MEETING PROGRAM

CONNECT, INSPIRE, DISCOVER

ENTOMOLOGICAL SOCIETY OF AMERICA

North Central Branch Meeting

April 19-22, 2026 | Des Moines, Iowa

ENTOMOLOGICAL SOCIETY OF AMERICA

NORTH CENTRAL BRANCH

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Welcome to Des Moines!

On behalf of our NCB meeting organizers, volunteers, sponsors and supporters, it is my pleasure to welcome you to the 2026 North Central Branch meeting of the Entomological Society of America.

This meeting will be a great opportunity for us to connect, inspire, and discover together. The NCB meeting is an opportunity to connect, network with new people, reestablish friendships and relationships with colleagues, and connect one another with resources and information that affects our work as entomologists. Meetings are also an opportunity to inspire one another, get inspired by the enthusiasm of our students, try out some new techniques, wrestle with some new ideas, and find new directions for inquiry. In the process we discover and learn about ourselves and others in ways that make us better entomologists and connect with one another in ways that make us better humans.

I'm excited about our program that is one of the most diverse topically that I can ever recall for the North Central Branch. Each of you who have contributed to the program by organizing a symposium or workshop, giving a talk, or presenting a poster have helped shape this outstanding meeting program.

As an educator who loves to share my passion for insects with others, I am especially looking forward to the NCB reaching out to the Des Moines community through our Insect Expo event. I hope all of you will participate in the Insect Expo. Following the Insect Expo, the Entomology Games initial rounds will be followed by our plenary speakers, the Bug Chicks, Jess and Kristie. They will inspire us, reminding us why we study insects and how we can connect with others about what we do.

I want to thank the many volunteers who have helped organize this meeting. Without their participation, this event simply would not happen. It is humbling to watch the efforts and time put in by our program chair and the local arrangements committee to make this meeting a success. Additionally, the Insect Expo planning team, the Entomology Games committee, the student affairs and early career professionals committees, our student awards and professional and honorary awards committees, the NCB Executive Committee, and Becky Anthony of the ESA all put in significant time helping to make this event happen. Please join me in thanking these people for their work on our behalf.

Finally, I invite you to explore Des Moines while you are here. The World Food Prize Hall of Laureates is just down the street and check out the nearby world-class Lauridsen Skatepark along the river which is the largest skatepark in the country. Lua Brewing, last year voted the #1 brewpub in the country by the USA Today 10 Best Reader's Choice awards is about a mile from the hotel. If nothing else, join us Tuesday evening from 7-9 at Confluence Brewing Company (the hotel bus will provide transportation) for a reprise by our own All Star Entomology Band! As a long-time resident of Iowa, until planning for this meeting I didn't realize what a vibrant and exciting place Des Moines is, and I hope that you will join me and have time to get out and explore the river, enjoy some of the local establishments, and see what Des Moines has to offer.

I hope you also will take advantage of the tour opportunities to Reiman Gardens or Corteva. Take full advantage of the meeting this year and support all our presenters by sticking it out to final sessions of the meeting on Wednesday and earn your Ultimate Instar.

I look forward to meeting many of you at this meeting, as it has truly been my privilege to serve as your President this year. Let's stay safe and have a great meeting where we connect, inspire, and discover together.

Kirk Larsen
ESA-NCB President, 2025-2026

Be Part of "Boundless Entomology" at the 2027 NCB-ESA Meeting in Manhattan

President-elect, Rob Morrison, has announced plans for the 2027 NCB-ESA meeting. Our branch will converge on April 24-28 in Manhattan, Kansas. Alison Gerken (USDA-ARS) is serving as our Program Chair, and Local Arrangements are being led by Christos Athanassiou and Matt Hetherington (both Kansas State University). The theme for our meeting will be "Boundless Entomology". In addition to bringing entomologists from around the region together, we will highlight how entomology is proposing solutions to the grand challenges facing society in an era of budget tightening, keeping stakeholders center stage.

Our host hotel, the Hilton Garden Inn and Conference Center in scenic downtown Manhattan, is located adjacent to the Flint Hills Discovery Center and Museum of Art and Light. It's within easy walking distance of many local eateries, cafes, and entertainment in downtown Manhattan. Manhattan itself is nestled in the scenic Flint Hills and is a lovely college town of 65,000 home to Kansas State University, with many recreational opportunities, never far from scenic hikes and nature preserves. Located only 8 miles from the MHK airport, with service to Chicago and Dallas, and adjacent to I-70, where the original sections of the interstate systems were started.

Make plans to attend the 2027 NCB-ESA meeting and get ready to connect with and be inspired by other entomologists while promoting our science and showing how entomology is an indispensable discipline for the 21st Century. Your participation will help make this a great program for learning, teaching, and networking. We cannot wait to see you next April in Manhattan!

Visit Manhattan Kansas

About our Host City

Des Moines, IA, where only the s's are silent, is the fastest growing metro area in the Midwest with over 750,000 people in the six-county region. Located just 40 minutes from Iowa State University, the hosts for the 2026 North Central Branch Meeting, downtown Des Moines is full of history, entertainment, art, and food. The hotel and conference center is close to the Historic Court District where you can find a variety of restaurants and bars. If you're up for a slightly longer walk, the beautiful Iowa State Capital and Historic East Village, home to many locally owned shops, is just over a mile away. We hope you'll enjoy "des best" parts of Des Moines during the meeting.

CATCH DES MOINES

Meeting Logo

Our meeting logo was designed by NCB members Charley Williams and Tierney Brosius of the biology department at Augustana College. The logo embodies our theme to "*Connect, Inspire, Discover*", and the rainbow coloration epitomizes our commitment to diversity within the ESA. We also highlight the regal fritillary butterfly, *Speyeria idalia*, which is a tallgrass prairie specialist native to Iowa. The regal fritillary has been proposed as Iowa's state insect. However, this large, beautiful butterfly is considered a species of special concern in Iowa and extirpated from much of its historic native range. Our logo honors this insect as a way of connecting with the natural history of the state of our host city.

CONNECT, INSPIRE, DISCOVER
ENTOMOLOGICAL SOCIETY OF AMERICA

North Central Branch Meeting
April 19-22, 2026 | Des Moines, Iowa

Charley Williams

Tierney Brosius

2026 Meeting-at-a-Glance

GENERAL MEETING INFORMATION	
Wi-Fi	Network: MarriottBonvoy-Conference; Password: NCB26
Registration Desk	Sunday (11:00 - 5:00); Monday and Tuesday (7:30 - 4:00); Wednesday (7:30 - 9:00); Located in the foyer near the Exhibit Hall
Presentation Upload	Sunday (11:00 - 5:00); Monday and Tuesday (7:30-5:00); Wednesday (7:30 - 11:00) Located in the Exhibit Hall
Poster Setup and Removal	Student Competition - Setup Monday 7:00 - 8:00 AM; Removal 6:00 - 7:00 PM Submitted Posters - Setup Tuesday 7:00 - 8:00 AM; Removal 5:00 - 6:00 PM Located in Des Moines Exhibit Hall
Insect Expo Setup and Teardown	Setup Saturday 3:00 – 6:00 PM & Sunday 10:00 AM – 12:00 PM Teardown Sunday 4:00 – 6:00 PM following Expo Located in Des Moines Exhibit Hall

SUNDAY, APRIL 19	
Workshops, and Social Functions	
7:00 AM – 8:30 AM	Hexapod 6K Scurry (Run/Walk); Meet in Hotel Lobby
8:30 AM – 9:30 AM	Executive Committee Meeting; Sioux City Room
10:00 AM – 11:00 AM	Student Affairs Committee Meeting; Sioux City Room
1:00 PM – 4:00 PM	Insect Expo; Des Moines Exhibit Hall
4:30 PM - 7:00 PM	Entomology Games – Preliminary Rounds; Iowa Ballroom E/F/G/H
7:00 PM – 8:00 PM	Keynote Address by The Bug Chicks; Iowa Ballroom E/F/G/H
8:00 PM – 10:00 PM	Welcome Reception; Windows on 7th (First floor)
Scientific Programs	
1:00 PM - 3:00 PM	*Symposium*: Corn's New Invader: The Rapid Rise of the Corn Leafhopper; Council Bluffs Room
1:00 PM - 4:00 PM	*Symposium*: Evaluation of Natural Products for Vector Control: A Symposium Honoring Dr. Joel Coats; Cedar Rapids Room
2:00 PM - 4:00 PM	*Symposium*: Participatory IPM: Involving Growers in Specialty Crop Pest Management Research; Davenport Room

2026 Meeting-at-a-Glance

MONDAY, APRIL 20	
Workshops and Social Functions	
10:00 AM - 10:30 AM	Coffee Break; Des Moines Exhibit Hall
1:00 PM – 2:30 PM	*Workshop*: Science Communication with the Bug Chicks; Iowa Ballroom
3:00 PM - 3:30 PM	Coffee Break; Des Moines Exhibit Hall
3:30 PM – 5:30 PM	*Workshop*: Let's Connect, Inspire, and Discover: Preparing for Entomology Careers in the Modern Day! Iowa Ballroom
6:00 PM - 8:00 PM	Entomology Games – Finals; Iowa Ballroom
8:00 PM - 10:00 PM	Early Career Professionals Mixer; Ricochet
8:00 PM - 10:00 PM	Student Mixer; Ricochet
Scientific Program	
8:00 AM - 6:00 PM	Student Poster Competition; Des Moines Exhibit Hall Q&A with poster presenters: odd #s 10:00 - 10:30 AM and even #s 3:30 - 4:00 PM
8:00 AM – 10:00 AM	M.S. 10-Minute Presentations: P-IE 1; Cedar Rapids Room
8:00 AM - 10:00 AM	M.S. 10-Minute Presentations: SysEB, PBT, & P-IE; Davenport Room
8:00 AM - 10:00 AM	Ph.D. 10-Minute Presentations: MUVE & SysEB; Dubuque Room
8:00 AM - 10:00 AM	Ph.D. 10-Minute Presentations: P-IE 1; Council Bluffs Room
10:30 AM - 12:30 PM	B.S. 10-Minute Presentations; Dubuque Room
10:30 AM - 12:30 PM	M.S. 10-Minute Presentations: P-IE 2; Council Bluffs Room
10:30 AM - 12:30 PM	Ph.D. 10-Minute Presentations: PBT & P-IE; Cedar Rapids Room
10:30 AM - 12:30 PM	Ph.D. 10-Minute Presentations: P-IE 2; Davenport Room
1:30 PM - 3:00 PM	Submitted 10- Minute Presentations: P-IE & SysEB; Council Bluffs Room
1:30 PM - 3:30 PM	*Symposium:* Insect Adaptation in a Multidimensional Plant-Insect Landscape; Davenport Room
1:30 PM - 4:30 PM	*Symposium:* Discovering Success: Towards a Strong Interview and an Improved CV; Cedar Rapids Room
3:30 PM - 5:30 PM	Submitted 10-Minute Presentations: MUVE & PBT; Council Bluffs Room
3:30 PM – 5:30 PM	*Symposium:* Visual Literacy in Entomology: Improving How We Teach What We Can't See; Dubuque Room

2026 Meeting-at-a-Glance

TUESDAY, APRIL 21	
Workshops, Business and Social Functions	
10:00 AM – 10:30 AM	Coffee Break; Des Moines Exhibit Hall
12:15 PM – 1:45 PM	Awards Luncheon; Iowa Ballroom
2:00 PM – 6:00 PM	Tour: Reiman Gardens; Meet in Hotel Lobby
7:00 PM – 9:00 PM	Live Music: The Entomologist Band; Confluence Brewing
Scientific Program	
8:00 AM – 5:00 PM	Submitted Poster Display; Des Moines Exhibit Hall Q&A with poster presenters: 10:00 – 10:30 AM
8:00 AM – 10:00 AM	Submitted 10-Minute Presentations: P-IE – Field Crops; Dubuque Room
8:00 AM – 12:00 PM	*Symposium:* Bumble Bees in the Midwest: Conservation, Ecology, and Behavior; Council Bluffs Room
8:00 AM – 12:00 PM	*Symposium:* Connecting and Inspiring Audiences through Active Engagement with Entomology; Davenport Room
10:30 AM – 12:00 PM	Submitted 10-Minute Presentations: P-IE – General 1; Dubuque Room
2:00 PM – 3:00 PM	Submitted 10-Minute Presentations: P-IE – General 2; Cedar Rapids Room
2:00 PM – 5:00 PM	*Symposium:* Connecting Across Borders: New Insights and Collaborations in Solitary Bee Conservation; Council Bluffs Room
2:00 PM – 5:00 PM	*Symposium:* Connect, Communicate, Contribute: Building Extension Skills for Tomorrow's Entomologists; Dubuque Room
3:30 PM – 5:00 PM	Submitted 10-Minute Presentations: Stored Product Pests; Cedar Rapids Room

WEDNESDAY, APRIL 16	
Workshops, Business and Social Functions	
7:30 AM - 8:30 AM	Meeting Debrief and Feedback Session; Council Bluffs Room
8:00 AM – 11:30 AM	Tour: Corteva Agriscience Global Business Center; Meet in Hotel Lobby
8:30 AM – 9:00 AM	Coffee Break; Foyer 3rd Floor
Scientific Program	
9:00 AM - 11:00 AM	*Symposium:* Making Connections, Building Relationships: Insect Interactions with Symbiotic Microorganisms; Dubuque Room
9:00 AM - 12:00 PM	*Symposium:* News from the Monarch Highway; Cedar Rapids Room
9:00 AM - 12:00 PM	*Symposium*: When Research Doesn't Work; Davenport Room

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Meeting Information

Registration

All participants, including guests, must register for the meeting; and badges are required for admission to all functions and sessions. The meeting registration desk is in the Foyer on the 3rd floor at the Des Moines Marriott Downtown hotel, and will be open for pre-registered attendees and on-site registration at the following times:

Sunday, April 19	11:00 AM – 5:00 PM
Monday, April 20	7:30 AM – 4:00 PM
Tuesday, April 21	7:30 AM – 4:00 PM
Wednesday, April 22	7:30 AM – 9:00 AM

Statement on Diversity, Equity, and Inclusion

The Entomological Society of America (ESA) is a professional organization dedicated to furthering the science and awareness of entomology through the advancement and professional development of all its members. ESA acknowledges and values all dimensions of diversity. Therefore, we welcome into our Society and encourage the participation of all individuals who are interested in entomology regardless of age, gender, gender identity, race, cultural background, religion, physical ability, sexual orientation, professional status, geographic location, and all other characteristics that make our members unique.

ESA actively promotes inclusion, recruitment, and retention in every aspect of the Society – including but not limited to membership, leadership, committees, and staff. We strive to cultivate a scientific society of excellence built on mentorship, encouragement, tolerance, and mutual respect. ESA is committed to proactively rejecting and denouncing prejudice and stereotyping whenever it is encountered in the Society or the profession.

Code of Conduct

By attending the 2026 North Central Branch Meeting, you agree voluntarily to abide by our ethics policy. The full policy may be found online at entsoc.org/conduct. If you need to file a complaint, please contact Stacie East, ESA's Director of Equity and Grants, at +1 (301) 731-4535 x3030 or seast@entsoc.org.

Recording Policy

NCB-ESA requests that attendees not take videos during sessions because they are disruptive to the presenters. Presenters and attendees cannot photograph, screenshot, capture, or otherwise share images or presentation data without a presenter's expressed written permission. If the speaker has granted permission by adding the "*Photograph OK*" logo, you are welcome to take photos, otherwise, please refrain from taking photos during presentations. If you wish to take photographs of a poster, please check for the "*Photograph OK*" logo on the poster or contact the author(s) for permission. NCB-ESA reserves the right to use photographs and videos taken during the meeting for informational and promotional purposes. Thank you for your cooperation.

Parasitoid Games

The Parasitoid Game is a fun networking activity hosted by the NCB Student Affairs Committee. Inspired by the campus game Humans vs. Zombies, participants act as both "parasitoids" and potential "hosts." Players earn points by placing stickers on other participating players throughout the conference while introducing themselves and making new professional connections.

Gameplay begins during the Sunday Welcome Reception and continues through Monday night at the Student/ECP Mixer, with all conference breaks serving as active play times. The player with the highest number of confirmed parasitisms wins a prize!

All student members and Early Career Professionals are welcome to participate. Visit the Student Affairs Committee table in the Exhibit Hall to sign up for the Games!

Please direct any questions to Tristan Barley (tbarley2@illinois.edu) and/or Nikhitha Gangavarapu (ngangavarapu2@huskers.unl.edu)

Live Music Tuesday

Join our own NCB all star entomology band, the "K Giles Experience" on Tuesday night at Confluence Brewery (7-9pm). Food can be carried in or obtained while at Confluence. Transportation to and from the concert will be provided by the Marriott bus. Music covers all forms of rock, with a few university-related songs for everyone to sing along. For those about to rock, we salute you!

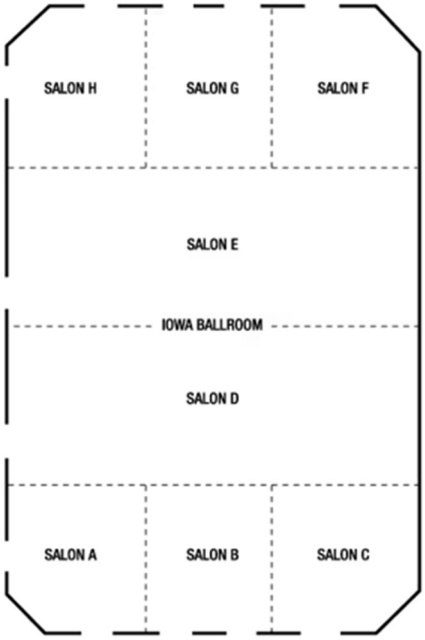
Go to www.catchdesmoines.com/plan/fun-pass/ for $2 off your first pint at Confluence Brewing Company.

Become the Ultimate Instar!

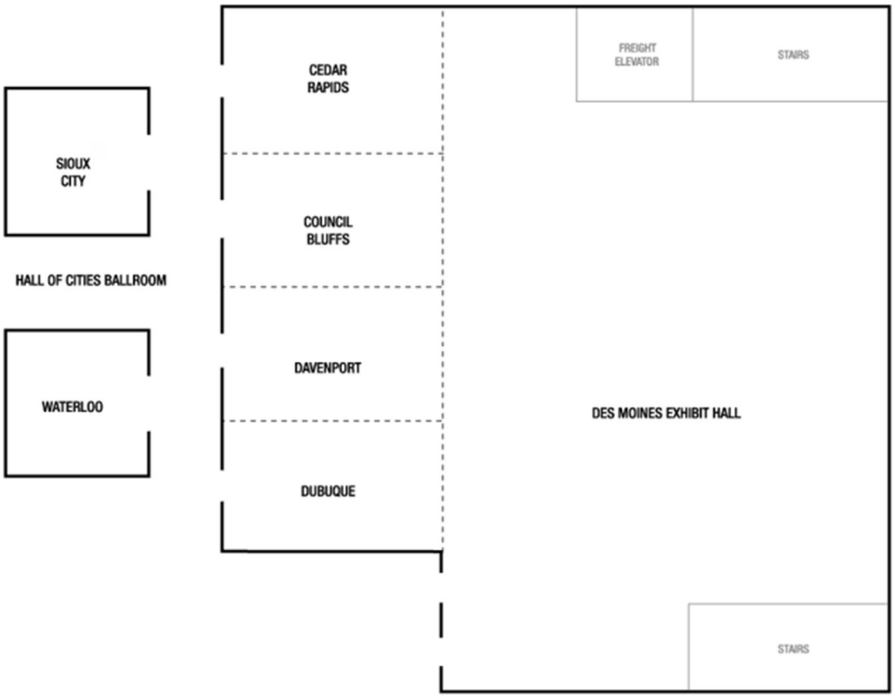
Have you ever organized, spoken in, or attended a symposium or given a talk on the last day in the last session of a meeting? It can feel like the hinterlands of the meeting…but it shouldn't! Every day of the meeting is packed with engaging content that you can absorb first-hand from the creator. To recognize and encourage those who contribute and get scheduled into the last sessions of our meetings, with content or simply by attending, we are introducing the ULTIMATE INSTAR! In entomology, the ultimate instar is the last stage of an immature insect that involves immense growth before transformation. This year, anyone who attends any concurrent session or the Corteva tour on the last day of the NCB meeting (Wednesday, April 22) will receive an ULTIMATE INSTAR sticker, designed by Grace Sward, Ph.D. This dishwasher-safe sticker is perfect for a water bottle or travel mug. We hope this is a fun way to honor the full scope of content at our meetings…until that final minute before transformation!

Des Moines Marriott Downtown Floor Maps

Second Floor



Third Floor



2026 NCB-ESA PROFESSIONAL AWARDS

Legacy Contribution Award

Dr. Therese Poland is a Research Entomologist and Project Leader of the "Ecology and Management of Invasive Insects and Forest Ecosystems" unit with the USDA Forest Service Northern Research Station in East Lansing, Michigan. She completed her Master of Pest Management and Ph.D. degrees at Simon Fraser University in Burnaby, British Columbia where she studied pheromones of bark beetles that attack pines and spruce trees. Therese worked as a research associate with Phero Tech, Inc. on developing and testing insect traps and pheromone lures to manage forest insects before joining the Forest Service in 1997. Her research with the Forest Service has focused on developing improved detection tools and management strategies for several invasive insects that threaten North American forests including pine shoot beetle, Asian longhorned beetle, and emerald ash borer.

She is currently collaborating on projects evaluating biological control of emerald ash borer, developing resistant ash trees, and improving remote sensing tools for early detection of forest pests and diseases. Therese as served as a judge for student presentations, session moderator, and co-organizer of symposia at several ESA meetings over the years and has served as co-Editor-in-Chief for Environmental Entomology since 2019. In her spare time, she is active in a fundraising group to support education for women in need, and she loves to run, hike, and garden.

C.V. RILEY AWARD

Dr. Joe Louis is the Harold W. Eberhard Professor of Agricultural Entomology in the Department of Entomology at the University of Nebraska-Lincoln (UNL). His research program is centered around host plant resistance and molecular plant-insect interactions, with specific focus on the effect of insect feeding on plant physiological processes and plant defense signaling mechanisms, and the role of insect effectors/elicitors that modulate plant defense responses. Dr. Louis has authored more than 80 peer-reviewed publications in leading plant science, entomology, and interdisciplinary science journals. His research program has been supported by nearly $4.65 million in competitive grant funding from the National Science Foundation (NSF), the U.S. Department of Agriculture (USDA)/Agriculture and Food Research Initiative (AFRI), industry partners, and non-profit organizations. Throughout his career, Dr. Louis has mentored 14 graduate students (including eight Ph.D. students), nine postdoctoral research associates, and more than 30 undergraduate students. Many of his trainees have received prestigious awards and recognitions from the ESA and other professional organizations. Dr. Louis also teaches two graduate level courses at UNL on *Chemical Ecology of Insect-Plant Interactions* and *Insect Control by Host Plant Resistance* for both resident and online students. He also serves as a subject editor for the *Journal of Economic Entomology* and *Arthropod-Plant Interactions*, and as a senior editor for *Molecular Plant-Microbe Interactions*. He also served as Program Chair for the 2018 NCB-ESA meeting.

Distinguished Achievement Award in Teaching

Dr. D. Bryan Bishop is a Professor in the Biology Department and the Environmental and Sustainability Studies Program at Concordia College-Moorhead MN. A small liberal arts college, Concordia has a 100% teaching load during the school year, while field and lab research with undergraduates is conducted during summer months. He has had a fascination with insects from a very young age and began keeping honey bees at age 12. His passion for everything insects carries over into his *Entomology* (BIOL 311) course at Concordia. Using experiential learning activities in the classroom and outdoors, multimedia, and camping excursions, his students are introduced to insect ecology, behavior, and proper technique of insect collection and identification. He also teaches *Evolution and Diversity* (BIOL 122), developed and teaches *Animal Behavior* (BIOL 350), and *Introduction to Geographic Information Systems* (BIOL 360). Besides camping/collection trips in the North Dakota Badlands each year, he has led or co-led students in other Biology courses to places such as the American Southwest Desert, Galapagos Islands, Amazon Basin, Australia and New Zealand. He has mentored 40+ undergraduate students in summer research ranging from developing sampling protocols of Ephemeroptera, Plecoptera, and Trichoptera in muddy-bottomed slow-moving rivers to bee diversity in northwest Minnesota. Currently he is training students to digitize Concordia's insect collection in a partnership with the Bell Museum (U of M) in St. Paul. He enjoys seeing students that never dreamed of pursuing entomology become enamored with insects. He counts at least 17 former students that have altered career paths to earn a Ph.D. or master's degree in Entomology. In all his student-related endeavors, he seeks to encourage a life-long love of learning regardless of the subject. When not involved with school, he enjoys macrophotography, astrophotography, camping in the Boundary Waters of Minnesota, insect watching, and spending time with family, especially his new grandson.

Award of Excellence in Integrated Pest Management

Dr. Christian Krupke is a Professor of Entomology and Dean's Fellow at Purdue University, where he joined the faculty in 2005. He completed undergraduate studies at the University of Guelph. His research has focused on improving IPM in agricultural systems beginning with graduate work at Simon Fraser University and Washington State University, where he studied pheromone-based monitoring and management of codling moths and stink bugs, respectively. At Purdue, he leads an applied research and extension program focusing on pest management in corn and soybeans and regularly teaches a graduate course in insect IPM. He has served as major advisor to 22 graduate students and postdoctoral scholars, with work quantifying the costs and benefits of ubiquitous, prophylactic pest management tactics in field crops, including seed-applied insecticides and transgenic (Bt) corn. His research evaluates eTicacy, pest suppression, and broader impacts on non-target organisms and the environment. Dr. Krupke has contributed as an author to over 65 peer reviewed publications with nearly 10,000 citations; most of these focus on IPM-related topics. Perhaps more importantly, as an Extension specialist he presents applied research results directly to hundreds of IPM practitioners annually through in-person and online presentations, popular press, podcasts, and other media. He is an alumnus of the ESA Science Policy Fellows program and remains active with the Society in this area. He enjoys it when Canadian teams win at sports.

Distinguished Achievement Award in Extension

Dr. Zsofia Szendrei is a Professor and Extension Specialist in the Department of Entomology at Michigan State University. Her research and extension programs focus on applied pest management in agricultural systems, with an emphasis on developing sustainable, science-based solutions for growers. Her work integrates field-based research, stakeholder collaboration, and outreach education to address insect management challenges in vegetable cropping systems. She is committed to translating research findings into practical recommendations that support economically and environmentally sound farming practices. Dr. Szendrei is actively involved in graduate and undergraduate training and regularly partners with growers, industry representatives, and extension professionals to develop and deliver educational programming. Her program has contributed to improved pest management strategies, enhanced decision-making tools for producers, and increased adoption of integrated pest management approaches across Michigan and the surrounding region.

Excellence in Early Career Research

Dr. Hannah Quellhorst completed a B.S. and M.S. in Entomology at Purdue University. She completed her Ph.D. in Entomology at Kansas State University, and was co-advised by Drs. Rob Morrison (USDA-ARS) and Kun-Yan Zhu (KSU). Her research focused on improving postharvest integrated pest management of maize with a special focus on invasive species. Her research interests include global food security, insect biochemistry and physiology, and insect behavior. She is currently a USDA NIFA Postdoctoral Fellow at Kansas State University, working on a multi-institutional project to improve identification and management of the quarantine pest the khapra beetle. Dr. Quellhorst has published 21 peer-reviewed manuscripts and given 75 presentations in 11 U.S. States and 10 countries in her career. Dr. Quellhorst was a class of 2022 ESA Science Policy Fellow and is currently the chair of the NCB ECP committee, maintaining a high level of involvement with ESA. In the future, she hopes to focus on humanitarian science through a career in Entomology. Ultimately, she plans to continue to apply her skills and expertise in stored products entomology to fight world hunger.

Excellence in Early Career Education and Engagement

Dr. Max Helmberger is a teaching specialist in the Department of Entomology at Michigan State University, responsible for courses in field entomology, non-majors science, and applied pest management in systems ranging from organic crop production to turfgrass. He also designs educational board games and was the lead designer of Loam, a 2023 game about soil ecology and biodiversity, which got its start as a project for a course he took while completing his Ph.D. at Michigan State.

2026 NCB-ESA STUDENT AWARDS

John Henry Comstock Award

Jacqueline M. Maille is a Ph.D. candidate in the Department of Entomology at Kansas State University, specializing in the chemical ecology, behavior, and genomics of stored product pests. She earned her B.S. in Biology from Austin Peay State University and her M.S. in Entomology from Kansas State University, where she investigated alternative fumigants to methyl bromide for high-value food products. Her doctoral research, supported by a prestigious USDA-NIFA Predoctoral Fellowship, focuses on leveraging chemosensory genomics, chemical ecology, and behavioral analyses to revolutionize pest monitoring and detection in post-harvest systems.

A prolific researcher, Maille has authored 14 peer-reviewed publications and delivered nearly 70 presentations at regional, national, and international conferences. Her leadership is reflected in her service as a student representative for the ESA governing board and her past role as Student Affairs Committee Chair. Throughout her academic career, she has received significant accolades, including the K-State University Distinguished Professors Excellence in Doctoral Studies Award and various research grants totaling over $200,000. Maille is driven by a vision to integrate advanced molecular tools with practical engineering solutions to enhance global food security. Outside of her research, she is a passionate science communicator and advocates for historic entomological preservation.

Runner-Up

Ellie McCabe is a PhD candidate at the University of Kentucky.
A note from Ellie: The majority of my research has focused on invasive species biology and how invasive insects interact with new climates and species interactions within the invaded range. My PhD focuses on the invasive fruit pests *Drosophila suzukii* and *Zaprionus indanus*. Through this work I have published two articles on the overwintering and population dynamics of *D. suzukii* in Kentucky. I also received a USDA predoctoral fellowship to investigate interspecific interactions between *D. suzukii* and *Z. indianus* and how they affect berry crops. In this work, I recently completed a study quantifying the extent of facilitation and competition between these two species on different berry species. Importantly I found that *Z. indianus* could be a primary invader of raspberries and blackberries without requiring facilitation. Throughout my career I have been a big believer in scientific outreach, mentoring, and extension. I have sought out community outreach events teaching the public and school children about entomology. I have also shared the results of my studies to growers through extension talks and fact sheets. As I advance in my career, I will continue studying complex relationships within invasive species and spread knowledge on our environment and the love of entomology.

Graduate Student Scholarship

Arnol Gomez is a PhD candidate and Foundation for Food and Agriculture Research (FFAR) Fellow in the Department of Entomology at The Ohio State University, where he works with Dr. Ashley Leach in the Specialty Crop Entomology Lab. His graduate research focuses on improving integrated pest management programs for vegetable production, particularly thrips management in peppers and onions. Arnol's work integrates reduced risk insecticides, biological control, and cultural management strategies to evaluate both pest suppression and conservation of beneficial arthropods. Through extensive field, laboratory and on-farm trials, his research examines insecticide selectivity, tri-trophic interactions, fertility-mediated plant responses, and mulch-based pest suppression. His work is grounded in practical questions and aims to provide information that growers can readily use in their production systems. Beyond his research, Arnol is actively involved in student leadership, mentoring, and outreach. He enjoys reading, singing, dancing, and playing tennis and volleyball.

Runner-Up

Andrea Rilaković is a Ph.D. candidate at the University of Nebraska–Lincoln, specializing in integrated pest management (IPM) in corn production systems. Her research focuses on managing western bean cutworm through aerial and chemigation insecticide applications. Her interdisciplinary work includes multi-year field trials, on-farm research, stakeholder surveys, and simulation of application methods and treatment efficacy under laboratory settings. Andrea holds an M.S. in Plant Protection (Weed Science) from the University of Belgrade, Serbia. She has research experience across multiple crops, including corn, soybeans, hemp, hops, vegetables, and fruits, in both academic and industry settings. A recent internship with Corteva broadened her industry perspective and practical approaches to pest management.

Andrea has delivered over 40 scientific and extension presentations, earned the International IPM Doctoral Student Award, and received UNL's Outstanding Graduate Mentor Award. She secured a $300,000 USDA-NIFA grant for her Ph.D. research and has mentored and worked with over 15 undergraduate and graduate international students.
Her involvement with ESA and NCB includes participation in the Student Affairs Committee, serving as the Student Representative for the Entomology Games, and participating in the Local Arrangements Committee. Through leadership roles and interdisciplinary collaboration, Andrea remains committed to advancing sustainable and innovative IPM practices.

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Special Acknowledgements

- Becky Anthony and ESA Central for registration and membership communications
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- Ricochet for hosting the Students and Early Career Professionals socials
- Timothy Lancial and Decorate Iowa for poster stand rentals
- Confluence Brewing Company for hosting live music
- Catch Des Moines for providing bags and the Fun Pass
- Experience Columbus for promotional materials (2026 ESA Annual Meeting)
- Visit Manhattan for promotional materials (2027 NCB-ESA)

SUNDAY, 19 APRIL 2026, AFTERNOON

Symposium:

Corn's New Invader: The Rapid Rise of the Corn Leafhopper

1:00 PM - 3:00 PM
Council Bluffs Room

Moderator and Organizer: Hia Kalita
Iowa State Univ., Ames, IA

1:00 Introductory remarks

1:05 **1** Tracking flight activity of corn leafhopper and detection of corn stunt disease across the USA Midwest with the Suction Trap Network. **Doris Lagos-Kutz** (dlagos@illinois.edu)[1], Dalton Jayne[2], Ivair Valmorbida[3], Michael Crossley[4], Nicholas Seiter[5], Anthony McMechan[6], Steven Clough[7], Mark Davis[8] and Brenda Molano-Flores[8], [1]Univ. of Illinois, Urbana, IL, [2]Bioengineering, Univ. of Illinois at Urbana-Champaign, Urbana-Champaign, IL, [3]Univ. of Missouri, Columbia, MO, [4]Univ. of Delaware, Newark, DE, [5]Univ. of Illinois, Champaign, IL, [6]Univ. of Nebraska - Lincoln, Dept. of Entomology, Lincoln, NE, [7]United States Dept. of Agriculture-Agricultural Research Service, Urbana, Illinois, Urbana, IL, [8]Illinois Natural History Survey, Champaign, IL

1:25 **2** Integrated pest management for the corn leafhopper: A re-emerging threat to US corn production. **Ashleigh Faris** (ashleigh.faris@okstate.edu), Kelly Seuhs and Maira Duffeck, Oklahoma State Univ., Stillwater, OK

1:45 Break

1:50 **3** Genetic diversity and microbe prevalence of the corn leafhopper (*Dalbulus maidis*) across four states of the United States. **Hia Kalita** (hkalita@iastate.edu)[1], Juliana Souza[1], Carter Casey[1], Adriana Larrea-Sarmiento[1], Olufemi Alabi[2], Ashleigh Faris[3], Maira Duffeck[3], Ivair Valmorbida[4] and Alejandro Olmedo-Velarde[1], [1]Iowa State Univ., Ames, IA, [2]Texas A&M AgriLife Research and Extension Center, Weslaco, TX, [3]Oklahoma State Univ., Stillwater, OK, [4]Univ. of Missouri, Columbia, MO

2:10 Discussion

SUNDAY, 19 APRIL 2026, AFTERNOON

Symposium:

Evaluation of Natural Products for Vector Control: A Symposium Honoring Dr. Joel Coats

1:00 PM – 4:00 PM
Cedar Rapids Room

Moderators and Organizers: Susan Paskewitz and Lyric Bartholomay
Univ. of Wisconsin, Madison, WI

1:00		Welcoming remarks
1:05		Introductory remarks
1:15	**4**	Overview of the state of research on the use of natural products for vector control. **Susan Paskewitz** (smpaskew@wisc.edu) and Lyric Bartholomay, Univ. of Wisconsin, Madison, WI
1:35	**5**	Evaluation of a novel plant-based acaricide using the Phenocosm™. **Catherine Hill** (hillca@purdue.edu), Purdue Univ., West Lafayette, IN
1:55	**6**	Minor components of essential oils as personal and spatial repellents. **Colin Wong** (colin.wong@mgk.com)[1] and Joel Coats[2], [1]MGK, Minneapolis, MN, [2]Iowa State Univ., Ames, IA
2:15		Break
2:30	**7**	Exploring 25b products for use at the mosquito control district level. **Caleb Corona** (ccorona@mmcd.org), Metropolitan Mosquito Control District, Saint Paul, MN
2:50	**8**	Evaluating minimum risk products for blacklegged tick control. **Zoe Narvaez** (znarvaez@wisc.edu), Univ. of Wisconsin-Madison, Madison, WI
3:10	**9**	Assessing the acaricidal potential of expanded perlite for control of nymphal blacklegged ticks. **Adam Shumate** (ashumate@wisc.edu), Univ. of Wisconsin-Madison, Madison, WI
3:30		Concluding remarks

SUNDAY, 19 APRIL 2026, AFTERNOON

Symposium:

Participatory IPM: Involving Growers in Specialty Crop Pest Management Research

2:00 PM - 4:00 PM
Davenport Room

Moderators and Organizers: Fatma Besbes[1], Emilie Parkanzky[1], Elizabeth Hrycyna[2], Sophie Perry[2] and Christelle Guédot[2]
University of Wisconsin Madison, Madison, WI

2:00 **10** IPPM in practice. **Ashley Leach** (leach.379@osu.edu), The Ohio State Univ., Wooster, OH

2:15 **11** Partnering with growers to study lily leaf beetle resistance in ornamental lilies. **Mikaela Shutter-Trexell** (mikaela@trexell.com), Michigan State Univ., East Lansing, MI

2:30 **12** Plum curculio in peaches: Integrating growers and extension educators into IPM research. **Kacie Athey** (kathey@illinois.edu), Univ. of Illinois Urbana-Champaign, Urbana, IL

2:45 **13** Partnerships with mint farmers to implement biological control for Asiatic garden beetle. **Elizabeth Long** (long132@purdue.edu), Purdue Univ., West Lafayette, IN

3:00 **14** Developing IPPM programs to improve high tunnel crop production. **Robert Grosdidier** (lavilesl@purdue.edu), Purdue Univ., West Lafayette, IN

3:15 **15** Implementing IPM on Midwestern cucurbit farms for managing pest and beneficial insects. **Zeus Mateos-Fierro** (z.mateosfierro@worc.ac.uk), Univ. of Worcester, Worcester, UK, United Kingdom

3:30 **16** Exploring pests, pollinators, and people in Michigan fruit farms. **Rufus Isaacs** (isaacsr@msu.edu), Michigan State Univ., East Lansing, MI

3:45 **17** Chemical ecology of Spotted-wing drosophila in small fruits. **Matthew Gullickson** (gulli139@umn.edu), Univ. of Minnesota, St. Paul, MN

Student Poster Competition:*
B.S. Poster Displays

Des Moines Exhibit Hall

D1 Investigation of Northwest Iowa pollinator communities using two survey methods. **Sharon Huffman** (sharon.huffman@nwciowa.edu), Ellary Carson, Isaac DeYoung, Mya Cole, Naomi Johnson, Genesis Maldonado, Maelee Rodenburg, Travis Sweeney, Arianna Van Donkelaar, Tark Griebel, Todd Tracy and Laurie Furlong, Northwestern College, Orange City, IA

D2 Indirect trait-mediated effects of the presence of *Anisopteromalus calandrae* on two host stored product insects. **Caitlynn Langton** (cal12@ksu.edu)[1], Matthew Hetherington[1], Alison Gerken[2], Thomas Phillips[1] and William Morrison[2], [1]Kansas State Univ., Manhattan, KS, [2]USDA - ARS, Manhattan, KS

D3 Paper wasp (*Polistes Spp.*) aggregations on vertical infrastructure: Species composition and implications for non-lethal behavior-based management. **Luke Palmer** (lpalmer12@huskers.unl.edu)[1], Georgina Bingham[1], Troy Anderson[1] and Mathew Kramm[2], [1]Univ. of Nebraska-Lincoln, Lincoln, NE, [2]Texas A&M Univ., San Antonio, TX

D4 Evaluating the connection between *Bombus impatiens* yeast feeding preferences and microcolony performance. **Lucia Salazar** (lucia.i.salazar@gmail.com), Danielle Rutkowski and Amber Crowley-Gall, Iowa State Univ., Ames, IA

D5 Evaluating the role of nectar micronutrients on pollinator foraging behavior in lab and field studies. **Megan Anderson** (andersmc6766@uwec.edu), Gracie Miller, Faith Thornton and Olivia Bernauer, Univ. of Wisconsin-Eau Claire, Eau Claire, WI

D6 Stable flies (*Stomoxys calcitrans*) as sentinels of West Nile virus and *Theileria occidentalis* exposure in Western Nebraska. **Michaela Todd** (mtodd15@huskers.unl.edu)[1], Nicole Sexton[1], Roberto Cortinas[2], Cassandra Olds[3] and Georgina Bingham[4], [1]Univ. of Nebraska- Lincoln, Lincoln, NE, [2]Univ. of Nebraska, Lincoln, NE, [3]Kansas State Univ., Manhattan, KS, [4]Univ. of Nebraska-Lincoln, Lincoln, NE

D7 Effects of native pollinator habitat on syrphid fly diversity and richness. **Rebecca Boyd** (becca.boyd2@myemail.indwes.edu), Indiana Wesleyan Univ., Columbia City, IN

**Poster presenters are to stand next to their posters between 10:00 AM - 10:30 AM (odd numbers) and 3:30 PM - 4:00 PM (even numbers).*

Student Poster Competition:*
M.S. Poster Displays

Des Moines Exhibit Hall

D8 Pollinator abundance and diversity in CP43 prairie strips and saturated buffers. **Rory Wisgerhof** (roryw@iastate.edu) and Katherine Kral-O'Brien, Iowa State Univ., Ames, IA

D9 Influence of milkweed origin on aphid colonization and monarch butterfly oviposition. **Stephany Bautista** (sbgcx@missouri.edu), Katie Harris, Jared Brabant and Debbie Finke, Univ. of Missouri, Columbia, MO

D10 Preliminary fecal induction trials using laxatives in non-Apidae bees yields promising results. **Lucas Grindley** (lgrindl@purdue.edu) and Brenna Decker, Purdue Univ., West Lafayette, IN

D11 Spatiotemporal pest population dynamics in cucurbit crops using machine learning. **Gursewak Singh** (SinghG@lincolnu.edu), Rohit Dhariwal, Suman Veeramasu and Anitha Chitturi, Lincoln Univ. of Missouri, Jefferson City, MO

D12 Aligning conservation and applied entomology: Pollinator bycatch in traps targeting insect pests. **Kaitlyn Hutchinson** (kaitlyn.hutchinson@ndsu.edu), North Dakota State Univ., Fargo, ND

D13 Remnant and reconstructed prairies support different butterfly communities despite similar management. **Adam Meneses** (meneses@iastate.edu), Iowa State Univ., Ames, IA

D14 Managed versus unmanaged land use and orb-weaving spider biodiversity. **Brenna Long** (bklong@ilstu.edu), Austin Calhoun, Rachel Bowden and Ben Sadd, Illinois State Univ., Normal, IL

D15 Do preventive fungicide and insecticide applications at the R3 growth stage provide a positive return on investment? **Jeova Rafael Rodrigues Da Silva** (jrrznc@missouri.edu)[1], Adauto Brasilino Rocha Junior[2], Pedro Henrique Campos Pinho Costa[1], Luan Carlo Bosetti[1], Ivair Valmorbida[1] and Mandy Bish[1], [1]Univ. of Missouri, Columbia, MO, [2]Univ. of California Davis, Santa Cruz, CA

D16 Seasonal onset of overwintering in soybean gall midge (Diptera: Cecidomyiidae) under field conditions. **Thalí Ramos Rodríguez** (tramosrodriguez2@husker.unl.edu)[1] and Anthony McMechan[2], [1]Univ. of Nebraska-Lincoln, Lincoln, NE, [2]Univ. of Nebraska - Lincoln, Dept. of Entomology, Lincoln, NE

D17 Ground beetles as bioindicators for reconstructed prairie management. **Lily Landre** (llz6b@missouri.edu)[1], Connor Crouch[2], Emily Althoff[1,3], Roberta Doerhoff[4] and Lauren Pile Knapp[2], [1]Univ. of Missouri, Columbia, MO, [2]USDA Forest Service, Columbia, MO, [3]Lincoln Univ. of Missouri, Jefferson City, MO, [4]Missouri Dept. of Conservation, Columbia, MO

D18 Damage potential and feeding preference of *Halyomorpha halys* (Stål), *Nezara viridula* (L.), and *Leptoglossus zonatus* (Dallas) among different ripening stages of tomato. **Md Tafsir Nur Nabi Rashed** (rashed.md@ufl.edu)[1], Adam Dale[2], Gideon Alake[2], Simon Riley[2], Nicole Benda[2] and Amanda Hodges[2], [1]Corteva Agriscience, Johnston, IA, [2]Univ. of Florida, Gainesville, FL

D19 Insect community response to modified plant defense compounds in pennycress (*Thlaspi arvense* L.), a winter cash cover crop. **Joshua Graunke** (jcgrau1@ilstu.edu)[1] and C. Scott Clem[2], [1]Illinois State Univ., Normal, IL, [2]Univ. of Georgia, Athens, GA

**Poster presenters are to stand next to their posters between 10:00 AM - 10:30 AM (odd numbers) and 3:30 PM - 4:00 PM (even numbers).*

Student Poster Competition:*
Ph.D. Poster Displays

Des Moines Exhibit Hall

D20 Come for the bait, stay for the treatment: Enhancing rodent use of tick control system bait boxes in urban forest to reduce the risk of tick-borne diseases. **Karen Fuenzalida** (fuenzalidaar@wisc.edu), Tela Zembsch, Susan Paskewitz and Lyric Bartholomay, Univ. of Wisconsin, Madison, WI

D21 From dispersal to copulation: Multiscale behavioral control points in *Plodia interpunctella*. **Jacqueline Maille** (jmaille@ksu.edu)[1], Ronnie Serfa Juan[2], Jaden Reed[2], Tanner Liba[1], Alison Gerken[2], Dan Brabec[2], Kun Yan Zhu[1], Erin Scully[3] and William Morrison[2], [1]Kansas State Univ., Manhattan, KS, [2]USDA - ARS, Manhattan, KS, [3]USDA-ARS, Manhattan, KS

D22 Upcycled entomology: DIY moth traps for backyard investigations. **Christopher Brown** (brow1249@msu.edu) and Peter White, Michigan State Univ., East Lansing, MI

D23 Characterization of layered double hydroxide nanosheets for enhanced RNA interference efficiency in the diamondback moth, *Plutella xyllostella*. **Rachel Johnson** (johnsonrl@ksu.edu), Junepyo Oh, Jossette Coloma and Kun Yan Zhu, Kansas State Univ., Manhattan, KS

D24 Efficacy of conventional neonicotinoid vs. carbon nanotube–based nano-imidacloprid seed treatments against the Hessian fly. **Kokou Amego** (Ksamego@ksu.edu)[1], Amie Norton[1], Xuming Liu[1], Ming-Shun Chen[1], Lee Cohnstaedt[2] and R. Jeff Whitworth[1], [1]Kansas State Univ., Manhattan, KS, [2]USDA - ARS, Manhattan, KS

D25 Does fertilization rate influence insect pest pressure in spring wheat? **Khuma Bhusal** (bhusalkhuma2@gmail.com), Philip Rozeboom, Bradley McManus, Eric Jones and Adam Varenhorst, South Dakota State Univ., Brookings, SD

D26 Spatial and temporal composition of the pollinator community in Iowa row crops. **Yuanwu Wang** (yuanwuw@iastate.edu), Katherine Kral-O'Brien and Matthew O'Neal, Iowa State Univ., Ames, IA

D27 Independent effects of pre-plant tillage, planting depth, and row cleaners on soybean gall midge (Diptera: Cecidomyiidae). **Christopher Whalen** (cwhalen9@nebraska.edu)[1], Julia Pinzon[1], Elliot Knoell[1] and Anthony McMechan[2], [1]Univ. of Nebraska - Lincoln, Lincoln, NE, [2]Univ. of Nebraska - Lincoln, Dept. of Entomology, Lincoln, NE

D28 RNA-seq analysis of immune gene expression in *Culex pipiens* in response to West Nile virus infection. **Joseph Spina** (jspina427@gmail.com), Univ. of Illinois Urbana-Champaign, Champaign, IL

D29 Drivers of macroinvertebrate diversity in constructed wetlands. **Daniel Edwards** (dje@iastate.edu), Iowa State Univ., Ames, IA

**Poster presenters are to stand next to their posters between 10:00 AM - 10:30 AM (odd numbers) and 3:30 PM - 4:00 PM (even numbers).*

MONDAY, 20 APRIL 2026, MORNING

Student Competition:
M.S. 10-Minute Presentations: P-IE 1

8:00 AM – 10:00 AM
Cedar Rapids Room

Moderators: Alison Gerken[1] and Grace Carter[2]
[1]USDA - ARS, Manhattan, KS, [2]Univ. of Nebraska - Lincoln, Lincoln, NE

8:00	**18**	Cost-power tradeoffs in pollinator resource methodology: A simulation-based assessment. **Virginia Roberts** (robe2489@umn.edu)[1] and Daniel Cariveau[2], [1]Univ. of Minnesota, Saint Paul, MN, [2]Univ. of Minnesota, St. Paul, MN
8:12	**19**	Effects of grazing intensity and land management on pollinators and dung beetles. **Olivia Rooney** (orooney@wisc.edu), Univ. of Wisconsin-Madison, Madison, WI
8:24	**20**	Evaluating the impact of pollen and nectar availability on sunflower insect visitation with floral eDNA. **Grace Lewis** (glew514@gmail.com), Travis Seaborn, Meggan Alston and Deirdre Prischmann-Voldseth, North Dakota State Univ., Fargo, ND
8:36	**21**	Timing matters? Wild bee activity, planting date, and zucchini pollination success **Kenya Castillo** (kenya.castillo97@gmail.com), The Ohio State Univ., Wooster, OH
8:48	**22**	Pollinator eDNA: Quantifying DNA deposition rates of *Apis mellifera*. **Luke Settles** (lukecs2@illinois.edu)[1], Sara Merkelz[2], Elena Gratton[1], David Pilliod[3], Adam Dolezal[1] and Mark Davis[4], [1]Univ. of Illinois Urbana-Champaign, Urbana, IL, [2]Univ. of Illinois Urbana Champaign, Champaign, IL, [3]U.S. Geological Survey, Boise, ID, [4]Illinois Natural History Survey, Champaign, IL
9:00	**23**	Wild bee utilization and forb establishment in Nebraska prairie strips. **Paige Myers** (PMyers3@nebraska.edu) and Judy Wu-Smart, Univ. of Nebraska-Lincoln, Lincoln, NE
9:12	**24**	Prairie strips create viable honey producing sites for honey bee colonies in central Iowa farms. **Jarod Perez** (perejar@iastate.edu), Matthew O'Neal, Amy Toth and John Tyndall, Iowa State Univ., Ames, IA
9:24	**25**	Presentation Withdrawn
9:36	**26**	How do managed honey bees respond when raised at solar farms? **Carl Bowling** (carlbowl@iastate.edu), Matthew O'Neal, Suzanne Slack and Amy Toth, Iowa State Univ., Ames, IA
9:48	**27**	Assessing borer pest impact and cultivar resistance in Midwest floral hemp production. **Sophie Perry** (slperry3@wisc.edu) and Christelle Guédot, Univ. of Wisconsin, Madison, WI

MONDAY, 20 APRIL 2026, MORNING

Student Competition:
M.S. 10-Minute Presentations: SysEB, PBT, & P-IE

8:00 AM – 10:00 AM
Davenport Room

Moderators: Jessica D. Petersen[1] and Adrian Pekarcik[2]
[1]MN Dept of Natural Resources, St. Paul, MN, [2]North Carolina State Univ., Raleigh, NC

8:00 **28** The caterpillar connection: How herbicide drift affects Polyphemus silk moth (*Antheraea polyphemus*) larvae. **Elizabeth Lumley** (efltcf@missouri.edu)[1], Roberta Doerhoff[2] and Emily Althoff[1,3], [1]Univ. of Missouri, Columbia, MO, [2]Missouri Dept. of Conservation, Columbia, MO, [3]Lincoln Univ. of Missouri, Jefferson City, MO

8:12 **29** The potential of conservation biological control in high tunnels: What are generalist predators eating? **Eleanor Meys** (emeys2@illinois.edu) and Kacie Athey, Univ. of Illinois Urbana-Champaign, Urbana, IL

8:24 **30** The last frontier: Environmental DNA as a tool to discover unknown and at-risk Alaskan cloudberry pollinator communities. **Sara Merkelz** (merkelz3@illinois.edu), Univ. of Illinois Urbana Champaign, Champaign, IL

8:36 **31** Impact of non-native honey bees on the reproductive success of cavity nesting bees and wasps. **Gweneth Voaklander** (gwenvoak@iastate.edu) and Amy Toth, Iowa State Univ., Ames, IA

8:48 **32** Predicting habitat suitability under future climate change for the rusty patched bumble bee. **Cole Knaus** (knaus.35@buckeyemail.osu.edu), Emily Runnion and James Strange, The Ohio State Univ., Columbus, OH

9:00 **33** How livestock dewormers shape dung beetle foraging choices across spatial scales. **Madison Kluge** (madison.kluge@uky.edu), Univ. of Kentucky, Lexington, KY

9:12 **34** Influence of surface type and temperature on the initial and residual efficacy of contact insecticides against the lesser grain borer, *Rhyzopertha Dominica* (Fabricius) adults. **Abhinash Boddepalli** (boddepal@ksu.edu)[1], Kun Yan Zhu[1], Tanja McKay[2] and Deanna Scheff[3], [1]Kansas State Univ., Manhattan, KS, [2]Arkansas State Univ., Jonesboro, AR, [3]USDA - ARS, Manhattan, KS

9:24 **35** Screening medicinal chemical libraries for next-generation mosquitocides. **Haley Fleetwood** (hfleetwood2@huskers.unl.edu), Grey Newquist, Leslie Rault and Troy Anderson, Univ. of Nebraska-Lincoln, Lincoln, NE

9:36 **36** A DNA-based phylogeny of *Parcoblatta* cockroaches (Blattodea: Blattellidae) indicates the presence of unrecognized diversity. **Nathaniel Howder** (howderna@msu.edu) and Anthony Cognato, Michigan State Univ., East Lansing, MI

MONDAY, 20 APRIL 2026, MORNING

Student Competition:
Ph.D. 10-Minute Presentations: MUVE & SysEB

8:00 AM – 10:00 AM
Dubuque Room

Moderators: Colin Wong[1] and Marisa Guido[2]
[1]MGK, Minneapolis, MN, [2]Iowa State Univ., Ames, IA

8:00 **37** Comparing modern and historic wild bee diversity in the North Dakota sandhills. **Trebor Hall** (trebor.hall@ndsu.edu), Gerald Fauske and Deirdre Prischmann-Voldseth, North Dakota State Univ., Fargo, ND

8:12 **38** Establishment and overwintering of *Aedes albopictus* in Nebraska. **Gwenyth Coleman** (gcoleman3@huskers.unl.edu)[1], Jeff Hamik[2], Halie Smith[2], Tyler Mucha[2], Leslie Rault[1] and Troy Anderson[1], [1]Univ. of Nebraska-Lincoln, Lincoln, NE, [2]Nebraska Dept. of Health and Human Services, Lincoln, NE

8:24 **39** Evaluating fitness costs in a *Helicoverpa zea* strain resistant to Cry1, Cry2 and Vip3Aa Bt proteins. **Zixia Song** (song0719@umn.edu)[1], Haley Kennedy[2], David Kerns[3] and Fei Yang[1], [1]Univ. of Minnesota, St. Paul, MN, [2]Dept. of Entomology, Texas A&M Univ., College Station, TX, USA, College Station, TX, [3]Texas A&M AgriLife Extension Service, College Station, TX

8:36 **40** Social resurrection: Social interactions and restoration of disturbed bumble bees microbiota. **Ravi Timsina** (rtimsin@ilstu.edu) and Ben Sadd, Illinois State Univ., Normal, IL

8:48 **41** Picking a fight: Investigating aggression-immune trade-offs in the Jamaican field cricket (*Gryllus assimilis*). **Sydney Szwed** (smszwed@ilstu.edu), Ben Sadd and Scott Sakaluk, Illinois State Univ., Normal, IL

9:00 **42** Mosquito immune cells enhance dengue and Zika virus infection in *Aedes aegypti*. **David Hall** (drhall@iastate.edu) and Ryan Smith, Iowa State Univ., Ames, IA

9:12 **43** Effectiveness of homeowner-applied acaricide for managing blacklegged ticks (*Ixodes scapularis* Say) in a residential setting. **Tom Richards** (trichards@wisc.edu), Xia Lee, Lyric Bartholomay and Susan Paskewitz, Univ. of Wisconsin, Madison, WI

9:24 **44** A new adventive parthenogenetic *Nocticola* species (Blattodea: Nocticolidae) found in Florida, USA and Vienna, Austria. **Junkai Wang** (wangju35@msu.edu) and Anthony Cognato, Michigan State Univ., East Lansing, MI

9:36 **45** Chemical and microbial dimensions of *Aphaenogaster* ants. **Lily Kelleher** (kelleher.144@buckeyemail.osu.edu)[1], Mila Collette[1], Alissa Geisse[1], Julia Pandaleon[2], Manuela Ramalho[3], Frances Kamhi[2] and Rachelle Adams[1], [1]The Ohio State Univ., Columbus, OH, [2]Denison Univ., Granville, OH, [3]West Chester Univ., West Chester, PA

MONDAY, 20 APRIL 2026, MORNING

Student Competition:
Ph.D. 10-Minute Presentations: P-IE 1

8:00 AM – 10:00 AM
Council Bluffs Room

Moderators: Md Tafsir Nur Nabi Rashed[1] and Elise Bernstein[2]
[1]Corteva Agriscience, Johnston, IA, [2]Univ. of Minnesota, Saint Paul, MN

8:00 **46** Spatial analyses of pests and natural enemies in high tunnel vegetable and flower production. **Salma Akter** (akter2@illinois.edu)[1] and Kacie Athey[2], [1]Univ. of Illinois, Urbana, IL, [2]Univ. of Illinois Urbana-Champaign, Urbana, IL

8:12 **47** Propolis chemical composition across landscapes. **Samantha Dubbs** (smowery2@illinois.edu)[1], May Berenbaum[2] and Adam Dolezal[3], [1]Univ. of Illinois, Urbana, IL, [2]Univ. of Illinois, Champaign, IL, [3]Univ. of Illinois Urbana-Champaign, Urbana, IL

8:24 **48** The challenges to urban moth conservation and a path forward. **Lucy Guarnieri** (guarnieri.29@osu.edu), Erika Wright and Mary Gardiner, The Ohio State Univ., Columbus, OH

8:36 **49** Dirty doorknobs and pesticides: Assessing the interaction between viral exposure and pesticide pressure in native bees. **Tristan Barley** (tbarley2@illinois.edu), Elena Gratton, Amelia Manno and Adam Dolezal, Univ. of Illinois Urbana-Champaign, Urbana, IL

8:48 **50** Do urban bees utilize native plants selected in greening initiatives? **Elena Adams** (adams.3110@osu.edu), Gabriella Muller, Caralee Shepard, Hannah Dehus, Megan Meuti and Mary Gardiner, The Ohio State Univ., Columbus, OH

9:00 **51** Is the benefit of native plants for wild bee populations offset by local landscape context? **Gabriella Muller** (muller.191@osu.edu), Elena Adams, Ellen Danford, Caralee Shepard, Hannah Dehus, Megan Meuti and Mary Gardiner, The Ohio State Univ., Columbus, OH

9:12 **52** Native bee-floral network structure differs across rangeland grazing strategies. **Bethany Roberton** (bethany.roberton@ndsu.edu)[1], Jason Harmon[2], Katherine Kral-O'Brien[3], Dillon Fogarty[1], Torre Hovick[1], Benjamin Geaumont[4] and Kevin Sedivec[1], [1]North Dakota State Univ., Fargo, ND, [2]Oklahoma State Univ., Stillwater, OK, [3]Iowa State Univ., Ames, IA, [4]North Dakota State Univ., Hettinger, ND

9:24 **53** Using plastic mulch color and threshold-based insecticide applications to improve thrips management, natural enemy conservation, and yield in peppers and onions. **Arnol Gomez** (arnolgomez1985@gmail.com) and Ashley Leach, The Ohio State Univ., Wooster, OH

9:36 **54** Agrivoltaic practices reduce pest pressure and feeding rates on fruit crops. **Michael Killewald** (killewal@iastate.edu), Suzanne Slack, Brooke Dietsch, Laith Alomari and Matthew O'Neal, Iowa State Univ., Ames, IA

Student Competition:
B.S. 10-Minute Presentations

10:30 AM – 12:30 PM
Dubuque Room

Moderators: Heena Puri[1] and Houda Ouns Maaroufi[2]
[1]Impetus Agriculture Inc., Saint Louis, MO, [2]Iowa State Univ., Ames, IA

10:30 **55** Investigating phenotypic and genomic cross-resistance in the Colorado potato beetle, *Leptinotarsa decemlineata* (Coleoptera: Chrysomelidae). **Ari Maurer** (anmaurer@wisc.edu)[1], Emma Terris[1], Russell Groves[2] and Sean Schoville[3], [1]Univ. of Wisconsin-Madison, Madison, WI, [2]Univ. of Wisconsin, Madison, WI, [3]UW Madison Entomology Dept., Madison, WI

10:42 **56** Repellent and attractive but no synergistic effects of different wavelengths and intensities of light for phototaxis by larger grain borer and maize weevil. **Kealani Simpson** (kealani@ksu.edu)[1], Allison Mehnert[1], Ronnie Serfa Juan[2], Jennifer Abshire[3], Tania N. Kim[1], Alison Gerken[4], Kun Yan Zhu[1] and William Morrison[4], [1]Kansas State Univ., Manhattan, KS, [2]USDA-ARS, Manhattan, KS, [3]National Bio- and Agro-Defense Facility, Manhattan, KS, [4]USDA - ARS, Manhattan, KS

10:54 **57** Floral density and bowl trapping for pollinator abundance in Central Iowa. **Alexis Ulrich** (alexisu918@gmail.com), Drew Engler, Maya Jolliffe, Kai Starr, Ryan Rehmeier and Tim Luttermoser, Simpson College, Indianola, IA

11:06 **58** A multipurpose 3D printed trap design for entomology. **Kai Starr** (kai.starr@my.simpson.edu), Drew Engler, Maya Jolliffe, Alexis Ulrich, Ryan Rehmeier and Tim Luttermoser, Simpson College, Indianola, IA

11:18 **59** Characterizing differences between remnant and reconstructed prairie microbiomes for pollinator conservation. **Emma Donahey** (ed2004@iastate.edu), Danielle Rutkowski, Katherine Kral-O'Brien and Amber Crowley-Gall, Iowa State Univ., Ames, IA

11:30 **60** Effects of herbicide drift on the survival and reproduction of *Antheraea polyphemus*. **Noelle Abend** (nma394@umsystem.edu)[1], Elizabeth Lumley[1] and Emily Althoff[2], [1]Univ. of Missouri, Columbia, MO, [2]Lincoln Univ. of Missouri, Jefferson City, MO

11:42 **61** Microclimate matters: Influence of environment on native and non-native urban ant foraging. **Emma Nelson** (ernelson22@ole.augie.edu)[1], Trinity Merrill[1], Oliva Opichka[2] and Diane Roeder[1], [1]Augustana Univ., Sioux Falls, SD, [2]Univ. of Sioux Falls, Sioux Falls, SD

11:54 **62** Double disturbance: Macroinvertebrate community response to chemical management of *Procambarus clarkii* in urban waterways. **Charlotte Caldon** (caldonch@msu.edu), Michigan State Univ., East Lansing, MI

12:06 **63** Spatial population dynamics of stored-product beetles around grain elevators in Nebraska: Comparing baited and unbaited trap species assemblies. **Desiree Rousseau** (drousseau3@huskers.unl.edu)[1], Jaycob Andersen[1], Brandon Black[1], Sabita Ranabhat[2], Cetin Mutlu[3], William Morrison[4], Kun Yan Zhu[5] and Georgina Bingham[1], [1]Univ. of Nebraska – Lincoln, Lincoln, NE, [2]Apex Bait, Santa Clara, CA, [3]Harran Univ., Şanlıurfa, Şanlıurfa, Turkey, [4]USDA-ARS, Manhattan, KS, [5]Kansas State Univ., Manhattan, KS

Student Competition:
M.S. 10-Minute Presentations: P-IE 2

10:30 AM – 12:30 PM
Council Bluffs Room

Moderators: Mia Phillips[1] and Paul Ayayee[2]
[1]Univ. of Wisconsin-Madison, Madison, WI, [2]Univ. of Nebraska Omaha, Omaha, NE

10:30 **64** Comparison of the genetic basis of Cry2Ab2 resistance in six European corn borer strains derived via F_2 screens. **Tatum Dwyer** (dwyer332@umn.edu)[1], Yucheng Wang[1], Graham Head[2] and Fei Yang[1], [1]Univ. of Minnesota, St. Paul, MN, [2]Bayer, St. Louis, MO

10:42 **65** Seasonal monitoring and spatial patterns of key insect pests in cucurbit crops. **Rohit Dhariwal** (rohit.dhariwal418@my.lincolnu.edu), Gursewak Singh, Suman Veeramasu and Anitha Chitturi, Lincoln Univ. of Missouri, Jefferson City, MO

10:54 **66** Individual and combined effects of soybean gall midge, dectes stem borer, and plant diseases on soybean yield components. **Thales Rodrigues da Silva** (27857249@nebraska.edu)[1], Dylan Mangel[1], Ritika Lamichhane[2], Matheus Ribeiro[3], Wayne Ohnesorg[4], Travis Prochaska[5], Ronald C. Seymour[6], Aaron Nygren[7] and Anthony McMechan[8], [1]Univ. of Nebraska - Lincoln, Lincoln, NE, [2]Univ. of Nebraska - Lincoln, Nemaha, NE, [3]Univ. of Nebraska - Lincoln, Wilber, NE, [4]Univ. of Nebraska - Lincoln, Norfolk, NE, [5]Univ. of Nebraska - Lincoln, Schuyler, NE, [6]Univ. of Nebraska - Lincoln, Hastings, NE, [7]Univ. of Nebraska - Lincoln, Ithaca, NE, [8]Univ. of Nebraska - Lincoln, Dept. of Entomology, Lincoln, NE

11:06 **67** Virus susceptibility does not predict vector fitness: Oat fails to support wheat curl mites irrespective of virus presence. **Madeline Morrison** (mmorrison22@huskers.unl.edu) and Shaonpius Mondal, Univ. of Nebraska-Lincoln, Lincoln, NE

11:18 **68** Effects of seed treatment and foliar insecticide on thrips abundance and yield in dry bean. **Aarju Aryal** (aaryal4@unl.edu)[1], Carlos Florez[1], Jeffrey Bradshaw[2] and Pin-Chu Lai[1], [1]Univ. of Nebraska-Lincoln, Scottsbluff, NE, [2]Univ. of Nebraska-Lincoln, Lincoln, NE

11:30 **69** Sound the alarm! Bioacoustic detection of *Dectes texanus* in soybean. **Emily Sur** (esur@ksu.edu)[1], Alexander Arovas[2], Mia Phillips[2], Emily Bick[2] and Brian McCornack[1], [1]Kansas State Univ., Manhattan, KS, [2]Univ. of Wisconsin-Madison, Madison, WI

11:42 **70** Impact of attract-and-kill and perimeter spray on *Popillia japonica* (Coleoptera: Scarabaeidae) in vineyards. **Emilie Parkanzky** (parkanzky@wisc.edu)[1] and Christelle Guédot[2], [1]Univ. of Wisconsin Madison, Madison, WI, [2]Univ. of Wisconsin, Madison, WI

11:54 **71** Assessing the long-term efficacy of insecticidal treatments for oak lecanium scale and their effects on tree condition and natural enemies. **Ben Knowlton** (bdkn223@uky.edu) and Caleb Wilson, Univ. of Kentucky, Lexington, KY

12:06 **72** Forecasting the beetle storm: Abiotic drivers of Japanese beetle phenology and abundance in Midwestern vineyards. **Elizabeth Hrycyna** (hrycyna@wisc.edu)[1], Emilie Parkanzky[2] and Christelle Guédot[1], [1]Univ. of Wisconsin, Madison, WI, [2]Univ. of Wisconsin Madison, Madison, WI

Student Competition:
Ph.D. 10-Minute Presentations: PBT & P-IE

10:30 AM – 12:30 PM
Cedar Rapids Room

Moderators: Sami Dolan[1] and Michael Killewald[2]
[1]Univ. of Minnesota, St. Paul, MN, [2]Iowa State Univ., Ames, IA

10:30 **73** High-throughput screening of girk channel inhibitors: A platform for identifying next-gen mosquitocides. **Grey Newquist** (gsmith63@huskers.unl.edu), Haley Fleetwood and Troy Anderson, Univ. of Nebraska-Lincoln, Lincoln, NE

10:42 **74** Consequences of sex-distorting endosymbionts on male function in a parasitoid wasp. **Matt Villalta** (villa277@umn.edu) and Amelia Lindsey, Univ. of Minnesota, Saint Paul, MN

10:54 **75** Dillapiol-based synergists to combat multi-mechanism mosquitocide resistance. **Claire Klein** (ckdragonfly@outlook.com), Lise Pingault and Troy Anderson, Univ. of Nebraska-Lincoln, Lincoln, NE

11:06 **76** Investigating extracellular vesicle biogenesis in insects using a two–cell line model. **Festus Ajibefun** (ajibefun@ksu.edu)[1], Marija Milosevic[2], Xiufeng Zhang[1], Ana Velez Arango[2] and Kristopher Silver[1], [1]Kansas State Univ., Manhattan, KS, [2]Univ. of Nebraska - Lincoln, Lincoln, NE

11:18 **77** One dose does not fit all: Species-specific and dose-dependent responses of bumble bee queens to insecticide exposure. **Erika Ibarra-Garibay** (egaribay@iastate.edu)[1], Ana R. Cabrera[2] and Amy Toth[1], [1]Iowa State Univ., Ames, IA, [2]Bayer CropScience, Chesterfield, MO

11:30 **78** Effects of polyphenolics-rich sorghum flour diet on development, survivorship, and detoxification enzyme activity in two stored grain pests: *Tribolium castaneum* (Coleoptera: Tenebrionidae) and *Rhyzopertha dominica* (Coleoptera: Bostrichidae). **Rupinder Singh** (rrpreetsingh08@ksu.edu)[1], Jaymi Peterson[1], Melanie Kessler-Matheiu[2], Justin Castaldi[2], Kun Yan Zhu[1], Kaliramesh Siliveru[3], Dmitri Smolensky[4] and Erin Scully[4], [1]Kansas State Univ., Manhattan, KS, [2]USDA - ARS, Manhattan, KS, [3]Kansas State Univ., Manhatttan, KS, [4]USDA-ARS, Manhattan, KS

11:42 **79** Inside the grain bin: Molecular detection of phosphine resistance in insects at food facilities on the Great Plains. **Jacqueline Abarca-Duran** (jacquelineabarca@ksu.edu)[1], Melanie Kessler-Mathieu[2], Kun Yan Zhu[1], Georgina Bingham[3], Laura Starkus[4], Tanja McKay[4], Erin Scully[2] and William Morrison[5], [1]Kansas State Univ., Manhattan, KS, [2]USDA-ARS, Manhattan, KS, [3]Univ. of Nebraska-Lincoln, Lincoln, NE, [4]Arkansas State Univ., Jonesboro, AR, [5]USDA - ARS, Manhattan, KS

11:54 **80** Elucidating the role of the monolignol biosynthesis pathway in sorghum defense against insect pests. **Kashish Verma** (kverma2@huskers.unl.edu)[1], Scott E. Sattler[2] and Joe Louis[3], [1]Univ. of Nebraska-Lincoln, Lincoln, NE, [2]USDA - ARS, Lincoln, NE, [3]Univ. of Nebraska, Lincoln, NE

12:06 **81** Baking piRNAs: Characterization of piRNA expression profiles between virulent and avirulent *Aphis glycines*. **Angel Haller** (haller.161@osu.edu)[1], Jelmer Poelstra[1], Jennifer Wilson[2] and Andy Michel[1], [1]The Ohio State Univ., Wooster, OH, [2]USDA ARS, Wooster, OH

Student Competition:
Ph.D. 10-Minute Presentations: P-IE 2

10:30 PM – 12:30 PM
Davenport Room

Moderators: Scott O'Neal[1] and Olivia Bernauer[2]
[1]FSS, Inc., Westfield, IN, [2]Univ. of Wisconsin-Madison, Madison, WI

10:30 **82** AgroEcoMetrics: A Python toolkit for modeling and visualizing agricultural microclimates. **Fletcher Robbins** (farobbins@wisc.edu), Emily Bick and Alexander Arovas, Univ. of Wisconsin-Madison, Madison, WI

10:42 **83** Overwintering survival of fall-oviposited alfalfa weevil eggs in Western Nebraska. **Tennyson Bilinkhinyu Nkhoma** (tnkhoma2@huskers.unl.edu)[1], Maeve Cavanaugh[2] and Pin-Chu Lai[1], [1]Univ. of Nebraska-Lincoln, Scottsbluff, NE, [2]Univ. of Nebraska, Scottsbluff, NE

10:54 **84** Effects of application method on insecticide deposition and efficacy against *Striacosta albicosta* in corn. **Andrea Rilaković** (a.rilakovic@gmail.com)[1], Jeffrey Golus[1], Abia Katimbo[1], Daran Rudnick[1], Bradley Fritz[2], Milos Zaric[1] and Julie Peterson[1], [1]Univ. of Nebraska-Lincoln, North Platte, NE, [2]Texas A&M Univ., College Station, TX

11:06 **85** Wheat streak mosaic virus and Triticum mosaic virus alter wheat phytohormones to impact wheat curl mite survival. **Nikhitha Gangavarapu** (ngangavarapu2@huskers.unl.edu) and Shaonpius Mondal, Univ. of Nebraska-Lincoln, Lincoln, NE

11:18 **86** Comparative transcriptomics of annual and perennial sorghum in response to sugarcane aphid infestation. **Esha Kaler** (ekaler2@unl.edu)[1], Lise Pingault[1], Pheonah Nabukalu[2], Ebony Murrell[3], Stan Cox[2] and Joe Louis[4], [1]Univ. of Nebraska-Lincoln, Lincoln, NE, [2]The Land Institute, Salina, KS, [3]Savanna Institute, Madison, WI, [4]Univ. of Nebraska, Lincoln, NE

11:30 **87** Ecological drivers shaping biological control of soybean gall midge. **Sarah von Gries** (lisak007@umn.edu)[1], Amelia Lindsey[1], Jeremy Hemberger[2], Erin Hodgson[3], Anthony McMechan[4] and Robert Koch[1], [1]Univ. of Minnesota, Saint Paul, MN, [2]Univ. of Minnesota, St. Paul, MN, [3]Iowa State Univ., Ames, IA, [4]Univ. of Nebraska - Lincoln, Dept. of Entomology, Lincoln, NE

11:42 **88** Quantifying soybean yield loss from artificial defoliation across planting dates and growth stages in Missouri. **Pedro Henrique Campos Pinho Costa** (pcnh6@missouri.edu), Bruno Cocco Lago, Andre Borja Reis and Ivair Valmorbida, Univ. of Missouri, Columbia, MO

11:54 **89** Dynamic host acceptance in the stink bug egg parasitoid, *Trissolcus japonicus*. **Sabrina Celis** (celis009@umn.edu) and George Heimpel, Univ. of Minnesota, St. Paul, MN

12:06 **90** Evaluating BioWRAP as a barrier to soybean gall midge (*Resseliella maxima* Gagné) emergence. **Kristin Heinrichs Stark** (kstark5@huskers.unl.edu)[1], Ana Clara Gomes[2], Chris Proctor[2] and Anthony Justin McMechan[1], [1]Univ. of Nebraska - Lincoln, Dept. of Entomology, Lincoln, NE, [2]Univ. of Nebraska - Lincoln, Dept. of Agronomy and Horticulture, Lincoln, NE

MONDAY, 20 APRIL 2026, AFTERNOON

Submitted 10-Minute Presentations: P-IE & SysEB

1:30 PM – 3:00 PM
Council Bluffs Room

Moderators: Danielle Rutkowski[1] and Jess Gambel[2]
[1]Iowa State Univ., Ames, IA, [2]Univ. of California, La Jolla, CA

1:30 **91** Mechanisms of pathogen inhibition by bee-associated yeasts. **Danielle Rutkowski** (drut@iastate.edu), Nic Larsen and Amber Crowley-Gall, Iowa State Univ., Ames, IA

1:42 **92** Flowering cover crops expand agroecosystem services by providing forage for pollinators and feed for livestock. **Jess Gambel** (jgambel@wisc.edu)[1], Jose Franco[2], Elizabeth French[3], Kenneth Kalscheur[3], Rachael Christensen[4], Eliza Pessereau[5] and Alison Duff[3], [1]Univ. of Wisconsin-Madison, Madison, WI, [2]Savanna Institute, Madison, WI, [3]USDA Agricultural Research Service, Madison, WI, [4]USDA Agricultural Research Service, Mandan, ND, [5]Univ. of Missouri Extension – Urban East, St. Louis, MO

1:54 Break

2:00 **93** Examining for evidence of population connectivity in North American migratory hover flies (Diptera: Syrphidae) using isotopes, population genomics, and microbial assessments. **C. Scott Clem** (csclem2@ilstu.edu), Illinois State Univ., Normal, IL

2:12 **94** Teaching the scientific wonders of honey bees: Pollination, bioactive products, and environmental indicators. **Amal Al-Abbadi** (a.abbadi@bau.edu.jo), Al-Balqa Applied Univ., Faculty of Agricultural Technology, Dept. of Plant Production and Protection, Al-Salt, Jordan, Visiting Scholar at Nebraska Univ. - Lincoln, lincoln, NE

2:24 **95** Early tier non-target organism study design considerations for environmental risk assessments. **Kristine LeRoy** (kristine.leroy@corteva.com), Corteva Agriscience, Johnston, IA

2:36 **96** Building networks between plants, pollinators, and students in the classroom using an interactive lab activity. **Lizzy Sakulich** (sakulich.3@osu.edu)[1], Amber Fredenburg[1] and Karen Goodell[2], [1]The Ohio State Univ., Columbus, OH, [2]The Ohio State Univ., Newark, OH

Symposium:
Discovering Success: Towards a Strong Interview and an Improved CV

1:30 PM – 4:30 PM
Cedar Rapids Room

Moderators and Organizers: Hannah Quellhorst[1], Jeffrey Cluever[2], Michelle Boone[3], Colin Wong[4], Heena Puri[5],
and Emily Althoff[6]
[1]Kansas State Univ., Manhattan, KS, [2]United States Dept. of Agriculture, Fargo, ND, [3]Washington State Univ., Vancouver, WA, [4]MGK, Minneapolis, MN, [5]Impetus Agriculture Inc., Saint Louis, MO, [6]Lincoln Univ. of Missouri, Jefferson City, MO

1:30		Welcoming remarks
1:35	**97**	Metrics that matter: Translating academic achievements into business impact in CVs and interviews. **Amit Sethi** (amit.sethi@corteva.com), Corteva Agriscience, Johnston, IA
1:55	**98**	Tips from a hiring manager and team leader for entomologists in private industry. **Jessica Strange-George** (jessica.strange-george@mgk.com), MGK Insect Control Solutions, Minneapolis, MN
2:15	**99**	Merging purpose with plasticity: Pursuing a career in the nonprofit sector. **Ebony Murrell** (ebony@savannainstitute.org), Savanna Institute, Madison, WI
2:35	**100**	Navigating the academic job search in entomology and beyond. **Hannah Burrack** (burrackh@msu.edu), Michigan State University, East Lansing, MI
2:55		Break
3:10	**101**	Hacking government HR: how to tailor your documents and interview to further your research for the public good. **William Morrison** (william.morrison@usda.gov), USDA - ARS, Manhattan, KS
3:30	**102**	And you are...? Making your case for an academic job in your CV and the interview **John Ruberson** (jruberson2@unl.edu), Univ. of Nebraska-Lincoln, Lincoln, NE
3:50		Panel discussion

Symposium:
Insect Adaptation in a Multidimensional Plant–Insect Landscape

1:30 PM – 3:30 PM
Davenport Room

Moderators and Organizers: Esha Kaler[1] and Angel Haller[2]
[1]Univ. of Nebraska-Lincoln, Lincoln, NE, [2]The Ohio State Univ., Wooster, OH

1:30 Introductory remarks

1:33 **103** Coinfection of *Wolbachia* strains uniquely impacts expression of *Drosophila simulans* genes involved in reproduction, development, and metabolism. **Megan Jones** (jone3187@umn.edu)[1], Pablo Stilwell[2] and Amelia Lindsey[3], [1]Univ. of Minnesota, St. Paul, MN, [2]Univ. of Maryland, Dept. of Entomology, College Park, MD, College Park, MD, [3]Univ. of Minnesota, Saint Paul, MN

1:53 **104** Mechanism of Cry1F resistance in a field-derived strain of European corn borer. **Mark Nelson** (mark.e.nelson@corteva.com)[1], Catherine Clark[2], John Mathis[1], Deirdre Kapka-Kitzman[1], Courtney Davis Vogel[1], Amit Sethi[1], Benchie Ortegon[1], Sandra Lass[1] and Matt Wihlm[1], [1]Corteva Agriscience, Johnston, IA, [2]Corteva Agriscience, Agriculture Division of DowDuPont, Johnston, IA

2:13 **105** Microbial-mediated tolerance: An underappreciated layer of plant defense against aphids. **Natalie Gadberry** (nduvanen@purdue.edu)[1] and Laramy Enders[2], [1]Purdue Univ., Dept. of Entomology, West Lafayette, IN, [2]Purdue Univ., West Lafayette, IN

2:33 **106** When Resistance Doesn't Fade: The case of western corn rootworm methyl-parathion resistance. **Ana Velez** (avelezarango2@unl.edu)[1], Marija Milosevic[2], Molly Darlington[3] and Lance Meinke[3], [1]Univ. of Nebraska - Lincoln, Lincoln, NE, [2]Univ. of Belgrade - Faculty of Agriculture, Belgrade, Serbia, [3]Univ. of Nebraska, Lincoln, NE

2:53 **107** Greasy business: Manipulation of plant lipids and aphid lipid secretion in the soybean-soybean aphid interaction. **Gustavo C. MacIntosh** (gustavo@iastate.edu), Iowa State Univ., Ames, IA

3:13 Panel discussion

3:28 Concluding remarks

Submitted 10-Minute Presentations: MUVE & PBT

3:30 PM – 5:30 PM
Council Bluffs Room

Moderators: Sally A. Saab[1] and Caleb Corona[2]
[1]Iowa State Univ., Ames, IA, [2]Metropolitan Mosquito Control District, Saint Paul, MN

3:30 **108** Revitalization of MMCD's QA program: Year one. **Caleb Corona** (ccorona@mmcd.org) and Mark Smith, Metropolitan Mosquito Control District, Saint Paul, MN

3:42 **109** Enhancing U.S. preparedness for detecting exotic arthropods of veterinary importance. **Jenna Bjork** (jbjork@iastate.edu), Center for Food Security and Public Health, Ames, IA

3:54 **110** Barricor EMC as a botanical adulticide: Essential oil–based strategies for targeted mosquito control. **Alvaro Romero** (alvaro.romero@envu.com), ENVU-Professional Pest Management Mosquito Management, Cary, NC

4:06 **111** Manipulation of prostaglandin E_2 degradation enhances *anti-Plasmodium* immunity in *Anopheles gambiae* . **Sally A. Saab** (ssaab@iastate.edu), Hyeogsun Kwon and Ryan C Smith, Iowa State Univ., Ames, IA

4:18 Break

4:30 **112** Emerging roles of extracellular vesicles in mosquito immune responses to *Plasmodium berghei*. **Houda Ouns Maaroufi** (maaroufi@iastate.edu), Chloe Schaffer and Ryan C Smith, Iowa State Univ., Ames, IA

4:42 **113** Arrestin-domain containing protein (Arrdc) limits *Plasmodium* development in *Anopheles gambiae* potentially through its involvement in extracellular vesicle production. **Erick Awuoche** (eawuoche@iastate.edu), Hyeogsun Kwon and Ryan C Smith, Iowa State Univ., Ames, IA

4:54 **114** Nitisinone and Tyrosine catabolism/HPPD inhibitors as a novel mode of action for control of livestock and vector arthropods. **Georgina Bingham** (gbingham@unl.edu)[1], Mason Hardin[2], Sean Avedissian[3], Roberto Cortinas[4] and Jessica Guske[5], [1]Univ. of Nebraska-Lincoln, Lincoln, NE, [2]Univ. of Nebraska Medical Center, Lincoln, NE, [3]Univ. of Nebraska Medical Center, Omaha, NE, [4]Univ. of Nebraska, Lincoln, NE, [5]Univ. of Nebraska- Lincoln, Lincoln, NE

5:06 **115** Biological nitrogen provisioning by freshwater insect gut microbes through nitrate reduction to ammonia. **Paul Ayayee** (payayee@unomaha.edu), Univ. of Nebraska Omaha, Omaha, NE

5:18 **116** Prostaglandin transport controls mosquito immunity and *Plasmodium* survival. **Hyeogsun Kwon** (hskwon@iastate.edu) and Ryan Smith, Iowa State Univ., Ames, IA

MONDAY, 20 APRIL 2026, AFTERNOON

Symposium:

Visual Literacy in Entomology: Improving How We Teach What We Can't See

3:30 PM – 5:30 PM
Dubuque Room

Moderators and Organizers: Angel Haller[1], Joseph Raczkowski[2]
[1]The Ohio State Univ., Wooster, OH, [2]The Ohio State Univ., Columbus, OH

3:30		Introductory remarks
3:35	**117**	Visual literacy as a key competency in biology education. **Crystal Uminski** (crystaluminski@towson.edu)[1] and Dina Newman[2], [1]Towson Univ., Towson, MD, [2]Rochester Institute of Technology, Rochester, NY
3:55	**118**	Teaching entomology with integrated art and design projects. **Doug Golick** (dgolick2@unl.edu), Univ. of Nebraska, Lincoln, NE
4:10	**119**	Highlight the message through visuals, turning a complex topic into something memorable. **Grace Sward** (grace.sward@corteva.com), The Ohio State Univ., Wooster, OH
4:25	**120**	Designing to be noticed: Teaching tick checks through visual intervention. **Louise Lynch-O'Brien** (llynch-obrien2@nebraska.edu)[1], Kait Chapman[1] and Jody Green[2], [1]Univ. of Nebraska-Lincoln, Lincoln, NE, [2]Univ. of Nebraska-Lincoln, Omaha, NE
4:40	**121**	Utilization of 3D digital modeling software and scan data as a means for insect anatomy instruction. **Eric Keller** (bloopatone@gmail.com), Founder of Entomology Animated, Thomas, WV
4:55		Discussion
5:25		Concluding remarks

MONDAY, 20 APRIL 2026, AFTERNOON

Workshop:

Let's Connect, Inspire, and Discover: Preparing for Entomology Careers in the Modern Day!

3:30 —5:30 PM
Iowa E/F/G/H Ballroom

Moderators and Organizers: Sujaya Rao[1], Sajjan Grover[2], Scott O'Neal[3]
[1]Univ. of Minnesota, St. Paul, MN , [2]Bayer Crop Science, Chesterfield, MO, [3]FSS, Inc., Westfield, IN

Contributed Poster Displays

Des Moines Exhibit Hall

D30 Variations in spotted-wing drosophila populations across Missouri small fruit farms. **Bishal Pandey** (bishalpandey457@gmail.com)[1], Waana Kaluwasha[1], Clement-Akotsen Mensah[2], Maciej Pszczolkowski[3], Sarah Turner[1], Cheng Yao[1], Tianqi Yao[4] and Jianfeng Zhou[4], [1]Lincoln Univ. of Missouri, Jefferson City, MO, [2]Rutgers, The State Univ. of New Jersey, Bridgeton, NJ, [3]Missouri State Univ., Springfield, MO, [4]Univ. of Missouri, Columbia, MO

D31 Pollinator usage of prairie strips in agricultural production fields in Western Wisconsin. **Kevyn Juneau** (kevyn.juneau@uwrf.edu)[1], Chloe King[2], Karuna Chintapenta[2] and Natasha Rayne[3], [1]Univ. of Wisconsin, River Falls, WI, [2]Univ. of Wisconsin-RF, River Falls, WI, [3]Univ. of Wisconsin-Madison, Madison, WI

D32 Changes in Nebraska corn and soybean insecticide use: 1990-2025. **Robert Wright** (rwright2@unl.edu), Univ. of Nebraska Lincoln, Lincoln, NE

D33 Corn rootworm abundance and root feeding injury in South Dakota. **Bradley McManus** (bradley.mcmanus@sdstate.edu), Philip Rozeboom and Adam Varenhorst, South Dakota State Univ., Brookings, SD

D34 Rusty patched bumble bee pollen diet dominated by invasive plants at urban nests. **Elaine Evans** (evan0155@umn.edu), Univ. of Minnesota, St. Paul, MN

D35 Influence of small fruit crop phenology on *D. suzukii* populations in Missouri. **Yao Cheng** (chengy@lincolnu.edu)[1], Bishal Pandey[1], Sarah Turner[1], Waana Kaluwasha[1], Maciej A. Pszczolkowski[2] and Clement-Akotsen Mensah[3], [1]Lincoln Univ. of Missouri, Jefferson City, MO, [2]Missouri State Univ., Mountain Grove, MO, [3]Rutgers, The State Univ. of New Jersey, Bridgeton, NJ

D36 Use of an insecticide synergist with pyrethroid-based long-lasting insecticide netting enhances the mortality and sublethal effects for pyrethroid-resistant stored product insects. **William Morrison** (william.morrison@usda.gov)[1], Qinglei Ming[2], Sabita Ranabhat[3], Hannah Quellhorst[2], Matthew Hetherington[2], Georgina Bingham[4], James Campbell[2], Kun Yan Zhu[2] and Erin Scully[5], [1]USDA - ARS, Manhattan, KS, [2]Kansas State Univ., Manhattan, KS, [3]Apex Bait, Santa Clara, CA, [4]Univ. of Nebraska-Lincoln, Lincoln, NE, [5]USDA-ARS, Manhattan, KS

D37 Injection delivery of dsRNAs and peptidomimetics to the small hive beetle. **Jacob Glover** (jaglover@ksu.edu), Kansas State Univ., Manhattan, KS

D38 Thermal preference and heat tolerance of stored-product insects as non-chemical tools for postharvest biosecurity. **Joana Schroeder de Souza** (joanas@ksu.edu)[1], Matthew Hetherington[1], Jennifer Abshire[2], Daniel Brabec[3], Alison Gerken[4], Christos Athanassiou[5], Thomas Phillips[6] and William Morrison[4], [1]Kansas State Univeristy, Manhattan, KS, [2]Kansas, Manhattan, KS, [3]USDA-ARS, Manhattan, KS, [4]USDA - ARS, Manhattan, KS, [5]Univ. of Thessaly, Volos, Greece, [6]Kansas State Univ., Manhattan, KS

D39 Syrphin' USA: Surveying adult hoverflies (Diptera: Syrphidae) across the Sheyenne National Grasslands. **Leo Jurcsek** (elizabeth.jurcsek@ndus.edu), Deirdre Prischmann-Voldseth and Gerald Fauske, North Dakota State Univ., Fargo, ND

D40 Efficacy of insecticide seed treatments on Hessian fly in spring wheat. **Anitha Chirumamilla** (anitha.chirumamilla@ndsu.edu)[1], Patrick Beauzay[2], Lawrence Henry[1], Richard Duerr[1] and Janet Knodel[2], [1]Langdon Research Extension Center, North Dakota State Univ., Langdon, ND, [2]North Dakota State Univ., Fargo, ND

D41 Field efficacy, adult emergence, and yield evaluation of the corn rootworm transgenic events in Vorceed™ Enlist® corn and SmartStax® PRO hybrid corn against corn rootworms (Coleoptera: Chrysomelidae). **Jeffrey Klever** (jeffrey.klever@corteva.com), Corteva Agriscience, Johnston, IA

D42 Facultative diapause patterns in brown stink bugs (Hemiptera: Pentatomidae). **Frederico Hickmann** (hickmann.2@osu.edu) and Andy Michel, The Ohio State Univ., Wooster, OH

D43 Pheromonal regulation in *Prostephanus truncatus*: Searching for the elusive "female factor". **Matthew Hetherington** (mhetherington@ksu.edu)[1], Joana Schroeder de Souza[2], Kealani Simpson[3], Thomas Phillips[3], Alison Gerken[4] and William Morrison III[1], [1]USDA-ARS, Manhattan, KS, [2]Kansas State Univeristy, Manhattan, KS, [3]Kansas State Univ., Manhattan, KS, [4]USDA - ARS, Manhattan, KS

D44 Structural biology to fuel discovery and engineering of next-generation insect control traits at Corteva Agriscience. **Nitija Tiwari** (nitija.tiwari@corteva.com), Corteva Agriscience, Johnston, IA

D45 Engineered Cry89A provides efficacy against several key lepidopteran maize pests. **Marc Harper** (Marc.Harper@genective.com), Dayan Viera, Yuan Hu, Gracie Galindo, Maia Leach, Katie Dent, Elena Dzhaman, Maisam Yousef, Jian Yao, Erik Schad, Amy Johnson, Dillan Brown, Haley Blakenship, Erin Waldrop, Hannah Shelabarger, Pete Clark and Thomas Clark, Genective, Champaign, IL

D46 Less is more: Using IPM for corn earworm to increase ROI in sweet corn. **Ashley Dean** (adean@iastate.edu) and Erin Hodgson, Iowa State Univ., Ames, IA

D47 Engineered insecticidal proteins protect maize from lepidopteran feeding damage. **Thomas Clark** (tom.clark@genective.com), Ivan Moreno, Gileydis Guillama, Gracie Galindo, Katie Dent, Elena Dzhaman, Maisam Yousef, Jian Yao, Maia Leach, Erik Schad, Amy Johnson, Dillan Brown, Haley Blakenship, Erin Waldrop, Hannah Shelabarger and Pete Clark, Genective, Champaign, IL

D48 Development of a degree-day model for *Bracon cephi* (Hymenoptera: Braconidae) in Western Nebraska wheat systems. **Savannah Davidow** (sdavidow2@huskers.unl.edu)[1], Lise Pingault[2], Tatyana Rand[3], Amanda Easterly[4], Vinicius Zuppa[5], Maeve Cavanaugh[6], Pin-Chu Lai[2] and Jeffrey Bradshaw[2], [1]Univ. of Nebraska - Lincoln, Lincoln, NE, [2]Univ. of Nebraska-Lincoln, Lincoln, NE, [3]USDA-ARS Northern Plains Agricultural Research Laboratory, Sidney, MT, [4]Univ. of Nebraska, Lincoln, NE, [5]Univ. of Nebraska, Sidney, NE, [6]Univ. of Nebraska, Scottsbluff, NE

D49 Substrate type and foraging success: A case study on *Dolomedes striatus*. **Ozzy Youngblood** (zofficial177685@gmail.com)[1] and Eileen Hebets[2], [1]UNL, Lincoln, NE, [2]Univ. of Nebraska-Lincoln, Lincoln, NE

D50 Late-season forb availability and bumble bee foraging patterns in Iowa's restored prairies and suburban gardens. **Isaac DeYoung** (isaac.deyoung@nwciowa.edu), Ellary Carson, Mya Cole, Tucker Draayer, Naomi Johnson, Jasmine Lux, Genesis Maldonado, Caitlin Olson, Maelee Rodenburg, Jordan Shull, Sweeney Travis, Arianna Van Donkelaar, Laurie Furlong and Todd Tracy, Northwestern College, Orange City, IA

D51 Larval instar determination in *Resseiliella maxima* Gagné (Diptera: Cecidomyiidae). **Grace Galer** (ggaler@umn.edu)[1], Regina Stacke[2], James Menger[1], Raymond Gagne[3] and Robert Koch[1], [1]Univ. of Minnesota, Saint Paul, MN, [2]Federal Univ. of Santa Maria, Santa Maria, Brazil, [3]USDA, Systematic Entomology Laboratory (SEL), Washington, DC

D52 A novel western corn rootworm gene provides excellent maize root protection. **Pete L. Clark** (pete.clark@genective.com)[1], Marc Harper[2], Thomas Clark[2], Hannah Shelabarger[2], Dillan Brown[2], Erin Waldrop[2], Man Huynh[3] and Dalton Ludwick[4], [1]Genective, Weldon, IL, [2]Genective, Champaign, IL, [3]USDA - ARS, Columbia, MO, [4]United States Dept. of Agriculture - Agricultural Research Service, Columbia, MO

D53 Establishing a binary Q expression system in *Anopheles gambiae*. **Mackenzie Thackery** (mact@iastate.edu) and Ryan C Smith, Iowa State Univ., Ames, IA

D54 Leveraging teaching collections for undergraduate research and training. **Tim Luttermoser** (tim.luttermoser@simpson.edu), Alexis Ulrich, Amelia Bothwell and Bailey Dostal, Simpson College, Indianola, IA

D55 Emerald Ash Borer Performance on Ash Trees Selected and Bred for Improved Resistance. **Therese Poland** (therese.poland@usda.gov)[1], Jennifer Koch[2], Kathleen Knight[3], Mary Mason[2], Jeanne Romero-Severson[4] and David Carey[2], [1]US Forest Service, East Lansing, MI, [2]USDA - Forest Service, Delaware, OH, [3]USDA - Forest Service, Deleware, OH, [4]Univ. of Notre Dame, Notre Dame, IN

D56 Don't cry over spilled milk: Repurposing dairy waste through the yellow mealworm. **Christos Athanassiou** (athanassiou@uth.gr)[1], Georgia Baliota[2] and Christos Rumbos[2], [1]Univ. of Thessaly, Nea Ionia, Magnesia, Greece, [2]Univ. of Thessaly, Volos, Greece

Submitted 10-Minute Presentations: P-IE – Field Crops

8:00 AM – 10:00 AM
Dubuque Room

Moderators: Pheylan Anderson[1] and Emily Russavage[2]
[1]Univ. of Minnesota, Saint Paul, MN, [2]USDA-ARS, Fargo, ND

8:00 **122** Volatile organic compounds from sugar beets and weed plants that affect oviposition behavior of sugar beet root maggot (*Tetanops myopaeformis*). **Emily Russavage** (emily.russavage@usda.gov)[1], Mark Boetel[2] and Chenggen Chu[1], [1]USDA-ARS, Fargo, ND, [2]North Dakota State Univ., Fargo, ND

8:12 **123** Wheat stem maggot: New insights on its impact as a cover crop-to-corn transition pest. **Elliot Knoell** (eknoell2@unl.edu)[1], Isadora Gomes[2] and Anthony McMechan[3], [1]Univ. of Nebraska - Lincoln, Lincoln, NE, [2]Univ. of Nebraska Lincoln, Lincoln, NE, [3]Univ. of Nebraska - Lincoln, Dept. of Entomology, Lincoln, NE

8:24 **124** Dispersal and reproductive potential of *Helicoverpa zea* in Bt and non-Bt crops: Study methods and implications for IRM programs. **Silvana Paula-Moraes** (s-smoraes1@unl.edu), Univ. of Nebraska - Lincoln, Lincoln, NE

8:36 **125** Assessment of insecticide toxicity to adults of soybean gall midge, *Resseliella maxima*. **Regina Stacke** (stack203@umn.edu), Arthur Ribeiro, James Menger and Robert Koch, Univ. of Minnesota, Saint Paul, MN

8:48 **126** Survival of soybean gall midge following long-term cold exposure. **Pheylan Anderson** (and05170@umn.edu)[1], Robert Venette[2], Bruce Potter[3], Anthony Hanson[4] and Robert Koch[1], [1]Univ. of Minnesota, Saint Paul, MN, [2]USDA - Forest Service, St. Paul, MN, [3]Univ. of Minnesota, Lamberton, MN, [4]Univ. of Minnesota Extension, Morris, MN

9:00 **127** Evaluating chemical and cultural management tactics for dectes stem borer in South Dakota soybeans. **Philip Rozeboom** (philip.rozeboom@sdstate.edu), Bradley McManus and Adam Varenhorst, South Dakota State Univ., Brookings, SD

9:12 **128** Do fungicide and insecticide applications at the R3 and R5 growth stage protect soybean yield in Missouri? **Jeova Rafael Rodrigues Da Silva** (jrrznc@missouri.edu)[1], Pedro Henrique Campos Pinho Costa[1], Lennis Rodrigues[1], Lucas Bonuma Severo[2], Alexandria Haafke[1], Luan Carlo Bosetti[1], Mandy Bish[1] and Ivair Valmorbida[1], [1]Univ. of Missouri, Columbia, MO, [2]Federal Univ. of Santa Maria, Santa Maria, RS, Brazil

9:24 **129** Mexican corn rootworm (*Diabrotica virgifera zeae*): The understudied sibling of *Diabrotica virgifera*. **Dalton Ludwick** (dalton.ludwick@usda.gov), United States Dept. of Agriculture - Agricultural Research Service, Columbia, MO

9:36 **130** Status of European Corn Borer in Canada and the United States. **Matthew Carroll** (matthew.carroll1@bayer.com)[1,2], Adam Pfeffer[3] and Graham Head[1], [1]Bayer, St. Louis, MO, [2]Bayer Crop Science, St. Louis, MO, [3]Bayer Canada, Chesterfield, MO

9:48 **131** Evaluation of Bt efficacy for corn rootworm control in Minnesota. **Yucheng Wang** (wan02613@umn.edu)[1], Bruce Potter[2] and Fei Yang[1], [1]Univ. of Minnesota, St. Paul, MN, [2]Univ. of Minnesota, Lamberton, MN

TUESDAY, 21 APRIL 2026, MORNING

Symposium:
Bumble Bees in the Midwest: Conservation, Ecology, and Behavior

8:00 AM – 12:00 PM
Council Bluffs Room

Moderators and Organizers: Sami Dolan[1], Abigail Miller[2] and Amy Toth[2]
[1]Univ. of Minnesota, St. Paul, MN, [2]Iowa State Univ., Ames, IA

8:00 Introductory remarks

8:03 **132** Pollen metabarcoding complements visual observations in understanding foraging habits of imperiled bumble bees. **Matthew Healy** (mhealy7@iastate.edu) and Amy Toth, Iowa State Univ., Ames, IA

8:15 **133** The unexpected role of bumble bee 'hair' in thermal balance. **Alex Kurtt** (akurtt@uwyo.edu), Jordan Glass, Cagney O'Hara, Camden Foley and Michael Dillon, Univ. of Wyoming, Laramie, WY

8:27 **134** Bumble bee viral communities: Are they shared across species, locations, or both? **Morgan Moore** (mimoore@iastate.edu) and Amy Toth, Iowa State Univ., Ames, IA

8:39 **135** Aren't we stressed enough? Infectious disease in a multiple stressor framework for bumble bee health **Ben Sadd** (bmsadd@ilstu.edu)[1], Rubén Martín-Blázquez[2], Austin Calhoun[1], Sydney A. Cameron[3] and Brenna Long[1], [1]Illinois State Univ., Normal, IL, [2]Estación Biológica de Doñana, NA, Sevilla, Spain, [3]Univ. of Illinois, Champaign, IL

8:51 Q+A discussion

9:01 Break

9:11 **136** Assessing the habitat requirements and body condition of imperiled bumble bee species in the upper Midwest. **Erika Ibarra-Garibay** (egaribay@iastate.edu) and Amy Toth, Iowa State Univ., Ames, IA

9:23 **137** Bumblebee and prairie flower interactions at different stages of post-restoration succession. Ai Wen[1], **Morgan Sullivan** (sulliman@uni.edu)[1], Mark Vandever[2], Kenneth Elgersma[1], Justin Meissen[1] and Laura Jackson[1], [1]Univ. of Northern Iowa, Cedar Falls, IA, [2]U.S. Geological Survey, Fort Collins, CO

9:35 **138** The effects of burning for oak savanna and woodland management on bumble bee community composition and abundance. **Kristine Shoenecker** (kschoenecker@wisc.edu)[1], Claudio Gratton[1] and Genevieve Pugesek[2], [1]Univ. of Wisconsin, Madison, WI, [2]Xcerces Society, Saint Paul, MN

9:47 **139** Flooding poses significant ecological risk for ground nesting bumble bees. **James Crall** (james.crall@wisc.edu)[1], Andrzej Affek[1], Colson Tidikis[1], August Easton-Calabria[1], Katarzyna Affek[2] and Christopher Kucharik[1], [1]Univ. of Wisconsin-Madison, Madison, WI, [2]Warsaw Univ. of Technology, Warsaw, Masovian, Poland

9:59 **140** Does land use surrounding prairie strips (CP-43) affect the community of pollinators that respond to this conservation practice? **Bee Miller** (bees@iastate.edu), Matthew O'Neal and Timothy Youngquist, Iowa State Univ., Ames, IA

10:11 Q+A discussion

10:21 Break

10:36 **141** The Midwest Bumble Bee Atlas: Leveraging the power of participatory science to track and conserve bumble bees. **Genevieve Pugesek** (genevieve.pugesek@xerces.org)[1], Katie Lamke[2] and Rich Hatflield[3], [1]Xcerces Society, Saint Paul, MN, [2]The Xerces Society, Lincoln, NE, [3]Xecres Society, NA, OR

10:48 **142** Connecting Bumble Bee Atlas surveys with undergraduate research opportunities. **Kirk Larsen** (larsenkj@luther.edu), Luther College, Decorah, IA

11:00 **143** Using volunteer surveys to document bumble bee nests and their habitat. **Elise Bernstein** (berns234@umn.edu)[1], Elaine Evans[2], Sami Dolan[2] and Clara Costello[3], [1]Univ. of Minnesota, Saint Paul, MN, [2]Univ. of Minnesota, St. Paul, MN, [3]Univ. of Minnesota, Minneapolis, MS

11:12 **144** How an endangered bumble bee helped jump start a state wildlife agency's commitment to pollinator conservation. **Stephanie Shepherd** (stephanie.shepherd@dnr.iowa.gov) and Kelly Poole, Iowa Dept. of Natural Resources, Boone, IA

11:24 **145** Who cares about *Bombus affinis*? Identifying key conservation stakeholders, habitat, and host plants from USFWS data **Alma Schrage** (aschrage@usgs.gov)[1], Audrey Lothspeich[1], Clint Otto[1] and Tamara Smith[2], [1]U.S. Geological Survey, Jamestown, ND, [2]US Fish and Wildlife Service, Bloomington, MN

11:36 Q+A discussion

11:46 Concluding remarks

TUESDAY, 21 APRIL 2026, MORNING

Symposium:

Connecting and Inspiring Audiences through Active Engagement with Entomology

8:00 AM – 12:00 PM
Davenport Room

Moderators and Organizers: Brenna Decker[1], Doug Golick[2], Sarah von Gries[3]
[1]Purdue Univ., West Lafayette, IN, [2]Univ. of Nebraska, Lincoln, NE, [3]Univ. of Minnesota, Saint Paul, MN

8:00		Welcoming remarks
8:05	**146**	Arthropod icebreakers: Engaging every audience. **Jody Green** (jgreen17@unl.edu), Univ. of Nebraska-Lincoln, Omaha, NE
8:20	**147**	Does the bug bite? comparing science attitudes in undergraduate gen. ed. classrooms **Christopher Brown** (brow1249@msu.edu), Michigan State Univ., East Lansing, MI
8:35	**148**	Why should a physics major take general entomology? An interdisciplinary analysis of a 200-level lab **Riley Shultz** (shultzr@purdue.edu) and Brenna Decker, Purdue Univ., West Lafayette, IN
8:50	**149**	Assessment as intervention: Leveraging student self-reflection to support curiosity, inclusion, and entomology literacy. **Louise Lynch-O'Brien** (llynchobrien@unl.edu), Univ. of Nebraska-Lincoln, Lincoln, NE
9:05		Break
9:15	**150**	Navigating the rabbit hole: Teaching insect biology to non-entomology undergraduates. **Mark Asplen** (mark.asplen@metrostate.edu), Metropolitan State Univ., St. Paul, MN
9:30	**151**	It's all fun and games until someone gets smart: Incorporating playful activities into an undergraduate entomology class to enhance learning. **Alyssa Hakes** (alyssa.s.hakes@lawrence.edu), Lawrence Univ., Appleton, WI
9:45	**152**	Cultivating curiosity using phenomena and maggots. **Brian McCornack** (mccornac@ksu.edu), Kansas State Univ., Manhattan, KS
10:00	**153**	Igniting entomological engagement through artist–scientist collaborations. **Tierney R. Brosius** (tierneybrosius@augustana.edu)[1] and Charley Williams[2], [1]Augustana College, Rock Island, IL, [2]Augustana College, Morrison, IL
10:15		Break
10:25	**154**	DEMO: Using bad drawings in entomology. **Leon Higley** (lhigley1@unl.edu)[1], Phyllis Higley[2] and Tierney R. Brosius[3], [1]Univ. of Nebraska - Lincoln, Lincoln, NE, [2]College of Saint Mary, Omaha, NE, [3]Augustana College, Rock Island, IL
10:45	**155**	DEMO: Drawing to remember. **Erin Hodgson** (ewh@iastate.edu) and Ashley Dean, Iowa State Univ., Ames, IA
11:05	**156**	DEMO: Self-assessments. **Brenna Decker** (brennaldecker@gmail.com), Purdue Univ., West Lafayette, IN
11:25		Concluding remarks

Submitted 10-Minute Presentations: P-IE – General 1

10:30 AM – 12:00 PM
Dubuque Room

Moderators: Emily Bick[1] and Anthony Hanson[2]
[1]Univ. of Wisconsin-Madison, Madison, WI, [2]Univ. of Minnesota Extension, Morris, MN

10:30 **157** Underground insect detection: Evaluating lab to field capability of deep learning classifiers on Insect Eavesdropper recordings. **Emily Bick** (ebick@wisc.edu), Alexander Arovas and Nora Forbes, Univ. of Wisconsin-Madison, Madison, WI

10:42 **158** Detection of a grapevine pest using the Insect Eavesdropper. **Mia Phillips** (mphillips37@wisc.edu)[1], Cindy Kron[2] and Emily Bick[1], [1]Univ. of Wisconsin-Madison, Madison, WI, [2]UCANR, Santa Rosa, CA

10:54 **159** From frass to filtration: Insect waste as a tool for water cleanup. **Amie Norton** (amien@ksu.edu)[1] and Christos Athanssiou[2], [1]Kansas State Univ., Manhattan, KS, [2]Kansas State Univ., Manhattan

11:06 Break

11:12 **160** Sugar as an insecticide? Navigating claims about sugar and plant health in extension entomology **Anthony Hanson** (hans4022@umn.edu), Univ. of Minnesota Extension, Morris, MN

11:24 **161** Japanese beetles on the move: Linking habitat and infestation risk at multiple scales. **Nicole Kucherov** (nkucherov@ksu.edu) and Tania N. Kim, Kansas State Univ., Manhattan, KS

11:36 **162** Planting date effects on *Dectes texanus* (Coleoptera: Cerambycidae) infestation in South Dakota sunflower. **Khuma Bhusal** (bhusalkhuma2@gmail.com)[1], Philip Rozeboom[1], Patrick Wagner[2], Bradley McManus[1] and Adam Varenhorst[1], [1]South Dakota State Univ., Brookings, SD, [2]South Dakota State Univ., Rapid City, SD

Submitted 10-Minute Presentations: P-IE – General 2

2:00 PM – 3:00 PM
Cedar Rapids Room

Moderators: J.P. Michaud[1] and Dane Elmquist[2]
[1]Kansas State Univ., Hays, KS, [2]Univ. of Wisconsin-Madison, Madison, WI

2:00 **163** Population dynamics of egg cannibalism when cannibals gain life history benefits: A life table approach using Coccinellidae as a model system. **J.P. Michaud** (jpmi@ksu.edu)[1] and Shahzad Iranipour[2], [1]Kansas State Univ., Hays, KS, [2]Univ. of Tabriz, Tabriz, Iran

2:12 **164** Slugging it out: Exploring strategies to mitigate slug damage in Wisconsin's conservation cropping systems. **Dane Elmquist** (elmqu059@gmail.com)[1], Laura Flandermeyer[1], Jordan Kampa[2], Connor Schoelzel[1], Francisco Arriaga[1] and Emily Bick[1], [1]Univ. of Wisconsin-Madison, Madison, WI, [2]Univ. of Wisconsin-Madison, West Allis, WI

2:24 **165** Phylogeny and genetic diversity of *Heterorhabditis bacteriophora* (entomopathogenic nematode) isolated from Nebraska ecosystems. **Maeve Cavanaugh** (mcavanaugh4@unl.edu)[1], Timothy Harris[2], Thomas Powers[3], Julie Peterson[4] and Pin-Chu Lai[5], [1]Univ. of Nebraska, Scottsbluff, NE, [2]Univ. of Nebraska - Lincoln, Lincoln, NE, [3]Univ. of Nebraska, Lincoln, NE, [4]Univ. of Nebraska-Lincoln, Lincoln, NE, [5]Univ. of Nebraska-Lincoln, Scottsbluff, NE

2:36 **166** Thermal performance mediates foraging by urban ants. **Diane Roeder** (Diane.Roeder@augie.edu)[1], Trinity Merrill[1], Emma Nelson[1] and Oliva Opichka[2], [1]Augustana Univ., Sioux Falls, SD, [2]Univ. of Sioux Falls, Sioux Falls, SD

2:48 **167** Frass and Furious: Valorizing frass from the yellow mealworm. **Christos Athanassiou** (athanassiou@uth.gr)[1] and Christos Rumbos[2], [1]Univ. of Thessaly, Nea Ionia, Magnesia, Greece, [2]Univ. of Thessaly, Volos, Greece

Symposium:
Connect, Communicate, Contribute: Building Extension Skills for Tomorrow's Entomologists

2:00 PM – 5:00 PM
Dubuque Room

Moderators and Organizers: Md Tafsir Nur Nabi Rashed[1,2] and Julie Peterson[3]
[1]Corteva Agriscience, Johnston, IA, [2]Univ. of Florida, Gainesville, FL, [3]Univ. of Nebraska-Lincoln, North Platte, NE

2:00		Introductory remarks
2:05	**168**	Stakeholder needs assessment for effective extension programming. **Julie Peterson** (julie.peterson@unl.edu)[1], Anthony McMechan[2] and Jeffrey Bradshaw[3], [1]Univ. of Nebraska-Lincoln, North Platte, NE, [2]Univ. of Nebraska - Lincoln, Dept. of Entomology, Lincoln, NE, [3]Univ. of Nebraska-Lincoln, Lincoln, NE
2:30	**169**	Beginning with the end in mind: Extension logic models 101. **Jonathan L. Larson** (jonathan.larson@uky.edu), Univ. of Kentucky, Lexington, KY
2:55	**170**	Can we communicate? Comparing extension and outreach **Kelly Carruthers** (kellyacarruthers@gmail.com), Univ. of Georgia, Athens, GA
3:20		Break
3:30	**171**	Tips for developing meaningful extension programs. **Emily Zobel** (ezobel@umd.edu), Univ. of Maryland, College Park, MD
4:00	**172**	Building an extension program: A hands-on session. Emily Zobel[1] and **Md Tafsir Nur Nabi Rashed** (rashed.md@ufl.edu)[2], [1]Univ. of Maryland, College Park, MD, [2]Corteva Agriscience, Johnston, IA
4:30		Concluding remarks

Symposium:
Connecting Across Borders: New insights and Collaborations in Solitary Bee Conservation

2:00 PM – 5:00 PM
Council Bluffs Room

Moderators and Organizers: Jessica D. Petersen[1] and Marissa Chase[2]
[1]Minnesota Dept. of Natural Resources, St Paul, MN, [2]Univ. of Minnesota, Falcon Heights, MN

2:00 Welcoming remarks

2:03 **173** Midwestern native bees of greatest conservation need: Evaluating regional responsibility and conservatism for a collaborative conservation approach. **Alexandra Morphew** (alexandra.r.morphew@gmail.com)[1], Mike Arduser[2], Rob Jean[3], Ian Lane[4], Ken McCarty[5] and Laura Rericha[6], [1]Missouri Dept. of Conservation, Columbia, MO, [2]Conservation Research Institute, St. Louis, MO, [3]Environmental Solutions & Innovations, Inc., Indianapolis, IN, [4]U.S. Fish and Wildlife Service, Bloomington, MN, [5]Missouri State Parks, Jefferson City, MO, [6]Forest Preserves of Cook County, Elgin, IL

2:18 **174** Defining and drawing inference about rare species: A worked example in pollinator habitat restorations. **Daniel Cariveau** (dcarivea@umn.edu)[1], Tina Harrison[2] and Michael Roswell[3], [1]Univ. of Minnesota, St. Paul, MN, [2]Univ. of California, Davis, CA, [3]Univ. of Maryland, College Park, MD

2:33 **175** Surveying host plants of oligoleges as a strategy for monitoring both rare and common bees. **Nomada Semler** (semler.21@buckeyemail.osu.edu)[1] and Karen Goodell[2], [1]The Ohio State Univ., Columbus, OH, [2]The Ohio State Univ., Newark, OH

2:48 **176** Benefits of host-plant-focused bee surveys. **Jessica D. Petersen** (jessica.d.petersen@state.mn.us)[1], Nicole Gerjets[1], Rachel Kranz[2], Zachary Portman[3], Marissa Chase[4] and Daniel Cariveau[3], [1]Minnesota Dept. of Natural Resources, St Paul, MN, [2]Minnesota Dept. of Natural Resources, St. Paul, MN, [3]Univ. of Minnesota, St. Paul, MN, [4]Univ. of Minnesota, Falcon Heights, MN

3:03 Break

3:18 **177** The population dynamics and nesting biology of the bee *Colletes andrewsi,* a rare pollen specialist of *Heuchera spp.*. **Marissa Chase** (chase450@umn.edu)[1], Zachary Portman[2], Jessica D. Petersen[3], Nicole Gerjets[3], Rachel Kranz[4], Ian Lane[5] and Daniel Cariveau[2], [1]Univ. of Minnesota, Falcon Heights, MN, [2]Univ. of Minnesota, St. Paul, MN, [3]Minnesota Dept. of Natural Resources, St Paul, MN, [4]Minnesota Dept. of Natural Resources, St. Paul, MN, [5]U.S. Fish and Wildlife Service, Bloomington, MN

3:33 **178** Assessing the persistence and status of the *Colletes* of Minnesota. **Zachary Portman** (zportman@umn.edu)[1], Jessica D. Petersen[2], Marissa Chase[3], Hannah Kernen[1], Rachel Kranz[4], Nicole Gerjets[2], Ian Lane[5] and Daniel Cariveau[1], [1]Univ. of Minnesota, St. Paul, MN, [2]Minnesota Dept. of Natural Resources, St Paul, MN, [3]Univ. of Minnesota, Falcon Heights, MN, [4]Minnesota Dept. of Natural Resources, St. Paul, MN, [5]U.S. Fish and Wildlife Service, Bloomington, MN

3:48 **179** Long-term monitoring to review changes in solitary bee communities and their floral interactions in restored prairie habitat. **Claire Widmer** (widmerc@uni.edu)[1], Mark Vandever[2], Kenneth Elgersma[1], Justin Meissen[1], Laura Jackson[1] and Ai Wen[1], [1]Univ. of Northern Iowa, Cedar Falls, IA, [2]U.S. Geological Survey, Fort Collins, CO

4:03 **180** Bringing back bees: Assessment of Conservation Reserve Program (CP42) bee recruitment and retention. **Alexandra Harmon-Threatt** (aht@illinois.edu), Anthony Yannarell and Jonathan Tetlie, Univ. of Illinois, Urbana, IL

4:18 **181** The effects of agricultural perennialization on wild bee diversity in southern Manitoba and Saskatchewan. **Emmelyn Cullen** (cullene@myumanitoba.ca) and Jason Gibbs, Univ. of Manitoba, Winnipeg, MB, Canada

4:33 Concluding remarks

Submitted 10-Minute Presentations: Stored Product Pests

3:30 PM – 5:00 PM
Cedar Rapids Room

Moderators: Hannah Quellhorst[1] and Alison Gerken[2]
[1]Kansas State Univ., Manhattan, KS, [2]USDA - ARS, Manhattan, KS

3:30 **182** Fragment-level discriminative power of anatomical features in AI-based identification of stored-product beetles. **Ronnie Serfa Juan** (ronnieserfajuan@gmail.com) and Alison Gerken, USDA - ARS, Manhattan, KS

3:42 **183** Risk assessment, plume reach and optimization of trapping for a stored product quarantine threat, the khapra beetle, *Trogoderma granarium*. **William Morrison** (william.morrison@usda.gov)[1], Alison Gerken[1], Christos Athanassiou[2], Rachel Harman[1], Matthew Hetherington[3], Joana Schroeder de Souza[4], Yunus Emre Altunç[5], Maria Sakka[2], Paraskevi Agrafioti[2] and Thomas Phillips[4], [1]USDA - ARS, Manhattan, KS, [2]Univ. of Thessaly, Volos, Greece, [3]USDA-ARS, Manhattan, KS, [4]Kansas State Univ., Manhattan, KS, [5]Ordu Univ., Faculty of Agriculture, Dept. of Plant Protection, Altinordu, Ordu, Turkey

3:54 **184** X-ray imaging provides new view of *Prostephanus truncatus* life history and development within maize kernels. **Matthew Hetherington** (mhetherington@ksu.edu)[1], Deanna Scheff[2], Thomas Phillips[1], Alison Gerken[2] and William Morrison III[3], [1]Kansas State Univ., Manhattan, KS, [2]USDA - ARS, Manhattan, KS, [3]USDA-ARS, Manhattan, KS

4:06 Break

4:09 **185** Movement, size disparity, and insecticide resistance differ among different strains of *Tribolium castaneum*. **Alison Gerken** (alison.gerken@usda.gov)[1], William Morrison[1], Deanna Scheff[1] and Erin Scully[2], [1]USDA - ARS, Manhattan, KS, [2]USDA-ARS, Manhattan, KS

4:21 **186** Increased efficacy of grain protectants in combination with biologically-derived nanoparticles, for use against *Prostephanus truncatus*. **Hannah Quellhorst** (hquellho@ksu.edu)[1], Amie Norton[1], Marianna Rigopoulou[2], Maria Sakka[3], Kun Yan Zhu[1], William Morrison[4] and Christos Athanassiou[3], [1]Kansas State Univ., Manhattan, KS, [2]Univ. of Thessaly, Volos, Magnesia, Greece, [3]Univ. of Thessaly, Volos, Greece, [4]USDA-ARS, Manhattan, KS

4:33 **187** Identifying genomic pathways associated with behavioral recovery following exposure to alpha-cypermethrin coated netting in the red flour beetle, *Tribolium castaneum* (Herbst). **Matthew Murphy** (matthew.j.murphy@usda.gov)[1], Qinglei Ming[2], James Campbell[3], William Morrison[1], Kun Yan Zhu[2] and Erin Scully[1], [1]USDA-ARS, Manhattan, KS, [2]Kansas State Univ., Manhattan, KS, [3]na, na, KS

WEDNESDAY, 22 APRIL 2026 MORNING

Symposium:

Making Connections, Building Relationships: Insect Interactions with Symbiotic Microorganisms

9:00 AM – 11:00 AM
Dubuque Room

Moderators and Organizers: Megan Jones and Matt Villalta
Univ. of Minnesota, St. Paul, MN

9:00 **188** Exploring the microbial communities of insect herbivores feeding on milkweed. **Laramy Enders** (lenders@purdue.edu)[1] and Thorsten Hansen[2], [1]Purdue Univ., West Lafayette, IN, [2]USDA-ARS, Hilo, HI

9:20 **189** Using *Serratia symbiotica* to probe the evolutionary origins of aphid endosymbionts. **Anthony VanDieren** (avandieren@utexas.edu) and Jeffery Barrick, Michigan State, East Lansing, MI

9:40 **190** *Wyeomyia* mosquitoes engineer microbial communities inside pitcher plants. **Kerri Coon** (kerri.coon@wisc.edu)[1], Aldo Arellano[2] and Journey Prack[2], [1]Univ. of Wisconsin, Madison, WI, [2]Univ. of Wisconsin-Madison, Madison, WI

10:00 **191** Too hot to handle: Temperature shapes the heritable endosymbiont community of a spider. **Matthew Doremus** (mdoremus@illinois.edu), Univ. of Illinois Urbana-Champaign, Urbana, IL

10:20 **192** Guest and farmer ant symbiotic species network: Establishment, maintenance, and the threat of breakdown. **Rachelle Adams** (adams.1970@osu.edu)[1], Blake Bringhurst[1], Alissa Geisse[1,2], Aryel Goes[1] and Ana Rachel Martínez[1], [1]The Ohio State Univ., Columbus, OH, [2]Smithsonian Institution, Panama City, Ancón, Panama

WEDNESDAY, 22 APRIL 2026 MORNING

Symposium:
News from the Monarch Highway

9:00 AM – 12:00 PM
Cedar Rapids Room

Moderators and Organizers: Katherine Kral-O'Brien
Iowa State Univ., Ames, IA

9:00 **193** Long-term monarch and other butterfly monitoring by the Multiple Species Inventory and Monitoring Program in Iowa. **Stephanie Shepherd** (stephanie.shepherd@dnr.iowa.gov)[1], Tyler Harms[1], Karen Kinkead[2] and Stephen Dinsmore[3], [1]Iowa Dept. of Natural Resources, Boone, IA, [2]Iowa Dept. of Natural Resources, Des Moines, IA, [3]Iowa State Univ., Ames, IA

9:15 **194** Development of insect-protected genetically engineered crops using a safe by design approach and a thorough environmental risk assessment for the monarch butterfly, *Danaus plexippus*. **Christopher Brown** (christopher.brown1@bayer.com)[1], Tim Fredericks[2], Sajjan Grover[1], Camila Hofman[2], Chitvan Khajuria[3], Steven Levine[2] and Jianguo Tan[1], [1]Bayer Crop Science, Chesterfield, MO, [2]Bayer CropScience, Creve Coeur, MO, [3]Kansas State Univ., Manhattan, KS

9:30 **195** Refining potential spatial overlap for species with negligible in-field exposure to agricultural insecticide products. **Ashley St. Clair** (ashley.stclair@corteva.com)[1], Josh Fischer[2], Gerco Hoogeweg[1], Kursten Anderson[1], Kristine LeRoy[2] and Bridget O'Neill[1], [1]Corteva Agriscience, Indianapolis, IN, [2]Corteva Agriscience, Johnston, IA

9:45 **196** How change becomes legitimate: farmer experience, risk, and authority in monarch conservation. **Derek Franklin** (derekf1@iastate.edu)[1], Edem Avemegah[2], Katherine Dentzman[1] and Jessica Goldberger[2], [1]Iowa State Univ., Ames, IA, [2]Washington State Univ., Pullman, WA

10:00 **197** Characterizing potential risk of Cry1B.34 and Cry1Da2 proteins expressed in insect-protected maize to monarch butterfly. **Josh Fischer** (josh.fischer@corteva.com)[1], Chad Boeckman[1], Kristine LeRoy[1] and Bridget O'Neill[2], [1]Corteva Agriscience, Johnston, IA, [2]Corteva Agriscience, Indianapolis, IN

10:15 Break

10:30 **198** Monarchs in marginal habitats: Risks of pollution to monarchs during restoration of roadsides and urban spaces. **Emilie C. Snell-Rood** (emilies@umn.edu), Univ. of Minnesota, St. Paul, MN

10:45 **199** Planting native: Linking yard biodiversity in central Iowa with homeowner values, attitudes, and practices. **Fanny Riand** (friand@iastate.edu) and Adam Janke, Iowa State Univ., Ames, IA

11:00 **200** Monarch host plant (*Asclepias* spp.) and forb abundances across conservation plantings and their relationships with remotely-sensed canopy reflectance. **Brian Wilsey** (bwilsey@iastate.edu), Iowa State Univ., Ames, IA

11:15 **201** Continuing the "all-hands-on-deck" conservation approach for monarchs in the North Central Region. **Katherine Kral-O'Brien** (kralob@iastate.edu) and Mykayla Hagaman, Iowa State Univ., Ames, IA

WEDNESDAY, 22 APRIL 2026 MORNING

Symposium:
When Research Doesn't Work

9:00 AM – 12:00 PM
Davenport Room

Moderators and Organizers: Rachel Johnson[1], Elizabeth Lumley[2], Ben Knowlton[3], Grace Lewis[4], Andrea Rilakovic[5], Sanket Shinde[6], Tristan Barley[7] and Emmelyn Cullen[8]
[1]Kansas State Univ., Manhattan, KS, [2]Univ. of Missouri, Columbia, MO, [3]Univ. of Kentucky, Lexington, KY, [4]North Dakota State Univ., Fargo, ND, [5]Univ. of Nebraska-Lincoln, North Platte, NE, [6]Univ. of Florida, Gainesville, FL, [7]Univ. of Illinois Urbana-Champaign, Urbana, IL, [8]Univ. of Manitoba, Winnipeg, MB, Canada

9:00 **202** Working better versus working harder: Managing your productivity so you avoid burnout. **Kristopher Silver** (ksilver@ksu.edu), Kansas State Univ., Manhattan, KS

9:20 **203** Resilience in research: Lessons from a bimodal life in science and parenthood. **Nicole Kucherov** (nkucherov@ksu.edu), Kansas State Univ., Manhattan, KS

9:40 **204** From burnout to joy: Taking initiatives when research hits a wall. **Daniel Schmehl** (daniel.schmehl@bayer.com)[1] and Sajjan Grover[2], [1]Bayer CropScience, Research Triangle Park, NC, [2]Bayer Crop Science, Chesterfield, MO

10:00 **205** Reflections on a career studying insect social behavior: Non-significant p-values, unsupported hypotheses, and other scientific setbacks. **Amy Toth** (amytoth@iastate.edu), Iowa State Univ., Ames, IA

10:20 **206** So…that didn't work: Lessons from insect research. **Anthony Justin McMechan** (justin.mcmechan@unl.edu), Univ. of Nebraska - Lincoln, Dept. of Entomology, Lincoln, NE

10:40 **207** The power of being wrong: How surprises shaped my research. **Jacqueline Abarca-Duran** (jacquelineabarca@ksu.edu), Kansas State Univ., Manhattan, KS

11:00 **208** Salvaging science: Lessons from lab and field challenges in undergraduate and faculty research. **Judy Wu-Smart** (jwu-smart@unl.edu), Paige Myers and Emma Knezevic, Univ. of Nebraska-Lincoln, Lincoln, NE

11:20 **209** Let's bee for real: Mastering pollinator eDNA methods stings. **Sara Merkelz** (merkelz3@illinois.edu), Univ. of Illinois Urbana Champaign, Champaign, IL

11:40 **210** Trial of the fool: Navigating unexplored realms and vanquishing bugs in ascendant pollinator eDNA biodiversity monitoring. **Mark Davis** (davis63@illinois.edu), Illinois Natural History Survey, Champaign, IL

Author Index

*presenting author