

Sunday 31/08

Welcome and general information

8:30

9:00 **James T. Costa - Beyond selfish herds: Structure, ecology and evolution of larval societies**

Chair: J.L. Deneubourg

COFFEE BREAK

10:00

10:30 **Social Organization, Collective Processes & Division of Work (1)**

Chair: J.L. Deneubourg

Reproductive Strategies & Population Genetics (1)

Chair: M. Woyciechowsky

Janzen T. - The evolution of reinforced thresholds and division of labour
Johnson B. - Honey bees use frequent task quitting and random walks to solve problems of spatial variability in task demand
Giovanetti M. - Division of labour in a sphecid wasp, *Cerceris rubida*: The importance of body size
Jeanson R. - Division of labour in associations of solitary halictine bees
Leniaud L. - Ontogenic potentialities, caste differentiation and consequences on the genetic structure of an invasive *Reticulitermes* termite
Duarte A. - Evolution and self-organization of division of labour: An integrated perspective

Bourke A.F.G. - Lifetime reproductive success and longevity of queens in an annual social insect
Den Boer S. - The effect of seminal fluid interactions on sperm viability in social insects
Meunier J. - The inheritance of queen size and queen number in ants
Lecoutey E. - Intercastes as emergency reproductives in a clonal ant
Peeters C. - Fission of ant colonies and recurrent evolution of ergatoid queens
Innocent T. - The influence of life history and behaviour on sex ratio evolution in a parasitoid wasp

12:30

LUNCH

14:00

Social Organization, Collective Processes & Division of Work (2)

Chair: V. Fourcassié

Reproductive Strategies & Population Genetics (2)

Chair: A. Bourke

14:00 *Mersch D.* - Temporal organization in an ant colony
Momen S. - An ant-like task allocation model for heterogeneous groups of robots
Robinson E. - Decision-making and consensus-breaking: Opinion leaders in ants
Sempo G. - Collective decision and interindividual variability in cockroaches
Bruschini C. - Difference in venom volatiles and alarm behaviour in foundresses and workers of *Polistes* wasps
Crailsheim K. - Honeybee-derived aggregation of swarm robots

Jaffe R. - Temporal genetic structure of a honeybee (*Apis mellifera*) drone congregation area: A sex club with regular clients?
Ruel C. - Paternity sharing in the polyandrous ant *Cataglyphis cursor*
Lenoir J.C. - Matchmaking ants
Seppä P. - Estimation of population subdivision in family-structured populations
Saapunki J. - Stable coexistence of two genetic lineages in one population
Pedersen J. - The evolution of invasive traits in *Lasius* ants: Insights from the Austrian garden ant *L. austriacus*

16:00

COFFEE BREAK

16:30

Social Organization, Collective Processes & Division of Work (3)

Chair: F. Roces

Reproductive Strategies & Population Genetics (3)

Chair: M. Chapuisat

Sendova-Franks A. - Famine Relief in Ant Colonies
Maccagnani B. - Asymmetry in the searching behaviour of *Bombus terrestris*
Bernadou A. - Is the harvester ant *Messor barbarus* an optimal central place forager? Seed selection in relation to distance and habitat structure.
Lihoreau M. - Social foraging in cockroaches

Boulay R. - Reproduction by colony fission in the ant *Aphaenogaster senilis*: An ecological perspective
Thurin N. - When social parasitism allows a better understanding of the evolution of polyandry
Ugelvig L. - Fluctuating population size in a social parasite: Consequences for genetic diversity
Aron S. - Sib-mating in the ant *Plagiolepis pygmaea*: Adaptive inbreeding ?

19:30

DINNER

21:00

SOCIAL EVENTS

Monday 01/09

9:00 **Laurent Keller - Ant behavior is modulated by complex interactions between genes and social environment**

Chair: L. Sundström

10:00 **COFFEE BREAK**

10:30 **Social Organization, Collective Processes & Division of Work (4)**

Chair: C. Detrain

Jandt J. - The relationship between spatial organization and division of labor in the bumble bee, *Bombus impatiens*
Jost C. - Internal organisation of *Cubitermes* nests
Pielstroem S. - Vibrational communication organizes digging behavior in leaf-cutting ants
Bollazzi M. - Environmental factors organize collective building for climate control in *Acromyrmex* leaf-cutting ants
Toffin E. - Efficient nest design under control of ants density in the ant *Lasius niger*

Reproductive Strategies & Population Genetics (4)

Chair: L. Sundström

Barth B. - Genetic population structure and colony fusion in the parthenogenetic ant *Platythyrea punctata* Smith (Hymenoptera, Formicidae)
Timmermans I. - Who controls production and development of thelytokous eggs in the ant *Cataglyphis cursor* ?
Pearcy M. - Reproductive Strategies in the genus *Cataglyphis*
Bonckaert W. - Worker policing in the two Vespine wasps *Vespula vulgaris* and *Dolichovespula norwegica*
Ernst U. - Worker policing in the honeybee-a job for a specialist?
Gill R. - The regulation of reproductive allocation through 'worker policing of queens'

12:30 **LUNCH**

14:00 **Ethology & Neuroethology**

Chair: A.G. Bagnères

14:00 *Stroeymeyt N.* - Side-specificity in the perception of ant recognition cues
Brandstaetter A. - A neurophysiological approach to nestmate recognition in the carpenter ant, *Camponotus floridanus*
Avargues-Weber A. - Learning of a spatial configuration by honeybees: The case of face-like stimuli
Rousset E. - Shock responsiveness and learning performances of honeybees in the olfactory aversive conditioning of the sting extension reflex
Guerrieri F. - Conditioning of *maxilla-labium* extension response in a carpenter ant

Genes, Genomics & Social Biology

Chair: R. Hammond

Hasselmann M. - Evidence for the nascence of a novel sex determination pathway in honey bees
Wang J. - Developmental time course in fire ants
Korb J. - What makes a termite queen – from ecology to genes
Linksvayer T. - Deconstructing the superorganism: The genetic basis of queen-worker dimorphism in honey bees
Lucas C. - Molecular basis of foraging and defense behaviors in the ant *Pheidole pallidula*

15:40 **COFFEE BREAK**

16:00 **POSTER SESSION**

18:00 **SECTIONS MEETINGS**

19:30 **DINNER**

21:00 **SOCIAL EVENTS**

Tuesday 02/09

9:00	Stuart West – Social evolution in microbes Chair: J.J. Boomsma	
10:00	COFFEE BREAK	
10:30	Disease & Immunity in Social Insects (1) Chair: J.J. Boomsma	Chemical Ecology (1) Chair: P. D’Ettorre
	<p><i>Chapuisat M.</i> - Collective defences against pathogens in ants</p> <p><i>Fernandez-Marin H.</i> - Integrating hygiene and defense strategies against diseases in fungus-growing ants</p> <p><i>Cremer S.</i> - Pathogen detection abilities of in- and outbred ants</p> <p><i>Deves A.L.</i> - Phenoloxidase activity in queens in relation to the exposure risks in the ant <i>Cataglyphis cursor</i></p> <p><i>Lenoir A.</i> - Endosymbionts <i>Blochmannia</i> improve growth and immune defence in the ant <i>Camponotus fellah</i></p> <p><i>Feldhaar H.</i> - The transcriptome of the endosymbiont <i>Blochmannia floridanus</i> in different life stages of its holometabolous host <i>Camponotus floridanus</i></p>	<p><i>Hefetz A.</i> - The evolution of fertility signals: Uncoupling fertility from fertility signaling in the honeybee (<i>Apis mellifera</i>).</p> <p><i>Dapporto L.</i> - Disproving fertility signal in paper wasps</p> <p><i>Cournault L.</i> - Fertility, not mating status, of ant queens inhibits workers' reproduction</p> <p><i>Nascimento F.</i> - Visual and odour signals of reproductive status in a paper wasp</p> <p><i>Molet M.</i> - Colony nutritional status modulates worker responses to foraging recruitment pheromone in the bumblebee <i>Bombus terrestris</i></p> <p><i>Schatz B.</i> - Chemical mediation of a defence behaviour in an ant-plant mutualism</p>
12:30	LUNCH	
14:00	Disease & Immunity in Social Insects (2) Chair: L. Santorelli	Chemical Ecology (2) Chair: A. Hefetz
	<p><i>Dedeine F.</i> - Evolutionary dynamics of the intestinal symbiotic communities of termites</p> <p><i>Schlüns H.</i> - Sequence evolution of immune genes in bulldog ants</p>	<p><i>Grasso D.</i> - The chemical alarm system of <i>Formica cunicularia</i> (Hymenoptera, Formicidae): Glandular sources and context-dependent reactions</p> <p><i>Turillazzi S.</i> - Cuticular and venom peptides of paper wasps and their social parasites</p> <p><i>Couvillon M.</i> - Mechanisms of guarding and nestmate recognition in honey bees and stingless bees</p> <p><i>Blight O.</i> - Intraspecific aggression and cuticular signature variations in an unicolonial population of Argentine ant in Southern Europe</p> <p><i>Nehring V.</i> - Nestmate recognition in the ant <i>Camponotus herculeanus</i>: The information is in the branches</p> <p><i>Bos N.</i> - Does my enemy smell like food? Cuticular hydrocarbon blends in different contexts</p>
	Social Insects Molecular Systematics Chair: K. Trontti	
	<p><i>Jansen G.</i> - Phylogenetic analysis of the ant tribe Myrmicini: Combining molecules, time and biogeographical scenarios</p> <p><i>Luchetti A.</i> - Biosystematics and evolution of Central-East European termites: Mitochondrial and nuclear molecular analyses</p> <p><i>Schluns E.</i> - Molecular systematics of the ant genus <i>Camponotus</i></p> <p><i>Bernasconi C.</i> - Genetic markers for species identification: A new cryptic species of wood ant in the Swiss Alps ?</p>	
16:00	COFFEE BREAK	
16:30	Anatomy & Morphology Chair: J. Billen	Coevolution Between Social Insects & Social and Macroparasites Chair: J.C. de Biseau
	<p><i>Kelber C.</i> - Correlating neuroanatomical traits and social organization in attine ants</p> <p><i>Sobotnik J.</i> - The influence of juvenile hormone analogue upon inner anatomy in <i>Prorhinotermes simplex</i></p> <p><i>Moors L.</i> - The morphology of the male reproductive system in the honeybee, <i>Apis mellifera</i></p>	<p><i>Furst M.</i> - Does violence pay ? Why some <i>Myrmica</i> ant colonies may be more prone to parasitic <i>Maculinea</i> butterflies than others</p> <p><i>Cervo R.</i> - Morphological and behavioural co-evolution in a host-parasite pair of paper wasps</p> <p><i>Beani L.</i> - Parasites at leks: <i>Xenos vesparum</i> (Strepsiptera, Stylopidae) affects the reproduction of <i>Polistes</i> wasps</p>
19:30	DINNER	
21:00	SOCIAL EVENTS	

Wednesday 03/09

9:00 **Tom Wenseleers - Altruism in insect societies and beyond: voluntary or enforced?**

Chair: J. Herbers

10:00 **COFFEE BREAK**

10:30 **Cooperation & Conflicts in Social Systems (1)**

Chair: J. Herbers

Boomsma J.J. - Monogamy and the evolution of eusociality: A new way of looking at Hamilton's rule
Zanette L. - Policing in bumble bees: Who is in control?
Amsalem E. - Chemical signaling in *Bombus terrestris*: Do workers advertise sterility to avoid aggression?
Liebig J. - Direct evidence for the role of alkanes in worker policing and larva recognition in ants
Miller S. - Drifting in wild populations of *Bombus Terrestris*
Vitikainen E. - Multiple mechanisms contributing to sex ratio allocation in the ant *Formica exsecta*

Biodiversity, Community Ecology & Invasion Biology (1)

Chair: J.L. Mercier

Ivens A. - Ants farming aphids: A joint experimental and theoretical approach to the study of mutualism
Saikkonen T. - Stand level impact of ant-aphid mutualism on invertebrates
Domisch T. - Effects of ant-aphid-tree interactions on C and N fluxes and biodiversity in boreal forests
Renard D. - Myrmecochory from top to bottom and back again: The importance of secondary seed transport within ant nests for an ant-dispersed tropical savanna shrub
Orivel J. - Dynamics of the association between a long-lived understory myrmecophyte and its specific associated ants
Leponce M. - Vertical stratification of ant assemblages in a Panamanian rainforest

12:30 **LUNCH**

14:00 **Cooperation & Conflicts in Social Systems (2)**

Chair: T. Monnin

Sundstrom L. - Multiple queening and reproductive sharing in *Formica* ants
Cheron B. - The mechanism of queen selection during queen replacement in a fission-performing ant
Cini A. - Lack of conflict over nest inheritance between workers and subordinate foundresses in the social wasp *Polistes dominulus*
Poitrineau K. - Evolution of resource sharing as a risk avoidance strategy: From individual strategies to population dynamics
Aanen D.K. - The social evolution of somatic fusion

Biodiversity, Community Ecology & Invasion Biology (2)

Chair: J. Korb

Roisin Y. - Vertical distribution of termites in a Panamanian rainforest
Bourguignon T. - Disentangling a complex tropical termite food web using carbon and nitrogen stable isotopes
Perdereau E. - Origin, establishment and expansion strategies of an American termite introduced in France
Vonshak M. - The ecological consequences of ant invasion: The impact of *Wasmannia auropunctata* on ant species diversity in its invasive range
Orgeas J. - Spartans in ants : Evidence of local resistance of a native species to the invasion by Argentine ant in Corsica
Schmidt A. - Invasive or native? Population genetics of pharaoh ants in Central- and Southern Thailand

16:00 **COFFEE BREAK**

16:30 **Biodiversity, Community Ecology & Invasion Biology (3)**

Chair: Y. Roisin

Solida L. - A comparative analysis of microhabitat segregation in two sympatric species of *Messor* harvester ants
Castracani C. - Ant-fauna as ecological indicator in the Mediterranean ecosystems of the Castelporziano Presidential Reserve (Rome, Italy)
Santini G. - Spatial patterns of the ant *Crematogaster scutellaris* (Hymenoptera, Formicidae) in a simplified ecosystem

18:00 **Closing Ceremony**

19:30 **BANQUET**

21:00 **PARTY**
