

SUMMER 2026

BUGGED

Department of Entomology Newsletter



Department of Entomology
MICHIGAN STATE UNIVERSITY



Photo by Bill Ravlin

From the Chair

BY HANNAH BURRACK

Summer is a busy and inspiring season for MSU Entomology. In this issue of Bugged, we are pleased to recognize our 2026 Department Award winners and share updates on several exciting programs and initiatives across the department.

We have also been fortunate to welcome four Entomology Research and Outreach Fellows (EROF) to the department this summer. Look inside to meet them and learn about their paths to entomology and their work with mentors Amelia McGinnis, Karma Thomas, Lauren Goldstein, and Peter Fowler. This is the fifth year of the EROF program, and support for the fellowship is made possible through the generosity of the family of Jordan and Mary Tatter.

Support from the Tatter family is also the driving force behind the Tatter Family Entomology Graduate Fellowship. This remains a challenging time to fund scientific research, and opportunities such as the Tatter Fellowship allow us to continue recruiting outstanding students to MSU Entomology. Look inside Bugged to learn more about the fellowship and how prospective students can apply.

As the new academic year quickly approaches, I also wanted to share that this fall's incoming undergraduate cohort is again our largest! This month, 18 new entomologists will join our community, three more than last year's new class of 15 students. These 18 undergraduates will join four new graduate students as "Team Mayfly." We're so excited to have them!



Hannah J. Burrack
Chairperson

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2026 Award Winners

Department Awards

Department of Entomology Distinguished

Alumnus Award:

Lukasz Stelinski

Outstanding Undergraduate Student Award:

Charlotte Caldon

Outstanding M.S. Student Award:

Kat Yoskowitz

Outstanding Ph.D. Student Award:

Jen Roedel

Outstanding Graduate Student in Extension

Award:

Jen Roedel

Outstanding Graduate Student Teaching Award:

Kristin Leutgeb

Outstanding Entomology Staff Award:

Saniya Henderson

Outstanding Postdoc Award:

Blake Dawson

George W. Bird Pioneering Land Grant

Scholarship:

Edward Peterson

Sara Elizabeth Klein Undergraduate Scholarship
in Entomology:

Mckayla Schrah

Larry Gut Memorial International Travel Awards:

Ignatius Andika & DeShae Dillard

MSU Entomology Outstanding Service

Recognition:

George Bird

Outstanding Service to the IR-4 Program:

Linda Gallagher

Bug House Fellows:

**Vic Arnould, Kendall Ash, Mars Baas, Cori
Bouck, August Duckworth, Emily Gallagher,
Peyton Gardella, Nate Howder, E. Inch, Ann
Joseph, Jaryne Lampe, Vivian Smith**

J.E. and Jean M. McPherson Graduate Student

Travel Awards:

**Ignatius Andika, Christopher Brown, Martín
Brubaker, Nate Howder, Jen Roedel, Shatrughan
Shiva, Mikaela Shutter-Trexell**

Graduate Fellowship Awards

The Gordon E. Guyer Endowed Fellowship in

Aquatic Entomology:

Kat Yoskowitz

The Merritt Endowed Fellowship in Entomology:

Kat Yoskowitz

The Rhodes (Gene) Thompson Endowed

Fellowship:

Amelia McGinnis

The Robert R. Dreisbach Endowed Memorial

Fellowship:

**Ignatius Andika, Christopher Brown, Kelly
Waters**

The Roger and Barbara Hoopingarner Endowed

Graduate Fellowship in Entomology:

Amelia McGinnis

The Paul Wooley Endowed Fellowship:

Timothy Harrison & Kat Yoskowitz

The Olsen Entomology Fellowship:

DeShae Dillard & Claire Schregardus

The Fred Stehr & Family Fellowship for Service in
Entomology:

Ignatius Andika & Claire Schregardus

The Tatter Family Entomology Graduate Fellowship:

Shelley Linder-Spotts

Research Proposal Awards

Scriber Scholars in Butterfly Conservation Award:

Samson Styner

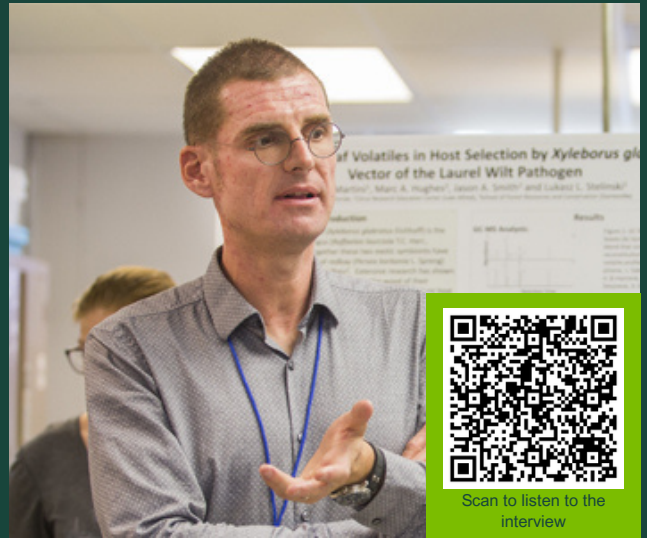
Ph.D. Hutson Endowment Research Proposal

Award:

Ignatius Andika & Keith Koonter



Scan here to see more photos from our awards ceremony!



Dr. Lukasz Stelinski

Meet our 2026 Distinguished Alumnus: Lukasz Stelinski

Lukasz Stelinski, a professor of agricultural entomology at the University of Florida and a two-time Michigan State University Entomology graduate (M.S. '01, Ph.D. '05), was selected to receive the MSU Department of Entomology's 2026 Distinguished Alumnus Award. Since joining the University of Florida faculty in 2007, he has built an internationally recognized career advancing sustainable solutions to agriculture's most challenging pest problems. His research focuses on integrated pest management, insect behavior, pheromone-based mating disruption, invasive pests and citrus greening disease. He was named a fellow of the American Association for the Advancement of Science in 2022 and the Entomological Society of America in 2023.

We caught up with Stelinski on a recent episode of Bug Talk, our department podcast, to reflect on his career, his time at MSU and the lessons he's learned along the way. Listen wherever you get your podcasts.

Michigan Moths: Highlights from the A.J. Cook Collection

In honor of [National Moth Week](#), MSU Entomology wants to share the fantastic world of moths we have right here in Michigan. From beautiful, well-known species to moths that don't even look like moths, the [A.J. Cook Arthropod Research Collection](#) offers access to millions of specimens for study. We dipped into the collection to share some of our favorites.



Sesia spartani

We may be biased, but the Spartan clearwing moth holds a special place in the hearts of MSU entomologists. Discovered by an MSU entomology alumnus in 1987, its scientific name reflects the university's iconic mascot Sparty. It was first collected at Rose Lake, a popular field trip destination for MSU biology classes. At first glance, this species may not look like a moth. Its bee-like markings are actually a common evolutionary strategy that encourages predators to think twice. In fact, these moths are harmless and do not have stingers.



Catocala amatrix

Commonly known as the sweetheart underwing moth for its red, heart-shaped hindwings, this species uses beautiful camouflage to hide on tree bark while resting. When disturbed, it flashes a bright red burst of color to startle predators. Its native range includes much of eastern North America, and its larvae feed on poplar and black willow.



Hemaris thysbe

Commonly known as the hummingbird clearwing moth, this species gets its Latin name from its dart-like shape, meaning “dart-tasseled.” Unlike many moths, it flies during the day and resembles a hummingbird in both size and behavior, or as close as a moth can come to looking like a bird. It has a long, strawlike mouthpart for drinking nectar. Its wingspan ranges from about 1½ to 2¼ inches, comparable to a hummingbird’s 1.2 to 2.4 inches, and it has a soft, furry appearance. Caterpillars feed on viburnums, hawthorns and honeysuckles. Adults visit many garden flowers, including bee balm, phlox and verbenas.



Actias luna

The luna moth is arguably one of the most iconic moths in the world. Its Latin name means “moonbeam,” likely referring to the long tails on the hindwings and perhaps the moonlike pale eyespots. This ephemeral creature doesn’t live long in this form. In fact, it does not even have mouthparts or a digestive tract in its final stage. Adults live for about one week, relying on energy stored during the larval stage while they search for a mate. As caterpillars, they feed on trees like white birch, sweetgum, hickory and walnut. A frequent visitor to up-north cabin porch lights, these giants (with wingspans up to 7 inches) are a sight to behold.



News

New study shows urban growers rely on accessible educational resources to adopt pollinator-friendly farming practices

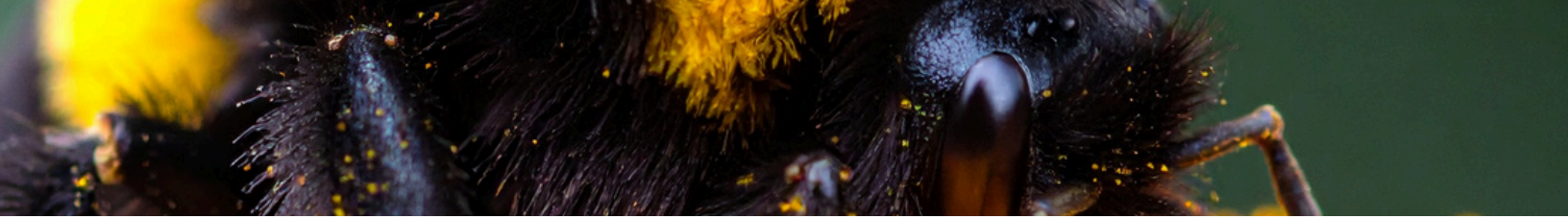
A new study by MSU Entomology researchers Jen Roedel, Karma Thomas and Zsafia Szendrei found that urban growers are more likely to adopt pollinator-friendly farming practices when they have access to resources such as labor, funding and land, as well as educational materials in formats they prefer. Surveying 74 urban growers, the researchers found that factors such as age, gender, education and farming experience did not significantly influence adoption. Growers most often relied on books and field guides, peer networks, online Extension resources and nonprofit organizations for information, highlighting opportunities to tailor outreach and support for urban agriculture.



Smart traps detect codling moth activity earlier, helping apple growers improve spray timing, study shows

MSU Entomology researchers Heather Leach and Julianna Wilson, along with collaborators from The Ohio State University, found that automated camera traps detected codling moth activity in commercial apple orchards three to seven days earlier than conventional pheromone traps. The study also showed that weather-based prediction models varied widely, forecasting moth activity from seven days early to 12 days late compared with field detections. Because codling moth is a major apple pest and spray timing is critical for control, the researchers say higher-resolution monitoring could help growers make more precise management decisions, reduce unnecessary insecticide applications and improve the performance of reduced-risk products.





Community explores nocturnal insects at MSU blacklighting event

More than 80 community members gathered at MSU's Beal Botanical Garden on June 20 for a blacklighting event hosted by the Department of Entomology and Beal Botanical Garden & Campus Arboretum. Attendees observed moths, beetles, lacewings and other nocturnal insects up close while learning from Bug House staff, students and volunteers. The event highlighted the diversity of insect life after dark and showcased MSU Entomology's ongoing efforts to connect the public with insect science through hands-on outreach.



Heartland Apicultural Society Conference Returns to Michigan with Hands-On Learning at MSU

The Heartland Apicultural Society Conference returned to Michigan for only the second time, bringing 124 beekeepers and professionals together for hands-on training and education hosted by MSU Extension. MSU Entomology faculty and researchers led workshops on honey bee anatomy, disease diagnostics and advanced beekeeping practices, with 96% of participants reporting increased knowledge in bee health and 87% reporting improved beekeeping skills.



Bee Palooza 2026

Bee Palooza, MSU Entomology's annual pollinator celebration, returns Aug. 30 from 1 to 4 p.m. at the MSU Horticulture Gardens in East Lansing. The free, family-friendly event will feature interactive exhibits, educational activities and opportunities to learn about Michigan's native pollinators and plants. This year's theme, "Bee Kind," focuses on simple actions people can take to support pollinator conservation at home and in their communities.

BEE PALOOZA

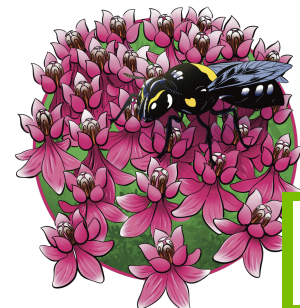




Photo by Sheila Babbitt

MSU Entomologist Brings Lily Beetle Biocontrol Program to Michigan

After years of planning, permit approvals and international collaboration, Michigan State University entomologist Marianna Szűcs has launched the state's first biological control program targeting the invasive scarlet lily beetle.

The bright red beetles are a growing problem for gardeners, feeding on lilies and causing extensive damage to leaves, stems and flowers. To help control the pest, Szűcs released three species of parasitoid wasps across Michigan during the 2026 field season. Biological control uses a pest's natural enemies to reduce populations over time rather than relying solely on insecticides or hand removal.

Szűcs became interested in the beetle in 2022 as reports increased from Extension educators, Master Gardener programs and invasive species networks. Her interest was fueled by the success of a similar biological control program in New England.

"Because I was already familiar with the success of the biological control program in New England, I was excited to explore whether similar approaches could be implemented in Michigan," Szűcs said.

That success became clear during a 2023 trip to Rhode Island, where Szűcs and a technician traveled to collect parasitized lily beetle larvae. Instead, they found far fewer larvae than expected.

"The biological control program had become so successful in some locations that there were relatively few beetle larvae left to collect," she said.

Research from New England has shown encouraging results, with some sites reporting parasitism rates of 70% to 90% and gardeners noting reduced beetle damage and declining populations.

Before any releases could occur in Michigan, Szűcs established lily beds for future parasitoid rearing, secured federal permits and worked with collaborators in Europe and Rhode Island to obtain insects for release. The North American Lily Society also played an important role by helping recruit volunteer gardeners who hosted many of the Michigan release sites. The three wasp species used in the program underwent extensive testing to confirm they target lily beetles and pose little risk to other insects.

Michigan is considered to be near the leading edge of the beetle's westward spread in the United States. Successfully establishing biological control agents here could help protect ornamental and native lilies while slowing the pest's expansion into neighboring states.

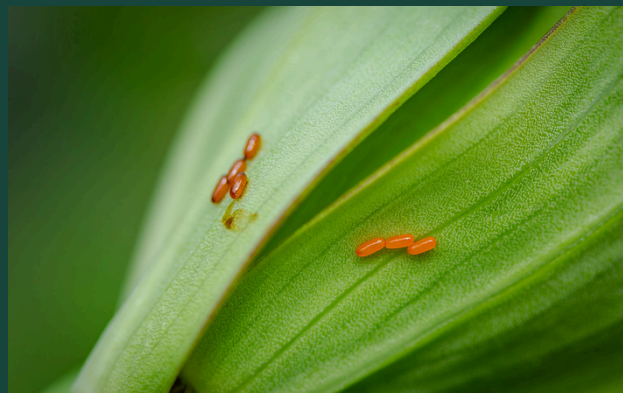
Still, Szűcs cautions that results will take time. "Homeowners should think of biological control as a long-term investment," she said. "The parasitoids must establish, survive winter and gradually build their populations before noticeable suppression occurs."

Even so, she remains optimistic. "Seeing the dramatic reductions in beetle populations that occurred in Rhode Island and Massachusetts gives me confidence that we can achieve similar results here," Szűcs said.

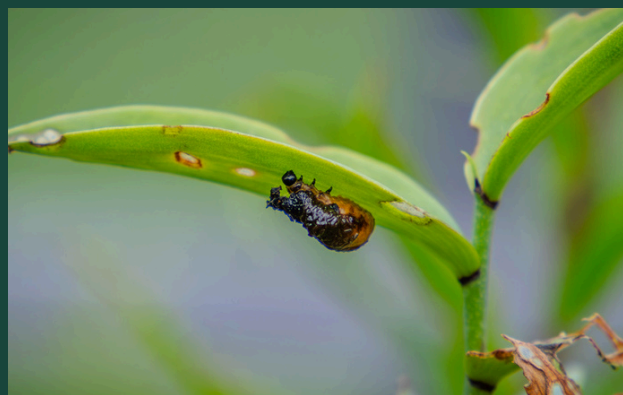
For more information about the biological control release and the parasitoid wasps released in Michigan, [read Szűcs' MSU Extension article.](#)



Marianna Szűcs releasing biocontrol agents at her research lily beds at the MSU Entomology Research Center located on South Campus



Scarlet lily beetle eggs

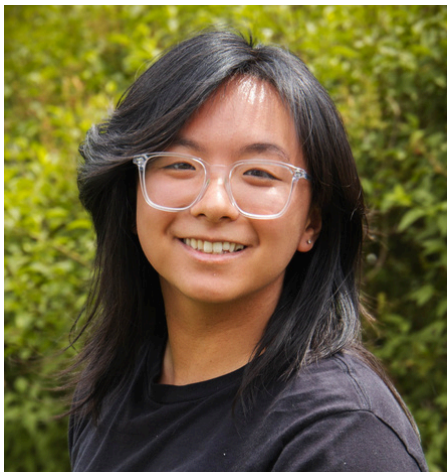


Scarlet lily beetle larvae cover themselves in feces to avoid predation



The three biocontrol agents: *Tetrastichus setifer*, *Diaparsis jucunda*, *Lemophagus errabundus*

Meet the 2026 Entomology Research and Outreach Fellowship Fellows



Lucy Heim

Mentor: Karma Thomas

Major: Natural Resources and Environmental Management; Biology minor

School: Grand Valley State University '26

"I was drawn to the EROF program because you get hands-on experience with researching insects regardless of previous experiences, which is great for people who don't have access to entomology programs. We are researching pest management strategies in agricultural fields in Zsafia Szendrei's vegetable entomology lab. The main goal of the project is to examine insect-resistant potato lines against the Colorado potato beetle. We are also looking at measuring defoliation, pesticide application, and pest presence using drones and comparing them to traditional methods. I've been working in the greenhouse conducting bioassays, going out to the field to scout for insects, piloting a drone to take aerial imagery, and as well as doing outreach events to share information to the community about insects. There is always something new each day. I've been learning about inputting data and conducting data analysis using RStudio and Microsoft Excel.

The most rewarding part of my experience is having the opportunity to get experience on skills that will be applicable for my future. This experience has also given me the opportunity to meet people in the field as well."



Abraham Parsons

Mentor: Lauren Goldstein

Majors: Evolutionary Biology & Ecology, Geology

School: Grand Valley State University

"I was drawn to apply the EROF program due to my deep personal interest in invertebrate biology. I plan to pursue further education on invertebrates after graduation and have been trying to gain as much hands-on experience as possible.

My focus this summer has been monitoring berry crop farms throughout Southwest Michigan. In particular, I have been surveying beneficial arthropods (spiders, insects and their relatives) as they relate to ecological boundaries, grass and flower fields, and trellised rows of Michigan vineyards.

Part of my job is to support the ongoing research work of the Berry Crops Entomology Lab. My personal project is focused on how arachnid populations contribute to biological control of economic pests in and around vineyards. The goal is to develop resources for landowners and farm managers interested in maximizing natural biological control."



Wesley Petree

Mentor: Amelia McGinnis

Major: Genetics and Genomics major;
Entomology minor

School: Michigan State University

"I wanted to get more experience working in a lab this summer and working with insects seemed right up my alley! We are researching pollinators in natural and agricultural plots by capturing and identifying insects found visiting flowers. The main goal of the project is to survey pollinator diversity in natural and agricultural plots. Currently I am going to the Kellogg Biological Station two days a week to do field work in prairies, and the other three days I do insect identification in the Center of Integrated Plant Systems. I am learning to do fly identification to the family level, bee identification to genus, and other hymenoptera identification to family along with the various sampling methods we use in the field.

The most rewarding part of the experience has been getting more comfortable with my ability to do insect identification. It's a difficult skill to learn, but the more that I do the more confident I become. I've also found it super helpful to talk to graduate students about their experiences and asking them questions to help me plan for my future!"



Keith Woolsey

Mentor: Peter Fowler

Major: Biology major (concentration in
Evolution, Ecology, and Organismal
Diversity); Botany and Zoology minors

School: Eastern Michigan University '25

"I found myself bummed out when my entomology field course was over and wishing I could pursue the entomology side of things a bit more, so when I learned about the EROF program, it was exactly what I was looking for. Being able to build upon my prior knowledge and skills in both the field and lab highly interested me, and the experience gave me the opportunity to work on honey bee health research in the Milbrath Lab.

My project focused on varroa mites, one of the major parasites of honey bee colonies, and tested the efficacy and safety of a fungal strain, *Beauveria bassiana*, as a potential method of control. Day-to-day work included preparing sticky boards, running infection assays, deploying treatments and collecting mite data in the field. My favorite part was working with the bees. Every time I went into the field in my bee suit, I left learning something I hadn't previously known, and it was rewarding to contribute to research aimed at creating an easier world for honey bees to live in."



MSU entomologists testify before Michigan lawmakers on invasive pests and food security

MSU entomologists Rufus Isaacs and Jackie Perkins testified before Michigan lawmakers about invasive pests that threaten the state's food supply. They highlighted MSU's efforts to detect and manage invasive species, including spotted wing drosophila and spotted lanternfly, and the potential impacts these pests can have on crop production and food costs.



Inside John Fricke's Work in MSU's Arthropod Collection

John Fricke is an adjunct curator in Michigan State University's Albert J. Cook Arthropod Research Collection, where he has spent more than 15 years identifying and organizing insect specimens, particularly within the Hymenoptera. Using scientific identification keys and careful observation, Fricke helps maintain collections that support research, education and insect biodiversity preservation.

Faculty Milestones



Anders Huseth
Promoted to associate professor



Karim Maredia
Promoted to associate dean for CANR International Programs



Meghan Milbrath
Appointment as Hoppingarner Faculty Fellow, Celebrating 10 years of service in the department



Tatter Family Entomology Graduate Fellowship

Tatter Fellowship Applications Open Sep. 1, 2026



Scan to learn more

The MSU Entomology Department is pleased to announce that applications for the 2027 Tatter Family Entomology Graduate Fellowship (TFEGF) will open on Sept. 1, 2026.

Established through the Tatter Family Endowment for Excellence in Entomology, the fellowship supports outstanding graduate students pursuing M.S. or Ph.D. degrees in entomology at Michigan State University. The fellowship provides a fully funded graduate research assistantship, including a \$35,000 annual stipend, benefits, tuition support and \$5,000 in research and travel funding.

To be considered, applicants must apply to an MSU Entomology graduate program and identify an MSU Entomology faculty mentor who can host them in their laboratory if selected. Students may receive the fellowship for up to two years during their degree program.

Applications for the 2027 fellowship cycle will be accepted from Sept. 1 through Nov. 27, 2026. Completed applications will be reviewed by the TFEGF Review Committee.

For more information about the fellowship and application process, [visit the fellowship website.](#)

The TFEGF is made possible through the generosity of the Tatter family, who established the endowment in honor of Jordan Tatter, a 1960 graduate of MSU Entomology. We are honored to continue the Tatter family's legacy by supporting the next generation of entomologists.



Amelia Hawk

Hometown: Saylorsburg, Pennsylvania

ENT Major or Minor: Major

Expected Graduation: 2029

What's been one of your most rewarding experiences in your studies so far?

Just realizing how far I have come and how much I have learned. I take a step back and think, "Wow, I did not know any of this a year ago, I can only imagine how much more I will know next year, or even by the time I graduate."

What inspired you to choose entomology as your area of study?

I grew up like many people, afraid of bugs. I let this fear control my life; I let it prevent me from doing things I loved like hiking, camping or just spending time outdoors. Finally, around 13 years old, I decided I was tired of being afraid and felt the best way to get over my fears would be to educate myself. Soon I realized that I found bugs incredibly fascinating and loved learning about them.

How do you balance your studies with other aspects of college life?

Honestly, I am kind of a nut when it comes to getting things done. As soon as I am assigned something, it is done that day. I am always very on top of my work. However, I do struggle with feeling like I am never doing enough. I always feel like I should be doing research, working in a lab, working a job, maintain a social life with peers and friends, in societies and clubs, getting 4.0s in every class, double majoring, and graduating early. How could I expect myself to accomplish all of this? I work to narrow down to only a couple goals that I can actually accomplish, but it never feels like it is enough.

Is there a particular insect or topic in entomology that fascinates you, and what drew you to it?

I am really fascinated by insect borne illness, and the impact climate change has on insects. One crossover of these interests is the status of ticks. Climate change has had a significant impact on tick populations; deforestation pushes these ticks into urban spaces, and humans get more ticks on them. I just love to see how all these problems are intertwined in small ways people often overlook. Outside of this, I love forensic entomology. I have always been interested in forensics, and I love bugs, so this is an awesome crossover of two things I like.

Ray Rantz

Hometown: Stevensville, Michigan

Previous education: Bachelor's in Agronomy,
Michigan State University

Graduation: Spring 2026

Advisor: Zsafia Szendrei



What sparked your initial interest in entomology, and how has it evolved over time?

Sophomore year of undergrad, I was an intern potato field scout for a crop consulting company. We were on the lookout for a variety of diseases, weeds, and insects...it was my first hands-on experience with IPM (integrated pest management) practices. One of our biggest concerns was Colorado potato beetle, and I became interested in how they were so resilient to chemical control. That interest led me to the Vegetable Entomology lab, and eventually to studying their resistance to common insecticides. It was a real full-circle moment.

What's your favorite part about being at MSU, whether it's related to campus life, research, or the people you work with?

It's all about the people! I loved the community aspect of our department. I got to know so many incredible scientists working on such a diverse range of topics. There was always something to look forward to- from the speaker seminars, to departmental community events, and GUESS student events, there were a lot of opportunities to catch up with everyone and their research, and it was never too long without seeing a friendly face.

Have you had any mentors or colleagues at MSU who've been influential in your academic journey?

I would obviously not be here without Dr. Zsafia Szendrei, who has been an incredible advisor and mentor and helped me grow my interest in entomology from my first day in the lab as an undergraduate research assistant. I'm also very thankful to Dr. Hannah Burrack for the genuine care and effort she puts into making students feel comfortable, heard and supported, and to Dr. Karen Renner, whose teachings on crop scouting and crop management helped develop my interest in IPM and agricultural insect pests.

What's something unique or surprising about your path to studying entomology that you think others might find interesting?

I always tell people that I was absolutely terrified of insects up until my first day of undergrad. During my tour of Lyman Briggs (I lived in Holmes Hall), a lab was showing their colony of Madagascar hissing cockroaches and letting students hold them. I tried to sneak out, but one of the TA's asked me if I wanted a chance. I didn't want to look cowardly...so I let her plop the roach right into my hand. "Oh! This isn't so bad! In fact...they're kind of cute!" That day I stopped looking at insects as something gross, but instead something misunderstood.



Department of Entomology
MICHIGAN STATE UNIVERSITY



Tackling Difficult Challenges



SCAN TO DONATE

Donate To MSU Entomology.

Just as insects create the biological foundation for ecosystems, you provide the basis of support that allows our entomological work to continue. Your support provides access for students to hands-on learning, advanced training, and travel to network and share their results. It empowers faculty to conduct innovative and impactful research, and allows us to share the wonders of insects with children of all ages.

To show our appreciation for your generous support this year, **we will send you the third in our series of commemorative coins featuring the emerald ash borer**, which represents our theme for this year "Tackling Difficult Challenges". Each year, when you submit your tax-deductible donation to MSU Entomology, we will send you the next coin in the series. Collect all five by committing your support over five years, and we will send you a shadow box to display your collection. Entomology is a gateway to a more inclusive community. Not only does your gift support the department, but you are changing lives in the process. Become a part of Bugs Work! Donate today.