



MICHIGAN STATE  
UNIVERSITY

# Bugged

MSU DEPARTMENT  
OF ENTOMOLOGY

Mitchell's satyr by Bill Ravlin, MSU Entomology

## FROM THE CHAIR

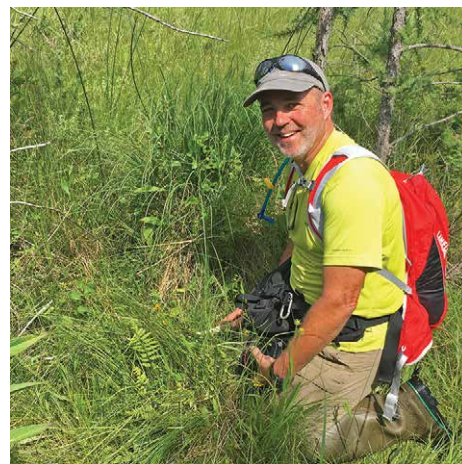
Doug Landis and I had a discussion regarding his efforts in habitat restoration, biological diversity and endangered species. Those discussions led the two of us to an interest in getting a photo of the Mitchell's satyr in the wild. We picked the Mitchell's satyr because it only occurs in rare wetlands called "fens," it is one of the most geographically restricted butterfly species in the eastern U.S. and it is an endangered species.

After a short drive to the fen, we arrived armed with a camera, boots, insect repellent and knowledge of specifically where and when to look. With regard to "where," Mitchell's satyr apparently likes to fly frequently and land deep in grasses (and poison sumac) covering the fen. As for the "when," this butterfly gets up late and goes to bed early. We had less than two hours to accomplish our task—the suspense builds! But, that's not what I'm writing about.

What has come to be known as *The Landis-Ravlin Mitchell's Satyr Central Michigan MSU Fen Expedition* (also known as the LRMSCMMFE) was funded out of our own pockets, but this begs the question of how we obtain sufficient funding to carry out

research and education programs in general. I'm concerned.

Every Entomology faculty member depends on competitive grants provided by federal agencies. Faculty use these grants to train the next generation of entomologists, make discoveries and develop extension/outreach programs. MSU entomologists are among the best in the country when it comes to succeeding in grant competitions; however, there must be funding to support those competitions. Federal grant proposal funding rates are often less than 10 percent putting MSU Entomology programs at risk and frankly, the entire land-grant system. In other words, fewer than 10 out of every 100 proposals receive funding!



Doug Landis in the fen on LRMSCMMFE.

Flat federal budgets or cuts to agencies such as U.S. Department of Agriculture, the National Science Foundation, National Institutes of Health and the Environmental Protection Agency equate to fewer students, fewer discoveries and fewer answers to important entomological issues (think mosquitos, pollinators, IPM programs).

"It's the gas that keeps the car running." So, please take some time to help friends and colleagues understand the very real funding dilemma faced by entomologists and the critical role that's played by federal science and education agencies.

Back to "our two heroes" in the fen; I'm happy to report the LRMSCMMFE was a success! One-hundred and thirty photos and seven Mitchell's satyr sightings later, we had one very nice portrait to feature in *Bugged*.



Bill Ravlin,  
Chairperson

## RESEARCH & PROJECTS

**A team of Michigan State University entomologists will use a nearly \$1 million USDA NIFA grant to expand and enhance habitat for honey bees, wild bees and monarch butterflies. Their work will develop and disseminate best management practices for pollinator conservation in agricultural landscapes.**

The MSU team, led by Rufus Isaacs, includes Meghan Milbrath, Doug Landis, Zsofia Szendrei, Julianna Wilson, Larry Gut and Angie Zhang, along with alumnus Jason Gibbs (University of Manitoba). They will involve stakeholders in:

- Exploring trends in bee populations by resampling sites sampled up to 60 years ago.
- Optimizing pollinator habitat to improve the health of honey

- bees, wild bees and monarch butterflies in farmland.
- Informing optimal locations for future investment in habitat for pollinators through landscape modeling.
- Extending best management practices for pollinator health.

**Medical entomologist Ned Walker has formed a team using forensic science in the next fight against malaria.** A



seven-year, \$8 million [National Institute of Health](#) grant forming a partnership with the [University of Malawi College of Medicine](#) is one of 11 grants in 2017 that support [International Centers of Excellence for Malaria Research](#). Walker's

research on malaria for the last 15 years has been focused on insecticide-treated beds, although he said there were issues with implementing that including some people did not like using the nets and insecticide resistance is building.

Mosquitos, Walker said, bite certain people more than others. He and collaborators have tried to develop tools to “interrogate” mosquitos.

“After a blood meal, mosquitoes rest on the walls inside the homes,” Walker said. “We collect the mosquitoes and can determine not only if the mosquito has bitten an animal or a human—but can actually pinpoint, using forensic analysis, which individual inside the home the insect has drawn blood from. We can genotype them. And now,

## COLLABORATIVE POWER NEW ENDOWMENT FOR STUDENTS

**Karim Maredia, director of WorldTAP, reports that an endowment has been established to support WorldTAP programs and students.** 2017 is the first

year where funds have been dispersed to support student efforts including travel to Sri Lanka study abroad, a mentoring program for African female students, resources for Borlaug Youth Institute students participating in the World Food Prize, and support for international scholars to attend WorldTAP short courses.

The [World Technology Access Program](#) (WorldTAP) is a training, technology transfer and capacity-building program in MSU's College of Agriculture and Natural Resources. It draws on expertise from MSU and around the world to offer short- and long-term training programs, advisory services and consultations in diverse areas of agricul-

tural research and development. WorldTAP faculty's students are recipients of the funds, which fill small gaps in funding so that travel, collaborations and resources can occur.

Two 2017 recipients, **Lewis Johnson** and **Kalvin Canfield**, received funds toward participating in the Sustainable Tropical Agriculture Education Abroad program in Sri Lanka taught by MSU Entomology professor Chris DiFonzo. Johnson, whose ethnicity includes Sri Lankan, reports he had unique experiences and cultural interactions that will stay with him for the rest of his life, while Canfield called the program life changing.

To help build more student international collaborations, consider a contribution to the WorldTAP Endowment Fund. Make checks payable to Michigan State University and indicate on the check that it is for WorldTAP

Endowment Fund Allocation Code A100193. Send to: Ms. Lynn Pfaff  
Finance and Endowment  
Michigan State University  
535 Chestnut Street, Room 300  
East Lansing, MI 48824-1005

Or donate online at: [www.givingto.msu.edu/gift/](http://www.givingto.msu.edu/gift/)  
Enter worldTAP in the Areas to Support search box.



Lidia Komondy, MSU Entomology

MSU students with new Sri Lankan friends. Calvin Canfield, front row at right. Lewis Johnson, back row center.

we're developing a tool so we can determine what malaria parasites are also in that blood." Read more at the MSU College of Natural Science website: "[CSI Malawi: Using forensic science to "interrogate" mosquitoes.](#)"

**Liquid biofuels from grass and wood could be an environmentally sustainable energy source if managed correctly**, according to a team that includes entomologist Doug Landis. Led by MSU's Phil Robertson (Department of Plant, Soil and Microbial Sciences) the team published their findings recently in [the journal Science](#). Although not yet a market force, cellulosic biofuels are routinely factored into future climate mitigation scenarios because of their potential to both displace petroleum use and mitigate greenhouse gas emissions. Those benefits, however, are complicated by the need for vast amounts of land to produce cellulosic biofuels on a large scale.

"The sustainability question is largely about the impact of using millions of acres of U.S. land to grow biofuel crops," Robertson said. "Can we do that without threatening global food security, diminishing biodiversity, or reducing groundwater supplies? How much more fertilizer would we use? What are the tradeoffs for real climate benefit, and are there synergies we can promote?" Read more at MSU Today: "[Cellulosic biofuels can benefit the environment if managed correctly.](#)"

**A new agreement for MSU and Canada will open up** collaborations to address invasive forest pests. MSU and the Canadian Invasive Species Centre in Sault Ste. Marie, Ontario, recently signed a Memorandum of Understanding opening options for future collaborations addressing forest health, invasive forest pests and related issues.

## DISTINGUISHED PROFESSOR LANDIS HONORED

**Doug Landis** is one of 10 Michigan State University professors named University Distinguished Professors in recognition of their achievements in the classroom, laboratory and community. This recognition is among the highest honors that can be bestowed on a faculty member by the university. Those selected for the title have been recognized nationally and internationally for the importance of their teaching, research and outreach achievements.

Landis is a professor of insect ecology in the Department Entomology. His research focuses on understanding the factors that influence arthro-



pod biodiversity and ecosystem services in agricultural landscapes. He is the author of over 140 peer-reviewed journal articles, 25 book chapters and more than 50 Extension bulletins. See this MSU Today story for information on all 10 newly appointed in 2017: "[MSU faculty members awarded distinguished professor title.](#)"

"This is an important step toward formalizing our common interest in the ecology and management of invasive forest insects and pathogens," said MSU forest entomologist Deborah McCullough. "Pests do not respect international borders, so we hope this agreement will help facilitate future collaborations with the new Canadian Centre."

**Julianna Wilson is leading a team to combat spotted wing Drosophila in cherries with a \$150,000 grant** by the Foundation for Food and Agriculture Research. The grant will go towards fighting the pest, which destroyed 21 percent of Michigan's 2016 cherry crop, according to industry surveys. MSU researchers will build off preliminary research to find the most effective and cost-efficient integrated pest management strategies for growers.

MSU, the Michigan Cherry Committee and the Michigan State Horticulture Society are matching the foundation's grant

for a \$300,000 total investment in research to mitigate and prevent future damage from the pest. Other team members include entomologists Larry Gut, Rufus Isaacs, Nikki Rothwell, John Wise and Bill Ravlin. See the MSU Today story: "[MSU receives grant to combat invasive pest in tart cherry trees.](#)"

### AWARD-WINNING

**Karim Maredia** is a 2017 recipient of an Office for International Students and Services (OISS) Globie Award. The award recognizes those on campus and in the community who exceed expectations in serving international students, scholars and their families. Maredia was nominated by several of his student and faculty collaborators for his tireless efforts to make MSU and the surrounding community a welcoming place.

Two undergraduate students, **Krista De Cooke** and **Emmaline Gates**, have independent research projects on stink bugs with Del

Delfosse and Paul Botch.

**De Cooke** received a 2017 Gillette Fellowship from the Honors College for her project, "Competition Among Trissolcus Wasps for Egg Masses of Native and Invasive Stink Bugs."

**Gates** has been awarded a summer internship at the University of Maryland's Horn Point Oyster Hatchery, the largest oyster hatchery on the East Coast.

**Lester Geissel** was honored for completing 45 years with MSU



Del Delfosse, MSU Entomology

Emmaline Gates and Krista De Cooke

and is currently an employee of the IR-4 program working for Sue Erhardt.

The Entomological Society of America's P-IE Section selected **Jackie Albert** (MS, Julianna Wilson) for a travel award for its Science Policy Field Tour. The topic for the tour held in Mississippi is "Balancing Pest Management and Pollinator Health."

*Continued on page 6.*

## OUTSTANDING TWO WIN REGIONAL ESA AWARDS

MSU Entomology professors David Smitley and Rufus Isaacs were honored by the North Central Branch of the Entomological Society of America (ESA) in Indianapolis, Indiana, on June 4-7.

### DAVID SMITLEY Distinguished Achievement in Horticultural Entomology



MSU Photography

David Smitley

David Smitley works closely with the turfgrass, nursery and floriculture industries to identify and solve insect pest problems, including best management practices for growers and landscapers. In 2014, Smitley began an intensive research and extension effort to develop pest management programs for nursery and greenhouse growers that allows them to produce high quality plants that are safe for pollinators after the plants are purchased and planted in the yard and garden. This led to a joint effort with Steve Frank in 2016 to organize the first national conference on "Protecting Pollinators

in Ornamental Landscapes." This conference was highly successful and a second conference is planned for October 2017.

Smitley is the primary author of "Protecting and Enhancing Pollinators in Managed Urban Landscapes" for the North Central and North East U.S. In its first year of publication (2016), this 30-page bulletin was accessed more than any other MSU Extension publication with more than 11,000 page views and more than 5,200 downloads. Smitley is continuing this work as one of the co-principal investigators on a \$7.2 million USDA Specialty Crops Research Initiative grant.

In 1999 and 2000, Smitley introduced the microsporidean pathogen, *Ovavesicula popilliae*, into Michigan. With a long-term research project and several publications, the Smitley lab has documented a high correlation between the buildup of *O. popilliae* and a 75 percent decline in Japanese beetle populations in the 15 years following introduction of the pathogen.

### RUFUS ISAACS Excellence in Integrated Pest Management

Rufus Isaacs leads a group studying insects in berry crops, including pests that threaten the yields and quality of blueberries,

grapes, raspberries and strawberries as well as their natural enemies. His program has expanded over the past decade to also address pollination of fruit crops with a particular emphasis on the contribution of wild bees and strategies for their conservation.

His recent studies have focused on the behavior, ecology and control of spotted wing Drosophila in berry farms and control of pests in vineyards including invasive and native pests. Isaacs is currently the director of the Integrated Crop Pollination (ICP) Project. The \$8.6 million USDA-funded ICP Project unites 50 scientists from 15 institutions to identify and explore the viability of using native and wild bee species as additional, alternative pollination strategies. Together, they are striving to provide fruit, nut and vegetable growers around the country with a more comprehensive set of pollination options to implement on farms.



MSU Photography

Rufus Isaacs

## — EXCELLENCE IN ACTION CELEBRATING 2017 ENTOMOLOGY AWARDS —

The MSU Department of Entomology gathered to celebrate with donors and recent award recipients on April 27. The events began with a seminar by Jay E. McPherson, the 2017 recipient of the Department's Distinguished Alumnus Award. McPherson is a professor emeritus and former assistant department chair at Southern Illinois University in the Department of Zoology. During the seminar, he discussed his career experiences and how one small finding could lead to a significant finding.

A reception for the Department followed at the Kellogg Center where endowment donors and recipients met.

Congratulations to the following people:

- **Jacquelyn Albert** (Wilson lab) - Roger and Barbara Hoopingarner Endowed Graduate Fellowship in Entomology
- **Carina Baskett** (Plant Biology) - Scriber Scholars Award in Butterfly Biology and Conservation
- **Julia Brokaw** (Isaacs lab) - James Bath Award for outstanding accomplishment, morale and excellence in overall job performance
- **Katherine Demeuse** (Kaufman lab) - Bug House Fellow for outstanding assistance in the Bug House
- **Daniel Gibson** (Landis lab) - Bug House Fellow for outstanding assistance in the Bug House
- **Adam Ingrao** (Szendrei lab) - Hutson Endowment Research Proposal Award, Gordon Guyer Award for outstanding achievement in extension as an Entomology graduate student
- **Lidia Komondy** (Szendrei lab) - Hutson Endowment Research Proposal Award
- **Courtney Larson** (Benbow lab) - Merritt Endowed Fellowship in Entomology
- **Heather Leach** (Isaacs lab) - Paul Wooley Award for outstanding achievement in an Entomology Master's program
- **Amanda Lorenz** (Ording lab) - Robert Dreisbach Award for outstanding achievement in an Entomology Doctoral program, Bug House Fellow for outstanding assistance in the Bug House
- **Margaret Lund** (Szendrei lab) - Rhodes (Gene) Thompson Endowed Fellowship, Hutson Endowment Research Proposal Award
- **Andrew Myers** (Landis lab) - Hutson Endowment Research Proposal Award
- **Steven Nichols** (Cognato lab) - Eugenia McDaniel Award for excellence, dedication and accomplishment as an Entomology graduate student in teaching
- **Rachel Osborn** (Cognato lab) - Bug House Fellow for outstanding assistance in the Bug House
- **Kristin Poley** (Grieshop lab) - Bug House Fellow for outstanding assistance in the Bug House
- **Joseph Receveur** (Benbow lab) - Gordon E. Guyer Endowed Fellowship in Aquatic Entomology
- **Courtney Weatherbee** (Benbow lab) - Bug House Fellow for outstanding assistance in the Bug House

### Special thanks to our donors:

- Gordon and Mary Guyer
- Roger and Barbara Hoopingarner
- Ray and Bernice Hutson
- Larry and Beverly Olsen
- Richard and Pamela Merritt
- Mark and Kathleen Scriber

View more images of individual winners with donors and more at [2017 Entomology Awards Ceremony photo gallery](#).



Continued from page 4.

### Congratulations to our spring graduates:

- **Kristin Poley** (MS with Matt Grieshop) is employed as a research technician with Marisol Quintanilla-Tornel.
- **Ari Grode** (MS with Zsofia Szendrei) now works for Lifescale Analytics in the Research Triangle Park, North Carolina, as a digital farming coordinator.
- **Charles Coslor** (PhD with John Wise) is working for the Wise lab and hopes to find a post-doctoral position on the West Coast.

### And to our summer graduates:

- **Abdullah Alomar** is graduating with an MS (with Ned Walker). Alomar plans on pursuing a PhD in entomology or a related field.
- **Rebecca Vinit** is graduating with an MS (with Ned Walker) and will be returning to Papua New Guinea to continue her work with the PNG Institute of Medical Research.

## Congratulations!



Baho Eshchanov, Amanda Lorenz-Reaves, Rebeca Gutierrez, Charlie Coslor and Abdulwahab Hafez at May graduation.

- **Baho Eshchanov** is graduating with a PhD (with George Bird) and will return to his home country of Uzbekistan to pursue a career in agriculture.
- **Abdulwahab Hafez** is graduating with a PhD (with John Wise) and is determining his plans for the future.

**Several undergraduate students working in Entomology research labs** presented their research at

the University Undergraduate Research and Arts Forum on April 7 with four of them winning first place in their respective sections. Approximately 950 students from 14 colleges presented their research on a wide variety of topics. First place winners were awarded \$100.

Congratulations to these winners at the Forum:

#### First place

- **Katie Boyd-Lee** (Isaacs lab): The effect of floral pollen availability on bee visitation.

*Continued on page 8.*

### In memoriam: Suzanne Thiem

The [MSU Department of Entomology](#) regretfully shares that one of its professors, [Suzanne M. Thiem](#), died Friday, August 4, 2017, after a short bout with cancer. Suzanne joined the department's faculty in 1997 as one of MSU's first molecular biologists. Her principal area of interest was baculovirus interactions with insects, including the molecular mechanisms that determine virus host range and response to infection.



Over the years, Suzanne assumed increased teaching duties including the Integrated Studies in Biology course taught to 180 undergraduates per semester. In addition, she played a critical role in the [BioMolecular Sciences Gateway](#) program where she reviewed over 400 applicants vying for spots in six different departments annually.

Her assessment of students had a significant positive impact on their college careers and on the quality of students entering MSU programs in general.

Within the Department of Entomology, she served as graduate program director/advisor where her experience and judgment continually improved the quality of students entering the department. Once a member of the Department, students knew Suzanne was available to listen to their

concerns and would follow their progress through to completion. Her dedication to students was rewarded in 2015 by receiving the Ronald W. Wilson Endowed Excellence Teaching Award.

Suzanne was appointed in the College of Agriculture and Natural Resources and the College of Natural Science and will be widely missed. – Bill Ravlin.

## FEATURED STUDENTS

**Name:** Anne Johnson  
**Hometown:** Oxford, MI  
**Future study or career plans:** Getting a doctorate in entomology and then researching tree pests, especially beetles.



**ANNE JOHNSON**  
UNDERGRAD STUDENT

### **What or who inspired your interest in entomology?**

I have always loved insects ever since I was very young, and always knew I wanted them to remain an important part of my life. What probably convinced me was attending Insect World Science Camp when I was younger, which was a summer camp here at Michigan State. It certainly influenced which college I chose to study at!

### **What has been your best experience with entomology?**

During the school year, I work in Rufus Isaacs' lab. I absolutely love working there, seeing the dedication of the people and the wide variety of projects with different insects going on in just one lab. This summer, I've been working at the Original Mackinac Island Butterfly House and Insect World. It is always fun seeing people's reactions to the butterflies and animals, and to try and teach them something new that may help them get over their fear of these amazing creatures.

**What is your favorite way to spend your time outside of your studies?** Anything outside is great, from collecting insects to hiking and exploring. I also enjoy reading, drawing and crocheting, and playing music on my French horn, trumpet, piano or guitar.

**What is your favorite thing about MSU?** I love everything about MSU, but particularly campus. The beautiful architecture, especially the older buildings, but also all the gardens, trees and the Red Cedar running right through the center of campus.

**Do you have advice for anyone interested in an entomology major?** Go for it! This is a field that links in so well with so many others, you are almost certain to find something you can be very passionate about and is the perfect fit for you. If you're still not certain, take an introductory entomology course, such as ENT 404 with Dr. Chris DiFonzo, who is also the entomology advisor, and learn more about entomology. I promise, the more you learn about entomology, the more you will want to know!

**Name:** Margie Lund  
**Hometown:** Cincinnati, OH  
**Previous education:** BS from Clemson University  
**Major professor:** Zsafia Szendrei



**MARGIE LUND**  
GRADUATE STUDENT

**What are you researching?** I am researching the effects of cover crop practices and plant nitrogen levels on *Pieris rapae* preference and predator-prey interactions in organic agroecosystems.

**Why study entomology?** I love working in agriculture, and love working with such charismatic, little creatures. For being so small, insects can make such a large impact in our food systems, and I think studying ways to alleviate some of that pressure with alternatives to pesticide use is important.

### **What or who inspired your interest in entomology?**

My interest in insects started when I took a summer job as an undergraduate working for Rufus Isaacs in the MSU Entomology Department. I was stationed at the Trevor Nichols Research Center, working on lure work and pesticide trials for pests in mostly blueberries, but some grapes and other berry crops as well. After taking some entomology classes during my undergraduate studies, I was hooked.

**What is your favorite insect?** My favorite insects are lady beetles. I have always been fond of them throughout my childhood, and I think they have such large and goofy personalities.



MSU Graduate and Undergraduate Entomological Student Society (GUESS) hosted Justin Schmidt, the "King of Sting," as the 2017 Gary Simmons Memorial Lecturer in April.

**GUESS**

Continued from page 6.

- **Emilie Cole** (Isaacs lab): Influence of fruit position, harvest frequency and can density on *Drosophila* infestation in fall red raspberry.
- **Megan Heil** (Gut lab): Mark-recapture of *Drosophila suzukii* to determine dispersal distance and trapping area.
- **Jaclyn Stone** (Isaacs lab): The effects of morphology on the survivorship of a key pest in berry crops.

#### Honorable mention

- **Michael Killewald** (Isaacs lab): Identification of pollen used for offspring provisioning within the bee genus *Megachile*.

**Dan Gibson** (Landis lab) won the award for “Best Student Oral Presentation” in March at the Midwest-Great Lakes Chapter of the Society for Ecological Restoration (MWGL-SER) meeting in Grand Rapids, Michigan.

## ALUMNI NEWS

**Loren Wernette** (MS, Bird lab) was promoted to customer solutions manager for BASF in the Research Triangle Park, North Carolina, in May.

**Kaci (Agle) Buhl** (BS 2000, MS 2002, DiFonzo lab) has been coordinating the National Pesticide Information Center (NPIC) for 10 years. She recently became an associate professor of practice at Oregon State University where she will direct the Statewide Pesticide Safety Education Program (PSEP).

**Jeremy Jubenville** (MS, Szendrei lab) is now an MSU Extension educator working with the floriculture industry based in Kalamazoo County, Michigan.

**Sara Tanis** (postdoc, McCullough lab) has accepted a teaching position with Colgate University in upstate New York.

**Christie Bahlai** (postdoc, Landis lab) will begin a tenured faculty position at Kent State University, establishing the Bahlai Lab of Applied Quantitative Ecology in the Department of Biological Sciences this fall.

**Bill Wills** (postdoc, Landis lab) will teach ecology at DePauw University.

**Chelsea Rawe** (BS 2014, Smitley lab) will be attending medical school at MSU.

**Jessica Kalin** (BS 2016, Landis lab) will be studying as a master’s student in entomology at the University of Idaho.

**Geoff Attardo** (staff, Alex Raikhel’s lab) is a new assistant professor at the University of California - Davis in the Department of Entomology and Nematology.

Emeritus University Distinguished Professor **Rich Merritt** was inducted into the Farm Lane Society, an honorary society of the MSU College of Agriculture and Natural Resources, in The Villages, Florida, in February.

**Oscar Taboada**, age 93, passed away on July 13. Taboada retired in 1986 as an MSU professor of Entomology after a long distinguished career that included studies in Spain, Uruguay and Argentina.

Former MSU president, Entomology professor and MSU Extension director **Gordon Guyer** was honored posthumously in Kalamazoo County in June for his efforts in conservation. Augusta Creek State Wildlife Area was rededicated as the Dr. Gordon Guyer Wildlife Area by the Michigan Department of Natural Resources.

## Remembering Tom Ellis

Tom Ellis passed away Friday, May 26, 2017, at Hospice House, Lansing, Michigan.



Tom with wife Alice Ellis and Gordon Guyer.

Tom was an ever-present figure in the Department of Entomology for more than 25 years. He received his BS and MS degrees at MSU and was employed by the Department beginning in 1976. Tom held positions ranging from research assistant to administrative assistant and completed his tenure as an academic extension specialist retiring in 2003.

Tom was a master of using newspapers, radio, and the internet to reach a broad spectrum of citizens in Michigan and beyond. He regularly received over 1,000 telephone and email insect-related inquiries a year. Tom was also a regular guest on a call-in program for WKAR. He taught entomology to Master Gardeners, wrote a popular book titled “What’s Bugging You?,” and entertained and educated K-12 teachers at “Bug College.” Faculty members, students, and staff were particularly fond of Tom for his generous sharing of his true opinions on any matter, at any time, and in front of anyone who would listen. Tom is survived by Alice, his wife of over 50 years, who was also a long-term staff member in the Department and other MSU units. – Bill Ravlin



## ALUMNI PROFILES: JAY MCPHERSON

Jay McPherson is the 2017 recipient of our department's Distinguished Alumni Award.

**Why did you choose entomology?** I grew up exploring the canyons and hills in San Diego, which is a very dry area, called chaparral, and loved collecting snakes, lizards and insects. At 14 years old, I decided I wanted to be a biologist and being a veterinarian was what made sense to me.

In high school, I began preparing for my career by working at a pet hospital. I entered San Diego State University and enrolled in the pre-vet program. As a sophomore, I took comparative anatomy, which I really didn't enjoy. The next semester, I took a general invertebrate zoology course, which I found fascinating and extremely stimulating. As a junior, through a serendipitous path, I took general entomology, which I loved. Both courses were more like a series of mini-courses and introduced me to animal diversity, which turned out to be the area in which I was really interested. At that point, I decided to leave the pre-vet program and specialize in invertebrate zoology.

During the next 1.5 years, I took additional courses in entomology, marine invertebrate zoology and parasitology. During my senior year, I enrolled in aquatic entomology, which required studying an insect of our choosing. I chose to study *Notonecta hoffmanni* (backswimmer), which became the basis for the research requirement for my master's degree in biology at San Diego State.

**Why did you study at MSU?** I applied to MSU because of my major professor at San Diego State University, Cal Norland. I'd lived my entire life in San Diego

and had no intention of going anywhere beyond California for my doctoral studies. I picked four universities (including the University of California, Berkeley) and Norland told me I should consider MSU, which had an up-and-coming entomology department. Within two months of applying, I had an offer from MSU—my first offer—and I took it.

MSU Entomology had many students and faculty specializing in entomology and that was a new experience for me. In addition, I had the opportunity to take a variety of courses. That broad background at MSU placed me in a good position to teach entomology at Southern Illinois University (SIU), where I've spent my entire career.

**What are your best memories as an entomology student?** Most outstanding in my mind was the comradery between faculty and students, how well everyone got along. I've seen other departments with barriers between the faculty and students, but at MSU, I never had a problem approaching any faculty member.

Fred Stehr was my major professor and Roland Fischer was my postdoctoral mentor. Stehr was important in my entomological training, and Fischer was instrumental in my career as a heteropteran specialist. Like many young people, my wife Jean and I met at MSU and married in the Alumni Chapel. We love to visit campus.

**Thoughts for current students?** Many of us as students think we know what we want to do with our careers. However, after graduating, you may be unable to find positions that exactly match your career ambitions. My advice for students and their



Jay and Jean McPherson

major professors is to add in some protection by building a broad expertise. Choose some courses beyond your focus area and get the most out of them. Take time to network. Such efforts will broaden your background and may prove extremely valuable in the future.

**How does your work affect people's lives?** I have taught literally thousands of students in the areas of biology, invertebrate zoology and entomology. They've learned insects are more than just cockroaches, wasps and sources of disease.

For most of my career, I have been the only entomologist at SIU, and it has been my responsibility to be the source of entomological information for the surrounding community. Often, they call me, "The Bugman."

**What keeps you engaged in your work?** I still enjoy the thrill of discovering new things. Research is my hobby, as I am officially retired. My department has been kind to me, allowing me to keep the same space—office, lab, museum—that I had before retirement. What can be better than that?



Department of Entomology  
MICHIGAN STATE UNIVERSITY

Michigan State University  
Natural Science Building  
288 Farm Lane Room 243  
East Lansing, MI 48824

COMING THIS FALL

WE'RE MAKING A VIDEO

# MSU ENTOMOLOGY MORE THAN JUST BUGS

