

PROGRAM BOOK



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Welcome

Dear Colleagues,

It is my great pleasure to welcome you to the **20th International Congress of the IUSSI**, a congress that represents another milestone in the history of our Society. Not only are we celebrating our 20th global scientific meeting, but this congress also takes place during what we think is the **75th anniversary of our Society**.

Scientific excellence has always been at the heart of our Society. At the same time, we believe that the way we organize our meetings should reflect the values of our scientific community. Sustainability has therefore been a guiding principle throughout the planning of this conference. We have made every effort to **reduce the environmental footprint** of the meeting, promote responsible use of resources (e.g. only re-usable crockery and cutlery, vegan or vegetarian food, no plastic name badges), and implement measures that contribute to a more sustainable conference experience (e.g. free public transport).

Another hallmark of this conference is its remarkable international diversity. We are delighted to welcome participants from **43 countries**, representing an exceptionally broad range of scientific backgrounds, perspectives, and experiences. We are particularly glad that we have **80 representatives of 17 countries from the Global South** among our participants, reflecting our Society's commitment to fostering an inclusive and truly global scientific community. We firmly believe that scientific progress is strengthened by diversity, international collaboration, and the exchange of ideas across geographical, cultural, and disciplinary boundaries.

This meeting would not have been possible without the dedication of many individuals whose commitment and hard work have contributed to every aspect of the conference. To all organizers, committee members, volunteers, speakers, sponsors, and participants, I extend my sincere gratitude. My special thanks go to the Freiburg Team, without whom this congress would have been impossible. Thank you!

I wish us all an inspiring and enjoyable conference filled with stimulating discussions, exciting new ideas, and memorable experiences. May this meeting provide many opportunities to establish new collaborations and strengthen existing ones, enabling our Society to continue serving as a driving force for scientific discovery and innovation while ensuring its continued growth and prosperity for many years to come.

Welcome, and enjoy the conference!



Judith Korb

President of the IUSSI

General Information



International Secretary of IUSSI

President: Judith Korb, University of Freiburg, Germany

Secretary General: Mark Brown, Cambridge University, UK

Editor of Insectes Sociaux: Madeleine Beekman, University of Sydney, Australia

Congress Organizers

Freiburg Team

Judith Korb, Volker Nehring, Bitao Qiu, Athena Syarifa and the Freiburg Team

Organizing Committee

Barbara Feldmeyer, Susanne Foitzik, Sylvia Cremer, Lukas Lindorfer, Tom Sistermans, Tomer Czaczkes, Robert Paxton, Silvio Erler, Heike Feldhaar, Jürgen Gadau, Peter Biedermann

Scientific Committee

Madeleine Beekman, Abel Bernadou, Cleo Bertelsmeier, Guy Bloch, Franck Dedeine, Ofer Feinerman, Ros Gloag, Robert Hanus, Wanja Kinuthia, N'golo Kone, Hongmei Li-Byarlay, Kiyoto Maekawa, Fiona Mumoki, Fabio Nascimento, Sandra Rehan, Mazi Sanda, Jean-Christophe Sandoz, Eva Schultner, Amy Toth

Lunches and Coffee

Coffee, Tea and Water will be available all day. A cooked lunch bowl on each day is included as a part of the congress registration fee (menu). To reduce the environmental impact of the meals, we will serve vegan bowls (gluten- and lactose-free). All meals and drinks will be served with reusable crockery and cutlery. The next restaurants are PURiNO (10 min walk), Mr Döner Güterbahnhof (15 min walk), La Pizzeria (18 min walk), Taumi - Asia Fusion (20 min walk).

During the poster session on Monday and Wednesday evening, food stalls will serve food and drinks, for purchase. Tap water is of very high quality in Germany and always potable.

Congress Staff

Besides registration and info desk staff, there are congress helpers who can be identified by their cream-coloured congress T-shirts at the congress venues. Feel free to ask them for any assistance you may need.

Childcare & Nursing Room (Reservation required)

Childcare is organized in Room K5. Opening hours: Mo 08:30-18:00, Tue 08:30-18:30, Wed 08:30-18:00, Thu 08:30-18:00. You have to pre-register and fill out a corresponding form. In K5 there will also be space for nursing or bottle-feeding your child. A microwave will be available.

Presentations

Abstract review was done blind with respect to the authors names and affiliations. Regular oral presentations will be 15 minutes (12 minutes talk, 2 minutes discussion, 1 minute room change). Presenters must follow the assigned times to ensure the six concurrent sessions are synchronised. Loud music will play during the transition period to ensure speakers cannot speak overtime. The next speaker's timeslot starts as soon as the music stops.

To enable the staff to handle the technical aspects in an efficient way, all presentations must be prepared according to the following guideline:

Talks will run in Microsoft Power Point on a windows computer (16:9 widescreen format) (no apple system available; own computers cannot be used). If you are using another system/program, please, test your presentation beforehand in power point on a windows computer. There will also be some preview computers available at the congress. There will be no direct internet access during the talk, so videos and movies must be embedded within your presentation. The presentations must be named as follows: session number, day, time, last name of presenter (e.g. S5_Thursday_10.15_Mueller).

Talks must be uploaded locally in the room of your symposium, latest the day before your presentation. There will be staff around that can help you with upload. If you are eligible for the student award, you have to indicate this on the title page of your presentation with the QR code below.

In the program schedule, student talks eligible for student awards are indicated by a ★



Poster Sessions

There will be two poster sessions after the parallel symposia in the lobby of the venue:

Session A: Mo 16:45-18:45

Session B: Wed 17:45-19:45

Presenters can check their poster session in this [section](#). Posters sessions will be organized by symposia along. Poster board size: 100 x 140 cm, portrait format. Poster should be put-up latest by lunchtime on the presentation day and must be removed latest by lunchtime the next day. Poster pins will be available. When you are eligible for the student award, put the ★ sticker on your poster, which will be provided by the organizers.

Note, there is no option to print posters at the venue. Poster presenters are required to be at their poster for at least one hour during their poster session. Food and drinks will be available for purchase at food stalls during the poster session.

Awards

There will be prizes awarded for the best three student talks and student posters. For student talks, there will be a public vote for the best three talks via the provided QR code ([See Presentations](#)). For student posters, the scientific committee of the IUSSI meeting will select the best three presentations. The winners will be announced at the Closing Ceremony.

Internet connection

There will be complimentary WIFI on the venue. To access it, connect to "Messe Freiburg - Besucher", no password is needed.

Notice Board

Next to the registration desk, there will be a notice board, where you can leave messages.

Public transport

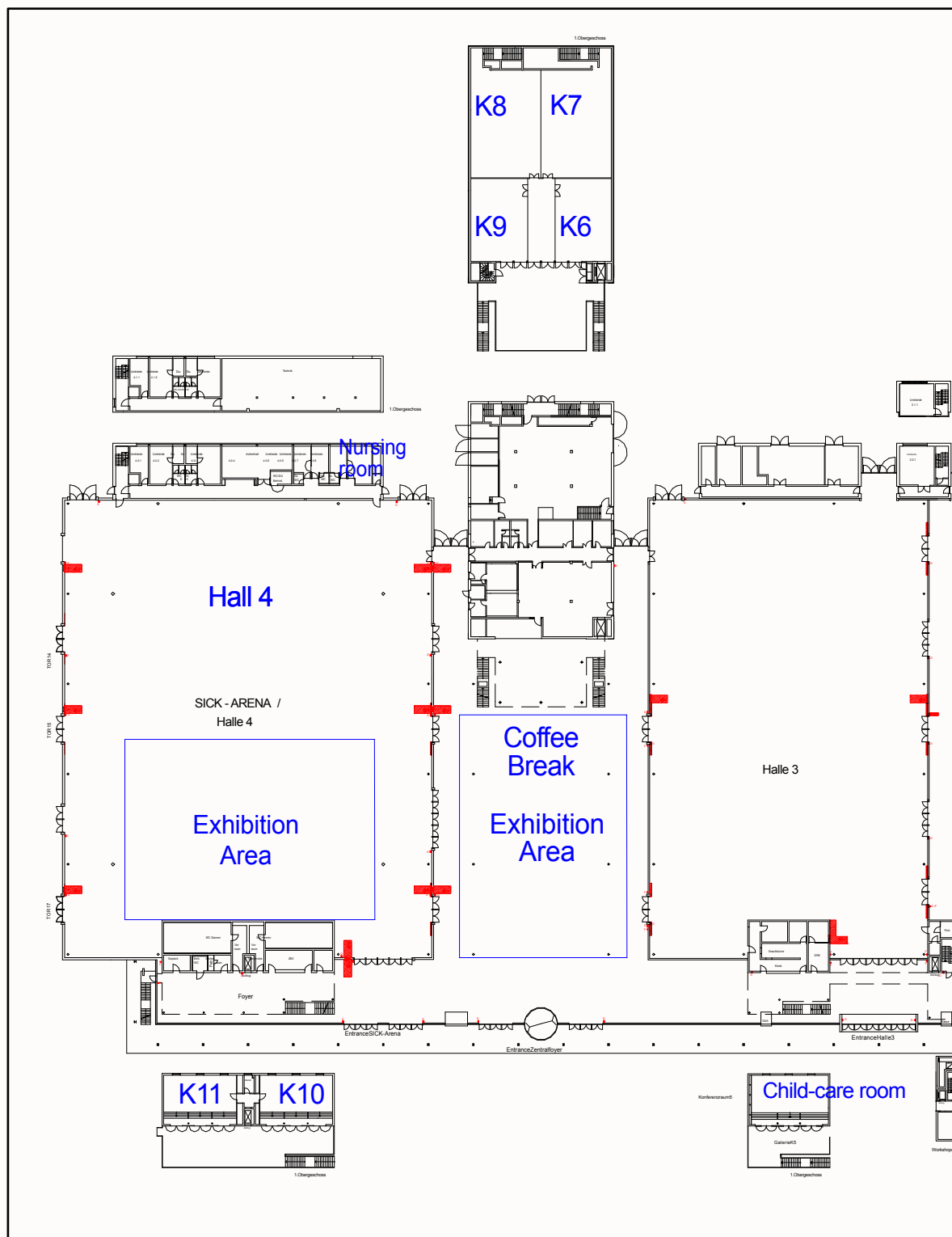
Delegates receive a complementary bus & tram pass ('RVF Kombi-Ticket' which is part of your name badge) with RVF (Regio-Verkehrsverbund Freiburg) public transportation, which is valid from Sunday 16th until Thursday 20th 2026. Note it is not valid for the post-congress activities on Friday. It covers all tram, bus and [local train services](#) in the [Freiburg region](#). When asked, show your name badge together with a valid photo ID to the inspector. Additionally, you can also rent a bike with frelo for [local use](#).

For an overview public transport map; all 'Tarifzonen A,B,C are covered by your pass):



Venue Map

Below you can find the map of Messe Freiburg. The conference takes place mostly in the northern part of the venue.



Name Badge

Entrance to the congress venue requires wearing your name badge. The public transport pass ('RVF-Kombi-Ticket') is also on your name badge.

First Aid

If you need first aid, please contact any organizer. There will be professionals around who will help.

Exhibition

Tuesday, August 18th: [Carl Roth GmbH + Co. KG, Germany](#); [Promega](#)

Wednesday, August 19th: [Biozym Scientific GmbH, Germany](#)

City of Freiburg

Freiburg is a city in the south west of Germany, between the black forest and the river Rhine. It is a University City (ca. 230000 inhabitants) with a beautiful old city centre and many bars, pubs and restaurants. Freiburg is one of the warmest regions of Germany (with almost an Italian flair). We expect to have warm summer with temperatures 20-30°C during the meeting. Freiburg is renowned as a "green" city. You can find more information about Freiburg and what you can do [here](#).

Environmental Impact

We have placed emphasis on ensuring the environmental impact of the congress is as low as possible (e.g. free public transport). We have minimized the use of plastic throughout the congress (e.g. lunch and coffee are served with reusable crockery and cutlery, paper name badges without plastic) and have focused on sourcing food with a low carbon footprint. All lunches are vegan bowls (gluten- and lactose-free). We minimized to buy gadgets. Hence, we do not have congress bags; in case you need a bag, you can get a sponsored bag at the registration desk. As a small memory of the congress, we designed some stickers and pins as giveaways. In addition, we have pre-ordered T-shirt for sale that are made from fair, organic cotton, applying the strong zero waste and [sustainability standards](#).



Social Events

All included in registration fees, if not noted otherwise

Sunday, August 16th	
18:00 - 20:00	Welcome Reception
19:00 - 20:00	Quiz (Room K7) by Lukas Lindorfer (recommended for newcomers to the IUSSI)
Monday, August 17th	
16:45 - 18:45	Poster Session A (with food and drinks for purchase)
17:00 - 18:00	'Problematic Language' Talk by Joan Herbers (Room K7)
18:45 - 20:00	IUSSI Section Assemblies: North America (Hall 4) Africa (Room K5) Japanese (Room K6) Central Europe (Room K7) Brazil (Room K8) Northwest Europe (Room K9) France (Room K10) Australasia (Room K11) Italy (Lobby)
18:45 - 20:00	Freiburg Bingo (@Lobby, ends in Old Synagogue) by Athena Syarifa & Yannick Frings (recommended for newcomers to the IUSSI).
Tuesday, August 18th	
12:15 - 13:15	Lunch-Mixer
18:45 - 20:15	International IUSSI assembly of board and section delegates (Room K7)
Pubs & Restaurants in the City	
Wednesday, August 19th	
12:15 - 13:15	Lunch-Mixer
17:45 - 19:45	Poster Session B (with food and drinks for purchase)
Pubs & Restaurants in the City	
Thursday, August 20th	
16:45 - 18:00	General IUSSI Assembly & Closing Ceremony with announcement of Student talk and poster winners
19:30 - 23:00	Farewell Dinner at Ganter Beergarden (Leo-Wohleb-Straße 4, Freiburg) (pre-booking required) Social Insect Song Quiz by Tom Sistermans Music and Dancing (with DJ)

Recommended Restaurants in Freiburg

Biergarten:

[Feierling Biergarten](#)

[Kastaniengarten](#)

Pubs:

[O'Kellys Irish Pub](#) (vegan option available)

[Oscar Wilde's Irish Pub](#)

[Cafe Atlantik](#)

Restaurants:

[Schwarzer Kater](#)

[Umami Ramen Freiburg](#)

[Hans im Glück](#)

[YepaYepa](#)

[Banôl Streetfood](#)

[Markthalle foodcourt](#)

[Casa Española](#) (reservations needed)

[mamahé](#) (vegan)

Café:

[Günter Coffee](#)

[La Casa Latina](#)

[Eiscafe Portofino](#)

[Gmeiner](#)

[Café Hinterzimmer](#)

[Origin Coffee](#)

Post Congress Activities

Canoeing on the Rhine River (from Bad Bellingen to Grissheim), duration: half-day (with train ride), cost: 70€ (incl. train ticket).

Meet at Freiburg Main Train Station, Entrance Hall at 09:30 to take the train together to Bad Bellingen (Guide: Elena Bauer)

Guided historic city tour (Freiburg City Center), duration: approx. 2 hours, cost: 15€.

Meet at Rathausplatz 2-4 (in front of the Tourist Information) at 10:15 (Guide: Fiona Jacoby)

Wine tasting (Freiburg), duration: approx. 2 hours (afternoon), cost: 40€.

Meet at Peter-Thumb-Straße tram station (Tram Line 4, Direction Vauban) at 13:50 (Guide: Wei Zhou).

Schauinsland Excursion (Freiburg), duration: half-day, cost: 20€.

Meet at the University Library, Platz der Universität (Tram station Stadttheater) at 10:00 (Guide: Julius Rombach).

Mountain hiking (Freiburg), duration: 2 hours or 4 hours, cost: free.

For details, see Postings on Notice Board in Lobby next to registration desk.

IUSSI 2026 Awards



Hamilton Award: Tuesday, August 18th, 08:45 - 10:00, Hall 4

Prof. Joan Strassmann, Washington University, US

The long reach of social insect research

Research on social insects has defined our understanding of how relatives interact when their often cooperative interests nevertheless have areas of conflict. Decades of work in areas like sex allocation, worker policing, kin discrimination, parent-offspring and sibling conflict, cannibalism, and eusociality have become clear largely from careful studies with social insects. Social insects are visible, easily marked and followed, and have clear behavioral interactions. Theory first elucidated in social insects has had a great impact in other areas from genomic imprinting to selfish genetic interests to microbial interactions. My own research began with following behavioral interactions among *Polistes* wasps. Much later, in collaboration with David Queller, I explored the conundrum of relatedness in swarm-founding wasps with multiple queens in Venezuela, genetic relatedness among primitively eusocial wasps and queen-worker conflict in stingless bees. But it was clear that the ideas that came from the cradle of social insects had much more to tell us about the natural world. Conflicts arise within individuals and among microbes, places where they would have been hard to discover. My own research turned to a social amoeba, *Dictyostelium discoideum*. I have applied ideas that come from social insects to this microbial system, first looking at interactions among amoebas and then turning to their interactions with bacterial symbionts. Social insects have also motivated more conceptual explorations into topics like what it means to be an organism. Here I will explore the past and future of ideas generated from studies of social insects.



West-Eberhard Award: Wednesday, August 19th, 08:45 - 10:00, Hall 4

Dr. Luisa Jaimes Niño, Johannes Gutenberg-Universität Mainz, Germany

Non-senescing queens and the implications for the colony-level reproduction

Social insect queens break the rules in terms of energy budgeting combining long lifespans with high fertility. This can be resolved under colony-level evolution, with the optimization of the ageing and fertility of the germline over the soma. We showed that single-living queens of *Cardiocondyla obscurior* increase their investment into sexuals at the end of their life, and exhibit a below-average mortality until the peak of sexual production. Such delay in actuarial senescence, also found in seed-harvester ants and a termite, suggests that postponed ageing may be widespread among social insect reproductives. Supporting the delay of senescence, we find a contrasting pattern to any reported taxa: genes with middle-aged-biased expression exhibit a stronger purifying selection compared to younger-biased genes. Furthermore, we find no negative fitness effects in offspring fitness with increasing maternal age. These findings indicate that queens reproduce repeatedly while maintaining selection against senescence after sexual maturation due to late-life fitness gains. Although it remains unclear whether this mechanism is unique to superorganisms, it has broad implications for understanding healthspan, and the evolution of reproductive death. Colony-level selection also shapes the dynamics of growth, reproduction and dispersal. In polygynous species with mixed-aged queens, new colonies are founded by budding and are predominantly established by younger queens. This resembles asymmetric budding in yeast, where new cells separate with the rejuvenated genetic material, while older cells keep the accumulated DNA damage. We explore how staying or leaving a budding cohort influences colony growth and the distribution of reproductive potential within colonies.

Plenary Speakers



Plenary 1: Monday, August 17th, 09:00 - 10:00, Hall 4

Jeremy Field, University of Exeter, UK

Investigating the origin of eusociality in Hymenoptera

The evolution of eusociality from non-social ancestors in organisms such as bees and wasps is often thought of as one of the major evolutionary transitions. A division of labour, between reproductives (queens) that specialize on egg production and helpers (workers) that specialize on tasks such as foraging, is the key feature defining most forms of eusociality and is also thought to be the main reason why social insects are so successful ecologically. Research over recent decades has identified several genetic and ecological advantages of social nesting that should automatically favour helping when it first arises. Yet the reality is that only a small proportion of nest-building wasp and bee species are eusocial. The empirical study of how social behaviour evolves has naturally focussed on social taxa. However, this may not be appropriate for understanding the initial origin of sociality when, for example, morphological caste specialization will have been absent. Even in social taxa where females can still nest independently, helping probably originated >20 Myr ago, and such taxa indeed exhibit numerous derived features such as sophisticated dominance hierarchies and often linear correlations between group size and queen egg-laying rates. I will discuss experiments, observations and ideas about how non-eusocial taxa can help us understand what promotes and constrains the origin of eusociality, and likely scenarios for its evolution. At the same time, I emphasize the importance of continuing to investigate hitherto little-studied lineages rather than restricting the focus to a few 'model' taxa.

Plenary 2: Monday, August 17th, 13:15 - 14:15, Hall 4

Jonna Kulmuni, University of Amsterdam, The Netherlands

How can ants help to address open questions in speciation and hybridization?



To protect biodiversity, we need to understand how it arises. The evolution of new species depends on the evolution of reproductive isolating barriers. However, the genomic basis of species barriers is unknown in most taxa. On-going global change is predicted to erode species barriers: changing environment leads to movement of species bringing previously isolated lineages into secondary contact promoting hybridization. How do increased rates of hybridization impact biodiversity? Ants and other haplodiploids offer unique opportunities to understand the genomic basis of reproductive isolation and outcomes of hybridization. Haploid males reveal selection acting on recessive alleles and sequencing males provides entire haplotypes without the need for phasing. Long-lived queens and colonies allow studying selective pressures acting on species and hybrids over multiple years and seasons. Using mound-building wood ants we have shown that the species barrier is semipermeable, leading to gene flow between species, yet keeping species distinct even under high rates of hybridization. Hybridization does not erode the species barrier likely due to complex interactions among genomic regions underlying the barrier. Hybridization leads to both fitness costs and benefits, where hybrid wood ants suffer from intrinsic incompatibilities but benefit from warming climate and are rapidly extending their range northwards. Replicate hybrid populations reveal surprising repeatability, suggesting evolution of hybrids is to some extent predictable.



Plenary 3: Tuesday, August 18th, 13:15 - 14:15, Hall 4

Yuko Ulrich, Max Planck Institute for Chemical Ecology, Germany

Chemical causes and disease consequences of social behaviour in a clonal unit

Sociality confers both benefits and costs: cooperation can enhance group performance, but close social interactions also promote disease spread. In this talk, I will present recent and ongoing work on the chemical bases and epidemiological consequences of social behaviour in the clonal raider

ant *Ooceraea biroi*, a queenless, asexual species that provides unusual experimental control and an expanding toolkit for causal tests. We ask how social interactions influence both disease transmission and protection, using experimental infections with a range of pathogens and parasites, including fungi, bacteria, and nematodes. Our work shows that individual behavioural roles predict infection risk, and that infection can in turn shape host behaviour in ways that feed back on disease dynamics. Social organisation, in turn, emerges from local interactions between individuals mediated largely by chemical cues. I will highlight recent progress toward uncovering the chemical basis of social behaviour in *O. biroi* by identifying pheromones, characterising their behavioural effects, and tracing their biosynthetic pathways. This includes a volatile larval pheromone that suppresses worker egg-laying and regulates colony reproductive cycles. Together, this work illustrates how *O. biroi* lets us begin to dissect the mechanistic bases of social behaviour, complementing the strengths of other social-insect systems.

Plenary 4: Wednesday, August 19th, 13:15 - 14:15, Hall 4

Yahya Al Naggar, Tanta University, Egypt

Engineering a Queen: How Honey Bees Shape Development Through Architecture, Materials, and Collective Behaviour



The remarkable ability of honey bee colonies to produce either workers or queens from genetically similar larvae has fascinated scientists for more than a century. While nutrition has long been considered the primary factor determining queen development, the potential role of the queen cell itself has received far less attention. In this lecture, I will present findings from our recent study published in *Nature*, which reveals an unexpected connection between queen cell architecture and honey bee queen development. Through a combination of behavioral observations, material analyses, and experimental manipulations, we investigated how worker bees construct queen cells and how the physical properties of these structures differ from those of regular worker comb cells. Our results demonstrate that queen cells are not simply enlarged versions of worker cells. Instead, they possess distinct structural and mechanical characteristics that influence the developmental environment of the queen larva. We further show that worker bees actively modify beeswax through specialized processing mechanisms, enabling the construction of these unique royal chambers. These findings challenge traditional views of caste development in honey bees and highlight the importance of nest architecture as an active component of developmental regulation. Beyond advancing our understanding of honey bee biology, this work provides new insights into how social insects shape developmental outcomes through the construction of specialized environments.


Plenary 5: Thursday, August 20th, 09:00 - 10:00, Hall 4

Sarah D. Kocher, Princeton University, USA

Shared ecological pressures and convergent co-option of ancient hormonal pathways underlie independent origins of eusociality

Social insects exhibit an extraordinary diversity of social forms, both within and among species. This behavioral variation is the product of both the underlying genes and the broader ecological factors that influence the costs and benefits of social living. Understanding social evolution requires a clear understanding of both mechanisms. Sweat bees have repeatedly gained and lost eusociality, providing replicated natural experiments to ask how social behavior arises and is modified. Our ecological and theoretical studies have revealed that season length and development time together shape social strategies: long seasons promote social nesting, short seasons favor solitary nesting, and intermediate seasons can support both. These model predictions match observed distributions across natural populations, revealing how ecological conditions can shape social variation in these bees. At the molecular level, we have identified convergent and complementary signatures of selection on a small number of sweat bee genes, including two primary proteins that bind and transport juvenile hormone (JH), an ancient regulator of insect development. We have shown that JH crosses the blood-brain barrier in both bees and ants, and that experimentally increasing brain JH influences caste-related foraging behaviors in ants. Ongoing single-nucleus transcriptomic analyses indicate that, across independent origins of eusociality, queens and workers exhibit shared, brain-wide differences in hormonal states as well as cell-type specific expression profiles. This suggests that hormonal access to the brain is a recurring substrate for social evolution across multiple insect lineages, and that ancient hormonal pathways can reshape social brains through differential action on conserved cellular targets. Taken together, our findings reveal how both ecological context and molecular mechanisms influence the evolution of eusociality.

Plenary 6: Thursday, August 20th, 13:15 - 14:15, Hall 4

David Baracchi, University of Florence, Italy

Multidimensional assessment of emotional states in social insects



For a long time, social insects were considered simple reflexive automata, but they are now recognised as cognitively sophisticated organisms. Although cognitive sophistication does not automatically imply emotional experience, the recognition of social insect intelligence and behavioural flexibility raises a compelling question: might insects also experience basic emotions? Studying emotions in non-human animals is challenging because subjective experiences are not directly accessible. Therefore, adopting a functional, multicomponent framework, where emotional states are inferred from coordinated changes in behaviour, cognition, and physiology, is essential to advance the field without relying on subjective reports. This perspective supports the idea that insects may possess internal states functionally analogous to emotions, yet their systematic characterisation remains in its infancy. I will present our recent work applying this approach to honeybees and bumblebees, integrating behavioural, cognitive, physiological, and neurochemical evidence to characterise these states. Inspired by mammalian paradigms, such as fear conditioning and cognitive bias tests, we investigated whether insects exhibit fear-like responses to immediate or anticipated aversive stimuli, and how negative events influence attention and decision-making. While no single measure can distinguish between reflexive and genuine emotional responses, the convergence of behavioural, physiological, neurochemical, and cognitive evidence suggests that bees possess sustained, internally coordinated emotional states. Our findings further indicate that they share with vertebrates the core “building blocks” of affective states, namely valence, persistence, scalability, and global coordination, features widely regarded as hallmarks of emotions. These results have significant implications for our understanding of the evolution of emotions, invertebrate cognition, and welfare considerations.

IUSSI Code of Conduct

IUSSI believes the best science and innovation is done in a supportive, collaborative, and creative environment. In order to ensure a good working environment for all participants, IUSSI has developed this code of conduct to share our community expectations for all attendees, including, but not limited to, members, meeting participants (volunteers, exhibitors and service providers) and IUSSI organisers at international IUSSI meetings. We rely on all IUSSI community members to engage in creating an empowering, inclusive, and safe environment for all.

1. Code of conduct for conference participants

All attendees are expected to abide by this IUSSI Meetings Code of Conduct. This Code of Conduct applies to all International IUSSI meeting-related events, including those sponsored by organisations other than IUSSI but held in conjunction with IUSSI events, in public or private facilities. Individual sections may adopt their own code of conduct for regional meetings.

1.1 Expected Behaviour

1. All attendees are to be treated with respect and consideration.
2. Public critique should be of ideas rather than individuals.
3. Avoid personal attacks directed toward other attendees, participants, IUSSI organizers, and suppliers/vendors.
4. Be mindful of your surroundings and of your fellow participants. Alert IUSSI organizers if you notice a dangerous situation or someone in distress.
5. Respect the rules and policies of the meeting venue, hotels, IUSSI contracted facility, or any other venue.
6. Only use images in talks or presentations with permission of the copyright holder.
7. Acknowledge those who collected data presented.

1.2 Unacceptable Behaviour

1. Harassment, intimidation, or discrimination in any form.
2. Physical or verbal abuse of any participant.
3. Disruption of talks at oral or poster sessions, in the exhibit hall, or at other events organized by IUSSI at the meeting venue, hotels, or other IUSSI-contracted facilities.

Examples of unacceptable behaviour include, but are not limited to, verbal comments related to gender identity, sexual orientation, disability, physical appearance, body size, race, religion, national origin; inappropriate use of nudity and/or sexual images in public spaces or in presentations; exclusion of transgender or intersex individuals; and threatening or stalking any attendee, speaker, volunteer, exhibitor, IUSSI organizers member, service provider, or other meeting guest.

1.3 Reporting Unacceptable Behaviour

1. If you are the subject of unacceptable behaviour or have witnessed any such behaviour, please immediately notify one of our harassment designees (see below).
2. Anyone experiencing or witnessing behaviour that constitutes an immediate or serious threat to public safety is advised to contact the police and local security

1.4 Consequences

1. Each situation will be dealt with on an individual basis based on the specific situation.
2. Anyone requested to stop unacceptable behaviour is expected to comply immediately.
3. IUSSE organisers or security may take any action deemed necessary and appropriate, including immediate removal from the meeting without warning or refund.
4. IUSSE reserves the right to prohibit attendance at any future meeting.
5. Behaviour that constitutes a criminal offence will be reported to the police.

2. IUSSE Allies

IUSSE Allies are volunteers who care deeply about preventing any sort of harassments taking place in IUSSE events. In any case of unpleasant events, IUSSE Allies will provide a confidential place to talk, accompany you to make a police report if needed, and provide personal protection services for those concerned about safety. More information about IUSSE Allies, statistics about harassment, and what you can do to help [here](#). They are recognizable by a sticker on their name badge.

The IUSSE Allies are:

Noam Brown, Jan Buellesbach, Anja Buttstedt, Alexandre Cassadei-Ferreira, Silvio Erler, Uli Ernst, Camille Faber, Ofer Feinerman, Heike Feldhaar, Erik Frank, Chris Jernigan, Karen Kapheim, Patrick Krapf, Carlos Munoz, Volker Nehring, Eva Schultner, Sirjan Seal, Piuli Shit, Natalia Terpan-Arenas, Simon Tierney, Jane Waters, Shivali Shivali

Social Media Policy

IUSSE adheres to an opt out policy for photography and recording. Anyone participating in IUSSE events may be recorded, and these recordings may be shared on social media. This is an important part of sharing our science with people outside the event who are interested but unable to attend. If you do not wish to have recordings (photographic, video, or audio) taken during your talk, please announce this verbally or by making a slide to emphasize to your audience or hang a prominent notice by your poster.



List of Symposia and Poster Session

No.	Symposia title	Poster Session
S00	Open	A
S01	Adult phenotypic plasticity and the regulation of division of labor in social insects	B
S02	New frontiers in the study of division of labour in social insects	B
S03	Stingless bees – emerging models for understanding life history diversity in highly eusocial bees	B
S04	The evolution and regulation of reproductive division of labor across social insects	A
S05	Life-history evolution in social insects – fertility and ageing	B
S06	From founding to function: early-stage dynamics in the life cycle of social insects	B
S07	Nutrition and insect health, from single individuals to colonies	B
S08	The role of brood in social insect colonies	B
S09	The role of maternal care on the evolutionary trajectory of sociality	B
S10	Mechanisms facilitating the evolution of social behavior in insects	B
S11	The organismal social insect colonies	A
S12	From simple rules to collective resilience in a changing world	B
S13	Comparing miniature cognitions	B
S14	Complex phenotypes in social insects: the interplay of genes and environment	A
S15	Navigating the superorganism: molecular, behavioral, and computational perspectives on decision-making in social insects	B
S16	The role of innate and experience-driven chemical communication in regulating insect social behavior	B
S17	Chemical communication in social insects – mechanisms, evolution, and applications	A
S18	Vibroacoustic signalling in (eu)social insects	B
S19	Mechanisms and evolution of insect sensory systems: implications in the Anthropocene	B
S20	Integrative evolutionary and ecological morphology	A
S21	Transgenic approaches for studying the biology of social insects	B
S22	Beyond-omics: new perspectives on social insect big datasets	B
S23	Social insects' responses and challenges in a changing world	A
S24	Social insect conservation	B
S25	Social insect invaders around the globe	A
S26	The role of citizen science in social insect research	B
S27	Host-microbe interactions in social insects	A
S28	Arthropod inquilines of social insects' colonies	A
S29	Tiny but mighty: viruses in social insects	B

Symposia Information

S00	Open Symposium
S01	Adult phenotypic plasticity and the regulation of division of labor in social insects Romain Libbrecht, Abel Bernadou This symposium will explore the factors and mechanisms that regulate division of labor in insect societies, with a particular focus on phenotypic plasticity that is not determined during development. As such, it will not cover processes of caste differentiation and intrinsic variation that is fixed at the adult stage. Contributions will span multiple levels of biological organization – from molecular to individual to superorganismal – and will integrate diverse methodological approaches to address both proximate and ultimate causes of the effects of age, individual experience, social environment or other environmental changes on the behavior, reproduction or physiology of colony members in any species of social insects. By bringing together researchers investigating similar questions but using very different tools, this symposium aims to generate new insights into a fundamental yet understudied aspect of the regulation of division of labor in social insect colonies.
S02	New frontiers in the study of division of labour in social insects Ebi Antony George, Zimai Li Division of labour, both reproductive and non-reproductive, lies at the heart of social insects' global success. While the reproductive aspects of division of labour have long attracted attention, advances in analytical, molecular and computational tools now allow us to gain a deeper understanding of the mechanistic underpinnings and consequences of non-reproductive aspects of this phenomenon. In particular, we can now track multiple individuals over extended periods of time and identify the genetic and molecular processes underlying task specialisation amongst workers. This symposium will bring together researchers working on non-reproductive division of labour across the theoretical and empirical domains to discuss the current state of the art in the field. We will focus on up-and-coming areas of research including how social interactions and hormonal regulation steer behavioural decisions, and how task specialisation among workers benefits group efficiency and energy expenditure. The symposium will culminate in a panel discussion bringing together all speakers to discuss challenges and identify key areas of focus for advancing our understanding of division of labour in social insect societies.
S03	Stingless bees – emerging models for understanding life history diversity in highly eusocial bees Klaus Hartfelder, Natália de Souza Araujo Their biological diversity makes the stingless bees (Meliponini) a group of interest for the understanding of life history variation in the context of advanced sociality. In this symposium we will provide a forum to discuss insights into their reproductive biology and division of labor in the context of recent advances in genomics insights. A keynote address will provide a general perspective on these bees, followed by a series of contributions that go back and forth between natural history observations and genomics and gene expression analyses related to division of labor and worker reproduction. While most of the presentations will focus on Neotropical stingless bees, with this symposium proposal we expect to also attract contributions on ongoing research on Australasian and African stingless bees, the latter of which are clearly understudied.

S04	The evolution and regulation of reproductive division of labor across social insects
	Tim Linksvayer & Arjuna Rajakumar Reproductive division of labor, the foundation of eusociality, varies markedly across social insects—from colonies with barely distinguishable reproductive castes to those with dramatic queen-worker dimorphism. How has this variation in reproductive division of labor evolved across social insect lineages, and what behavioral, molecular, and developmental mechanisms regulate these diverse systems? Recent research integrates comparative genomics, phylogenetic comparative methods, and a range of mechanistic studies to unravel the evolution and regulation of reproductive division of labor. Phylogenetic comparative analyses elucidate evolutionary trajectories and potential ecological drivers behind transitions in reproductive division of labor across lineages. Comparative genomic analyses identify genetic changes putatively associated with these trait changes. Further studies within single species or clades further identify and validate specific molecular and physiological pathways and social mechanisms regulating division of labor within insect societies. This symposium will survey and synthesize interdisciplinary perspectives to build an integrative understanding of the evolution and regulation of reproductive division of labor across social insects. By integrating ultimate and proximate approaches across the major social insect lineages, we aim to foster collaborative approaches to fundamental questions about the origin, elaboration, and regulation of one of evolution's most remarkable innovations.
S05	Life-history evolution in social insects – fertility and ageing
	Luisa María Jaimes Niño, Thomas Anthony Keaney Life-history evolution explains how diverse phenotypes arise and are shaped by selection to maximize reproductive success. In social insects, the constraints and selective pressures driving the evolution of life-history traits can only be fully understood within a social context. In non-social organisms, resource limitation often imposes trade-offs, for example when investment in maintenance and growth comes at the cost of fecundity. However, in social insects, colony-level selection can alter these trade-offs — early reproductive investment in colony growth often enhances later reproductive success through the production of new colonies. This symposium aims to bring together researchers employing behavioral, molecular and theoretical approaches to explore how sociality has shaped life-history evolution. We will discuss traits such as lifespan and ageing (including the onset of senescence), timing and size at maturity at both individual and colony levels, and alternative reproductive strategies. By integrating diverse perspectives, we seek to advance the discussion of how life-history evolution proceeds in the superorganism, with a particular focus on how phenotypes are inherently shaped by the social context.
S06	From founding to function: early-stage dynamics in the life cycle of social insects
	Hongmei Li-Byarlay & Nobuaki Mizumoto Social insects dominate many ecosystems due to their sheer biomass, ecological roles as pollinators, predators, and decomposers, and the complex organization of their colonies. Much attention has been directed at mature colonies, focusing on caste regulation, reproductive division of labor, and colony-level efficiency. However, this emphasis can obscure the crucial early stages of colony development, where a single or small group of reproductive individuals must successfully navigate mating, nest initiation, and early brood care to ensure colony establishment. These foundational phases—ranging from mate-finding and dispersal strategies to nest construction, initial resource acquisition, and incipient worker behavior—are pivotal yet underexplored aspects of social insect biology. This symposium aims to spotlight the behaviors, challenges, and evolutionary implications of early-stage colony life, emphasizing how these stages shape and constrain the later success of mature colonies. By inviting contributions across taxa with diverse research approaches, we seek to bridge gaps between behavioral ecology, evolutionary biology, and developmental studies. The topic holds wide relevance for the scientific community and promises to foster interdisciplinary discussion and collaboration. A deeper understanding of colony founding not only enriches our perspective on social evolution but also informs conservation and management strategies for ecologically significant social insects.

S07	Nutrition and insect health, from single individuals to colonies Silvio Erler, Enikő Csata, Sara D. Leonhardt Abiotic (e.g., climate, environmental toxins) and biotic (e.g., parasites, pathogens, invasive species, landscape composition, low food diversity) factors determine the development and reproductive success of solitary and social insect populations. These factors influence the animals' nutrition, i.e., quality and quantity of their diets. Food composition is also a major driver for the establishment of parasites, the functionality of the host's immune system and microbial communities of the digestive systems, and therefore fundamental in mediating health effects. To assess how insects respond to and cope with environmental change, it is essential to understand how they deal with nutritionally variable landscapes, e.g., how they sense and evaluate food sources and how this affects their feeding behavior. Once consumed, micro- and macronutrients have different functions in physiology, metabolism, and resilience against diseases and environmental stressors. This may result in different trade-offs influencing the insect's fitness. Here, we want to address and discuss state-of-the-art knowledge on mechanisms and routes of nutrition and health, from food perception and foraging decisions, via metabolic processing and interaction with stressors, to effects on survival and reproduction. We further want to elucidate how their functionality is affected by changes in the availability of diverse and good quality food sources.
S08	The role of brood in social insect colonies Eva Schultner & Philip Kohlmeier Brood – eggs, larvae and pupae – are an integral part of social insect colonies. Often numerically dominant, their needs strongly influence adult behavior and modulate colony-level traits such as brood care and nest construction. Brood can also contribute actively to colony functioning, for instance by aiding in food processing, or engage in selfish behaviour that may impose additional costs to the colony. Despite these effects and their across-taxa diversity in morphology, physiology and behavior, developing stages have typically been overlooked in studies of social insects. As the ecological and evolutionary significance of brood becomes increasingly evident, interest in the mechanisms and function of their social role is growing. This symposium is dedicated to the biology of these key colony members and we call for contributions covering any aspect of individual and collective brood biology, from development, to genetics, morphology, physiology, behaviour, and communication.
S09	The role of maternal care on the evolutionary trajectory of sociality Anna Friedel, Antonella Soro Extended maternal care is considered to play a fundamental role in the evolution of sociality. The mechanistic underpinnings and evolutionary processes underlying parental care and the emergence of social behaviours remain an area of active research. Across diverse taxa, maternal behaviours such as guarding, provisioning, and protection influence offspring survival, phenotype, developmental trajectories and gene expression. The timing and degree of maternal care ultimately influence fitness outcomes for the mother and may provide the opportunity for overlapping generations. Therefore, maternal care is not only a driver of offspring survival but may also act as a crucial step in the emergence of cooperative behaviours and eusociality. We seek contributions that explore maternal care from multiple perspectives, including the role of maternal care in shaping offspring morphology and behaviour, the influence of maternal care on the evolutionary trajectory of sociality, molecular and epigenetic mechanisms linking maternal care to gene expression, comparative perspectives across insect taxa, from solitary to eusocial species, and plasticity in maternal care strategies and their ecological determinants. By integrating empirical findings with theoretical developments, this symposium aims to highlight how maternal investment influences offspring survival, developmental trajectories, and behaviour—potentially shaping the origins and maintenance of sociality.

S10	Mechanisms facilitating the evolution of social behavior in insects Ben Pyenson, Chris Jernigan, Floria Mora-Kepfer Uy Social behavior varies wildly across insects, ranging from simple forms of cooperation to eusociality within and across many lineages. This large amount of variation provides an incredible hurdle when trying to identify a common set of mechanisms that may give rise to the shared behaviors we observe across social insects. In recent years tremendous leaps in technology allow for unparalleled investigation of the nervous system at the scale of genes and single cells. In this symposium we bring together experts across taxa and scales of inquiry from molecular biology to neurophysiology to discuss the current knowledge of the mechanisms that accommodate the highly successful social lifestyles of varied insects. We hope this symposium will stimulate integrative models of parallel and convergent social evolution across taxa.
S11	The organismal social insect colonies Bitao Qiu, Judith Korb The year 2026 marks the 115th anniversary of William Morton Wheeler's seminal paper, "The Ant Colony as an Organism", in which he first articulated the striking parallels between social insect colonies and multicellular organisms. This milestone presents a unique opportunity to revisit and critically evaluate this influential concept in light of contemporary research. In this symposium, we will bring together researchers from diverse fields—including behavioral, evolutionary, developmental, and genomic biology—to explore the extent to which social insect colonies function as integrated biological entities. By examining up-to-date evidence and novel perspectives, we aim to assess how well the organismal analogy holds and where its limitations lie. The symposium will conclude with an open discussion addressing fundamental questions: To what degree do social insect colonies and multicellular organisms share common principles? Are there overarching mechanisms driving major evolutionary transitions, from solitary to eusocial life and from unicellular to multicellular existence? Can shared proximate or ultimate causes be identified across these levels of biological organization? By promoting dialogue among researchers from varied backgrounds, this symposium will foster interdisciplinary exchange and generate new perspectives on the nature of social insects and their evolutionary significance. We anticipate that the discussions will lead to collaborative efforts and novel insights. Based on the outcomes of the symposium, we plan to submit a proposal for a special issue dedicated to this topic.
S12	From simple rules to collective resilience in a changing world Daniele Carlesso, Chelsea Cook, Kaitlin M. Baudier, Chinmay Hemant Joshi, Stephan Popp, Daniel Charbonneau Social insects exhibit some of the most striking examples of collective behaviour in the animal kingdom. From foraging trail formation and cooperative transport, to nest construction and self-assembly, these behaviours emerge from simple, locally-mediated interactions of colony members acting without centralised control. This symposium will explore the mechanistic foundations of collective behaviour in social insects, with a particular focus on how groups respond to and remain resilient to ever-changing environmental conditions. Animals live in ever-changing environments, where being able to flexibly adapt to new conditions is vital for survival. Social insects are of particular interest, as individuals that are evaluating the environment must communicate, directly and indirectly, with others to integrate information and organize collective responses. This offers profound insights into the principles of resilience, robustness and adaptability in decentralized systems. By focusing on both proximate mechanisms (how individual perceive, communicate and act) and ultimate consequences (resilience, flexibility and survival), we aim to integrate research across disciplines – including behaviour, ecology, neuroethology, physiology, computer science and robotics – to create new connections and advance our quantitative understanding of how individual actions scale into group-level organisation across biological scales. We also welcome comparative perspectives that link insights from social insects to other complex systems, including organ networks, microbial communities, and ecosystems.

S13	Comparing miniature cognitions Laure-Anne Poissonnier, Tomer Czaczkes, Mathieu Lihoreau Research on insect cognition is experiencing a revolution. In just a few decades, insects have been suggested to learn concepts, have a sense of numbers, solve complex navigation problems, develop cultures, use tools, and may be conscious and display emotions. This diversification of topics in insect cognition research is accompanied by a diversification of study models, with more and more species with different ecologies and social structures being investigated. All these observations provide new opportunities for discussing the evolution of insect cognition and animal intelligence in general. In this symposium, we will gather researcher working on different aspects of cognition and in different species in order to engage these discussions. Such crosstalk across methodologies, from purely laboratory-based learning assays to field studies investigating cognition in natural environments, and taxa will foster a deeper understanding of the cognitive abilities of insects and their ecological and evolutionary significance.
S14	Complex phenotypes in social insects: the interplay of genes and environment Giulia Scarparo, Susanne Foitzik Social insects serve as model systems for studying complex phenotypes, including variation in sex, caste, and social organization. Traditionally, such diversity has been attributed to phenotypic plasticity, where a single genotype can produce distinct phenotypes in response to environmental conditions. However, growing evidence suggests that many traits once considered plastic, such as queen number and morphology, have a genetic basis. The discovery of supergenes—large, non-recombining genomic elements, often formed by inversions—has highlighted their central role in regulating complex phenotypes, while ecological factors continue to shape their distribution and maintenance. Nevertheless, many social insects exhibit entirely plastic intra-specific phenotypic variation, particularly in caste determination. Investigating social insects whose phenotypic variation arises from plasticity, genetic control, or their interaction can provide critical insights into social evolution. This symposium welcomes contributions exploring complex phenotypic variation within and across social insect populations, with an emphasis on both genetic and environmental determinants.
S15	Navigating the superorganism: molecular, behavioral, and computational perspectives on decision-making in social insects Purbayan Ghosh, Grant Navid Doering Collective decision-making is fundamental to the success of social insects, enabling ants, bees, wasps, and termites to integrate individual contributions into cohesive group-level outcomes that enhance survival and drive ecological dominance. This symposium explores how these diverse taxa navigate collective decisions through an integrated complementary lens of molecular, behavioral, and computational approaches. By bridging disciplines, we aim to synthesize how genetic and neurophysiological mechanisms (molecular), interaction networks and consensus dynamics (behavioral), and models of self-organization (computational) collectively explain decision-making in these superorganisms. This multidisciplinary perspective not only illuminates the adaptability and resilience of social insects but also advances our understanding of decentralized problem-solving and collective intelligence in nature.

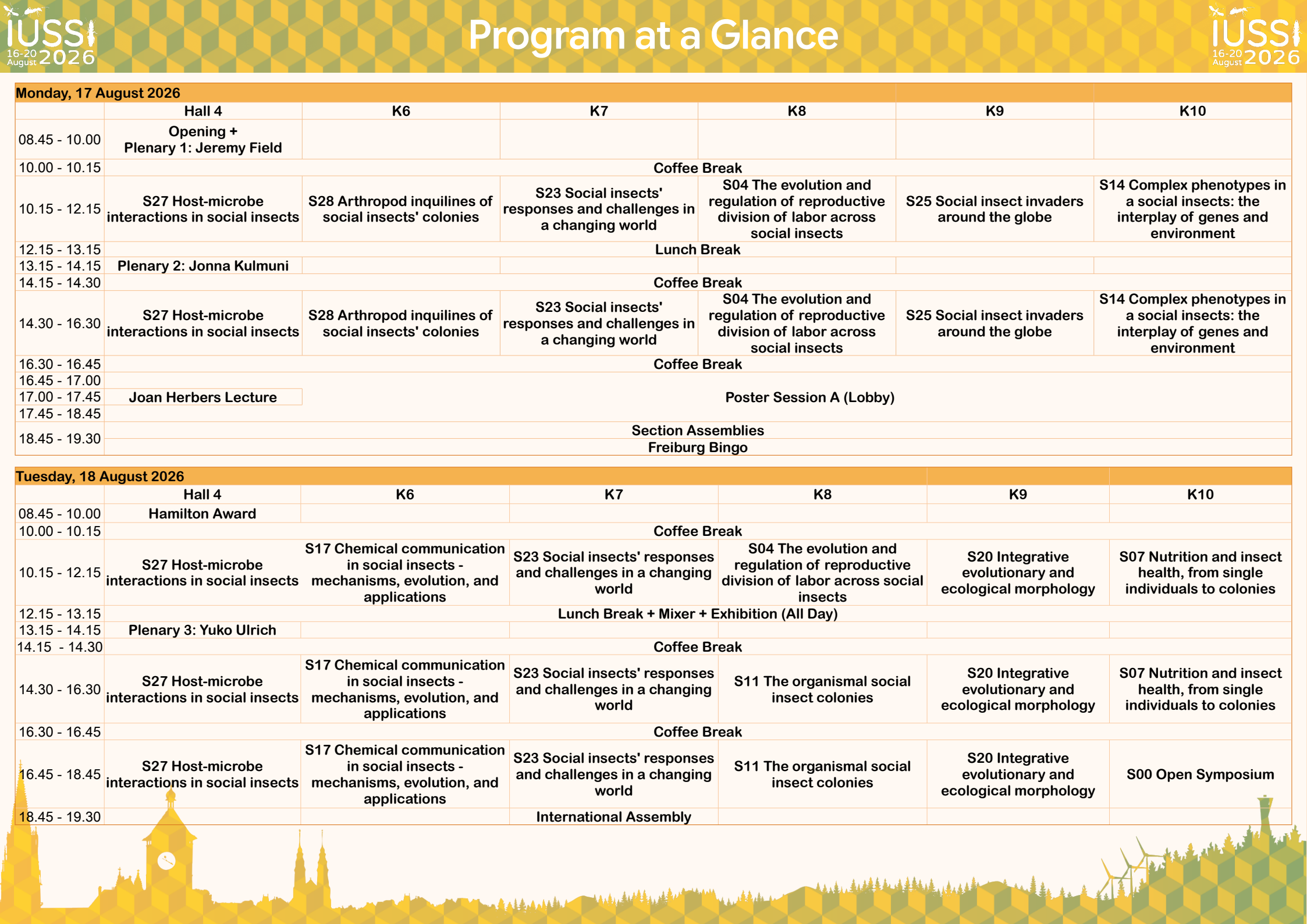
S16	The role of innate and experience-driven chemical communication in regulating insect social behavior
	Etya Amsalem, Juergen Liebig Chemical communication is a fundamental mode of interaction in many organisms, particularly social animals, and underlies some of the most advanced social behaviors observed in insects. While responses to pheromones are often assumed to be innate, growing evidence suggests that insects also incorporate information gained through learning and experience-driven mechanisms. Talks will highlight recent advances in neuroethology, behavioral ecology, and chemical ecology, focusing on how insects process both innate and experience-based chemical information in social contexts. The symposium will emphasize empirical findings and theoretical frameworks, fostering cross-disciplinary insights into the evolution and mechanisms of chemical communication in social insects and the diverse strategies they use to regulate behavior within complex social systems. This symposium will explore how chemical signals and cues mediate social behavior and how individuals learn and respond to them in dynamic social environments. We aim to integrate perspectives across insect taxa to examine the roles of pheromones, signature mixtures, and learned olfactory cues and signals in shaping social organization, reproductive dynamics, and cooperative behaviors.
S17	Chemical communication in social insects – mechanisms, evolution, and applications
	Uli Ernst, Jan Buellesbach Chemical communication is the cornerstone of social organization in insects, governing behaviours such as foraging, nestmate recognition, caste differentiation, and colony defence. This symposium will bring together researchers exploring the differentiation, ecological contexts, molecular architecture and evolutionary trajectories of chemical signalling modalities in insects with different levels of social organisation. The symposium will appeal to evolutionary biologists, chemical ecologists, neuroethologists, and applied researchers interested in insect behaviour and communication. By fostering cross-disciplinary discussions, this symposium aims to advance our understanding of how chemical communication underpins sociality in insects and its broader implications in ecology and evolution. Moreover, with a combination of fundamental and applied research, we would like to stimulate interdisciplinary discussion. Applications of chemical ecology may help to control invasive social insects that pose great risks to native ecosystems as well as to human health.
S18	Vibroacoustic signalling in (eu)social insects
	Luca Pietro Casacci, Francesca Barbero Vibrations and sounds constitute a profound communicative dimension, sometimes overlooked, but essential for collective coordination. In many species of ants, wasps, bees, termites and other social insects, these signals convey information related to recruitment, colony defence, larval nutrition, up to caste identity or behavioural modulation. These emissions, often produced by non-specialized morphological structures, are perceived by highly sensitive sensory organs. Far from being marginal channels, vibroacoustic signals have a strong adaptive value and can act in synergy with chemical, tactile or visual signals. The symposium aims to collect contributions that explore the function, evolution and plasticity of vibroacoustic and multimodal signals, also including non-eusocial species. Comparative, experimental, and neuroethological approaches are welcome, as well as studies that consider the ecological context in which these signals are used. The scope is to stimulate an integrated view of vibroacoustic communication as a key element in the evolution of social complexity.

S19	Mechanisms and evolution of insect sensory systems: implications in the Anthropocene Cintia Akemi Oi, Benjamin A. Taylor The Anthropocene is changing the chemical, visual and auditory environment for insects. These changes are contributing to globally declining populations, resulting in losses of key ecosystem services. There is an urgent need to better understand the mechanisms by which insects sense their environment, which influences in how they behave. The aim of this symposium is to bring together insights from recent research on the genomics of insect sensory systems, and its consequences on behaviour. The combination of talks will combine fields including morphology, neurobiology, genomics and behavioural data. There is a need of studies comprising basic biology in combination to modern techniques as omics. This basic science is required to develop predictive tools to forecast the impacts of the Anthropocene on insect sensory mechanisms and manage their roles as nature-based solutions for ecosystem health.
S20	Integrative evolutionary and ecological morphology Scott Powell, Brendon E. Boudinot The study of morphology is central to many of the fundamental questions about the ecological dominance and evolutionary success of social insects. Morphology is a distinct level of biological organization that represents the prior and present interactions of an organism's genome with the environment. We are currently experiencing an important shift in our capacity to analyze morphology, spurred in part by broader comparative perspectives, unprecedented access to specimens, and by new technologies that can generate “phenomic” scale data. Whether driven by expanded and accelerated collection of morphology data, or advanced three-dimensional visualization at astonishing resolutions, these new data underpin renewed opportunities to advance a wide range of integrative questions. This symposium will bring together a diversity of researchers building rich and multimodal morphological datasets—from exceptionally broad paleontological and present day sampling to automated quantification of key functional traits—that are used to break new ground in our understanding of social insect evolution and ecology. In addition to highlighting the power of novel morphological data in social insect research, we will explore where the most significant knowledge gaps and challenges remain, and the greatest opportunities to further advance the field
S21	Transgenic approaches for studying the biology of social insects Jean-Christophe Sandoz, Julie Carcaud The biology of social insects, from social communication, learning and memory to division of labor, has been studied for many years using ecological observations, behavioural experiments as well as traditional chemical ecology and neuroscience approaches. However, the recent development of genome editing techniques has opened new research avenues for the study of social insect biology. In this symposium, we will gather scientists who are developing these new approaches based on transgenic manipulations, to study pheromonal communication, learning and memory or sex determination. While presenting the extraordinary possibilities opened by these new approaches, the presentations will also explain the specific difficulties of using these tools in social insects. The symposium will discuss the various ways to mitigate these difficulties.

S22	Beyond-omics: new perspectives on social insect big datasets
	Andreia Teixeira, Antonella Soro For some time, numerous studies have used large datasets to understand different proximate and ultimate evolutionary mechanisms in social insects. This research field has been built upon a broad array of technologies, from microsatellites to long-read sequencing, and more recently to a combination of transcriptomics, epigenomics, metabolomics and other-omics. Using these techniques, our community has generated multiple datasets and currently explores and expands methods to better comprehend the complex traits shaping the biology of diverse social (and non-social) organisms. However, several fundamental questions remain. What could be the best approach to combine and explore results across different omics layers? How can we study whole transcriptomes or methylation patterns, as well as their underlying regulatory changes, as a phenotypic trait per se? What can the intrinsic variation and noise within these datasets tell us, and how can we interpret the plasticity of these biological systems? This symposium will focus on how to move away from extensive candidate lists, arbitrary thresholds and the endless search for “golden genes”. We aim to foster a discussion among researchers working with innovative methods – machine learning, network analysis and beyond – and move the field forward into a more integrative understanding of social insect ecology and evolution.
S23	Social insects’ responses and challenges in a changing world
	Elizabeth Evesham, Christoph Kurze, Patrick Krapf, Sabine Nooten Social insects comprise a large part of terrestrial biodiversity, and they are integral to many ecological processes. Their evolutionary success is driven by their intricate social structures, ranging from differing numbers of queens to complex collective decision making to remarkable phenotypic plasticity. These characteristics have enabled them to respond and adapt to environmental changes. However, they are now facing unprecedented environmental challenges in our rapidly changing world, and our understanding of social insects’ responses and resilience and their challenges to rising temperatures and extreme weather events such as heat waves, droughts, fires, and floods is limited. While some species are under increasing pressure, others may thrive in this changing world. In this symposium, we aim to bring together speakers from diverse backgrounds, different career stages, and diverse perspectives to provide a comprehensive understanding of the future trajectories of social insects in a changing world.
S24	Social insect conservation
	Elia Guariento, Heike Feldhaar, Thomas Parmentier, Elva J.H. Robinson, Giacomo Santini, Morgan Morrison, Gabrielle McLaughlin, Klara Leander Oh, Nerea Perez Montes Social insects are diverse ecosystem engineers and service providers crucial for maintaining ecosystem stability through processes like pest control, pollination, and seed dispersal. Yet, many species are declining due to habitat loss, climate change, and other intensifying anthropogenic pressures. Developing effective monitoring and conservation strategies is vital for maintaining their biodiversity and the ecosystem services they provide. This symposium will explore the latest research on social insect conservation, focusing on both theoretical frameworks and applied measures. A significant obstacle to conservation is the lack of consistent monitoring approaches and regional assessments of population trends. Even where data exists—such as for bumblebees and conspicuous ant species through citizen science—inconsistencies hinder cross-regional comparisons. Social insect colonies often provide habitat or resources directly for other species, e.g. the myrmecophiles that depend on many ant species or kleptoparasitic bee species, and there is little understanding of how conservation actions can be tuned to maximally benefit the multitude of taxa that depend on the peculiar microhabitat of social insect nests. We are particularly interested in talks that discuss monitoring strategies utilizing diverse resources like citizen science data and remote sensing. We welcome contributions that address innovative interventions, emerging solutions, and the outcomes of conservation actions. By bringing together a range of researchers, the symposium aims to facilitate knowledge exchange, identify synergies, and foster collaboration, showcasing work that promotes the long-term sustainability of wild social insect populations.

S25	Social insect invaders around the globe Cleo Bertelsmeier, Uli Ernst, Heather Mattila, Sara Miller, Gard Otis, Ruan Veldtman, Erin Wilson Rankin Representatives of all ‘classical’ social insects, i.e. ants, bees, wasps, and termites, have become invasive around the globe. Social insect invaders pose threats to ecosystems, cause economic damage, and may impact human health. For instance, invasive yellow-legged Asian hornets, <i>Vespa velutina</i> , are spreading across North America, Europe, and Asia, where they are disrupting beekeeping and pollinator services. Increased international trade is driving translocations of social insects into non-native habitats, where they can be difficult to eradicate due to their cooperative lifestyle and resource demands. In this light, insights into the biology of social insects as invasives may prove useful to predict, prevent, eradicate, or manage accidental introductions. We encourage potential speakers worldwide to contribute to a symposium about the phenomenon of social insect invasions. Likely topics of presentations include invasive behavior, control strategies, genetic factors contributing to invasions, historic and current biogeographies, and more. This symposium will be of relevance to researchers with both academic and applied interests.
S26	The role of citizen science in social insect research Cristina Castracani, Julie Koch Sheard Citizen Science (CS), the active engagement of volunteers in scientific research is a promising approach for expanding scientific knowledge and increasing scientific interest among the public. Over the past decades, there has been a rapid increase in the diversity and scale of CS from unstructured, opportunistic projects centered around large databases such as iNaturalist, to semi-structured bioblitz events for mapping species diversity in an area to structured, experiment-based projects with extensive protocols for exploring more complex research questions. Within the field of social insect research, most citizen science projects have focused on pollinators, but examples also exist for ants and wasps. In this symposium we will showcase how citizen science has been successfully implemented in the study of social insects in order to inspire more researchers to implement citizen science in their research and promote discussion on best practices and opportunities.
S27	Host-microbe interactions in social insects Lena Wilfert, Lumi Viljakainen Social insects present an excellent environment to any parasite or pathogen that can enter a colony. Particularly with the advent of de novo sequencing, a vast number of potential pathogens has been discovered. The field is beginning to unravel the environmental, phylogenetic and immunological barriers that are allowing some of these pathogens to be wide-ranging generalists, and are restricting others to a single or few host species. Such barriers could include transmission networks, abiotic or biotic stressors, the host’s microbiome, immunological reactions and the host or pathogen phylogeny. With this symposium, we want to bring together researchers working on different organisms from the field to the lab, to allow cross-fertilization between ecologists, geneticists and immunologists to advance this field. Key questions to be addressed in the symposium include (1) Which barriers restrict the host-range of a pathogen at a host or environmental level? (2) How does colony structure or intra-nest social interactions influence the transmission of pathogen, and vice-versa?

S28	Arthropodinquilines of social insects' colonies
	Aleš Buček, Taisuke Kanao The exceptional microhabitat of social insect colonies, with their abundant yet fiercely defended resources, has served as a driving force in the evolution of countless inquiline arthropod lineages and adaptations. Inquilines—i.e., organisms dependent on social insect colonies—span the full spectrum of symbiosis, from parasitism to mutualism, and provide a remarkable model system for studying adaptations to symbiosis, mimicry, defense, convergent evolution, and more. The specialization of researchers to either hymenopteran or on non-hymenopteran social insects is inevitable, but it limits our understanding of the similarities and differences among the independently evolved social insect groups. Such specialization with all its advantages and disadvantages exists also among researchers studying inquilines. This symposium aims to mediate a dialogue between the researchers of myrmecophiles, termitophiles, and other “X-philés” to advance the study at the ecological, phenotypic and genetic level of both the convergent and unique natural histories of these arthropod lineages.
S29	Tiny but mighty: viruses in social insects
	Olav Rueppell, Esmaeil Amiri Diseases have long been recognized as playing pivotal roles in social insect biology because social insect colonies are resource-rich and usually densely populated by a larger number of genetically similar individuals. Viruses form an important group of disease-causing agents, although they do not harm their hosts in all instances. Despite the increasing realization of how prevalent and important viruses are in most biological systems, viruses are only beginning to be explored in social insects, with the exception of commercially important honey bees. This presents an opportune time to highlight the current state of knowledge and efforts to expand that knowledge. We therefore anticipate that our symposium will be of interest to a lot of IUSSI members and we will include presentations that exemplify recent progress in “social insect virology” and pave the way forward. With a mixture of talks on the honey bee model and on a range of other social insects, we seek to identify common themes and differences across social insect taxa. We will welcome applied and fundamental studies to make the symposium broadly relevant for social insect ecology, evolution, conservation, and agriculture.



Program at a Glance

Monday, 17 August 2026						
	Hall 4	K6	K7	K8	K9	K10
08.45 - 10.00	Opening + Plenary 1: Jeremy Field					
10.00 - 10.15	Coffee Break					
10.15 - 12.15	S27 Host-microbe interactions in social insects	S28 Arthropod inquilines of social insects' colonies	S23 Social insects' responses and challenges in a changing world	S04 The evolution and regulation of reproductive division of labor across social insects	S25 Social insect invaders around the globe	S14 Complex phenotypes in a social insects: the interplay of genes and environment
12.15 - 13.15	Lunch Break					
13.15 - 14.15	Plenary 2: Jonna Kulmuni					
14.15 - 14.30	Coffee Break					
14.30 - 16.30	S27 Host-microbe interactions in social insects	S28 Arthropod inquilines of social insects' colonies	S23 Social insects' responses and challenges in a changing world	S04 The evolution and regulation of reproductive division of labor across social insects	S25 Social insect invaders around the globe	S14 Complex phenotypes in a social insects: the interplay of genes and environment
16.30 - 16.45	Coffee Break					
16.45 - 17.00	Joan Herbers Lecture					
17.00 - 17.45						
17.45 - 18.45						
18.45 - 19.30	Section Assemblies Freiburg Bingo					

Tuesday, 18 August 2026						
	Hall 4	K6	K7	K8	K9	K10
08.45 - 10.00	Hamilton Award					
10.00 - 10.15	Coffee Break					
10.15 - 12.15	S27 Host-microbe interactions in social insects	S17 Chemical communication in social insects - mechanisms, evolution, and applications	S23 Social insects' responses and challenges in a changing world	S04 The evolution and regulation of reproductive division of labor across social insects	S20 Integrative evolutionary and ecological morphology	S07 Nutrition and insect health, from single individuals to colonies
12.15 - 13.15	Lunch Break + Mixer + Exhibition (All Day)					
13.15 - 14.15	Plenary 3: Yuko Ulrich					
14.15 - 14.30	Coffee Break					
14.30 - 16.30	S27 Host-microbe interactions in social insects	S17 Chemical communication in social insects - mechanisms, evolution, and applications	S23 Social insects' responses and challenges in a changing world	S11 The organismal social insect colonies	S20 Integrative evolutionary and ecological morphology	S07 Nutrition and insect health, from single individuals to colonies
16.30 - 16.45	Coffee Break					
16.45 - 18.45	S27 Host-microbe interactions in social insects	S17 Chemical communication in social insects - mechanisms, evolution, and applications	S23 Social insects' responses and challenges in a changing world	S11 The organismal social insect colonies	S20 Integrative evolutionary and ecological morphology	S00 Open Symposium
18.45 - 19.30	International Assembly					

Wednesday, 19 August 2026						
	Hall 4	K6	K7	K8	K9	K10
08.45 - 10.00	West-Eberhard Award					
10.00 - 10.15	Coffee Break					
10.15 - 12.15	S12 From simple rules to collective resilience in a changing world	S03 Stingless bees - emerging models for understanding life history diversity in highly eusocial bees	S10 Mechanisms facilitating the evolution of social behavior in insects	S19 Mechanisms and evolution of insect sensory systems: implications in the Anthropocene	S21 Transgenic approaches for studying the biology of social insects + S00 Open symposium	S26 The role of citizen science in social insect research
12.15 - 13.15	Lunch Break + Mixer + Exhibition (All Day)					
13.15 - 14.15	Plenary 4: Yahya Al Naggar					
14.15 - 14.30	Coffee Break					
14.30 - 16.30	S12 From simple rules to collective resilience in a changing world	S02 New frontiers in the study of division of labour in social insects	S10 Mechanisms facilitating the evolution of social behavior in insects	S05 Life-history in social insects - fertility and ageing	S15 Navigating the superorganism: molecular, behavioral, and computational perspectives on decision-making	S08 The role of brood in social insect colonies
16.30 - 16.45	Coffee Break					
16.45 - 17.45	S22 Beyond-omics: new perspectives on social insect big datasets	S02 New frontiers in the study of division of labour in social insects	S18 Vibroacoustic signalling in (eu)social insects	S05 Life-history in social insects - fertility and ageing	S15 Navigating the superorganism: molecular, behavioral, and computational perspectives on decision-making	S09 The role of maternal care on the evolutionary trajectory of sociality
17.45 - 19.30	Poster Session B (Lobby)					

Thursday, 20 August 2026						
	Hall 4	K6	K7	K8	K9	K10
09.00 - 10.00	Plenary 5: Sarah D. Kocher					
10.00 - 10.15	Coffee Break					
10.15 - 12.15	S12 From simple rules to collective resilience in a changing world	S29 Tiny but mighty: viruses in social insects	S24 Social insect conservation	S06 From founding to function: early-stage dynamics in the life cycle of social insects	S13 Comparing miniature cognitions	S01 Adult phenotypic plasticity and the regulation of division of labor in social insects
12.15 - 13.15	Lunch Break					
13.15 - 14.15	Plenary 6: David Baracchi					
14.15 - 14.30	Coffee Break					
14.30 - 16.30	S16 The role of innate and experience-driven chemical communication in regulating insect social behavior	S29 Tiny but mighty: viruses in social insects	S24 Social insect conservation + S00 Open Symposium	S06 From founding to function: early-stage dynamics in the life cycle of social insects	S13 Comparing miniature cognitions	S01 Adult phenotypic plasticity and the regulation of division of labor in social insects
16.30 - 16.45	Coffee Break					
16.45 - 17.45	General Assembly					
17.45 - 20.00						
20.00	Conference Dinner (Ganter Biergarten)					



Monday, August 17th 2026

Session 1 - 10:15 - 12:15

Time	BN	Title	Presenter
S27. Host-microbe interactions in social insects; Halle 4			
10:15	149330	Genetic diversification of ectoparasitic mites (<i>Varroa</i> spp.) across honey bee species and populations	Alexis Beaurepaire
10:45	148067	Who is the host and who is the vector? Bacterial communities and pathogens in wild bees and honey bees of a mountain region	Fabian Royer ★
11:00	148529	Pathogens and Ants: Does antimicrobial investment across ant species predict susceptibility against fungal entomopathogens?	Darmon Kahvazadeh
11:15	150105	Interacting Parasites, Host Genetics, and Gut Microbiomes Shape Contrasting Population Trajectories in Wild Bumblebees	Miles Liam Nesbit
11:30	149978	Beyond eusocial hosts: metagenomic evidence of trypanosomatid spillover in a bee community	Fernando Amin Fleites Ayil
11:45	148537	Changes in Floral Traits and Pollinator Behavior Induced by Plant Virus Infection	Maki Inoue
12:00	147116	<i>Nosema ceranae</i> infection alters honey bee (<i>Apis mellifera</i>) queen behavior and reproductive capacity	Juliana Rangel
S28. Arthropod inquilines of social insects' colonies; Room K6			
10:15	149913	Species diversity and evolutionary history of termitophilous rove beetles associated with <i>Hodotermopsis</i> termites	Taisuke Kanao
10:30	145833	Endless forms most bloated: insights on diversity and evolutionary significance of post-imaginal growth in termitophilous beetles	Bruno Zilberman
10:45	146498	Post-imaginal growth and convergent abdominal appendages in termitophiles	Jordan Rainey
11:00	149675	Disentangling the co-phylogenomics of termitophilous rove beetles (subfamily Aleocharinae) and their termite hosts	Oscar Fernando Saenz-Manchola
11:15	149568	Exploring microbial and functional adaptations in termitophilous beetles within microbe-termite-termitophile tripartite symbiotic system	Shivali Shivali ★
11:30	146232	Drivers of Myrmecophile Diversity and Abundance in Wood Ant Nests (<i>Formica rufa</i> group)	Melvin Opolka
11:45	148566	Abundance and diversity of metazoan microfauna in ant mounds of <i>Formica lugubris</i> Zetterstedt, 1838	Nikola Jozić
12:00	146265	The uninvited guest ant - population genetics of the wood ant commensal <i>Formicoxenus nitidulus</i>	Elva Robinson

*Stars indicate students that are eligible for the student prize

Time	BN	Title	Presenter
S23. Social insects' responses and challenges in a changing world; Room K7			
10:15	149123	Complex effects of climate on bumblebee fitness	Ruth Archer
10:45	145911	Ant behaviour in the Anthropocene: A meta-analysis of human-induced environmental change effects on ant behaviour	Nicolas Châline
11:00	144796	Asphalt Ecology: Trait Syndromes Behind Urban Ant Success	Clint Penick
11:15	145252	Effects of environmental features on social insects: from species and communities to ecological processes	Sabine Nooten
11:30	150005	Termite abundance and species distribution along an altitudinal gradient in northern Morocco	Aya Najjari
11:45	146228	Microclimates as thermal refugia: behavioral plasticity in wood ants under climate change	Cleo Bertelsmeier
12:00	147417	Socio-ecological Priming of Heat Stress Responses in a Facultatively Eusocial Bee	Ren Weinstock
S04. The evolution and regulation of reproductive division of labor across social insects; Room K8			
10:15	146427	Genome regulation and the evolution of social behavior in bees	Beryl Jones
10:30	149433	Juvenile hormone signaling and social complexity in the Hymenoptera	Yuval Shalem ★
10:45	149185	Decoding the building blocks of social dominance in queenless bumble bee colonies (<i>Bombus impatiens</i>)	Ian Traniello
11:00	146800	Social insect castes evolved by re-timing ancient, seasonally expressed pathways	Anneline Mattens
11:15	149340	Transcriptomes of solitary and social halictid bees support the ovarian ground plan hypothesis as mechanistic explanation for the evolution of eusociality	Mozhgan Khodadadi ★
11:30	149776	The genomic basis of termite sociality	Alina Mikhailova
11:45	146370	Large-scale genomic rearrangements may be the basis for reproductive isolation in the <i>Pogonomyrmex</i> dependent-lineage system	Felix Glinka
12:00	149277	Intraspecific variation in recombination landscapes in the California harvester ant, <i>Pogonomyrmex californicus</i>	Mohammed Errbii
S25. Social insect invaders around the globe; Room K9			
10:15	149950	Thermal tolerance of Sino-Indomalayan ants across latitude, ecological stratus and exotic status	Andre Ibanez Weemaels
10:30	146501	Impact of two supercolonial species of the <i>Tapinoma nigerrimum</i> complex on soil epigeal fauna	Giovanny Destour
10:45	149174	Population genomics of Mediterranean Pheidole ants reveals complex patterns influenced by human history	Mattia Menchetti
11:00	149318	Supercolony formation in invasive <i>Tapinoma magnum</i> ants	Volker Nehring
11:15	149194	Behavioral mechanisms underlying competition between <i>Lasius niger</i> and <i>Linepithema humile</i>	Marion Cordonnier
11:30	146258	Argentine ant invasion decreases seed dispersal but not other ant-dominated ecosystem processes	Tomer Czaczkes
11:45	149134	An invader under pressure: exploring the consequences of an emerging fungal parasite on an invasive ant species in Europe	Baptiste Nézel
12:00	149708	Large-scale invasive ant control with cognitive intervention of <i>Linepithema humile</i> in Spain	Lina Pedraza ★

Time	BN	Title	Presenter
S14. Complex phenotypes in social insects: the interplay of genes and environment; Room K10			
10:15	150010	Variation in social organization and supergene control along a latitudinal gradient	Jessica Purcell
10:45	146559	Multi-level selection drives supergene-mediated social and dispersal polymorphism in the ant <i>Myrmecina graminicola</i>	Brandon Duquenoy
11:00	149862	Introgression of color pattern alleles generates extreme phenotypic diversity mediating visual individual recognition in a paper wasp	Michael Sheehan
11:15	149430	Remote control of complex social behavior from outside of the brain: Lessons from functional genomics in <i>Polistes</i>	Amy Toth
11:30	148297	The genomic architecture of ant social organization: insights from the <i>Formica</i> supergenes	Michel Chapuisat
11:45	145831	Development and individual experience combine to shape defensive behavior phenotypes during worker-to-soldier differentiation in termites	Iago B. da Silva
12:00	149189	The effects of juvenile hormone treatment on caste development in <i>Cardiocondyla obscurior</i> ants	Devashree Joglekar 

Session 2 - 14:30 - 16:30

Time	BN	Title	Presenter
S27. Host-microbe interactions in social insects; Halle 4			
14:30	145445	Bumble bee hygienic behaviour induced by colony exposure to a bacterium-based biopesticide	Silvio Erler
15:00	146432	Transmission in Action: What pathogen mimics can show about disease spread	Lukas Lindorfer 
15:15	150049	Immune heterogeneity shapes disease spread in clonal ant societies	Tiago Zeferino
15:30	149104	Evasion of behavioural disease barriers facilitates cross-species virus spillover	Daniel Schläppi
15:45	148377	Immune Priming in a Clonal Ant	Tze Hann Ng
16:00	149040	From Entrance to Queen, Spatial Organisation of Sanitary Behaviours in Ant Colonies	Quentin Avanzi
16:15	145521	Do bumblebees care? Wound care and social immunity in social bees	Anna Müller 
S28. Arthropod inquilines of social insects' colonies; Room K6			
14:30	146423	What limits myrmecophile abundance in ant nests?	Ethan Wright
14:45	145386	Spies inside army ant raids: Eavesdropping on the help pheromone of injured ants	Juan J. Lagos-Oviedo 
15:00	148543	The dynamic associations between social insects and their arthropod guests during introductions and invasions	Thomas Parmentier 
15:15	149469	Host-side optimization promotes acceptance of social parasites: Insights from signal detection theory	Tomohiro Nakazono 
15:30	147610	Understanding the behavioural integration of a paper wasp social parasite into the dominance network of the host colony	Virginia Schianini 
15:45	147313	An ant social parasite helps its fungus-growing ant host with nest hygiene	Aryel Camero Goes 
16:00	146811	Evolution of Social Parasitism in a hyperdiverse clade: An integrative study of <i>Camponotus carpenter</i> ants	Max Paul Härtel 
16:15	145611	Interaction dynamics among social parasites sharing a common host ant	Yusei Takaishi

Time	BN	Title	Presenter
S23. Social insects' responses and challenges in a changing world; Room K7			
14:30	140645	Infrared thermal ecology and evolution of ants and their prospects of climate resilience	Terry McGlynn
14:45	148749	Distribution and thermal tolerance of two wood ant species and their hybrids in Southern Bavaria	Adriana Crhonková
15:00	143331	Thermoregulatory mechanisms in termites and its effects on termites' distributions on some species of termites found in the savannah	Istifanus P. Aiki
15:15	148793	Niche and spatial segregation define the distribution of sympatric red wood ant species	Elia Nalini 
15:30	146772	Interactions between wood ants and bark beetles: Eco-evolutionary implications on forest ecosystems	Martin Schebeck
15:45	148742	Drought events reduce reproductive success of a long-tongued bumblebee species	Hanno Korten
16:00	145866	Impact of heat waves on colony foundation in ants	Alice Roux
16:15	149182	The sand termite <i>Psammotermes allocerus</i> shows extraordinary resilience in the extreme environment of the Namib Desert	Felicitas Gunter 
S04. The evolution and regulation of reproductive division of labor across social insects; Room K8			
14:30	148269	Transgenerational epigenetic inheritance in caste determination of termites	Kenji Matsuura
14:45	149239	Gene duplication and caste-specific gene regulation in termite social evolution	Kiyoto Maekawa
15:00	149953	lncRNAs contribute to caste differentiation as a regulatory layer in ants	Guo Ding
15:15	150019	The evolution of queen-worker dimorphism in ants	Timothy Linksvayer
15:30	146442	Evolution of social parasitism in the leaf-cutting ants	Daniela Mera Rodríguez
15:45	149936	Evolution of sex chromosomes and chromosomal chains in termites	Ann Kathrin Huylmans
16:00	149717	The evolution of inbreeding in haplodiploids	Tom Keaney
S25. Social insect invaders around the globe; Room K9			
14:30	150021	Population Genetics of the invasive European paper wasp	Sara Miller
15:00	146506	Invasive social wasp inventory of the South Pacific isles	Mateus Detoni
15:15	146470	Investigating behavioral, ecological and abiotic factors influencing mating success in an invasive social yellowjacket wasp (<i>Vespula pensylvanica</i>)	Erin Wilson Rankin
15:30	148530	The continuing worldwide invasion of <i>Vespa velutina</i> hornets	Gard Otis
15:45	148725	Incursion and early-stage management of the yellow-legged hornet (<i>Vespa velutina</i>) in New Zealand, with a focus on eradication	Phil Lester
16:00	149271	Naivety in the face of invasion: Western honeybee behavioural and molecular responses to the Asian hornet	Sam Macro Versteeg 
16:15	149467	Activated Charcoal: A Highly Potent Legal Alternative for <i>Vespa velutina</i> Nest Destruction	Ulrich Ernst

Time	BN	Title	Presenter
S14. Complex phenotypes in social insects: the interplay of genes and environment; Room K10			
14:30	149027	The proximate bases of colony sex ratio in <i>Formica selysi</i>	Matteo Negroni
14:45	149261	Regulatory plasticity underlying caste and sex determination in social insects	Jacopo Dominici ★
15:00	145749	Repeated evolution of supergenes on an ancient social chromosome	Eyal Privman
15:15	149061	Parasites exploit plasticity to reprogram social wasps into extended phenotypes	Floria Mora-Kepfer Uy
15:30	148533	Population Genomics of the social parasite <i>Vespula squamosa</i> and host <i>V. maculifrons</i>	Paige Caine
15:45	146409	Convergent Gene Expression and Epigenetic Regulation of Raiding Behavior in Slavemaking Ants	Amirhossein Karimizadeh ★
16:00	147682	Secondary acquisition of selfish genetic drive by an ancient social supergene in <i>Formica</i>	Riddhi Deshmukh
16:15	146286	The enigmatic conserved region of <i>Cardiocondyla</i> genomes	Isabell Kaufhold ★

Tuesday, August 18th 2026

Session 1 - 10:15 - 12:15

Time	BN	Title	Presenter
S27. Host-microbe interactions in social insects; Halle 4			
10:15	148948	Manipulation of carpenter ant social behaviours by a specialized fungal parasite	Charissa de Bekker
10:45	146428	Age-controlled effects of cestode infection on different castes and age classes of the ant <i>Temnothorax nylanderi</i>	Beka Chitadze ★
11:00	149747	Nematode infections provoke aggression in ants	Bhoomika Ashok Bhat ★
11:15	149126	Mycobiota of <i>Formica polyctena</i> ants and their nests: insights into hidden interspecies interactions	Igor Siedlecki
11:30	149843	Ecological traits of Hypocreaceae fungi in the fungus-growing ant symbiosis	Mateus Cruz
11:45	149813	Paper wasp caste plasticity and sex mediate the extent of parasitic manipulation	Rebecca Jean Millena
12:00	149408	<i>Paenibacillus melissococcoides</i> : a new pathogen of honey bee brood?	Benjamin Dainat
S17. Chemical communication in social insects – mechanisms, evolution, and applications; Room K6			
10:15	145977	The importance of being heterogeneous: the surprisingly complex phase behaviour of insect cuticular hydrocarbons	Florian Menzel
10:30	148858	The evolution of cuticular hydrocarbon perception in eusocial insects	Juergen Liebig
10:45	145803	The influence of diet on cuticular profiles and recognition in wild ant colonies	Tyler Murdock
11:00	149591	Chemical, Behavioral, and Genetic Evidence for a Cryptic Species Complex in African carpenter ants	Jan Buellesbach
11:15	146458	A hydrocarbon pheromone mediates ant group cohesion	Matteo Rossi
11:30	145871	Social isolation is associated with distinct cuticular chemistry in bumble bees	Anne Larsen
11:45	145854	BumbleDate: Identification of key pheromones and neural mechanisms involved in bumblebee reproduction	Jorn Oppersma
12:00	146218	Evolution of an olfactory subsystem in Hymenoptera: a potential springboard for eusociality	Antoine Couto

Time	BN	Title	Presenter
S23. Social insects' responses and challenges in a changing world; Room K7			
10:15	149468	From North to South: How Does Temperature Affect Ant Communities in the Western Palearctic, and to What Extent?	Xim Cerda
10:30	145508	Impact of Thermal Stress on Early Colony Behavior in the ant <i>Lasius niger</i>	Rafael da Silva
10:45	149296	Does heat stress induce transgenerational effect on worker behaviour in the ant <i>Lasius niger</i> ?	Sophie Van Meyel
11:00	149338	Quantifying the impacts of cold snaps on bumblebee colonies	Victoria Mallinson ★
11:15	145471	Behavioral responses of Argentine ants to changes in climatic factors	Dimitrios - Georgios Kontopoulos
11:30	145983	Foraging activity, cuticular hydrocarbons and water stress management in the red harvester ant	Antoine Melet
11:45	146344	Effects of high ground temperature on learning behaviour of <i>Camponotus aethiops</i> ants	Benjamin Jauffret ★
12:00	148635	Monitoring behavioural markers of environmental stress: the case of Fukushima bees	Mathieu Lihoreau
S04. The evolution and regulation of reproductive division of labor across social insects; Room K8			
10:15	145648	The regulation of a simple behavior toolkit is sufficient to produce the social diversity of bees	Daniel Jorge ★
10:30	147861	Pairwise social interactions and social flexibility in the sweat bee, <i>Lasioglossum baleicum</i>	Michelle L. White ★
10:45	149073	Nutritional specialization and social evolution in woodroaches and termites	Sheng LI
11:00	148539	Caste specialisation of cellular identities in the termite <i>Zootermopsis nevadensis</i>	Thomas Bourguignon
11:15	148788	How does early experience determine reproductive hierarchies in clonal <i>Platythyrea punctata</i> ants?	Piuli Shit
11:30	148364	What Drives the Reproductive Division of Labor in Small Carpenter Bees? A Case Study of <i>Ceratina albosticta</i>	Shannon Ailisha Serpa Valdez
11:45	149748	Demographic control via brood cannibalism in ants	Ricardo Caliri Oliveira
12:00	146000	The African termite raiding ant <i>Megaponera analis</i> : Behaviour and functional ecology	Abdullahi Yusuf
S20. Integrative evolutionary and ecological morphology; Room K9			
10:15	149829	Mapping the clonal raider ant brain at synaptic resolution	Lindsey Lopes
10:30	148735	The frontal gland in termites: Structure, Function, and Evolution	Jan Šobotník
10:45	146897	The evolution of novel mouthpart interlocking mechanisms in ants (Hymenoptera: Formicidae)	Roberto Keller
11:00	145917	Insights on the morphology of the ant digestive system from micro-CT scanning and evolutionary considerations on some of its key features	Adrian (Knut Friedrich) Richter
11:15	149645	Biometrics and Quantitative Diet of the Western African Driver Ants <i>Dorylus (Anomma) wilverthi</i> & <i>Dorylus (Anomma) sjostedti</i>	Sebastian Huber, Maximillian PTG Tercei ★
11:30	148536	Understanding ant stinger evolution through morphology and function	Alexandre Casadei Ferreira
12:00	146363	Phylogenomics and quantitative morphometrics of Vanuatuan <i>Strumigenys</i> trap-jaw ants reveal numerous new species and signals of an endemic adaptive radiation	Tobias G. Pfeifer ★

Time	BN	Title	Presenter
S07. Nutrition and insect health, from single individuals to colonies; Room K10			
10:15	144785	Nutritional niches reveal mutualism resilience mechanisms in urban leafcutter ants	Jonathan Shik
10:45	149513	Answering the garden's call: Fungal cues inform nutritional decisionmaking in leaf-cutting ants	Allyssa Hinkle ★
11:00	145114	Dynamic nutritional strategies in ants: exploring the role of plant in combating pathogens	Danae Nyckees
11:15	148111	Hints of self-medication? Foraging decisions of bumblebees with different health status	Kamiel Debeuckelaere
11:30	145525	Changes in gene expression linked to foraging choices in selfmedicating <i>Lasius platythorax</i> ants	Jason Rissanen
11:45	149786	From individual digestion to colony nutrition: microbial pre-digestion in the termite <i>Velocitermes heteropterus</i>	Ives Haifig
12:00	146075	Can agricultural <i>Helianthus annuus</i> cultivar selection influence neighboring <i>Bombus terrestris</i> colony development?	Salena Husband ★

Session 2 - 14:30 - 16:30

Time	BN	Title	Presenter
S27. Host-microbe interactions in social insects; Halle 4			
14:30	149976	The microbiome of leaf-cutting ants reveals the prevalence of <i>Tsukamurella</i> and a <i>Floricoccus</i> -like bacterium, a link between ants and stingless bees	Alan Emanuel Silva Cerqueira
14:45	146488	Effects of direct and indirect antibiotic-induced gut dysbiosis on bumblebee health	Svea Lindeboom ★
15:00	149826	Integrating microbiome and host genomic data to improve selection of <i>Apis mellifera</i> resistance to Varroa parasites	Victor Rossier
15:15	147978	Microbiome influences on gene expression, social organization and behaviour in a facultatively social bee	Nhu Phuong Nguyen ★
15:30	146255	Bacterial symbionts of aphids as hidden modulators of their partnership with ants	Claire Detrain
15:45	145913	Reassembly of the termite gut microbiome across the molting cycle in <i>Cryptotermes secundus</i>	Mina Hojat Ansari
16:00	148156	Gut microbiome disruption by antibiotics reduces learning in honey bees	Maree Kadee ★
16:15	147623	Characteristic microbe communities in vespine wasps facilitated by diet, not just social transmission	Jo-anne Holley
S17. Chemical communication in social insects – mechanisms, evolution, and applications; Room K6			
14:30	146487	Functional Conservation of a Long-Chain Hydrocarbon Olfactory Receptor Across Divergent Ant Species	Erin Beck
14:45	148968	Neuroethology of taste in the honey bee <i>Apis mellifera</i> : from behaviour to the neural circuits	Melissa Pitzalis
15:00	149016	You smell sick – The chemical and sensory bases of social immunity in the clonal raider ant	Sandra Tretter ★
15:15	149344	Exposure to non-nestmate odours changes the odorant receptor profile in <i>Acromyrmex echinator</i> ants	Mélanie Bey
15:30	145732	Cracking the chemical code of ant-aphid mutualism	Christophe Lucas
15:45	146472	Characterization of variation in honeybee brood hygienic signaling in response to <i>Varroa</i> parasitism	Claudia Garcia-Figueroa ★
16:00	149847	Guest and farmer ants: Establishment, maintenance, and the threat of breakdown	Rachelle Adams
16:15	146085	Exploring wound care by <i>Pseudomyrmex</i> ants on their host <i>Vachellia</i> trees	Melina Kienitz

Time	BN	Title	Presenter
S23. Social insects' responses and challenges in a changing world; Room K7			
14:30	148148	New and rapid techniques to uncover the macrophysiology of European ants	Tom Rhys Bishop
15:00	149028	Nutrition as a modulator of thermal tolerance in ants under climate change	Xavier Arnan
15:15	149057	The thermal biology of a giant: Heat tolerance and metabolic rate in <i>Dinoponera quadricaps</i> (Formicidae: Ponerinae)	Maria Eduarda Lima Vieira
15:30	149790	"You're all individuals": quantifying inter- and intraspecific responses to climate to predict bumblebee thermal niches and their interactions with plants	Richard Gill
15:45	141492	<i>A. mellifera</i> CHC profiles respond to the environmentally driven desiccation pressure	Daniel Rodríguez
16:00	149758	If You Can Make it There, You'll Make it Anywhere: Social Insect Adaptation to Urbanization from the Perspective of Native and Invasive Species	Chloe Hawkings
16:15	149861	Simulated heatwaves differentially impact bumblebee sucrose responsiveness and memory	Katherin Rodríguez Leon ★
S11. The organismal social insect colonies; Room K8			
14:30	149392	Major transitions in evolution and insect eusociality: new developments	Andrew Bourke
14:45	149337	A formal theory of group-level adaptation for obligate eusociality	Kalyani Zofia Twyman
15:00	148870	The Wheeler superorganism: recent advances highlighting its conceptual relevance	Jacobus (Koos) Boomsma
15:15	140514	A unifying framework for the evolution of metazoa and social insects, two major evolutionary transitions	Judith Korb
15:30	150039	Shutting the door: irreversibility and the superorganism transition in ants	Adria C. LeBoeuf
15:45	145838	The honey bee as model organism for superorganismality	Hannes Bonhoff ★
16:00	149308	Defining social complexity in arthropods: a consensus from expert elicitation	Damien Gergonne
16:15	146069	One mother for two species: obligate cross-species cloning in ants	Jonathan Romiguier
S20. Integrative evolutionary and ecological morphology; Room K9			
14:30	147876	Architecture as morphology: A comparative analysis of ant nests as extended phenotypes	Sean O'Fallon
14:45	149462	Nest architecture influences the colony-level defensive response of Honey bees	Peter Marting
15:00	147826	Combining AntWeb and Deep Learning to Reconstruct the Evolution of Ant Coloration	Sébastien Ollier
15:15	146460	Macroecological drivers of red and black colour variation in ants	Tristan Klaftenberger ★
15:30	149737	Ecomorphological evolution in <i>Neivamyrmex</i> army ants	Laís Barros
15:45	149822	Caste-related constraints and ecological divergence drive modular evolution in turtle ants	Aline Oliveira
16:00	149769	Fossil ecomorphology enables hypothesis testing of niche evolution and displacement	Christine Sosiak

Time	BN	Title	Presenter
S07. Nutrition and insect health, from single individuals to colonies; Room K10			
14:30	146504	Balancing the fat: how dietary fatty acid composition regulates nurses bee feeding	Spencer Behmer
15:00	147986	You Are What You Don't Eat: Nutritional Control of Fatty Acids in Bees and Wasps	Eran Levin
15:15	147877	Nutritional Ecology of Ant-Aphid Interactions	Meredith Willmott
15:30	148856	Metabarcoding reveals dietary shifts and resource partitioning of urban paper wasps (Genus: <i>Polistes</i>)	Garrett Behrends
15:45	149293	Do infected bumblebees forage differently? Feeding responses to an antiparasitic compound	Patrícia Miranda Pinto ★
16:00	148237	The taste of flowers: how bees assess the nutritional quality of pollen and why it matters	Sara Diana Leonhardt
16:15	148110	(Sea) salt of the earth: Coastal Scottish machair plant communities retain environmental sodium to attract bumblebee pollinators	Tegan Gaetano

Session 3 - 16:45 - 18:45

Time	BN	Title	Presenter
S27. Host-microbe interactions in social insects; Halle 4			
16:45	147056	Temperature optima overlap in an ant host and its specialist symbiont	Eva Schultner
17:00	147871	Venom Exposure Without Collapse: Stability of Fungus-Growing Ant Microbiomes Under Social Parasitism	Blake Bringham
17:15	149473	Symbiont fidelity in two fungus-growing ant genera and their fungal cultivars	Jeffrey Sosa-Calvo
17:30	146362	Field-realistic stressors alter the bumblebee gut microbial community	Marcela A Diaz Rivadeneira
17:45	149397	Engineering resistance: in situ microbiome engineering to increases bee tolerance to pesticide exposure	Susie Hawthorne
18:00	149138	Characterising effects of <i>Pantoea</i> bacteria on pathogen infection in bumble bees	Zoe Smeele
18:15	149928	The Two-Tier Dose-Response: Bumblebee Survival and Microbiome Shifts Under Contaminant Stress	Charlotte Fryday ★
S17. Chemical communication in social insects – mechanisms, evolution, and applications; Room K6			
16:45	150175	Hidden Chemists: How Stenamma Ants Synthesize Nicotinic Alkaloids?	Eva Vandenbroucke-Menu ★
17:00	149738	Evolutionary origin of terpenoid biosynthesis in termites	Jitka Štáfková
17:15	146391	Development of the queen pheromone composition: comparison of virgin and egg laying queens of the Western and an Asian honey bee species	Anne-Sophie Jatsch
17:30	145578	Food-derived odors modulate chemical communication in the termite <i>Reticulitermes flavipes</i>	Yuki Mitaka
17:45	149705	Label-free detection of ant pheromone trails using quantitative phase imaging	Laure-Anne Poissonnier
18:00	149646	Genomic drivers of parasitic behaviors in bees: evidence from gene family dynamics and selection patterns	Felipe Cordeiro Dias ★
18:15	149714	Insights into the molecular underpinnings leading to the diploid drone discrimination in the western honey bee <i>Apis mellifera</i>	Michelle Jung
18:30	149765	The Queen Central Module Gene Cytb5-r-a Regulates Queen Signaling In <i>Cryptotermes secundus</i>	Wei Zhou ★

Time	BN	Title	Presenter
S23. Social insects' responses and challenges in a changing world; Room K7			
16:45	144575	Bumblebee parasites and their distributions in a changing world	Alexis Gkantiragas ★
17:00	144747	A long-term field experiment to assess alternative treatments for a global honey bee pathogen - the <i>Varroa</i> mite	Egehan Onat Ozfen ★
17:15	145498	Commercial rearing sensitises bumblebees to pesticides	Darren O'Connell
17:30	146196	Differential sensitivity of Australian stingless bees and honey bees to dimethoate: implications for pollinator risk assessment	Gaurav Singh
17:45	149327	No Signal: Sublethal pesticide exposure interferes with honeybee worker responses to queen mandibular pheromone	Zoe Hudson ★
18:00	149015	Delayed but successful: Resilience of ant colonies facing a biotic stressor to an abiotic stress	Eshika Halder ★
18:15	146412	Too hot, too cold, or good enough: linking nest microclimate, thermal physiology, and decision making in a rock nesting ant	Purbayan Ghosh ★
18:30	148500	Microclimate shapes African ant competition and community structure	Philipp Otto Hoenle
S11. The organismal social insect colonies; Room K8			
16:45	145577	Superorganisms, hologenomes and phyllosymbiosis of fungus-gardening ants	Jon Seal
17:00	145708	Elevated developmental robustness of ant queen germlines in a colonial superorganism	Esther van den Bos ★
17:15	147924	Ant queen specialization is flexible and controlled by the social environment	Romain Libbrecht
17:30	146616	Conserved regulatory architecture enables stable yet plastic caste differentiation across 150 million years of ant evolution	Fuqiang Lin ★
17:45	148883	Common principles of disease defence in insect colonies and individual organisms	Sylvia Cremer
18:00	149957	The roads to superorganisms: an evo-devo perspective from termites	Bitao Qiu
		Discussion	
S20. Integrative evolutionary and ecological morphology; Room K9			
16:45	149056	How contrasting forms of competition alter trait-mediated community assembly: insights from coexisting turtle ants	Scarlett Reis Epifanio
17:00	145630	The impact of extinction on eusocial communities through deep time	Gianpiero Fiorentino
17:15	149873	Morphological integration and ecological filtering across Neotropical and Nearctic ant assemblages	Rodolfo Probst
17:45	145574	Morphological patterns across social origins in snapping shrimp	Claire Bailey
18:00	149390	Key innovations in the rise of ant societies	Arthur Matte
18:15	149755	The earliest fossil evidence for eusociality in ants and termites	Phil Barden
S00. Open Symposium; Room K10			
16:45	146417	Persistent behavioral variation among termite soldiers confronted with an intruder	Austin Merchant
17:00	146457	Species-specific behavioral consistency suggests a phylogenetic component to personality in ants	Liselotte Guillemin ★
17:15	147185	Blade-running: An efficient yet simple behavior to potentially combat summit disease in ants	Enikő Csata
17:30	148689	Temporal and Spatial Variation in Granivory by <i>Pogonomyrmex rugosus</i>	Joanie King
17:45	146247	From soil to canopy: ecology and evolution of nesting in ants	Eddie Pérochon ★
18:00	149966	Do driver ants function as keystone predators in African rainforests?	Max TerceL
18:15	149597	Population structure of an ecosystem engineer, the mound building termite <i>Macrotermes bellicosus</i>	Yannick Frings ★
18:30	148919	Effects of colony fusions and relatedness on colony size in the drywood termite <i>Cryptotermes secundus</i> : Theory meets data	Stephan Lohmar ★

Wednesday, August 19th 2026

Session 1 - 10:15 - 12:15

Time	BN	Title	Presenter
S12. From simple rules to collective resilience in a changing world; Halle 4			
10:15	148061	Stress is social: brain-level gene expression and physiological evidence from the honeybee	Rachael Halby ★
10:30	149949	Faster liquid flow under greater resistance: Red Queen dynamics in honey bee trophallaxis networks	Tim Gernat
10:45	148541	Soldiers boost colony defense by enhancing information flow and modulating minor behavior	Lei Nie
11:00	149876	Honeybee foragers discriminate between safe and dangerous resources at the flower-level but not at the patch-level	Natalie Lemanski
11:15	145934	Organisational immunity in ants: the importance of socio-spatial structure in mitigating epidemic risk	Nathalie Stroeymeyt
11:30	146777	Pathogen Spread and Removal in Multilayer Ant Social Networks	Vasudha Kulkarni ★
11:45	144987	Social and Spatial Affinity Drive Wound Care by Ants	Ebi Antony George
12:00	149783	Nest-level phase transition drives synchronized activity bursts in ant colonies	Michael Napoli ★
S03. Stingless bees – emerging models for understanding life history diversity in highly eusocial bees; Room K6			
10:15	152884	Host-parasite interactions in stingless bees: robber bees and their victims	Christoph Grueter
10:45	148726	Genomic insights from hybridisation at natural and artificial contact zones of an Australian stingless bee (<i>Tetragonula hockingsi</i>)	Genevieve Law ★
11:00	149789	Queen-associated loci in <i>Melipona</i> bees	Natalia de Souza Araujo
11:15	150038	Insights into the evolution of eusocial stingless bees from large scale comparative genomics	Eckart Stolle
11:30	150046	Evolution and gene family dynamics of cytochrome P450s in stingless bees (Apidae: Meliponini)	Maria Cristina Arias
11:45	145752	Life-history plasticity in stingless bees (Meliponini): a comparative transcriptomics perspective	Leonardo Campana ★
12:00	149193	Regulatory genes of worker ovary development in stingless bees with contrasting reproductive capacities	Fernanda de Angeli Dalarmi ★

Time	BN	Title	Presenter
S10. Mechanisms facilitating the evolution of social behavior in insects; Room K7			
10:15	143609	Brain development in an allodapine bee aligns with social caste and ecological intelligence	Simon Tierney
10:30	146375	Variation in ants olfactory system design	Carlotta Martelli
10:45	149990	Mischocyttarus Wasps as a Window into the Origins of Social Cognition and Chemical Communication	Fabio Nascimento
11:00	150041	Cryptic chemical and genomic differentiation correlates with social complexity in the socially flexible sweat bee <i>Megalopta genalis</i>	Callum Kingwell
11:15	140628	Behavior and chemical signaling facilitate the social dominance of reproductive workers across contexts in queenless groups of Indian jumping ants (<i>Harpegnathos saltator</i>)	Benjamin Pyenson
11:30	149905	Genetic, behavioral and chemical data give discordant information about population structure in <i>Formica exsecta</i>	Anu Halonen
11:45	145303	Evolutionary transitions in social behavior are associated with convergent and partially reversible expansions of transcription factor binding sites	Savanna Ploessl ★
12:00	149744	The Pace-of-Life syndrome as a potential mechanism underlying the evolution of sociality in Arthropods	Violette Chiara
S19. Mechanisms and evolution of insect sensory systems: implications in the Anthropocene; Room K8			
10:15	145042	Adaptive evolution of odorant receptors is associated with elaborations of social organization in ants	Yoann Pellen
10:45	146279	The genomic underpinning of variation in vision across a global sample of ant workers	Joel Vizueta
11:00	149929	Molecular correlates of gustation and diet in ants	E. Jordan Smith
11:15	152891	Neural coding of pathology-related odorants in the honeybee brain	Lilith Filaferro ★
11:30	146414	Eyes in the City: Species-specific shifts in visual traits in bees and wasps	Andrea Ferrari
11:45	149773	Searching in the shadows: the effects of UV-deficient environments on bumblebee foraging behavior	Olivia Harris
12:00	144604	Phylogenomics reveal the evolution of social parasitism in vespid wasps (Hymenoptera: Vespidae)	Sarah von Adelnmannsfelden ★
S21. Transgenic approaches for studying the biology of social insects; Room K9			
10:15	146268	Implementing Molecular Tools for Circuit Neuroscience in the Clonal Raider Ant	Daniel Kronauer
10:30	149472	Genetic dissection of brain functions related to foraging ability in the honey bee through analysis of mKast knockout workers	Hiroki Kohno
10:45	149946	Bee on time: investigating circadian clock gene function via gene editing in honey bees (<i>Apis mellifera</i>)	Katharina Beer
11:00	151039	Olfactory receptor mutants to tackle pheromone processing in the honey bee brain	Jean-Christophe Sandoz
S00. Open Symposium; Room K9			
11:15	149186	Geographic variation of wing shape allometry in honey bees (<i>Apis mellifera</i>)	Adam Tofilski
11:30	145678	RNAi-based Varroa destructor biopesticides inside the honey bee colony	Joana Merk
11:45	146908	Towards a Taxonomic Resolution in Stenammmini Ants: Whole-Genome Sequencing Reveals Social Hybridogenesis Candidates and Phylogenetic Incongruences	Lorenzo Frayse
12:00		Pollinator-Friendly Botanical Biopesticides in Cotton Agroecosystems: Effects on the Foraging Activity and Pollination Efficiency of <i>Amegilla</i> sp. (Hymenoptera: Apidae) in Northern Cameroon	Abraham Tchoubou-Salé ★

Time	BN	Title	Presenter
S26. The role of citizen science in social insect research; Room K10			
10:15	149835	Guiding management strategies of the yellow-legged Asian hornet through results of citizen science	Lukas Seehausen
10:30	145143	Citizen science reveals caste-specific seasonality and unexpected winter activity in invasive New Zealand wasps	Maëlle Anastasi ★
10:45	147015	MonitAnt Citizen Science Project: Europewide assessment of mound-building Formica ants	Heike Feldhaar
11:00	150020	The Ant-Free Atacama Desert: Distributional Limits of Native Ants in Northern Chile	Benjamin Palm ★
11:15	149033	Atta Leafcutter Ants are Climate-Sensitive Bioindicators: Integrating evidence from iNaturalist, literature, and expert researchers	Ulrich Mueller
11:30	145595	Is climate change shrinking bees?	Madeleine Ostwald
11:45	150188	Citizen Science as a Tool for Quantifying Insect-Plant Interactions and Network Dynamics	Morgan Morrison
12:00	149201	When stingless bees and ants bewitch: an approach to the myths and realities of four ethnic groups in the Peruvian Amazon	Carlos Daniel Vecco-Giove

Session 2 - 14:30 - 16:30

Time	BN	Title	Presenter
S12. From simple rules to collective resilience in a changing world; Halle 4			
14:30	142385	Form, function, and evolutionary origins of architectural symmetry in honey bee nests	Michael Smith
14:45	147646	Gene networks and the pathway to honeybee fanning	Kerrigan Tobin ★
15:00	150048	Cooling down and heating up: Thermal history dependence in acorn ants	Kendrick Nakamura
15:15	146628	Collective survival during floods in Solenopsis invicta fire ants	Andrew Robertson ★
15:30	147427	Making balls out of leaves, with weaver ants	Gadi Trocki
15:45	146103	The role of individual learning in weaver ant collective self-assemblages	Rob Boddington
16:00	145804	Detecting the failure of the honeybee's decentralised thermoregulation system	Theotime Colin
16:15	146390	From individual thermal limits to collective resilience through plasticity and microclimate use	Jelena Bujan
S02. New frontiers in the study of division of labour in social insects; Room K6			
14:30	144262	Dominance behaviour regulates division of labour in different ways in two congeneric sympatric species of social wasps	Raghavendra Gadagkar
15:00	146467	From Individuals to Groups: Metabolic rate as a driver of intra- and inter-specific variation in honeybees	Kord Dicke ★
15:15	149487	Spreading dynamics in clonal raider ant interaction networks	Sarah Rogoz ★
15:30	145906	Do random variations drive inactivity in social groups?	Raphaël Jeanson
15:45	150370	Molecular and cellular basis of worker-soldier polymorphic Carebara ants	Zijian Huang
16:00	152897	Expanding the concept of division of labor: from social cooperation to levels of complexity	Jennifer Fewell

Time	BN	Title	Presenter
S10. Mechanisms facilitating the evolution of social behavior in insects; Room K7			
14:30	149838	Wing polyphenism and eusociality during the origin of ants	Ehab Abouheif
14:45	146484	Larval social fluids modulate caregiver feeding drive in ants	orli snir
15:00	150045	Gut Microbiota Regulation of Social Behaviour in Honeybees	Gregorio Calderoni ★
15:15	146456	Macroevolutionary consequences of nutritional symbioses in Formicinae ants	Bonnie B. Blaimer
15:30	149772	Pace of life and sociality: variations of behavioral and physiological traits among four <i>Anelosimus</i> species	Tristan Robineau ★
15:45	149880	Context-dependent intruder recognition and aggression in a subsocial cockroach	Haruka Osaki
16:00	147234	The enemy of my enemy is my friend: intergroup conflict and cooperation in the Pacific dampwood termite (<i>Zootermopsis angusticollis</i>)	Jasmine Lowe
16:15	149478	Discovery of spontaneous raiding in an army ant relative sheds light on the evolution of mass raiding behavior	Riou Mizuno
S05. Life-history evolution in social insects – fertility and ageing; Room K8			
14:30	149470	Social drivers of lifespan extension in a facultatively eusocial bee	Karen Kapheim
14:45	149967	Social status, flight activity and DNA damage in large carpenter bees	Miriam Richards
15:00	149220	Having their cake and eating it too: stressperiments in ants	Karl Glastad
15:15	150026	Ageing affecting evolution of genes and their expression across tissues in social insects	Lukas Franke ★
15:30	149563	H3K9me3-mediated repression of transposable elements linked to long lifespan in the drywood termite, <i>Cryptotermes secundus</i>	Louis Allan Okwaro
15:45	145625	Sperm metabolism dynamics during storage in long-lived ant queens	Serge Aron
16:00	145750	Slow sperm aging in males of the buff-tailed bumblebee (<i>Bombus terrestris</i>)	Thibaut Renard
16:15	146372	The fecundity–longevity trade-off in a clonal eusocial insect: subordinate workers match dominants in reproductive capacity	Abel Bernadou
S15. Navigating the superorganism: molecular, behavioral, and computational perspectives on decision-making in social insects; Room K9			
14:30	148743	Genetic, social, and environmental influences on aggression in <i>Temnothorax</i> ants and their fitness consequences	Susanne Foitzik
15:00	146459	Gut-microbiome, genomic, and transcriptomic factors promote aggression in an ant	Patrick Krapf
15:15	149702	Microbial regulation of the social brain in corbiculate bees	Joanito Liberti
15:30	147318	Paired, individual, and collective-decision making by dispersing termites	Nobuaki Mizumoto
16:00	149798	Testing choice overload in a pollinator: effects of option number and reward contrast	Claire Hemingway
16:15	149961	Superefficient teamwork in weaver ants	Daniele Carlesso
S08. The role of brood in social insect colonies; Room K10			
14:30	149735	Small bodies, big influence: how brood shapes social cohesion in wasps	Cintia Akemi Oi
14:45	148981	The Evolution of a Larval Worker Caste	Dylan Thatcher ★
15:00	146469	Brood-Mediated Regulation of Queen Fecundity in Pharaoh Ant	Allina Win ★
15:15	149912	Molecular evidence for metabolic division of labor and information transfer through ant social fluids	Yuqi Reitsema-Wang
15:30	149749	Social modulation of decision-making in <i>Drosophila</i> larvae	Katrin Vogt
15:45	147910	Larval immunity depends on worker presence in the clonal raider ant	Anika Höppner ★
16:00	149771	Brood care and larval behavior in <i>Holcaponera striatula</i>	Diana M. Urcuqui
16:15	146779	Transcriptomic signatures of parental and alloparental care in the facultatively eusocial ambrosia beetle <i>Xyleborinus saxesenii</i>	Julius Rombach ★

Session 3 - 16:45 - 18:45

Time	BN	Title	Presenter
S22. Beyond-omics: new perspectives on social insect big datasets; Halle 4			
16:45	149181	What bee genes, caveman statistics, and learning machines can teach us about 'differential expression'	Benjamin Taylor
17:15	150361	Haplodiploidy accelerates mito-nuclear coevolution	Gaurav Athreya ★
17:30	146229	Transposable Elements in Ant Macroevolution	Lukas Schrader
17:45	149586	Combining genomic and transcriptomic approaches to unravel the evolution of a supergene underlying wing and social polymorphisms	Claudie Doums
S02. New frontiers in the study of division of labour in social insects; Room K6			
16:45	149884	Role of Minor Workers in Weed Management in <i>Odontotermes obesus</i>	Rhitoban Raychoudhury
17:00	148037	Age-dependent energetics and flight performance in bumblebee workers	Christoph Kurze
17:15	145799	Division of what? Different axes of worker variation and their implications for colony organization	Anna Dornhaus
17:30	149980	Inactive leaf-cutter ants mediate task allocation through workload-dependent activation	Santiago Meneses
S18. Vibroacoustic signalling in (eu)social insects; Room K7			
16:45	149892	Substrate-borne vibrations as a recruitment signal in ant tandem running	Manish Pathak
17:00	149041	The shaking signal shapes the daily rhythm of work inside and outside the hive	James Nieh
17:15	141535	Audience effects shape the honey bee waggle dance	Ken Tan
S05. Life-history evolution in social insects – fertility and ageing; Room K8			
16:45	149589	Caste-specific ageing and age polyethism emerge from the evolution of resource allocation in eusocial insects	Jan Kreider
17:00	148544	When evolution makes things worse: coevolution between selfish traits and colony lifespan in social insects	Kiyotaka Yabe
17:15	149882	Effect of a selfish genetic element on mate preference in a socially polymorphic ant	Jeanne Brühlhart ★
17:30	145559	Reproductive and developmental dynamics in <i>Lasioglossum marginatum</i> (Halictidae), a bee with an exceptionally long nesting cycle	Anna Žalmanová ★
S15. Navigating the superorganism: molecular, behavioral, and computational perspectives on decision-making in social insects; Room K9			
16:45	149842	Investigation of evolution rates of individual vs. social locomotion behaviors across <i>Temnothorax</i> ants	Hailey Hutchison
17:00	151979	Emergent Spatiotemporal Organization in Honeybee Colonies: Lessons from Large-Scale Behavioral Data	Tim Landgraf
17:30	149668	High-resolution tracking using machine-learning reveals the spatiotemporal dynamics of social immunity in <i>Reticulitermes flavipes</i>	Özge KILIC ★
S09. The role of maternal care on the evolutionary trajectory of sociality; Room K10			
16:45	149814	Nutrient investment in offspring across social organization in cockroaches	Sofia Bouchebti
17:00	147961	Immune cost of maternal care towards eggs and juveniles in the European earwig	Simon De Wever ★
17:15	149070	Diversity of Social Behavior in Ceratina Bees: A Global Perspective	Michael Mikát
17:30	147368	The effects of serotonin in modulating behaviour and brain gene expression within a facultatively social bee	Riya Miller ★

Thursday, August 20th 2026

Session 1 - 10:15 - 12:15

Time	BN	Title	Presenter
S12. From simple rules to collective resilience in a changing world; Halle 4			
10:15	147650	Exploring mechanisms of cooperative prey transport and nest construction from weaver ants to robots and back again	Chris Reid
10:30	146927	Frequent errors are the worst: robustness to individual failures in collective foraging	Chinmay Hemant Joshi
10:45	147618	Collective decision-making during raiding in the clonal raider ant	Libby Tseng ★
11:00	149899	Quantification of territory marking and territorial behavior in weaver ants	Stefan Popp
11:15	146480	Food for thought – Food type drives cooperative transport performance in the arboreal weaver ant, <i>Oecophylla smaragdina</i>	Anoushka Dasgupta ★
11:30	145988	Investigating the mechanisms of information sharing and conflict resolution during collective decision making in Weaver Ants	Asser Loutfi
11:45	148708	Time evolution of wavy pheromone trails reveals a minimal decision rule for ant trail following	Oran Ayalon ★
12:00	149204	Cooperative Hunting in Weaver Ants: The Spread-Eagle Strategy and the Transition to Transport	Xiaohui Guo
S29. Tiny but mighty: viruses in social insects; Room K6			
10:15	146365	Effects of vector-borne transmission on viral ecology and evolution in bees	Lena Wilfert
10:30			
10:45	144650	Honeybee viral and gut microbial associations in <i>Varroa</i> free vs impacted landscapes	Matthew Wallace ★
11:00	146450	Bumble bee viral communities: Are they shared across species, locations, or both?	Morgan Moore
11:15	147607	Survey of pathogen prevalence in commercial beekeeping operations across Southwest Saudi Arabia: Implications for management and selective breeding	Keegan Nichols
11:30	146865	Sub-lethal effects of DWV infection on bumble bee learning behaviour	Carina Scheifele ★
11:45	145869	Virus-virus interactions between the Deformed wing virus and Varroa destructor virus-2 in varroa mites	Antoine Felden
12:00	146397	Influence of host and viral characteristics on Black queen cell virus virulence	Chenoa Noel Guiditta Kaufman ★

Time	BN	Title	Presenter
S24. Social insect conservation; Room K7			
10:15	146810	Testing a scalable monitoring protocol for social wasps (Vespidae) in Italy	Giorgio Vicari
10:30	148991	Ants as bioindicators: Feasibility and ecological value in multi-taxon biodiversity monitoring of European forests	Elia Guariento
10:45	149756	From Native Grasslands to Croplands: Impacts of Intensive Agriculture on Ant Assemblages in Madagascar	Alberto Masoni
11:00	147815	Unknown allies in the grassland ecosystem. How the engineering of <i>Lasius flavus</i> benefits pollinators	Gabrielle Flinn ★
11:15	148477	Big birds and ants: Interactions between Galliformes birds and Red Wood Ants—evidence from camera trapping, faecal analysis and their spatial overlap	Jiri Tuma
11:30	148869	Examining the effect of urbanization on bumblebee movement through population genetics and agent-based modeling	Jeremy Howard
11:45	146422	Safeguarding locally adapted honeybee subspecies: Genetic Introgression and Health Risks in <i>Apis mellifera sahariensis</i> from Morocco	Abdessamad Aglagane
12:00	146448	Effects of managed bees on flower visitor diversity and visitation patterns of <i>Vitellaria paradoxa</i> (shea)	Latif I Nasare
S06. From founding to function: early-stage dynamics in the life cycle of social insects; Room K8			
10:15	149763	Turtle ants undergo an unexpected pattern of caste investment and colony development to function in the arboreal realm	Scott Powell
10:30	146259	The reversible specialization of ant queens allows them to start a new colony again	Hugo Le Lay ★
10:45	146349	Colony Foundation and Symbiont Transmission in an Ant-Plant Farming Mutualism	Nathaniel Holmes
11:00	148852	The role of early colony life-cycle stages on the maintenance of social polymorphism in ants: a population genetic model	Uthara Srinivasan
11:15	148929	From mate choice to colony founding: supergenes control reproductive dynamics in the ant, <i>Formica cinerea</i>	Giulia Scarparo
11:30	145683	BumbleMATE – Agent-based modelling of bumblebee mating flights to predict gene flow and delimit populations	Wiebke Sickel
11:45	146395	Prolonged maternal care and rudimentary division of labour in facultatively social small carpenter bees	Sandra Rehan
12:00	148540	One dose does not fit all: Species-specific and dose-dependent responses of bumble bee queens to insecticide exposure	Erika Ibarra-Garibay
S13. Comparing miniature cognitions; Room K9			
10:15	145800	Floral environment and cognition affect individual foraging patterns	Jennifer Jandt
10:30	145852	Fine-scale navigation: searching ants use multiple guidance mechanisms	Patrick Schultheiss
10:45	146042	Magnetoreception in two <i>Cataglyphis</i> ants species	Chiara Tenneriello ★
11:00	149151	Effects of experimental heatwaves on visual memory in bumblebees	Szymon Szymanski ★
11:15	149262	Information or Imprecision? Patch signaling in the honeybee waggle dance	Renzhuang Xie ★
11:30	149883	Honey bees (<i>Apis mellifera</i>) learn rules to better solve spatial tasks and these are affected by diet	Sharoni Shafir
11:45	149970	Time-space memory in honey bees: from behavior to brain processes	Axel Brockmann
12:00	149418	Precise, individualized foraging flights in honey bees revealed by multicopter drone-based tracking	Michael J.M. Harrap

Time	BN	Title	Presenter
S01. Adult phenotypic plasticity and the regulation of division of labor in social insects; Room K10			
10:15	146198	The role of olfactory sensitivity on task specialization in the honey bee	Julie Carcaud
10:45	146335	A worker-specific role for neuroparsin A in regulating bee reproduction	Ella Messner
11:00	149926	From Molecules to Societies: how queen pheromones enforce the reproductive division of labour	Elizabeth Duncan
11:15	146439	Neither caste nor sex: an ant species consisting entirely of queens	Jürgen Heinze
11:30	149720	Unmated queens show worker-like behavior and gene expression in polygynous colonies of the ant <i>Stigmatomma pallipes</i>	Maximilian F. Bolder
11:45	149303	Power and reproduction in an Australian paper wasp	Ayla Webb ★
12:00	149733	Reproductive hierarchies of clonal ants with and without fertility signals	Brian Whyte

Session 2 - 14:30 - 16:30

Time	BN	Title	Presenter
S16. The role of innate and experience-driven chemical communication in regulating insect social behavior; Halle 4			
14:30	149614	Origin of the queen primer pheromone in the termite <i>Embiratermes neotenicus</i>	Robert Hanus
15:00	149618	Identification of the trail-following pheromone receptor in termites	Kateřina Kašparová ★
15:15	145533	A social bee learns to associate a novel odor with social context	Etya Amsalem
15:30	149685	The influence of juvenile hormone on chemical communication in a social bumble bee	Tzvi S. Goldberg ★
15:45	149974	Ethyl oleate regulates rapid JH changes during heat shock	Zachary Huang
16:00	149068	Self-organized ant colony size sensing through queen pheromone transmission and its possible constraints and adaptive significance	Kazuki Tsuji
16:15	149879	Chemical communication of spatial information in the clonal raider ant	Tim Zetsche
S29. Tiny but mighty: viruses in social insects; Room K6			
14:30	149285	Timing of viral infection shapes disease outcome in <i>Bombus terrestris</i> , with modifying effects of the gut microbiome	Pina Brinker
14:45	149398	Structural and molecular implications of infections by deformed wing virus in the honeybee brain	Fabio Manfredini
15:00	149650	Insipient co-evolution: Varroa destructor infestation and DWV infections cause major but non-overlapping shifts in gene expression in <i>Apis mellifera</i> populations	Tom Sisternans
15:15	150144	Primary and secondary antiviral RNAi responses throughout <i>Varroa destructor</i> life stages reveal the vertical transmission of viruses	James Damayo ★
15:30	149834	Gene by environment interactions impact virus infection in mite resistant honey bees	Michael Simone-Finstrom
15:45	150348	Juvenile Hormone Enhances Viral Activity in Bumble Bees	Hagai Yehoshua Shpigler
16:00	149856	Experimental evolution of IAPV pathogenesis and antiviral immune response in <i>Apis mellifera</i>	Olav R��ppell
16:15	146197	Collective antiviral defense through trophallactic fluid transfer in ants?	Julen Casulleras Alava ★

Time	BN	Title	Presenter
S24. Social insect conservation; Room K7			
14:30	148782	Genomic signatures of apiculture in the Western honeybee and their implications for conservation	Patrick Laurenz Kohl
14:45	149241	Effect Of Altitude On Bee Pollinator Communities Along A Tropical Elevation Gradient	Bethany Odohu Youfei ★
15:00	149933	Assessing wild honeybee population trends in Europe: survival-based projections over IUCN time horizons and the contribution of citizen science	Benjamin Rutschmann
15:15	146244	Translocating wood ants (<i>Formica</i> spp.): A systematic review of methods and outcomes	Imogen Cockwell
S00. Open Symposium; Room K7			
15:30	146489	Using ants in Vanuatu for case-based teaching of integrative taxonomy	Kyle W. Gray
15:45	148806	Acrobat ants across the Mediterranean: Population structure of the <i>Crematogaster scutellaris</i> complex	Jody Helena Voges ★
16:00	146798	Functional and phylogenetic responses of ant assemblages to experimental fire regimes in a tropical savanna	François Brassard
16:15	146493	Fire-driven changes in trophic resource use and diel activity of ant communities	Juan Pascual Gil de Gómez
S06. From founding to function: early-stage dynamics in the life cycle of social insects; Room K8			
14:30	149466	Reproductive Traits of Honey Bee Queens Predict Colony Growth Trajectories	Hongmei Li-Byarlay
14:45	146374	Altered colony initiation enabled the evolution of fully asexual lineages in termites	Simon Hellemans
15:00	148844	Nesting biology drives the stability of tandem movement coordination in mating termites	Elijah Carroll
15:15	149498	First experimental evidence of social parasitism in termites	David Sillam-Dussès
15:30	149741	Flexible cognitive switching allows economical early stage nest defense	Lorenz Mammen ★
15:45	146505	Natural History observations of a population of social wasp, <i>Polistes arizonensis</i> : colony survival and productivity in relation to the number of foundresses	Zachary Shaffer
16:00	149881	Behaviourally different foundresses initiate two types of nests in the primitively eusocial wasp <i>Polistes wattii</i>	Ruchira Sen
16:15	149952	Climate shapes wasp foundress cooperation across Africa	Patrick Kennedy
S13. Comparing miniature cognitions; Room K9			
14:30	149471	Consequences of a sleepless brain: A sleep-restricted dancer sends different messages to her honey bee followers	Barrett Klein
14:45	145368	The evolution of communicative complexity across acorn ants	Grant Navid Doering
15:00	144955	Impact of social isolation on socially selective neurons and high-order visual processing in a social wasp	Christopher Jernigan
15:15	146361	Leaf-cutting ants learn from their efforts: foragers recall olfactory memories to avoid plants they previously experienced as hard to cut	Flavio Roces
15:30	146406	Deciphering Ant Antenna Use Patterns for Exploration	Noam Brown
15:45	148545	Innate visual attraction before, during, and after experiencing adversity in the ant <i>Camponotus japonicus</i>	Yusuke Notomi
16:00	148591	Pain-relief seeking in bumble bees	Elisa Pasquini ★
16:15	146013	To save my sister or not: Understanding the evolution of rescue and wound-care behaviors in a termite hunting ant	Vibhuti Bhat ★

Time	BN	Title	Presenter
S01. Adult phenotypic plasticity and the regulation of division of labor in social insects; Room K10			
14:30	146097	Plasticity of non-nestmate discrimination in the clonal raider ant	Tiphaine Bailly
14:45	147120	Cooperation and competition in the clonal raider ant	Tomas Kay
15:00	149878	Coordination of a rare task: Nightly door-closing behavior in harvester ants	Christina Kwapich
15:15	146482	Tissue-Specific Transcriptional Activity Underlying Task Switching in the Ant <i>Temnothorax longispinosus</i>	Ina Knuf
15:30	149812	The structure of age-dependent nest defense plastically varies by threat type in paper wasps	Yareli Alvarez 
15:45	149930	Behavioral and molecular variations in circadian clock set-up is related to colony reproduction in stingless bees	Arthur Roque Justino
16:00	148393	Dealing with the dead: an integrative approach to decode necrophoresis in ants	Lai Ka Lo
16:15	148266	Global peptidergic rewiring underlying reproductive role transition in ants	Weiwei Liu

Poster Session A

Monday, August 17th 2026 - 16:45 - 18:45

BN	Title	Presenter
S00. Open Symposium		
144313	Occurrence and diversity of Edible Termites (Isoptera: Termitidae) Archived in the Natural History Collections of the National Museums of Kenya	Anne Nyandiala ★
144997	The enigmatic Hawaiian harvester ant (ok, not really), <i>Pogonomyrmex owyheeii</i>	Kaylee Bond
145644	Morphometric Diversity of <i>Varroa destructor</i> Infesting <i>Apis mellifera intermissa</i> in Algeria: Implications for Regional Adaptation and Sustainable Management	Haider Yamina
146269	Integrative Taxonomic Revision of the Genus <i>Leptogenys</i> Roger (Hymenoptera: Formicidae) in Taiwan	Fu-Ya Chung
146340	Effects of serotonin on behavioral activities in males of honey bees (<i>Apis mellifera</i> L.)	Tomohiro Watanabe
146424	Pollination dependence and deficit in almond agroecosystems, insights from wild bee diversity, abundance, and pollen affinity	Houda BENKHALIFA ★
146468	Characterization of Moroccan Honeys: Antioxidant Potential, Mineral Composition, Antibacterial Activity, and Health Risk Assessment	Hafsa MAHMOUDI ★
146485	Do honey bees use propolis to fortify weak nest structures?	Erica Maul ★
147412	Integrative taxonomy of Vanuatuan doryline ants reveals four new endemic species in the South Pacific	David Grunicke ★
147635	Are we occasional colleagues? Exploring relationship between <i>Eciton burchellii parvispinus</i> and <i>Azteca velox</i> beyond the role of predator-prey.	Karen Robles Lopez
148152	West Africa's blind spot: Ant Diversity and Habitat Patterns in Guinea-Bissau	Dávid Domingos ★
148675	Seasonal effects on tissue-specific immunity-related gene expression in honeybee queens exposed to different pathogen types	Billur Küçüközmen
148868	Behavioral impairments in paper wasp colonies due to neonicotinoid pesticide	Sircio Alison Dos Santos
149242	Towards an integrative taxonomy of ant genus <i>Carebara</i> in Asia using the colony composition and subcaste polymorphism	Kohei Matsuura ★
149371	Drifting behaviour in bumblebees can be linked to both brood and kleptoparasitism	Marthe Van Marsenille
149463	The Connection Between Grooming behavior and Flight Performance	D'Anastacia Hutchinson
149736	Vegetation structure shapes horizontal and vertical stratification of ant assemblages in a Cerrado savanna	Ramon Macedo
149875	A reference brain for the clonal raider ant	Dominic Frank
149887	Population genetic reassessment of <i>Vespa crabro</i> subspecies: discordance between color variation and genetic lineages	Yonghan Ji
149996	The density-dependent relationship between pheromones and the geometry of Argentine ant exploratory patterns	Clea Chelala, Shifa Hammoudeh
152883	A novel tool to track ant movement in darkness to assess the role of vision in area-restricted search behaviour	Loïc Lacour

BN	Title	Presenter
S00. Open Symposium		
152998	Improvement of <i>Millettia laurentii</i> (Fabaceae) production through floral visit by <i>Apis mellifera</i> (Hymenoptera: Apidae) at Dang (Ngaoundere, Cameroon)	Napoleon Nisso Djamo
152999	Exploitation of the flowers of <i>Capsicum annuum</i> (Solanaceae) by <i>Apis mellifera</i> (Hymenoptera: Apidae) at Madem (Ngaoundere, Cameroon)	EZECHIEL NOUAMA
153001	New insights into insect sociality: messages from social aphids	Xiaolei Huang
154113	Morphological plasticity of <i>Apis mellifera</i> foragers across Urban–Rural land-use gradients and temporal scales in Southwest UK	Elizabeth Rentería
155381	Thermal Tolerance of Red Wood Ants and Their Hybrids in the Netherlands	Jim Zonneveld
159226	When it gets hot, teamwork wins: ground warming boosts cooperative transport outcomes over solo carriers	Andres Devegili
S04. The evolution and regulation of reproductive division of labor across social insects		
145039	Wings to Ovaries to Behavior: The Role of Wings in the Reproductive Ground Plan	Ian Brush
146299	Age, caste, and social context shape ovarian morphology and transcriptomic profiles in red harvester ants	María Fernanda Vergara-Martínez ★
146336	Photoperiod and social regulation determine caste fate in the temperate paper wasp	Hideto Yoshimura
147410	Worker reproductive constraints across <i>Temnothorax</i>	Joseph Stahulak ★
148907	Cellular and evolutionary mechanisms of social caste differentiation in the ant brain	Xiaoxu Xu ★
149132	Reproductive differentiation through mutilation is a time bound process in a ponerine ant <i>Diacamma indicum</i>	Subhashis Halder
149165	Modifications in Doublesex characteristics drive termite eusocial evolution	Kokuto Fujiwara
149458	From nutrition to reproductive fate: transcriptional programs of ovary differentiation in the honey bee <i>Apis mellifera</i>	Flávia Cristina de Paula Freitas
149766	Social Evolution in Beetles	Peter Biedermann
149849	Exogenous farnesol induces nursing behaviour in older workers of the stingless bee <i>Melipona quadrifasciata</i>	Isabel Ribeiro do Valle Teixeira
149895	Identification of the terpene synthase responsible for biosynthesis of the queen pheromone in the Pharaoh ant, <i>Monomorium pharaonis</i>	Hana Šestáková ★
S11. The organismal social insect colonies		
146334	What ends a social insect colony: accumulation of uric acid increases infectious disease risk in termites	Takao Konishi
149240	Exploring the attini–microorganism system: a study of <i>Atta sexdens</i> (L.)	Lara Cavallari Santello
S14. Complex phenotypes in social insects: the interplay of genes and environment		
147952	Transcriptomics of reprogramming: parasites exploit plasticity in caste and brain development of social wasps	Natasha Vacca ★
148833	Phylogeny of <i>Messor structor</i> lineages and the origin of cross-species cloning	Alice Ha ★
149671	Evolution of two supergene systems in the ant <i>Temnothorax rugatulus</i>	Wenfeng Bai

BN	Title	Presenter
S17. Chemical communication in social insects – mechanisms, evolution, and applications		
144998	Recruitment behavior by the Longhorn “crazy” ant <i>Paratrechina longicornis</i>	Ehud Fonio
148882	Investigation of host recognition systems in the temporary socially parasitic spiny ant: <i>Polyrhachis lamellidens</i>	Hironori Iwai
149423	Defense strategy of prey hornets against attack by giant hornets in Japan	Masakazu Nishimura
149753	Drawn to the dead: Fungus farmer <i>Cyphomyrmex costatus</i> (Formicidae: Myrmicinae) surrounds their garden with arthropod corpses	Milena Antonova
150043	Field bioassays reveal evidence of a gyne-produced sex attractant pheromone in social yellowjacket wasp	David Rankin
S20. Integrative evolutionary and ecological morphology		
141560	Soldiers of the subterranean army: a morphometric analysis of worker caste polymorphism in the army ant <i>Labidus coecus</i>	Jacob Sorrentino
145665	Evolution and physiological constraints of ant leg amputation	Dominic Enzner ★
149032	Climatic correlates of body size variation in <i>Ectatomma</i> ants from the Brazilian Cerrado	Nataly Neves
149080	Scraping away the cost: the antenna cleaner’s role in reducing the contamination risk of allogrooming	David Moreno Martínez
152089	Solar reflectivity and thermal resilience in an ant community along an elevational gradient	Cassandra Bennett
S23. Social insects' responses and challenges in a changing world		
145470	Some elements in honey harvested for over a decade (2013 – 2025) from Samaru, Kaduna State, Nigeria	Lateef Akinwumi Folorunso
146419	The role of microclimate in determining activity and physiological response of harvester ants	Lina Bajić ★
146420	Safe or at risk? Consequences of environmental stress on social insect behavior and fitness	Antonia Smolić
146433	Buzzing beyond the Queen: Optimising drone rearing for future research	Sarah Berryman-Shaw ★
146446	Spatial-trophic niche partitioning of ants along a tree species richness gradient in a young subtropical forest	Matteo Dadda
146451	How native California harvester ants survive despite Argentine ant invasion	Matina Donaldson-Matasci
147453	Binary neonicotinoid exposure impairs colony founding in <i>Bombus terrestris</i> queens	Cristina Botías
148423	Polluted pollinators: Expression analysis of <i>Bombus impatiens</i> shows physiological changes when exposed to environmental contaminants	Joanna E. Saxon ★
148791	Drone thermal mapping reveals fine-scale thermal heterogeneity in ant habitats	Marko Bračić
149044	Sublethal oral exposure to sulfoxaflor alters brain transcriptomic profiles in the stingless bee <i>Melipona quadrifasciata anthidioides</i>	Lucas Miotelo
149636	A next-generation pesticide is detrimental to paper wasps	Bruno Matheus Gomes ★
149742	Differences in thermal physiology may explain the temporal distribution of foraging activity among different-sized workers in the seed-harvesting ant <i>Messor barbarus</i>	Vincent Fourcassié
149827	Climate change risk as a function of soil stratum: Are epigeic or hypogeic ants more negatively affected?	Kaitlin Baudier
149886	Comparative effect of natural and commercial Cu ₂ O on the mobility of ants	Czekes Zsolt

BN	Title	Presenter
S23. Social insects' responses and challenges in a changing world		
149891	Assessing Temporal and Urban Effects on Polistes Nest Dynamics in the Midwestern United States	Sarah Willen-Nelson
149986	Swimming skototaxis is stronger in open-nesting honey bee species	Jerry (Yiheng) Cai
150058	Climate and Community Structure Shape Worker Allometry in Pheidole	Steven Wang ★
S25. Social insect invaders around the globe		
145141	Nest mound damage reduces subsequent venom delivery by red imported fire ant colonies	Kevin Haight
149839	Applied research to improve the management of the invasive termite <i>Reticulitermes flavipes</i> in Canary Islands, Spain	David Hernández-Teixidor
149859	The Cutting edge of early detection and management systems for invasive alien social insects in Japan	Hironori SAKAMOTO
S27. Host-microbe interactions in social insect		
144977	Fungus-farming termites can protect their crop by confining weeds with fungistatic soil boluses	Aanchal Panchal
145364	Better safe than sorry: leg amputations as a prophylactic wound care behaviour in carpenter ants	Seiji Fujimoto ★
146502	Gut microbiome–environment interactions in managed honey bees across the island of Ireland	Julia C Jones
147060	Metabolic plasticity supports a flexible nutritional symbiosis in <i>Cardiocondyla</i> ants	Jan Oettler
147107	Nematode Infection and Body Condition Across Social Systems in Sweat Bees	Maya Cabrera ★
147307	Uncovering pathogen pressures in wild <i>Bombus terrestris</i> : A genomic and latitudinal perspective	Raquel de Evan González ★
149370	Partner fidelity between <i>Cyphomyrmex</i> ants and their fungal cultivars	Alison Pagalilauan ★
149911	Mapping the Social Microbiome: Microbial Transmission Networks in <i>Bombus terrestris</i>	Michael Sieler
149937	Gut dysbiosis and epithelial damage in Brazilian stingless bees exposed to mancozeb fungicide	Geovanny Barroso
S28. Arthropodinquilines of social insects' colonies		
148888	Obligate commensalism between the cleptobiotic ant <i>Strumigenys incerta</i> and its host <i>Cryptopone sauteri</i>	Hayato Shinohara
148998	The transition to a social parasitic lifestyle influences maintenance and expression of essential immune defence traits	Simon Tragust
149587	Behavior, diet, and phylogeny as drivers of chemical strategies in ant–myrmecophile interactions: a systematic review	Luan Dias Lima
150007	Collective behaviour and emergent sociality in Ephydriidae (Diptera) inhabiting extreme environments	Rachida AKHRIF

Poster Session B

Wednesday, August 19th 2026 - 17:45 - 19:30

BN	Title	Presenter
S01. Adult phenotypic plasticity and the regulation of division of labor in social insects		
146368	Functional Insights into Osiris-Mediated Caste Differentiation in Harvester Ants	Srijan Seal
146551	Honest bees dance more and gain confidence over time	Karmi Oxman
147320	Effects of a Juvenile Hormone Analogue (JHA) on larval development and intercaste formation in <i>Ooceraea biroi</i>	Natalia Terpan-Arenas ★
147645	Characterization of Dopaminergic and Octopaminergic Neurons in the Brain of the Red Harvester Ant	Carlos Zavaleta Zamora
149754	Sex-specific caste development in termites is manipulated by endoparasitic flies	Aleš Buček
149864	Dynamic tissue- and caste-specific genomic imprinting in the ant <i>Diacamma cf. indicum</i> : implications for kinship and sexual antagonism theories	Shigeto Dobata
149975	The molecular mechanisms of reverse brain plasticity in the ant <i>Harpegnathos saltator</i>	Sandra Moreno-Medina
S02. New frontiers in the study of division of labour in social insects		
145802	Busy and Boxed in: How Space and Workload Divide Labor	Mary Regelski ★
145822	Olfactory sensitivity and division of labor in the honey bee <i>Apis mellifera</i>	Camille Faber ★
146435	Epigenetic regulation of division of labor in workers of the ant <i>Temnothorax longispinosus</i>	Hannah Eberle-Reece
146606	A hybrid pipeline for fast and reliable automated tracking of tagged insects	Yohann Chemtob
149243	Division of labor in sterile castes of the nasute termite <i>Nasutitermes takasagoensis</i>	Yamato Tozuka
149475	Before the snap: early developmental mandible asymmetry during soldier differentiation in <i>Pericapritermes nitobei</i>	Kohei Oguchi
S03. Stingless bees – emerging models for understanding life history diversity in highly eusocial bees		
148168	Transposable Elements associated with cluster regions in bees with different levels of sociality	Patrick Souza-Santos
148862	Queen overproduction and intraspecific reproductive parasitism in <i>Melipona</i> stingless bees	Daniel Altair Saureu Velasco ★
149454	<i>Melipona</i> Diversity and Meliponiculture in the Huallaga River Basin, Peruvian Amazon	Sabrina Victoria Pinedo Cumapa ★
149459	Gut microbiota of the stingless bee <i>Melipona quadrifasciata</i> in a Brazilian Savanna	Anete Lourenço
149726	Apibotanical resource competition inferred from the physicochemical properties of honeys produced by <i>Apis mellifera</i> and <i>Tetragonisca angustula</i> across two forest landscapes in the Huallaga Valley, Peruvian Amazon	Javier Ormeño Luna ★

BN	Title	Presenter
S05. Life-history evolution in social insects – fertility and ageing		
145001	Are wound care behaviours key to the ecological success of ants? How saving the injured boosts colony growth	Erik Frank
146555	Molecular causes and consequences of reproductive plasticity in honey bees	Olav Rueppell
147807	The effects of urbanization on ant life history	Lia Romanotto ★
149764	Testing prezygotic reproductive isolation between two sympatric lineages of the leaf-cutting ant <i>Atta laevigata</i> (Smith, 1858)	Karine Felix Ribeiro
149877	Asymmetrical physiological cost of reproduction shapes caste-specific resource allocation in a queenless ant	Hiroyuki Shimoji
S06. From founding to function: early-stage dynamics in the life cycle of social insects		
146338	Repeated evolution of dispersal and reproductive patterns in East Asian <i>Monomorium</i>	Naoto Idogawa
146486	Queen number and early colony growth in the desert leafcutter ant <i>Acromyrmex versicolor</i>	Rebecca Clark
148902	The intrusive behavior of new queens into mature colonies observed in the Japanese harvester ant, <i>Messor aciculatus</i>	Keiko Hamaguchi
152261	Behavioral Interactions in an Ant Social Parasitism System and Evidence for a Native Supercolony	Joshua Gibson
S07. Nutrition and insect health, from single individuals to colonies		
145709	Factors shaping wound care dynamics in the army ant <i>Eciton burchellii</i>	Jakob Jansen
145886	Functions of trophic eggs in the ant, <i>Plagiolepis flavescens</i> : Insights from their production and storage patterns	Koshi Kawamoto ★
145903	Let's speak about un-royal jelly - the larval food of ordinary Western honey bees (<i>Apis mellifera</i>)	Anja Buttstedt
146461	Collective nutritional choices in infected ant colonies	Tanvi Madaan ★
146466	Lab-to-field risk assessment of the biopesticide <i>Bacillus amyloliquefaciens</i> in bumble bees	Flavia Di Cesare ★
146483	Do periodical cicada emergences alter ant foraging behavior?	Sean Menke
147984	The characterization of reproductive and trophic eggs of the black cocoa ant (<i>Dolichoderus thoracicus</i>)	Rong-Nan Huang
149477	Unbalanced dietary omega-6:3 ratio increases the duration of orientation flights but not foraging flights in honey bees	Sharoni Shafir
149546	The impact of pesticides on wild bee health	Andreia Teixeira
149767	Oxidative stress responses in honey bee (<i>Apis mellifera</i> L.) exposed to neonicotinoid pesticides	Mazi Sanda
149998	Can an ant heal herself? Exploring Wound-care in <i>Dinoponera</i>	Priscila Elena Hanisch
152890	From individuals to collectives: Insights into the ethology of hygienic behavior via the BeesBook system	Valerie Kuklovsky
150136	Manipulation of exploited host workers via social fluid exchange in social parasite colonies	Mabel Sydney
S08. The role of brood in social insect colonies		
147874	Decoding social information: How state-dependent larval signals orchestrate the division of labor in clonal raider ants	Yannick Günzel ★
149698	Hidden helpers? Exploring larval trophallaxis as altruism	Ellena Trelfa-Stewart ★
149941	The (underappreciated) contribution of brood metabolic rate to whole-colony metabolic expenditure: Comparing metabolic rate during foraging and statary phases of clonal raider ants (<i>Ooceraea biroi</i>)	Jane Waters

BN	Title	Presenter
S10. Mechanisms facilitating the evolution of social behavior in insects		
146194	When social signals disappear: cannibalism among siblings in a solitary spider	Antoine Lempereur ★
146931	Analysis of molecular bases underlying the increase in the number of Kenyon cell subtypes during the evolution of hymenopteran insects	Shuichi Kamata
148707	Sociality and pollen usage of New Zealand's Little Sweat Bee (<i>Lasioglossum sordidum</i>)	Tovah Kashetsky ★
149436	Individual variation in the organization of the olfactory system in workers of the ant <i>Temnothorax longispinosus</i>	Clarita Iona Mendes ★
S12. From simple rules to collective resilience in a changing world		
145978	Investigating the effect of nest architecture on colony fitness in <i>Temnothorax albipennis</i>	Freya Gill
147141	Trade-offs and selection for genetic diversity in adaptation to biotic and abiotic stresses in <i>Pogonomyrmex occidentalis</i>	Kaylee Bond
149461	Balancing resource flow and infection: Adaptive nest architecture in <i>Lasius niger</i> ants	Ioana Mateescu ★
S13. Comparing miniature cognitions		
147130	Role of cognition in determining contest success in <i>Temnothorax rugatulus</i> contests	Emiliano Calvo Alcaniz
147365	Age and Attitude: How Longevity Influences Cognitive Biases in Honeybee Workers	Karolina Kuszewska
147942	Collective Associative Learning in the Rock Ant, <i>Temnothorax rugatulus</i>	Adam Kissai
149369	Longevity and Cognitive Bias in Honey Bees under Prolonged Illumination	Julia Wincenciak
S15. Navigating the superorganism: molecular, behavioral, and computational perspectives on decision-making in social insects		
145366	Flow and fabricate: morphogenesis of termite shelter-tube networks	Atanu Chatterjee
146525	Temporal dynamics of scout release-behaviour of termitophagous ponerine ant, <i>Megaponera analis</i>	Rifilwe Victor Modiba
147422	Effects of surface roughness on scouting behavior and shelter tube construction in <i>Coptotermes gestroi</i>	Kukhyun Lim ★
149357	Plant Protection Product Exposure Affects Honeybee (<i>Apis mellifera</i>) Behaviour, Gut and Brain	Cassandra Uthoff ★
149426	How Do Animal Groups Integrate Multiple Attributes in a Best-of-n Task?	Chun Kin Chow ★
149482	Nesting in Anticipation: Spatial Ecology of Giant Honey Bees (<i>Apis dorsata</i>) in Chitwan, Nepal	Gerald Kastberger
149962	trackRai: An Open-Source R Package for Democratizing Machine Learning-Based Multi-Object Tracking and Developing Community Models for Social Insect Research	Simon Garnier
S16. The role of innate and experience-driven chemical communication in regulating insect social behavior		
146523	Do volatiles allow early disease detection in ant colonies?	Michaela Hoenigsberger
147614	Refining a sensitive window for social experience in <i>B. impatiens</i>	Fiona Corcoran ★
147985	Representation of worker mandibular gland pheromone-floral odor blend signals in the brain of <i>Apis cerana japonica</i>	Shinnosuke Yoneto ★
149420	Kin and nestmate recognition mediate aggressive behavior in Asian weaver ants	Aditi Jasapara

BN	Title	Presenter
S19. Mechanisms and evolution of insect sensory systems: implications in the Anthropocene		
147630	Complex Effects of Multimodal Inputs in the Antennal Lobe of the Honeybee <i>Apis mellifera</i>	Shawn Mahoney
149865	Phenotypic plasticity in visual traits is driven by caste and body size in a social wasp	André de Souza
S22. Beyond-omics: new perspectives on social insect big datasets		
146434	A transcriptomic catalog of two leafcutter ant pests, <i>Atta sexdens</i> and <i>Atta laevigata</i>	Mauricio Bacci
149586	Combining genomic and transcriptomic approaches to unravel the evolution of a supergene underlying wing and social polymorphisms	Claudie Doums
S24. Social insect conservation		
146465	Red Listing the Red Wood ants – conserving keystone species.	Douglas Phillips
149069	Altitudinal and ecosystemic distribution of Meliponini bees in the department of Cauca	Maria Cristina Gallego Roperio
149294	Contribution of species of the genus <i>Melipona</i> (Apidae) to forest conservation in Piedmont, Cauca, Colombia	Hilda Rocío Mosquera Mosquera
149412	Pollen loads of bees of the tribe Meliponini (Apidae) in coffee systems, Department of Cauca, Colombia, South America	Julian Andres Yotengo Velasco ★
149455	How urban green areas influence pollen morphotype diversity carried by bees in the Brazilian Cerrado	Jordana Borges
149706	Conservation strategies for native honey bee subspecies (<i>Apis mellifera intermissa</i> and <i>Apis mellifera sahariensis</i>) in Algeria under environmental change and anthropogenic pressures	Nouredine Adjlane
149762	Diversity and distribution of the Halictini tribe: an approach to the study of their social behavior in the department of Cauca, Colombia	Camila Andrea Valencia Narvaez ★
149939	Protect Red Wood Ant's populations to conserve Italian forest wildlife	Alberto Masoni, Giacomo Santini
150047	Beyond Species Counts: Biogeographical Regions and Evolutionary Diversity of Neotropical Swarm-Founding Wasps	Fernando Noll
S26. The role of citizen science in social insect research		
149029	Rate your bugs: using a mobile app to map public attitudes towards invertebrates	Heikki Helanterä
149954	How To Take Better Insect Photographs for Citizen Science	Alexander Wild
S29. Tiny but mighty: viruses in social insects		
149700	Multiple key hosts and network structure shape viral prevalence across multispecies communities of bees	Patrycja Pluta

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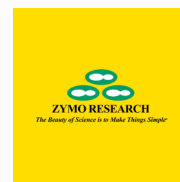
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