



10th 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 10th 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 JEB.

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 Kozłowski (*Chair*)

Mariusz Cichon

Marek Konarzewski

Ryszard Korona

Adam Lomnicki

Jacek Radwan,

Michał Woyciechowski

Institute of Environmental Sciences Conference Office:

Dobrosława Białońska

Adam Gawelczyk (website and on-line registration)

Jagiellonian University Office for Academic Events and Conferences (BOIN)

Maciej Pilch

Renata Rusek

The 10th Congress of the European Society for Evolutionary Biology

Welcome to ESEB2005, the 10th 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 15th 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 amber-captured 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 Krasieńskiego Avenue – Aleja Krasieńskiego 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.

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 give 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 stalk-eyed 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 synonymous and nonsynonymous levels and the local rate of 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 undergo 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
2. Mate choice and genetic diversity
3. 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
27. 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 15th			Registration	Welcome reception
Tue 16th	Geoff Parker	Symposia 1, 2, 3, 4, 5, 6	Symposia 1, 2, 3, 7, 8, 9	
Wed 17th	Mary Jane West-Eberhard	Symposia 1, 10, 11, 12, 13, 14	Poster session	Presidential address JMS Prize Lecture
Thu 18th	Michael Lynch	Symposia 15, 16, 17, 18, 19, 29	Mid-Congress Excursions	Mid-Congress Excursions
Fri 19th	William Rice	Symposia 20, 21, 22, 23, 24, 29	Symposia 20, 21, 22, 23, 24, 29	Poster session Conference dinner
Sat 20th	Koos Boomsma	Symposia 20, 21, 25, 26, 27, 28	Symposia 25, 26, 27, 28, 29	

Plenary

Kijów Cinema

Jagiellonian University III Campus

ESEB X PROGRAM

SPECIAL MEETINGS

Tuesday Aug 16th

13.20 – 14.30 JEB Deciding editors meeting
(Common Room, UJ III Campus)

Wednesday Aug 17th

13.20 – 14.30 ESEB Council meeting
(Common Room, UJ III Campus)

Wednesday Aug 17th

14.30 – 15.30 ESEB Business meeting
(Aula, UJ III Campus)

Thursday Aug 18th

13.20 – 14.30 Editorial board meeting
(Common Room, UJ III Campus)

DETAILED PROGRAM

Monday Aug 15th

- 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 16th

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 *Lunch*
- 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

Continuation on Wednesday

Tuesday Aug 16th

LR 1

Symposium 2: *Mate choice and genetic diversity*

(Organizer: 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 16th

LR 2

Symposium 3: *Functional Evo-Devo*

(Organizers: Casper 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 [invited] Patricia Beldade**
Genomic resources for a butterfly evo-devo model
- 11.00 – 11.20 Cerisse E. Allen**
Modularity and flexibility in color pattern evolution
- 11.20 – 12.00 *Coffee*
- 12.00 – 12.20 John H. Werren**
Evolutionary genetics of wing and wing cell-size differences between *Nasonia* species
- 12.20 – 12.40 Laurent Penet**
The "developmental constraints vs selection" debate: insights from microsporogenesis in Asparagales
- 12.40 – 13.00 Aleksandar Popadic**
How to grow bigger legs: insights from insects
- 13.00 – 13.20 Vincent Debat**
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 [invited] James Hanken**
Evolution of skull development in vertebrates: the role of the neural crest
- 15.30 – 15.50 Christian P. Klingenberg**
Genetic architecture of the mouse mandible: results from fine mapping QTLs
- 15.50 – 16.10 Abby G. Drake**
Intraspecific macroevolution: variation of cranial shape in dogs
- 16.10 – 16.30 *Tea*
- 16.30 – 16.50 Gonçalo C. Cardoso**
Coevolution of male and female coloration in the passerine genus *Serinus*
- 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*

Tuesday Aug 16th

LR 3

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

(Organizers: Angus Davison, Doua 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. Stenshorn

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

13.20 – 14.30 Lunch

Tuesday Aug 16th

LR 4

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*)
- 13.20 – 14.30 Lunch*

Tuesday Aug 16th

LR 5

Symposium 6: *Phylogeography of arctic species*

(Organizers: Dorit Liebers, Godfrey M.Hewitt)

- 10.00 – 10.30** **[invited] Laura I. Kvist**
Phylogeography of palaeartic 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 species (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*)
- 13.00 – 13.20** **Gunnhild Marthinsen**
Genetic structure of Dunlins (*Calidris alpina*) in Northern Europe shown by mtDNA, microsatellites, and AFLP

13.20 – 14.30 *Lunch*

Tuesday Aug 16th

LR 3

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

Tuesday Aug 16th

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

Tuesday Aug 16th

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 17th

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

Wednesday Aug 17th

Aula

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

(Organizers: Christian Schloetterer, Diethard Tautz)

10.00 – 10.30 [invited] Adam Eyre-Walker

Rates of adaptive evolution in bacteria, flies and humans

10.30 – 11.00 [invited] Emmanouil Dermizakis

Selective constraint and adaptive evolution of conserved non-coding sequences in the human genome

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

13.20 – 14.30 *Lunch*

Wednesday Aug 17th

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*
- 13.20 – 14.30 *Lunch*

Wednesday Aug 17th

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*

13.20 – 14.30 Lunch

Wednesday Aug 17th

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
- 13.20 – 14.30 *Lunch*

Wednesday Aug 17th

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

13.20 – 14.30 *Lunch*

Wednesday Aug 17th

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

Metabolism and human life history transitions

10.30 – 11.00 [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 Gillian R. Bentley

Reconsidering immune function in studies of human reproductive ecology

12.40 – 13.00 Michael P. Muehlenbein

Immune function and male energetic trade-offs

13.00 – 13.20 Richard G. Bribiescas

Serum leptin and ghrelin levels among Ache Amerindians of Paraguay: An examination of the role of these hormones in human reproductive function

13.20 – 14.30 Lunch

Thursday Aug 18th

- 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 18th

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 [invited] Loren H. Rieseberg**
How do hybrid species become reproductively isolated?
- 11.00 – 11.20 Matthew J. Hegarty**
Changes to genome and transcriptome during hybrid speciation in *Senecio*
- 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 18th

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

10.30 – 11.00 [invited] Mark A. Beaumont
Bayesian approaches for detecting loci subject to selection from gene frequency information

11.00 – 11.20 [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 Haipeng Li
Detecting recent positive selection and localizing the selected site in populations with varying size

13.00 – 13.20 Daniel J. Wilson
Estimating diversifying selection and functional constraint in the presence of recombination

13.20-14.30 Lunch

Thursday Aug 18th

LR 2

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

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

10.00 – 10.30 [invited] Francois Taddei

What is true for the Elephant is true for *E. Coli*

10.30 – 11.00 [invited] Thomas Flatt

Juvenile hormone as an integrator of *Drosophila* life history and aging

11.00 – 11.20 Annette Baudisch

When senescence is optimal and when it is not

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 Claudia Ricci

May stress arrest ageing?

12.40 – 13.00 Mehmet Somel

Variation and parallelism within the ageing transcriptome

13.00 – 13.20 Jeroen Pijpe

Food stress, metabolism and ageing in the wild: what really matters

13.20 – 14.30 Lunch

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 competition-colonization trade-off

13.20 – 14.30 *Lunch*

Thursday Aug 18th

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 [invited] Christoph Hauert

Social Dilemmas: Collectives formation and specialization

11.00 – 11.20 Michelle G. J. L. Habets

Adaptation in spatially-structured populations

11.20 – 12.00 Coffee

12.00 – 12.20 Marijn W. van Ballegooijen

Emergent trade-offs and selection for outbreak frequency in spatial epidemics

12.20 – 12.40 Michiel Vos

Cooperation and conflict in a natural population of the social bacterium *Myxococcus xanthus*

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 18th

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 – 12.00 Coffee

12.00 – 12.20 Paul C. D. Johnson

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

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 fishes

13.00 – 13.20 Gerald M. Schneeweiss

Testing for correlated evolution of host-range and life-history in holoparasitic Orobanchae (Orobanchaceae)

13.20 – 14.30 Lunch

Friday Aug 19th

- 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

Friday Aug 19th

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

16.10 – 16.30 *Tea*

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

Friday Aug 19th

LR 1

Symposium 21: *Genome evolution*

(Organizers: Deborah Charlesworth, Brian Charlesworth)

- 10.00 – 10.30 [invited] Laurent Duret**
Patterns of silent substitutions in the human genome
- 10.30 – 11.00 [invited] Peter Keightley**
The degraded hominid genome
- 11.00 – 11.20 Thomas E. Bureau**
MULEs and the evolutionary fate of host genes captured by DNA transposons
- 11.20 – 12.00 Coffee*
- 12.00 – 12.20 David B. Mark Welch**
Genome-habitat interaction and the evolutionary success of bdelloid rotifers
- 12.20 – 12.40 Soojin Yi**
Genome size is negatively correlated with effective population size in ray-finned fishes
- 12.40 – 13.00 Eduardo P. C. Rocha**
Calibrating and understanding the patterns of genome stability through time
- 13.00 – 13.20 Peter F. Arndt**
Reconstructing the evolutionary history of mammalian genomes
- 13.20 – 14.30 Lunch*
- 14.30 – 15.00 [invited] Dmitri A. Petrov**
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 Susan E. Ptak**
Fine-scale patterns of recombination differ between chimpanzees and humans
- 16.10 – 16.30 Tea*
- 16.30 – 16.50 Daniel L. Halligan**
Divergence and functional constraint in *Drosophila* noncoding DNA
- 16.50 – 17.10 Marie Sémon**
Relationships between genome organization and gene expression in mammals
- 17.10 – 17.30 Martin Hasselmann**
Recombination and its signature at a locus that is under balancing selection

Continuation on Saturday

Friday Aug 19th

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 Quesada**
Molecular evidence for ecological and sympatric incipient speciation in the snail *Littorina saxatilis*
- 12.20 – 12.40 Christian Lexer**
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*
- 13.00 – 13.20 Keith A. Gardner**
Intergenic incompatibilities underlie two contrasting postzygotic isolating barriers in markedly different 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 19th

LR 3 (JU III Campus)

Symposium 23: *Co-evolutionary genetics*

(Organizers: Nina 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
Evolutionary dynamics in a male-killer/host interaction

11.00 – 11.20 Ana M. Delgado
Wolbachia infection and diamondback moth 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 Derek A. Roff
Coevolution of development time and body size in *Manduca sexta*: a role for maternal effects

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 Kelly A. Dyer
Molecular evolution of an intra-genomic arms race: X-drive in *Drosophila recens*

15.50 – 16.10 Damian K. Dowling
Intergenomic epistasis for fitness: intrapopulation interactions between cytoplasmic and nuclear genes

16.10 – 16.30 *Tea*

16.30 – 16.50 Konrad Lohse
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

Friday Aug 19th

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

16.10 – 16.30 Tea

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

Friday Aug 19th

LR 5

Symposium 29: *Open session*

(Organizers: Jacek Radwan, Ryszard Korona)

- 10.00 – 10.30 Ian M. Hamilton**
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 uniclonal *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 Tanja 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

Saturday Aug 20th

- 8.05 – 8.10** Announcements
(Kijów Cinema)
- 8.10 – 9.00** Plenary lecture
Koos Boomsma
*Cooperation, Exploitation and Control in
Insect Societies*
(Kijów Cinema)
- 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

Saturday Aug 20th

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

Saturday Aug 20th

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

Saturday Aug 20th

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

Saturday Aug 20th

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 *Tea*
- 16.30 – 16.50 John J. Dennehy**
Viral ecology and the maintenance of novel host use
- 16.50 – 17.10 Ellen Decaestecker**
Host-parasite coevolution: The Red Queen buried 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?

Saturday Aug 20th

LR 4

Symposium 27: *Genetic diversification by frequency-dependent selection: theoretical approaches and empirical facts*

(Organizers: Reinhard Bürger, Sergey Gavrilets)

- 10.00 – 10.30 [invited] Sergey 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 frequency-dependent 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 20th

LR 5

Symposium 28: *The creative role of population structure in adaptive evolution*

(Organizers: Michael Whitlock, Lukas Keller)

- 10.00 – 10.30 [invited] Loren H. Rieseberg**
Migration and the release of cryptic phenotypic variation
- 10.30 – 11.00 [invited] David E. McCauley**
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 genetic variation and dispersal strategy
- 11.20 – 12.00 *Coffee*
- 12.00 – 12.20 Frédéric Guillaume**
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 *Culex pipiens*: (sometimes not so good) adaptive response to insecticide pressure
- 13.00 – 13.20 Katri Kärkkäinen**
Evolution of resistance against herbivores and population subdivision in *Arabidopsis lyrata*
- 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 Isabelle Olivieri**
Evolution of local adaptation in heterogeneous environments
- 15.30 – 15.50 Denis Roze**
Inbreeding and the evolution of recombination
- 15.50 – 16.10 Dmitry A. Filatov**
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 grouse
- 16.50 – 17.10 Gardien de Jong**
Does phenotypic plasticity facilitate evolution?
- 17.10 – 17.30 Elizabeth H. Boakes**
Searching for heroes: Investigating purging in pedigreed zoo populations

Saturday Aug 20th

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

Saturday Aug 20th

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

