

# British Section of the IUSSI

## (International Union for the Study of Social Insects)

# Autumn Newsletter, September

# 2005

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### **Annual Winter Meeting, Saturday 3 December 2005, Queen Mary London**

This year's conference is kindly hosted by Lars Chittka, at his home university of Queen Mary College London (<http://www.qmul.ac.uk/>), which is in the East End near to the Mile End London Underground stop. The meeting will take place in the People's Palace, and directions can be found at the following website:

<http://www.qmul.ac.uk/about/campus/mileend/index.html>

The People's Palace is building 33 on the virtual tour webpage:

<http://www.qmul.ac.uk/about/campus/mileend/virtual/index.html>

If anyone has queries about the location, please contact Lars at [l.chittka@qmul.ac.uk](mailto:l.chittka@qmul.ac.uk) or +44 (0)20 7882 3043

As usual, the meeting will start at 10am, with breaks for lunch, coffee and tea, and end up in a local hostelry. There are still speaker slots available, so rather than putting a complete timetable, I list current speakers below. As soon as a complete timetable is available David Nash will put it on the website and I will send out an e-mail to all members advertising its presence (a hard copy will be sent to members without an email address).

**\*\*\*there are still a few slots available for speakers – please email [mabrown@tcd.ie](mailto:mabrown@tcd.ie) asap if you would like to speak at the meeting\*\*\***  
 as always, members are encouraged to bring posters with them

### List of speakers

- Nehal Saleh (QML) – Traplining in the bumble bee: the ontogeny and adaptive significance of a foraging strategy
- Liz Evesham (Mill Hill) – Nest excavation in *Myrmica rubra*
- Katja Bargum (Helsinki) – TBA
- Seirian Sumner (IOZ) – Quantifying nest-drifting in *Polistes canadensis* using radio-tracking technology
- Paul Eggleton/Daegan Inward (NHM) – The evolution of termite functional diversity: a global phylogenetic perspective
- Elli Leadbeater (QML) – Flower choice “copying” in bumble bees: who does it and how important is it?
- Mark Brown (Dublin) – Testing the haploid susceptibility hypothesis: parasites and social evolution

### Future meetings

The American section have released the 2<sup>nd</sup> Announcement for the 2006 International Meeting (30 Jul- 04 Aug). For further details, please go to:  
<http://www.iussi.org/IUSSI2006.html>

### Section News

3<sup>rd</sup> European Congress on Social Insects, St Petersburg Russia, 22-27/8/05

This year, the society helped to fund 3 PhD students to attend the European IUSSI meeting in St Petersburg, Russia. The British section was well-represented at this meeting (2 plenary talks, 18 symposia talks, 4 posters, and organising 4 symposia). As a *quid pro quo* for funding, Margaret Couvillon and Elva Robinson give their impression of the meeting (Tomás Murray has his job to come!).

Postgraduate students Margaret Couvillon, Tomás Murray, and Elva Robinson, with the support of the British Section of the IUSSI, travelled to St. Petersburg, Russia to attend the 3<sup>rd</sup> European Congress on Social Insects August 22-26, 2005. The conference covered all aspects of social insect research with the traditional organisation of invited plenary lectures, organized symposia, posters, and evening sessions.

St. Petersburg, founded in 1703 by Peter the Great to provide his empire with access to the sea, is a city of water. Heralded as the “Venice of the North”, the city’s 60 canals and rivers and 500 bridges, lorded over by the beautiful Neva River lazily winding through the centre, majestic a landscape of brightly painted, unimaginably grand buildings. The conference was held in the main building of St. Petersburg State University, an easy walk from the reconstructed city centre. We were able to explore sites such as Cathedral of St. Isaac the Dalmatian, one of the largest cathedrals in the world that, with its gilded dome covered in more than 100 kilograms of gold, is visible from almost anywhere in the city. The cathedral opened in 1858, after a laborious 40 year build that included a lavishly decorated interior of malachite, lapis lazuli, marble, semi-precious stones, and an awe-inspiring ceiling painting. On the Neva Banks we saw Peter and Paul’s Fortress, built in 1703 initially to defend the city against invading Swedes and later used as a political prison. Its first prisoner was Alexei, the son of Peter the Great whom Peter suspected of subterfuge. One of the most impressive sites was the Hermitage, a world-famous museum whose vast collections of over 3 million pieces



**Peter the Great,  
Emperor of Russia  
1682-1725**



**Hermitage Museum on Banks of  
Neva River**

(including works of Rembrandt, Picasso, Matisse, Monet, and Van Gogh) occupies a grand ensemble of buildings almost as impressive as the collections themselves.

The city's dramatic backdrop was matched by the conference's opening session. The first plenary lecture by Professor Adrian Wenner (University of California, USA) culminated in a heated (and probably long-standing) volley between the speaker and Professor Randolph Menzel on the importance of odour in the orientation of recruited foragers. British Section

of IUSI and the UK were well-represented by Dr. Mark Brown (Trinity College, Dublin) and Dr. Dave Goulson (University of Southampton, UK) as invited plenary lecturers, with Mark speaking on the ecology of social insects and their parasites and Dave on the decline and conservation of the bumblebee. The rich variety of symposia topics spanned from genomics and molecular biology through behaviour, ecology and phylogeny to palaeontology. Not just bees, wasps, ants and termites were covered, but also a subsocial shield-bug and several beetles, from Scarabs to Staphylinids. A particularly interesting talk was given by Mamiko Ozaki describing how a sensory sensillum on a carpenter ant antennae functions directly in nestmate recognition without involvement of the brain.

Evening events included performances by Russian Folk Ensemble, ballet performances of *Swan Lake* or *The Nutcracker*, and a banquet at the Russian Folk Restaurant Podvorye, where the conversation and laughter flowed as freely as the unlimited vodka.

Many of us remained after the conference to explore the city more fully. We headed to Pushkin, a suburb of St. Petersburg and site of Catherine's Palace. Our tour of Catherine's Palace included the state staircase in the centre of the palace, the great hall with its painted ceilings, and, of course, the beautifully reconstructed Amber Room. We also journeyed by hydrofoil to Peterhof, the imperial summer residence whose magnificently landscaped park, ornate statues and fountains, and palace rival Versailles.



**Peterhof – Imperial Summer Residence**

There was never a dull period throughout the conference, with symposia running three parallel, wide-ranging plenaries, magnificent sights within walking distance of the university and the ample opportunities throughout to meet scientists and make friends. Roll on Washington 2006! *Margaret Couvillon & Elva Robinson*

### *News from members*

**Copenhagen:** The big news for the social insect group in Copenhagen has been the start-up of the new *Centre for Social Evolution* in June, which has meant we have expanded our activities considerably. The CSE as we call it for short is funded by a centre of excellence grant from the *Danish National Research Foundation* awarded to **Koos Boomsma** against stiff competition (there are only about twelve awarded every

five years). The grant will provide funding for equipment and several research positions for at least the next five years. The first appointment has been me (**David Nash**), so that I can concentrate on doing more research and less technical work for the next few years. However this should not prevent me from managing the IUSSI web sites, as well as the new CSE web site, which you can find at <http://www.bi.ku.dk/cse/>

The CSE is a collaborative centre between the social insect group at the University of Copenhagen and **Jørgen Eilenberg**'s group at the *Royal Veterinary and Agricultural University*, Copenhagen (KVL for short in Danish). We have collaborated with this group in the past when Bill Hughes and **Sylvia Cremer** profited from their expertise in insect pathogenic fungi, and they have been working on a project with **Sophie Armitage** for the last few months. Along with Jørgen Eilenberg, the CSE section at KVL consists of **Annette Bruun Jensen**, who will return to working on honey bee genetics and disease resistance, **Jan Martin** who is a curator at KVL, and **Christina Wolsted**, who is a research technician who will work part time with Jørgen and Annette.

Another new appointment has been **Charlotte Andersen**, who is a research technician who has joined us from one of the other departments in Copenhagen. She is already proving invaluable in the DNA lab and helping to look after our ant colonies, and will soon get involved in our fungal rearing program and experimental work with ants. CSE now also includes **Bo Vest Pedersen** a lecturer in one of our neighbouring departments and a specialist on honey bee and bumble bee genetics, plus his technician **Pernille Olsen**, who is, along with our technician **Sylvia Mathiasen**, responsible for the efficient running of the DNA lab.

Back in April, **Michael Poulsen** successfully defended his PhD on conflict and cooperation in fungus-growing ant mutualisms, and shortly afterwards moved to the USA to take up a postdoc in Cameron Currie's lab in Madison, Wisconsin, where he seems to have settled in well.

In June **Mischa Dijkstra** obtained our second PhD of the year, on the regulation of male production in leafcutter ants. He is continuing as a postdoc funded by the CSE until next spring, concentrating on diploid male production, and has been one of the first to benefit from our strengthened connections with KVL and the additional facilities that this provides.

**David Hughes** will be joining the CSE at the beginning of October from Pekka Pamilo's lab in Oulu, to work on a project examining the diversity and effect of parasites in colonies of social insects. He's actually been here for a couple of months already to get settled in, and has got our journal club running again as well as also starting some active collaborations with the KVL group and helping with the laboratory reorganization that has followed our expansion.

Another import from Oulu has been **Jonna Saapunki**, who spent the summer helping out with the *Maculinea* butterfly / *Myrmica* ant project in Denmark to get some experience of fieldwork as part of her undergraduate degree. I was very pleased to have her here, as it meant that we could try some interesting project for which we wouldn't normally have the womanpower.

As mentioned in the previous newsletter, **Patrizia D'Ettorre** joined us in May with her project *CODICES* (Chemical cOmmunication coDes of InseCt societiES), funded by a EU Marie Curie Excellence Grant. This has got off to a flying start, with the establishment of a planned collaboration with Christer Löfstedt's group in Lund, and the recruitment of two PhD students. The first of these is **Jelle van Zweden**, who has

moved with Patrizia from Regensburg, and the second is a new recruit, **Stefanie Dreier**, who did her Master's degree with Laurent Keller in Lausanne. You can find more about *CODICES* at the following web site: <http://www.bi.ku.dk/codices/>

The CSE will recruit several PhD students over the next few years, so please keep an eye on the CSE web site if you are interested. You'll find the first advertisement for a fellowship to work on sperm viability in social insects in this newsletter as well as on the CSE web site.  
*David Nash*

## **Jobs**

### *Ph.D. fellowship*

The Centre for Social Evolution (CSE) at the University of Copenhagen has a vacancy for a Ph.D. fellowship to study aspects of sperm viability in social insects, starting in January 2006 or as soon as possible thereafter. Primary model systems will be leafcutter ants and honey bees, with possible extensions to sister taxa. The project will be supervised by Professor Jacobus J. Boomsma, Copenhagen and Dr. Boris Baer, presently at The University of Western Australia in Perth.

Interested candidates should possess an M.Sc. or equivalent degree in evolutionary biology, population ecology, animal behaviour or a related field. They are invited to send a CV and a one-page declaration of interest, outlining what kind of detailed questions they would like to address and how their educational background and expertise would enable them to embark on this work in a focused and productive way, preferably by e-mail to:

Prof. Jacobus J. Boomsma, Director, Centre for Social Evolution, Department of Population Biology, Institute of Biology, Universitetsparken 15, DK-2100 Copenhagen, Denmark  
e-mail: [JJBoomsma@bi.ku.dk](mailto:JJBoomsma@bi.ku.dk); Fax: +45 35321250

For general information on the CSE, its main activities and relevant publications see <http://www.bi.ku.dk/CSE/>

The deadline for receipt of declarations of interest is 20<sup>th</sup> October 2005. Declarations of interest and CV's will be reviewed by a committee of senior members of CSE by 1<sup>st</sup> November 2005 to identify those candidates that will be invited for interview and to submit a full Ph.D. proposal.