



# 10<sup>th</sup> Congress European Society for Evolutionary Biology

Kraków, Poland 15 - 20.08.2005

Program and Information

www.eko.uj.edu.pl/ESEB

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## Welcome from the president of the European Society for Evolutionary Biology

I welcome all speakers and other participants to our 2005 Congress. This is the 10<sup>th</sup> biannual congress of ESEB. The first ESEB congress, held in 1987 in Basel, was immediately a big success, with some 450 participants from all over Europe. The next congresses have been held in various European cities and attracted between 500 and 700 participants, with one outlier: Barcelona in 1999 with over 900 attendants. Now, the Krakow congress has established a spectacular new record: 1100 participants! I have no doubts that ESEB, through its congresses and its journal, the Journal of Evolutionary Biology, has been very important in stimulating European evolutionary research and in establishing collaboration within Europe. I very much welcome the clear trend showing increasing involvement of North American evolutionary biologists. This is reflected both in the ESEB congress attendance and in 1FB.

I also welcome our new president Paul Brakefield, who is well-known from his important contributions in the fields of evolutionary genetics and evo-devo.

I wish you all a pleasant and fruitful congress.

Professor Rolf F.Hoekstra, Wageningen University, ESEB President 2003-2005

#### **Congress executive:**

Jan Kozlowski (*Chair*) Mariusz Cichon Marek Konarzewski Ryszard Korona Adam Lomnicki Jacek Radwan, Michal Woyciechowski

#### **Institute of Environmental Sciences Conference Office:**

Dobroslawa Bialonska Adam Gawelczyk (website and on-line registration)

### Jagiellonian University Office for Academic Events and Conferences (BOIN)

Maciej Pilch Renata Rusek

## The 10<sup>th</sup> Congress of the European Society for Evolutionary Biology

Welcome to ESEB2005, the 10<sup>th</sup> Jubilee Congress of the European Society for Evolutionary Biology (ESEB2005), taking place at the Jagiellonian University in the historical city of Krakow, Poland, from 15 to 20 August 2005.

The structure of the Congress will be similar to that of previous meetings, each day starting with a plenary lecture, followed by parallel day and a half, full-day and half-day symposia. This year there are 15 symposia. Several open sessions will also be held as new initiative.

ESEB awarded registration fee waivers to 49 delegates from EU new members and low-economy countries.

#### Registration

Registration is from 9.00 am to 7 pm on Monday 15<sup>th</sup> August in the hall of Collegium Novum of Jagiellonian University (24 Gołębia St – ulica Gołębia 24). On subsequent days (16 - 20.08.2005) the information and registration desk will be open from 9.30am to 5.30pm at III Campus of Jagiellonian University (7 Gronostajowa St – ulica Gronostajowa 7) at symposia venue. During these hours the information desk will also be contactable by phone:

#### (+48-12) 664 67 46

At the registration desk please provide us with a copy of the documents confirming your payment, student id (in case of student fee), as well as with clearly labeled CD-R's (Name/Symposium number) with Power Point presentation (in case of oral presentation). Overhead projectors will be also available, however no slide projectors.

Queries can be directed to members of the organizing committee or any of the conference assistants. Conference assistants can be easily identified by their yellow T-shirts with "ESEB2005" logo.

All delegates will receive a name badge in their conference pack. This must be worn during all scientific sessions and meals.

The information desk will include an information board for delegates to display relevant notices, messages, advertisements, and job vacancy announcements.

#### **Welcome Reception**

The congress will start at **7 pm Monday** with Welcome Reception at The Natural History Museum of Polish Academy of Sciences located at 9 Sebastiana St – ulica Sebastiana 9

(http://www.isez.pan.krakow.pl/museum/museum.htm)

in City Krakow Old Bath building. During Welcome Reception a glass of wine will be sponsored by Trends in Ecology and Evolution journal.

The Congress will be accompanied by an exhibition aimed at the general public. The aim of the exhibition is to increase understanding of evolution primarily among teachers and their pupils. The exhibition will deal with such issues as mechanisms of evolution and its consequences, biogenesis and anthropogenesis. Evolutionary history will be illustrated with fossils and ambercaptured creatures. The exhibition will be presented in the Zoological Museum of Polish Academy of Sciences. Part of the exhibition will be already available during the Welcome Party held at the Museum.

#### **Congress Venue**

Krakow is a unique, historical place and the most frequently visited Polish city by foreign tourists. In your conference materials you will find 'Krakow in your pocket' guide containing current information on hotels, restaurants, cafes, nightlife, sightseeing, events, and maps of Krakow.

The **Jagiellonian University** www.uj.edu.pl , founded in 1364, is **the oldest in Poland** and the second oldest in Central Europe. Approximately 70,000 students are studying here. The Institute of Environmental Sciences of Jagiellonian University (former Institute of Environmental Biology), organising the Congress, was established in 1979.

Each morning, the Congress will start with a plenary lecture at **Kino Kijow** (Kijow Cinema) at 34 Krasińskiego Avenue – Aleja Krasińskiego 34). The cinema is at walking distance from all accommodation.

After the plenary, participants will be transported by designated conference buses to the **Conference Center at the III Campus of the Jagiellonian University** (7 Gronostajowa St – ulica Gronostajowa 7). At the end of each day the conference buses will take participants back to the centre of Krakow. The Campus of the 600th Anniversary of the Jagiellonian University Revival, to be completed in 2010, is a formidable initiative. This expansion of

teaching facilities and dormitories by over 100 thousand square metres, results in the increase in University research and teaching potential. The second building in the complex, opened in October 2002, contains the library and modern lecture facilities, which include a lecture theatre for 360 persons, and six lecture rooms for 150 people each. Several conferences had been successfully hosted by the venue.

The III Campus can be also easily reached by public bus transportation (every 10-15 minutes, takes about 20 minutes). Buses no. 114, 124, 194, 128.

Taxis are also available; they can be pre-booked (e.g. 91-91, 96-21, 96-22, 96-25, 96-69) or taken from the parking. The taxi from III Campus to the centre should not exceed 20 PLN (5EUR) on working days.

#### **General Information**

#### **Bank and Currency Exchange**

Cash may be obtained from many cash point machines. For currency exchange we advise small exchange points (easily found in the centre of Krakow) for better exchange rates than in banks.

#### **Computers and Internet Access**

Computers with internet access are available for use by delegates at the Computer Room at the Institute of Environmental Sciences of Jagiellonian University, in the symposia venue.

#### **Meals and Refreshments**

All lunches will be provided in the special tent at the front of the building of the III Campus of Jagiellonian University. Please ensure you are wearing your conference badge and have the tickets for lunches with you. Tickets will be provided at the registration. Coffee and refreshments will be provided for participants three times a day (except for Wednesday, when mid-congress excursions will take place). Twelve coffee stands will be organized inside of the III Campus building.

Delegates requiring additional coffee or refreshments during the congress will be able to purchase them in the café 'LOT catering' at the congress venue.

There are many interesting restaurants in Krakow, so you can find a place to have dinner (see 'Krakow in your pocket' guide for descriptions).

#### **Emergency Calls**

The emergency service can be contacted at: 999 Police, 997 Ambulance, 998 Fire service.

#### **Exhibitions**

Exhibitors are supporting the congress through donations. We encourage you to take advantage of their service.

#### Exhibitors:

Annals of Botany
Blackwell Publishing
Cambridge University Press
Meranco
Merck
Oxford University Press
Palgrave Macmillan
Princeton University Press
Royal Society Publications
Science International
The University of Chicago Press
Trends in Ecology and Evolution, Elsevier

#### **Mid-congress Excursions**

After the lunch on Thursday 18 August delegates will be transferred by conference buses back to the centre.

- Buses to Wieliczka Salt Mine will depart from the parking area beside Cracovia Hotel (Kałuży St – ulica Kałuży, near Kijow Cinema) at 3.30 pm (return about 7.30 pm).
- Buses to Ojcow National Park will depart at from the parking area beside Cracovia Hotel (Kałuży St – ulica Kałuży, near Kijow Cinema) at 3.15 pm (return about 7.30).
- Sightseeing in Krakow will start at 3.15 pm from Collegium Maius at 15 Jagiellońska St – ulica Jagiellońska 15.
- Sightseeing in the Jewish District of Kazimierz and Wawel Castle will start at 2.40 pm at the Wawel Castle. Participants of this tour should note the earlier start, and

finish lunch accordingly leaving time to take the Conference bus to the centre of Krakow.

#### **Conference Dinner**

The Conference Dinner on Friday night will take place about 25 km from the centre of Kraków at a 'Folwark Zalesie', surrounded by fields, forests, and breathtaking mountain views. This is an ideal meeting place to relax, party with friends, or larger business gatherings, set in fifty acres of real countryside. It is a delightful place for country walks and short excursions by horse drawn carts (included in the dinner offer). A small outdoor museum of farming implements and curiosities from the last century, as well as an exhibition of the local traditional crafts, is worth seeing. We will be warmly welcomed by the Folwark's hosts in the traditional Polish way, and entertained with traditional song and dance, while enjoying the finest traditional cuisine. There will be games and activities which can be tailored to your requirements, indoor or outdoor, depending on your needs and the weather.

After the symposia and Poster Session on Friday 19 August delegates participating in the Conference dinner will be transferred from the symposia venue straight to the 'Folwark Zalesie' place. Departure from the III Campus is 6.30 pm. For accompanying persons participating in the Conference dinner one bus will depart from the parking beside Cracovia Hotel (Kałuży St, ulica Kałuży, near Kijow Cinema) at 6 pm.

Casual dress is encouraged at the Conference dinner.

#### **Post-conference Trips**

All buses for the excursions will depart from the parking area of the Cracovia Hotel on Sunday 21 August.

The Pieniny National Park – 9.00 am (return about 7 pm)

Auschwitz Death Camp – Memorial and Museum – 9.00 am (return about 3.00 pm)

Magurski National Park on a horseback – 9.00 am (return on 23.08 about 1.00 pm)

Further information will be provided at the registration desk.

#### **Information for Presentations**

#### Lectures

Plenary lectures will be held in Kino Kijow (Kijow Cinema). Parallel symposia will be held at the III Campus of Jagiellonian University in Aula as well as lecture rooms (Numbers LR1, LR2, LR3, LR4, LR5).

#### **General Information for Speakers**

There will be:

45 minutes available for plenary speakers, 30 minutes (25 minute talk plus 5 minutes of questions) or 20 minutes (15 minute talk plus 5 minutes of questions) for other speakers.

Because of parallel sessions, chairs have been warned not to allow speakers exceed their allotted time!

Clearly labeled CD-R's (Name/Symposium number) with Power Point presentation should be handed to reception during registration. Technical staff will ensure that the material is successfully transferred to the University System. We suggest having at least two copies of your presentation. Pen drives can also be used, but no zipped files or zip drives please.

 $\ensuremath{\mathsf{CDs}}$  can be collected from the box at registration desk after the presentation.

#### **General Information for Symposia Organizers**

Symposia organizers will chair the sessions in their symposium. With 6 concurrent symposia it is essential that speakers and chairpersons adhere strictly to the time schedule. To ensure that this occurs we suggest that the chairperson gives a visual signals to the speaker when there are five minutes left and stands up when only one minute is left. When there is no time left, the chairperson is to politely cut off the speakers. If a talk is cancelled, please keep to the published timetable and wait until the next scheduled talk.

#### **General Information for Poster Presentations**

All posters should be displayed during the whole Congress at the III Campus of Jagiellonian University complex. Please put up your

poster on the Thursday 16 August after arrival to the symposia venue and remove it after the second coffee break on Saturday 21 August. Poster positions will be allocated based upon the symposium to which they are allocated. Please make sure your poster is in the right place as indicated on the poster boards.

The posters will be displayed during all meals, but the two main sessions (when presenters are expected to be present to answer questions on their posters) take place on Wednesday 17 August 3.30 pm to 5.30 pm (see: Journal of Evolutionary Biology 'Poster session' party), and on Friday 19 August 5 pm to 6 pm.

#### Journal of Evolutionary Biology 'Poster Session' Party

During the first Poster session on Wednesday 17 August, 3.30 pm drinks and snacks sponsored by Journal of Evolutionary Biology, Blackwell Publishing will be served.

#### **Presidential Address**

After the poster session on Wednesday 17 August, delegates will be transported to Kino Kijow (Kijow Cinema) for the Presidential Address. We plan to have a reception before the Address and the John Maynard Smith Prize Lecture.

#### **John Maynard Smith Prize 2005**

The assessment committee evaluated 10 nominations for John Maynard Smith Prize 2005 and decided unanimously to gave the award to Dr Daven Presgraves of the Cornell University, Ithaca NY USA. You will find description of his work in the Recommendation Letter by Andrew G. Clark from Molecular Biology & Genetics, Cornell University, Ithaca, NY USA.

#### FROM LETTER OF RECOMMENDATION

**Dr. Daven Presgraves's** thesis spanned the genetic-marker approach to understanding the genetic basis of interspecific hybrid inviability to a much more molecular approach. He has a phenomenal ability to absorb a clutter of conflicting information and identify the key questions that will resolve the tangle. Daven is currently a postdoctoral fellow in my lab, and his presence has been a joy at many levels.

As a Master's student at the University of Maryland, Daven was engaged in some of the nicest work to come from Gerry Wilkinson's studies of stalkeyed flies. This project introduced Daven to the intriguing role of meiotic drive in perturbing genetic systems from what would be an adaptive

response. I was then corresponding editor for his genetic test of Wolbachia-induced cytoplasmic incompatibility in Drosophila, one of the cleanest results to come out of the study of the interaction between these species. Daven tested whether Wolbachia causes failure of fusion of sperm and egg pronuclei due to modification of the male pronucleus or whether other factors are involved. This was done by use of gynogenetic females, which require no male pronucleus to initiate egg development. Because these females can produce progeny when crossed to Wolbachia-infected males, the result very clearly showed that it is sufficient to suppose that Wolbachia affect only the pronucleus. The study made very clever use of an unusual genetic system (gynogenetic females).

The paper with Andrea Betancourt has a special appeal to me because Daven took data that I generated with Willie Swanson, Chip Aquadro, and Mariana Wolfner, and basically pieced together a much more satisfying story than we did! In obtaining a set of EST sequences of genes expressed in the male accessory gland of D. simulans, we initially sought to quantify interspecific divergence across this set of genes. Andrea and Daven realized that the set made a nice contrast between divergence at the and nonsynonymous levels svnonvmous and the local recombination. (In our defense, I did not think our EST sequence data were good enough to warrant this kind of test, which seemed like it would probably be subtle. So we did not even look!). Using these and other data from the literature, they clearly show that the rate of protein evolution is reduced in regions of low recombination and that there is greater departure from optimal codon usage in codons near a radical amino acid substitution. Both results were predicted by the Hill-Robertson effect, and they confirm the important role that the local recombinational milieu may play in genome evolution.

As if these two remarkable papers were not enough, neither served as the primary theme of his Ph.D. thesis project. That project entailed a very clever screen for hybrid inviability factors in the hybrids of *D. melanogaster* and D. simulans. Most of the work on Drosophila hybrid genetics has been with members of the simulans clade (simulans, sechellia and mauritiana), barring the use of powerful tools of melanogaster genetics. Daven wanted very badly to be able to use genetic (and genomic) resources of melanogaster for this problem, and came up with a great design. The idea was to cross melanogaster females to simulans that had the lethal hybrid rescue (Lhr) mutation. The melanogaster females were heterozygous for a series of deficiencies. If in the F1 sons, the deficiency uncovers a gene whose simulans allele is incompatible with viability, this class of progeny would not be seen. By screening a set of deficiencies, this method identifies chromosomal segments that carry factors that cause hybrid lethality (or at least hybrid X-autosome incompatibility). After finding the first 21 such lethals, Daven did extensive tests of their dominance, their interactions with the X, etc..

But it was the deficiency at 95A that hit paydirt in the most concrete way because of the fortuitous density of a deficiency screen. Daven was able to screen the set of fine-scale deficiencies that Lakshmi Balagopalan and others in Susan Abmayr's lab had generated. They soon identified Nup98-96 as the cause of the hybrid inviability. Molecular evolutionary analysis

shows that this gene has a remarkable spike in elevated dN/dS, and sequence of additional Drosophila species shows a clear signature of selection (rejection of McDonald-Kreitman tests). The precise mechanism whereby this nuclear pore protein would under go rapid evolution and be responsible for hybrid inviability is still a great question that Daven is pursuing now, making creative use of the multiple Drosophila genome projects.

Andrew G. Clark Molecular Biology & Genetics Cornell University, Ithaca, NY USA

#### **Symposia**

- 1. Genomic approaches towards tracing adaptive evolution
- Mate choice and genetic diversity
- Functional Evo-Devo
- 4. Emerging genome data: lessons for ecology and evolution
- 5. Bayesian estimation of demographic and ecological parameters from genetic data
- 6. Phylogeography of arctic species
- 7. Range changes and the nature of species limits
- 8. Evolutionary genetics of behaviour
- 9. Evolution of crypsis, aposematism and mimicry
- 10. The Evolution of Asexual Reproduction
- 11. The major transitions in evolution
- 12. Evolutionary biology of colonisation
- 13. Evolutionary genetics of sexual behaviour
- 14. Life history, energetic trade-offs, and human evolution
- 15. Natural hybridization and speciation
- 16. Modeling selection and demography
- 17. Biology and ageing: an integrative approach
- 18. Evolutionary ecology of invasive species and species invasions
- 19. Space and evolution
- 20. Evolutionary dynamics of phenotypic traits in wild populations
- 21. Genome evolution
- 22. Hybrid zones and speciation
- 23. Co-evolutionary genetics
- 24. Selection in the ocean: evidence and evolutionary significance
- 25. Testing evolutionary theory the role of ecology in evolution
- 26. Strategies of parasitic exploitation
- Genetic diversification by frequency-dependent selection:
  - theoretical approaches and empirical facts
- 28. The creative role of population structure in adaptive evolution
- 29. Open session

#### **General Overview**

|                         | Plenary                        | Morning                               | Afternoon                             | Evening   |
|-------------------------|--------------------------------|---------------------------------------|---------------------------------------|---|
| Mon<br>15 <sup>th</sup> |                                |                                       | Registration                          | Welcome<br>reception                            |
| Tue<br>16 <sup>th</sup> | Geoff<br>Parker                | Symposia<br>1, 2, 3, 4, 5,<br>6       | Symposia 1, 2, 3, 7, 8, 9             |   |
| Wed<br>17 <sup>th</sup> | Mary Jane<br>West-<br>Eberhard | Symposia<br>1, 10, 11,<br>12, 13, 14  | Poster session                        | Presidential<br>address<br>JMS Prize<br>Lecture |
| Thu<br>18 <sup>th</sup> | Michael<br>Lynch               | Symposia<br>15, 16, 17,<br>18, 19, 29 | Mid-Congress<br>Excursions            | Mid-<br>Congress<br>Excursions                  |
| Fri 19 <sup>th</sup>    | William<br>Rice                | Symposia<br>20, 21, 22,<br>23, 24, 29 | Symposia<br>20, 21, 22, 23,<br>24, 29 | Poster session Conference dinner                |
| Sat<br>20 <sup>th</sup> | Koos<br>Boomsma                | Symposia<br>20, 21, 25,<br>26, 27, 28 | Symposia<br>25, 26, 27, 28,<br>29     |   |

Plenary Kijów Cinema

Jagiellonian University III Campus

#### **ESEB X PROGRAM**

#### **SPECIAL MEETINGS**

Tuesday Aug 16<sup>th</sup>

**13.20 – 14.30** JEB Deciding editors meeting

(Common Room, UJ III Campus)

Wednesday Aug 17<sup>th</sup>

**13.20 – 14.30** ESEB Council meeting

(Common Room, UJ III Campus)

Wednesday Aug 17<sup>th</sup>

**14.30 – 15.30** ESEB Business meeting

(Aula, UJ III Campus)

Thursday Aug 18<sup>th</sup>

**13.20 – 14.30** Editorial board meeting

(Common Room, UJ III Campus)

#### **DETALIED PROGRAM**

#### Monday Aug 15<sup>th</sup>

9.00 - 19.00 Registration

(Collegium Novum, 24 Gołębia St)

19.00 Welcome reception

(Muzeum of Natural History)

#### Tuesday Aug 16th

**8.00 - 8.10** Welcome

(Kijów Cinema)

**8.10 – 9.00** Plenary lecture

**Geoff Parker** 

The evolution of complex life cycles in

helminth parasites (Kijów Cinema)

**9.00 – 9.40** Bus transfer

**9.40 – 10.00** Coffee

**10.00 - 13.20** Symposia 1, 2, 3, 4, 5, 6

**13.20 – 14.30** Lunch

JEB Deciding editors meeting, Common Room, UJ

III Campus

**14.30 – 17.30** Symposia 1, 2, 3, 7, 8, 9

**17.30** Bus transfer

#### Tuesday Aug 16<sup>th</sup>

#### Aula

## **Symposium 1:** Genomic approaches towards tracing adaptive evolution

Special symposium funded by ESEB

(Organizers: Christian Schlötterer, Diethard Tautz)

#### 10.00 - 10.30 [invited] Tony D. Long

Several thousand individuals, a few hundred SNPs, Notch signalling, and the genetics of a complex trait

#### 10.30 - 11.00 [invited] Jose M. Ranz

Patterns of divergence during the evolution of the eukaryotic transcriptome

#### 11.00 - 11.20 [invited] Christian Schlötterer

Potentials and pitfalls of demography in hitchhiking mapping studies

11.20 - 12.00 Coffee

#### 12.00 - 12.20 Brian Charlesworth

The detection of shared and ancestral polymorphisms

#### 12.20 - 12.40 David de Lorenzo

Demographic and selective history of *D. melanogaster*: a genomic survey

#### 12.40 - 13.00 Jesper G. Sørensen

Gene expression responses to selection for resistance to environmental stress analysed by microarrays

#### 13.00 - 13.20 Hinrich Schulenburg

Evolution of the inducible immune response in natural isolates of *Caenorhabditis elegans* 

13.20 - 14.30

#### 14.30 - 15.00 [invited] Antony M. Dean

The selective cause of an ancient adaptation

#### 15.00 - 15.30 [invited] Justin O. Borevitz

High resolution variation scanning in *Arabidopsis thaliana* using array genotyping

#### 15.30 - 15.50 [invited] Brandon S. Gaut

The effects of artificial selection on the maize genome

#### 15.50 - 16.10 Juliette de Meaux

Evolution of chalcone synthase cis-regulation in the Arabidopsis genus

16.10 - 16.30 Tea

#### 16.30 - 16.50 Deborah Charlesworth

DNA polymorphism of the *A. lyrata* self-incompatibility locus region

#### 16.50 - 17.10 Christopher M. Toomajian

A genome-wide scan for local natural selection in Arabidopsis thaliana

#### 17.10 - 17.30 Rees M. Kassen

Towards a theory of adaptation: the distribution of fitness effects among mutations exposed to selection

Symposium 2: Mate choice and genetic diversity

(Orgaznizer: Hanna Kokko) 10.00 – 10.30 Tom Tregenza

Post-copulatory inbreeding avoidance in crickets?

10.30 - 11.00 Hanna Kokko

Love in a world of feedback

11.00 - 11.20 Trine Bilde

Inbreeding avoidance correlates with inbreeding depression

11.20 - 12.00 Coffee

12.00 - 12.20 Jan T. Lifjeld

Extrapair mate choice and kin selection

12.20 - 12.40 Marta Szulkin

Non-additive genetic effects & mate choice: the case of inbreeding in the wild

12.40 - 13.00 Barbara K. Mable

Mate choice in plants: What happens if you choose yourself?

13.00 - 13.20 Anne Tsitrone

Wait and see? Reproductive behavior and inbreeding depression in the freshwater snail *Physa acuta* 

13.20 – 14.30 Lunch

14.30 – 15.00 [invited] Manfred Milinski

Female mate choice optimizes MHC: the nature of the signal

15.00 - 15.30 [invited] Jan E. Lindström

Sexual signalling and inbreeding avoidance in mate choice

15.30 - 15.50 Luc F. Bussière

How sexual advertisements signal context-dependent genetic quality

15.50 - 16.10 Anders Forsman

Polyandry, bet-hedging and the evolutionary dynamics of colour polymorphisms

16.10 - 16.30 Tea

16.30 - 16.50 Magdalena Konior

Effectiveness of sexual selection in removing mutations induced with ionizing radiation

16.50 - 17.10 Susanne R. K. Zajitschek

Female preference for unfamiliar males as a process influencing genetic diversity in guppies (*Poecilia reticulata*)

17.10 - 17.30 Elie S. Dolgin

Males have higher mating success when adapted to their environment

#### Tuesday Aug 16<sup>th</sup>

| LR 2           |   |
|----------------|---|
| Symposium 3    | : Functional Evo-Devo                                       |
| (Organizers: C | asper Breuker, Vincent Debat)                               |
| -              |   |
| 10.00 - 10.30  | [invited] Armin P. Moczek                                   |
|                | Integrating micro- and macroevolution of development: A     |
|                | case study on horned beetles                                |
| 10.30 - 11.00  |   |
|                | Genomic resources for a butterfly evo-devo model            |
| 11.00 - 11.20  |   |
|                | Modularity and flexibility in color pattern evolution       |
| 11.20 – 12.00  |   |
| 12.00 - 12.20  | John H. Werren  |
|                | Evolutionary genetics of wing and wing cell-size            |
| 12 20 - 12 40  | differences between Nasonia species  Laurent Penet          |
| 12.20 - 12.40  | The "developmental constraints vs selection" debate:        |
|                | insights from microsporogenesis in Asparagales              |
| 12.40 - 13.00  |   |
| 12.40 15.00    | How to grow bigger legs: insights from insects              |
| 13.00 - 13.20  |   |
| 15.00          | Hsp90 and the quantitative variation of Drosophila wing     |
|                | shape   |
| 13.20 - 14.30  | Lunch   |
| 14.30 - 15.00  | [invited] Yoshiyuki Yamamoto                                |
|                | Pleiotropic tradeoff during blind cavefish evolution and    |
|                | development   |
| 15.00 - 15.30  |   |
|                | Evolution of skull development in vertebrates: the role of  |
|                | the neural crest  |
| 15.30 - 15.50  |   |
|                | Genetic architecture of the mouse mandible: results from    |
| 15 50 16 10    | fine mapping QTLs   |
| 15.50 - 16.10  |   |
|                | Intraspecific macroevolution: variation of cranial shape in |

## 16.10 – 16.30 Tea 16.30 – 16.50 Gonçalo C. Cardoso Coevolution of male and female coloration in the passerine genus Serinus

dogs

**16.50 – 17.10 Jessica K. Abbott**Morphological and developmental differences between female morphs in the damselfly *I. elegans* 

17.10 – 17.30 Casper J. Breuker
Wing morphology and the timing of foraging in communal social groups of *Lasioglossum hemichalceum* 

#### LR 3

**Symposium 4:** Emerging genome data: lessons for ecology and evolution

(Organizers: Angus Davison, Douda Bensasson)

10.00 - 10.30 [invited] Jeffrey L. Boore

Using PhIGs to detect two rounds of whole genome duplication at the base of the vertebrates

10.30 - 11.00 [invited] Michael Lynch

A Genome-wide view of the rate and spectrum of spontaneous mutations

11.00 - 11.20 Maja Adamska

Early animal evolution and EST databases: Identification of intercellular signalling pathways in the sponge Reniera

11.20 - 12.00 Coffee

12.00 - 12.20 Elisabeth A. Herniou

Evolution of pathogen genomes: lessons from the baculoviruses

12.20 - 12.40 Kathryn C. Stemshorn

Conserved synteny between a microsatellite based genetic map of *Cottus gobio* (Pisces, Teleostei) with the physical map of *Tetraodon nigroviridis* suggests an easy access to genomic resources for nonmodel fish species

12.40 - 13.00 Steven M. Carr

New biotechnologies for evolutionary genomics: a DNA re-sequencing strategy for phylogeography and biodiversity (the "ArkChip")

13.00 - 13.20 Lindell Bromham

Tempo and mode of molecular evolution: implications for the molecular clock

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**Symposium 5:** Bayesian estimation of demographic and ecological parameters from genetic data

(Organizers: Laurent Excoffi, Mark Beaumont)

#### 10.00 - 10.30 [invited] Bruce Rannala

Bayesian inference of recent migration patterns using genetic markers

#### 10.30 - 11.00 [invited] Arnaud Estoup

Approximate Bayesian Computation to infer on the spatial expansion dynamics of invading species

#### 11.00 - 11.20 [invited] David J. Balding

Distinguishing demographic from selection effects using genome scans

11.20 - 12.00 Coffee

#### 12.00 - 12.20 Aurélie Coulon

The influence of landscape structure on genetic structure of a roe deer population

#### 12.20 - 12.40 Beth A. Shapiro

Using the Bayesian Skyline Plot to estimate the demographic history of Beringian bison

#### 12.40 - 13.00 Guillaume Evanno

Detecting the number of clusters of individuals using the software Structure: a simulation and empirical study

#### 13.00 - 13.20 Samuel Neuenschwander

Complex dynamics of post-glacial recolonization of the Swiss Alps by the bullhead (*Cottus gobio*)

(Organizers: Dorit Liebers, Godfrey M.Hewitt) 10.00 - 10.30 [invited] Laura I. Kvist Phylogeography of palaearctic Parids 10.30 - 11.00 [invited] Richard J. Abbott The phylogeography of arctic plants 11.00 - 11.20 [invited] Amy M. Runck Interhemispheric exchange of high latitude mammals 11.20 - 12.00 Coffee 12.00 - 12.20 Ian Barnes Phylogeography and demography of woolly mammoth 12.20 - 12.40 Asta Audzijonyte Phylogeography of a circum-arctic Mysis (Crustacea, Mysida): glaciation effects on geographical structure 12.40 - 13.00 Tony Wilson Genetic signature of recent glaciation on populations of nearshore fishes (Syngnathidae: Syngnathus)

Genetic structure of Dunlins (*Calidris alpina*) in Northern Europe shown by mtDNA, microsatellites, and AFLP

**Symposium 6:** Phylogeography of arctic species

**Gunnhild Marthinsen** 

13.00 - 13.20

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**Symposium 7:** Range changes and the nature of species limits

(Organizers: Richard Nichols, Godfrey Hewitt)

14.30 - 15.00 [invited] Oscar E. Gaggiotti

Identifying the factors that influence dispersal processes and species ranges

15.00 – 15.30 [invited] Nicholas H. Barton

Adaptation at the edge of the species' range

15.30 - 15.50 Rémy J. Petit

Contrasts between the leading and rear edges of species

distributions

15.50 - 16.10 Thomas Hovestadt

Density-dependent emigration may overcome the Allee

effect and promote rapid range expansion

16.10 - 16.30 Tea

16.30 - 16.50 Petr Kotlik

Northern and southern refugial origin of bank voles

16.50 - 17.10 Natália Martínková

Survival of a mammalian predator at the edge of glacial

ice-sheets?

17.10 - 17.30 Ignacio Ribera

Reconciling fossils with molecules: Pleistocene range

shifts and speciation in European diving beetles

#### LR 4

#### **Symposium 8:** Evolutionary genetics of behaviour

(Organizers: Tadeusz Kawecki, Fredric Mery)

#### 14.30 - 15.00 [invited] Christine R. Boake

Mate choice, good genes, and GXE

#### 15.00 - 15.30 [invited] Laurent Keller

Functional genomic analysis of a complex social behavior in the fire ant *Solenopsis invicta* 

#### 15.30 - 15.50 H. Michael G. Lattorff

Selfish behaviour of honeybee workers is induced by a pleiotropic gene

#### 15.50 - 16.10 Julia C. Jones

Thermoregulation and the effects of rearing temperature on developmental stability and learning and memory in the honey bee, *Apis mellifera* 

#### 16.10 - 16.30 Tea

#### 16.30 - 16.50 Frederic Mery

Natural polymorphism affecting learning and memory in Drosophila melanogaster

#### 16.50 - 17.10 Christoph Haag

A candidate locus for variation in dispersal behaviour in a butterfly metapopulation

#### 17.10 - 17.30 Alison K. Surridge

The evolution and behavioural genetics of colour vision polymorphism in New World primates

#### LR 5

**Symposium 9:** Evolution of crypsis, aposematism and mimicry

(Organizers: Johanna Mappes, Mike Speed)

14.30 - 15.00 [invited] Kyle Summers

Aposematism and mimicry in neotropical poison frogs

15.00 - 15.30 [invited] Pavel Stys

Neglected aspects of aposematism: examples from adult true bugs (Heteroptera)

15.30 - 15.50 Birgitta S. Tullberg

Distance matters - testing the "detection distance hypothesis"

15.50 - 16.10 Robert J. Thomas

Can dietary conservatism aid the evolution of aposematism?

16.10 - 16.30 Tea

16.30 - 16.50

16.50 - 17.10 Eira Ihalainen

Müllerian mimicry from the Great tit perspective

17.10 - 17.30 John Skelhorn

Does the interaction of defence chemicals influence the benefit of Müllerian mimicry?

#### Wednesday Aug 17<sup>th</sup>

| 8.05 - 8.10   | Announcements<br>( <u>Kijów Cinema</u> )   |
|---------------|--|
| 8.10 - 9.00   | Plenary lecture  Mary Jane West-Eberhard  Developmental Plasticity and Darwinian  Evolution (Kijów Cinema) |
| 9.00 - 9.40   | Bus transfer   |
| 9.40 – 10.00  | Coffee   |
| 10.00 - 13.20 | Symposia 1,10,11,12,13,14  |
| 13.20 – 14.30 | Lunch ESEB Council meeting Common Room, UJ III Campus  |
| 14.30 - 15.30 | ESEB Business Meeting<br>Aula  |
| 15.30 - 17.30 | Poster session JEB 'Poster Session' party  |
| 17.30         | Bus transfer to Kijów Cinema   |
| 18.00 - 18.30 | Reception  |
| 18.30 - 19.30 | Paul Brakefield - Presidential address   |
| 19.30 - 20.30 | Daven Presgraves - John Maynard Smith Prize<br>Lecture   |

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**Symposium 1** (continuation from Tuesday): Genomic approaches towards tracing adaptive evolution

(Organizers: Christian Schloetterer, Diethard Tautz)

11.00 - 11.20 [invited] Diethard Tautz

Systematic identification of selective sweeps in natural populations of the house mouse based on microsatellite scans

11.20 - 12.00 Coffee

12.00 - 12.20 Bettina Harr

Range expansion is associated with positive selection in house mice

12.20 - 12.40 Isabelle Dupanloup

Emergence of young human genes after primate burst of retroposition

12.40 – 13.00 Walter Salzburger

Adaptive evolution in a color gene in cichlid fishes

13.00 - 13.20 Thomas Giger

Differences in global gene expression levels between sedentary and migratory life history forms of brown trout: A cDNA microarray assessment

#### LR 1

**Symposium 10:** The evolution of asexual reproduction (Organizers: Dirk Sven Schmeller, Tim Sharbel)

10.00 - 10.30 [invited] Francois Balloux

The population genetics of clones

10.30 - 11.00 [invited] Graham Bell

Sexual and asexual life cycles in single-celled organisms

11.00 - 11.20 Magnus Lundmark

Is clonal reproduction the key factor behind distribution of geographical parthenogenesis in invertebrates?

11.20 - 12.00 Coffee

12.00 - 12.20 Per Lundberg

The twofold cost of sex unfolded

12.20 - 12.40 Patrick C. Doncaster

Outcomes of reciprocal invasions between surrogate asexual (genetically uniform) and sexual (genetically diverse) populations of *Daphnia obtusa* 

12.40 - 13.00 Katja Domes

The re-evolution of sex in ancient asexual oribatid mites

13.00 - 13.20 Karine Van Doninck

The unique histone H2A variants and histone cluster organization of the bdelloid rotifer *Philodina roseola* 

#### LR 2

**Symposium 11**: *The major transitions in evolution* (Organizers: Joel Peck, Eors Szathmary)

10.00 - 10.30 [invited] Francis L. W. Ratnieks
 The insect societies as a major evolutionary transition

 10.30 - 11.00 [invited] Leonard P. Nunney
 Lineage selection and the evolutionary stability of

emerging groups

11.00 - 11.20 Duur K. Aanen

What you eat is what you get': coupling of sowing and harvesting stabilizes the mutualism between termites and fungi

11.20 - 12.00 Coffee

**12.00 – 12.20 Jes S. Pedersen**Supercolonies in ants: selection above the family level?

**12.20 – 12.40 Michael Lachmann**Shanon information and biological fitness: how does information enter the genome

**12.40 – 13.00 Daniel J. Rankin**From individual behaviour to evolutionary suicide: the role of species-level selection in selfish communities

13.00 – 13.20 Kevin R. Foster
Sociobiology at the genetic level: cooperation and conflict in the social amoeba *Dictyostelium discoideum* 

#### Wednesday Aug 17<sup>th</sup>

#### LR 3

**Symposium 12:** Evolutionary biology of colonization (Organizers: Luis Serra, Antonio Fontdevila)

10.00 - 10.30 [invited] Christian Biemont

Genome size evolution of colonizing species

10.30 – 11.00 [invited] Jeremy B. Searle

Colonisation history of the house mouse

11.00 - 11.20 Joan Balanya

Long-term changes in the chromosomal inversion polymorphism of *Drosophila subobscura* 

- 11.20 12.00 Coffee
- 12.00 12.20 Blanca E. Chávez

Chromosomal distribution of gypsy and bilbo transposable elements in colonising populations of *Drosophila subobscura* 

12.20 - 12.40 Emilie C. Cameron

Fruit fly pests of Northwestern Australia: invasion, hybridisation or evolution

12.40 - 13.00 Paul M. E. Bunje

An analysis of population genetic history from a time series of samples in the sympatrically speciating Midas Cichlid species complex

13.00 - 13.20 Anna K. Lindholm

Invasion success and genetic diversity of introduced populations of guppies in Australia

#### LR 4

#### **Symposium 13:** Evolutionary genetics of sexual

behaviour

(Organizers: Leo Beukeboom, Daniel Bopp)

#### 10.00 - 10.30 [invited] Michael G. Ritchie

Evolutionary genetics of sexual behaviour; tentative steps to bridging that gap

#### 10.30 - 11.00 [invited] Stephen F. Goodwin

Genetic dissection of sexual behaviour and sexual orientation in *Drosophila melanogaster* 

#### 11.00 - 11.20 Daniel Bopp

Genetic and molecular dissection of sexual behaviour in houseflies

11.20 - 12.00 Coffee

#### 12.00 - 12.20 [invited] Leo W. Beukeboom

The genetic architecture of male courtship behaviour of Nasonia (Hymenoptera: Pteromalidae))

#### 12.20 - 12.40 Jana Ustinova

Is cloning of candidate genes for sexual behaviour of grasshoppers fruitless? A candidate gene for "love song" production, fruitless, supports divergence of three species of grasshoppers in contrast to presumably neutral molecular markers

#### 12.40 - 13.00 Nicola J. Nadeau

Evidence for an effect of sexual selection on avian pigmentation gene evolution

#### 13.00 - 13.20 Russell Bonduriansky

Intralocus sexual conflict and the evolution of genomic imprinting

#### Wednesday Aug 17<sup>th</sup>

#### LR 5

**Symposium 14:** Life History, Energetic Trade-offs, and Human Evolution

(Organizers: Grazyna Jasienska, Richard G. Bribiescas)

| 10.00 - 10.30 | [invited] Peter T. Ellison   |
|---------------|--|
| 10.30 - 11.00 | Metabolism and human life history transitions [invited] Mark Pagel Life history evolution without energetics           |
| 11.00 - 11.20 | Anna Ziomkiewicz  Body size, energetic status and estradiol levels in reproductive age women. Is it good to be medium? |
| 11.20 – 12.00 | Coffee   |
| 12.00 - 12.20 | Ruth Mace An evolutionary model of stature, age at first birth and reproductive success in Gambian women               |
| 12.20 - 12.40 |  |
| 12.40 - 13.00 | Michael P. Muehlenbein Immune function and male energetic trade-offs   |
| 13.00 - 13.20 | <u>g</u>   |
| 13.20 – 14.30 | Lunch  |

#### Thursday Aug 18<sup>th</sup>

**8.05 – 8.10** Announcements (Kijów Cinema)

**8.10 – 9.00** Plenary lecture

**Michael Lynch** 

The Origins of Genome Complexity

(Kijów Cinema)

**9.00 - 9.40** Bus transfer

**9.40 – 10.00** Coffee

**10.00 – 13.20** Symposia 15,16,17,18,19, 29 (open session)

13.20 - 14.30 Lunch

JEB Editorial board meeting, Common Room, UJ

III Campus)

**14.30** Bus transfer

#### **Mid-Congress Excursions**

#### Thursday Aug 18<sup>th</sup>

#### Aula

**Symposium 15:** *Natural hybridization and speciation* (Organizers: Walter Salzburger, Axel Meyer)

| 10.00 - 10.30 | [invited] Michael L. Arnold Genetic exchange and evolutionary diversification  |
|---------------|--|
| 10.30 - 11.00 | ,  |
| 11.00 - 11.20 |  |
| 11.20 – 12.00 | Coffee   |
| 12.00 - 12.20 | Jesus Mavarez Speciation by hybridisation in Heliconius Butterflies  |
| 12.20 - 12.40 | [invited] Arne W. Nolte  Admixture mapping in hybrid zones reveals the genetic architecture of divergent traits  |
| 12.40 - 13.00 | Axel Meyer Hybrid origin of a new swordtail species (Teleostei: Xiphophorus clemenciae) driven by sexual selection?  |
| 13.00 - 13.20 | Stephan Koblmüller Reticulate phylogeny: Accidental hybridisation promoting speciation in a lineage of gastropod-shell-breeding cichlids of Lake Tanganyika, East Africa |
| 13.20-14.30   | Lunch  |

#### Thursday Aug 18<sup>th</sup>

#### LR 1

**Symposium 16**: *Modeling selection and demography* (Organizers: Thomas Wiehe, Christian Schloetterer)

| 10.00 - 10.30 | [invited] Laurent Excoffier The effect of range expansions on European molecular diversity   |
|---------------|--|
|               | [invited] Mark A. Beaumont Bayesian approaches for detecting loci subject to selection from gene frequency information [invited] John Wakeley Many-demes models of migration and selection |
| 11.20 – 12.00 | Coffee   |
| 12.00 - 12.20 |  |
| 12.20 - 12.40 | Frederic Austerlitz  Detecting population growth, selection and inherited fertility from haplotypic data   |
| 12.40 - 13.00 |  |
| 13.00 - 13.20 | <b>Daniel J. Wilson</b> Estimating diversifying selection and functional constraint in the presence of recombination   |
| 13.20-14.30   | Lunch  |

# Thursday Aug 18<sup>th</sup>

# LR 2

# **Symposium 17:** *Biology and ageing: an integrative approach*

(Organizers: Bas J. Zwaan, Egon A. Baldal, Jeoren Pijpe)

| 10.00 - 10.30                  | [invited] Francois Taddei What is true for the Elephant is true for E. Coli [invited] Thomas Flatt Juvenile hormone as an integrator of Drosophila life |  |  |  |  |  |
|--------------------------------|---|--|--|--|--|--|
| 10.30 - 11.00                  |   |  |  |  |  |  |
| 11.00 - 11.20                  | history and aging   |  |  |  |  |  |
| 11.20 – 12.00                  | Coffee  |  |  |  |  |  |
| 12.00 - 12.20                  | Marc F. P. M. Maas On the ecology and evolution of fungal senescence  |  |  |  |  |  |
| 12.20 - 12.40                  |   |  |  |  |  |  |
|                                | May stress arrest ageing?   |  |  |  |  |  |
| 12.40 - 13.00                  |   |  |  |  |  |  |
| 12.40 - 13.00<br>13.00 - 13.20 | Mehmet Somel Variation and parallelism within the ageing transcriptome  |  |  |  |  |  |

# Thursday Aug 18th

# LR 3

# **Symposium 18:** Evolutionary ecology of invasive species and species invasions

(Organizers: Jacqui A. Shykoff, Benoit Facon)

10.00 - 10.30 [invited] Carol Eunmi Lee
 Rapid evolution of gene expression during habitat invasions

 10.30 - 11.00 [invited] George W. Gilchrist
 Adaptations to environmental stress in ancestral and invading populations of *Drosophila subobscura*

**11.00 – 11.20 Hafid Laayouni**Thermal adaptation in *Drosophila subobscura*: inference from gene expression patterns

11.20 - 12.00 Coffee

**12.00 – 12.20 Klaas Vrieling**The enemy release and EICA hypothesis revisited

**12.20 – 12.40 Lorne Wolfe**The role of various evolutionary forces during a biological invasion: is natural selection sufficient?

12.40 – 13.00 Kirstin C. Kopp

Parasite release for natives and invaders - Positive effect
of an introduced freshwater snail

13.00 – 13.20 Patrice David

Invasions and evolution along the competitioncolonization trade-off

13.20 - 14.30 Lunch

# Thursday Aug 18<sup>th</sup>

# LR 4

**Symposium 19**: *Space and evolution* (Organizers: Craig Johnson, Maarten C. Boerlijst)

| 10.00 - 10.30 | [invited] Maarten C. Boerlijst Spatial patterns and evolution   |  |  |  |  |
|---------------|---|--|--|--|--|
| 10.30 - 11.00 | •   |  |  |  |  |
| 11.00 -11.20  | ·   |  |  |  |  |
| 11.20 – 12.00 | Coffee  |  |  |  |  |
| 12.00 - 12.20 | Emergent trade-offs and selection for outbreak frequency in spatial epidemics   |  |  |  |  |
| 12.20 - 12.40 | <b>Michiel Vos</b> Cooperation and conflict in a natural population of the social bacterium <i>Myxococcus xanthus</i>         |  |  |  |  |
| 12.40 - 13.00 | Francois Rousset  Separation of time scales, selection and fixation probabilities under isolation by distance                 |  |  |  |  |
| 13.00 - 13.20 | Marta Barluenga Repeated parallel sympatric speciation in crater lake Neotropical cichlids: the Midas Cichlid species complex |  |  |  |  |
| 13.20 – 14.30 | Lunch   |  |  |  |  |

# Thursday Aug 18<sup>th</sup>

# LR 5

Symposium 29: Open session

(Organizers: Jacek Radwan, Ryszard Korona)

10.00 - 10.30 Alison B. Duncan

Parasite mediated selection in Daphnia: The role of sex

and diapause

10.30 - 11.00 Barbara Tschirren

Adaptive maternal effects shape the potential for

coevolution in a bird-ectoparasite system

11.00 -11.20 **Pawel Brzek** 

Developmental priority and cost of immune response in

undernourished Sand Martin nestlings

11.20 - 12.00Coffee

12.00 - 12.20 Paul C. D. Johnson

Macro- and micro-geographic population structure of Trichostrongylus tenuis, a nematode parasite of red

arouse

12.20 - 12.40 Mikael Puurtinen

The effects of mating system and genetic variability on

reproductive output and parasite resistance

12.40 - 13.00 Anssi M. Vainikka

Endocrine-mediated life-history trade-offs in cyprinid

13.00 - 13.20 Gerald M. Schneeweiss

Testing for correlated evolution of host-range and life-

history in holoparasitic Orobanche (Orobanchaceae)

13.20 - 14.30 Lunch

**8.05 – 8.10** Announcements (Kijów Cinema)

**8.10 – 9.00** Plenary lecture

**William Rice** 

Experimental analysis of intersexual conflict: The Good, the Bad, and the Ugly

(Kijów Cinema)

**9.00 – 9.40** Bus transfer

**9.40 – 10.00** Coffee

**10.00 – 13.20** Symposia 20,21,22,23,24, 29 (open session)

13.20 - 14.30 Lunch

**14.30 – 17.30** Symposia 20,21,22,23,24,29 (open session)

**17.30 – 18.40** Poster session

**18.40** Bus transfer

**20.30** Conference dinner

# Aula

**Symposium 20:** Evolutionary dynamics of phenotypic traits in wild populations

(Organizers: David Coltman, Loeske Kruuk)

# 10.00 - 10.30 [invited] Barry R. Sinervo

The evolutionary dynamics of cooperation in nature: cycles of altruism and mutualism in the side-blotched lizard

# 10.30 - 11.00 [invited] Jon Slate

Gene mapping in natural populations: future directions and limitations

# 11.00 - 11.20 Martin G. Bratteler

Genetic architecture of traits associated with serpentine adaptation in *Silene vulgaris* 

11.20 - 12.00 Coffee

# 12.00 - 12.20 José M. Cano Arias

The odds of being different: body shape divergence in marine and lake threespine sticklebacks

# 12.20 - 12.40 Henrik Jensen

Constraints on evolution of a sexually selected trait in house sparrows

# 12.40 - 13.00 Christoph Vorburger

Positive genetic correlations among major life-history traits related to ecological success in the aphid *Myzus* persicae

# 13.00 - 13.20 Phillip Gienapp

Why have laying dates of great tits not (yet) responded to selection induced by climate change?

13.20 - 14.30 Lunch

# 14.30 - 15.00 [invited] Ben C. Sheldon

Sex limitation and sexual antagonism in quantitative traits in wild populations

# 15.00 - 15.30 Jon E. Brommer

The colour of fitness: selection and genetics of plumage coloration in the tawny owl

# 15.30 - 15.50 Suzanne C. Mills

Genotype by environment interactions as a double-edged sword for sexual selection

# 15.50 - 16.10 Kim van der Linde

From laboratory to field: lessons from a Drosophila field study

# 16.30 - 16.50 Oliver Bossdorf

Ecological genetics of touch response in natural populations of *Arabidopsis thaliana* 

# 16.50 - 17.10 Alastair J. Wilson

Ontogenetic patterns in heritable variation for body size: using random regression models in a wild ungulate population

# 17.10 - 17.30 Jenni E. Pettay

Heritability and genetic constraints of life-history trait evolution in pre-industrial humans

Continuation on Saturday

# LR 1

**Symposium 21**: Genome evolution

(Organizers: Deborah Charlesworth, Brian Charlesworth)

| 10.00 - 10.30 |   |  |  |  |  |  |
|---------------|---|--|--|--|--|--|
|               | Patterns of silent substitutions in the human genome    |  |  |  |  |  |
| 10.30 - 11.00 |   |  |  |  |  |  |
|               | The degraded hominid genome                             |  |  |  |  |  |
| 11.00 - 11.20 |   |  |  |  |  |  |
|               | MULEs and the evolutionary fate of host genes captured  |  |  |  |  |  |
|               | by DNA transposons                                      |  |  |  |  |  |
| 11.20 – 12.00 |   |  |  |  |  |  |
| 12.00 - 12.20 | David B. Mark Welch                                     |  |  |  |  |  |
|               | Genome-habitat interaction and the evolutionary success |  |  |  |  |  |
|               | of bdelloid rotifers                                    |  |  |  |  |  |
| 12.20 – 12.40 |   |  |  |  |  |  |
|               | Genome size is negatively correlated with effective     |  |  |  |  |  |
| 10.40 40.00   | population size in ray-finned fishes                    |  |  |  |  |  |
| 12.40 – 13.00 |   |  |  |  |  |  |
|               | Calibrating and understanding the patterns of genome    |  |  |  |  |  |
| 13.00 - 13.20 | stability through time Peter F. Arndt                   |  |  |  |  |  |
| 13.00 - 13.20 | Reconstructing the evolutionary history of mammalian    |  |  |  |  |  |
|               | genomes   |  |  |  |  |  |
| 13.20 – 14.30 | 9   |  |  |  |  |  |
| 14.30 - 15.00 |   |  |  |  |  |  |
|               | X-linked genes evolve higher codon bias in Drosophila   |  |  |  |  |  |
|               | and Caenorhabditis                                      |  |  |  |  |  |
| 15.00 - 15.30 | Doris Bachtrog  |  |  |  |  |  |
|               | Expression profile of a degenerating neo-Y chromosome   |  |  |  |  |  |
|               | in drosophila   |  |  |  |  |  |
| 15.30 - 15.50 | Joachim Hermisson                                       |  |  |  |  |  |
|               | The signature of soft selective sweeps                  |  |  |  |  |  |
| 15.50 - 16.10 |   |  |  |  |  |  |
|               | Fine-scale patterns of recombination differ between     |  |  |  |  |  |
|               | chimpanzees and humans                                  |  |  |  |  |  |
| 16.10 – 16.30 | Tea   |  |  |  |  |  |
| 16.30 – 16.50 |   |  |  |  |  |  |
|               | Divergence and functional constraint in Drosophila      |  |  |  |  |  |

17.10 - 17.30 Martin Hasselmann

16.50 - 17.10 Marie Sémon

noncoding DNA

expression in mammals

Recombination and its signature at a locus that is under balancing selection

Relationships between genome organization and gene

# LR 2

# **Symposium 22:** Hybrid zones and speciation

(Organizers: Jacek M. Szymura, Günther Gollmann)

# 10.00 - 10.30 [invited] Nicholas H. Barton

What role do hybrid zones play in speciation?

#### 10.30 - 11.00 [invited] Roger K. Butlin

Initial stages in the accumulation of reproductive isolation in the meadow grasshopper

# 11.00 - 11.20 Patrick Basset

Can chromosomal rearrangements induce barriers to gene flow at specific parts of the genome?

11.20 - 12.00 Coffee

# 12.00 - 12.20 Humberto Ouesada

Molecular evidence for ecological and sympatric incipient speciation in the snail Littorina saxatilis

#### **Christian Lexer** 12.20 - 12.40

Barrier to gene flow between two European Populus species: testing the potential of hybrid zones for the genetic analysis of adaptively important genes

#### 12.40 - 13.00 Aria M. Minder

Hybridization and introgression in a Silene species pair, Silene latifolia and Silene dioica

#### Keith A. Gardner 13.00 - 13.20

Intergenic incompatibilities underlie two contrasting postzygotic isolating barriers in markedly sunflower hybrid zones

13.20 - 14.30 Lunch

#### 14.30 - 15.00 Milos Macholan

What a hybrid zone analysis can tell us about genes of speciation? A comparison of different transects across a mouse hybrid zone

# 15.00 - 15.30 Trevor D. Price

Hybrid zones and speciation in birds: a review

#### 15.30 - 15.50 Paula M. den Hartog

Vocal and genetic variation across a hybrid zone between two African dove species

#### 15.50 - 16.10 **Alexey Yanchukov**

The new comparative study of the hybrid zone between Bombina bombina and B. variegata in Western Ukraine

16.10 - 16.30 Tea

#### 16.30 - 16.50 Wiesław Babik

Discordance between mtDNA and morphology-based specific and subspecific boundaries in two European newts

# 16.50 - 17.10 Rui Faria

Hybridisation patterns between two fish species (Alosa alosa and A. fallax): nature finding a way

# 17.10 - 17.30 Barbara Keller

Extent of hybridization in a Daphnia species complex

# Friday Aug 19<sup>th</sup>

LR 3 (JU III Campus)

|               | ina Wedell, Tommaso Pizzari)   |
|---------------|--|
| 10.00 - 10.30 | [invited] Allen J. Moore The coevolution of parental care and offspring solicitation   |
| 10.30 - 11.00 | [invited] Greg Hurst   |
| 11.00 - 11.20 | Evolutionary dynamics in a male-killer/host interaction<br>Ana M. Delgado Wolbachia infection and diamondback moth<br>phylogeography |
| 11.20 – 12.00 | Coffee   |
| 12.00 - 12.20 | Andy Gardner Social evolutionary multi-locus methodology   |
| 12.20 - 12.40 | Tom J. Little Parasite-host specificity: experimental studies on the genetic basis of coevolution                                    |
| 12.40 - 13.00 | 5  |
| 13.00 - 13.20 | Bas J. Zwaan Potential constraints on (co-)evolution: sexual dimorphism and the problem of protandry                                 |
| 13.20 – 14.30 | Lunch  |
| 14.30 - 15.00 | [invited] Mark Kirkpatrick The coevolution of female mating behaviors and male displays  |
| 15.00 - 15.30 | [invited] Andrew F. Read  Has host-parasite coevolution run into the buffers?  |
| 15.30 - 15.50 | <b>Kelly A. Dyer</b> Molecular evolution of an intra-genomic arms race: X-drive in <i>Drosophila recens</i>                          |
| 15.50 - 16.10 | <b>Damian K. Dowling</b> Intergenomic epistasis for fitness: intrapopulation interactions between cytoplasmic and nuclear genes      |
| 16.10 – 16.30 | Tea  |
| 16.30 - 16.50 | <b>Konrad Lohse</b> Experimental evolution of resistance and local adaptation in a host-parasite system                              |
| 16.50 - 17.10 | Darren J. Obbard  Adaptive evolution in RNAi-based antiviral immunity  |
| 17.10 - 17.30 | Steve Paterson The consequences of genetic diversity in parasitic nematodes for host-parasite evolution                              |

# **LR 4**

**Symposium 24:** Selection in the ocean: evidence and evolutionary significance

(Organizers: Filip Volckaert, Jeanine Olsen)

# 10.00 - 10.30 [invited] Suzanne Edmands

Red Queens of the Intertidal? Minimal adaptive divergence despite extreme molecular divergence among tidepool copepod populations

# 10.30 - 11.00 [invited] Louis Bernatchez

Investigating the evolutionary significance of selection in marine organisms: special challenges or unique opportunities?

# 11.00 - 11.20 Dorte Bekkevold

Environmental correlates of population differentiation in herring: selection at work?

## 11.20 - 12.00 Coffee

# 12.00 - 12.20 David S. Boukall

Role of pulsed reproduction and density-dependent growth in the evolution of age and size at maturation in marine fish stocks

# 12.20 - 12.40 Yves Desdevises

Adaptation in *Ostreococcus ecotypes* (Chlorophyta, Prasinophyceae)

# 12.40 - 13.00 Jakob Hemmer-Hansen

Population differentiation and local adaptation in European flounder (*Platichthys flesus L.*)

## 13.00 - 13.20 Ulrika Candolin

Changed environmental conditions influence sexual selection in sticklebacks

# 13.20 – 14.30 Lunch

# 14.30 - 15.00 [invited] Thorsten B. H. Reusch

Do seagrasses feel the heat? - assessing the potential for adaptive evolution in the face of climate change

# 15.00 - 15.30 [invited] Louis van de Zande

Resistance is futile: genetic variation at the Major Histocompatibility Complex (MHC) of the Harbour Seal

# 15.30 - 15.50 Einar Eg Nielsen

Selection at genetic markers in Atlantic cod (*Gadus morhua L.*); evidence in space and time

# 15.50 - 16.10 Katja Peijnenburg

Diversifying selection and deep mitochondrial divergence in planktonic chaetognaths

# 16.30 - 16.50 Lasse F. Jensen

Does selection occur at microgeographical scales? A comparison of genetic differentiation at neutral and MHC-linked microsatellite loci in populations of sea run brown trout (*Salmo trutta*)

# 16.50 - 17.10 Eleftherios Zouros

Asymmetry of mtDNA replication may induce variation in substitution rates and divergence estimates of closely related taxonomic units

# LR 5

Symposium 29: Open session

(Organizers: Jacek Radwan, Ryszard Korona)

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Clutch size adjustments and reproductive skew

10.30 - 11.00 Per T. Smiseth

The evolution of parental care exacerbates competition among siblings

11.00 - 11.20 Hans J. Poethke

A resource pooling model for the evolution of cooperative breeding and reproductive skew

11.20 - 12.00 Coffee

12.00 - 12.20 Barbara Holzer

Genetic structure and recognition ability in an unicolonial Formica ant

12.20 - 12.40 Tanja Schwander

Genetic caste determination in *Pogonomyrmex harvester* ants imposes costs during colony founding)

12.40 - 13.00 Anu M. Sirviö

Genomics of caste determination system in Pogonomyrmex species complex

13.00 - 13.20 Hrefna Sigurjonsdottir

Does kinship affect bonding in horses?

13.20 - 14.30 Lunch

14.30 - 15.00 Roberto Nespolo

Quantitative genetics of bioenergetics and growth-related traits in the wild mammal, *Phyllotis darwini* 

15.00 - 15.30 Leo W. Beukeboom

The evolution of sex determining mechanisms

15.30 - 15.50 Tania Gempe

The sex-determining locus of the honey bee: functional studies of additional genes

15.50 - 16.10 Jacob L. Höglund

Inferring local adaptation from "PST"–FST comparisons: mtDNA

16.10 - 16.30 Tea

16.30 - 16.50 Paweł Koteja

Genetic correlations between the basal metabolic rate, growth rate, and the ability to cope with a low-quality diet in the bank vole *Clethrionomys glareolus* 

16.50 - 17.10 Clifford W. Zeyl

Sex inside and outside of mice

17.10 - 17.30 Esa Koskela

Evolution of reproductive synchrony and infanticide tactics

**8.05 – 8.10** Announcements (<u>Kijów Cinema</u>)

**8.10 – 9.00** Plenary lecture

**Koos Boomsma** 

Cooperation, Exploitation and Control in

Insect Societies (<u>Kijów Cinema</u>)

**9.00 – 9.40** Bus transfer

**9.40 – 10.00** Coffee

**10.00 – 13.20** Symposia 20,21,25,26,27,28

13.20 - 14.30 Lunch

**14.30 – 17.30** Symposia 25,26,27,28,29 (open session)

**17.30** Bus transfer

# Aula

**Symposium 20** (continuation from Friday): Evolutionary dynamics of phenotypic traits in wild populations

(Organizers: David Coltman, Loeske Kruuk)

# 10.00 - 10.30 Andrew M. Simons

The evolutionary balance between plasticity and diversification in the timing of seed germination under variable environments

# 10.30 - 11.00 Jonathan R. Bridle

Testing limits to adaptation along ecotones in rainforest Drosophila

# 11.00 - 11.20 Daniel H. Nussey

Selection on heritable phenotypic plasticity in a wild bird population

# 11.20 - 12.00 Coffee

# 12.00 - 12.20 Christian Jørgensen

Modelling fisheries-induced life history evolution in the Northeast Arctic cod

# 12.20 - 12.40 Anne Charmantier

Environment- and age-specific heritabilities in wild populations

# 12.40 – 13.00 Agnieszka Doroszuk

Rapid evolution of G matrices in nematode field populations

# 13.00 - 13.20 Dany Garant

The impact of a variable environment on natural selection on reproductive traits in the Great tit

# 13.20 - 14.30 Lunch

# LR 1

**Symposium 21** (continuation from Friday): Genome evolution (Organizers: Deborah Charlesworth, Brian Charlesworth)

# 10.00 - 10.30 [invited] Alfredo Ruiz

Conservation of regulatory sequences and gene expression patterns in the disintegrating Drosophila Hox gene complex

# 10.30 - 11.00 Piotr Sliwa

Paucity of adaptive gene deletions and stability of the Saccharomyces gene content

# 11.00 - 11.20 Claudio Slamovits

Evolution of compact eukaryotic genomes: insights from the smallest nuclei

11.20 - 12.00 Coffee

# 12.00 - 12.20 Lori J. Lawson Handley

Low Y chromosome polymorphism in a monogamous mammal: is demography or selection to blame?

# 12.20 - 12.40 Niclas Backström

Gene conversion drives the evolution of HINTW, an ampliconic gene on the female-specific avian W chromosome

# 12.40 - 13.00 Alexandra Calteau

Extensive phylogenetic analyses reveal that hyperthermophilic bacteria have been subject to massive horizontal gene transfers from archaea

# 13.00 - 13.20 Peter Andolfatto

X-chromosomes and autosomes evolve at similar rates in Drosophila - no evidence for faster-X protein evolution

13.20 - 14.30 Lunch

# LR 2

**Symposium 25:** Testing evolutionary theory - The role of ecology in evolution

(Organizers: Martijn Egas, Tom Van Dooren, Bruno Ernande)

# 10.00 - 10.30 [invited] David W. Coltman

Evolutionary response to harvesting by humans

# 10.30 - 11.00 [invited] Esben Moland Olsen

Darwinian effects of fishing: maturation trends indicative of contemporary evolution in collapsing populations of Atlantic cod

# 11.00 - 11.20 Erik Postma

An experimental test of the breeders' equation in a wild bird population

# 11.20 - 12.00 Coffee

# 12.00 - 12.20 Jessica E. Metcalf

Seed predators determine the evolution of flowering size in a monocarpic perennial

# 12.20 - 12.40 Niklas Janz

Host plant range and the diversification of insect-plant interactions

# 12.40 - 13.00 Tommi Nyman

Larval habits, host-plant associations, and the adaptive radiation of nematine sawflies (Hymenoptera: Tenthredinidae)

# 13.00 - 13.20 Teppo Hiltunen

Ecological and evolutionary dynamics in temporally variable environment

### 13.20 - 14.30 Lunch

# 14.30 - 15.00 Tadeusz J. Kawecki

An experimental test of Baldwin effect: how learning can affect evolution

### 15.00 - 15.30 Maren Friesen

Evidence for diversification due to frequency-dependent competition in *E. coli* 

# 15.30 - 15.50 Rowan D. Barrett

Adaptive diversification of Pseudomonas in simple and complex environments

# 15.50 - 16.10 Mickaël Le Gac

Testing reproductive isolation theory using a model phytopathogenic fungus

# 16.10 - 16.30 Tea

# 16.30 - 16.50 Arjan de Visser

Dynamics of mutator invasion in experimental populations of *Escherichia coli* 

# 16.50 - 17.10 Claudia Fricke

Rates of adaptation under different mating systems (Hymenoptera: Tenthredinidae)

# 17.10 - 17.30 Ville-Petri Friman

Evolutionary dynamics of predator-prey relationship

# LR 3

# **Symposium 26:** Strategies of parasitic exploitation

(Organizers: Thomas Frédéric, Brown Sam, Marie-Jeanne Perrot-Minnot)

# 10.00 - 10.30 [invited] Joanne P. Webster

The rat sat on the cat: theoretical and applied implications of Toxoplasma gondii's ability to alter host behaviour

# 10.30 - 11.00 [invited] Joachim Kurtz

Parasitic exploitation and host immune defence

# 11.00 - 11.20 Luke S. Tain

The role of behaviour modulating neurotransmitters in acanthocephalan parasitized *Gammarus sp.* 

11.20 - 12.00 Coffee

# 12.00 - 12.20 Fleur Ponton

The strange behaviour of crazy gammarids investigated with proteomic tools

# 12.20 - 12.40 Julien Varaldi

Manipulation of parasitoid foraging behavior by a virus

# 12.40 - 13.00 Otto Seppälä

Host manipulation by parasitic eye flukes: adaptation or not?

# 13.00 - 13.20 Ruud J. Schilder

Host manipulation strategies of an intestinal gregarine parasite of dragonflies

13.20 - 14.30 Lunch

# 14.30 - 15.00 [invited] Francois Taddei

Rare proactive invaders replace adapted residents via autocatalytic environmental change

# 15.00 - 15.30 Jean-Baptiste G. Ferdy

Evolution of virulence and mutualism in symbionts with a mixed mode of transmission

# 15.30 - 15.50 Katrin Hammerschmidt

Sweet temptation: variance in host exploitation and its evolutionary impact

# 15.50 - 16.10 David P. Hughes

The effect of (eu)sociality of strategies of parasitic exploitation

16.10 - 16.30

## 16.30 - 16.50 John J. Dennehv

Viral ecology and the maintenance of novel host use

# 16.50 - 17.10 Ellen Decaestecker

Tea

Host-parasite coevolution: The Red Queen burried in the sediment

# 17.10 - 17.30 Jesus M. Avilés

Rapid increase in cuckoo egg matching in a parasitized reed warbler population: microevolutionary change or cuckoo preference?

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**Symposium 27**: Genetic diversification by frequencydependent selection: theoretical approaches and empirical facts

(Organizers: Reinhard Bürger, Sergey Gavrilets)

# 10.00 - 10.30 [invited] Sergev Gavrilets

Frequency-dependent selection: effects on adaptation, polymorphism, nonlinear dynamics, and within-population genetic clustering

10.30 - 11.00 [invited] Daniel I. Bolnick

Empirical tests of frequency-dependence and disruptive selection

# 11.00 - 11.20 Vincent Castric

Evolution under strong frequency-dependent selection: population genetic structure at the self-incompatibility locus in *Arabidopsis halleri* 

11.20 - 12.00 Coffee

# 12.00 - 12.20 Jesper S. Bechsgaard

Distribution of sporophytic self-incompatibility haplotypes in a natural population

# 12.20 - 12.40 Angeles de Cara

Evolution of assortative mating

## 12.40 - 13.00 Michael Kopp

The evolution of genetic architecture under frequencydependent disruptive selection

# 13.00 - 13.20 Martine E. Maan

Sex reversal, differential predation and reproductive isolation in Lake Victoria cichlids

13.20 - 14.30 Lunch

# 14.30 - 15.00 Peter D. Dijkstra

Male-male competition as a driving force for sympatric speciation in Lake Victoria cichlids

# 15.00 - 15.30 Reinhard Bürger

Intraspecific competition and sympatric speciation

# 15.30 - 15.50 Mathias Spichtig

The maintenance (or not) of polygenic variation by soft selection in heterogeneous environments

## 15.50 - 16.10 Jörgen A. Ripa

On the adaptiveness of sympatric speciation – a second look at assortative mating

16.10 - 16.30 Tea

# 16.30 - 16.50 Emma M. L. Rova

Competitive environments induce shifts in host fidelity - experimental evidence

# 16.50 - 17.10 K. Mathias Wegner

MHC dependent parasite resistance in three-spined sticklebacks: Frequency dependence of resistance alleles

# 17.10 - 17.30 Erik I. Svensson

Female polymorphism, frequency-dependence and rapid evolutionary dynamics in natural populations

# Saturday Aug 20<sup>th</sup>

| LR 5 Symposium 28: The creative role of population structure |  |  |  |  |  |  |
|--|--|--|--|--|--|--|
| 10.00 - 10.30  | [invited] Loren H. Rieseberg   |  |  |  |  |  |
| 10.00 - 10.30  | Migration and the release of cryptic phenotypic variation  |  |  |  |  |  |
| 10.30 - 11.00  | <del>-</del>   |  |  |  |  |  |
|  | The effect of population structure on fitness and gender   |  |  |  |  |  |
|  | in a gynodioecious plant   |  |  |  |  |  |
| 11.00 - 11.20  | Thomas U. Berendonk  |  |  |  |  |  |
|  | How spatial structure and local extinctions influence  |  |  |  |  |  |
| 11.20 – 12.00  | genetic variation and dispersal strategy  Coffee   |  |  |  |  |  |
| 12.00 <b>-</b> 12.20   | Frédéric Guillaume   |  |  |  |  |  |
| 12.00 - 12.20  | Joint evolution of dispersal and inbreeding load   |  |  |  |  |  |
| 12.20 - 12.40  | John R. Pannell  |  |  |  |  |  |
|  | Frequency-dependent selection and Haldane's Sieve in a   |  |  |  |  |  |
|  | metapopulation   |  |  |  |  |  |
| 12.40 - 13.00  | Pierrick Labbé   |  |  |  |  |  |
|  | New gene duplication in the mosquito <i>Culex pipiens</i> :  |  |  |  |  |  |
|  | (sometimes not so good) adaptive response to insecticide   |  |  |  |  |  |
| 12.00 12.20  | pressure   |  |  |  |  |  |
| 13.00 - 13.20  | Katri Kärkkäinen  Evolution of reciptance against berbiveres and population                        |  |  |  |  |  |
|  | Evolution of resistance against herbivores and population subdivision in <i>Arabidopsis lyrata</i> |  |  |  |  |  |
| 13.20 - 14.30  | Lunch  |  |  |  |  |  |
| 14.30 - 15.00  | [invited] Richard S. Gomulkiewicz  |  |  |  |  |  |
|  | Spatial structure and the evolution of species'  |  |  |  |  |  |
|  | fundamental niches   |  |  |  |  |  |
| 15.00 - 15.30  |  |  |  |  |  |  |
|  | Evolution of local adaptation in heterogeneous   |  |  |  |  |  |
| 15 20 15 50  | environments   |  |  |  |  |  |
| 15.30 - 15.50  | <b>Denis Roze</b> Inbreeding and the evolution of recombination                                    |  |  |  |  |  |
| 15.50 - 16.10  |  |  |  |  |  |  |
| 15.50 10.10  | Does local adaptation drive evolution of the Y   |  |  |  |  |  |
|  | chromosome in Silene?  |  |  |  |  |  |
| 16.10 – 16.30  | Tea  |  |  |  |  |  |
| 16.30 - 16.50  | Lucy M. I. Webster   |  |  |  |  |  |
|  | Gene flow, selection and their influence on drug   |  |  |  |  |  |
|  | resistance evolution in a parasitic nematode of red  |  |  |  |  |  |

Does phenotypic plasticity facilitate evolution?

Searching for heroes: Investigating purging in pedigreed

grouse **16.50 – 17.10 Gerdien de Jong** 

17.10 - 17.30 Elizabeth H. Boakes

zoo populations

# **AULA**

Symposium 29: Open session

(Organizers: Jacek Radwan, Ryszard Korona)

14.30 - 15.00 Asher D. Cutter

Population genetics of Caenorhabditis nematodes

15.00 - 15.30 Thierry Wirth

Deciphering host migrations and origins by means of their microbes: a review

15.30 - 15.50 Insa Cassens

A comparison of methods constructing evolutionary networks from intraspecific DNA sequences

15.50 - 16.10 Praveen K. Karanth

Are lemurs monophyletic? Ancient DNA analysis of lemur subfossils from Madagascar

16.10 - 16.30 Tea

16.30 - 16.50 Sabine E. Hammer

Trying to explain the complex evolutionary scenario of molecular chamois phylogeny by ancient mitochondrial DNA introgression

16.50 - 17.10 Sarah J. Anderson

Environment driven dispersal of the Garden Tiger Moth (*Arctia caja*) in the UK

17.10 - 17.30 Bart J. A. Pollux

Spatial variation in sexual and asexual reproduction in the aquatic macrophyte *S. emersum*: consequences for gene flow and the genetic structure of populations

# LR1

Symposium 29: Open session

(Organizers: Jacek Radwan, Ryszard Korona)

14.30 - 15.00 Patrick S. Fitze

Conflict over multiple partner mating between male and female common lizards

15.00 - 15.30 Dustin J. Penn

Chemical identification of volatile odors influenced by MHC genes

15.30 - 15.50 Machteld N. Verzijden

Mate choice preferences in two sympatric Lake Victoria cichlid species are mediated by learning

15.50 - 16.10 Nikolaus von Engelhardt

Sex-ratio manipulation in colour-banded populations of zebra finches

16.10 - 16.30 Tea

16.30 - 16.50 Christophe M. Lebigre

Heterozygosity and male performance in the lekking Black grouse

16.50 - 17.10 Tomas Albrecht

Extra-pair fertilizations and the strength of sexual selection in socially monogamous long-distant migratory passerine

17.10 - 17.30 Sierk Engels

Resource dependent male mating effort in the scorpionfly *Panorpa vulgaris*: saliva secretion as an honest signal for male quality