

# Newsletter April 2017

Welcome to the 12<sup>th</sup> edition of the PopGen ALUMNI newsletter!

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Please help us spread the word:

Vienna Graduate School of Population Genetics Call for PhD students is open until May 21st

Flyer for download on the website <a href="http://www.popgen-vienna.at/">http://www.popgen-vienna.at/</a>
Twitter: @PopGenViennaPhD

Master's Program Evolutionary Systems Biology Call for master students open until April 30th

Flyer for download on the website http://evolsysbio.univie.ac.at/ Facebook: www.facebook.com/EvolSysBiol

### Recent events

### March 2017: Alumni Career News

Congratulations to PopGen Vienna faculty alumnus Alistair McGregor on his inaugural lecture at Oxford Brookes University (UK)!



Professor Alistair McGregor's inaugural lecture. Foto by C. Schlötterer

## January 2017: Alumni Career News

PopGen Vienna graduate alumnus Daniel Fabian started a lecturer position at Anglia Ruskin University (UK). Congratulations!

#### **December 2016: Alumni Career News**

PopGen Vienna graduate alumnus Tom Hill received one of the prestigious excellence awards for outstanding dissertations, bestowed by the Austrian Federal Ministry of Science, Research and Economy, for his thesis entitled "Hybrid dysgenesis in *Drosophila simulans*, caused by a rapid global invasion of the P-element". Congratulations!

## Alumni lab portraits

We feature a brief report about one of PopGen's graduate and faculty alumni in every Newsletter. This time, PopGen Vienna alumnus **Tom Hill** tells us about his research in the USA:

"I'm currently working as a postdoctoral fellow with Rob Unckless at the University of Kansas, studying host-parasite co-evolution in mushroom-feeding Drosophila.

Specifically, I'm looking at local adaptation of Drosophila innubila Nudivirus (DiNV), the first DNA virus found naturally in Drosophila.

To do this I've collected mushroom-feeding flies across mountain tops in Arizona, driving over 8000 km (8 Mm?) in the process in a car full of rotting mushrooms. I also went to a petting zoo and fed goats. I have then been looking for population structure of the mushroom-feeding flies and their parasites, including DiNV. Following this I plan to do reciprocal infections to see if the virulence of DiNV differs between flies from each location. I was recently awarded the Max Kade Fellowship and the CMADP COBRE research grant to complete this work. These will also allow us to progress further with this research and to begin mapping resistance to viral infection using the DGRP and DSPR. We also plan to start looking into local adaptation of other parasites in these flies, like trypanosomes and spiroplasma."





Tom Hill (former PhD student of Andrea Betancourt) fascinated by all sorts of surreal critters while driving 8000km in a car full of rotting mushrooms to collect mushroom-feeding flies in Arizona.



# Out of sight, out of mind? Experiences of our students abroad

Many of our students choose to spend 3 months in foreign labs during their study time.

**Juraj Bergman** (advisors Claus Vogl, Joachim Hermisson and Ovidiu Paun) was hosted by the University of Sussex (UK) in the group of Adam Eyre-Walker. (October 2016 – April 2017). Juraj received an Erasmus staff grant and international grant by Vetmeduni Vienna to extend his research stay from three months to half a year.

Juraj will share his impressions in the next edition of Alumni News.

# Upcoming events

The 2017 **SAB meeting** will take place from April 19 to 21. We're excited about the visits of Brian Charlesworth, Andy Clark, Simon Tavare, Laurent Excoffier, Jean-Michel Gibert, John Parsch and Nick Barton.

**PopGen Outreach:** This year, several of our students will again participate at the Vetmeduni's Open Day (June 10<sup>th</sup>) and, for the first time, join a "speed dating with scientists" event during the Science Café on campus on the same day.

# Upcoming seminars

Our next seminar speakers again include a PopGen Vienna alumnus: Alistair McGregor will visit us in June! Other invited speakers we're looking forward to welcome include Tanja Stadler, Olivier Tenaillon, Cedric Feschotte, Matt Hahn, John Pool, Erin Kelleher and Tanja Slotte.

# Have a beautiful Spring time!



PopGen crew at the Easter egg painting event in 2016. Foto by Anna Maria Langmüller.

## Publications of our students so far in 2017

**I. Höllinger** and J. Hermisson: Bounds to parapatric speciation: A dobzhansky-muller incompatibility model involving autosomes, X chromosomes and mitochondria. Evolution doi:10.1111/evo.13223 (2017)

**P.Y. Novikova**, T. Tsuchimatsu, S. Simon, V. Nizhynska, V. Voronin, R. Burns, O.M. Fedorenko, S. Holm, T. Säll, E. Prat, W. Marande, V. Castric and M. Nordborg: Genome sequencing reveals the origin of the allotetraploid *Arabidopsis suecica*. Mol Biol Evol doi: 10.1093/molbev/msw299 (2017)

**D. Schrempf** and A. Hobolth: An alternative derivation of the stationary distribution of the multivariate neutral Wright-Fisher model for low mutation rates with a view to mutation rate estimation from site frequency data. Theor Popul Biol 114:88-94 (2017)

See all publications here