

BeeCon 2023 Program

Hosted by:
Centre for
Bee Ecology,
Evolution &
Conservation



BeeCon

A Hybrid Event for 2023!

Virtual via Zoom Webinar: Thurs, Oct 12, 2023

In-person at York University or Virtual: Fri, Oct 13, 2023

www.yorku.ca/bees/beecon-2023

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The Vice President of Research and Innovation, York University

BeeCon 2023 Program: Location, Schedule, Abstracts, and More

Welcome!

Welcome to #BeeCon 2023! BeeCon was originally the Southern Ontario Bee Researchers' Symposium, an event organized and hosted by York University researchers usually annually since 2011. The Centre for Bee Ecology, Evolution and Conservation at York University (BEEc) is now the host, and has helped grow BeeCon from a small, local symposium, aimed at sharing the recent findings of southern Ontario bee researchers, to an international one, connecting melittologists (bee biologists), industry professionals, and other researchers on a global scale!

In 2023, BeeCon returns to York University's campus as part of a two-day hybrid event. Thursday, October 12, 2023 will be a virtual-only event hosted on Zoom, while Friday, October 13, 2023 will be both virtual and in-person. We have over 30 presenters from 8 countries scheduled to participate, and we look forward to being able to network in-person over the breaks and the post-conference social!

We would like to give a big thank-you to our funders, the Faculties of Science and Environmental and Urban Change and the Office of the VPRI, at York University. We would also like to thank the many volunteers who will help make the event run smoothly, from moderating sessions both virtually and in-person to handling the registration table and food for the in-person aspect of the event.

Are you on social media? We encourage you to share notable quotes, interesting findings, or general comments about the event with your followers, to help us achieve an even greater impact. Follow and tag us on Twitter @BeesYork or on Instagram @BeesAtYork. Use #BeeCon.

About BEEc

BEEc (pronounced bee-see) is an initiative that strives to advance research in the fields of bee ecology, evolution and conservation. The mission of BEEc is to foster interdisciplinary, innovative, collaborative, and cutting-edge research. This research is used for the advancement of knowledge and implementation of policy changes to help sustain pollinators globally. Ultimately, our goal is to apply our collaborative efforts to the development of policies and environmental management for the long-term sustainability of bees and the vital ecosystem services they provide.

Interested in joining us? There are numerous ways in which researchers, students and community members can be part of the work that we do. Visit <https://www.yorku.ca/bees/about-us/membership/> for more information or to apply to become an Associate.

If you are not currently working or collaborating with someone in BEEc at York University, but want to stay informed on BEEc's research activities and events, you can also join our Global listserv. Send an email to LISTSERV@YORKU.CA with the following command in the body of the email: SUBSCRIBE BEES YourFirstName YourLastName. Note you do not need a subject line and please do not include any other text in your message (e.g. signature line).

Check out our website at <https://www.yorku.ca/bees/> for more information and resources, such as upcoming events, publications, and projects. Don't forget to follow our YouTube Channel at <https://www.youtube.com/c/BeeEcologyEvolutionandConservation/>, and engage with us on Twitter (aka X) @BeesYork or on Instagram @BeesAtYork.

Day 1 - #6: 10:00 AM. Break.

We will take a short break and return at 10:45am.

Day 1 - #7: 10:45 AM. Two different pollinator species *Apis mellifera* and *Bombus terrestris* as indicators of heavy metal pollution near the mining complex in Bor, Serbia

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Co-Authors: Aleksandra Patenković, Katarina Erić, Pavle Erić, Marija Tanasković

Abstract: Honey bees (*Apis mellifera*) and bumblebees (*Bombus terrestris*) are pollinators that cover large areas during their foraging activities. As a result, they encounter various environments and pollutants, making them an ideal choice as bioindicators for environmental pollution. The town of Bor in eastern Serbia houses the largest mine for copper, gold, and silver extraction, and is crucial to regularly monitor the environmental impact of mining activities. The presence and concentration of heavy metals (Fe, Cu, Zn, Cd, Li, Pb, Au, Ni) were measured using the ICP OES method for samples of both species at six locations in the basin of the Bor mining facility and one in the remote region. Results indicate that both species accumulate heavy metals in their bodies during foraging activities in similar manner. Elevated concentrations of Fe, Zn, Cd and Pb were detected in both species in the same localities while Cu, Li and Ni were variable depending on the locality. Interestingly the Cu concentration in *A. mellifera* was less variable than in *B. terrestris* indicating different accumulation pattern, possibly species specific. Both pollinator species serve as potential bioindicators for environmental pollution in the area, reflecting ecosystem health and heavy metal infiltration in the food chain.

Day 1 - #8: 11:00 AM. Alternative forage for shea (*Vitellaria paradoxa*) flower visitors in northern Ghana

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Abstract: Shea is a high insect pollinator-dependent plant endemic to Sub-Saharan Africa. It blooms for a short period (3-4 months) but literature has focused extensively on the pollination ecology of shea without identifying the alternative forage resources for pollinators in shea growing areas. The present study examined the floral calendar of plants foraged by shea pollinators through monthly surveys of flowering plants and insect visitors from January to December 2021. A total of 32 plant species belonging to 13 plant families were visited by florivorous insects. The month of May had the highest number of plants in flower. Over two-thirds of flowering plants in the shea parkland were visited by the primary pollinators (bees) of shea. Considering the high diversity of melliferous plants, bee flora should be incorporated into shea parkland restoration programmes for holistic pollinator conservation.

Day 1 - #9: 11:15 PM. Lunch

We'll take a break for lunch and return at 1pm.