests in corn, small grains, and peanuts as well as insect control in peanut shelling and processing plants. In 1966, Herb joined the University of Georgia as an Extension Entomologist specializing in the management of insect pests of peanut, cotton, tobacco, and stored commodities. He was one of the first entomologists in the Southeast to organize comprehensive integrated pest management schools. Herb's reputation as a leading agricultural entomologist was demonstrated by his invited testimony to the U.S. Congress on pesticide issues of critical importance to Georgia agriculture. Herb served the University and the agricultural industry until his retirement in 1989.

In 1985, Herb served as president of the Georgia Entomological Society and was the lecturer who honored Clifford M. Beckham as a GES Founder in 1995. Herb received numerous honors and awards, most notably the Distinguished Service Award from the National Association of County Agricultural Agents in 1984 and the Distinguished Service Award of the Southeastern Branch of the Entomological Society of America in 1981.

Herb was an avid outdoorsman and often participated in group hunting and fishing excursions with friends and coworkers. After his retirement, he served as a volunteer at the Georgia Museum of Agriculture & Historic Village for 20 years. Herb was a dedicated member of the First Baptist Church of Tifton for 60 years. He contributed many years of service as a member of the food service team with Georgia Baptist Disaster Relief. He was deployed to Manhattan in the aftermath of the September 11 terrorist attacks and to Louisiana in the aftermath of Hurricane Katrina. He provided food, comfort, and spiritual guidance to those affected by these tragic events.



GES FOUNDERS LECTURER • 2018

Phillip Roberts

Phillip Roberts received a B.S. in Agricultural Economics and a Ph.D. in Entomology from the University of Georgia. In 1993 he joined the faculty at the University of Tennessee as an Extension Entomologist. In 1996 he moved to Tifton Georgia and has served as an Extension Entomologist with primary responsibilities in the development and implementation of extension education programs in integrated pest management

(IPM) for cotton and soybean production systems. Applied research and on-farm demonstrations are also utilized to support extension efforts and advance the state of the art for IPM systems.

Current cotton IPM programs are much different compared with the era when Mr. Herb Womack served as extension entomologist. Two significant events occurred in cotton after Herb's retirement: 1) successful eradication of the boll weevil in 1992 and 2) commercialization of Bt transgenic cottons in 1996. These events significantly reduced insecticide inputs from 15-20 applications per acre to 2-4 applications per acre. The drastic reduction of insecticide use in cotton allowed for the elevated pest status of stink bugs. The primary cotton pests were no longer boll weevil and lepidopterans, stink bugs were now a primary pest and little information was known on their impact on cotton. He is a member of a team which successfully developed management strategies for this "new" pest of cotton. Understanding the impact of stink bug feeding on cotton yield and fiber quality and development of sampling techniques, action thresholds, and insecticide use patterns were part of the overall effort. He is also a member of the team which developed management strategies for the invasive kudzu bug in soybean production systems.



FOUNDERS LECTURE SERIES

The Georgia Entomological Society recognizes significant and selfless contributions to science by means of the GES Founders Lecture Series, a program that began in 1990. The Founders Lecture serves to honor the individual to whom 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
2018	Herbert Womack	Phillip Roberts



GES FELLOW HONOREE • 2018

Raymond Noblet



Raymond Noblet retired as Professor and Head of the Department of Entomology at the University of Georgia in 2016 following a distinguished career in research, extension, and administration at the University of Georgia and Clemson University. Upon retirement, he was immediately honored with the rank of Professor Emeritus of Entomology, a status that he currently enjoys.

During his career, Ray taught a variety of courses in entomology, environmental toxicology, and environmental sciences. His research activities included biological control of insect vectors of disease agents, management of livestock and poultry pests, use of invertebrates as bioindicator species of environmental quality, habitat mitigation in agroecosystems, and more recently the development of bioassay systems for microbial control agents for use in vector control programs. These research efforts have yielded over 110 refereed scholarly publications. And, over the past 10 years, he has received over \$1.3M as principal investigator and another \$3.1M as co-principal investigator in extramural funding to support his research program.

Ray is a native Georgian, having grown up in rural northeastern Georgia near the town of Hiawassee. He attended Berry College in Rome, Georgia, before transferring to the University of Georgia where he earned his B.S., M.S. and Ph.D. in entomology. Dr. Preston Hunter served as his major advisor for his M.S. program of study. His research topic was the effects of radiation on insect behavior and fitness. He was attracted to malaria research for his Ph.D. program. Dr. A. Burns Weathersby was project leader and served as his major advisor. The topic for his dissertation addressed mosquito susceptibility to avian malaria parasite and its vector capability. This avenue of research served as a foundation for the remainder of his career.

Upon completing the Ph.D., Ray joined the Entomology faculty at Clemson University as an assistant professor in 1970 working in the areas of medical and veterinary entomology and insect physiology. While at Clemson University, his research initially focused on the ecology, microbial control, and host-vector-disease agent interactions of black flies (*Simuliidae*), the protozoan *Leucocytozoan*, and their impact on avian production. His interests in environmental research expanded leading to his founding of Clemson University's Institute of Wildlife and Environmental Toxicology. He served as Associate Director of the Institute until he left Clemson to join the Entomology faculty at the University of Georgia in 1997.

Ray served as Entomology Department Head at the University of Georgia from 1997 until his retirement in 2016. He continued his research there in the



GES FELLOW HONOREE • 2018

William Lambert

William R. (Bill) Lambert retired from the University of Georgia in 2001 capping a 25-year career in Extension and administration in the University and another four years in private industry prior to entering graduate school. Bill's considerable contributions to the science of entomology and to our clientele have made significant contributions to pest management, environmental health, and economic growth in the state and region.



Bill earned his B.S. at the University of Georgia majoring in biology and chemistry. After several years in private industry, he matriculated to Auburn University where he received his Ph.D. in entomology in 1975. In January 1976, he joined the faculty of the Department of Entomology at the University of Georgia as an Assistant Professor and Extension Specialist with responsibilities in cotton entomology. In 1978, he assumed the position of Pest Management Coordinator overseeing programming in all agronomic commodities. In this latter role, Lambert and Dr. T. Don Canerday, Head of the Division of Entomology for the University, built an Extension IPM program that surpassed most and rivaled others in Land Grant Institutions in the United States.

Immediately upon arrival at the University of Georgia, Bill was involved in the development and implementation of the concept of step-wise eradication of the boll weevil across the cotton-growing region of the southern United States. In 1980, he initiated a multi-faceted outreach program to educate growers, government officials, regulators, and others about the merits and accomplishments of the initial phases of the eradication program in North Carolina and South Carolina. Impressed with the potential of the program and committed to the Beltwide concept of the program, Georgia cotton growers approved a referendum to join the Beltwide Eradication Program in the fall of 1986. The program, aimed at reducing overwintering populations of the boll weevil, was initiated the following year and was completed in 1990. Lambert was honored with the D.W. Brooks Excellence in Extension by the University of Georgia in 1988 in recognition of the quality and impact of his pest management programming in cotton.

The impacts of the Boll Weevil Eradication Program in eliminating this cotton pest in Georgia are linked to Lambert's extension programming. Cotton production in Georgia was only 112,000 bales on 115,000 acres harvested in 1983. After eradication of the boll weevil, yields increased while production costs decreased for growers. The average number of 14.4 insecticide applications per acre in a growing season before eradication declined to 5.4 per acre after eradication. Georgia farmers began to plant cotton again with total acreage planted to the



FELLOWS OF THE GEORGIA ENTOMOLOGICAL SOCIETY

1991	James H. Oliver, Jr	2007	James Dutcher
1992	Preston E. Hunter	2007	Keith Griffith
1993	Alton N. Sparks	2008	John All
1994	J. Bruce Wallace	2008	T. Don Canerday
1995	Harry O. Yates, III	2009	William Tietjen
1998	Sturgis McKeever	2011	Beverly Sparks
2000	Rudolph T. Franklin	2011	Robert McPherson
2001	W. Joe Lewis	2012	G. David Buntin
2002	Richard B. Chalfant	2013	Kristine Braman
2003	Ronald D. Oetting	2013	Tracie Jenkins
2004	Frank E. French	2014	Dan Horton
2005	C. Wayne Berisford	2015	Jim Hanula
2005	Daniel V. Hagan	2018	William R. Lambert
2006	Wayne Gardner	2018	Raymond Noblet
2006	Lance Peterson		

GES Fellow Honoree, Raymond Noblet *continued from page 8*

vector biology of black flies and in their microbial control with the bacterium *Bacillus thuringiensis* var. *israelensis*. As he approached his pending retirement in 2016, Ray proudly pointed to his service as Department Head, “Even though the Department has lost approximately half of its state funding in recent years, UGA Entomology remains one of the strongest departments in the country and has continued to thrive and to develop important new areas of scholarship in entomology because of the efforts of many people. Being part of that experience was sometimes challenging but always rewarding.”

GES Fellow Honoree, William Lambert *continued from page 9*

crop reaching 1.5 million acres soon after completion of the eradication program. Reduced insecticide inputs had positive environmental and human health impacts and allowed Bill to focus on developing and implementing sustainable pest management programs for cotton growers and crop consultants.

Bill moved into administration at the University of Georgia in 1996, first as interim Department Head of Entomology and then into Extension administration in the College of Agricultural and Environmental Sciences. There he served as Assistant Dean for Extension and then as Associate Dean for Extension, a position he held upon his retirement in 2001.



SCES J.H. COCHRAN AWARD FOR EXCELLENCE IN ENTOMOLOGY

D. Michael Jackson

D. Michael Jackson, a Research Entomologist with USDA-ARS for 35 years, retired on January 3, 2015, and now works as a USDA Collaborator. Dr. Jackson received his B.S. in Entomology (1971) from Michigan State University, and his M.S. (1975) and Ph.D. (1978) in Entomology from Washington State University. He began his career as a



Postdoctoral Fellow with the University of Florida and worked at a USDA, ARS laboratory in Gainesville, 1978-1979. He did research on tobacco insects for the next 15 years at the Crops Research Laboratory, Oxford, NC. In 1994, Dr. Jackson was transferred to the U. S. Vegetable Laboratory (USVL), Charleston, SC, where he is currently located. Over his career, Dr. Jackson worked with many different insect pests of tobacco and vegetable crops, conducting research on biologically-based insect control techniques and their implementation into pest management systems. His research approaches emphasized host plant resistance, biological control, semiochemicals, entomopathogens, and biorational insecticides. From 2007 until his retirement, Dr. Jackson was in charge of the sweetpotato breeding program at the USVL, and he was instrumental in the release of several pest-resistant sweetpotato varieties.

Highlights of his career include receiving the Philip Morris USA Award for Distinguished Achievement in Tobacco Science (1994) and the ESA Award for Excellence in Integrated Pest Management for the Southeastern Branch (2001). He has been a member of the Entomological Society of America for over 45 years, and served ESA in a variety of capacities, including Co-Chair of the Program Committee for the 2012 meeting and Co-Chair of the Local Arrangements & Technology Committee for the 2008 meeting. He also served as vice-president and president for both the North Carolina Entomological Society and the South Carolina Entomological Society. Dr. Jackson was a member of the Policy Committee for the Tobacco Science Council, he was on the Advisory Board of the Tobacco History Corporation, he served on the Tobacco Crop Advisory Committee, and he was Chair of the Entomology Section of the Tobacco Workers Conference. Dr. Jackson served for five years as Chair of the Sweetpotato Crop Germplasm Committee, and he was Chair of the National Sweetpotato Collaborators Group. In 2010, he was Co-Chair of the Steering Committee of the International Plant Resistance to Insects Workshop and helped organize their meeting in Charleston.

Dr. Jackson has authored or co-authored 118 peer-reviewed journal articles (49 senior author), 20 book chapters (10 senior), 305 technical publications and abstracts (168 senior), and 265 presentations at scientific meetings (142 senior).



PAST AWARDEES OF THE
**J.H. COCHRAN AWARD FOR
EXCELLENCE IN ENTOMOLOGY**
SOUTH CAROLINA ENTOMOLOGICAL SOCIETY

1993	Sid Hays
1996	Tom E. Skelton
1999	Peter H. Adler
2002	Alfred G. Wheeler and James A. Reinert
2005	John C. Morse
2008	B. Merle Shepard
2011	Samuel G. Turnipseed
2014	Gerald R. Carner
2017	D. Michael Jackson

PAST AWARDEES OF THE
J.H. COCHRAN AWARD MEMORIAL SCHOLARSHIP
SOUTH CAROLINA ENTOMOLOGICAL SOCIETY

1970	David Arnold	1996	Jennifer A. Zettler
1971	H. S. Moore	1997	Kristen van den Meiracker
1972	Keith Griffith	1998	Mohammed Kahn
1973	Roy Sutton	1999	Will K. Reeves
1974	Frank Davis	2000	Michelle Colacicco
1975	Frank Davis	2001	J. Powell Smith
1976	Wayne A. Gardner	2002	Janet L. Kintz-Early
1977	Gayle F. Holman	2003	Ozlem Kalkar
1978	Jay W. Chapin	2004	Eric Paysen
1979	Ed Quattlebaum	2005	Donald A. Oswalt
1980	Glenn Lee	2006	Mark P. Nelder
1981	N/A	2007	Ian Stocks
1982	Robert Kelly	2008	Dustin A. Swanson
1983	Jerome Grant	2009	Holly C. Tuten
1984	Steven W. Hamilton	2010	Kevin R. Hinson
1986	Eric P. Benson	2011	Margie P. Lehnert
1987	Mike Chambers	2012	Nicholas Seiter
1988	Kevin Hoffman	2013	Ernesto Robayo-Camacho
1989	Charles N. Watson	2014	Hamilton Allen
1990	Marianne B. Willey	2015	Francesca Stubbins
1991	Stuart R. Reitz	2016	N/A
1993	Michael A. Floyd	2017	Thomas Bilbo
1995	Jeffery K. Tomberlin		



THURSDAY, 5 APRIL 2018

7:00 – 8:00 A.M. Registration (Masters Hall Lobby)

7:00 – 7:45 A.M. Poster Set Up (Masters Hall 1 & 2)

7:00 – 7:45 A.M. Load Talks onto Computer (see Brett Blaauw)

8:00 A.M. – 8:00 P.M. Poster Displays (Masters Hall 1 & 2)

Opening Session

MASTERS HALL 3 & 4 • PRESIDENT DANIEL SUITER, MODERATOR

8:00 A.M. Welcome and Announcements

8:15 A.M. GES Founders Lecture honoring **Herbert Womack**,
presented by **Phillip Roberts**

8:45 A.M. GES Founders honoree Award Presentation

8:50 A.M. GES Fellow Award Presentation honoring **Raymond Noblet**,
presented by **Wayne Gardner**

9:00 A.M. GES Fellow Award Presentation honoring **William Lambert**,
presented by **Wayne Gardner**

9:10 A.M. Journal of Entomological Science update, **Wayne Gardner**

9:30 – 10:00 A.M. Break

10:00 A.M. SCES J.H. Cochran Award for Excellence in Entomology Lecture –
Fifty Years of Entomology and Some Lessons Learned. **D. Michael Jackson** – USDA-ARS, US Vegetable Laboratory, Charleston, SC.

10:30 A.M. SCES J.H. Cochran Honoree Award Presentation

10:35 A.M. Industry Panel, moderated by **Keith Rucker**

11:00 A.M. Plenary Speaker: Brown Recluse Bites. **Craig Goldstein** – Department
of Emergency Medicine, Rush Oak Park Hospital, Oak Park, IL

NOON – 1:30 P.M. Luncheon & Photo Salon (Masters Hall 1 & 2)
Photo Salon, presented by **Lisa Ames**

Paper Competition — Bachelors Students

MASTERS HALL 3 & 4 • MODERATOR: ASHFAQ SIAL

1:30 P.M. How does the medical community respond to delusory parasitosis?
(GES) **Elizabeth Slater**, Nancy Hinkle. Department of Entomology, University
of Georgia, Athens, GA.

1:40 P.M. Meeting your potential: development and regeneration in the caterpillar
(SCES) midgut. **Richard Melton**¹, Jessie Parker¹, and Matthew Turnbull^{1,2}.
¹Department of Biological Sciences, ²Plant and Environmental Sciences,
Clemson University, Clemson, SC.

1:50 P.M. Using laboratory rearing to determine optimal larval density. **Sierra King**,
(GES) Annie Rich, and Nancy Hinkle. Department of Entomology, University of
Georgia, Athens, GA.

2:00 P.M. Ozone as a potential fumigant for the control of *Lasioderma serricorne*
(SCES) (F.). **Cayela Glover** and Rizana Mahroof. Department of Biological and
Physical Sciences, South Carolina State University, Orangeburg SC.



THURSDAY, 5 APRIL 2018 — CONTINUED

- 2:10 P.M. Efficacy evaluation of long-range eprinomectin solution on bluetongue (GES) virus vectors: *Culicoides sonorensis*. **Ari Wernick**, Nancy Hinkle, Annie Rich, Sierra King, and Elizabeth Slater. Department of Entomology, University of Georgia, Athens, GA.

Paper Competition — Masters Students

MASTERS HALL 3 & 4 • MODERATOR: FRANCIS REAY-JONES

- 2:20 P.M. Evaluating the effects of environmental factors and farm management (GES) practice on *D. suzukii* abundance in blueberry orchards of Southeast Georgia. **Kirk Green** and Ashfaq A. Sial. Department of Entomology, University of Georgia, Athens, GA.
- 2:30 P.M. Electrophysiological and behavioral response of southern pine beetles (GES) to semiochemicals produced by sympatric black turpentine beetles. **Holly L. Munro**¹, Brian T. Sullivan², Brittany F. Barnes¹, Cristian R. Montes¹, John T. Nowak³, William P. Shepherd², Caterina Villari¹, and Kamal J.K. Gandhi¹. ¹University of Georgia, ²USDA-FS-SRS, and ³USDA-FS-FHP.
- 2:40 P.M. Screening for insecticide resistance in spotted wing drosophila in (GES) Georgia. **Nathan R. Spaulding** and Ashfaq A. Sial. Department of Entomology, University of Georgia, Athens, GA.
- 2:50 P.M. Aquatic insects of the Ogeechee River: changes in taxonomic (GES) characteristics over three decades. **Kelly Murray**, Darold Batzer, and Joseph McHugh. Department of Entomology, University of Georgia, Athens, GA.

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

- 3:30 P.M. Death by cattle: zooprophyllaxis and endectocide efficacy in the (GES) management of malaria mosquitoes. **Annie Rich**¹, Nancy Hinkle¹, Seth Irish², and Timothy Pringle³. ¹Department of Entomology, University of Georgia, Athens, GA; ²Centers for Disease Control, Atlanta, GA; ³Department of Animal and Dairy Sciences, University of Georgia, Athens, GA.
- 3:40 P.M. Update on insecticide resistance monitoring in diamondback moth. **Evan (GES) Huffman**. Department of Entomology, University of Georgia, Tifton, GA.
- 3:50 P.M. Lethal effects of selected insecticides on the immature life stages (GES) of *Drosophila suzukii* (Matsumura). **Jamal Hunter** and Ashfaq A. Sial. Department of Entomology, University of Georgia, Athens, GA.
- 4:00 P.M. Population distribution, host plants, and natural enemies of the (GES) brown marmorated stink bug, *Halyomorpha halys* (Stål) (Hemiptera: Pentatomidae), in Georgia. **Dilani K. Patel**¹, Brett R. Blaauw¹, Michael D. Toews², Patricia G. Tillman², and Ashfaq A. Sial¹. ¹Department of Entomology, University of Georgia, Athens, GA; ²Department of Entomology, University of Georgia, Tifton, GA.



THURSDAY, 5 APRIL 2018 — CONTINUED

Paper Competition — Doctoral Students

MASTERS HALL 3 & 4 • MODERATOR: MICHAEL TOEWS

- 4:10 P.M. Spatial abundance of soybean pests in relation to habitat and (SCES) arthropod community covariates. **Daniel Greene**¹, Cody Kerns¹, James Smoak¹, Brandon Peoples², Francis Reay-Jones³, and Jeremy Greene¹. ¹Department of Plant and Environmental Sciences, Clemson University, Blackville, SC; ²Department of Forestry and Environmental Conservation, Clemson University, Clemson, SC; ³Department of Plant and Environmental Sciences, Clemson University, Florence, SC.
- 4:20 P.M. Something to chew on: convincing insects to dislike soybean. **Evan** (GES) **McCoy**¹, John All², Zenglu Li¹, and Wayne Parrott¹. ¹Institute of Plant Breeding, Genetics and Genomics, University of Georgia, Athens, GA; ²Department of Entomology, University of Georgia, Athens, GA.
- 4:30 P.M. The eastern white pine bast scale (Hemiptera: Matsucoccidae) and its (GES) association with tree dieback. **Thomas D. Whitney**^{1,2}, Rima D. Lucardi², and Kamal J. K. Gandhi¹. ¹D.B. Warnell School of Forestry and Natural Resources, University of Georgia, Athens, GA; ²USDA Forest Service, Forest Health Protection, Athens, GA.
- 4:40 P.M. Corn earworm feeding behavior in Bt corn: silk feeding, kernel (SCES) penetrance, and effects on larval characteristics. **Thomas R. Bilbo**¹, Francis PF Reay-Jones¹, Dominic D. Reisig², Jeremy Greene³, and Matt Turnbull⁴. ¹Department of Plant and Environmental Sciences, Clemson University, Florence, SC; ²Department of Entomology and Plant Pathology, North Carolina State University, Plymouth, NC; ³Department of Plant and Environmental Sciences, Clemson University, Blackville, SC; ⁴Department of Plant and Environmental Sciences, Clemson University, Clemson, SC.
- 4:50 P.M. Effects of a *Begomovirus* on the preference and fitness of its vector, (GES) *Bemisia tabaci*. **Saurabh Gautam** and Rajagopalbabu Srinivasan. Department of Entomology, University of Georgia, Griffin, GA.
- 5:00 P.M. Assessment of tobacco thrips (*Frankliniella fusca*) feeding injury (GES) and economic impact on peanut. **Pin-Chu Lai**, Mark R. Abney, and Rajagopalbabu Srinivasan. University of Georgia, Tifton, GA.
- 5:10 P.M. Wild sources to improve watermelon with resistance to arthropod (SCES) pests. **Alvin Simmons**¹, Amnon Levi¹, Robert Jarret², Rajagopalbabu Srinivasan³, and Charles Cantrell⁴. ¹USDA, ARS, U.S. Vegetable Laboratory, Charleston, SC; ²USDA, ARS, Plant Genetic Resources Conservation Unit, Griffin, GA; ³Department of Entomology, University of Georgia, Griffin, GA; ⁴USDA, ARS, Natural Products Utilization Research, Oxford, MS.

5:20 P.M. **Announcements**

6:00 P.M. **Student Awards Presentations & GES/SCES Mixer**



FRIDAY, 6 APRIL 2018

7:00 – 8:00 A.M. Registration (Masters Hall Lobby)

7:00 – 7:45 A.M. Load Talks onto Computer (see Brett Blaauw)

8:00 A.M. – 12:30 P.M. Poster Displays (Masters Hall 1 & 2)

Contributed Paper Session

MASTERS HALL 3 & 4 • MODERATORS:

RIZANA MAHROOF, LIVY WILLIAMS, NANCY HINKLE, SCOTT CROXTON

- 8:00 a.m. It's the end of the wood as we know it: insects in veteris (highly (SCES) decomposed) wood. **Michael L. Ferro**. Department of Plant and Environmental Sciences, Clemson University, Clemson, SC.
- 8:10 A.M. The Lepidoptera fauna of Sapelo Island, Georgia: butterflies. **Lance (GES) A. Durden**¹, Brian G. Scholtens², John S. Hyatt³, and James K. Adams⁴.
¹Department of Biology, Georgia Southern University, Statesboro, GA; ²Department of Biology, College of Charleston, Charleston, SC; ³Department of Chemistry, East Tennessee State University, Johnson City, TN; ⁴Department of Natural Sciences, Dalton State College, Dalton, GA.
- 8:20 A.M. The Lepidoptera fauna of Sapelo Island, Georgia: moths. **Brian G. (SCES) Scholtens**¹, James K. Adams², Lance A. Durden³, and John A. Hyatt⁴.
¹Department of Biology, College of Charleston, Charleston, SC; ²Department of Natural Sciences, Dalton State College, Dalton, GA; ³Department of Biology, Georgia Southern University, Statesboro, GA; ⁴Department of Chemistry, East Tennessee State University, Johnson City, TN.
- 8:30 A.M. Monitoring *Culicoides* species (Diptera: Ceratopogonidae) in forested (GES) habitat within the piedmont region of Georgia: seasonal variation and species composition. **Stacey Vigil**, Mark Ruder, and Joseph Corn. Southeastern Cooperative Wildlife Disease Study, College of Veterinary Medicine, University of Georgia, Athens, GA.
- 8:40 A.M. Management of cigarette beetle using mating disruption. **Michael (GES) Toews**¹, Tom Phillips² and Rizana Mahroof³. ¹University of Georgia, Department of Entomology, Tifton, GA; ²Department of Entomology, Kansas State University, Manhattan, KS; ³Department of Biological and Physical Sciences, South Carolina State University, Orangeburg SC.
- 8:50 A.M. Translocation of systemic insecticides to nectar and pollen of ornamental (SCES) plants. **Juang-Horng Chong**¹, Jennifer Tsuruda², Stephen Klaine³, and Jason Coral³. ¹Clemson University, Pee Dee Research and Education Center, Florence, SC; ²Public Service & Agriculture, Clemson University, Clemson, SC; ³Institution of Environmental Toxicology, Pendleton, SC.
- 9:00 A.M. Imidacloprid, aquatic insects, and new EPA risk assessment endpoints: (GES) What does this all mean for hemlock management? **Elizabeth Benton**¹ and Rebecca Nichols². ¹Warnell School of Forestry and Natural Resources, University of Georgia, Tifton, GA; ²Great Smoky Mountains National Park, National Park Service, Gatlinburg, TN.



FRIDAY, 6 APRIL 2018 — CONTINUED

- 9:10 A.M. Susceptibility of *Sitophilus oryzae* to different duration of ozone (SCES) exposure. Barbara Amoah and **Rizana Mahroof**. Department of Biological and Physical Sciences, South Carolina State University, Orangeburg SC.
- 9:20 A.M. Host plant resistance for management of *Melanaphis sacchari* (GES) (Hemiptera: Aphididae) in sorghum. **Sriyanka Lahiri**¹, M.D. Toews¹, X. Ni², N.C. Elliott³, G.D. Buntin⁴, A. Jacobson⁵, F.P.F. Reay-Jones⁶, and S.M. Punnuri⁷. ¹Department of Entomology, University of Georgia, Tifton, GA; ²USDA-ARS, Tifton, GA; ³USDA ARS, Stillwater, OK; ⁴Department of Entomology, University of Georgia, Griffin, GA; ⁵Auburn University, Auburn, AL; ⁶Clemson University, Florence, SC; ⁷Fort Valley State University, Fort Valley, GA.
- 9:30 A.M. Sprayer comparison for management of western flower thrips (GES) (Thysanoptera: Thripidae) in Georgia Blueberries. **Brian Little**¹, Craig Roubos¹, William Lovett², Glen Rains³, and Ashfaq Sial¹. ¹University of Georgia, Department of Entomology, Athens, GA; ²University of Georgia, Extension-Bacon County, Alma, GA; ³University of Georgia, Department of Entomology, Tifton, GA.
- 9:40 A.M. Potential use of argentine ant, *Linepithema humile*, semiochemicals (GES) for the delivery of an acute toxicant. **Benjamin M. Gochmour**¹, Daniel R. Suiter², Jerry W. Davis³, and Qingguo (Jack) Huang⁴. ¹Department of Entomology, University of Georgia, Athens, GA; ²Department of Entomology, University of Georgia, Griffin, GA; ³Experimental Statistics, University of Georgia, College of Agricultural and Environmental Sciences, Griffin, GA; ⁴Department of Crop and Soil Sciences, University of Georgia, Griffin, GA.
- 9:50 A.M. Flies as salmonella vectors in Georgia animal agriculture. **Nancy C. Hinkle**¹, Yumin Xu², Sha Tao³, Mark Harrison⁴, and Jinru Chin¹. ¹Department of Entomology, University of Georgia, Athens, GA; ²Department of Food Science & Technology, University of Georgia, Griffin, GA; ³Department of Animal & Dairy Science, University of Georgia, Tifton, GA; ⁴Department of Food Science & Technology, University of Georgia, Athens, GA.

10:00 – 10:30 A.M. Break

- 10:30 A.M. Foliar application of gibberellic acid mitigates chlorotic feeding injury (GES) by the black pecan aphid. **Ted E. Cottrell**. USDA, Agricultural Research Service, SE Fruit and Tree Nut Research Laboratory, Byron, GA.
- 10:40 A.M. Direct impacts of a plant-infecting Orthotospovirus on the fitness of its insect vector. **Rajagopalbabu Srinivasan**. Department of Entomology, University of Georgia, Griffin, GA.
- 10:50 A.M. Parasitism and predation of brown marmorated stink bug eggs in (GES) Georgia and Alabama. **Glynn Tillman**¹, Michael Toews², Sriyanka Lahiri², Ash Sial³, Brett Blaauw³, David Buntin⁴, Ted Cottrell⁵, and Rammohan Balusu⁶. ¹USDA, ARS, Tifton, GA; ²University of Georgia, Tifton, GA; ³University of Georgia, Athens, GA; ⁴University of Georgia, Griffin, GA; ⁵USDA, ARS, Byron, GA; ⁶Auburn University, Auburn, AL.



FRIDAY, 6 APRIL 2018 — CONTINUED

- 11:00 A.M. A survey of pollinators on Spring Island, Okatie, South Carolina. **Merle (SCES) Shepard¹**, Dwight Williams², and Tony Mills³. ¹Clemson University, Coastal Research and Education Center, Charleston, SC; ²Bottle Tree Gardening, McClellanville, SC; ³Lowcountry Institute, Okatie, SC.
- 11:10 A.M. Update on vegetable IPM research in Georgia. **David Riley** and Stormy (GES) Sparks. Department of Entomology, University of Georgia, Tifton, GA.
- 11:20 A.M. Insects of Ichauway: past, present, and future entomological research (GES) at the Jones Center. **Thomas N. Sheehan** and Kier D. Klepzig. Joseph W. Jones Ecological Research Center, Newton, GA.
- 11:30 A.M. An integrated approach to managing spotted wing drosophila (Diptera: (GES) Drosophilidae). **Ashfaq Sial**. Department of Entomology, University of Georgia, Athens, GA.
- 11:40 A.M. USDA-ARS Tifton location's progress on the understanding and control (GES) of the sugarcane aphid (Hemiptera: Aphididae) on sorghum. **Karen Harris-Shultz**, Joseph Knoll, and Xinzhi Ni. USDA-ARS, Crop Genetics and Breeding Research Unit, Tifton, GA.
- 11:50 A.M. Spatial and temporal distribution of the silverleaf whitefly in South (GES) Georgia. **Apurba Barman**, David Riley, Alton Sparks, Rajagopalbabu Srinivasan, Phillip Roberts, and Michael Toews. Department of Entomology, University of Georgia, Tifton, GA.
- 12:00 A.M. Synchronous and asynchronous computer-based CEU programs for (GES) Georgia ANR agents. **Dan Suiter¹**, Shamat Joseph¹, Bodie Pennisi², Richie Braman³, Tami Boyle³, Beth Horne³, and Jule-Lynne Macie⁴. ¹Department of Entomology, University of Georgia, Griffin, GA; ²Department of Horticulture, University of Georgia, Griffin, GA; ³Center for Urban Agriculture, University of Georgia, Griffin, GA; ⁴University of Georgia Cooperative Extension, Northwest District, Griffin, GA.
- 12:10 A.M. Insects in art and sculpture: butterfly beauties and dragonfly damsels. (GES) **Linda A. Smyth**. Macon, GA.
- 12:30 P.M. Final Business Meetings**
Georgia Entomology Society (**Masters Hall 1**)
South Carolina Entomology Society (**Masters Hall 2**)



**PLEASE BE CONSIDERATE OF SPEAKERS AND MEETING PARTICIPANTS —
TURN OFF THE RINGER ON CELL PHONES BEFORE ENTERING THE
MEETING ROOMS. THANK YOU!**



STUDENT POSTER COMPETITION

BACHELORS STUDENTS

- SP-1 (GES) An investigation into the visual systems of the beetle bandit *Cerceris fumipennis* (Hymenoptera: Crabronidae) using phylogenetically-informed annotation (PIA). **Stephanie Forsman** and Jordan Yacoub. Department of Biological and Environmental Sciences, Georgia College, Milledgeville, GA.
- SP-2 (SCES) Stem cells and virus infection in the caterpillar gut. **Daniel Howard**¹ and Matthew Turnbull². ^{1,2}Department of Biological Sciences, ²Plant and Environmental Sciences, Clemson University, Clemson, SC.
- SP-3 (GES) Life cycle and behavior of flower mantids. **Linden Pederson** and Marianne Shockley. Department of Entomology, University of Georgia, Athens, GA.
- SP-4 (GES) Co-evolution in divergent insects: *Cerceris fumipennis* and Buprestidae. **Caroline Fowler**, Dorianna Dobson, Payton Burriss, and Nathan P. Lord. Department of Biological and Environmental Sciences, Georgia College, Milledgeville, GA.

MASTERS STUDENTS

- SP-5 (GES) Regional phenotypic variation in southern pine beetle populations. **Bailey McNichol**¹, Brian Sullivan², John T. Nowak³, Brittany Barnes¹, Caterina Villari¹, and Kamal Gandhi¹. ¹D.B. Warnell School of Forestry and Natural Resources, University of Georgia, Athens, GA; ²Southern Research Station, USDA-Forest Service, Pineville, LA; ³Forest Health Protection, USDA-Forest Service, Asheville, NC.
- SP-6 (GES) Understanding *Agrilus macer* (Coleoptera: Buprestidae) biology and its role in sugarberry (*Celtis laevigata*) mortality. **Emilee Poole**¹, Mike Ulyshen², and Scott Horn². ¹Department of Entomology, University of Georgia, Athens, GA; ²United States Forest Service, Southern Research Station, Athens, GA.
- SP-7 (GES) Managing three-cornered alfalfa hopper (Hemiptera: Membracidae) in peanut. **D. Bryce Sutherland**¹ and Mark R. Abney². ¹University of Georgia Extension, Worth County, Sylvester, GA; ²Department of Entomology, University of Georgia, Tifton, GA.
- SP-8 (GES) The Georgia pollinator census project. **Becky Griffin**¹ and S. Kris Braman². ¹Department of Entomology, University of Georgia, Griffin, GA; ²Department of Entomology, University of Georgia, Athens, GA.
- SP-9 (GES) Wetlands as refugia for beneficial arthropods. **Brittany Clark**, Darold Batzer, and Joseph McHugh. Department of Entomology, University of Georgia, Athens, GA.
- SP-10 (GES) Differential mortality rates of multiple insecticides on the squash bug, *Anasa tristis*. **Kalen Fleming**¹, Alton Sparks², and Tim Coolong¹. ¹Department of Horticulture and ²Department of Entomology, The University of Georgia-Tifton Campus, Tifton, GA.
- SP-11 (GES) Evidence of reproductive diapause in (*Chalcodermus aenus*) the cowpea curculio. **Sydni Barwick**¹, Alton Sparks², and David Riley². ¹UGA Extension, Thomas County, Thomasville, GA, ²Department of Entomology, University of Georgia, Tifton, GA



DOCTORAL STUDENTS

- SP-12 (GES) Investigating the effects of prescribed burn size on pollinator communities in the Piedmont National Wildlife Refuge. **Conor Fair**¹, Scott Horn², Joseph McHugh¹, and Mike Ulyshen². ¹Department of Entomology, University of Georgia, Athens GA; ²USDA Forest Service, Athens, GA.
- SP-13 (GES) Preliminary assessment of plum curculio activity in southeastern peaches. **Tzu-Chin Liu** and Brett Blaauw. Department of Entomology, University of Georgia, Athens, GA.

REGULAR POSTER DISPLAYS

- RP-1 (GES) Forensic ecology: the role of invasive species in estimating “time of death”. **Edward B. Mondor**. Department of Biology, Georgia Southern University, Statesboro, GA.
- RP-2 (GES) The biological field journal: integrating observation with art. **Michelle N. Tremblay** and Edward B. Mondor. Department of Biology, Georgia Southern University, Statesboro, GA.
- RP-3 (SCES) Eastern bat bug (*Cimex adjunctus*) egg production rates. Jinbo Song, Brittany Ellis, and **Eric P. Benson**. Department of Plant and Environmental Sciences, Clemson University, Clemson, SC.
- RP-4 (GES) Arachnida creeping across the Coastal Plain of Georgia. Michael L. McAloon¹, **Daniel V. Hagan**¹, and Michael L. Draney². ¹Department of Biology and Institute for Coastal Plain Science, Georgia Southern University, Statesboro, GA; ²Department of Natural and Applied Sciences, University of Wisconsin-Green Bay, Green Bay, WI.
- RP-5 (SCES) Detection of low-level populations of sweetpotato weevil using multimodal cues. **Livy Williams, III**¹, Grant T. McQuate², Charmaine D. Sylva², Jennifer H. Webb^{1,3}, and Phillip A. Wadl¹. ¹USDA-ARS U.S. Vegetable Laboratory, Charleston, SC; ²USDA-ARS Daniel K. Inouye U.S. Pacific Basin Agricultural Research Center, Hilo, HI; ³Department of Plant and Environmental Science, Clemson University, Clemson, SC.
- RP-6 (GES) Snapshots of biodiversity in Georgia agroecosystems. **Melissa D. Thompson**¹, Pam Halliday¹, Shereen Xavier¹, T. Seth Whitehouse¹, Carson Bowers¹, Dawn Olson², Alisa Coffin², Ash Sial³, Mike Toews¹, and Jason Schmidt¹. ¹Department of Entomology, University of Georgia, Tifton, GA; ²USDA-ARS, Tifton, GA; ³Department of Entomology, University of Georgia, Athens, GA.
- RP-7 (SCES) Reduced efficacy of Bt corn expressing Cry1A.105 and Cry2ab2 for control of corn earworm in the Carolinas. **Francis P. F. Reay-Jones**¹, Thomas R. Bilbo¹, and Dominic D. Reisig². ¹Clemson University, Department of Plant and Environmental Sciences, Pee Dee Research and Education Center, Florence, SC; ²Department of Entomology and Plant Pathology, North Carolina State University, NC; ³The Vernon G. James Research and Extension Center, Plymouth, NC.



- RP-8 (GES) Vertical stratification of bark and wood boring beetles at the forest edge and forest interior: is there an optimal trap location for detection? Thomas N. Sheehan^{1,2}, **Michael D. Ulyshen**³, Scott Horn³, and E. Richard Hoebeke⁴. ¹Department of Entomology, University of Georgia, Athens, GA; ²Joseph W. Jones Ecological Research Center, Newton, GA; ³USDA Forest Service, Southern Research Station, Athens, GA; ⁴Museum of Natural History and Department of Entomology, University of Georgia, Athens, GA.
- RP-9 (GES) Pyramided insect resistant soybean. **John All**¹, Zenglu Li², Wayne Parrott², Dean Kemp¹, Phillip Roberts³, and Roger Boerma⁴. ¹Department of Entomology, University of Georgia, Athens, GA; ²Department of Crop and Soil Sciences, University of Georgia, Athens, GA; ³Department of Entomology, University of Georgia, Tifton, GA; ⁴Georgia Seed Development, Athens, GA.
- RP-10 (GES) RAPID screening of residual toxicity of insecticide against spotted wing drosophila (Diptera: Drosophilidae) in treated vials over time. **Joseph Disi** and Ashfaq Sial. Department of Entomology, University of Georgia, Athens, GA.
- RP-11 (GES) MyIPM: assisting fruit growers through technology. **Brett Blaauw**¹ and Guido Schnabel². ¹Department of Entomology, University of Georgia, Athens, GA; ²Department of Plant and Environmental Sciences, Clemson University, Clemson, SC.
- RP-12 (GES) Effect of sugarcane aphid injury on yield and quality of silage sorghum. **G. David Buntin**. Department of Entomology, University of Georgia, Griffin, GA.
- RP-13 (GES) Developmental DNA methyltransferase in the fire ant *Solenopsis invicta*. **Sasha Kay**, Daniel Skowronski, and Brendan G. Hunt. Department of Entomology, University of Georgia, Griffin, GA.

J.H. Cochran Award, D. Michael Jackson *continued from page 11*

He has been invited to make 25 presentations at scientific symposia. He served as the sole editor of Tobacco Science for three years, and is currently serving as chief editor of the Journal of Agricultural and Urban Entomology for the past seven years. He has been an adjunct professor at Clemson University for 20 years, he was a USDA adjunct professor with North Carolina State University for 30 years, and he served on the graduate committees of five students.



GEORGIA ENTOMOLOGICAL SOCIETY

OFFICERS AND EXECUTIVE BOARD 2017-2018

President	Daniel Suiter
President-Elect	Edward Mondor
Past President	Michael Toews
Secretary-Treasurer	Stanley Diffie
Historian	Nancy Hinkle

JOURNAL OF ENTOMOLOGICAL SCIENCE

Editor	Wayne Gardner
Associate Editor	David Buntin

LOCAL ARRANGEMENTS COMMITTEE

Marianne Shockley, <i>Chair</i>	Brett Blaauw
---	---------------------

PROGRAM COMMITTEE

Ed Mondor, <i>Chair</i>	Michael Toews
Daniel Suiter	Stan Diffie
Brett Blaauw	Alvin Simmons (SCES)

INSECT SURVEY

Mark Abney, <i>Chair</i>

AWARDS AND RECOGNITION

Daniel Suiter, <i>Chair</i>	Michael Toews
Wayne Gardner	

STUDENT AFFAIRS

Kerry Oliver, <i>Chair</i>	Lorenza Beati
Matthew Doremus	Matthew Seabolt
Pin-Chu Lai	

NOMINATIONS

Dan Suiter, <i>Chair</i>	Michael Toews
---------------------------------	----------------------

AUDIT

Alton Sparks, <i>Chair</i>	Angel Acebes-Doria
-----------------------------------	---------------------------

SITE SELECTION – 2019

Ed Mondor, <i>Chair</i>	Michelle Tremblay
Scott Horn	

GES SCHOLARSHIP

Michael Toews, <i>Chair</i>	David Riley
------------------------------------	--------------------

O. I. SNAPP AWARD

Best Regular Member Presentation

Ted Cottrell, <i>Chair</i>	Rajagopalbabu
James Vogt	Srinivasan

T. L. BISSELL AWARD

Best M.S./B.S. Student Presentation

Lance Durden, <i>Chair</i>	Scott Horn
-----------------------------------	-------------------

C. M. BECKHAM AWARD

Best Ph.D. Student Presentation

David Buntin, <i>Chair</i>	David Riley
-----------------------------------	--------------------

U. E. BRADY AWARD

Best Student Poster

Yanzhuo Zhang, <i>Chair</i>	Dan Hagan
------------------------------------	------------------

PHOTO SALON

Lisa Ames, <i>Chair</i>	Daniel Suiter
Sasha Kay	David Buntin
Donna Smith	Wayne Gardner
Lynn Maynard	

RESOLUTIONS

Shimat Joseph, <i>Chair</i>

INDUSTRY PANEL

Keith Rucker, <i>Chair</i>

MEMBERSHIP, NECROLOGY, AND COMPUTER RESOURCES COMMITTEE

Michael Toews, <i>Chair</i>	Stan Diffie
------------------------------------	--------------------

OPERATING GUIDELINES COMMITTEE

Ad Hoc – Appointed by President

SPORTING EVENTS

Will Hudson, <i>Fishing</i>	John All, <i>Run/Walk</i>
------------------------------------	----------------------------------



SOUTH CAROLINA ENTOMOLOGICAL SOCIETY

OFFICERS:

President: **Livy Williams**, USDA-ARS, US Vegetable Laboratory, 2700 Savannah Hwy., Charleston, SC 29414; phone 843-402-5392

VP/President Elect: **Alvin Simmons**, USDA-ARS, US Vegetable Laboratory, 2700 Savannah Hwy., Charleston, SC 29414; phone 843-402-5307

Past President: **David Jenkins**, SC Forestry Commission, 5500 Broad River Rd., Columbia, SC 29212; phone 803-667-1002

Secretary: **Rebecca Schmidt-Jeffris**, Clemson University Coastal Research and Education Center, Charleston, SC 29414; phone 843-402-5311

Historian: **Gerry Carner**, Clemson University, 318 Long Hall, Clemson, SC 29634; phone 864-656-5040; fax 864-656-5065

COMMITTEE CHAIRS:

Auditing: **Merle Shepard**, Clemson University, Coastal REC, 2700 Savannah Highway, Charleston, SC 29414; phone: 843-402-5393; fax: 843-571-4654; email: mshprd@clemson.edu

Honors and Awards: **Francis Reay-Jones**, Clemson University, Pee Dee REC, 2200 Pocket Rd., Florence, SC 29506; phone: 843-519-0480; fax: 843-661-5676; e-mail: freayjo@clemson.edu

Local Arrangements: **David Jenkins**, South Carolina Forestry Commission, 5500 Broad River Rd, 29212; phone: 803-896-8838; email: djenkins@scfc.gov

Membership: **Pat Zungoli**, Clemson University, 118 Long Hall, Clemson, SC 29634; phone: 864-656-3137; fax: 864-656-5065; e-mail: pzngl@clemson.edu

Nomination: **Dwight Williams**, Cypress Gardens, 3030 Cypress Gardens Road, Moncks Corner, SC 29461; phone: 843-553-0515; fax: 843-569-0644; email: bottletreegardening@gmail.com

Program: **Alvin Simmons**, USDA-ARS U.S. Vegetable Laboratory, 2700 Savannah Highway, Charleston, SC 29414; phone: 843-402-5307; email: Alvin.simmons@ars.usda.gov

Resolutions: **Cynthia Tant**, Winthrop University, Biology Dept., Rock Hill, SC 29733; phone: 803-323-2111; fax: 803-323-3448; email: tantc@winthrop.edu

Editor, Journal of Agricultural and Urban Entomology: **Juang-Horng Chong**, Clemson University, Pee Dee REC, 2200 Pocket Rd., Florence, SC 29506; phone: 843-662-3526; fax: 843-661-5676; e-mail: juanghc@clemson.edu



PAST PRESIDENTS GEORGIA ENTOMOLOGICAL SOCIETY

1937	C. H. Alden	1973	J. B. O'Neil	2006	Robert M. McPherson
1938	C. H. Alden	1974	Rudolph T. Franklin	2007	John N. All
1939	Theodore L. Bissell	1975	Horace O. Yates, III	2008	S. Kristine Braman
1940	P. M. Gilmer	1976	Jerry E. Payne, Sr.	2009	John Ruberson
1941	C. H. Alden	1977	V. Rodney Coleman	2010	James Hadden
1942	M. M. Murphy, Jr.	1978	R. H. Perstage	2011	Ted Cottrell
1944	P. W. Fatrtig	1979	R. B. Henderson	2012	David Riley
1946	Oliver I. Snapp	1980	James O. Howell	2013	Alan Harvey
1948	W. H. Clarke	1981	Alton N. Sparks	2014	Gerald Harrison
1949	Horace O. Lund	1982	U. Eugene Brady, Jr.	2015	Scott Horn
1950	J. C. Alden	1983	R. F. Nash	2016	Will Hudson
1951	G. G. Rohwer	1984	W. Louis Tedders, Jr	2017	Daniel R. Suiter
1952	W. G. Bruce	1985	Herbert Womack		
1953	William F. Turner	1986	J. B. O'Neil		
1954	W. E. Blassingame	1987	J. Larry Zettler		
1955	F. E. Allison	1988	James H. Oliver, Jr.		
1956	Cedric R. Jordan	1989	Louise G. Henry		
1957	H. E. Johnson	1990	William L. Tietjen		
1958	Clifford M. Beckham	1991	Jerry A. Payne		
1959	H. Laudani	1992	James R. Collins		
1960	J. W. Maxwell	1993	T. Don Canerday		
1961	O. K. Fletcher, Jr.	1994	Michael A. Mullen		
1962	W. W. Wells	1995	Keith H. Griffith		
1963	E. W. Beck	1996	Frank E. French		
1964	Loy W. Morgan	1997	Robert E. Lynch		
1965	H. H. Tippins	1998	Sandy Newell		
1966	H. L. Pollard	1999	James D. Dutcher		
1967	H. D. Purswell	2000	James E. Carpenter		
1968	J. W. Kilpatrick	2001	Lance G. Peterson		
1969	Preston E. Hunter	2002	Daniel V. Hagan		
1970	R. B. Comoly	2003	James L. Hanula		
1971	R. Davis	2004	G. David Buntin		
1972	L. M. Redlinger	2005	Wayne A. Gardner		



PAST PRESIDENTS SOUTH CAROLINA ENTOMOLOGICAL SOCIETY

1956 James H. Cochran	1989 David R. Alverson
1957 Leon (Lefty) H. Moore	1990 John C. Morse
1958 Frank. T. Arnold, Jr.	1991 John Benjamin Kissam
1959 John K. Reed	1992 Steve H. Roach
1960 W. J. Reid, Jr.	1993 John D. Hopkins
1961 Norman Allen	1994 B. Merle Shepard
1962 James N. Smith	1995 Randall P. Griffin
1963 William Carl Nettles	1996 Michael J. Sullivan
1964 Wendell H. Tiller	1997 Mitchell E. Roof
1965 Vernon M. Kirk	1998 Peter H. Adler
1966 Edward W. King	1999 Ronald E. Burnette
1967 Julian E. Keil	2000 Donald G. Manley
1968 Charles S. Creighton	2001 Paula Levin Mitchell
1969 Richard C. Fox	2002 Gloria S. McCutcheon
1970 Sam G. Turnipseed	2003 Alfred G. Wheeler
1971 Quinton L. Chapman	2004 Paul M. Horton
1972 Sid B. Hays	2005 William M. Hood
1973 Max M. Askey	2006 D. Michael Jackson
1974 Theodore R. Adkins, Jr.	2007 Eric P. Benson
1975 Julian Mikell	2008 Jeremy K. Greene
1976 William Bruce Ezell, Jr.	2009 Francis Reay-Jones
1977 Louie H. Senn	2010 Juang-Horng Chong
1978 Augustine Day	2011 Robert G. Bellinger
1979 Gerry R. Carner	2012 Brian Scholtens
1980 Charles A. Thomas	2013 Patricia Zungoli
1981 Raymond Noblet	2014 Laurie Reid
1982 John A. DuRant	2015 Dwight Williams
1983 Tom E. Skelton	2016 Rizana Mahroof
1984 Alfred R. Hopkins	2017 David Jenkins
1985 Ken Peebles	
1986 Clyde S. Gorsuch	
1987 Jay W. Chapin	
1988 William P. DuBose	



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
5-7 April 2017	Villas by the Sea, Jekyll Island

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

2018
Georgia Entomological Society
South Carolina Entomological Society

Thanks to those who provided financial
support for our meeting:

ARROW EXTERMINATORS

BAYER

DOWDUPONT

MONSANTO

NICHINO AMERICA

ORKIN

SYNGENTA AG

TERMINIX

VALENT



COVER PHOTO BY BRETT BLAAUW