



Dan Suiter D.W. Brooks Award

When Dr. Dan Suiter was asked about what he is most proud of concerning his program, he did not hesitate.

"I am most proud of the help I've provided to those who I talk to every day – county extension agents, pest control operators and homeowners.

"Those of us in Extension see ourselves as servants and we take joy in knowing that we've helped someone make an important decision," he said reflecting on his role as an extension faculty/specialist over the last 18 years at UGA.

And for that service to others across the state, the nation and internationally through his structural pest control program, Dr. Dan Suiter was selected as the D.W. Brooks Faculty Award for Excellence in Extension.

Through his program, Suiter coordinates activities at the Georgia Structural Pest Control Training Facility, a more than 3,000 square foot, partially built home designed to showcase many common construction practices and how they may be attacked by structural pests. In 2014, mock residential and commercial kitchens and a residential bedroom were added to the facility to allow for the delivery of additional workshops on home integrated pest management (IPM), commercial IPM, school IPM and controlling bed bugs and termites.

Since 2007, Suiter has garnered more than \$1 million to support his Extension and applied research program, and he has taught more than 30,000 pest control professionals and entomologists in more than 20 states and several foreign countries. He is looking forward to continuing the growth of his on-line training programs in the future.

"I like to say that only by live, on-line training could we put together a pest control operator from rural Georgia with the world's authority from Berlin, Germany, on the Old House Borer."

But Dan's service to others does not stop there. He makes a special effort to encourage military veterans in their search for jobs and careers after the military.

To honor his father and uncle who both served in the U.S. occupation of Germany just after World War II, Suiter offers the certification program free to veterans of all branches of the military.

"It's really just an opportunity to quietly say thanks and give back in appreciation for their service," Suiter explained.

But perhaps the most powerful tool that Suiter wields in his service to others is his smile -- it is the unmistakable evidence of service performed not only from the head but more specifically from the heart.



From the desk of S. Kristine Braman ...

Fall greetings from the UGA Department of Entomology. It is always a pleasure to share with you the impact of our faculty, staff and students on the world around us through their research and education efforts. Notable recognitions highlighted in this issue include awards received by faculty in our department, Dan Suiter is the recipient of the prestigious D.W. Brooks Award, Nancy Hinkle received the SOVE Distinguished achievement Award, and Trish Moore was selected to participate in next year's LEAD 21 program.

Our graduate students (22 PhD, 26 MS and 10 MPPPM) excel in similar fashion; congratulations to Kelly Murray as a recipient of the ESA-SEB Kirby L. Hays Memorial Award and to our Linnaean Team, Connor Fair, Kelsey Coffman, Clesson Higashi, Nathan Spaulding and Carson Bowers received travel grants to attend the ESA meeting in Vancouver.

The Lund Club has been very active and provides leadership in many of our outreach and recruitment efforts in the Department. We appreciate our 28 Entomology and 55 Applied Biotechnology undergraduates and enjoyed an informal mix and mingle session where they were encouraged to join the Lund Club.

The Georgia Mosquito Control Association (GMCA) held their 41st annual educational conference in Athens this Fall. The conference provides an opportunity for members to interact with colleagues and obtain the latest information concerning all aspects of mosquito control. It was a pleasure to see Annie Rich receive the International IPM Graduate Student Award at that meeting.



Trish Moore (standing, second from the left) is one of faculty from several units who will take part in the Department and Leadership Teams for Action, or DeLTA, project as part of a \$3 million National Science Foundation grant to help students develop STEM knowledge and skills.

Inside this issue

Staff Goodbyes	4
Calendar reminders	16
Student Awards	10-11
Faculty Highlights.....	1,5
Staff Highlights	4
Student Spotlight	7- 9

Special points of interest

- *Life on Six Legs*, page 15
- *Insectival*, page 13
- *ESA Vancouver*, page 3



Dr. Kris Braman teaches youngsters about the importance of pollinators in our environment at this year's Insectival held at the UGA Botanical Gardens. Over 1000 adults and children participated in this year's event. See page 13 for more photos.

ESA Vancouver



Linnaean Team competes at National Contest in Vancouver

Congratulations to the UGA Linnaean Team for a fine showing at the National ESA meeting in Vancouver in November. Team members **Nathan Spaulding, Kelsey Coffman, Connor Fair and Clesson Higashi** made it to the semi finals round where they were narrowly edged out during a sudden death tie breaking round. According to a reliable source, AKA Kelsey, the team is more determined than ever to bring home the win at next year's meeting. As seen in the photos, faculty and students were spotted all around networking, attending meetings and socializing with other ESA members in Vancouver.



Staines' work crucial to UGA Cotton Team



Kane Staines

Kane Staines is the UGA Cotton Microgin Manager on the Tifton Campus and works hard doing his part to keep the UGA Cotton Team on the cutting edge of research.

The Research Professional III and UGA graduate obtained his Masters degree in Adult and Career Education at Valdosta State University. Prior to joining the Entomology department, Kane served as a young farmer advisor and ag teacher for eight years in Nashville, Georgia..

The UGA Microgin is a state of the art facility that supports Research and Extension efforts of the UGA Cotton Team and the industry. The Microgin is set up to process seed-cotton from individual research plots in the same way that a commercial gin processes cotton modules.

This process enables our scientists to generate appropriately replicated, real-world fiber quality measurements. Kane's current responsibilities include managing the day to day operations of the UGA Microgin, maintenance and design of equipment, coordinating outreach opportunities, and supporting the core mission of the UGA Cotton Team. Specific duties include communicating with investigators as to appropriate sample collection procedures, on-site management of seed cotton and lint samples, proper equipment setup, operation and maintenance, work scheduling and labor management, and data collection.

Since his hire, Kane has greatly expanded outreach opportunities for youth and professionals to include curriculum development for experiential learning activities related directly to the production, processing, and consumerism of cotton. In his spare time, Kane enjoys spending time with his family and enjoying the outdoors, especially salt water fishing.

Goodbye Christina and Brian . . .



Christina Tomter

We are sad to see two of our staff members to leave the department but we are thrilled for them in their new positions (promotions!) within CAES.

Christina Tomter, IT Professional for entomology, is now the IT Manager for the CAES Extension Northeast District.

Brian Little is now a Research Professional II in the Crop and Soil department. He worked as a Research Professional I in Dr. Ash Sial's lab for over three years.



Brian Little

Hinkle receives SOVE Distinguished Achievement Award

Dr. Nancy Hinkle recently received the Distinguished Achievement Award for a career of “outstanding achievements in vector ecology.” Hinkle was honored at the 50th Anniversary Meeting of the Society of Vector Ecology (SOVE).

Established in 1968, SOVE was created to bring together professionals along the spectrum of vector interest, from basic scientists studying mosquito mouthparts to vector control personnel optimizing sprayer equipment. In addition to mosquitos and ticks, SOVE covers all vectors affecting human and animal health including kissing bugs, sandflies, biting midges, flies, fleas, lice, parasitic mites, etc.

Since joining SOVE in 1993, Dr. Hinkle has served as SOVE president, SOVE newsletter editor, awards committee chair and also received the Distinguished Service Award (2003).



Dr. Nancy Hinkle is pictured with Dr. Mir Mulla, oldest SOVE member who was also honored.

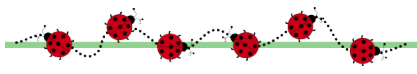
Patricia Moore selected for Lead21 class

Dr. Patricia Moore has been selected to participate in the LEAD21 program at UGA. The primary purpose of LEAD21 is to develop leaders in land grant institutions and their strategic partners who link research, academics, and extension in order to lead more effectively in an increasingly complex environment, either in their current position or as they aspire to other positions.

The one year LEAD21 core curriculum includes three sessions and a concurrent individual learning component with leadership competencies enhanced using a combination of exposure, information, knowledge and practice.



SNAPSHOTS



Undergraduate Student Spotlight



Conner Akers

I originally came to UGA as only a Biotechnology major, however over the course of my time here I ended up adding entomology to my repertoire. During my UGA orientation I was asked to choose classes for my first semester. I was completely lost on what would make for a balanced and strong first semester. Thankfully I received astounding advice from my advisor, Marianne Shockley. She helped me to start off on a steady pace. Amongst the recommendations I was advised to try out a forensic entomology course. As a person who was tormented throughout their life by insects I was not too keen on the idea of an entomology course, but the forensic part intrigued me so I accepted.

The forensic entomology course was really the first class in college that clearly differentiated high school and college level courses. The lab for the class especially since it had us create pseudo-crime scenes with pig cadavers, and from there utilize the techniques we learned in class on said crime scenes. Despite the smell I was always happy to go out into the field we were using for the lab and observe the insect populations, and the pigs themselves, changing with the amount of time and the weather. It was and still is one of

the best courses I have ever taken.

When I registered as a biotechnology major I was asked to choose an emphasis. At the time my choices were Animal or Plant. Since my interests leaned more to the former I choose it. Over my time at UGA I noticed that many of the courses that satisfied requirements were entomology classes. I didn't mind since the forensic entomology course had actually gotten me more interested in entomology, especially the collecting and preserving part. All of the entomology courses I took at UGA had been interesting in some manner and I do not regret participating in any of them. In fact many of them were enlightening not only about insects themselves but how insects have interacted with the rest of life throughout history. By the end of my sophomore year Ms. Shockley informed me that I was on track for getting an entomology degree as well. I checked for myself and sure enough I was, and only a couple of classes separated me from having a dual major, and so come the next semester I add entomology as a second major and sign up to take the courses that I had left for it.

While I do have a new fondness for entomology and insects as a whole I still primarily see myself as a biotechnology major. I have even started the process of starting a Biotechnology Club for UGA. I hope it will make a considerable addition to the University. As for my future plans, I am primarily looking forward to working in the medical field in some capacity. With how much interaction humans, insects and diseases have with one another, I wouldn't be surprised if I ended up somewhere that dealt with all three.



Allison Johnson

The first time I had any notion about being an entomologist, I was in 5th grade studying academic quiz bowl questions (no wonder I love the Linnaean games!). I memorized every single entomology question available on the CD-ROM. Mesmerized by the different orders and how to spell the species name of the Bald-faced hornet, *Dolichovespula maculata*, I decided right then I would study bugs. I wavered between studying art at SCAD and studying Entomology at UGA as I grew up, but then decided to follow my childhood dream of studying insects after TA-ing for an A.P. Environmental Science class at Central High School (Carrollton, GA).

I have worked in the Household and Structural Entomology Research Program at UGA since the fall of 2016, studying cockroaches and termites. After graduating with my BS in Entomology, I immediately started working on my Masters in May of 2017.



Photo op with “the Ant” while working as an intern at the National Pest Management Association Conference.

My research in the Forschler Lab is primarily focused on identifying termites in the first state-wide survey of *Reticulitermes* subterranean termites in Georgia. With samples collected from every county, I am identifying all castes of termites (workers, soldiers, and alates) using gross morphological characters, taxonomic keys, and comparing mitochondrial *COII* gene sequences. When I am not extracting DNA or dissecting mandibles, I also assist with other research projects in the lab (hence the photo with the chainsaw!). After graduating, I would like to teach entomology courses. I had a taste of teaching when I assisted with Dr. Ross’ Insect Natural History course in the Fall of 2017, and I want to teach more!

Chainsaw skills are very handy for Allison when she cuts wood for the many projects during her graduate research.

Outside of lab I am a jack of all trades, master of none. I rock climb, roller skate, work pit-crew for dirt track racing, paint, draw, knit, crochet, and cook. Most importantly, I spend as much time as possible with my cat Maeve.

CLESSON HIGASHI

As a kid growing up in Hawaii, I was interested in many things, but I remember having a strong curiosity for aquatic life, particularly towards fish. I started my undergrad with an interest in aquaculture and animal biotechnology, but that interest slowly faded after conducting my undergraduate research with a very grumpy professor who was also my undergraduate advisor at the time.

Although I worked in an entomology lab throughout my undergrad, it wasn't until the latter half of my undergrad that I realized I had an interest in Entomology.

Soon after I completed my B.S. in Plant and Environmental Biotechnology at the University of Hawaii at Manoa, I started my M.S. in Entomology where I found myself curious about studying how organisms interact with one another. For my masters, I studied virus-vector-host interactions between the planthopper *Peregrinus maidis*, *Maize mosaic virus*, and virus resistant maize genotypes.



However, like many first-time graduate students, I got a little burnt-out from my masters and needed a change in scenery. I later found myself living in Switzerland for a bit and worked for CABI-International as a research assistant helping on weed biological control. Of course, I traveled as much as I could while I was there; the break and experience were rejuvenating.

Fortunate for the opportunity and humbled by the experience, I then moved back to Hawaii and worked as a Jr. Researcher on various projects.

After much internal deliberation, I convinced myself to pursue a Ph.D. Now, I'm Ph.D. student in Dr. Kerry Oliver's lab investigating host-microbe interactions in aphids. I am currently trying to determine the role in which *Wolbachia*, a bacterial symbiont that is widespread among arthropods, plays in its banana aphid host.

When I am not in the lab, I enjoy playing sports, exploring the outdoors, or just hanging out with friends. Although Hawaii is far away, you will still find me in a pair of surf shorts and slippers (aka flip flops) during the summer.

Braman named 2018-19 Women's Leadership Fellows



Kris Braman

Kris Braman has been selected for the 2018-19 class of the university's Women's Leadership Fellows Program. The UGA Entomology Department Head is one of only nine chosen for this honor.

Faculty members in the 2018-19 cohort include representatives from eight schools and colleges as well as the Office of Service-Learning. Throughout the yearlong program, the faculty members will attend monthly meetings to learn from senior administrators on campus as well as visiting speakers from academia, business and other fields. The program, which was created in 2015 as part of the university's Women's Leadership Initiative, also features a concluding weekend retreat for more in-depth learning.

"Faculty members serve in both formal and informal roles of leadership across campus, and this program gives participants an outstanding opportunity to network and learn more about leadership roles and responsibilities," said Interim Senior Vice President for Academic Affairs and Provost Libby V. Morris.

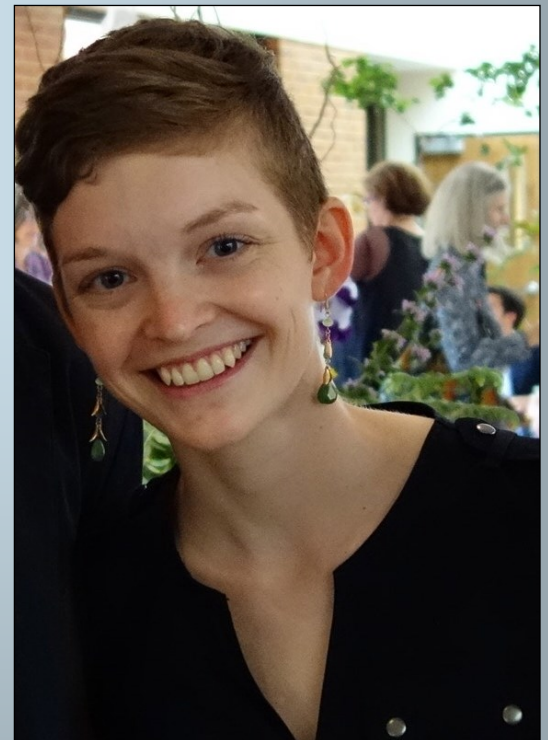
Kelly Murray receives Kirby Hays Award

Congratulation to Kelly Murray!

Kelly has been awarded the prestigious Entomological Society of America-Southeastern Branch Kirby Hays Award for Outstanding Master's student in Entomology. As part of the award, Kelly will receive \$200 and a plaque at the 2019 SEB meeting.

Kelly had an exceptionally strong application, including an ambitious research project assessing long-term ecological change in the Ogeechee River (advisors Darold Batzer and Joe McHugh), superb academic record, the production of a field guide and service across many levels.

Kelly will graduate from UGA in December.



Kelly Murray

Annie Rich Receives International IPM Award

Annie Rich was presented with the International Conference on IPM Award for Excellence in Master's Research at the 41st Annual Meeting of the Georgia Mosquito Control Association.

The award recognizes Ms. Rich's academic accomplishments as well as her contributions to Integrated Pest Management of mosquitoes and was presented, "In recognition of excellent achievements in the area of integrated pest management in medical and veterinary entomology as a master's student."

Because she was unable to attend the 9th International IPM Symposium in Baltimore and receive the award there, the presentation was moved to the Georgia Mosquito Control Association's annual meeting. This was particularly appropriate because at the GMCA meeting Annie spoke on "Academic to the Real World," describing her transition from being a graduate student to working in vector control. Dr. Ash Sial made the presentation on behalf of the group.

Ms. Rich's graduate research dealt with a novel adult mosquito control method using cattle as bait to lure in mosquitoes for insecticide exposure before they can locate a human host. This work was conducted in conjunction with the Centers for Disease Control and the UGA Animal Science Department. Ms. Rich completed her master's degree in Veterinary Entomology at the University of Georgia in summer 2018 and joined Richmond County (GA) Mosquito Control as their Resident Entomologist.

Since July, Ms. Rich has been working with Richmond County Mosquito Control where her supervisor, Mr. Fred Koehle, calls her "the Energizer Bunny." He has placed her in charge of training, outreach, and new initiatives such as collaborating with the Georgia Department of Public Health to evaluate mosquito insecticide resistance.

The International IPM Award for Excellence was created to acknowledge outstanding research, teaching, and outreach efforts that advance a holistic approach to pest suppression, incorporating a range of complementary strategies and tactics. In addition to this recognition from the International IPM Symposium, during her graduate training Ms. Rich received the following awards:

- America Mosquito Control Association's Kelly Labell Travel Award to attend the 2018 AMCA meeting in Kansas City.**
- Entomological Society of America's Medical, Veterinary and Urban Entomology Master's Student Scholarship (July 2017)**
- Steve Prchal Memorial Scholarship Travel Fund presented by the Terrestrial Invertebrate Taxon Advisory Group of the Association of Zoos & Aquariums. (Jun. 2017)**
- Pi Chi Omega Pest Control Fraternity Research Scholarship (Mar. 2017)**
- American Mosquito Control Association Industry Shadowing Program Scholarship (Feb. 2017)**
- H.O. Lund Outstanding M.S. Student in Outreach & Service (Aug. 2016)**
- Student Travel Scholarship - Livestock Insect Workers Conference (Jun. 2016)**
- Harry Hoogstraal Scholarship – Ohio State University Acarology Program (2016)**



Dr. Ashfaq Sial presented Annie Rich the IPM Award For Excellence in Master's Research at the 2018 Georgia Mosquito Control Association Meeting.

COLLABORATION IN ACTION



Pictured above are the team members from entomology, crop and soil, and field research services. Pictured right are entomology employees Colby Nordstrom and Saxan Adams preparing cups for the cages. Pictured below are the group installing cages in the corn.



Late in the summer, Dr. David Buntin's research program benefitted from a collaborative effort to prepare a field at the Bledsoe Farm for his corn study.

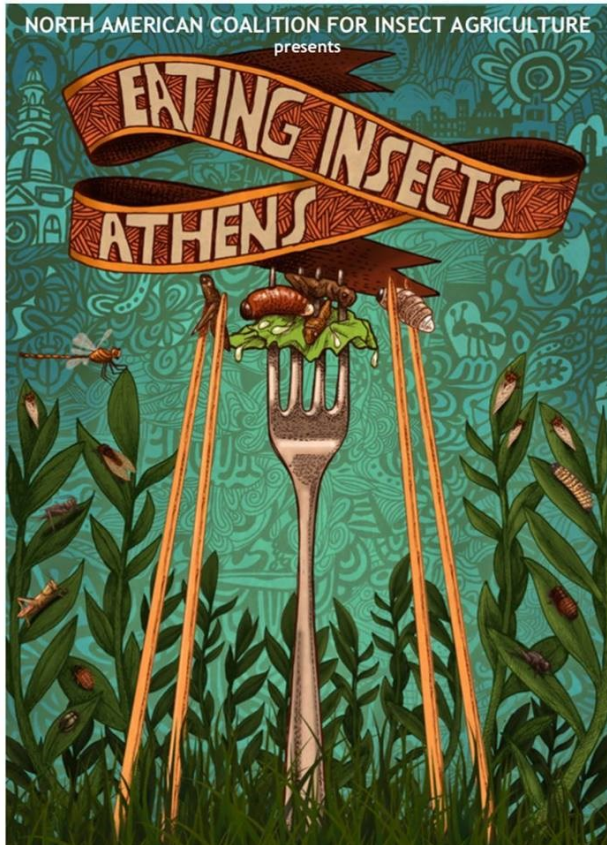
Staff members from entomology, crop and soil, and field research services came together to install 450 cages on a warm, humid and overcast morning. The prep work is crucial for his study examining the survival and emergence of corn earworms from various treatments of Bt corn.

"One aspect of the Griffin campus that I always have appreciated is how different groups on campus will come together as a team when needed with activities requiring extra help and labor to get the job done," Buntin graciously expressed toward those who worked tirelessly to prepare the field.

Insectival 2018



Eating Insects Athens

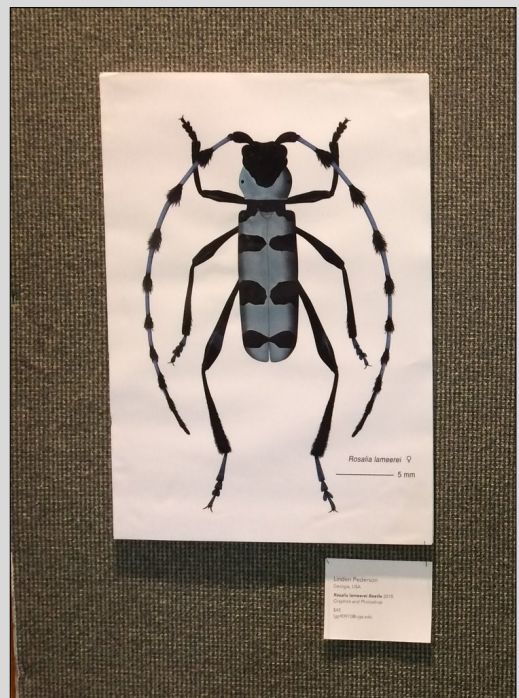


The international conference, *Eating Insects Athens*, brought together global experts and leaders in the edible insect movement from industry, academia, government, cultural adoption and more. The three-day international conference sponsored by the North American Coalition for Insect Agriculture included presentations on research and industry progress, an expo, art exhibits, several opportunities to taste insects, as well as opportunities for networking and collaborating.



 brooklynbugs

Opportunities abounded for sampling the different ways to enjoy eating insects.



Artwork by our own Linden Pederson.

Hexapod Herald Subscriptions

The Hexapod Herald will be issued in **March, July and November** of each year. We ask that you share this issue with friends and neighbors, and anyone who is interested in UGA Entomology. Due to printing & mailing costs, a limited number of hard copies will be produced & mailed. Electronic subscription is preferred. To subscribe to the Hexapod Herald, contact us



Write to Hexapod Herald,
413 Biological Sciences
Bldg, UGA Campus,
Athens, GA 30602 or



send e-mail to
entodept@uga.edu



Or Call 706-542-2816.



Life on Six Legs

New class offered by Burke and Vogel

A new entomology course, “*Life on Six Legs*,” is being launched in the Spring semester as a platform to educate undergraduate students in all colleges about the world of insects and science in general. The class which will fulfill UGA’s Core Course requirements for life sciences in all majors was developed by Dr. Kevin Vogel and Dr. Gaelen Burke. The idea was born at the annual faculty retreat during discussions about how to increase the number of credit hours taught.

“Dr. Burke and I have had substantial experience teaching to general audiences and are excited about the opportunity to help fulfill the department’s teaching mission,” said Vogel. The class will be offered every spring semester where they anticipate teaching several hundred students.

Life on Six Legs was developed from the ground up to encompass modern pedagogical methods. First, the course implements an active learning format where students are provided with background reading materials before class and the instruction is primarily discussion based. Secondly, Vogel and Burke are using a group-based



Kevin Vogel



Gaelen Burke teaching students gene sequencing.

instructional model where students are randomly assigned to teams at the beginning of the semester. These groups will work together to reinforce concepts learned in class through projects and group tests.

But, most importantly to Vogel, is that the course provides a different philosophy of an introductory biology course.

“For many students, this will be the last science class they ever take but far from the last interaction they will have with science,” Vogel explained. Rather than concentrate on teaching the students facts, they will focus on science as a process and a way of viewing the world.

“By teaching the students how to critically evaluate information and to understand the process by which data is generated, Dr. Burke and I hope to instill in the students an appreciation for science that they will carry forward with them beyond our class and their time at UGA,” Vogel said.

Calendar Reminders

Dec. 5 — CAES Holiday Luncheon

December 14 — Undergraduate Commencement 9:30 am; Graduate Commencement 2:30 pm

December 24-28— UGA Holiday for faculty, staff and students

January 1 — UGA Holiday

January 21 — UGA Holiday

March 3-6 — SEB meeting, Mobile, AL

March 11-12 — Faculty Retreat, Athens

March 11-15 — Spring Break. No classes. Offices open.

April 6 — Tar-ran-tula Run

April 10-12 — GES Meeting, Lake Blackshear, Cordele, GA

May 27— Memorial Day Holiday

We don't mean to bug you but . . .



Your investment in our entomology program helps assure our continued student recruitment success. No gift is too small. Your support is just the means needed to help our students spread their wings and fly!

The Donate button to the left may be used to donate online or, if you prefer, checks may be made payable to the "UGA Foundation" and should be sent to UGA CAES Office of External Relations, 117 Four Towers, Athens, GA 30602-7072. Please indicate the program area or fund you wish to support.

If you have any questions about making a gift to CAES, please contact the Office of External Relations at 706-542-3390 or email external@uga.edu.



*Entomology at UGA wishes you
a joyous holiday season!*