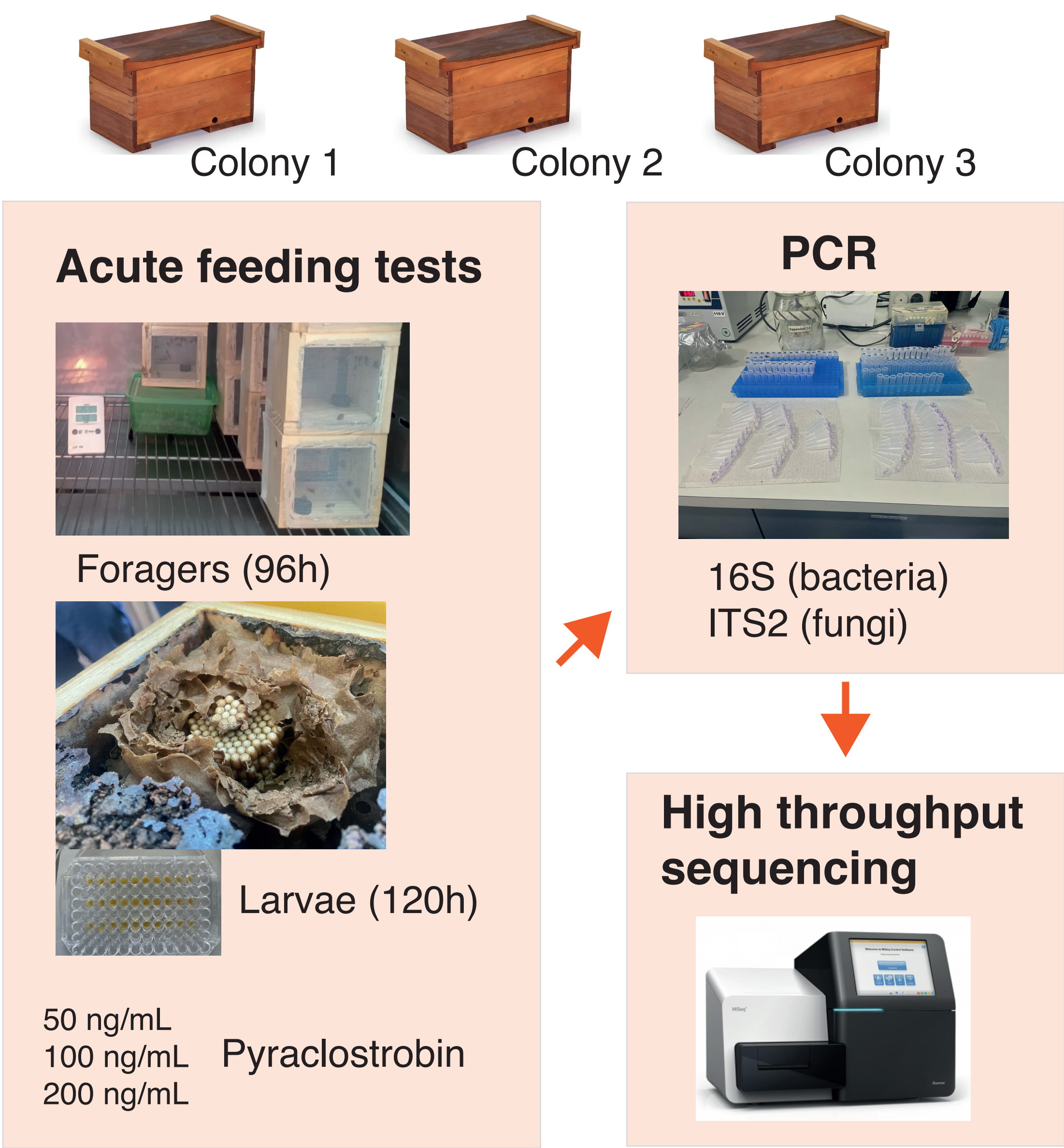


Testing the effect of pyraclostrobin on the gut microbiome of juveniles and adults of a Brazilian stingless bee.

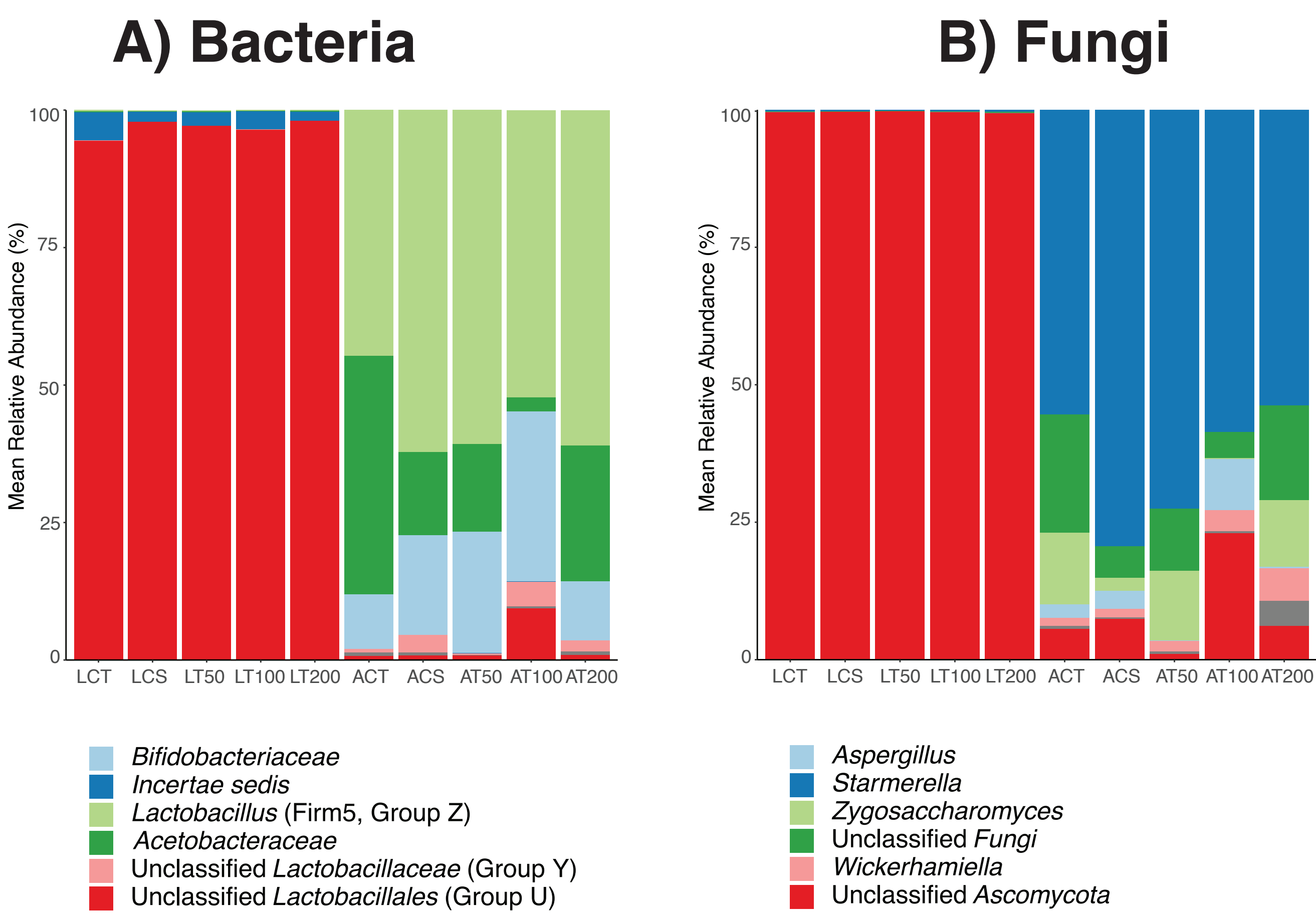
Karen Luisa Haag¹, Jenifer Dias Ramos², Simone de Souza Prado², Cristiano Menezes².

¹ Department of Genetics, Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brazil.

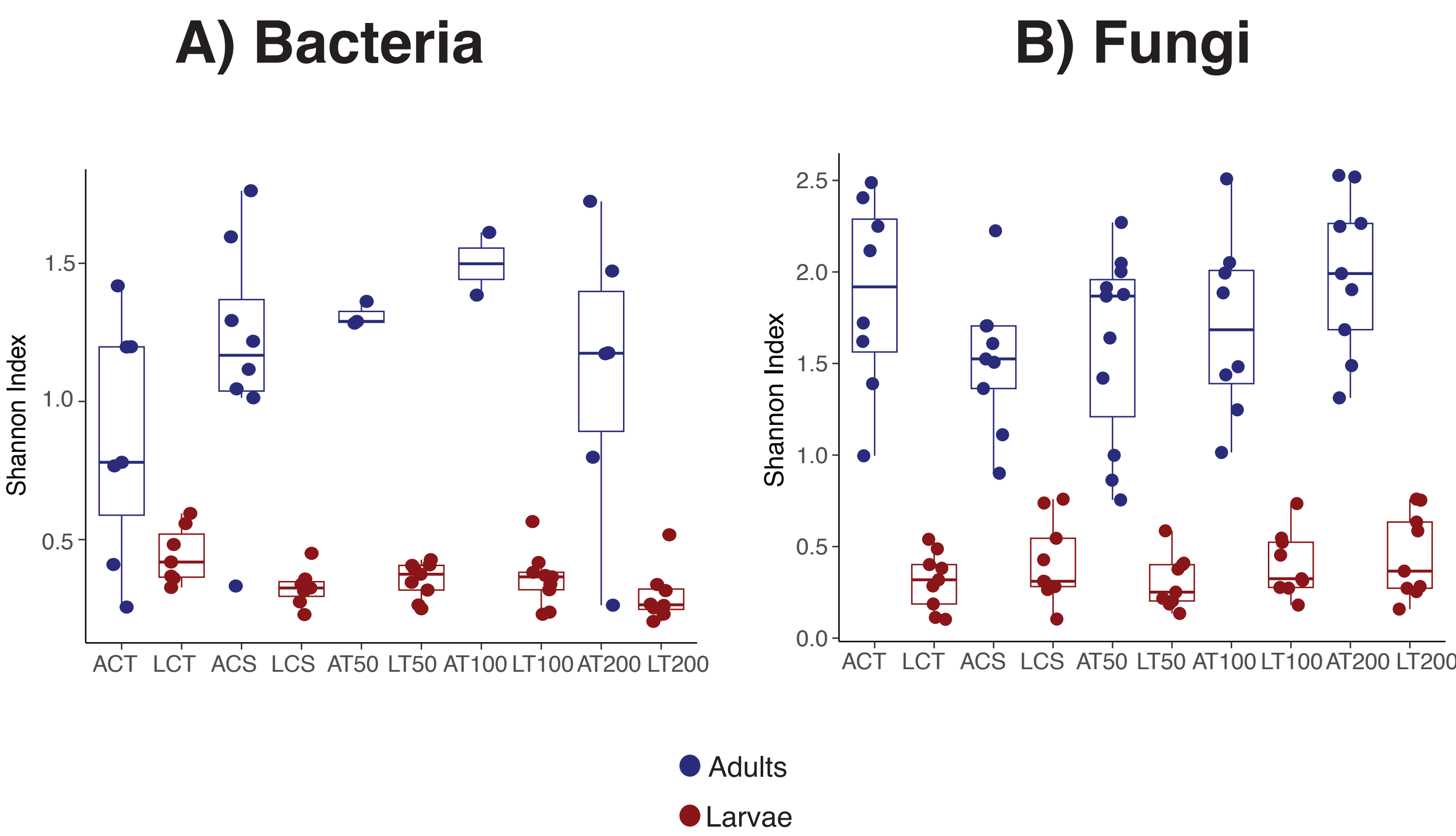
² Entomology and Plant Pathology Laboratory, Embrapa Meio Ambiente, Jaguariúna, SP, Brazil.



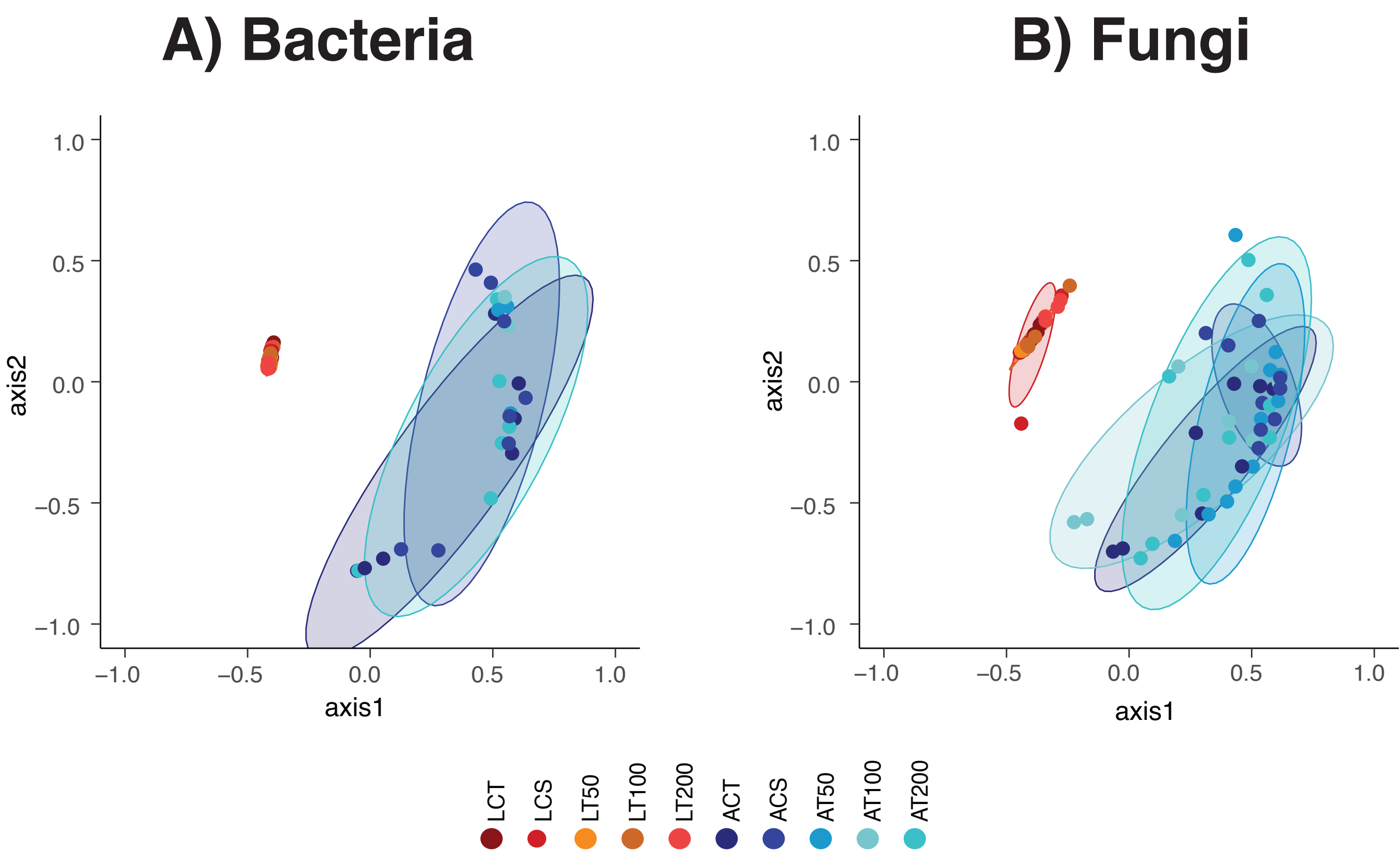
Relative abundance of taxa



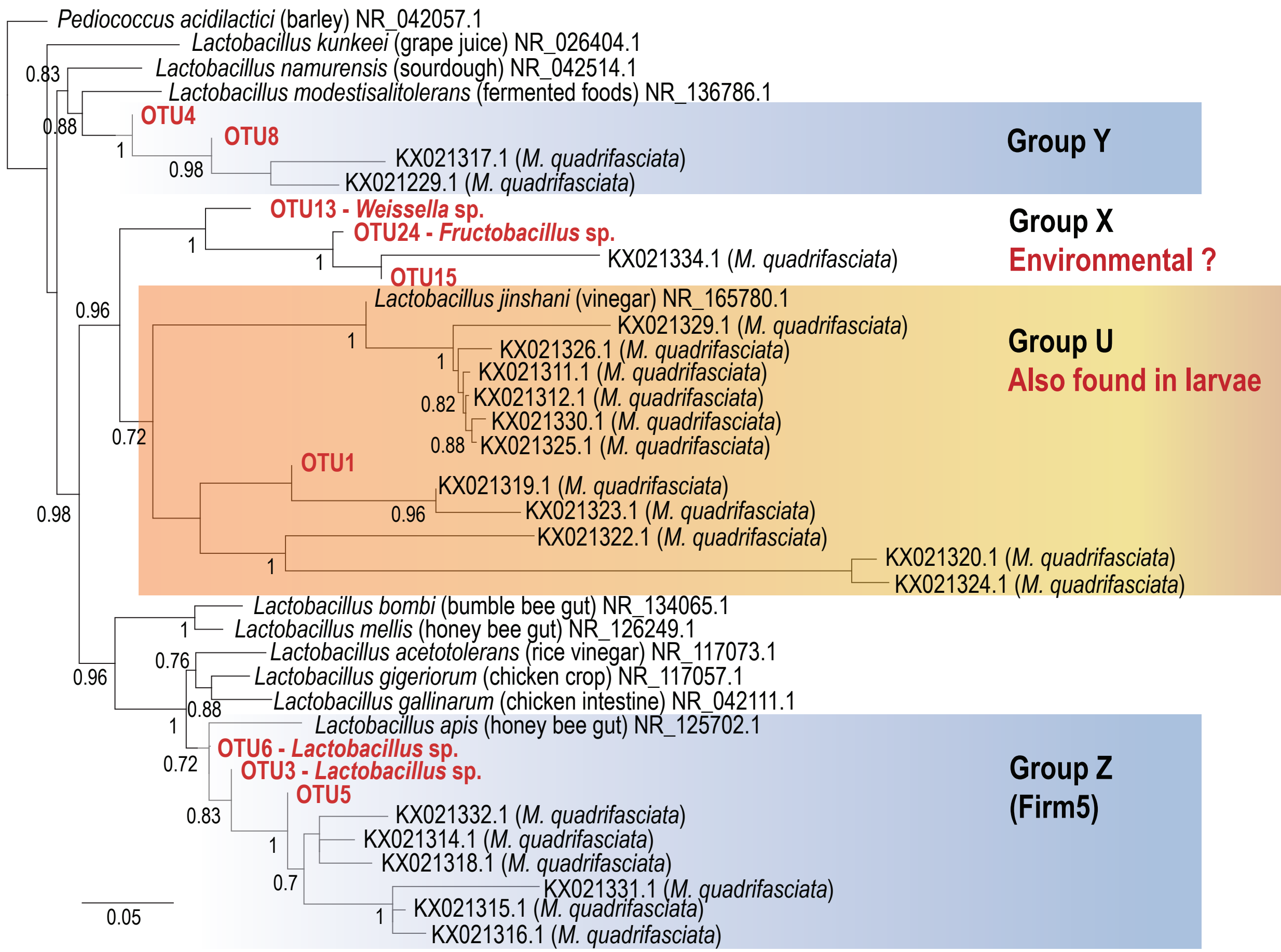
Alpha diversity



Beta diversity



Lactobacillaceae from the *Melipona quadrifasciata* gut



PERMANOVA 16S:

	DF	SSQ	R ²	F	P
Stage	1	11.912	0.671	127.526	0.0001
Dose	1	0.025	0.001	0.267	0.8407
St.^Do.	1	0.032	0.002	0.342	0.7689
Res.	62	5.791	0.326		
Total	65	17.750	1		

PERMANOVA ITS2:

	DF	SSQ	R ²	F	P
Stage	1	15.892	0.643	159.368	0.0001
Dose	1	0.115	0.005	1.156	0.2813
St.^Do.	1	0.123	0.005	1.234	0.2611
Res.	86	8.576	0.347		
Total	89	24.706	1		

The abundance of the following Fungi in the gut of forager bees differs when diets contain pyraclostrobin:

- *Zygosaccharomyces* (P = 0.0045)
- *Psathyrella* (P = 0.0080)
- *Aspergillus* (P = 0.0130)

EUROPEAN IUSSI CONGRESS 2024 UNIVERSITY OF LAUSANNE

Amphipôle Building, UNIL-Sorge,
1015 Lausanne, Switzerland



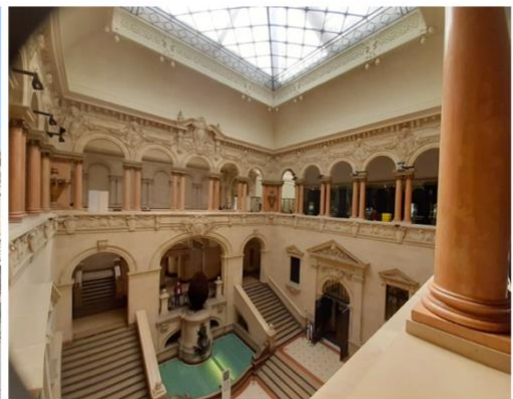
7th-11th July 2024

Full programme

VENUE

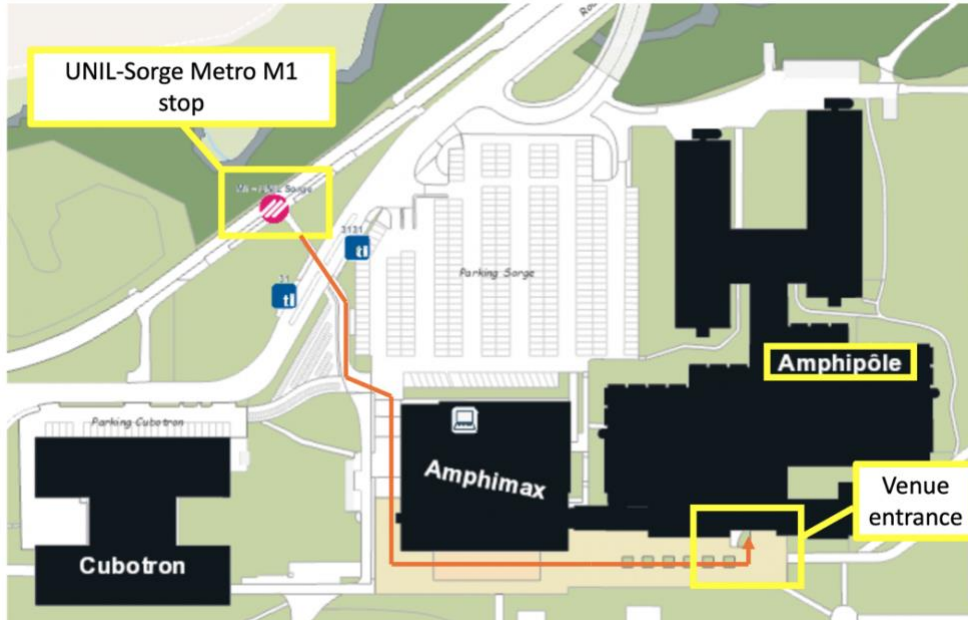
Welcome reception

The welcome reception on Sunday (7th July) will take place from 5.30pm to 8pm at the Naturéum, in the **Palais de Rumine**. This building is located in central Lausanne, on the place de Riponne (Metro station Riponne). Please enter through the main gate in the front of the building (picture below), walk up a few stairs and make your way to the 5th floor. The apéro will be on the atrium balcony of the Museum of Zoology (picture below, right side).

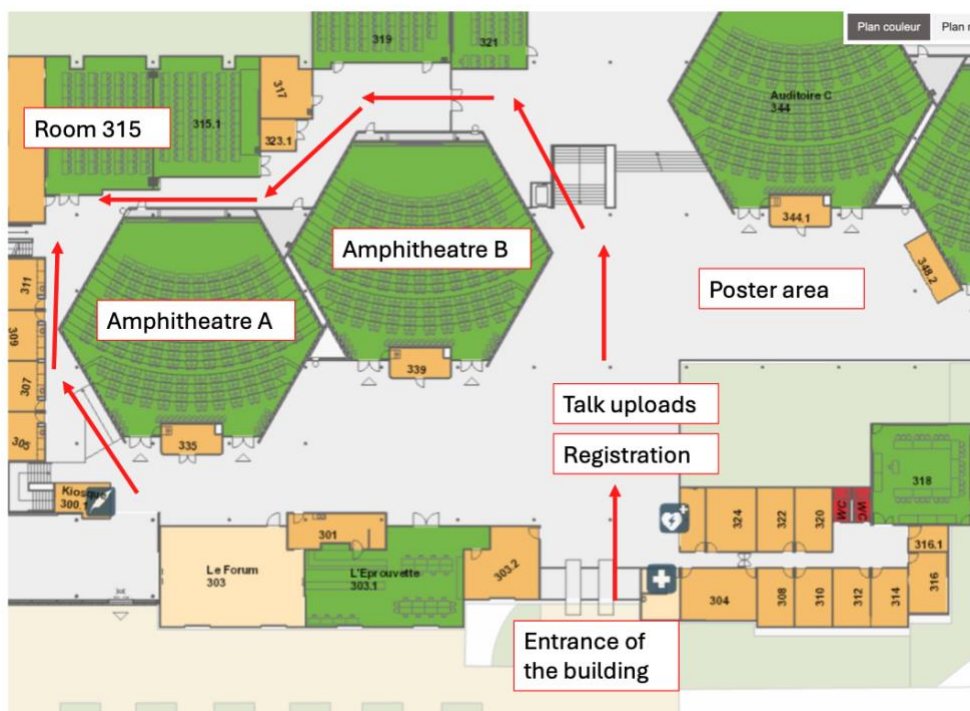


Conference

The conference takes place in the Amphipôle building, most easily accessed via metro to the UNIL-Sorge stop. Directions will be sign-posted.



There are three session rooms: Amphitheatre A, Amphitheatre B and room 315.

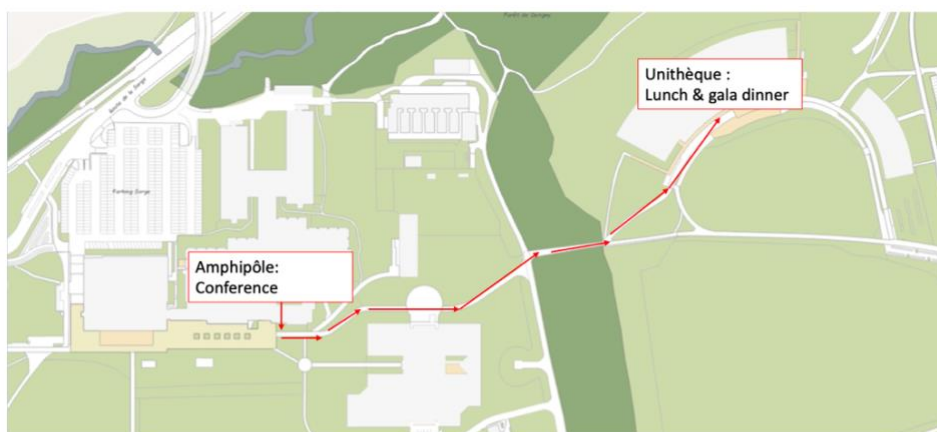


WIFI at the conference

1. If your university has provided you an **eduroam** account, you can select this network here on the UNIL Campus.
2. If not, you can use the public network with our conference log in:
 - On your device, turn wifi on and select the wifi name "public-unil"
 - In the pop-up window click on Event Login
 - Enter the credentials:
 - **Username = iussi2024**
 - **Password = iussi2024**
 - After reading and accepting the terms and conditions, click the Log in button

Meals

Lunch and the gala dinner will be served at the **Unithèque building** (5 min walk from the conference building). Just turn left outside the Amphipole building and follow a little path until you reach a banana-shaped building: the Unithèque.



ORAL PRESENTATION GUIDELINES

General notes

- The congress only supports **PowerPoint** and **PDF** presentations.
- All presentations must be uploaded in the **Speakers' Upload Area** at the venue. The Speakers' Upload Area will be located near Amphitheatre B and will be open every day between 8:00 and 17:00. You will be able to view your presentations and should check that all appears and work as expected before leaving the Speaker's Upload Area. Please do not forget to bring a USB stick.
- Presentations cannot be uploaded in the session rooms and speakers cannot use their own computer for their presentation.
- Upload your presentation in the Speaker's Upload Area no later than **2 hours** before the start of the session you are speaking in. If you are speaking in the morning session, please try to upload your presentation the day before your talk.
- Please arrive at your session **5 minutes** before the published start time of the first talk and announce yourself to the Chairperson.

Presentation timings

Session speakers are given **14 minutes**, including question time: presentations should not exceed **11 minutes** and allow for **3 minutes** of questions from the audience.

Music will play for 1 min at the end of the 14 minutes to indicate that you must finish your last sentence and leave the stage to the next speaker. To ensure that the three sessions are running in parallel, we ask that you respect these timings.

Keynote speakers have a double slot. Presentations should not exceed **24 minutes** and allow for **5 minutes** of questions from the audience.

Audio-visual material and help

Each room will be equipped with a computer, mics, and a clicker/laser pointer. Computers will run on Windows 10 or 11, supporting PowerPoint and PDF presentations. The Chairperson and technical staff will welcome and assist speakers with the start of each presentation.

POSTER PRESENTATION GUIDELINES

The recommended format for posters is **A0 portrait**. Smaller poster in format will also be accepted. Posters will be presented on vertical panels of 120 (width) x 180 cm (height).

The posters can be put up as soon as you arrive on site and may stay until the last day of the conference. However, we would like to ask you to be present and available to answer questions during the **poster session** (Monday 17:30-19:30).

PROGRAMME

Sunday 7th of July

17:30-20:00	Welcome reception Zoology Museum, Naturéum, Palais de Rumine (Metro : Riponne)
-------------	--

Monday 8th of July

8:00-17:00 Registration desk and speaker's upload area are open.

8:45-9:00	Opening remarks and general information by Cleo Bertelsmeier Amphitheatre A
9:00-10:00	Plenary 1: Daniel Kronauer <i>The Evolution of Ant Societies</i> Amphitheatre A
10:00-10:30	Coffee break

Morning, Session 1

	Amphitheatre A	Amphitheatre B	Room 315
	SYMPOSIUM: Invasive social insects Organizers: Cintia Oi, Ulrich Ernst	SYMPOSIUM: Diversity and evolution of behaviour and communication in bees Organizers: Jean-Christophe Sandoz, Thomas Schmitt, Axel Brockmann	OPEN SESSION: Social organization, division of labour and collective behaviour Chair: Abel Bernadou
10:30	Zoé Sherpa Is invasion success related to native niche size in ants?	Jean-Christophe Sandoz Neuroethological study of sexual communication in the genus <i>Apis</i>	Adria LeBoeuf Keynote: Metabolic division of labor across the superorganism
10:45	Damien Gergonne Insights into the invasion dynamics of <i>Vespula germanica</i> from a dual-haplotype introduction in South	Morgane Nouvian Communication during colony defence in bumblebees, <i>Bombus terrestris</i>	

	Africa: A RAD-seq analysis		
11:00	Larissa Prado Genetic population and ecological dynamics: assessing the impact of exotic species on the decline of <i>Bombus dahlbomii</i> (Hymenoptera: Apidae)	Bharath Kumar AK Tropical and montane <i>Apis cerana</i> show distinct dance-distance calibration curves	Abel Bernadou Nutrition influences task allocation and life history trade-offs in ants
11:15	Aymeric Bonnamour The impact of colonial history on ant invasions	Daniel Rodríguez Honey bee (<i>Apis mellifera</i>) CHC variations: New insight from desaturases and elongases expression assays	Fabrice Savarit Queen behavioural plasticity depends on the number of queens in <i>Ectatomma tuberculatum</i> ants
11:30	Lukas Seehausen The invasion of Switzerland by the Asian yellow-legged hornet, a threat to honeybees and other pollinators	Mark Mescher Bumblebee leaf-damaging behavior and its effects on plant flowering	Laure-Anne Poissonnier Link between information use and exploratory behaviour in the ant <i>Lasius niger</i>
11:45	Thomas Wagner Unveiling Bitter Truths: Exploring Bitter Tolerance in Invasive Ants for Precision Pest Control	Michael Orr The distribution of social bees	Patrick Schultheiss Fine-scale navigation: how ants perform systematic searches
12:00	Baptiste Nézel Consequences of an emerging infectious disease on the invasion extent of the invasive garden ant over space and time.	Anna Friedel Do intruders modify the foraging behaviour of the socially polymorphic orchid bee <i>Euglossa viridissima</i> ?	Snigdha Mukhopadhyay Individual cognitive abilities allow path minimization and task improvement in the ant, <i>Aphaenogaster senilis</i>
12:15	Cleo Bertelsmeier Global flows of alien ant species and the erosion of	Anne-Sophie Jatsch Comparative chemical analysis of major social pheromone glands in	

	biogeographic boundaries	Asian and European honeybees	
12:30-14:00	Lunch break (Unithèque)		

Afternoon, Session 2

	Amphitheatre A	Amphitheatre B	Room 315
	SYMPOSIUM: Coping with climate change: Responses and adaptations in social insects Organizers: Patrick Krapf, Jonna Kulmuni, Richard Gill, Elizabeth Evesham	OPEN SESSION: Reproductive strategies and population genetics Chair: Claudie Doums	OPEN SESSION: Social organization, division of labour and collective behaviour Chair: Ebi Antony George
14:00	Kieran Storer Temperature and Pesticide Interactive Effects on <i>Bombus Terrestris</i> Metabolism and Thermoregulation	Cintia Akemi Oi Keynote: Behavioural and genetic mechanisms or reproduction in wasps	Ebi Antony George Familiarity predicts social wound care in ants
14:15	Claire Detrain Deciphering the effects of temperature increase on ant-aphid mutualism		Juan Lagos-Oviedo Convergent evolution of wound care and rescue behaviour in a neotropical army ant
14:30	Jody Helena Voges Impact of Climate Changes on Evolutionary Divergence in Mediterranean <i>Crematogaster</i> Ants	Matthieu de Lamarre Revealing the fine-scale genomic structure of a wood ant supercolony	Joanito Liberti Gut microbiota influences foraging onset without affecting division of labor and associated physiological hallmarks in honeybees
14:45	Jelena Bujan Unraveling the effects of microclimate on ants in Mediterranean islands	Piuli Shit Can everyone become the reproductive?	Ivan Sevostianov From the parts to the whole: the nature of synergy

15:00	Jan Kreider Temperature modulates sociality in the facultatively social bee <i>Exoneura robusta</i>	Brendon Boudinot Consilience of the “Standard” and “Hourglass” Models of Development	Ofer Feinerman Collective problem solving by ants and people
15:15	Romain Libbrecht Understanding the impact of thermal stress on colony foundation in ants	Maximilian Bolder How evolutionary conserved is reversibility of queen behavioral specialization in ants?	
15:30-16:00	Coffee break		

Afternoon, Session 3

	Amphitheatre A SYMPOSIUM: Coping with climate change: Responses and adaptations in social insects Organizers: Patrick Krapf, Jonna Kulmuni, Richard Gill, Elizabeth Evesham	Amphitheatre B OPEN SESSION: Reproductive strategies and population genetics Chair: Michel Chapuisat	Room 315 OPEN SESSION: Disease, immunity & aging Chair: Yuko Ulrich
16:00	Harriet Lambert Are bumble bees gardening? Bumble bees influence flowering time by damaging plant leaves when pollen is scarce	Carita Lindstedt Ecological conditions can promote female-biased sex-ratios: a case study in haplodiploid gregarious pine sawfly	Vincent Dietemann Keynote: Social immunity against <i>Melissococcus plutonius</i> , a brood pathogen of honeybees
16:15	Philipp Hoenle Thermal ecology of New Guinea ants: Integrating multiple traits in a tropical mountain landscape	Divya Lekha The Plasticity and Developmental Potential in the Eusocial hymenopteran, <i>Oecophylla smaragdina</i> (Fabricius, 1775).	

16:30	Richard Gill Wings of change: museum specimens reveal a century of bumblebee trait change with divergent responses between species and castes	Marion Cordonnier Impacts of fragmentation-induced edge effects within- versus between- two <i>Temnothorax</i> hybridizing species	Clémentine Mathien Polyphenol-rich plant extract and Lactic Acid Bacteria improve survival of <i>N. ceranae</i> infected bees
16:45	Barbara Feldmeyer How does climate change affect social insects?	Mark Brown Who's the queen? Mating and colony founding by workers in a 'super-organism'	Giulia Blasi The role of DNA methylation in parasite-induced altered gene expression in an ant host
17:00	Florian Menzel Which traits determine how social insects can cope with climate change, and in particular with desiccation?	Sarya Nadina Fark Patterns of asymmetric genomic introgression between two <i>Formica</i> species	Harshit Kumar Prajapati Transmission-mediated adaptation of virulence in Deformed Wing Virus
17:15	Lena Wilfert Long-term study of climate effects on bumble bee fitness: Temperature and precipitation affect health, survival and colony formation in wild-caught spring queens	Patrick Heidbreder Genome-wide barriers after a history of divergence with gene flow in <i>Formica</i> ants	Enikő Csata Ant colonies as a whole mitigate individual-level effects of fungal infections
17:30-19:30	Poster session		

Tuesday 9th of July

8:00-17:00 Registration desk and speaker's upload area are open.

9:00-10:00	Plenary 2: Susanne Foitzik <i>(Co)Evolution and Molecular Regulation of Ant Behaviour, Chemical and Life History Traits</i> Amphitheatre A
10:00-10:30	Coffee break

Morning, Session 4

	Amphitheatre A SYMPOSIUM: Social insects in the Anthropocene - impacts of environmental pollutants and landuse Organizers: Ricarda Scheiner, Ingolf Steffan-Dewenter	Amphitheatre B SYMPOSIUM: Genomic determinants of caste, sex and social organization in eusocial insects Organizers: Jonathan Romiguier, Hugo Darras	Room 315
10:30	Andrea Ferrari Effects of urbanisation on the visual and the antennal sensory system of bees and wasps	Michel Chapuisat Keynote: The evolution of supergenes regulating social polymorphisms	
10:45	Ricarda Scheiner Complex interactions of neonicotinoids and fungicides differentially affect honeybee behaviour		
11:00	Vincent Doublet Wildflower strips for pollinators: Conservation measure or hotspots of disease transmission?	Joshua Ducancel Supergenes and social antagonistic evolution in the ant <i>Myrmecina graminicola</i>	

11:15	Manish Ravi Role of social insects in plant-pollinator interactions in southern Indian landscapes	Natalia Araujo Exploring the genomics of caste differentiation in <i>Melipona</i> bees
11:30	Liliana Fischer Assessing field realistic exposure to pesticides in wild bumblebee colonies	Hélène Boulain Is the selfish drive by the <i>Formica</i> social supergene ancestral or derived?
11:45	Ingolf Steffan-Dewenter Resource use and colony performance of social bees in human-modified landscapes	Qiaowei Pan LncRNA gene ANTSR coordinates complementary sex determination in the Argentine ant
12:00	Mark Brown Effects of agrochemicals on bees	Ann Kathrin Huylmans Sex Chromosome Evolution in Termites
12:15		Louis Allan Okwaro Zugzwang: Elevated histone acetylation in termite queens enhances queen phenotype while accelerating senescence signals
12:30-14:00	Lunch break (Unithèque)	

Afternoon, Session 5

	Amphitheatre A OPEN SESSION: Biodiversity, community ecology, invasions Chair: Tomer Czaczkas	Amphitheatre B OPEN SESSION: Disease, immunity & aging Chair: Sylvia Cremer	Room 315 OPEN SESSION: Ethology and neuroethology Chair: Amélie Cabriol
14:00	Marie Bourel Sweet confrontations: investigating ant-	Patrycja Pluta High honey bee colony density increases viral	Volker Nehring Keynote: Molecular correlates of

	mealybug interactions in pineapple cropping systems in Reunion Island	prevalence and load in wild bees	“habituation” in the ant neural periphery
14:15	Tomer Czaczkes Invasive ants evade harmful food by active abandonment	Tristan Durand In situ analysis of interactions between deformed wing viruses and sacbrood virus in adult honey bees	
14:30	Tegan Gaetano (Sea) salt of the earth: Structural plant-pollinator communities mediated by micronutrient reward in Scottish machair ecosystems	Ives Haifig Soldiers do not participate in the social immunity of the Neotropical termite <i>Silvestritermes euamignathus</i> (Isoptera: Termitidae)	Hugo Vey-Payre Comparative approach on the behavioral flexibility of social and solitary bees
14:45	Natacha Rossi Quantifying the handling and metabolic costs of pollen collection	Laura Zavatta <i>Cannabis sativa</i> L. for control of <i>Nosema ceranae</i> infections in honey bees (<i>Apis mellifera</i> L.)	Lohan Valadares The neuroplasticity of division of labour in the leaf-cutting ant <i>Acromyrmex subterraneus</i>
15:00	Francois Brassard Australian ants have stratum-specific responses to a rainfall gradient	Flynn Bizzell Hygienic cannibalism: founding ant queens consume infected larvae to prevent disease spread.	Simon Tragust A new puppet-master and its puppet? Behavioural manipulation in the host-parasite system between the fly <i>Strongygaster globula</i> and its ant host
15:15	Donato Grasso Ant-plant interactions in temperate areas: model systems for basic and applied behavioural ecology		Katja Koskenpato High detectability costs select weak warning signal strategy in chemically defended gregarious prey
15:30-16:00	Coffee break		

Afternoon, Session 6

	Amphitheatre A OPEN SESSION: Biodiversity, community ecology, invasions Chair: Xim Cerda	Amphitheatre B OPEN SESSION: Disease, immunity & aging Chair: Christopher Pull	Room 315 OPEN SESSION: Ethology and neuroethology Chair: Amélie Cabriol
16:00	Nils-Christian Schumacher Living among dominants: Carpenter ant <i>Colobopsis vitrea</i> and its coexistence strategies	Lukas Lindorfer Ants disinfect their nest in response to pathogen threat	Julie Carcaud Keynote: Pheromonal information processing in the honey bee brain
16:15	Sabine Nooten Chemical & morphological trait adaptations to challenging climate in alpine bumblebee communities	Ellie Smith Exploring variation in superorganismal immunity	
16:30	Kyle Gray First insights into the ant biodiversity of Vanuatu: revising the <i>Pheidole sexspinosa</i> complex using an integrative taxonomic framework	Andreia Teixeira Tissue-specific ageing trajectories along the sociality spectrum in the bees	Marie-Genevieve Guiraud Active Vision: Bees Tell us Where to Look - Elegant & Simple Solutions to Complex Problem-Solving
16:45	Xim Cerda Global warming – Until when can the <i>Cataglyphis</i> desert ants be active?	Thibaut Renard Epigenetic regulation of lifespan in the bumblebee <i>Bombus terrestris</i>	Benjamin Jauffret Learning abilities, behavioural flexibility and olfactory sensitivity are associated in <i>Formica fusca</i> ants
17:00	Morgan Morrison Buzzing Alarms: Pathogen Spillover in Protected Areas in Europe	Silu Lin Unveiling the impact of sociality and extrinsic mortality on ageing	Sandra Tretter The genomic and neural constituents of ant olfaction in the light of social complexity

17:15	Romane Blaya Ant communities on small islands of the Mediterranean basin		
-------	--	--	--

Wednesday 10th of July

8:00-12:00 Registration desk and speaker's upload area are open.

9:00-10:00	Plenary 3: Lars Chittka <i>Social insects – ancient civilisations?</i> Amphitheatre A
10:00-10:30	Coffee break

Morning, Session 7

	Amphitheatre A	Amphitheatre B	Room 315
	SYMPOSIUM: Social insects and their microbial communities Organizers: Vincent Doublet, Lena Wilfert	SYMPOSIUM: Beetles and other unconventional social insects Organizers: Jon Andreja Nuotclà, Peter Biedermann	OPEN SESSION: Macroecology, macroevolution and biogeography Chair: Sébastien Ollier
10:30	Robert Paxton Keynote: Do ecological networks explain viral transmission among bee communities?	Stephen Trumbo Keynote: Plasticity of Social Behavior in Burying beetles and Other Silphinae	Eddie Pérochon Global-scale patterns of social organization in ants
10:45			Maël Doré Worldwide historical biogeography and diversification dynamics of ponerine ants
11:00	Waldan Kwong Keynote: Cell atlas of the honey bee (<i>Apis mellifera</i>) hindgut	Jon Andreja Nuotclà Development speed and brood care demands determine social investment in ambrosia beetles	Ádám Lőrincz Ants in space and time: spatiotemporal niche dynamics in ecosystem complexes
11:15		Joel Meunier The social life of earwigs	Tristan Klatfenterger Shades of Diversity: exploring ant colouration across latitudes and environments.

11:30	Arne Weinhold Environmental influences on the temporal dynamics of the bumble bee core-microbiota	Antoine Melet Artificial selection of a cooperatively breeding ambrosia beetle: can we turn a social insect back to solitary life?	Nathalie Brenner Evolutionary genetics of convergent mimicry color patterns in bumblebees
11:45	Igor Siedlecki Internal or external? - microbiota of red wood ants' (<i>Formica polyctena</i>) infrabuccal pockets	Claire Bailey Uncovering Eusocial Pathways and Consequences in Snapping Shrimp	Edouard Duquesne Integrating phylogeny and distribution models to predict habitat suitability of the pest termite genus <i>Heterotermes</i>
12:00	Jana Dobelmann Varroa-free island refugia reveal how pathogens in honey bee and bumble bee populations are affected by vector transmission	Sophie Van Meyel If you puke I (might not) puke? How relatedness and social context affects individual's chemical defence behaviour in a gregarious pine sawfly.	Marie Hovorková Ant communities in motion: comparing space-for-time substitution with repeated sampling
12:15	Amélie Cabirol A defined community of core gut bacteria promotes learning and memory in honey bees	Maximilian Körner What makes him care? Unraveling male personality and care behaviors in a simple family system	
12:30	Lunch (sandwich and water) provided in front of Amphitheatre B.		
13:00-22:00	<p style="text-align: center;">Afternoon excursions, departing from UNIL:</p> <ul style="list-style-type: none"> - Rochers-de-Naye - Boat tour & Chillon castle - Wine tasting in Lavaux - Visit of an ant supercolony in the Jura <p>If you have signed up for an excursion at registration, the organizers of each tour will contact you a few days in advance and send you the organizational details. Please don't hesitate to ask at the reception desk in if you have any questions.</p>		

Thursday 11th of July

8:00-17:00 Registration desk and speaker's upload area are open.

9:00-10:00	Plenary 4: Bonnie Blaimer <i>Social insect diversity patterns: insights from the Hymenoptera</i> Amphitheatre A
10:00-10:30	Coffee break

Morning, Session 8

	Amphitheatre A	Amphitheatre B	Room 315
	SYMPOSIUM: Social immunity within and beyond superorganisms Organizers: Erik Frank, Sylvia Cremer	OPEN SESSION: Evolution, phylogeny, systematics, morphology Chair: Dietrich Gotzek	OPEN SESSION: Evolution of sociality Chair: Peter Biedermann
10:30	Narmin Beydizada Is therapy for everyone? injury-dependent wound care behavior in <i>Cataglyphis</i> ant	Enrico Schifani Keynote: Assessing ant diversity in Italy: taxonomy, biogeography, and conservation perspectives	Jacobus (Koos) Boomsma Keynote: The Problems of Eusociality
10:45	Christopher Pull Immunity at the “birth” of a superorganism		
11:00	Romain Willeput Susceptibility to fungal infection and constitutive defences in the ant <i>Lasius flavus</i>	Mattia Menchetti The genetic maps of European ants: a roadmap for phylogeography and species discovery	Christian Rabeling Keynote: Exploring the origin and evolution of social parasitic life history syndromes in ants
11:15	Simon De Wever Earwig mothers sanitize their nests to protect offspring from the risk of pathogen exposure	Jill Oberski Puzzling taxonomy, ongoing speciation, and social parasitism: The case of the Nearctic pyramid ants	

	sharing networks in wood ants	(SDHI) fungicides and the intestinal parasite <i>Nosema ceranae</i> on honeybee health	extremely high recombination rates?
14:15		Danae Nyckees The ingestion of titanium dioxide nanoparticles in combination with glyphosate induces sublethal effects in <i>Cardiocondyla obscurior</i>	
14:30	Priscila Hanisch Foraging behaviour and natural history of the giant ant <i>Dinoponera grandis</i>	EM Manogem Toxicological Assessment of Imidacloprid in Indian honey bees <i>Apis cerana indica</i> Fabricius (1978)	Marina Choppin Testing the effects of paternally-inherited social supergene on colony phenotype in Alpine silver ants
14:45	Thomas Richardson Nest architecture influences collective activity cycles in ant colonies	Jason Rissanen Exposure to nicotine enriched diet enhances mortality caused by entomopathogenic fungus in <i>Cardiocondyla obscurior</i> ants	Ruth Moraa Dynamics of chromosome evolution in termites: Inbreeding, novel chromosomal translocations, and sociality
15:00	Daniela Römer Worker experience, resource distribution, and the differentiation between nutritional states of their symbiotic fungus in leaf-cutting ants	Romain Honorio Does access to family life mitigate the effects of a toxic chemical pollutant in earwig offspring?	Bitao Qiu Transcriptomics reconstructs the evolutionary history of worker castes in termites
15:15	Peter Chanas Factors driving occurrence of sunning clusters in the nests of red wood ants <i>Formica polyctena</i>	Giovanni Cilia Effects of microplastic ingestion and co-exposition to <i>Nosema ceranae</i> and flupyradifurone in the survival of honey bees (<i>Apis mellifera</i> L.)	
15:30-16:00	Coffee break		

Afternoon, Session 10

	Amphitheatre A	Amphitheatre B	Room 315
	SYMPOSIUM: From individual decisions to collective responses Organizers: Ebi Antony George, Morgane Nouvian	OPEN SESSION: Chemical ecology and communication Chair: David Sillam- Dussès	OPEN SESSION: Genes, genomes and social biology Chair: Qiaowei Pan
16:00	Tim Landgraf Keynote: Drifting Bees: Emergent Spatial Separation and Communication	Baptiste Piqueret Keynote: Can you smell that? The importance of olfaction in ants: from human disease detection to brood signal	Riddhi Deshmukh Evolution of social supergene haplotypes across the <i>Serviformica</i> group
16:15	Efficiency of Honey Bee Dance Communication		Johanna Theresa Pieplow Longterm genomic consequences of thelytoky in the Cape Honeybee <i>Apis mellifera</i> <i>capensis</i>
16:30	Matina Donaldson- Matasci The structure and formation of arboreal ant transportation networks	Tomasz Włodarczyk Slave maker ants modify their chemical deception strategy as the colony matures	Nicholas Smith Striking evidence for social buffering effects in the transcriptome of the ant <i>Temnothorax</i> <i>nylander</i>
16:45	Daniela Ramirez Moreno Behind the Stings: self- organization via alarm pheromone responsiveness	David Sillam-Dussès Chemical and vibrational signals used in alarm communication by termites	Felipe Cordeiro Dias Genomic analysis of Chemosensory Related Genes in bees: Insights into their connection with social organization
17:00	Michal Roitman Weights vs zippers: a tale of competition in nest building by Australian weaver ants	Arthur Hais Potential role of microbiota on the variation in ants' cuticular chemical profile	

17:15	Linda Sartoris The effect of circadian rhythm on organisational immunity of ant colonies	Anthony Bracuti There's no going back: plasticity in adult honeybee reproduction in response to queen pheromone	
17:30	Ehud Fonio Obstacle clearing during cooperative transport by ants		

18:00-19:00	Plenary 5: Patrizia d'Ettorre <i>The Mentality of Ants</i> Amphitheatre A		
19:00	Closing remarks and poster prizes		

19:30-1:00	Gala dinner Unithèque		
------------	---------------------------------	--	--

POSTERS

Number	Presenter	Title
1	Zimai Li	Immune Division of Labour in the Clonal Raider Ant
2	Liselotte Guillemin	Individual differences in behaviour in ants: a multi-trait study across different species
3	Lina Pedraza	Innovating Invasive Ant Control: Cognitive Intervention for Combatting <i>Linepithema humile</i> in Europe
4	Karolina Kuszewska	The impact of emotions on the health condition of honeybees
5	Ulrich Ernst	Do mated <i>Vespa velutina</i> queens return to their nest?
6	Ana Paula Cipriano	Choosing your battles: trail pheromones from aggressive heterospecific bees modulate foraging decisions of stingless bees
7	Ina Knuf	Molecular regulation of division of labor in the ant <i>Temnothorax longispinosus</i> by a sensory filter
8	Subhashis Halder	Every day counts: Characterizing mutilation and examining its dependence on the age of callow in <i>Diacamma indicum</i>
9	Philip Kohlmeier	Larval chemical cues and their impact on forager behavior
10	Vibhuti Bhat	Evolutionary drivers of rescue and wound care behaviour in a termite hunting ant
11	Bhoomika Ashok Bhat	Nematode infections reshape ant chemical signatures
12	Pierick Mougnot	Temporal dynamics of division of labour and ageing in the clonal ant <i>Platythyrea punctata</i>
13	Fabio Nascimento	Brain plasticity and Age Polyethism in a Neotropical Social Wasp, <i>Polybia paulista</i>
14	Samyuktha Senthil	Drifting behaviour of the buff-tailed bumblebee <i>Bombus terrestris</i>
15	Daouia Messaoudi	Behavior of several subterranean termite species when exposed to polyphenols
16	Akiko Koto	Regulatory mechanisms that cause shorter lifespan in social isolation in <i>Camponotus fellah</i>
17	Ryo Miyazaki	Combinatorial effects of gut microbes on bee physiology and behavior
18	Ching-Han Lee	The regulation of social conflict in the Indian jumping ant (<i>Hapergnathos saltator</i>)
19	Brian Whyte	How social complexity changes recognition and specialization in a clonal ant

20	Margaux Jossart	Impact of a facultative endosymbiont on aphid-ant mutualistic interactions
21	Luisa M. Jaimes Niño	Transcriptomic signature of the spatial navigation and step integration in desert ants
22	Mélissa Haouzi	Quick, I want to have the colonial odour: Rapid acquisition of the chemical signature in the invasive hornet <i>Vespa velutina nigrithorax</i>
23	Tiphaine Bailly	Genetically engineering the pheromone glands of ants to study chemical communication in insect societies.
24	Ittai Warburg	Ant colonies at the Rosh-Hanikra site in northern Israel
25	Mariana Cassinelli	Beeing in the City: Understanding Morphological Changes in the stingless bee <i>Tetragonisca angustula</i> workers in Urban and Natural Environments
26	Selene Escobar-Ramírez	Baseline of ant communities in a disturbance gradient on San Cristóbal Island (Galapagos)
27	Olivia Bates	A global cross-taxa assessment of niche shifts in invasive species
28	Jerome Gippet	How pests become pets: Invasive species are favored in the global pet trade in ants
29	Carlo Polidori	Niche expansion and niche unfilling in alien bees worldwide: the role of year of introduction and body size
31	Daniele Giannetti	Ant-plant interactions and the effects of climate change
32	Gabrielle Flinn	From Roots to Shoots: The role of meadow ants in restoring grasslands for pollinators
33	Sabrina Juvenal De Oliveira	Relationships between ant communities of forest fragments and adjacent sugarcane fields in South-Eastern Brazil
34	Lena Wilfert	Effects of land-use intensity on pollinator health and pollination services
35	Hugo Darras	Obligate chimerism in male yellow crazy ants
36	Mozhgan Khodadadi	Comparative and experimental approaches to the transcriptomics and genomic regulation of eusociality in halictid bees
37	Asia Piovesan	Back to the future – Spatio-temporal variation of genetic diversity in Swiss <i>Bombus</i> spp.
38	Anu Halonen	Personality does not influence dispersal in <i>Formica exsecta</i>
39	Mara Julseth	Chromosome chains in termite evolution: from inbreeding tolerance to speciation

40	Arthur Matte	Ruling the unruly: larval passiveness enabled size inequality between ant queens and workers
41	Luca Soldini	Searching for toxin-antidote elements in an ant social supergene
42	Ruyan Li	Juvenile hormone as master regulator for asymmetric caste differentiation in ants
43	Tanvi Madaan	The effect of colony living on chronic ant infections
44	Yeahji Jeong	Identification of the pathogen infection trend in global honey bee population
45	Federico Ronchetti	Route of transmission and tissue localization of <i>Wolbachia</i> in a parasitoid wasp attacking an eusocial digger bee
46	Florian Strahodinsky	The costs of multiple infections in ants
47	Ida Holmberg	Slavemaking ants have fewer pathogen recognition genes than their related host ants
48	Mauno Konu	Identification and analysis of RNA viruses in ant societies
49	Harikrishnan Rajendran	Viral infection of ants under individual and social conditions
50	Giovanni Cilia	Circulation of bee pathogens among ants: the importance of spillover from managed honey bee (<i>Apis mellifera</i> L.)
51	Karen Haag	Testing the effect of pyraclostrobin on the gut microbiome of juveniles and adults of a Brazilian stingless bee
52	Ida Cecilie Jensen	Wood ants and their associated microorganisms inhibit plant pathogens
53	Michaela Hönigsberger	Detection and reaction to pathogen cues in ant colonies
54	Rachel Ward	Long live the colony: long-lived summer honeybee workers
55	Elia Nalini	Sharpen knives: the adaptative role of Zinc and Manganese in mandibles of the temporary socially parasitic <i>Lasius</i> species
56	Roxanne Fraser	Evolution and gene regulation of sex chromosomes in termites
57	Marit Kujit	Identification of <i>Formica rufa</i> group species and their hybrids using SNP markers

SPONSORS

We are grateful for the financial support from our sponsors.

