

76th Annual Meeting



Georgia Entomological Society



4-6 April, 2012

Holiday Inn
Statesboro, Georgia



PRESIDENT • 2011-2012

David Riley

Welcome to the 76th Annual Meeting of the Georgia Entomological Society (GES) at the Statesboro-University Area Holiday Inn. Wow, what a program! Our President-Elect/Program Chair Alan Harvey has done an outstanding job organizing this year's meeting. The symposium, "Game Changers: Arthropods with Recent and Rapid Range Expansions in the Southeast," promises to be an interesting and very timely session. We have excellent participation from both members and students this year, so the O.I.

Snapp Award (Non-Student Paper), T. L. Bissell Award (M.S./B.S. Student Paper), C. M. Beckham Award (Ph.D. Student Paper) and U.E. Brady Award (Student Poster) should be competitive and exciting. The Founder's Lecture honoring John All will be presented by Jim Dutcher. Both John and Jim have been ardent supporters of the GES over the last few decades. John All's program has widely impacted integrated pest management throughout the Southeast and the USA through the development of solid, applied entomological information, graduate training of new professionals, and the countless students he interacted with on the University of Georgia Campus over his long professional career. Our GES Fellow we are honoring this year is David Buntin who has been our society's Journal of Entomological Science Associate Editor since 1993...that's a long time folks! Related to this, we are also approaching a major transition in our society. Wayne Gardner has announced his retirement in the coming year as Editor of the Journal of Entomological Science (JES). He has been in this position since 1994 and has been instrumental in maintaining the journal's reputation as one of the best regional journals anywhere dealing with applied entomological research. Submissions come to JES from all over the world, not just the Southeastern USA. Wayne is going to be sorely missed and it will not be easy "filling

Dr. Riley is a professor and member of the graduate faculty in the Department of Entomology at the University of Georgia (UGA). Prior to his current position, he worked for 5 years as a vegetable research entomologist with Texas A&M University. His academic training includes a PhD at the University of Florida in 1990, a MS at North Carolina State University in 1986 and a BS at the University of Georgia in 1981. Dr. Riley's specialty is vegetable insect management with emphasis on the control of insect virus vectors.



his shoes” in the coming years.

A special thanks to all of the GES officers, presenters, judges, volunteers and industry donors for making this program possible. Enjoy the meeting!

SCHEDULE OF EVENTS

Wednesday, 4 April 2012

- 1:00 P.M. GES Golf Tournament, Meet at Willow Lake Golf Club, Metter GA, Stormy Sparks
- 5:00 P.M. Entomology Run/Walk, Meet in front of Hotel Lobby, John All
- 7:00 – 8:30 P.M. Executive Committee, Emma's Restaurant

Thursday, 5 April 2012

- 7:00 – 8:00 A.M. Breakfast, Emma's Restaurant
- 7:00 – 8:00 A.M. Registration, Main Hotel Lobby
- 7:00 – 8:00 A.M. Poster Set Up, Azalea Room
- 8:00 – 5:00 A.M. Poster Displays, Azalea Room
- 8:00 – 8:15 A.M. Welcome and Announcements, Magnolia Room
- 8:15 – 8:45 A.M. 2012 Founders Lecture, Magnolia Room
- 8:45 – 9:15 A.M. Industry Panel, Magnolia Room
- 9:15 – 9:30 A.M. Break
- 9:30 – 11:30 A.M. Symposium **“Game Changers: Arthropods with Recent and Rapid Range Expansions in the Southeast”** Magnolia Room
- 11:30 – 1:00 P.M. Luncheon & Photo Salon (2012 Fellows), Magnolia Room
- 1:00 – 2:36 P.M. M.S. Student Paper Competition, Magnolia Room
- 2:36 – 2:50 P.M. Break
- 2:50 – 3:50 P.M. Ph.D. Student Paper Competition, Magnolia Room
- 3:50 – 4:50 P.M. Contributed Papers, Magnolia Room
- 5:30 – 6:00 P.M. Student Awards Presentations, Magnolia Room
- 5:30 – 7:00 P.M. GES Mixer, Magnolia Room
- 7:00 P.M. Dinner on your own

Friday, 6 April 2012

- 7:00 – 8:00 A.M. Breakfast, Emma's Restaurant
- 7:00 – 8:00 A.M. Registration, Conference Lobby
- 8:00 – 11:30 A.M. Poster Displays, Azalea Room
- 8:00 – 9:36 A.M. Contributed Papers, Magnolia Room
- 9:36 – 9:50 A.M. Break
- 9:50 – 11:26 A.M. Contributed Papers, Magnolia Room
- 11:30– 12:30 A.M. Business Meeting, Magnolia Room





FOUNDER HONOREE • 2012

John All

Dr. John N. All is the 2012 recipient of The Georgia Entomological Society Founder's Award. John has been a strong supporter of the Georgia Entomological Society since he started his professional career in Georgia as an assistant professor, applied research entomologist, graduate student advisor and teacher at the University of Georgia in 1973. Since then, Dr. All has encouraged all 46 of the graduate students under his major advisement to participate in the

GES meetings and its publications. Prior to coming to Georgia, John was a Forest Protection major as a M.S. student at Duke University. His first job in entomology was as a student worker in the US Forest Service Lab at Research Triangle Park, NC. He continued his graduate work with Dr. D. M. Benjamin at the University of Wisconsin, comparing sawfly feeding behavior and development on young and mature jack pine foliage and measuring the antifeedant properties of extracts of young foliage. Dr. All continued his career at the Department of Entomology, University of Georgia until his retirement in 2011. His research has innovated and improved insect control methods for integrated pest management for some of the most noxious insect pests of corn, soybeans, canola, cotton, turf, and fruit crops culminating in over 400+ publications. His collaborative efforts in research have a strong interdisciplinary component and many studies have lead to discoveries that contributed to the realization of integrated pest management in U.S. cropping systems. Examples are: tillage and lesser cornstalk borer control; host plant resistance in soybeans; comparing diamondback moth control and the fitness of the plants in transgenic and non-transgenic canola; binary control of the heliothine pest complex; precision application of systemic pesticides; and, biological control of soil insects in turf and grapes with EPNs. He contributed a definition of integrated pest management systems, writing in 2004 - [IPM consists of] "... coordinated systems for managing pest populations that utilize preventive and suppressive control tactics, that are unified by surveillance to assess hazard for injury to determine if curative action is needed." Dr. All also developed the insect pest management curriculum at the University of Georgia, writing the beginning undergraduate course - ENTO 3740 - and developing a graduate level course - ENTO/CRSS/PATH 4740-6740 - with the Crop and Soil Science and Plant Pathology Departments on integrated pest management. Further on, he developed an advanced interdepartmental graduate course on pesticides and transgenic crops - ENTO/CRSS/PATH

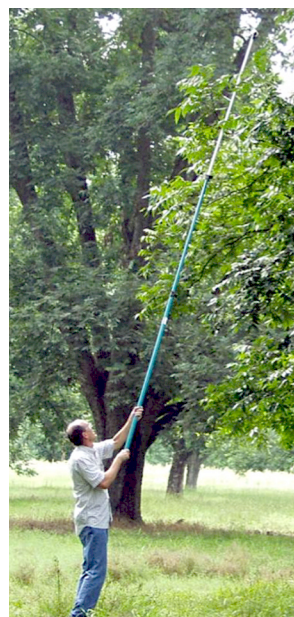


4250/6250. He has served as President of the Society in 2007 and became a Fellow in 2008. Outside of the GES, Dr. All has also been a strong supporter of the Entomological Society of America, winning the Southeastern Branch ESA Distinguished Achievement Award in Teaching, and writing two widely distributed ESA Handbooks - "Corn Insects" with K. Steffey, M. Rice, D. Andow, M. Gray and J. Van Duyn and others and "Use and Management of Insecticides, Acaricides, and Transgenic Crops" with M. Treacy. John's wife, Terry, has also been an important part of the Department of Entomology at the University of Georgia, working as a senior graphics designer and the Georgia Entomological Society, organizing and participating in the annual meetings.

FOUNDERS' LECTURER • 2012

Jim Dutcher

I became interested in Entomology as a boy scout in Detroit in 1962 working on a collecting project with Dr. Schmitt, the local dentist and amateur insect collector. I went on to Michigan State University and finished in 1975 with a master's degree with research at the Trevor Nichol's Station in Fennville where I worked with Dr. Howitt on insect pests of 16 different fruit crops growing along the Lake Michigan coast. I continued on to UGA where I worked on grape root borer with Dr. All and finished up in 1978. I was hired at the University of Georgia and assigned to the Coastal Plain Experiment Station during the summer of 1978 as the pecan entomologist where I have continued to work in research. My research interest is focused on integrated pest management of insect and mite pests of pecans in Georgia where ~50% of the U.S. pecan nuts are produced on ~170,000 acres. I work each season with many cooperators in the pecan industry including researchers in the S-1049 regional research project, pecan growers, consultants and IPM scouts, chemical company representatives, extension specialists and county agents. The research has produced: effective biological control strategies for pecan aphids and mites; results of field efficacy trials in the support of registration for all insecticides and miticides currently used by pecan growers; effective monitoring methods for aphidophagous insects, aphids and mites, pecan weevil, hickory shuckworm, and *Prionus* root borers; identifications for many new parasitoids and predators in the pecan system; methods for evaluating host plant resistance to aphids in pecan cultivars.





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 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 subdiscipline.

| 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 |



FELLOW • 2012

G. David Buntin

G. David Buntin currently is a Professor of Entomology at the University of Georgia Griffin Campus of the College of Agricultural and Environmental Sciences in Griffin, GA. His duties are Research (75%), Extension (15%) and instruction (10%) for Integrated Pest Management of grain, forage and alternative agronomic crops. David received his B.S. in 1978 in Entomology and Applied Ecology at the University of Delaware and worked under the direction of the late Dr. Dale Bray. He received an M.S. in Entomology in 1980 and Ph.D. in Entomology with a minor in Agronomy in 1984 at Iowa State University. David grew up in Wilmington, Delaware where his father was a chemist with Hercules Chemical Company. He began collecting insects at the age of 7 and never seriously considered a career outside Entomology. During his undergraduate work he focused on collecting insects, taxonomy of several groups and aquatic Entomology. For his master work under the direction of Dr. Larry Pedigo he worked on the sampling and dispersion of the green cloverworm and leafminer biology and damage on soybeans. His dissertation work focused on the damage loss relationship and economic injury defoliation of alfalfa by variegated cutworm and alfalfa weevil. He began work at the University of Georgia in 1984 in the area of the biology, management, and sampling of insects on grain, forage and alternative agronomic crops including canola and grasses for bioenergy production; plant response in insect stress; plant resistance to insects; and biological control of weeds using insects. He was promoted to Professor in 1996. He has published over 300 publications including 115 referred publications. He co-edited two books titled Handbook of Sampling Methods for Arthropods in Agriculture and the ESA Handbook of Small Grain Insects. He also has advised or co-advised several M.S. and Ph.D. students. His research has focused on winter wheat pest management with emphasis on the Hessian fly and aphids. He has worked closely with the cereal grain breeding program at UGA developing Hessian fly resistant wheat varieties and is co-inventor of over 12 wheat and oat varieties. He also helped to develop and IPM system for winter canola in the Southeast. More recently he is working on use of transgenic Bt traits for insect control in field corn and on the arthropod pests of bioenergy crops. He also team taught courses in Pest Management and General Entomology at the UGA-Griffin Campus. Buntin belongs to several professional societies including the Entomological Society of America, Georgia Entomological



Society, and the American Society of Agronomy. He has served the Georgia Entomological Society as member or chair of several committees and was GES Secretary/Treasurer from 1991 - 1997 and was President in 2004. He also has served on several committees with the Entomological Society of America at the branch and national level and is currently President of the Southeastern Branch of ESA. In addition he has served as Technical Editor of the IPM section of Agronomy Journal, 1998-2002; subject editor for plant resistance for the Journal of Economic Entomology, 2002-2010; and is currently the Associate Editor of the Journal of Entomological Science.

FELLOWS OF THE GEORGIA ENTOMOLOGICAL SOCIETY

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





THURSDAY, 5 APRIL 2012

7:00 – 8:00 A.M. Registration (desk in Main Lobby)

Breakfast (Emma's Restaurant)

Poster setup (Azalea Room)

7:30 – 5:00 A.M. Presentation previews (Business Office)

OPENING SESSION

MAGNOLIA ROOM • PRESIDENT DAVID RILEY, PRESIDING

8-8:15 a.m. Welcome and Announcements

8:15-8:45 A.M. GES 2012 Founders Lecture honoring **John All**,
presented by **Jim Dutcher**

8:45-9:15 A.M. Industry Panel
Moderator: Shine Taylor

9:15-9:30 A.M. Break

9:30-11:30 A.M. **Symposium – “Game changers: arthropods with recent and rapid range expansions in the Southeast”**
Moderator: Alan Harvey

9:30 A.M. European Pepper Moth, the most recent insect invasion into Georgia vegetable crops. **David Riley**. Department of Entomology, University of Georgia, Tifton, GA

9:50 A.M. Kudzu bug: an invasive pest of Georgia soybeans. **Phillip Roberts**, John All, David Buntin, Wayne A. Gardner, John R. Ruberson, Michael D. Toews. Department of Entomology, University of Georgia, Tifton, GA

10:10 A.M. Asian citrus psyllid and citrus greening disease: Current management approaches and the resulting impact on non-target pest populations. **Michael Rogers**. UF / IFAS / Citrus Research and Education Center, Lake Alfred, FL

10:30 A.M. Laurel Wilt progression across the state of Georgia. **Chip Bates**. Georgia Forestry Commission, Statesboro, GA

10:50 A.M. *Atherigona reversura* (Diptera:Muscidae), a new pest of pastures in Georgia. **William G. Hudson**¹, Cecil Smith¹, David Buntin², Elizabeth Wiggins². ¹Department of Entomology, University of Georgia, Athens, GA, ²Department of Entomology, University of Georgia, Griffin, GA

11:10 A.M. What a tangled web we weave: Patterns and processes during a recent invasion of the brown widow spider, *Latrodectus geometricus*. **J. Scott Harrison**, Edward B. Mondor. Department of Biology, Georgia Southern University, Statesboro, GA

11:30A.M.-1:00 P.M. Luncheon & Photo Salon (recognition of 2012 Fellows)
Moderator: Lisa Ames



THURSDAY, 5 APRIL 2012

M.S. STUDENT PAPER COMPETITION

MAGNOLIA ROOM • MODERATOR: BILL IRBY

- 1:00 P.M. Life history of the redbay ambrosia beetle, *Xyleborus glabratus*, in the field and in vitro. **Michael L. Maner**, Jim Hanula, Kris Brame. Southern Research Station, USDA Forest Service, Athens, GA
- 1:12 P.M. Fact or fiction: evaluating claims of repellency of various plants to Argentine Ants. **Jacob B. Holloway**¹, Daniel R. Suiter², Brian T. Forscher¹, Wayne A. Gardner². ¹Department of Entomology, University of Georgia, Athens, GA, ²Department of Entomology, University of Georgia, Griffin, GA
- 1:24 P.M. Potential of native lace bugs (*Leptotyphla mutica*) for biological control of Chinese privet (*Ligustrum sinense*). **Jessica Kalina**¹, Kris Brame¹, Jim Hanula². ¹Department of Entomology, University of Georgia, Griffin, GA, ²Southern Research Station, USDA Forest Service, Athens, GA
- 1:36 P.M. Abundance and diversity of pollinators in riparian forests five years post removal of Chinese Privet. **Jacob Hudson**¹, Jim Hanula², Scott Horn², Kris Brame¹. ¹Department of Entomology, University of Georgia, Athens, GA, ²Southern Research Station, USDA Forest Service, Athens, GA
- 1:48 P.M. Earthworms as phoretic hosts for entomopathogenic nematodes: enhanced control of Pecan Weevil *Curculio caryae* (Coleoptera: Curculionidae). **Leighann M. Fall**¹, Ian M. Brown¹, David I. Shapiro-Ilan². ¹Georgia Southwestern State University, Americus, GA, ²Southeastern Fruit and Tree Nut Research Laboratory, USDA-ARS, Byron, GA
- 2:00 P.M. Population structure of *Ixodes scapularis*, the Lyme disease vector: combining mitochondrial gene sequence and microsatellite analyses **Cynthia Chan**, Heather Walker, Lorenza Beati. IAP and Department of Biology, Georgia Southern University, Statesboro, GA
- 2:12 P.M. Differential predation risk within aphid colonies and its effects on colony structure. **Carl N. Keiser**, Edward B. Mondor, Lauren Sheeks. Department of Biology, Georgia Southern University, Statesboro, GA
- 2:24 P.M. Geographic variation of diapause in *Nezara viridula* (Hemiptera: Pentatomidae). **Alexander Ko**. Department of Biology, Winthrop University, Rock Hill, SC

2:36 P.M. Break

PH.D. STUDENT PAPER COMPETITION

MAGNOLIA ROOM • MODERATOR: KRIS BRAMAN

- 2:50 P.M. Thrips fitness and host physiological changes associated with tomato spotted wilt virus infection. **Anita Shrestha**. Department of Entomology, University of Georgia, Athens, GA
- 3:02 P.M. Effects of selected pesticides on immature stages of *Trichogramma*



pretiosum (Hymenoptera: Trichogrammatidae). **Muhammad A. Khan**¹, Hizbullah Khan², Abid Farid³, John R. Ruberson¹. ¹Department of Entomology, University of Georgia, Tifton, GA, ²University of Peshawar, Pakistan, ³Nuclear Institute of Food and Agriculture, Peshawar, Pakistan

3:14 P.M. Analysis of amylase and glucosidase as receptors for *Bacillus thuringiensis* Cry11Ba in mosquito *Anopheles gambiae*. **Qi Zhang**. Department of Entomology, University of Georgia, Athens, GA

3:26 P.M. Host plant resistance in Gerbera daisies. **Cheri M. Abramson**. Department of Entomology, University of Georgia, Athens, GA

3:38 P.M. Floral farmscaping effects on predator abundance and efficacy. **Obinna L. Aduba**¹, John R. Ruberson¹, Peter G. Hartel². ¹Department of Entomology, University of Georgia, Tifton, GA, ²Department of Crops and Soil Sciences, University of Georgia, Athens, GA

CONTRIBUTED PAPER SESSION

MAGNOLIA ROOM • MODERATOR: ROSMARIE KELLY

3:50 P.M. Directional movement of entomopathogenic nematodes in response to electrical field: a novel foraging cue? **David I. Shapiro-Ilan**¹, James F. Campbell², Edwin E. Lewis³, Daniel B. Kim-Shapiro⁴. ¹Southeastern Fruit and Tree Nut Research Laboratory, USDA-ARS, Byron, GA, ²USDA-ARS, Manhattan, KS, ³Department of Entomology & Nematology, University of California, Davis, CA, ⁴Department of Physics, Wake Forest University, Winston-Salem, NC

4:02 P.M. Pyrethroid resistance in the native ladybeetle *Hippodamia convergens* (Coleoptera: Coccinellidae). **John R. Ruberson**¹, Agna Rodrigues², Jorge B. Torres², Phillip Roberts¹. ¹Department of Entomology, University of Georgia, Tifton, GA, ²DEPA-Entomologia, Universidade Federal Rural de Pernambuco, Recife, Brazil

4:14 P.M. Effects of drought on mosquito populations in southern Georgia. **Mark Blackmore**. Department of Biology, Valdosta State University, Valdosta, GA

4:26 P.M. Distribution of the *Anopheles quadrimaculatus* species complex in southeastern Georgia. **Andrew S. Biggam**. Department of Biology, Georgia Southern University, Statesboro, GA

4:38 P.M. The discovery of *Culex coronator* Dyar and Knab (Diptera: Culicidae) in Georgia. **Rosmarie Kelly**¹, Bruce Harrison². ¹Georgia Department of Public Health, Atlanta, GA, ²North Carolina Department of Environment and Natural Resources, Winston-Salem, NC

4:50 P.M. Adjourn

5:30-6:00 P.M. Student Awards Presentations

5:30-7:00 P.M. GES Mixer

7:00 P.M. Dinner on your own



FRIDAY, 6 APRIL 2012

7:00-8:00 A.M. **Breakfast (Emma's Restaurant)**

Registration (Main Lobby)

8:00-11:30 A.M. **Poster Displays (Azalea Room)**

CONTRIBUTED PAPER SESSION

MAGNOLIA ROOM • MODERATOR: EDWARD MONDOR

- 8:00 A.M. Recent trends in residential spiders: submissions to the UGA Diagnostics Lab. **Lisa M. Ames**. Homeowner Insect & Weed Diagnostics Lab, University of Georgia Experiment Station, Griffin, GA
- 8:12 A.M. Tritrophic interactions in landscape canna lilies. **Kris Braman**. Department of Entomology, University of Georgia, Griffin, GA
- 8:24 A.M. Management of caterpillar pests of sweet corn in fall production in Georgia. **Alton N. Sparks, Jr.** Department of Entomology, University of Georgia, Tifton, GA
- 8:36 A.M. Thrips-tomato spotted wilt virus interaction: who deceives? Who benefits? Rajagopalbabu Srinivasan¹, **Anita Shrestha**², David Riley¹, Albert Culbreath³. ¹Department of Entomology, University of Georgia, Tifton, GA, ²Department of Entomology, University of Georgia, Athens, GA, ³Department of Plant Pathology, University of Georgia, Tifton, GA
- 8:48 A.M. Root-feeding weevils: overlooked pests of peach? **Ted E. Cottrell**¹, Dan L. Horton². ¹Southeastern Fruit and Tree Nut Research Laboratory, USDA-ARS, Byron, GA, ²Department of Entomology, University of Georgia, Athens, GA
- 9:00 A.M. DNA markers for plum curculio (*Conotrachelus nenuphar*) (Herbst) collected from peaches in Byron, Georgia. **Tyler D. Eaton**¹, Dan L. Horton², Ted E. Cottrell³, Ann Amis³, Tracie M. Jenkins¹. ¹Department of Entomology, University of Georgia, Griffin, GA, ²Department of Entomology, University of Georgia, Athens, GA, ³Southeastern Fruit and Tree Nut Research Laboratory, USDA-ARS, Byron, GA
- 9:12 A.M. Extension education and training programs for the structural pest control industry. **Daniel R. Suiter**¹, Brian T. Forschler², Derrick Lastinger³. ¹Department of Entomology, University of Georgia, Griffin, GA, ²Department of Entomology, University of Georgia, Athens, GA, ³Structural Pest Control Division, Georgia Department of Agriculture, Atlanta, GA
- 9:24 A.M. The U.S. entomophagy food industry: past, present and future. **Marianne S. Cruz**. Department of Entomology, University of Georgia, Athens, GA
- 9:36 A.M. **Break**



FRIDAY, 6 APRIL 2012

CONTRIBUTED PAPER SESSION (CONT.)

MODERATOR: LANCE DURDEN

- 9:50 A.M. A survey of arthropods of potential bioenergy grass crops for Georgia. **G. David Buntin**¹, R. Dewey Lee². ¹Department of Entomology, University of Georgia, Griffin, GA, ²Department of Crops and Soil Sciences, University of Georgia, Tifton, GA
- 10:02 A.M. Host specificity tests of *Leptoypha hospita* (Hemiptera: Tingidae), a potential biological control agent of Chinese privet. **Yanzhuo Zhang**¹, Jim Hanula¹, Scott Horn¹, Kris Braman², Jianghua Sun³. ¹Southern Research Station, USDA Forest Service, Athens, GA, ²Department of Entomology, University of Georgia, Griffin, GA, ³Beichen West Road, Chaoyang District, Beijing 100101, China
- 10:14 A.M. The effect of photoperiod on gonad development in stink bugs. **John J. Herbert**¹, Michael D. Toews², Miguel Soria². ¹Department of Biology, Georgia Southern University, Statesboro, GA, ²Department of Entomology, University of Georgia, Tifton, GA
- 10:26 A.M. *Megacocta cribraria*: the story of a species complex. **Tracie M. Jenkins**, Tyler D. Eaton. Department of Entomology, University of Georgia, Griffin, GA
- 10:38 A.M. Neat places in Georgia to visit, at least if you're a moth-er. **James K. Adams**. Department of Natural Science, Dalton State College, Dalton, GA
- 10:50 A.M. Flash communication during mating in fireflies. **Jonathan Copeland**¹, Andrew Moiseff². ¹Department of Biology, Georgia Southern University, Statesboro, GA, ²Department of Physiology and Neurobiology, University of Connecticut, Storrs, CT
- 11:02 A.M. Forest characteristics associated with native bee diversity and abundance. **Jim Hanula**, Scott Horn, Joe O'Brien. Southern Research Station, USDA Forest Service, Athens, GA
- 11:14 A.M. The importance of streamside sandbars to ground beetle (Coleoptera: Carabidae) communities in a deciduous forest. **Scott Horn**¹, Michael D. Ulyshen². ¹Southern Research Station, USDA Forest Service, Athens, GA, ²USDA Forest Service, Starkville, MS

11:30 - 12:30 P.M. **Business Meeting**



STUDENT POSTER COMPETITION

- SP-1 Argentine ant (Hymenoptera: Formicidae) worker and fall armyworm (Lepidoptera: Noctuidae) ovarian cell response to exposure to sodium salicylate and sodium cinnamate. Megan Babb¹, Jennifer Parker¹, Alessandra Barrera², Emiliano J. Sanchez¹, ChulHee Kang¹, Mark Brinkman², Cathy Lee². ¹Gordon College, Barnesville, GA, ²Georgia Gwinnett College, Lawrenceville, GA School of Molecular Biosciences, Washington State University, Pullman, WA, ²Gordon College, Barnesville, GA
- SP-2 Update on human dirofilariasis, heartworms aren't just for dogs or cats. Gerald N. Blaney, III¹, Daniel V. Hagan². ¹MPH Program, Mercer University - School of Medicine, Macon, GA, ²Division of Basic Med Sciences, Mercer University - School of Medicine, Macon, GA
- SP-3 Extraction efficiency of flotation and heat escape methods with *Dermatophagoides pteronyssinus* (Acari: Pyroglyphidae). Ashley E. Roden. Department of Entomology, University of Georgia, Athens, GA
- SP-4 Termite feeding preference and experimental design. Gretchen D. Perkins, Brian T. Forschler. Department of Entomology, University of Georgia, Athens, GA
- SP-5 Seasonal genetic diversity of *Ixodes scapularis* collected at a single site. Jaymin Patel, Jigar Bhagatwala, Lorenza Beati. IAP and Department of Biology, Georgia Southern University, Statesboro, GA
- SP-6 Characterization of novel microsatellite markers in *Ixodes scapularis*, the vector of Lyme disease. Cynthia Chan, Heather Walker, Jaymin Patel, Jigar Bhagatwala, Laquita Burton, Lorenza Beati. IAP and Department of Biology, Georgia Southern University, Statesboro, GA
- SP-7 Assortative mating in *Ixodes scapularis*? Jenny Dickson, Alysha Benn, Lorenza Beati. IAP and Department of Biology, Georgia Southern University, Statesboro, GA
- SP-8 Elemental defenses of nickel hyperaccumulators and their effects on herbivory. Katherine A. Mincey. Department of Biology, Georgia Southern University, Statesboro, GA
- SP-9 Comparison of antenna morphology in disjunct populations of the pitcher plant mosquito, *Wyeomia smithii*. Casey J. Wesselman. Department of Biology, Georgia Southern University, Statesboro, GA
- SP-10 LUCID key to the genera of New World Monotomidae. Thomas C. McElrath. Department of Entomology, University of Georgia, Athens, GA
- SP-11 Factors influencing the maintenance of a protective symbiont in the crop pest *Aphis craccivora*. Hannah R. Dykstra. Department of Entomology, University of Georgia, Athens, GA
- SP-12 Factors affecting decomposition rates in temperate vs. tropical leaves. Stephanie Harper. Department of Biology, Georgia Southern University, Statesboro, GA



- SP-13 Ectoparasites of live-trapped and road-killed opossums and raccoons: a comparison. Ivory M. Harding and Lance A. Durden. Department of Biology, Georgia Southern University, Statesboro, GA
- SP-14 Louse-host specificity: the odd case of *Neotrichodectes mephiditis*. Felicia J. Williams, Lorenza Beati, Lance A. Durden. Department of Biology, Georgia Southern University, Statesboro, GA
- SP-15 Assessment and monitoring of floodplain communities in the coastal plains during flooding and dry-down (Altamaha River Basin, GA). Erica L. Johnson. Department of Biology, Georgia Southern University, Statesboro, GA

REGULAR POSTER DISPLAYS

- DP-1 Biological attributes of DuPont Cyazapyr (DPX-HGW 86, Cyantranilaprole) new cross-spectrum insecticides: Benevia, Exirel, and Verimark. Glenn G. Hammes. Stine Research Center – Crop Protection, E. I. DuPont de Nemours & Co., Elkton, DE
- DP-2 New sampling methods for pecan insect and mite pests. Jim Dutcher. Department of Entomology, University of Georgia, Tifton, GA
- DP-3 Kudzu bug resistance in soybean. John All¹, Roger Boerma², Wayne Parrott². ¹Department of Entomology, University of Georgia, Athens, GA, ²Department of Crops and Soil Sciences, University of Georgia, Athens, GA
- DP-4 Analyses of crude protein and mineral composition of the adult honey bee, *Apis mellifera* L. Mark E. Headings, Shah Rahnema. Agricultural Technical Institute, The Ohio State University, Wooster, OH
- DP-5 Distribution of “The Great Southern Brood” 13-year cicada’s 2011 emergence in Georgia. Nancy C. Hinkle¹, Cecil L. Smith². ¹Department of Entomology, University of Georgia, Athens, GA, ²Museum of Natural History, University of Georgia, Athens, GA
- DP-6 Effects of methoxyfenozide and tebufenozide on egg production by the yellow fever mosquito *Aedes aegypti*. Daniel J. Usry. Department of Entomology, University of Georgia, Athens, GA
- DP-7 Update on trombiculids of Georgia. Daniel V. Hagan¹, D. A. Crossley, Jr.² ¹Division of Basic Medical Sciences, Mercer University - School of Medicine, Macon, GA, ²Odum School of Ecology, University of Georgia, Athens, GA
- DP-8 Biology of the stink bug parasitoid *Aridelus rufotestaceus* (Hymenoptera: Braconidae). Melissa D. Thompson, Russell J. Ottens, John R. Ruberson. Department of Entomology, University of Georgia, Tifton, GA
- DP-9 Colony structure in *Brachymyrmex patagonicus*: supercolonies or microterritories? Alan Harvey, Alexandra Dorfzaun, Department of Biology, Georgia Southern University, Statesboro, GA



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| 1975 | Horace O. Yates, III | 2011 | Ted Cottrell |



NOTES





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 |



PAST MEETINGS OF THE GES

| | |
|-------------------------|---|
| 16-18 March 1977 | Downtowner Motor Inn, Albany |
| 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 |

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



SPEAKER SCHEDULE

| | | |
|---------------------|-------------------|------------|
| Abraman, Cheri | Thursday, 5 April | 3:16 P.M. |
| Aduba, Obinna | Thursday, 5 April | 3:28 P.M. |
| Ames, Lisa | Thursday, 5 April | 8:00 A.M. |
| Bates, Chip | Thursday, 5 April | 10:30 A.M. |
| Bigham, Andrew | Thursday, 5 April | 4:28 P.M. |
| Blackmore, Mark | Thursday, 5 April | 4:16 P.M. |
| Braman, Kris | Friday, 6 April | 8:12 A.M. |
| Buntin, G. David | Friday, 6 April | 9:40 A.M. |
| Chan, Cynthia | Thursday, 5 April | 2:00 P.M. |
| Copeland, Jonathan | Friday, 6 April | 10:53 A.M. |
| Cottrell, Ted | Friday, 6 April | 8:48 A.M. |
| Cruz, Marianne | Friday, 6 April | 9:24 A.M. |
| Eaton, Tyler | Friday, 6 April | 9:00 A.M. |
| Fall, Leighann | Thursday, 5 April | 1:48 P.M. |
| Hanula, Jim | Friday, 6 April | 11:05 A.M. |
| Harrison, J. Scott | Thursday, 5 April | 11:10 A.M. |
| Harvey, Alan | Friday, 6 April | 10:41 A.M. |
| Herbert, John | Friday, 6 April | 10:17 A.M. |
| Holloway, Jacob | Thursday, 5 April | 1:12 P.M. |
| Horn, Scott | Friday, 6 April | 11:17 A.M. |
| Hudson, Jacob | Thursday, 5 April | 1:36 P.M. |
| Hudson, William | Thursday, 5 April | 10:50 A.M. |
| Jenkins, Tracie | Friday, 6 April | 10:29 A.M. |
| Kalina, Jessica | Thursday, 5 April | 1:24 P.M. |
| Keiser, Carl | Thursday, 5 April | 2:12 P.M. |
| Kelly, Rosmarie | Thursday, 5 April | 4:40 P.M. |
| Khan, Muhammad | Thursday, 5 April | 2:52 P.M. |
| Ko, Alexander | Friday, 6 April | 10:05 A.M. |
| Maner, Michael | Thursday, 5 April | 1:00 P.M. |
| Riley, David | Thursday, 5 April | 9:30 A.M. |
| Roberts, Phillip | Thursday, 5 April | 9:50 A.M. |
| Rogers, Michael | Thursday, 5 April | 10:10 A.M. |
| Ruberson, John | Thursday, 5 April | 4:04 P.M. |
| Shapiro-Ilan, David | Thursday, 5 April | 3:40 P.M. |
| Shrestha, Anita | Thursday, 5 April | 2:40 P.M. |
| Shrestha, Anita | Friday, 6 April | 8:36 A.M. |
| Sparks, Jr., Alton | Friday, 6 April | 8:24 A.M. |
| Suiter, Daniel | Friday, 6 April | 9:12 A.M. |
| Zhang, Qi | Thursday, 5 April | 3:04 P.M. |
| Zhang, Yanzhuo | Thursday, 5 April | 3:52 P.M. |



POSTER PRESENTERS

| | |
|---------------------|-----------------------|
| Babb, Megan | Student Poster, SP-1 |
| Blaney, III, Gerald | Student Poster, SP-2 |
| Chan, Cynthia | Student Poster, SP-6 |
| Dickson, Jenny | Student Poster, SP-7 |
| Dykstra, Hannah | Student Poster, SP-11 |
| Harper, Stephanie | Student Poster, SP-12 |
| McElrath, Thomas | Student Poster, SP-10 |
| Mincey, Katherine | Student Poster, SP-8 |
| Patel, Jaymin | Student Poster, SP-5 |
| Perkins, Gretchen | Student Poster, SP-4 |
| Roden, Ashley | Student Poster, SP-3 |
| Wesselman, Casey | Student Poster, SP-9 |
| | |
| All, John | Poster, DP-6 |
| Dutcher, Jim | Poster, DP-2 |
| Hagan, Daniel | Poster, DP-10 |
| Hammes, Glenn | Poster, DP-1 |
| Harding, Ivory | Poster, DP-3 |
| Headings, Mark | Poster, DP-7 |
| Hinkle, Nancy | Poster, DP-8 |
| Johnson, Erica | Poster, DP-5 |
| Thompson, Melissa | Poster, DP-11 |
| Usry, Daniel | Poster, DP-9 |
| Williams, Felicia | Poster, DP-4 |

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