

Pleuni S. Pennings

Theoretical evolutionary biologist

Post doc at Ludwig Maximilian University Munich

Education

LMU Munich, Germany PhD in Evolutionary Biology (summa cum laude) Title: Models of adaptation and speciation Supervisor: Prof. Dr. Joachim Hermisson	2003 - 2007
University of Amsterdam, The Netherlands MSc in Biology	1994 - 2000
University of Paris-Sud, France Research project of 10 months Supervisor: Dr. Jacqui Shykoff	2000
University of Aberdeen, Scotland First year of combined honours in mathematics and theoretical physics	1993 - 1994
Murmellius Gymnasium, Alkmaar, The Netherlands Dutch gymnasium / A-levels	1987 - 1993

Work experience

Faculty of Biology, LMU Munich Postdoctoral researcher in evolutionary biology. Since Jan 2009, I work with Professor Susanne Foitzik on population genetics of slavemaking ants and co-supervise a PhD student who works on this topic.	2006 - now
Faculty of Biology, LMU Munich Program Coordinator of the Munich Graduate School for Evolution, Ecology, and Systematics. Tasks (selection): to set up an international master program and PhD program, organize a yearly summer school and a yearly conference, set up and maintain a website, stimulate organization of PhD students' network.	2006 - 2009
De Praktijk, project bureau for science education Started and ran a company together with 3 colleagues. "De Praktijk" specializes in science education projects. Clients include the University of Amsterdam, the Dutch Royal Academy of Sciences (KNAW), the Dutch National Institute for Biology (NIBI) and Greenpeace.	1999 - 2003

Scientific publications

- 9) S. Foitzik, S. Bauer, S. Laurent, **P. S. Pennings**. Genetic diversity, population structure and sex-biased dispersal in three ant species of a host-parasite system.
Journal of Evolutionary Biology Volume 22, Number 12, December 2009 , pp. 2470-2480(11)
- 8) L.M. Goering, P.K. Hunt, C. Heighington, C. Busick, **P.S. Pennings**, J. Hermisson, S. Kumar, and G. Gibson. Association of orthodenticle with natural variation for early embryonic patterning in *Drosophila melanogaster*.
J Exp Zool B Mol Dev Evol. Volume 312B Issue 8, Pages 841 - 854
- 7) **P.S. Pennings**, M. Kopp, G. Meszéna, U. Dieckmann and J.Hermisson
An analytically tractable model for competitive speciation.
American Naturalist (2008) 171: E44-E71
- 6) D. Sicard, **P.S. Pennings**, C. Grandclement, J. Acosta, O. Kaltz, J. Shykoff
Specialization and local adaptation of a fungal parasite on two host plant species as revealed by two fitness traits.
Evolution (2007) January: 27-41.
- 5) **P.S. Pennings** and J.Hermisson
Soft Sweeps III - The signature of positive selection from recurrent mutation.
PLoS Genetics (2006) 2(12): e186.
- 4) **P.S. Pennings** and J.Hermisson
Soft Sweeps II - Molecular population genetics of adaptation from recurrent mutation or migration.
Molecular Biology and Evolution (2006) 23: 1076-1084. **(featured in Faculty of 1000)**
- 3) J. Hermisson and **P.S. Pennings**
Soft Sweeps: Molecular population genetics of adaptation from standing genetic variation.
Genetics (2005) 169: 2335-2352. **(featured in Faculty of 1000)**
- 2) C.L. Collin, **P.S. Pennings**, C. R ffler, A. Widmer and J.A. Shykoff
Natural enemies and sex: How seed predators and pathogens contribute to sex-differential reproductive success in a gynodioecious plant.
Oecologia (2002) 131: 94-102.
- 1) T. Rigaud, **P.S. Pennings**, P. Juchault
Wolbachia bacteria effects after experimental interspecific transfers in terrestrial isopods.
Journal of Invertebrate Pathology (2001) 77(4): 251-257.

Prizes and funding

Prize for blog Sciencepalooza.nl : the „Dutch Bloggie“ in the category science and technology. The Dutch Bloggies are the most prestigious prizes in the Netherlands for blogs (2009).

EU Grant for Erasmus Mundus Master Program in Evolution (MEME), a joint Master program by the universities of Groningen, Uppsala, Montpellier, Munich and Harvard. Proposal written together with several others (2009, 150.000 Euro plus > 1 Million Euro in stipends for students).

Grant from the Volkswagenstiftung for the Munich Graduate School for Evolution, Ecology, and Systematics. Proposal written together with Susanne Foitzik (2009, 344.000 Euro).

EU Grant for Munich Researchers' Night SENSES09, an event for and by researchers, artists and the general audience. Proposal written by two of my students (2009, 21.000 Euro).

Selected by the Stiftung Neue Verantwortung to be part of a national think tank consisting of 100 people under 35 from the fields of science, industry, politics and society (2008-2009).

Grant from the Volkswagenstiftung for "Human Evolution Week" for students from Groningen, Uppsala and Munich (2008, 12.080 Euro)

Grant from the German Science Foundation together with Prof. Susanne Foitzik for project on evolution of slave rebellion in slavemaking ants in the United States (2008-2011, ca. 50.000 Euro + salary for myself and a PhD student)

Grant from the Volkswagenstiftung for Evolution of life film project together with Yannick Mahe see <http://www.evolution-of-life.com> (2008-2009, 114.000 Euro)

Grant from the Volkswagenstiftung to organize a three-day meeting for 35 participants called: "Curricula and didactics in evolutionary biology" (2007, 20.000 Euro)

Several travel grants from the Society for Molecular Biology, LMU Mentoring, Mathematical Institute Oberwolfach, German Academic Exchange Service (total appr. 8.000 Euro 2005-2009)

Grant from the Dutch Science Foundation to participate in three month long Young Scientists Summer Program at the International Institute for Applied Systems Analysis in Vienna. (2005, 4.500 Euro)

Prize for best student research project (Biology Department, University of Amsterdam) for a research project carried out at the University of Paris-Sud (2001, 500 Euro)

Teaching experience

Faculty of Biology, LMU Munich

Course on scientific presentations (2 ECTS).(Developed with Prof. Dr. Joachim Hermisson, now co-taught with Dr Justyna Wolinska)	since 2006
Computer practical in theoretical population genetics (3 ECTS) (Developed and taught with Dr. Peter Pfaffelhuber)	2005-2007
Mathematics and statistics for biologists (as tutor)	2004

Graduate School of Functional Ecology, The Netherlands

Member of educational board of the school.	2001
Responsible for the organization of the course "Writing a grant proposal".	2001

University of Amsterdam

Teaching assistant for mathematics, modeling and statistics courses	1996 - 2000
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Meetings organized (since 2007)

Faculty of Biology, LMU Munich

"Graduierten Treffen" of the Evolution Fachgruppe of the German Zoological Society	2009
Summer school on the evolution of sex chromosomes at Frauenchiemsee	2008
Session on theoretical biology at Graduierten Treffen of the Evolution Fachgruppe of the German Zoological Society in Bayreuth	2007
Curricula and didactics in evolutionary biology in Tutzing (3-day workshop at the Evangelische Akademie Tutzing with grant from the Volkswagenstiftung)	2007
EES Conference in Munich (2-day conference for Master and PhD students, postdocs and professors involved in the EES program)	2007, 2008, 2009
Summer school on global warming at Frauenchiemsee One week summer school with 3 professors from Munich, 4 external professors and 20 international and German students (master and PhD level)	2007

Outreach activities

Sciencepalooza.nl : Author for Dutch blog on science and science-related issues. Authors and organizers of the blog are 10 young Dutch researchers. Our blogs are also published on the website of the Volkskrant, the third largest newspaper in the Netherlands.

Evolution-of-life movie project : Together with Yannick Mahé, I produce 7 short movies (documentary and animation) on topics from evolutionary biology. Currently, five movies can be seen at www.evolution-of-life.com.

Researchers' Night Senses09 : EU sponsored event which took place in September 2009 and where science meets art meets the general audience.