

North Central Branch

ENTOMOLOGICAL SOCIETY OF AMERICA



ENTOMOLOGICAL
SOCIETY OF AMERICA
NORTH CENTRAL BRANCH

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Sponsors

Special Thanks to our Meeting Sponsors!

Platinum Level



Gold Level



Silver Level



Bronze Level



About NCB-ESA

The North Central region encompasses a large geographic area (14 states and 3 Canadian provinces) and represents a diversity of crops, environments, and cultures that pose a range of entomological challenges. The North Central region includes Colorado, Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin in the United States; and Manitoba, Nunavut, Ontario (west of 80° longitude) in Canada.

Each year, the Branch holds an annual meeting featuring research updates through submitted symposia, papers, and posters; member networking; recognition of undergraduate and graduate student achievements; and opportunities for early career professionals to meet and develop collaborations. Students may compete in paper and poster presentations, a number of recognition awards, and the Entomology Games.

We encourage you to use the meeting website and the detailed online schedule for all current information and to navigate the meeting.

Meeting Website:

<https://www.entsoc.org/northcentral>

Society Website:

<https://entsoc.org>

Facebook:

https://www.facebook.com/NCB_StudentAffairs-329695447858797/

Twitter:

@NCBESA
@NCB_Sacommittee
@EntSocAmerica
@ECP_EntSoc
@PIE_EntSoc
@SysEB_EntSoc
@MUVE_ESA
@ESAPBT

Meeting Information

Meeting Logistics

Registration

All participants must register for the meeting. Registration badges are required for admission to all conference functions. The meeting registration desk is located in the Royal Sonesta, Denmark Commons. Registration will be open for check-in (pre-registered attendees) and for on-site registration at the following times:

Sunday 11:00 AM – 5:00 PM
Monday 7:30 AM – 4:00 PM
Tuesday 7:30 AM – 4:00 PM
Wednesday 7:30 AM – 10:00 AM

Code of Conduct

By attending the 2022 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 Diversity, Equity, and Inclusion at +1 (301) 731-4535 x3030 or seast@entsoc.org.

Statement on Diversity & 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.

Guidelines for Speakers and Moderators

Speakers and moderators will follow standard procedures and practices for ESA meetings. Moderators are responsible for maintaining the printed schedule, by not starting any presentation prior to its scheduled time, and by not allowing a speaker to exceed the allotted time. If a presentation is canceled, the moderator must wait to begin the next presentation until its scheduled time. If there are problems with the computer/projector, or other equipment, please come to the Presentation Preview and Upload AV room (Odense Room) to request assistance.

Recording Policy

ESA-NCB requests that attendees not take videos during sessions because they are disruptive to the presenters. If the presenter has granted permission by adding the “Photograph OK” logo, you are welcome to take photos, otherwise, please refrain from taking photos during talks. If you wish to take photographs of a poster, please check for the “Photograph OK” logo on the poster or contact the poster presenter 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.

Audiovisual and Upload of Presentations

For All Presenters: Presentations should be created in a format compatible with PowerPoint (.pptx) and **formatted in a 4:3 aspect ratio**. All meeting room computers are PCs, so presenters who create a presentation using a Mac should test the file on a PC prior to the meeting. All meeting rooms will be equipped with an LCD projector, projector screen, computer and microphone. The Presentation Preview and Upload AV room (Odense Room) will have computers for presenters to load and preview presentations.

Presenters are expected to **upload their presentation no less than two hours prior to their scheduled session**. A computer for presentation uploads will be located in the **Odense Room** during the following times:

Sunday, March 20. 12:00 PM - 5:00 PM
Monday, March 21. 7:30 AM - 5:00 PM
Tuesday, March 22. 7:30 AM - 5:00 PM
Wednesday, March 23. . . . 7:30 AM - 12:00 PM

All meeting room computers are PCs, so a presenter who creates a presentation using a

Macintosh computer should test the file on a PC computer prior to the conference. Folders with Session or Symposium Names will be provided on the desktop. Please upload your talk in the appropriate folder. Your presentation should be named with your presentation number, last name, first name: “PresentationNumber_Last Name_First Name”. Presenters who fail to upload more than two hours prior to their session may upload in the session room as long as it does not impact the timing of the session or any other presentations.

For Moderators: 20 minutes before the start of your session, you must come to the Presentation Preview and Upload AV room (Odense Room) to copy your session’s folder onto a flash drive. There will be a laptop in each presentation room where you can transfer the session folder containing the presentations.

Poster Presentations

Poster Size: Posters must be contained within the 46 x 46 inch (117 x 117 cm) space provided. The poster must NOT exceed the size limit. Posters should be hung in their assigned space according to the poster number assigned. Bring your own Velcro strips or tacks to secure your display to the poster boards. All posters will be displayed in the Denmark Commons.

Setup and Removal:

Student Posters

Setup: Sunday, March 20. . . 7:00 PM - 9:00 PM

Removal: Monday, March 21.5:00 PM - 7:00 PM

Contributed Posters

Setup: Monday, March 21. . 7:00 PM - 9:00 PM

Removal: Tuesday, March 22.5:00 PM - 7:00 PM

Author Presence: All student competitors are to stand next to their posters between 10:00 AM - 10:30 AM on Monday, March 21. Contributed poster presenters should be present from 11:00 AM – 11:30 AM on Tuesday, March 22.

Program Changes, Messages, Lost and Found

Please notify Program Chair, Christelle Guédot (guedot@wisc.edu), about any program changes. Also, notices concerning program changes can be submitted to the Meeting Registration Desk in Denmark Commons. A message board for posting meeting announcements will be displayed in the Presentation Preview and Upload AV room (Odense Room). Lost and found items may be turned in and retrieved at the Registration Desk in Denmark Commons.

Employment Opportunity Center change to Message Boards

Employers are invited to post job announcements and job seekers are encouraged to post their CVs in the Presentation Preview and Upload AV room (Odense Room). Please bring enough copies of your documents for distribution (no photocopy service will be provided).

Refreshments

Coffee and tea will be available during morning breaks on Monday and Tuesday. Light snacks will be served at the Welcome Reception. The Awards Luncheon on Tuesday is included with registration for all participants.

Hotel Amenities

Food and Beverage: Wood + Paddle Eatery is located in the main lobby and is open for breakfast, lunch and dinner. Weekday happy hour options are available here from 4:00 - 6:30 PM daily.

Internet: There is complimentary Wi-Fi available in public spaces to meeting participants. Please be courteous when using the internet during your stay. Refrain from streaming large files, such as video, so that everyone will have access to the internet. People staying at the Royal Sonesta will have a separate passcode for their sleeping rooms (provided at check-in).

Parking: Parking is available at the hotel for \$23/day with in-and-out privileges. The entrance is directly off South 7th Street between Nicollet and Hennepin Avenues at the front of the hotel. Multiple public parking garages are also available near the hotel. Please note that the hotel’s underground parking garage cannot accommodate large vehicles such as passenger vans and field trucks; as such, we recommend using city parking garages if applicable.

Light Rail Service from Airport: It is strongly recommended that attendees arriving from MSP airport take the Blue Line light rail from the Terminal 1-Lindbergh station to Nicollet Mall station, which is about two blocks from the hotel. For more direct transportation, taxi and Uber/Lyft are available, but these will be substantially more expensive.

Parent Resources

This room has been made available for parents and family to use during the meeting. It is located in the Copenhagen Boardroom in Royal Sonesta. In the event that the room is locked, please check out the key at the Registration Desk in Denmark Commons.

- Sunday 9:00 AM – 5:00 PM
- Monday 8:00 AM – 5:00 PM
- Tuesday 8:00 AM – 5:00 PM

Accessibility Features

Royal Sonesta has several options for rooms with increased accessibility, including: warning devices, bathroom grab bars, lever hardware, roll-in showers, and tub-transfer seats. If you are in need of an accessible guest room, please contact the hotel.

Special Events

Student Mixer Networking Event: Starting at 8:00 PM on Monday (March 21), students are invited to an informal networking event at the Royal Sonesta, New Sweden 3 Room on the 2nd floor of the hotel.

Early Career Professionals (ECP) Mixer Networking Event: Starting at 8:00 PM on Monday (March 21), ECP and any other interested parties, are invited to an informal networking event at the Lyons Pub (<https://www.lyonspub.com/>).

Information about City

Downtown

Downtown Minneapolis is connected by the largest contiguous system of enclosed 2nd level bridges in the world, spanning nearly 10 miles and covering over 80 city blocks. Hours are as posted:

Monday - Friday. 6:30 AM - 10:00 PM
Saturday. 9:30 AM - 8:00 PM
Sunday. 12:00 PM - 6:00 PM

Dining

The Twin Cities are home to a wide variety of restaurants, pubs and breweries. Please use the following links for reference:

<https://twincities.eater.com/>
<https://www.exploreminnesota.com/list/45-best-minneapolis-restaurants>

NBA Basketball

The Minnesota Timberwolves are at home at the Target Center against the Phoenix Suns on March 23. Tickets are available at: <https://www.nba.com/timberwolves/>

Minneapolis Institute of Art

This spectacular collection houses over 90,000 works, spanning about 9,000 years.

2400 Third Avenue South
Minneapolis, Minnesota 55404
888 642 2787 (Toll Free)
visit@artsmia.org

Minneapolis Theater District

There are many great options to take in a show in Minneapolis. Please consult the following website for showtimes and tickets: <https://www.minneapolis-theater.com/>

Local via Light Rail (less than 30 minutes one-way) or drive (less than 20 minutes)

Downtown Saint Paul

The Green Line offers downtown to downtown service between Minneapolis and Saint Paul. Excel Energy Center is home to the Minnesota Wild NHL team, which is in town versus the Vegas Golden Knights on March 21 (7 PM face-off). Saint Paul offers several dining options, which are accessible at <https://www.visitsaintpaul.com/>. Museum options in downtown Saint Paul include the Science Museum of Minnesota, the Minnesota History Center, and the Minnesota Children's Museum.

Como Park Zoo and Arboretum

1225 Eastabrook Drive
Saint Paul, MN 55103

This free attraction combines a mid-sized urban zoo with a vibrant living plant collection. Reservations are required, and can be made at <https://comozooconservatory.org/visitors/visitor-map-hours/>.

Mall of America

2131 Lindau Lane
Bloomington, MN 55425
952.883.8800

One of the largest shopping centers in North America, the Mall of America also features a wide array of dining options, and an indoor amusement park. The Mall of America station is on the Blue Line from downtown Minneapolis, and is within four stops of the MSP airport stations.

For more information about things to do during your visit to the Twin Cities, visit: <https://www.tcgateway.com/>

2022 NCB-ESA Meeting Organizers



Dr. Mary Gardiner
President



Dr. Erin Hodgson
Secretary / Treasurer



Dr. Christelle Guédot
Program Chair



Dr. Mark Asplen
Local Arrangements Chair



Hannah Quelhorst
Student Representative
Executive Committee

NCB-ESA Committee Information

Executive Committee

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Mary Gardiner, The Ohio State University

PRESIDENT-ELECT

Jeff Bradshaw, University of Nebraska-Lincoln

PAST PRESIDENT

Mark Boetel, North Dakota State University

SECRETARY / TREASURER

Erin Hodgson, Iowa State University

STUDENT REPRESENTATIVE

Hannah Quelhorst, Kansas State University

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Laura Campbell, Corteva Agriscience

MEMBER-AT-LARGE 2

Kayla Perry, Kent State University

MEMBER-AT-LARGE 3

Rob Morrison, USDA ARS Center for Grain and Animal Health Research

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Mark Asplen, Metropolitan State University

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Grace Sward, The Ohio State University

Program Committee

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Christelle Guédot, University of Wisconsin - Madison

Students Affairs Committee

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Hannah Quellhorst, Kansas State University

VICE-CHAIR

Hailey Shanovich, University of Minnesota

TREASURER/SECRETARY

Oluwaseun Ajayi, University of Cincinnati

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ENTOMOLOGY GAMES COMMITTEE

Lauren Fann, University of Kentucky

STUDENT AWARDS COMMITTEE

Jacqueline Maille, Kansas State University

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Elliott Smith, Iowa State University
Alaine Hippee, University of Iowa

MINNESOTA

Josephine Dillon, University of Minnesota

MICHIGAN

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Sasha Bishop, University of Michigan

NORTH DAKOTA

Bethany Robertson, North Dakota State University

MISSOURI

Leah Gastonguay, University of Missouri

ILLINOIS

Elizabeth Bello, University of Illinois, Urbana-Champaign

KANSAS STATE

Jacqueline Maille, Kansas State University

PURDUE

Leslie Aviles, Purdue University

KENTUCKY

Lauren Fann, University of Kentucky

NEBRASKA

Gabriela Inveninato Carmona, University of Nebraska-Lincoln
Annie Krueger, University of Nebraska-Lincoln

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Casandra Madden, University of Manitoba

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Judith Chiginsky, Colorado State University

OHIO

Oluwaseun Ajayi, University of Cincinnati
Grace Sward, The Ohio State University

NCB REPRESENTATIVE TO ESA SAC

Jacqueline Maille, Kansas State University

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Nick Teets, University of Kentucky
Travis Prochaska, North Dakota State University
Amy Raudenbush, Ohio State University

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Jacqueline Maille, Kansas State University

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Janet Knodel, North Dakota State University
Kimberly Nemeth, The Procter and Gamble Company
Josephine Dillon, University of Minnesota
Kayla Perry, Kent State University
Ashley Stewart, Bayer

STUDENT REPRESENTATIVE

Josephine Dillon, University of Minnesota

Early Career Professionals Committee**CHAIR**

Kayla Perry, Kent State University

MEMBERS

Anh Tran, ISK Biosciences
Ashley Stewart, Bayer
Karl Roeder, USDA
Sudip Gaire, University of Kentucky
Nick Anderson, University of Illinois

Nominations Committee**CHAIR**

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MEMBERS

Alice Harris, BASF
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Audit Committee**CHAIR**

Alice Harris, BASF

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Amy Raudenbush, The Ohio State University

Entomology Games

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Ellen Klinger, The Ohio State University

GAME MASTER

Elizabeth Long, Purdue University

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Wayne Ohnesorg, University of Nebraska – Lincoln
Ric Bessin, University of Kentucky
Lauren Fann, University of Kentucky

Photo Salon Committee

CHAIR

Tom Myers, All-Rite Pest Control

MEMBERS

Ric Bessin, University of Kentucky
Gary Hein, University of Nebraska-Lincoln

ESA Representatives

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SCIENCE POLICY COMMITTEE

Matthew W. Carroll, Bayer Crop Science

EARLY CAREER PROFESSIONALS COMMITTEE

Karl Adam Roeder, USDA ARS

DIVERSITY AND INCLUSION COMMITTEE

William R. Morrison III, USDA ARS

EDUCATION AND OUTREACH COMMITTEE

Joseph Raczkowski, The Ohio State University

Special Acknowledgements

A special thanks to the following:

- ESA Central Staff: Becky Anthony and Javhana Johnson.
- Confex Staff, especially Amy Coli for program assistance.
- Royal Sonesta Minneapolis, especially Elyse Urchipia, Catering Director.
- All of our moderators, Student Competition judges, and student volunteers
- All of our meeting sponsors

2022 AWARDS

2022 NCB-ESA Award Winners

C.V. Riley Achievement Award



Dr. Raymond Cloyd
Kansas State University

Raymond has an extension (70%) and research (30%) appointment in the Department of Entomology at Kansas State University (Manhattan, KS). Raymond received his MS and PhD from the Department of Entomology at Purdue University (West Lafayette, IN), and was employed as a professor at the University of Illinois (Urbana, IL) in the Department of Natural Resources and Environmental Sciences prior to his employment at Kansas State University. His research and extension program involves plant protection/pest management in greenhouses, nurseries, landscapes, turfgrass, conservatories, interiorscapes, Christmas trees, vegetables and fruits, and pollinators. Raymond is the extension specialist in horticultural entomology for the state of Kansas with a major clientele that includes homeowners, master gardeners, and professional and commercial operators.

Raymond has published over 80 scientific refereed publications, over 900 trade journals, and over 60 extension publications on topics related to pest management/plant protection. In addition, he has authored or co-authored numerous books (*Greenhouse Pest Management*, *Pests and Diseases of Herbaceous Perennials*, *IPM for Gardeners*, *Plant Protection: Managing Greenhouse Insect and Mite Pests*, *Compendium of Rose Diseases and Pests*, and *Compendium of Bedding Plant Diseases and Pests*), book chapters, manuals, PICT or picture-pocket guides, and extension-related publications. Raymond is a frequent speaker at state, national, and international conferences and seminars; and has received numerous awards and honors during his over 20 year academic career. Raymond's professional specialty areas include: plant protection, biological control, plant-insect interactions, insect ecology, pesticides, integrating pesticides with biological control agents, and sanitation.

Excellence in Early Career Award



Amelia Lindsey

University of Minnesota

Amelia Lindsey, Ph.D., is an assistant professor in the Entomology Department at the University of Minnesota. Her lab uses functional genomics to understand insect biology across symbiotic and parasitic associations. Her research merges molecular biology, genomics, evolution, microbiology, and entomology to uncover fundamental mechanisms of species interactions with a major focus on the insect reproductive manipulator, *Wolbachia*. She received a B.A. from San José State University in 2011 and her Ph.D. from the University of California, Riverside, in 2017. Following a three-year postdoc at Indiana University, she joined the faculty at UMN in the summer of 2020. She has two dogs named after fly mutants: Annie Lyra and Hannah Tubby.

Excellence in Teaching Award



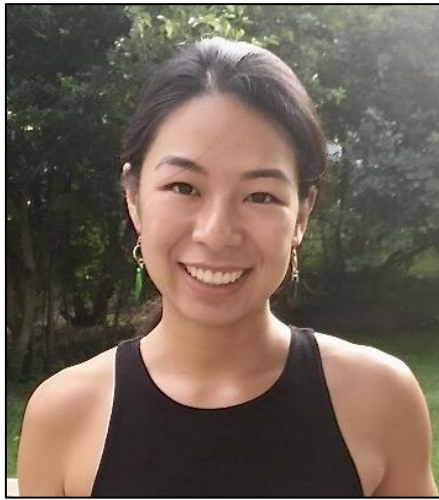
Dr. Doug Golick

University of Nebraska-Lincoln

Dr. Doug Golick is an entomologist and science educator at the University of Nebraska-Lincoln. He earned his Ph.D. in Education from the University of Nebraska-Lincoln in 2005. He worked in faculty instructional improvement for 6 years at the University of Kansas, before returning to Nebraska in 2012. Currently, Doug is an Associate Professor of Entomology at the University of Nebraska-Lincoln where he teaches courses on using insects in science instruction, science presentation and communication methods, and developing distance-delivered courses. In addition to teaching, he conducts educational research on the use of beneficial insects in teaching and promoting science literacy, pollinator conservation education, and science learning in formal and informal learning environments. Doug strives to connect his teaching and research activities to K-12 classrooms through sustained educational programming.

For a semester, he served as a Scientist-in-Residence in an elementary art classroom where, among other things, he connected the phenomenon of water striders “rowing” and the physics of surface tension to the process of creating Japanese marbled paper. He also co-created several large scale and immersive educational programs like the Milkweed in the Classroom program that has engaged over 2,000 elementary students (in 9 Midwestern states) in learning about beneficial insects and growing milkweed for pollinator habitat conservation. Dr. Golick is a member of the Entomological Society of America serving on the Education and Outreach Committee (2018-2020; Chair), and past member of the ESA S.T.E.P. Awards and Entomological Foundation Awards committees.

Comstock Student Award



Dr. Anh Tran
ISK Biosciences

Anh K. Tran (she/they) recently received their Ph.D. at the University of Minnesota (UMN) investigating spotted-wing drosophila ability to overwinter or perform long-distance dispersal to survive in cold regions. Anh earned a B.A. in Biology in 2011 from Hiram College and a M.S. in Entomology in 2016 from UMN studying conservation biocontrol of the soybean aphid. Prior to graduate school, Anh contributed to molecular detection research for parasitoids of the soybean aphid and worked for an environmental consultant that released biocontrol agents against Eurasian watermilfoil throughout North America. Anh is currently at ISK Biosciences where they manage the product development for all insecticides in North America. In this role, Anh's goal is to assist growers with their pest management and insecticide resistance programs.

Graduate Student Scholarship



Heena Puri
University of Nebraska-
Lincoln

Heena Puri is originally from Punjab, India. She has received her Bachelor's in Agriculture and Master's in Entomology from Punjab Agricultural University, India. She joined the University of Nebraska-Lincoln in Spring 2020 as a Ph.D. Student supervised by Dr. Joe Louis. Her dissertation focuses on deciphering the mechanisms of resistance underlying sorghum-sugarcane aphid interactions. During her MS program, she worked on RNA interference to investigate the function of the target of the rapamycin gene in whitefly. She has published two peer-reviewed articles and is working on several different projects to publish more. She enthusiastically participates in departmental activities and outreach events. She is serving on different committees such as the welcoming committee, social committee, and graduate student committee at the departmental and university level. She joined the Entomological Society of America (ESA) in 2020 and since then, she is an active member of ESA. She has participated in entomology games, student's debate, served as moderator and also has volunteered during an annual in-person ESA meeting in 2021. She is always motivated to present her research at branch meetings and the annual meetings of ESA.

Program Schedule

All events will occur at the Royal Sonesta unless noted otherwise in italics

FRIDAY, MARCH 18, 2022

Program	Time	Location
Ground Beetle Ecology and Identification Workshop	8:00 AM - 5:00 PM	<i>Metro State University</i> Jason R. Carter Science Education Center Room 211
Multivariate Experimental Design and Data Analysis for Entomology Research Workshop	8:00 AM - 5:00 PM	<i>Metro State University</i> Jason R. Carter Science Education Center Room 212

SATURDAY, MARCH 19, 2022

Program	Time	Location
Ground Beetle Ecology and Identification Workshop	8:00 AM - 5:00 PM	<i>Metro State University</i> Jason R. Carter Science Education Center, Room 211
Multivariate Experimental Design and Data Analysis for Entomology Research Workshop	8:00 AM - 5:00 PM	<i>Metro State University</i> Jason R. Carter Science Education Center, Room 212

SUNDAY, MARCH 20, 2022

Program	Time	Location
Ground Beetle Ecology and Identification Workshop	8:00 AM - 2:00 PM	<i>Metro State University</i> Jason R. Carter Science Education Center, Room 211
Multivariate Experimental Design and Data Analysis for Entomology Research Workshop	8:00 AM - 2:00 PM	<i>Metro State University</i> Jason R. Carter Science Education Center, Room 212
Nursing / Parent Room	9:00 AM - 5:00 PM	Copenhagen Boardroom
Executive Committee Meeting	10:00 AM - 12:00 PM	Oslo Boardroom
Registration	11:00 AM - 5:00 PM	Denmark Commons

Presentation Preview and Upload Room	12:00 PM - 5:00 PM	Odense Room
'Tis the Season to Be Freezin: Highlighting Early-Career Entomologists Investigating Insects in Relation to Cold Temperatures	1:00 PM - 4:00 PM	Scandinavian Ballroom 3
Preventing Permanent Diapause: Conservation of the Rusty Patched Bumble Bee	1:00 PM - 5:00 PM	Scandinavian Ballroom 1-2
Entomology Games - Preliminary Rounds	5:00 PM - 7:00 PM	Scandinavian Ballroom 3
Opening Session and Business Meeting	7:00 PM - 7:30 PM	Norway Room
Student Poster Setup	7:00 PM - 9:00 PM	Denmark Commons
Welcome Reception	7:30 PM - 10:00 PM	Denmark Commons

MONDAY, MARCH 21, 2022

Program	Time	Location
Registration	7:30 AM - 4:00 PM	Denmark Commons
Presentation Preview and Upload Room	7:30 AM - 5:00 PM	Odense Room
Student Competition 10-Minute Paper: B.S.	8:00 AM - 9:00 AM	Scandinavian Ballroom 1-2
Student Competition 10-Minute Paper: M.S. Session 2	8:00 AM - 10:00 AM	Scandinavian Ballroom 4
Student Competition 10-Minute Paper: M.S. Session 1	8:00 AM - 10:15 AM	Scandinavian Ballroom 3
Nursing / Parent Room	8:00 AM - 5:00 PM	Copenhagen Boardroom
Student Competition Poster: B.S.	8:00 AM - 5:00 PM	Denmark Commons
Student Competition Poster: M.S.	8:00 AM - 5:00 PM	Denmark Commons
Student Competition Poster: Ph.D.	8:00 AM - 5:00 PM	Denmark Commons
Break	10:00 AM - 10:30 AM	Denmark Commons
Q&A with Student Poster Presenters	10:00 AM - 10:30 AM	Denmark Commons
Student Competition 10-Minute Paper: Ph.D. Session 1 (MUVE, SysEB, PBT)	10:30 AM - 12:20 PM	Scandinavian Ballroom 1-2
Student Competition 10-Minute Paper: Ph.D. Session 3 (P-IE)	10:30 AM - 12:20 PM	Scandinavian Ballroom 4

Student Competition 10-Minute Paper: Ph.D. Session 2 (P-IE)	10:30 AM - 12:30 PM	Scandinavian Ballroom 3
Submitted Ten-Minute Presentations: MUVE, PBT, SysEB Session	1:30 PM - 3:10 PM	Scandinavian Ballroom 3
Submitted Ten-Minute Presentations: P-IE Session 1	1:30 PM - 3:30 PM	Scandinavian Ballroom 1-2
Breaking Into Leadership	1:30 PM - 5:30 PM	Norway Room
Highlights of Field Crop Insect Pest Management: Invasive and Resistant Pests	1:30 PM - 5:30 PM	Scandinavian Ballroom 4
Submitted Ten-Minute Presentations: P-IE Session 2	3:45 PM - 4:45 PM	Scandinavian Ballroom 1-2
Photo Salon	5:30 PM - 6:30 PM	Norway Room
Student Poster Removal	5:00 PM - 7:00 PM	Denmark Commons
Entomology Games - Finals	6:00 PM - 8:00 PM	Scandinavian Ballroom 3
Regular Poster Setup	7:00 PM - 9:00 PM	Denmark Commons
Early Career Professional Mixer	8:00 PM - 11:00 PM	<i>Lyons Pub Bar</i>
Student Mixer	8:00 PM - 11:00 PM	New Sweden 3 (2nd Floor)

TUESDAY, MARCH 22, 2022

Program	Time	Location
Registration	7:30 AM - 4:00 PM	Denmark Commons
Presentation Preview and Upload Room	7:30 AM - 5:00 PM	Odense Room
Breaking Old Habits: New Strategies to Reduce Insecticide Inputs in Fruit and Vegetable Production	8:00 AM - 10:00 AM	Norway Room
The Ecological and Molecular Regulators of Diapause	8:00 AM - 11:00 AM	Scandinavian Ballroom 1-2
Contributed Posters	8:00 AM - 5:00 PM	Denmark Commons
Nursing / Parent Room	8:00 AM - 5:00 PM	Copenhagen Boardroom
Break	10:00 AM - 10:30 AM	Denmark Commons
Q&A with Contributed Poster Presenters	11:00 AM - 11:30 AM	Denmark Commons

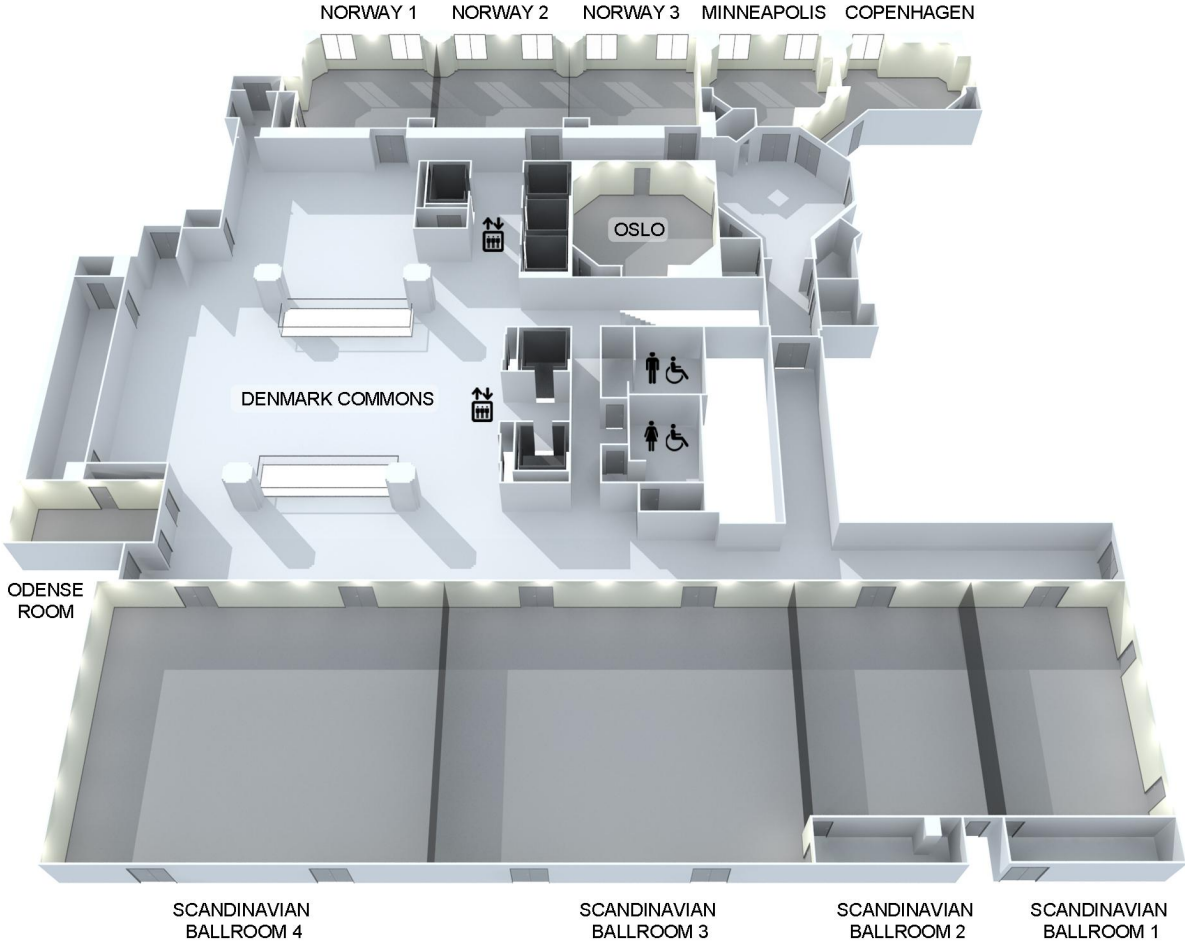
Awards Luncheon <i>Keynote Speaker:</i> Dr. David Denlinger "Breaking Diapause"	12:15 PM - 1:45 PM	Scandinavian Ballroom 3-4
Into the Thick of It: Forest Entomology in the North Central Region	2:00 PM - 4:00 PM	Scandinavian Ballroom 1-2
The Rise of the Midges: Managing Menacing Pests	2:00 PM - 4:00 PM	Norway Room
Pick Up Some Professional Skills the Fast Way: Speed-Learning Tables	4:30 PM - 5:30 PM	Scandinavian Ballroom 3
Regular Poster Removal	5:00 PM - 7:00 PM	Denmark Commons
ESA Town Hall	5:30 PM - 6:30 PM	Norway Room

WEDNESDAY, MARCH 23, 2022

Program	Time	Location
Final Business Meeting	7:30 AM - 8:30 AM	Scandinavian Ballroom 1-2
Registration	7:30 AM - 9:00 AM	Denmark Commons
Presentation Preview and Upload Room	7:30 AM - 12:00 PM	Odense Room
Community Science Projects for Understanding Insect Response to Global Change	9:00 AM - 11:00 AM	Scandinavian Ballroom 1-2
Pesticide Exposures to Non-Target Insects: Molecular to Population-Level Responses	9:00 AM - 12:00 PM	Scandinavian Ballroom 3
Final Executive Committee Meeting	12:00 PM - 2:00 PM	Oslo Boardroom
Rusty Patched Bumble Bee Research Coordination Workshop	1:00 PM - 4:00 PM	Norway Room

Royal Sonesta Floor Plans

Third Floor (Main floor of the conference)



2023 Joint NCB/SWB Annual meeting

It's been a long journey, but we are going to try again for a joint meeting with the Southwestern Branch in Oklahoma City, Oklahoma in 2023! So, mark your calendars for **April 16-19, 2023** for next year's Annual Meeting that will be held jointly with the Southwestern Branch. More scientific event information will be forthcoming! In the meantime, consider planning some extra-curricular activities while in OKC (<https://www.visitokc.com/things-to-do/must-do-in-okc/>)!

2023 Joint NCB/SWB Annual Meeting

Oklahoma City, Oklahoma

April 16-19, 2023

TELL A FRIEND! SEE YOU THERE!!!