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# E v o l D i r

March 1, 2017

M o n t h i n R e v i e w

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## Foreword

This listing is intended to aid researchers in population genetics and evolution. To add your name to the directory listing, to change anything regarding this listing or to complain please send me mail at [Golding@McMaster.CA](mailto:Golding@McMaster.CA).

Listing in this directory is neither limited nor censored and is solely to help scientists reach other members in the same field and to serve as a means of communication. Please do not add to the junk e-mail unless necessary. The nature of the messages should be “bulletin board” in nature, if there is a “discussion” style topic that you would like to post please send it to the USENET discussion groups.

Instructions for the EvolDir are listed at the end of this message.



Foreword .....	1
Conferences .....	2
GradStudentPositions .....	17
Jobs .....	47
Other .....	74
PostDocs .....	88
WorkshopsCourses .....	122
Instructions .....	147
Afterword .....	147

---

## Conferences

Austin SMBE Jul2-6 AbstractsExtFeb15 .....	2	MountainLakeBioStn WaltonLecture .....	10
Austin SMBE Jul2-6 UndergradTravelMentorAwards	3	Paris Holobionts Apr19-21 RegistrationExt .....	10
FortWorth Texas EvolutionPlants Jun24-28 TravelAwards .....	3	Peterborough Canada WildlifeConservation May1-4	10
Gothenburg SEB PalaeogenomicAncientDNA Jul3-6	3	Philadelphia EPiC Evolution Apr15 .....	11
Groningen EvolutionMedicine Aug18-21 AbstractsDueFeb15 .....	4	Porquerolles France MathCompEvolBiol Jun12-16	11
Harpenden UK InsectGenomics May16 Registration	4	Portland Oregon JoeFelsenstein Jun22 .....	12
Honolulu HistoryOfPacificMarineLife May23-25 Deadline .....	5	Portland OR Evolution2017 Jun23-27 .....	12
Idaho Moscow AmericanSocMammalogists Jun20-24	6	Portland SSE GeneticTransmission Jun23-27 .....	13
IowaStateU AGA EvolQuantGenet Jun1-3 .....	6	QueensU OntEcolEvol May18-20 .....	13
JohnInnesCentre UK PlantEvolution Jul24-26 .....	7	Smithsonian BGI BioGenomics Feb21 .....	14
London WildlifeConservation Mar14 .....	7	Smithsonian Conservation Apr21-23 .....	14
Lyon AI EvolutionaryDynamics Sep4-8 .....	8	Tampa Florida FishConservation Aug20-24 .....	15
Moscow InvertebrateEvol Aug18-23 .....	9	Toulouse EvolutionFamily Jun1-2 .....	16
		WashingtonDC BioGenomics Feb21 FirstDayRegist	16

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### Austin SMBE Jul2-6 AbstractsExtFeb15

SMBE 2017 Abstract Deadline Extended  
View this email in your browser <http://mci-group.us14.list-manage1.com/track/click?u=-8f41f38197339eb69a8a6daa2&id=a29d08218c&e=-21532bf94c> \*\* SMBE 2017 | Abstracts Extended to 15th February

By popular request, we have extended the abstract submission and award applications deadline for the Annual Meeting of the Society for Molecular Biology and Evolution (SMBE) 2017 to Wednesday, February 15, 11:59PM (GMT).

We would also like you to know that the organizers of SMBE 2017 (<http://mci-group.us14.list-manage.com/>-

[track/click?u=-8f41f38197339eb69a8a6daa2&id=-ccb77ffef7&e=21532bf94c](http://mci-group.us14.list-manage1.com/track/click?u=-8f41f38197339eb69a8a6daa2&id=-ccb77ffef7&e=21532bf94c)) are aware of and monitoring the unprecedented travel restrictions recently imposed for a 90-day period by executive order in the USA. We are working on accommodations, such as the option for making posters and slides available online, and we encourage scientists from the affected nationalities to contact us at [SMBE2017@mci-group.com](mailto:SMBE2017@mci-group.com).

We would like to emphasize that (1) SMBE has always been a very international society and is a leader in promoting diversity among its membership and meeting attendees, and (2) Austin, in particular, is an inclusive and liberal city that welcomes people from around the world. We are looking forward to welcoming you to Austin in July!

Submit Abstracts Here <http://mci-group.us14.list-manage.com/track/click?u=-8f41f38197339eb69a8a6daa2&id=d5d9121c70&e=-21532bf94c> SMBE 2017 <[SMBE2017@mci-group.com](mailto:SMBE2017@mci-group.com)>

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## Austin SMBE Jul2-6 UndergradTravelMentorAwards

SMBE Undergraduate Travel and Mentoring Awards  
The Society for Molecular Biology and Evolution offers travel awards for undergraduate students to attend their annual meeting, this year in Austin, Texas ([www.smbe2017.org/](http://www.smbe2017.org/)). Awardees will receive 1500-2000 USD (\$) toward travel and registration fees (amount depends on your geographical location). You will also be assigned a mentor at the meeting to advise you and to introduce you to potential collaborators, PhD supervisors, etc. You will also participate in the meeting's poster session with a poster you will prepare on your research.

In order to apply, you need to prepare the following:  
1. an abstract describing your research (<250 words)  
2. a short explanation of why you want to attend this meeting (<250 words)  
3. a short letter of support from your academic supervisor (<250 words)

Applications should be made through the SMBE abstract submission system at [www.smbe2017.org/abstracts/](http://www.smbe2017.org/abstracts/). You can find more information on the travel awards at [/www.smbe.org/smbe/AWARDS/UndergraduateTravelandMentoringAward.aspx](http://www.smbe.org/smbe/AWARDS/UndergraduateTravelandMentoringAward.aspx) or send an email to Sandra Baldauf ([sandra.baldauf@ebc.uu.se](mailto:sandra.baldauf@ebc.uu.se)) or Joanna Masel ([masel@email.arizona.edu](mailto:masel@email.arizona.edu)).

The deadline for submission is 15 February 2017.

Sandra Baldauf <[sandra.baldauf@ebc.uu.se](mailto:sandra.baldauf@ebc.uu.se)>

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## Fort Worth Texas EvolutionPlants Jun24-28 TravelAwards

We are happy to announce the PLANTS undergraduate travel awards to the BOTANY 2017 meetings June 24-28, 2017 in Fort Worth, Texas. The PLANTS program (funded by the NSF and Botanical Society of America) encourages the participation of undergraduates from underrepresented groups at the annual meetings of the BSA and affiliated organizations.

The goal of the program is to increase the diversity of future professionals interested in the plant sciences.

These meetings focus on all aspects of the botanical sciences and include areas such as genomics, evolution, climate change, ecology, conservation, systematics, paleobotany, physiology, and ethnobotany. The PLANTS program will fund up to 12 undergraduates annually to participate in the meetings.

Students attend career oriented events and receive mentoring from both a junior (advanced undergrad and graduate students) and a senior mentor (postdocs, faculty, and other professionals) as they attend scientific sessions and networking events together. The program covers the normal costs of travel, registration, food and accommodation at the meeting.

Applications are accepted through MARCH 1, 2017 at [http://www.botany.org/Awards/F\\_PLANTS.php](http://www.botany.org/Awards/F_PLANTS.php). Applicants will be asked to provide a one page statement of academic interests and career goals and relevance of the BSA meetings to these goals, and one letter of recommendation. The letter of reference should indicate the student's level of interest in the plant sciences and how inclusion of the student will increase the diversity of the PLANTS participants. Applicants must be undergraduates who are registered or recently graduated (i.e., within the last 12 months) from U.S.

institutions, including Puerto Rico, and traveling to the meeting from within the U.S. Students demonstrating a need for funds to attend BSA will be given preference, and will be selected so that the group as a whole will maximize diversity among undergraduates at the meetings. For questions, please contact Heather Cacanindin ([hcacanindin@botany.org](mailto:hcacanindin@botany.org)), Anna Monfils ([monfilak@cmich.edu](mailto:monfilak@cmich.edu)), or Ann Sakai ([aksakai@uci.edu](mailto:aksakai@uci.edu)).

<[aksakai@uci.edu](mailto:aksakai@uci.edu)> <[aksakai@uci.edu](mailto:aksakai@uci.edu)>

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## Gothenburg SEB PalaeogenomicAncientDNA Jul3-6

Dear Colleagues,

We would like to draw your attention to the Palaeogenomic and Ancient DNA session being held at this years SEB meeting in Gothenburg, Sweden from the 3rd - 6th July. <https://www.sebiology.org/events/event/-seb-gothenburg/programme/cell-biology#dna> This session (5 and 6 July) will investigate the latest research in palaeogenomics. As samples are obtained from diverse sources, ranging from sediments, permafrost, teeth, bones and preserved plant material, we will also cover

the challenges that arise when working with these samples and introduce new techniques which have been employed to enhance the extraction and analysis of ancient DNA samples.

Speakers include:

- Prof Michael Hofreiter (Universität Potsdam, Germany)
- Sequencing and computational challenges in the analysis of ancient DNA - Prof Terry Brown (University of Manchester, UK) - Using palaeogenomic approaches with plant remains. - Prof Ludovic Orlando (Natural History Museum of Denmark) - Novel bioinformatic techniques in palaeogenomics - Prof Inger Alsos Greve (Tromsø University Museum, Norway) - Flora reconstruction using metabarcoding from ancient sediments - Dr Helena Malmström (Uppsala University, Sweden) - Population genomics of hunter-gatherers and farmers in Scandinavia - Dr Mikkel Pedersen (Natural History Museum of Denmark) - Paleo- environmental reconstruction using ancient DNA from lake sediments

Abstract submission is now open <https://www.sebiology.org/events/event/seb-gothenburg/-abstract> and we invite you to submit an abstract for either oral or poster presentation (deadline 21 April 2017).

The SEB offers generous travel grants to support student and early career scientist members to attend the meeting <https://www.sebiology.org/events/event/seb-gothenburg/travel-grants> We look forward to seeing you in Gothenburg

Laura Parducci Richard Tennant John Love

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Laura Parducci <[lapar168@me.com](mailto:lapar168@me.com)>

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## Groningen EvolutionMedicine Aug18-21 AbstractsDueFeb15

The 2017 International Society for Evolution, Medicine & Public Health (ISEMPH) annual meeting will be in Groningen, Netherlands, on August 18-21, 2017, in conjunction with the European Society for Evolutionary

Biology (ESEB).

February 15 is the deadline for submitting abstracts and the opening date for early bird discounted registration. Full meeting information and the link to submit your abstract are at the Society's website. <https://evolutionarymedicine.org/2017-isemph-meeting/> Keynote speakers include Mervyn Singer (UK), Sylvia Cremer (Austria), Francisco Ábeda (UK), Peer Bork (Germany) and Jonathan Wells (UK), and for the overlapping part of the two meetings, Svante Pääbo (Germany), Linda Partridge (UK) and Stephen Stearns (USA). In addition to these stellar talks, paper sessions and poster sessions, the program committee, led by Frank Rühli and Nicole Bender, is planning diverse activities including workshops, round tables and social events to foster networking with international colleagues. They welcome comments and suggestions sent to [program@evolutionarymedicine.org](mailto:program@evolutionarymedicine.org).

ISEMPH members get a considerable discount on registration fees, and a further 20% discount is offered to those who register for both ISEMPH and the ESEB meeting. For full details see the Society's website. <http://evoutionarymedicine.org> [rmnesse@gmail.com](mailto:rmnesse@gmail.com)

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## Harpenden UK InsectGenomics May16 Registration

Dear colleagues,

The registration is opened for the /Insect Genomics Special Interest Group meeting/ of the /Royal Entomological Society/. It will take place on the 16th of May 2017 at Rothamsted Research, Harpenden, UK. The registration fee is 15 to cover for lunch, tea/coffee and a drink reception during the poster session at the end of the meeting.

Please, note that the deadline for abstract submission is the 16th of March 2017 and for registration is the 2nd of May 2017.

The development of the new sequencing technologies has placed the field of genomics at the heart of biological research. Many genomes have already been published and many more are being generated. This abundance of genomic data is proving to be fundamental to a wide range of research areas including functional genomics, the evolution of diversity and insect management. The purpose of this meeting is to discuss the latest developments in the field of genomics and how they are being applied

in entomology. We will bring together researchers with different backgrounds to promote the exchange of ideas and explore collaborations that can further advance insect science.

We welcome presentations from researchers at all stages of their careers working on insect genomics and the development of bioinformatics tools, as well as from those applying these methods to study questions ranging from insect ecology and evolution to management and control.

We are really excited to have Nicola Nadeau (University of Sheffield), Chris Bass (University of Exeter) and Luke Alphey (The Pirbright Institute) as invited speakers.

For further details and registration form visit:

<http://www.royensoc.co.uk/content/insect-genomics-special-interest-group-meeting-16th-may-2017> or send us an e-mail.

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## Honolulu HistoryOfPacificMarineLife May23-25 Deadline

Dear All

Just a reminder that the abstract submissions for the GSA 2017 113<sup>th</sup> Annual meeting is still open. The meeting will be held at the Hawaiian Convention Center (<https://www.meethawaii.com/convention-center/>) in Honolulu. Abstract fees are \$18/students and \$30/others. The session details are outlined below.

Abstract Submission Deadline: 14<sup>th</sup> February 2017

Student travel grants and registration waivers are avail-

able.

Theme Session T22: Cenozoic Paleocology, Paleogeography, and Evolutionary History of Pacific Marine Life

<https://gsa.confex.com/gsa/2017CD/top/index.epl>

This session will focus on all environmental and evolutionary aspects of the Cenozoic (66-0 Ma) history of marine life in the Pacific Ocean at all temporal and spatial scales. It will include studies employing evidence from paleoceanography as well as studies employing evidence from the modern fauna. Of particular interest are studies on the phylogeny of major taxa, paleoecological or evolutionary adaptations in a changing marine environment, and the influence of changes in seawater chemistry and temperature throughout the Cenozoic. Among other things, we welcome studies that include the reconstruction of the history of coral reef or molluscan communities. Paleobotany, molecular studies, and micropaleontology are all meant to be included.

Registration and abstract submission:

[https://gsa.confex.com/gsa/2017CD/-top/papers/index.cgi?](https://gsa.confex.com/gsa/2017CD/-top/papers/index.cgi?session-idB156&username)1968&password67139) session-

23-25 May 2017 - Honolulu, Hawai'i USA

Hawai'i Convention Center, Honolulu, Hawai'i

Important Deadlines

Abstracts Submission 14 February

Early Registration 17 April

Student Travel Application 17 April

Student Volunteer for Registration Waiver 17 April

Registration Cancellation 24 April

Hotel Reservation Rate 1 May

Please contact Steve or Sonia for further details about this session:

Principal organizer: Dr. Steven M. Stanley, [stevenst@hawaii.edu](mailto:stevenst@hawaii.edu)

Co-organizer Dr. Sonia J. Rowley, [srowley@hawaii.edu](mailto:srowley@hawaii.edu)

Aloha

Sonia J. Rowley PhD Postdoctoral Research Fellow University of Hawai'i at Manoa POST 713, 1680 East-West Road Honolulu, HI 96822 +1 808 348 6224 Research Affiliate - Bishop Museum Chief Science Officer - Assoc. Marine Exploration

Sonia Rowley <[srowley@hawaii.edu](mailto:srowley@hawaii.edu)>

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**Idaho Moscow**  
**American Soc Mammalogists**  
**Jun20-24**

Ninety-Seventh Meeting of the AMERICAN SOCIETY OF MAMMALOGISTS 20-24 June 2017 University of Idaho Moscow

This year's meeting will offer an exciting program with three workshops, three symposia, and two plenary sessions, in addition to the diversity of high-quality contributed papers and posters. Workshops will provide training in the program, ways to increase your Broader Impacts, and writing an effective DDIG proposal. Symposia will include current topics in Climate Change, Large Mammal Ecophysiology, and Genomics. The two plenary sessions will feature student Honoraria and Fellowship recipients and the 2016 recipients of the ASM Grinnell, Leopold, and Merriam Awards. Drs. Joseph Cook, Marco Festa-Bianchet, and Joel Brown. And we are honored to have Dr. Kay Holekamp, a previous Merriam awardee, as our capstone speaker, presenting her life's work on hyena ecology and behavior.

**ABSTRACT SUBMISSION OPENS TODAY!!!** Share your research with hundreds of mammalogists from around the world. Submit your abstract for an oral presentation or poster for ASM 2017! Abstract submissions will open on February 15, 2017 and close on March 31, 2017 at 11:59 pm (Central Daylight Time). The deadline for presenters seeking Travel Awards is March 15th at 11:59 pm (Central Daylight Time). For more information about ASM Travel Awards see the ASM website (<http://www.mammalsociety.org/committees/honoraria-and-travel-awards#tab4>).

All presenters **MUST** register and submit full payment for the conference prior to submitting their abstract. The abstract submission link will be found in the email confirmation immediately following payment. However, please allow enough time for the automated registration system to process your payment to meet the submission deadline. An abstract will not be accepted for the program until the presenting author has registered and paid in full.

**REGISTER FOR THE CONFERENCE** Registration is now open for ASM 2017! Register online (<https://asm.wildapricot.org/event-2367009/Registration>) now!

Contact Christy Classi (cclassi@mammalsociety.org) for assistance. Regular registration ends March 31st!!!

For those also considering the Evolution meeting in nearby Portland, why choose? ASM 2017 is providing a low-cost transportation option to allow attendance at both meetings. For \$50, ASM 2017 attendees can take a charter bus from Moscow to Portland on Friday, June 24th, arriving just in time for evening festivities at Evolution 2017. This option is available during registration. The bus is partially sponsored by RTLGenomics (<http://rtlgenomics.com>).

**RESERVE YOUR ROOM AND MAKE TRAVEL PLANS FOR ASM 2017 Housing:** A variety of housing options are available this year, including campus dorm housing. Reservations should be made before the end of May for most housing options. Be sure to reference the American Society of Mammalogists to receive the conference group rate at the meeting hotels. Check out the meeting travel page (<http://www.mammalmeetings.org/travel/>) for more information!

**Transportation:** You have multiple options when traveling to Moscow, Idaho. The three closest airports to the Moscow area are the Pullman-Moscow Regional Airport, the Lewiston-Nez Perce County Regional Airport, and the Spokane International Airport. Each airport offers various car rental options. There also are several options for travel from each airport to the hotels ranging from taxis and shuttles to public transportation. To research the method that best suits you, please visit each airport's website. Moscow also is serviced by Greyhound and Amtrak.

For more information, visit the ASM meeting website (<http://www.mammalmeetings.org/>).

Contact Info: Tony Ballard Kansas State Global Campus Phone: 785-532-2402 Email: [tballard@k-state.edu](mailto:tballard@k-state.edu)

Cody Thompson <[mammal.meetings@gmail.com](mailto:mammal.meetings@gmail.com)>

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**IowaStateU AGA EvolQuantGenet**  
**Jun1-3**

Save early June for the AGA Quantitative Genetics Symposium!

Each year, AGA symposia bring together 80-100 participants in a relaxed and collegial setting to share ideas on genetic and genomic research topics.

This year's meeting is AGA2017: Evolutionary Quantitative Genetics IN THE WILD. Hosted by AGA President Anne Bronikowski, it will be held June 1st through June 3rd on the campus of Iowa State University. The opening reception will be in the beautiful Reiman Gardens and Butterfly House: <http://www.reimangardens.com/>  
 Visit the AGA website at <http://www.theaga.org> Registration and student award details will open in early March.

#### CONFIRMED SPEAKERS:

AGA Key Distinguished Lecture - Anne Charmantier, Centre d'écologie Fonctionnelle et Evolutive (CEFE), Montpellier, France

David Coltman, University of Alberta, Canada

Jeff Conner, Michigan State University

Lynda Delph, University of Indiana

Ned Dochtermann, North Dakota State University

Lucia Gutierrez, University of Wisconsin

Fred Janzen, Iowa State University

Adam Jones, Texas A & M University

Marilyn Josephs, University of California, Davis

Andrew McAdam, University of Guelph, Canada

Joel McGlothlin, Virginia Technical Institute

Mike Morrissey, St Andrews University, UK

Thomas Reed, University College, Cork, Ireland

Max Rothschild, Iowa State University

Julia Saltz, Rice University

Cynthia Weinig, University of Wyoming

Jason Wolf, University of Bath, UK

Anjanette Baker

AGA Manager

AGAJOH@oregonstate.edu

generation scientists event. Next generation scientists 2017 is an event aimed exclusively at early career researchers (PhD students and post-docs with up to five years' experience since gaining their PhD).

It will provide an opportunity for early career plant scientists to present research, and network with their peers in a supportive and inspiring environment. In addition to presentations from early career researchers, there will be a series of plenary lectures from outstanding international plant scientists, talks by the 2014 and 2015 Tansley Medal winners Bill Anderegg and Alexander Jones, and workshops on getting published and publication ethics.

Registration is free and includes meals, accommodation and a social event. Some assistance with the cost of travel to the meeting will also be provided. Places are limited, so please register early!

Application deadline: 27 April 2017

Full details and registration at <https://newphytologist.org/nextgensci> #NPNextGen

Dr Mike Whitfield Development Coordinator, New Phytologist ————— New Phytologist Central Office, Bailrigg House, Lancaster University, Lancaster, LA1 4YE, UK Tel: + 44 1524 592839; Fax: + 44 1524 594696 [www.newphytologist.org](http://www.newphytologist.org)— Twitter: @NewPhyt— Facebook: fb.com/NewPhytologist

The New Phytologist Trust, registered charity number 1154867

2015 Impact factor 7.21

New Phytologist Symposia 2017 Trait covariation // Plant epigenetics

New Phytologist next generation scientists 2017 A meeting exclusively for early career researchers. Register now!

[m.whitfield@lancaster.ac.uk](mailto:m.whitfield@lancaster.ac.uk)

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### JohnInnesCentre UK PlantEvolution Jul24-26

New Phytologist next generation scientists 2017  
24-26 July 2017 John Innes Centre, Norwich, UK

<https://newphytologist.org/nextgensci> The New Phytologist Trust is excited to invite you to the second next

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### London WildlifeConservation Mar14

Zoological Society of London, Regent's Park, London NW1 4RY, UK; Tuesday 14 March 2017; 18:00-21:00

Immigrants to the rescue! How can immigration help save threatened wildlife populations?

Speakers: Richard Frankham; Mike Bruford; Jane Reid  
Threatened species have invariably small and frequently

isolated populations, and are thus characterized by increased inbreeding and depleted genetic variation. Increased inbreeding could lead to a reduction in reproduction and survival (inbreeding depression), which causes an immediate risk of extinction. Depleted genetic variation could compromise the ability of a species to adapt to an ever-changing environment, threatening its long-term survival. How to mitigate these adverse effects of small populations, and maintain a threatened species for short- and long-term survival, is a major task for conservation science. Supplementing genetically impoverished populations with external unrelated individuals (immigrants) can be a valuable strategy to counteract the negative effects of isolation. This 'genetic rescue' effect occurs because the addition of unrelated genomes increases diversity in the recipient population, reducing inbreeding and inbreeding depression. Genetic rescue has the added benefit of increasing population size and larger populations are less vulnerable to random events, such as a natural disaster or disease outbreak. Despite the potential benefits of genetic rescue for the management of threatened species, there have been fewer than twenty published studies of genetic rescue/restoration for conservation purposes. Why has there been such a low uptake?

The speakers will describe the hurdles, and illustrate how genetic rescue can be expedited through reintroduction and conservation programmes. Free and open to all <https://www.zsl.org/science/whats-on/immigrants-to-the-rescue-how-can-immigration-help-save-threatened-wildlife> The Zoological Society of London is incorporated by Royal Charter Principal Office England. Company Number RC000749 Registered address: Regent's Park, London, England NW1 4RY Registered Charity in England and Wales no. 208728

Linda DaVolls <linda.davolls@zsl.org>

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## Lyon AI EvolutionaryDynamics Sep4-8

\* CALL FOR PAPERS \*

ECAL 2017 - 14th EUROPEAN CONFERENCE ON ARTIFICIAL LIFE

“Artificial Life and the scientific method: Create, play, experiment, discover”

<https://project.inria.fr/ecal2017/> The ECAL 2017 Organizing Committee would like to cordially invite you

to submit your work to the 14th European Conference on Artificial Life (ECAL 2017), taking place on the LyonTech Campus in Lyon, France, 4-8 September 2017.

\* I M P O R T A N T D A T E S \*

Paper submission deadline: 9th April, 2017 Notification of Acceptance: 12th May, 2017 Camera-Ready due: 9th June, 2017 Main Conference convenes: 4-8 September, 2017

Contact email for queries: [ecal2017@inria.fr](mailto:ecal2017@inria.fr)

\* T O P I C S \*

ECAL 2017 will showcase a wide range of topics in Artificial Life, bringing together world-leading researchers to discuss the latest advances in the synthesis and simulation of living systems. We are happy to announce that our keynote speakers cover a wide variety of topics and include:

- Bill Sellers (University of Manchester, UK): Reconstructing Ancient Life using Virtual Robots - Csaba Pal (Biological Research Centre, Szeged, Hungary): Complex adaptations in evolution - Frances Westall (CNRS, Orleans, France): Origin of life and Life on Mars - Nancy Nersessian (Harvard University, Cambridge, MA, USA): Managing Complexity: Modeling dynamics in integrative systems biology - Philippe Faure (Universite Pierre et Marie Curie, Paris, France): Drug addiction and alteration of decision making process - Sabine Hauert (University of Bristol, UK): Swarming nanomedicine

For this edition the special theme is “Artificial life and the scientific method: Create, play, experiment, discover”. We are inviting especially contributions that investigate the use of computer simulations in the scientific method, and/or the interactions between in silico, in vitro and in vivo experiments. Other topics of interest include, but are not limited to, the following aspects of Artificial Life:

- Evolutionary dynamics - Ecological and social dynamics - Artificial chemistry, origins of life - Computational cellular biology/physiology/systems biology - Self-replication, self-repair and morphogenesis - Bio-inspired, cognitive and evolutionary robotics - Perception, cognition and behavior - Evolution of language, computational linguistics - Embodied, interactive systems - Collective dynamics of swarms - Complex dynamical systems and networks - Cellular automata and discrete dynamical systems - Economy/society/social media as living systems - Computational humanities/anthropology/archeology - Methodologies and tools for artificial life - Interactions between in silico/in vitro/in vivo experiments - Philosophical, epistemological and ethical issues - Artificial life and education -



Artificial life-based art - Applications of artificial life - Living technologies

\* S U B M I S S I O N F O R M A T \*

There are two options for submission: either full paper or extended abstract. Note that the format is exactly the same for both options. The differences reside in the number of pages and type of contents:

- Full papers have an 8-page maximum length and should report on new, unpublished work.
- Extended abstracts are limited to a 2-page length and can report on previously published work.

We encourage the use of LaTeX for the production of papers. Guidelines for submission and template files can be found here: <http://project.inria.fr/ecal2017/-submission-guidelines/> < <http://project.inria.fr/ecal2017/-submission-guidelines/> > Color figures are possible. Each submission should be uploaded as a single file, in PDF format only, to the Easy Chair system: <https://easychair.org/conferences/?conf=ecal2017> <<https://easychair.org/conferences/?conf=ecal2017>>

All submissions will undergo a detailed peer review process. Full papers will be reviewed for relevance, scientific quality, sound methodology and use of appropriate analysis techniques. Abstracts will be reviewed for relevance and quality.

Both papers and extended abstracts will be considered for oral or poster presentation, without distinction between full papers and extended abstracts.

Accepted papers and extended abstracts will be published by MIT Press as open-access electronic proceedings.

Note: At least one author of every accepted paper or poster must be registered 30 days prior to the conference, or the paper/poster will be withdrawn.

Note: Workshop papers are managed separately from the main conference. To submit a paper to a workshop, go to its own website, which will be listed in the Workshops page.

\* O R G A N I S I N G C O M M I T T E E \*

Dr Carole Knibbe (Scientific Chair, Universite Lyon 1)

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This message has been arbitrarily truncated at 5000 characters. To read the entire message look it up at <http://life.biology.mcmaster.ca/~brian/evoldir.html>

## Moscow InvertebrateEvol Aug18-23

Topic: Moscow. 4<sup>th</sup> International Meeting on Invertebrates. August 18-23.

Dear Evolutionary Biologists!

On behalf of The International Society for Invertebrate Morphology, Lomonosov Moscow State University, The Paleontological Institute of Russian Academy of Sciences and The ICIM4 Organizing Committee, we cordially invite you to attend the 4th International Congress on Invertebrate Morphology (ICIM4) to be held in August 18-23, 2017 in Moscow, Russia.

The Congress, which is the premier international gathering of researchers in the field of the morphology of invertebrates, will be hosted by Lomonosov Moscow State University. The main focus of the 4th Congress will be among others on evolutionary developmental biology; the problem of miniaturization and the evolution of larval forms. Special attention will be paid to modern approaches and methods of morphological and evolutionary studies.

You can find a preliminary list of the scientific symposia (included but not limited to) at <http://www.icim4.com/-symposia-structure> to be chosen according to your interests.

TO REGISTER please follow the link <http://www.icim4.com/registration> . The early-bird registration fee rates are available until February 28, 2017.

The abstract submission is open until April 30, 2017. To submit an abstract please follow the link <http://www.icim4.com/abstracts> For more information on the Congress please visit the official website of the ICIM4 at [www.icim4.com](http://www.icim4.com) We would also like to invite those of you who might be interested to be a Sponsor or an Information Partner of the Congress. For Sponsorship please see the link <http://www.icim4.com/sponsors-exhibitors> and for Information Partnership please contact the Technical Secretariat at [icim4@mkcongress.ru](mailto:icim4@mkcongress.ru) .

Please do not hesitate to contact congress organizers and our organizing committee with any concerns or questions:

E-mail: [icim4.org@gmail.com](mailto:icim4.org@gmail.com) (for program, papers and other science-related questions and issues)

E-mail: [icim4@mkcongress.ru](mailto:icim4@mkcongress.ru) (for registration, pay-

ments, excursions, pre- and post-congress tours, accommodation and other service-related questions and issues)

Looking forward to seeing you in Moscow!

Technical Secretariat of the 4th International Congress on Invertebrate Morphology

MKC LLC Moscow, Russia

Phone: +7 (495) 726 5135

e-mail: [icim4@mkcongress.ru](mailto:icim4@mkcongress.ru)

<http://www.icim4.com/> – Thank you and best regards,

Yana Syskova ICIM4, Technical Secretariat “MKC” LLC Moscow, Russia Phone: +7 (495) 726 5135 [icim4@mkcongress.ru](mailto:icim4@mkcongress.ru) [www.icim4.com](http://www.icim4.com) “ICIM4, Technical secretariat” <[icim4@mkcongress.ru](mailto:icim4@mkcongress.ru)>

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## MountainLakeBioStn WaltonLecture

Announcing the 2017 Walton Lecture at MLBS View this email in your browser (<http://us14.campaign-archive2.com/?u=3D90dd2397558126f5ceb0c7824&id=a603a995d8&e=eb61b7c3d8>)

Dear Biologists and Friends of Mountain Lake,

You are cordially invited to the annual Walton Lecture at Mountain Lake Biological Station.

The ecological context of local adaptation: Deciphering cause and effect presented by Joseph Travis Biological Science, Florida State University Lewis Hall Auditorium Thursday June 15, 8:00 p.m.

Joe’s research is focused on variation among local populations of the same species, which represents the earliest stage in the adaptive generation of biodiversity. Keep reading... (<http://www.bio.fsu.edu/faculty-travis.php>)

The lecture will be followed by a reception in the Director’s Cottage. Joe will be in residence at MLBS for a few days around the lecture.

If you need to spend the night, or join us for a meal, please contact the Station as soon as possible at (540) 626-7196, [mlbs@virginia.edu](mailto:mlbs@virginia.edu) or submit a housing request on line (<http://mlbs.virginia.edu/planvisit>) . Housing space is limited.

Please distribute this announcement (<http://mlbs.virginia.edu/Walton2017>) to students or colleagues you think might be interested. Thank you!

We hope you will join us on June 15th!

Directions to the Station (<http://mlbs.virginia.edu/-travel>)

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Our mailing address is: Mountain Lake Biological Station University of Virginia PO Box 400327 Charlottesville, Va 22904 USA

Mountain Lake Biological Station <[mlbs@virginia.edu](mailto:mlbs@virginia.edu)>

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## Paris Holobionts Apr19-21 RegistrationExt

Dear colleagues,

Registration for the International Conference on Holobionts, Paris April 19-21, 2017 is extended to Feb. 15th.

For more information and details about this event, please visit the conference website at <https://-symposium.inra.fr/holobiont-paris2017/> .Please, do not hesitate to diffuse this announcement to interested colleagues. Thanks. Best regards

Jean-Christophe SIMON

Please note my new email address: [jean-christophe.simon@inra.fr](mailto:jean-christophe.simon@inra.fr)

Jean-Christophe SIMON UMR 1349 INRA/Agrocampus Ouest/Université Rennes 1 Institut de Génétique, Environnement et Protection des Plantes (IGEPP) Domaine de la Motte - 35653 Le Rheu Cedex - France

phone: +33 (0)2 23 48 51 54 fax: 33 (0)2 23 48 51 50 web site IGEPP : <http://www6.rennes.inra.fr/igepp> Jean-Christophe Simon <[jean-christophe.simon@inra.fr](mailto:jean-christophe.simon@inra.fr)>

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## Peterborough Canada WildlifeConservation May1-4

Wildlife 70: a symposium on long-term research.

The symposium will be held during 1-4 May 2017 in Peterborough, Ontario. The co-hosts are Trent University, Wildlife Conservation Society Canada, and the Ontario

Ministry of Natural Resources and Forestry. The symposium is about the importance of long-term ecological research in Canada. We are fortunate that Charles Krebs and Marco Festa-Bianchet have agreed to be keynote speakers, and we have also arranged a moderated panel discussion between Bob Wayne and Brad White on the nature of eastern wolves.

It will be a fun and interesting meeting. Registration has opened, and we are still accepting abstracts for poster presentations. More details, including some preliminary program information, can be seen here <https://www.wildlife70.com>. There is a great lineup of invited speakers. Please share with any colleagues and students who may be interested.

"Jeff.Bowman@ontario.ca" <Jeff.Bowman@ontario.ca>

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## Philadelphia EPiC Evolution Apr15

The Philadelphia Evolution Group is excited to announce

EPiC -Evolution in Philadelphia Conference.

\*Details:\* Saturday, April 15, 2017

\*Time:\* 9:30am-7pm

\*Location:\* Levin building, 425 S University Ave Philadelphia PA 19104

\*More information:\* <https://philadelphiaevolut.wixsite.com/epic> < <https://t.co/vHEv059dwy> >

\*Presentation submission deadline:\* March 20, 2017

\*Registration deadline\*: April 10, 2017

\*Cost:\* Free\*

\*Description:\* This conference aims to bring together early career researchers from the greater Philadelphia area sharing similar interests in understanding complex biological relationships that inform ecological and evolutionary processes. The topics covered will be broad in scope and will address questions in areas such as genome evolution, speciation and adaptation, the genetic basis of phenotypic evolution, microbiomes and symbiosis, and organismal response to changing environments. The conference will provide graduate students and postdocs the opportunity to present their research to their peers and hopefully this will serve as a forum to receive useful feedback from senior-level researchers. We hope to build lasting research relationships and col-

laborations among researchers with similar interests in the broader Philadelphia area. Breakfast, lunch and an evening reception will be served.

\*Schedule:\*

- ASN Opening Plenary: Dr. Mary Caswell Stoddard, Princeton University

- Three sessions of oral presentations

- GSA Closing Plenary: Dr. Sarah Sander Lower, Cornell University

- Poster reception

There will be \*cash prizes\* for best student talk and poster sponsored by the American Society of Naturalists

\*This conference is available free of charge because of our generous sponsors:

- American Society of Naturalists Regional Conference Award

- Genetics Society of America Trainee-Organized Symposium

We hope you will join us, it's going to be \*EPiC\*!

\*Emily L Behrman\* Ph.D. Candidate Schmidt Lab Department of Biology University of Pennsylvania 433 S University Ave Philadelphia, PA 19104

Bemily@sas.upenn.edu <http://www.emily-behrman.com>  
Emily L Behrman <bemily@sas.upenn.edu>

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## Porquerolles France MathCompEvolBiol Jun12-16

MCEB - Mathematical and Computational Evolutionary Biology, 12-16 June 2017 Porquerolles Island, South of France.

Pre-registration deadline extended to March 6th 2017  
Using the web site: <http://www.lirmm.fr/mceb2017/>  
Notification to applicants: March 17th

Final list of attendees: April 17th

Scope: Mathematical and computational tools and concepts form an essential basis for modern evolutionary studies. The goal of the MCEB conference (at its 9th edition) is to bring together scientists with diverse backgrounds to present recent advances and discuss open problems in the field of mathematical and computational evolutionary biology. The theme of this year's edition will be "Methods for integrative evolutionary

biology: various sources of data, various scales of evolution”, which includes the analysis of heterogeneous data (molecular, phenotypic, ecological...), different time scales (from recent times to the origin of life), different spatial scales (from local to worldwide range), the combination of phylogenetics and population genetics, multidisciplinary approaches, etc.. General concepts, models, methods and algorithms will also be presented and discussed, just as during the previous conference editions.

Cost: Conference fees including accommodation for four nights, meals, coffee breaks, etc., will be around 450 euros, all inclusive. PhD students and postdocs would benefit of financial support.

Keynote speakers:

- Elizabeth Allman (Department of Mathematics and Statistics, University of Alaska Fairbanks)
- Guy Baele (Rega Institute / KU Leuven - Evolutionary and Computational Virology Section)
- Stephane Dray (Laboratoire de Biometrie et Biologie Evolutive (LBBE), Lyon)
- Barbara Holland (Theoretical Phylogenetics Group, School of Mathematics and Physics, University of Tasmania)
- Anna-Sapfo Malaspinas (Institute of Ecology and Evolution, University of Bern)
- Yun Song (Calabi-Simons Chair in Mathematics and Biology, Departments of Mathematics and Biology, University of Pennsylvania)
- Marc Suchard (David Geffen School of Medicine at UCLA, Departments of Biomathematics, Biostatistics and Human Genetics)

Olivier GASCUEL <olivier.gascuel@pasteur.fr>

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### Portland Oregon JoeFelsenstein Jun22

Subject: JoeFest: Satellite symposium at the 2017 SSE/ASN/SSB meeting held in honor of Joe Felsenstein

A one-day symposium will be held on Thursday, June 22, 2017 at the Oregon Convention Center in honor of Joe Felsenstein and his many contributions to population genetics, evolutionary theory and phylogenetics. The list of speakers and information about registration can

be obtained here, <http://www.evolutionmeetings.org/pre-conference-workshops-satellite-events.html> . Montgomery SLATKIN <slatkin@berkeley.edu>

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### Portland OR Evolution2017 Jun23-27

EVOLUTION 2017 – Annual joint meeting of the ASN/SSB/SSE June 23-27, Oregon Convention Center in Portland, OR <http://www.evolutionmeetings.org>

Main conference registration is now OPEN! Talk & poster submission is also OPEN. Talks will be accepted until May 20 or until capacity is reached, WHICHEVER IS EARLIER.

Hotel and dorm accommodation is also OPEN.

Answers to just about ANY question you may have about the conference can be found on the meeting website: <http://www.evolutionmeetings.org/evolution-2017-portland-oregon.html> APR. 15 IS AN IMPORTANT DATE - Early registration discount ends - Applications for ASN and SSE student/pdf travel grants close - Applications to volunteer at the conference in return for 100% rebate on early registration fees close - Applications for Mayr and Hamilton awards close. \*\*\*Eligible students wanting to apply should register for a regular talk ASAP as these may fill prior to Apr. 15 (you can edit your talk details later)\*\*\*

OTHER INFORMATION - Consider giving a poster; our poster invite app will allow you to invite up to 3 attendees of your choice to come view it. This can dramatically change the relative value of a poster compared to a talk - Check out our new Spotlight Sessions and consider applying to speak in one (<http://www.evolutionmeetings.org/spotlight-sessions.html>) - Professional childcare for children ages 6 months - 12 years available on-site at the Oregon Convention Center. See conference website for more details and to book. - There are MANY optional events before and during the conference. Some required pre-registration. Details on the website. - Sponsor/exhibitor registration is also open.

hrundle@uottawa.ca

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## Portland SSE Genetic Transmission Jun23-27

Dear Evolutionary Biology Community,

Sign up to give a lightning talk in a “Spotlight Session” at the 2017 Evolution Meetings in Portland, Oregon!

Spotlight Session – “Genetic transmission at the population level”

The transmission of genes between parents and offspring is a critical feature of biological populations. In this spotlight session, talks will explore the modes whereby genes are transmitted across generations and their evolutionary relevance. Topics include, but are not limited to, meiotic drive systems, organelle and nuclear genomes, mating systems, and genetic conflict. We hope you will join us to learn more about the intriguing diversity, evolution, and macro-evolutionary consequences of genetic transmission systems.

Invited speakers

Yaniv Brandvain, University of Minnesota. Title: TBD  
Jeremiah Busch, Washington State University. Title: TBD

Lila Fishman, University of Montana. Title: TBD

Logistical details on the session:

A Spotlight Session is a focused, 75 min. collection of talks on a specific topic. These talks are solicited in advance, unlike regular sessions that are assembled, often imperfectly, from the total pool of contributed talks. Each Spotlight Session is anchored by three leading experts (each giving a 14 min talk) and rounded out with six selected speakers (each giving a 5 min. ‘lightning’ talk) pursuing exciting projects in the same field. By having a focused session with high-profile researchers on a specific topic, there will be high value in presenting even a 5 min. talk as the room is likely to contain the desired target audience as well as other relevant and well-known speakers in the field.

To take part:

If you want to give a lightning talk in this session, please email me at [jwbusch@wsu.edu](mailto:jwbusch@wsu.edu) with your title by February 28th! We hope to choose all of the six lightning talks by March 3rd.

Impacts on registration, etc.: 1) If you are selected to

give a talk in our Spotlight Session, you are free to give a regular talk in another, traditional session. You can register for another talk by the standard procedure during the online registration process.

2) As a member of the Spotlight Session, you will attend the meeting as normal but you will NOT register your talk in the Spotlight Session on the website – I will take care of this for you.

–  
Jeremiah W. Busch

School of Biological Sciences

Washington State University

Pullman, WA 99164

[jwbusch@wsu.edu](mailto:jwbusch@wsu.edu)

509-335-0086

“Jeremiah W. Busch” <[jwbusch@wsu.edu](mailto:jwbusch@wsu.edu)>

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## QueensU OntEcolEvol May18-20

Where: Queen’s University, Kingston, Ontario, Canada

What: OE3C’17

When: May 18th-20th, 2017

Message: The Ontario Ecology and Evolution Colloquium 2017 (OE3C’17) call for abstracts and registration is now open to all researchers including undergraduates, graduate students, post doctoral fellows, and faculty. The event focuses primarily on ecology, ethology, and evolution, but is open to researchers in conservation biology, earth sciences, behavior, environmental sciences, genetics, molecular and cellular biology, and psychology. Researchers will be able to present a full 12 minute presentation, 5 minute lightning talk, or a poster.

The three day event will include 4 plenary speakers: Dr. Fran Bonier (Queen’s University), Dr. Rowan Barrett (McGill University), Dr. Ben Evans (McMaster University), and Dr. Anne Bell (Ontario Nature). It will also include 2 breakfasts, 2 lunches, coffee breaks, and social events on Thursday and Friday nights.

For more information about OE3C’17 visit us at [www.queensu.ca/oe3c17/](http://www.queensu.ca/oe3c17/) or contact us at [oe3c2017@gmail.com](mailto:oe3c2017@gmail.com).

We are excited to welcome researchers from all across Ontario, Quebec and Upstate New York to Queen’s!

– \*Dylan Sora\* MSc Candidate Eckert Lab OE3C  
2017 Executive Organizer Dept. of Biology  
Queen's University Kingston ON dylan.sora@gmail.com  
15ds28@queensu.ca

dylan.sora@gmail.com

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## Smithsonian BGI BioGenomics Feb21

### BioGenomics 2017

First day registration is now available for the inaugural Global Biodiversity Genomics Conference held in Washington, D.C. 21-23 February 2017 at the Smithsonian's National Museum of Natural History organized by the Smithsonian Initiative on Biodiversity Genomics and BGI. The conference will bring together thought leaders, researchers, and academics, who are leading the charge in applying genomic technologies to understanding life. The Conference is one of the first to address the transition from a scientific emphasis on human genomics to one on global biodiversity genomics.

The first day will feature a Keynote Address by Edward O. Wilson, Professor Emeritus, from Harvard University entitled: The Linnaean Renaissance.

The meeting will focus on interactions and synergies among biodiversity researchers, computational scientists, sequencing technologists, and software developers.

The overarching goal of BioGenomics 2017 is to increase our knowledge of the patterns of genomic variation in order to enhance our understanding of past and present evolutionary processes, to interpret the functional meaning of differences among genomes of individuals and species, to discover and document how ecosystems operate, and to use this information to make predictive management decisions about the future of life on our planet. The Conference is focused on four basic themes:

Diversity Genomics: Origins, Diversity, and Patterns of Life  
Evolutionary Genomics: Adaptation, Resilience, and Evolutionary Novelty  
Ecological Genomics: Ecosystem Function and Ecological Processes  
Conservation Genomics: Environmental Sustainability and Conservation

The first day will also feature:

Pamela Soltis (The Role of Whole-Genome Duplication in Plant Evolution)

Gene Robinson (Gene Regulatory Network Lability and the Evolution of Insect Society)

Byrappa Venkatesh (Diversity of Fish Genomes)

Nancy Moran (Discovering the world of microbial symbiosis using genomics)

Thomas Gilbert (Palaeogenomic contributions to domestication)

Harris A. Lewin (Eutherian Chromosomes in the Light of Evolution)

May Berenbaum (Ecological genomics footprints of plant-insect coevolution in the CYPome)

Christina Richards (Understanding mechanisms of response to complex environmental conditions using model and non-model plants)

Jeffrey Good (Climate change and the evolution of seasonal camouflage)

Oliver Ryder (The impact of conservation genomics on genetic rescue of endangered species: the critical role of viable cell collections)

Robert Wayne (The Measurement of Adaptive and Deleterious Variation as Goals for Conservation Genomics)

Andrew Clark (Genomic Consequences of Population Decline in the Endangered Florida Scrub-Jay)

Registration for Day 1 or for the complete conference is available at: <http://biogenomics2017.org/> along with other details of the conference.

Please direct questions to Warren Johnson at: [contact-biogenomics@si.e](mailto:contact-biogenomics@si.e)

[JohnsonWE@si.edu](mailto:JohnsonWE@si.edu)

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## Smithsonian Conservation Apr21-23

EARTH OPTIMISM SUMMIT - SMITHSONIAN INSTITUTION April 21-23, 2017 - Washington, DC Ronald Reagan Building and International Trade Center [www.earthoptimism.si.edu](http://www.earthoptimism.si.edu) Join 150 speakers and 1200 thought leaders, scientists, artists, environmentalists, and civic and business leaders to share stories of what's working in conservation. From how to tackle species extinction to inspiring communities to take action or securing the future of food, we'll explore how people around the world are making positive change for the planet!

REGISTER ON LINE < <https://www.regonline.com/->

[registration/Checkin.aspx?EventID=1927451](http://earthoptimism.si.edu/registration/Checkin.aspx?EventID=1927451) >: Early bird registration extended to March 10, 2017. Student registration code: EarthST (Must bring student ID to check-in). PROGRAM & SPEAKERS < <http://earthoptimism.si.edu/calendar/summit/> >

Summit Fees: General Admission: \$650 / Early Bird Rate: \$575 Student Rate: \$300 / Early Bird Student Rate: \$250

NB: Admission to the Summit includes breakfast and lunch, bird-friendly coffee sessions, and some receptions each of the 3 days.

VIDEO COMPETITION - "CONSERVATION SUCCESS": Winners receive travel, lodging and registration for the three day Summit. Grand prize winner also receives \$1000 Help celebrate Earth Optimism by creating a 2 minute video about your own conservation success story or highlighting one that needs to be told. All videos will be posted to the Earth Optimism You Tube channel and select videos will be shown at the Summit. The competition is open to undergraduate and graduate students. Visit this link for complete details and submission instructions < <http://earthoptimism.si.edu/blogs/news/2017/02/02/earth-optimism-summit-announces-student-video-competition/> >. Deadline to submit your video is March 10th, 11:59 PM EST.

HACK A THON: Cash prizes (currently \$5,000) If you are you a hacker, coder, maker, engineer, designer, entrepreneur, creative thinker or tinkerer, come celebrate Earth Optimism by creating solutions to challenging conservation problems in front of a global audience! Fifteen teams of 4 will compete by pitching their innovative solutions & prototypes to a crowd of potential supporters in an on-site event called Make for the Planet. Teams will have access to problem sets two weeks before the event, access to leading conservationists and innovators during the event, and access to equipment on site to create prototypes and models of hardware and/or software solutions to specific conservation problems. All participants will have full access to the Earth Optimism Summit. Apply to participate on-line at Conservation X Labs Make for the Planet website < <https://www.makefortheplanet.com/> > no later than March 1, 11:59 PM EST. Space and registration is limited!

SPECIAL FEATURES at EARTH OPTIMISM SUMMIT An Innovation Commons of exhibits showcasing solutions. Streaming FacebookLive. Musical performances, film festival and networking events. Public events in Smithsonian museums and zoo (entrance fees may apply).

Please direct questions to ConservationCom-

mons@si.edu

"Coyle, Brian J." <CoyleB@si.edu>

## Tampa Florida FishConservation Aug20-24

We are pleased to announce that we will be hosting a Special Symposium entitled 'Optimizing connectivity in running waters: lessons, challenges and tools' at the forthcoming American Fisheries Society Annual Meeting to be held in Tampa (Florida) on Aug 20-24, 2017.

This symposium will explore the problems posed by stream fragmentation, the pressures on freshwater ecosystems, and the need for innovative solutions to restore river connectivity. Nearly all major world rivers have become disconnected from the sea and this has had a catastrophic impact on many species, including some iconic migratory fish such as salmon or eels that have in some cases become extinct. For example, in the Netherlands and Germany barriers along the River Rhine prevent the migration of salmon, sturgeon and shad, while in the Iberian Peninsula salmon has disappeared from all but a handful of rivers. River fragmentation can result in rapid evolution of ecotypic differentiation and reproductive isolation of natural fish populations, but can also work as a measure of control of invasive species. We propose to review lessons learned from effort to improve connectivity, the challenges that lay ahead, and the novel tools that have emerged in recent years.

The AFS meeting is one of the largest dedicated fish conferences in the world, and covers virtually every conceivable topic related to fish and fisheries, typically with many sessions running in parallel, see here <https://afsannualmeeting.fisheries.org/> If you are interested in presenting a talk or poster at the Symposium, you need to:

1. Send us a title and author list by March 10th
2. Submit an abstract by March 17. See <https://afs.confex.com/afs/2017/cfp.cgi> . We look forward to hearing from you.

Symposium conveners,

Sonia Consuegra, Swansea University, UK  
(s.consuegra@swansea.ac.uk)

Carlos Garcia de Leaniz, Swansea University, UK  
(c.garciadeleaniz@swansea.ac.uk)

Guillermo Giannico, Oregon State University, US (giannico@oregonstate.edu)

“Consuegra S.” <s.consuegra@swansea.ac.uk>

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## Toulouse EvolutionFamily Jun1-2

Dear colleagues,

We are delighted to invite you to the 5th Toulouse Economics and Biology Workshop, which will take place on June 1-2, 2017.

The theme is “The evolution and economics of the family”. For this 5th edition of the Toulouse Biology and Economics workshop, we have invited speakers from evolutionary biology, economics, and evolutionary anthropology who have conducted research on the family. Areas of expertise of invited speakers include empirical approaches to understanding physiological, demographic, and behavioral responses to family living, and theoretical modeling of sexual strategies, household preferences, and reproduction.

We are thrilled to welcome the following speakers (titles and summaries coming soon): - Robert BROOKS <<http://www.bees.unsw.edu.au/rob-brooks>>, University of New South Wales - Pierre-André CHIAPPORI <<http://www.columbia.edu/~pc2167/>>, Columbia University - Donald COX <<https://www2.bc.edu/donald-cox/>>, Boston College - Partha DASGUPTA <<http://www.econ.cam.ac.uk/people/crsid.html?crsid=pd-10000&group=emeritus>>, University of Cambridge - David DE LA CROIX <<http://perso.uclouvain.be/david.delacroix/>>, Université Catholique de Louvain - Lena EDLUND <<http://www.columbia.edu/~le93/>>, Columbia University - Lee GETTLER <<http://anthropology.nd.edu/faculty-and-staff/faculty-by-alpha/lee-gettler/>>, University of Notre Dame - Hanna KOKKO <[http://www.ieu.uzh.ch/en-staff/member/kokko\\_hanna.html](http://www.ieu.uzh.ch/en-staff/member/kokko_hanna.html)>, University of Zürich - Ruth MACE <<https://www.ucl.ac.uk/anthropology/people/academic-teaching-staff/ruce-mace>>, University College London - Brooke SCENZA <<http://www.anthro.ucla.edu/faculty/brooke-scelza>>, UCLA - Brian WOOD <<http://anthropology.yale.edu/people/brian-wood>>, Yale University

Besides the plenary sessions, there will be a poster session for post-docs and Ph.D. students. Submissions (abstract + C.V.) should be sent to econbio\_poster@iast.fr no later than March 31, 2017. A limited number of

travel grants will be available to poster presenters. To apply, please also provide a cover letter explaining why you are applying for a grant and why you are interested in attending to the workshop.

The workshop will take place at the Institute for Advanced Study in Toulouse, Manufacture des Tabacs, 21 Allée de Brienne, 31015 Toulouse, France.

Registration will open in the beginning of March through this link <<http://www.iast.fr/conference/-5th-annual-toulouse-economics-and-biology-workshop-evolution-and-economics-family>>. For any information please contact us at econbio@iast.fr We would be very grateful if you could circulate this announce in your institution. We look forward to welcoming you here!

Organizers: Ingela Alger, Jonathan Stieglitz and Jörgen Weibull Co-organizers: Alice Baniel and Mark Dyble

The Toulouse Economics and Biology Workshop <[econbio@iast.fr](mailto:econbio@iast.fr)>

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## WashingtonDC BioGenomics Feb21 FirstDayRegist

First day only registration is now available along with full registration for the inaugural Global Biodiversity Genomics Conference held in Washington, D.C. 21-23 February 2017 at the Smithsonian National Museum of Natural History organized by the Smithsonian Initiative on Biodiversity Genomics and BGI. The conference will bring together thought leaders, researchers, and academics, who are leading the charge in applying genomic technologies to understanding life. The Conference is one of the first to address the transition from a scientific emphasis on human genomics to one on global biodiversity genomics.

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erate, and to use this information to make predictive management decisions about the future of life on our planet. The Conference is focused on four basic themes:

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”Johnson, Warren E.“ <[JohnsonWE@si.edu](mailto:JohnsonWE@si.edu)>

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## GradStudentPositions

BielefeldU GalapagosSeaLions .....	18	NASA Glenn Cleveland BiomimicryInsectFlight ...	26
CharlesU Prague EvolutionGenomicsFishes .....	19	Naturalis Netherlands PteropodEvolution .....	27
CharlesU Prague EvolutionPloidy .....	19	NorthDakotaStateU ConservationGenetics .....	28
ClemsonU GenomicsAnalysis .....	20	StockholmU EvolutionOfParasitoidHost .....	29
FUBerlin-BGBM Biodiversity .....	20	StockholmU PlantInsectInteractions .....	29
IllinoisTech Insect Evol PopGenet .....	21	TelAvivU EvolGeneticsFlowerColor .....	30
LaTrobeU GeneticRescuePlant .....	22	TelAvivU EvolutionaryFlowerColor 2 .....	30
LiverpoolU MolecularEvolution .....	22	TennesseeTechU ShrimpSpeciation .....	30
MississippiStateU CaribbeanIguanas .....	23	Tours France InsectSocialEvolution .....	31
MonashOtago EvolutionaryTheory .....	24	TrentU PhD AmphibianAdaptation .....	31
MonashU PersistenceAdaptation .....	24	TUM Germany TheoreticalPopulationGenetics ...	32
Munich WeevilSystematics .....	26	TU Munich 2 PlantBreeding .....	33

UBremen LifeHistoryEvolution .....	34	UPittsburgh EvolutionaryEcol .....	42
UBristol Berkeley EvolMetabolism .....	35	Uppsala TwoPositions EvolutionaryEcology .....	43
UdoPorto Archaeogenetics .....	36	UppsalaU EvolutionaryGenetics .....	44
UEastAnglia LeafMinerPopulationGenetics .....	37	UppsalaU Sweden Systematic Biology .....	44
UHamburg 7 HybridSystematics .....	38	USalzburg BulbophyllumTraitEvolution .....	44
UKentucky EvolutionInsecticideResistance .....	39	USDA BatonRouge EvolutionBeeVirus .....	45
UMeaU ForestGenetics .....	39	USouthBohemia CzechRepublic ProtistEvolution ..	46
UmeaU PlantLandscapeGenetics .....	40	USouthernMississippi FishPopulationGenomics ....	47
UNewBrunswick StJohn PopulationEcol .....	41		
UNorthDakota BisonGeneticsEvolution .....	42		

## BielefeldU GalapagosSeaLions

Graduate position, Bielefeld University, Galapagos sea lions

A PhD position to study animal personalities and the ensuing consequences at the individual and population level in Galapagos sea lions (*Zalophus wollebaeki*) is available in the Department of Animal Behaviour at Bielefeld University from July 1st 2017 or soon thereafter. The position is available for three years and is funded by Departmental funds with an initial six-month tax-free stipend of 1000, followed by 30 months of an E13/50% position with a gross salary of ca. 1300 per month.

We seek a bright and highly motivated student who has a proven record of field experience studying wild animals. A very good Master degree or equivalent in a relevant topic (e.g. animal behaviour, behavioural ecology, population ecology, evolutionary ecology) is expected. The ideal candidate will be able to work both independently and as part of a multidisciplinary team, will have experience with both statistics and genetic techniques and, in addition to excellent spoken and written English, will be able to speak Spanish.

The study will take place on Caamaño, a small islet in the Galapagos archipelago. We have studied Galapagos sea lions there since 2003 and most sea lions are individually marked ([www.uni-bielefeld.de/biologie/-animalbehaviour/trillmich/sealions.html](http://www.uni-bielefeld.de/biologie/-animalbehaviour/trillmich/sealions.html)). Field seasons on Caamaño last from September-December and February-March each year. Caamaño is a small island and there are no facilities at all, so an ability to work in truly primitive conditions is essential.

The successful candidate will be based at the Department of Animal Behaviour at Bielefeld University ([www.uni-bielefeld.de/biologie/animalbehaviour/-home.html](http://www.uni-bielefeld.de/biologie/animalbehaviour/-home.html)) and will be supervised by Oliver Krüger,

Fritz Trillmich and Joe Hoffman. The department is the oldest of its kind in Germany and currently hosts five principal investigators, five postdocs and fifteen PhD students. It offers a stimulating international environment and an excellent research infrastructure including a brand new molecular laboratory. The working language of the Department is English. Together with the Evolution and Animal Ecology research groups housed in the same building, there are some 50 scientists and PhD students from over ten different countries working on related topics in behaviour, ecology and evolution.

Bielefeld is a city of 325,000 inhabitants with all expected amenities and easy access to the Teutoburger Wald for hiking and other outdoor pursuits. It offers a high standard of living and is well connected to most major European cities.

To apply for the position, please provide: (i) a letter of motivation including a 1-2- page statement of your research experience; (ii) a CV including publication list; (iii) names and contact details of three referees willing to write confidential letters of recommendation. All materials should be emailed as a single PDF file to: [oliver.krueger@uni-bielefeld.de](mailto:oliver.krueger@uni-bielefeld.de).

The application deadline is March 5th 2017 and interviews will take place shortly thereafter. The preferred start date is July 1st 2017 but is flexible and will depend on the timeframe of the most qualified applicant. For further information, please see <http://www.uni-bielefeld.de/biologie/animalbehaviour/home.html> or contact Stephanie Kalberer via email ([stephanie.kalberer@uni-bielefeld.de](mailto:stephanie.kalberer@uni-bielefeld.de)) with any informal inquiries.

The University of Bielefeld is an equal opportunity employer. We particularly welcome applications from women and handicapped people. Given equal suitability, qualifications and professional achievement, women and handicapped people will be given preference, unless particular circumstances appl

[stephanie.kalberer@uni-bielefeld.de](mailto:stephanie.kalberer@uni-bielefeld.de)

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## CharlesU Prague EvolutionGenomicsFishes

We are seeking two highly motivated Ph.D. students to join a project on molecular evolution of sensory genes in fishes. The selected Ph.D. candidate will be focused on the following topics within the framework of the main project: “Genomics of sensory adaptations: evolution of vision, smell and taste in fishes” funded by SNSF (Switzerland):

1) PhD position I: Molecular evolution of vision and olfaction in teleost fishes (model groups: Mormyridae, Cyprinidae, deep-sea fishes; methods: genomics, transcriptomics, stable isotope analysis; offered field work participation: Cameroon, Czech Republic)

2) PhD position II: Transcriptomics and developmental plasticity of sensory systems in fishes (model groups: Cichlidae, Cyprinidae, deep-sea fishes; methods: genomics, transcriptomics, experimental biology; offered field work participation: Cameroon, Zambia, Czech Republic)

Genomic and transcriptomic methods will be employed to identify molecular evolution and mechanisms of adaptation in fishes. Sensory systems, such as vision, smell and taste, serve animals to directly receive information from their environment. Photoreceptors (for vision) and chemoreceptors (for smell and taste) are proteins present in various copies in the genome and in some cases became highly adaptive molecules during fish evolution. Project is focused on four model groups of teleost fishes (elephant fishes, tropical African cichlids, cyprinids and various deep-sea fishes) with different ecology, life-history and belonging to different evolutionary lineages spanning the teleost phylogeny. The performance and molecular background of the sensory systems is further known to change during ontogeny. The research project aims to integrate the findings of molecular genetics with trophic ecology and developmental stages in different species and, therefore, it offers a great combination of field observation, experimental setups and laboratory approaches.

The research group is located in Prague (Czech Rep.) and the selected Ph.D. students will process collected material, as well as will have an option to actively participate in the field sampling. The project is funded by the Swiss National Science Foundation. Selected candidates are expected to actively participate in international conferences and produce research publications.

Start: October 2017, Duration: 4 years

Competitive salary is composed of the fulltime project position (240'000 CZK annually) + standard university scholarship (will start at 75'600 annually and raise up to 115'000 CZK according to the progress of the study duties; additional bonuses available for published research papers), which in total corresponds to the average national salary and sufficiently covers living expenses in the Czech Republic.

Required: motivation and enthusiasm for biology, nature and science; fluency in English; a M.Sc. degree in biology or related fields (or to be finished until September 2017).

Desirable (but not necessary): previous experience with laboratory work, especially molecular genetic methods; (basic) bioinformatics skills (please highlight if you have any), experience with research projects evidenced by a (co)authorship of research papers or conference contributions.

Deadline: review of applications will begin on 15th March 2017 (the candidate has to be assigned to the position by mid-April).

All questions and applications (CV + half-page motivation letter + 2 reference letters) should be sent directly to Zuzana Musilova ( zuzmus@gmail.com - preferred, zuzana.musilova@natur.cuni.cz). Please indicate which position you're interested in. More info about the Division of Animal Evolutionary Biology, and Department of Zoology: <http://web.natur.cuni.cz/zoologie/biodiversity/index.php?page=3Dmusilova> zuzmus@gmail.com

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## CharlesU Prague EvolutionPloidy

\*PhD Position in Evolution of Ploidy Coexistence in Wild Arabidopsis\*

\*Department of Botany, Faculty of Science, Charles University in Prague, Czech Republic\*

We are seeking a highly motivated student to join a project focused on ecological and evolutionary consequences of genome duplication (polyploidization) in plants. Although polyploidization is a leading force in plant evolution including crops, we know little about evolutionary drivers promoting coexistence of different ploidy levels within a single species. By combining crossing experiments, field surveys and population genetic

analyses of genome-wide SNP data we aim to identify the major forces promoting or preventing gene flow and coexistence of diploid and tetraploid individuals of the plant model species \**Arabidopsis arenosa*\*.

The successful applicant will be supervised by Dr. Filip Kolář as a part of the multidisciplinary team of ecological genomics at the Faculty of Science, Charles University in Prague with close collaboration with the University of Innsbruck, Austria and the John Innes Centre, Norwich, UK.

The main focus of the work will be

§crossing experiment between individuals of different ploidy

§screening of ploidy level across different life history stages using flow cytometry

§fieldwork in the Carpathian Mts.

§analysis of high-throughput sequencing data (RADseq, genome resequencing)

We offer

§work in an inspiring student-dominated environment of the new team of ecological genomics

§competitive salary (monthly ~ 20,000 CZK) topping-up the standard university scholarship (monthly from 6,000 CZK raised to 9,000 CZK together with the progress of the study duties), which in total equals the average national salary

§additional experience through international collaboration with partners in Austria and the UK

§work in the historical centre of the UNESCO heritage site of Prague city

We require

§strong motivation for interdisciplinary research at the border of ecology, biosystematics and population genetics

§a MSc degree in Biology or related fields (in summer 2017 at the latest)

Desirable but not required

§experience with design and data analysis of ecological experiments

§good background in population genetics and/or experience with fieldwork

Please send your CV, contacts of two referees and a short motivation letter to the project leader, Filip Kolář (filip.kolar@gmail.com). Review of the applications will begin on\* March 15th 2017\* and will continue until the position has been filled. The position is available from

\*summer 2017\*.

– Filip Kolář Department of Botany Faculty of Science, Charles University Benatska 2, Prague CZ - 128 01

Institute of Botany, Academy of Sciences Zamek 1, Pruhonice CZ - 252 43 Czech Republic

Filip Kolar <filip.kolar@gmail.com>

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## ClemsonU GenomicsAnalysis

Clemson University is proud to invite applications for PhD fellowships in “Computationally Intensive Genomics Analysis and Application in Agriculture” For more information, please visit the following website:

[www.clemsonnationalneedsfellows.org](http://www.clemsonnationalneedsfellows.org) Cheers, Amy

Amy Lawton-Rauh, PhD Associate Professor, Department of Genetics and Biochemistry; Faculty Senate Vice President/President-Elect Clemson University 316 Biosystems Research Complex, 105 Collings Drive, Clemson SC 29634-0318 Office +1.864.656.1507 | Skype amy.lawton.rauh | amyrl@clemson.edu | popquantgenomics.org | twitter.com/alawtonrauh < [http://twitter.com/CUSoA\\_Clemson](http://twitter.com/CUSoA_Clemson) > | clemson.edu/genbiochem | rosbreed.org/about | clemson.edu/glimpse/?pR60 < <http://clemson.academia.edu/PeterLaurence> >

Amy Lawton-Rauh <amyrl@clemson.edu>

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## FUBerlin-BGBM Biodiversity

2 PhD positions (TV-L FU, E 13, 50 %) in Biology (Botany, Vegetation science) available at Botanischer Garten Botanisches Museum (BGBM, Freie Universität Berlin) within the framework of the Colombian-German research project “Integrated Biodiversity Management in exemplar regions of Colombia (ColBioDiv)” funded by the Federal Ministry of Education and Research (BMBF).

General Information: ColBioDiv is a Colombian-German collaborative research project of 39 months’ duration (01.01.2017-31.03.2020), which incorporates various Colombian and German research institutions

and subject areas (biology, geography, political science). The principal objective of ColBioDiv is to provide the scientific basis for biodiversity management as an integral part of a sustainable development in two model regions of Colombia: (1) The Andean region around the capital Bogotá (Distrito Capital) and (2) the Caribbean region around the business metropolis Barranquilla. Both regions urbanize strongly with high population influx and thus have an increasing impact on the surrounding ecosystems, i.e., the Andean mountain rainforests (Bosque Altoandino) and Páramos and tropical dry forests (Bosque Seco Tropical) of the Caribbean, respectively. Both regions harbor a remarkable biodiversity and also provide a variety of ecosystem services, which underlines their central importance in regards to water supply and the conservation of biodiversity.

PhD 1 (position code ColBioDiv-WP1): Evolution and genetic diversity of selected flowering plant lineages in the Colombian Caribbean, Lead Supervisor: Thomas Borsch. Tasks of the employee: Botanical fieldwork in tropical dry-lands in the Colombian Caribbean; Assistance in establishment and inventory of plots, herbarium studies; Preparation and analysis of molecular and morphological data sets for phylogeny reconstruction of selected flowering plant groups as well as taxonomic research (Clarification of art concepts, compilation of descriptions, etc.); Compilation of species occurrence data and bio-geographical analyses; Assessment of the genetic diversity of selected flowering plant species. Prerequisites for employment: University degree in biology or a related subject area (Master or Diploma) Further requirements: Very good communication and team skills; Experience abroad; Work experience in the DNA lab and pertinent knowledge in phylogeny; Relevant background knowledge in botanical systematics; Very good English and Spanish language skills; Secure handling of MS Office (Word, Excel, PowerPoint).

PhD 2 (position code ColBioDiv-WP2): Analysis of vegetation structure and biomass production in forests of the Higher Andes (Bosques Altoandinos) and of the spatial distribution of the different entities, Lead Supervisor: Thomas Borsch. Tasks of the employee: Botanical fieldwork and vegetation ecology studies in high-Andean ecosystems in the surroundings of Bogotá; Assistance in establishment of plots and inventory of vascular plants; Analysis of vegetation structure and definition of succession and degradation stages, respectively; Compilation and analysis of relevant environmental data; Biomass determination (field-/laboratory-based or by using remote sensing data). Prerequisites for employment: University degree in biology or a related subject area (Master or Diploma) Further requirements: Very good communication and team skills; Experience abroad; Very good

knowledge in statistics and experience in working with SPSS and R or similar software applications, respectively; Relevant knowledge in geo-botany, vegetation ecology and/or plant geography; Experience in dealing with remote sensing data and GIS software; Work experience in the soil laboratory; Very good English and Spanish language skills; Secure handling of MS Office (Word, Excel, PowerPoint).

Both positions are to be filled starting at 1st of April 2017

Deadline for application (both positions): 20. February 2017

Please send your application accompanied by the corresponding position code and the relevant documentation (file type pdf only) to the BGBM's general administration office, either by e-mail (av-p@bgbm.org) or by regular mail to Freie Universität Berlin, Zentraleinrichtung Botanischer Garten und Botanisches Museum, Allgemeine Verwaltung, Königin-Luise-Str. 6-8, 14195 Berlin (Dahlem).

By submitting an online application, you agree that your data will be processed and stored electronically. We would like to point out that in case of unprotected electronic transmission of your application the Freie Universität Berlin is unable to guarantee for the security of your personal data.

“Brokamp, Grischa” <G.Brokamp@bgbm.org>

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## IllinoisTech Insect Evol PopGenet

A PhD. studentship is available with the Miller lab, Department of Biology, Illinois Institute of Technology.

Research in the lab focuses on the population genetics and evolution of insects, mainly pest species. Current areas of interest include adaptations to transgenic crops, inferring migration routes, host associated population structure and the evolution of specialist versus generalist feeding.

Ideally, candidates will already have a Masters in a relevant field. Support through Teaching Assistantships and Research Assistanships is available. Start date is somewhat flexible, but summer 2017 is preferred. If you are interested please contact Nick Miller by email: nmiller11@iit.edu .

Illinois Tech is a private non-profit private university with a strong emphasis on graduate education. The

campus is located close to downtown Chicago.

– Nick Miller Assistant Professor Department of Biology  
Illinois Institute of Technology 298 Life Science Building  
3101 S. Dearborn St Chicago IL 60616

312-567-3288

“nmiller11@iit.edu” <nmiller11@iit.edu>

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## LaTrobeU GeneticRescuePlant

A PhD position is available on the project “Genetic decline and rescue in an endangered plant” in Dr John Morgan’s lab at La Trobe University, in collaboration with Dr Steve Sinclair (Arthur Rylah Institute), Prof Andrew Young (CSIRO) and Dr Paul Sunnucks (Monash University).

The project: *Rutidosia leptorrhynchoidea* (a daisy) has helped reveal the importance of genetic self-incompatibility and ploidy variation in plants. Despite this, wild *Rutidosia* is in serious decline. Genetic rescue is a powerful yet under-utilized approach to bolstering the fitness and evolutionary potential of populations of conservation concern. The PhD candidate will investigate the genetic decline and rescue of *Rutidosia*, using wild plants and experimental plants with controlled genetic heritage. Replicated experimental populations in the wild and the glasshouse will be used to examine the consequences of different genetic rescue strategies on ecological fitness and genomic structure.

Questions are rich and varied, including: - How does the *Rutidosia* genome vary geographically? - How do we design optimal genetic rescue strategies, using the existing populations? - How does ploidy level (2n, 4n) affect the mechanisms of genetic rescue? - Does self-incompatibility mask underlying genetic erosion? - What are the long-term consequences of evolved escape from genetic self-incompatibility?

Impact in theory and practice: - New ‘re-wilded’ populations of an endangered species - Better understanding of conservation genetics in plants with complex genetic structure

The collaborative team: The project is part of a larger ARC Linkage Project on multiple plant and animal species “Genetic rescue of Australian Wildlife” led by Prof Paul Sunnucks at Monash University, and involves partners including the University of Canberra, Zoos Victoria, CSIRO, Diversity Arrays Technology, and several state Governments.

Eligibility & application: The candidate will have a Masters or 1st class Honours degree in a relevant field, enthusiasm for conservation biology, and a good work ethic. The successful candidate must secure an LTU PhD stipend scholarship.

Generous funding is available to cover the costs of the field data collection, glasshouse work and genomic screening. \$2,500 per annum is available to support travel to conferences. The successful candidate will commence the project as soon as possible.

To apply, please email John Morgan J.Morgan@latrobe.edu.au a letter of motivation, CV, overview of your academic results and contact information for two academic references. For informal inquiries phone John at +61 (0) 3 9479 2226 or Steve Sinclair at +61 (0) 427 458618.

La Trobe University is located in Melbourne, Australia, which offers inclusive and multicultural environment with opportunities to enjoy music, great sporting events, world-class exhibitions and shows, cultural and culinary festivals, as well as beautiful natural scenery and wildlife. Melbourne commonly ranks in the top five of the most liveable cities on many criteria .

“alexandra.pavlova@monash.edu”  
<alexandra.pavlova@monash.edu>

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## LiverpoolU MolecularEvolution

Graduate position.Liverpool.MolecularEvolution

Liverpool John Moores University PhD Scholarship Application 2017

Molecular, physiological and ecological basis of the most successful plant adaptive radiation in the Succulent Karoo, South Africa

Lying within south-western corner of Africa, the Succulent Karoo biome is recognised as one of the World’s most important regions of plant diversity. Here members of the Aizoaceae are especially well adapted to the arid desert environment. This is most evident in the speciose dwarf succulent genus *Conophytum*, a Succulent Karoo specialist that shows a remarkable degree of range-restricted endemism. The Succulent Karoo has also been identified as being at high risk from the effects of climate change, with preliminary data suggesting that dwarf succulents may be especially vulnerable. However, neither the underlying mechanisms that in-

fluence the distribution and associated speciation of these succulents nor how they might respond to specific environmental conditions is understood.

The aim of this project is to better understand the key drivers of the current distribution and evolutionary divergence of the *Conophytum* genus. In doing so we will be better able to project the potential responses of the *Conophytum* to global environmental change, towards the development of conservation measures that reduce the extinction risk of these vulnerable taxa. The project will achieve these aims by taking a multidisciplinary approach, combining plant biology with spatial modelling, and molecular phylogenetics.

The project would focus on the following questions: What are the drivers and ecophysiological adaptations behind a rapid speciation rate shown by *Conophytum* in South Africa? Can we predict how climate changes will affect future species diversity? Why so many species are highly restricted in their distribution, and how they will be affected by a climate change? What genes are responsible for adaptation and diversification?

Scholarship must commence at the start of the Autumn Term 2017, and so all prospective candidates must have the necessary qualifications to commence their studies at that date. The Scholarships are for 3 years and must be for full-time study. Stipend will be at the standard UK rates, which are yet to be confirmed for the 2017-18 academic year.

Application deadline is Friday 10th March 2017 and result will be known in May.

Candidates must hold an Upper Second Class (2.1) or 1st Class Honours Degree and/or an appropriate Master's degree or overseas equivalent.

In their application consisting of cover letter and CV, candidates are asked to include and highlight their skills, experience and/or knowledge relevant to this project; in particular in Plant Ecology/Evolution, Species Distribution Modelling/Ecological Statistics, Geographic Information Systems, Phylogenetics/Molecular Ecology.

For informal enquiries contact Dr Maxim Kapralov: [m.v.kapralov@ljmu.ac.uk](mailto:m.v.kapralov@ljmu.ac.uk)

Dr Maxim Kapralov

Lecturer || School of Natural Sciences and Psychology || Liverpool John Moores University || Room 1.12 || Life Sciences Building || Byrom Street || Liverpool || L3 3AF || United Kingdom || +44 0151 231 2273 || email: [m.v.kapralov@ljmu.ac.uk](mailto:m.v.kapralov@ljmu.ac.uk) || <http://scholar.google.co.uk/citations?user=qTUIBcYAAAAJ&hl=en&oi=ao> "Kapralov, Maxim" <M.V.Kapralov@ljmu.ac.uk>

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## MississippiStateU CaribbeanIguanas

The Welch Lab at Mississippi State University is looking for graduate students to study evolutionary and conservation genetics in Caribbean iguanas. I am interested in recruiting both MS and PhD students that would like to pursue a degree in Biological Sciences. Students will be able to choose between applied conservation genetics research projects as well as more basic research projects focused on the evolutionary dynamics of natural populations. Island populations of iguanas are particularly useful for these types of studies because gene flow between islands is typically low, and population sizes vary providing natural replicates for study. This research is facilitated by extensive collaboration with leading conservation biologists in the field. Participants in the Welch lab will primarily be asked to conduct molecular genetic analyses. However, fieldwork is highly encouraged, and students in the Welch Lab have even directed extensive field their own studies. Six graduate students working on iguanas have already conducted extensive work in the Turks and Caicos, the Bahamas, the Dominican Republic and the Cayman Islands. Collaborations have further involved Jamaica, and most of the Lesser Antilles. Work on Cuban iguanas is also currently being considered. Funding for students will initially be provided by means of teaching assistantships with the potential for research assistantships dependent on the availability of external funding. Graduate student support is a real strength of graduate programs at MSU due to the availability of Teaching Assistantships. We are looking for students to start in August of 2017. There are funds available on a competitive basis to support student visits to MSU, and to provide \$2,500 first-year stipend enhancements. Please contact Mark Welch at [mw497ATmsstateDOTedu](mailto:mw497ATmsstateDOTedu) if you are interested. A CV would also be appreciated. For more information about the Welch Lab, please visit [markwelch.net](http://markwelch.net).

Mark E. Welch, Ph.D. Associate Professor Graduate Coordinator Dept. of Biological Sciences Mississippi State University P.O. Box GY Mississippi State, MS 39762

E-mail: [mw497@msstate.edu](mailto:mw497@msstate.edu) Webpage: <http://-markwelch.net> Phone: 662.325.7564 Fax: 662.325.7939

"Welch, Mark" <[welch@biology.msstate.edu](mailto:welch@biology.msstate.edu)>

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## MonashOtago EvolutionaryTheory

### Graduate Student Position in Evolutionary Theory

Sponsors: Tim Connallon (Monash University) and Hamish Spencer (University of Otago)

General context of the Research: There is abundant genetic variation for fitness in animal and plant populations, and it is thought that natural selection might play a key role in maintaining it. Nevertheless, major technical challenges currently limit our collective ability to directly test hypotheses about the role of selection in maintaining genetic variation. For most populations in the wild, it is empirically intractable to measure the fitness of individuals, and to directly test for associations between individual genotypes and fitness. An alternative approach, which we advocate, is to develop biologically grounded theoretical models that can bridge the gap between the types of data that we are able to collect, and the evolutionary processes that we ultimately wish to understand.

The PhD project: We are looking for an enthusiastic student that is interested in developing new evolutionary theory for the maintenance of genetic variation. The aim of the research will be to evaluate the potential impact of sex differences in natural selection, genetic dominance, and sex-linked inheritance, on patterns of genetic polymorphism and genome sequence evolution. The position offers a superb opportunity for the student to contribute to theoretical conceptualization, model development and analysis, as well as the empirical evaluation of theory using publicly available genomic datasets. Specific projects will be designed in consultation with the student, and developed around her/his strengths and interests. We particularly encourage applicants with strong skills in quantitative methods and computer programming. Prior experience in mathematical modeling is a plus, but is not required. The most important attributes are a positive attitude about learning new skills, a strong work ethic, and enthusiasm for addressing big questions in evolutionary biology.

Application Process: We will support selected applicants to apply for scholarships from Monash University and the University of Otago. Applicants must have a Masters, 1st class Honours degree, or equivalent, within a relevant field.

A Monash PhD stipend scholarship (and fee-waiver in

the case of international students) is approximately AU\$26,000, tax-free for 3.5 years, for full time research. Expenses for research, coursework, and conference attendance will be fully covered. Information about the PhD program in the School of Biological Sciences at Monash can be found at: <http://www.monash.edu/science/schools/biological-sciences/postgrad>. Monash University is in the top 1% of universities, worldwide. It is located in Melbourne, Australia, which offers an inclusive and multicultural environment with opportunities to enjoy music, sporting events, world-class exhibitions and shows, cultural and culinary festivals, and natural beauty and wildlife. Melbourne commonly ranks within the top five most liveable cities in the world.

A University of Otago Doctoral Scholarship provides NZ\$25,000 tax-free stipend per annum plus a tuition fees waiver (excluding student services fee and insurance), for 36 months for full time research for both domestic and international students. Expenses for research, coursework, and conference attendance will be fully covered. Further information on the Otago PhD programme can be found at: <http://www.otago.ac.nz/graduate-research/study/-phddoctoral/programme/index.html>. The University of Otago received a Five Stars Plus QS Stars University rating in 2016. It is located in Dunedin, in the South Island of New Zealand, often considered the wildlife capital of New Zealand and just four hours' drive from several ski fields.

Statements of interest should include a CV, a cover letter that describes your interest and fit for the position, and contact information for 2 professional references. Review of applications will begin in March 15 and will remain open until the position has been filled.

Informal inquiries are welcome at any time. Email: Tim Connallon ( [tim.connallon@monash.edu](mailto:tim.connallon@monash.edu)) and Hamish Spencer ( [hamish.spencer@otago.ac.nz](mailto:hamish.spencer@otago.ac.nz)).

[tim.connallon@monash.edu](mailto:tim.connallon@monash.edu)

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## MonashU PersistenceAdaptation

Three PhD positions at Monash University.

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We are looking for an outstanding student to fill a PhD position available in Paul Sunnucks's Persistence and Adaptation Research Team at Monash University on the project "Climate adaptation and speciation by mitochondrial interactions".



The project focusses on various aspects of biology, physiology and genomics of the eastern yellow robin, a common and widespread passerine bird native to eastern Australia. Eastern yellow robin has two divergent mitochondrial DNA lineages despite gene flow at the majority of nuclear genome. The project aims to reveal whether co-evolution between the mitochondrial genome and partner genes in its nuclear genome is causing the species to split eastern yellow robins into two forms adapted to inland and coastal thermal environments. More details about the project can be found on the lab website: <https://sites.google.com/site/sunnucksresearchgroup/home> .

Applicants for consideration for the PhD position will have a Masters or 1 st class Honours degree in a relevant field. They must be able to work well in a team, have enthusiasm for conservation biology and publishing strong science, a good work ethic, relevant research experience, high academic achievement and excellent English.

The position offers the opportunity to design the project around the student's strongest skill set and interests, be that field biology, genomics and/or modeling, and to expand their expertise in other areas. Applicants chosen to go forward in the process to fill the PhD position must then secure Monash PhD scholarship support, for which there are several options open.

A Monash PhD stipend scholarship (and fee-waiver in the case of international students) is approximately AU\$26,000 AUD, tax-free for 3.5 years, for full time research. Expenses for research, coursework, and conference attendance are covered, although students are encouraged to apply for some funding to build track-record and experience.

More information on the postgraduate experience in the School of Biological Sciences at Monash University, Melbourne can be found at: <http://www.monash.edu/science/schools/biological-sciences/postgrad> . To apply, please email Paul Sunnucks (paul.sunnucks@monash.edu) a letter of motivation, CV, overview of your academic results and translation if required (preferably indicating cohort rank or percentiles), English test results if available and contact information for three academic references. Successful candidates can commence the project as soon as possible. For informal inquires phone Paul at +61 (0) 3 99059593.

Monash University is in the top 1% of world universities. It is located in Melbourne, Australia, which offers inclusive and multicultural environment with opportunities to enjoy music, great sporting events, world-class exhibitions and shows, cultural and culinary festivals, as well as beautiful natural scenery and wildlife. Melbourne

is commonly ranks in the top five of the most liveable cities on many rankings.

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A PhD position is available in Paul Sunnucks's Persistence and Adaptation Research Team at Monash University on the project "Genetic Rescue of Australian wildlife".

Genetic rescue is a powerful yet under-utilized approach to bolstering the fitness and evolutionary potential of populations of conservation concern.

Under the umbrella of an ARC Linkage project for 2017-20, three universities (Monash, La Trobe and Canberra) have teamed up with nationwide partners with a wide range of skills and responsibilities for wildlife, including Victorian Department of Environment, Land, Water and Planning (DELWP), Diversity Arrays Technology, Zoos Victoria, Environment and Planning Directorate (ACT Government), Department of Parks and Wildlife (WA) and CSIRO.

The PhD candidates will work in a multidisciplinary team investigating the genetic rescue of the Helmeted Honeyeater, a critically endangered Australian bird. The projects will involve field and laboratory work, wildlife biology, genomic analysis and conservation planning. The candidates will conduct excellent science publishable in top journals while engaging with hands-on conservation actions with leading institutions. There will be opportunity to develop independent questions within the major goals of the program - to conduct and monitor experimental genetic rescue and develop protocols for it within a framework of long-term species management. The project is expected to yield improved potential of threatened populations to persist and adapt to changing environments , and will provide novel insights into how genetic rescue works in populations and the genomes of individuals.

Applicants for consideration for the PhD position will have a Masters or 1 st class Honours degree in a relevant field. They must be able to work

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## Munich Weevil Systematics

Under the Directorate General of the “Staatliche Naturwissenschaftliche Sammlungen Bayerns (SNSB)” we invite applications for a PhD-position at “Zoologische Staatssammlung München” (SNSB-ZSM) (Zoological State Collection Munich)

([www.zsm.mwn.de](http://www.zsm.mwn.de)) beginning 1. April 2017 (can be negotiated) Subject: Biogeography and Evolution in the Melanesian Archipelago - within the DFG-funded project “An integrative approach to systematics and evolution of Trigonopterus, a hyperdiverse genus of flightless weevils from Southeast Asia and the West Pacific (Coleoptera: Curculionidae)”. - This is a collaborative project between the Balke lab at SNSB-ZSM and Alexander Riedel (SMNK, Karlsruhe). Our model system is a genus of Melanesian weevils for which we have a large data foundation already, which we will build on, as well as expand further.

Responsibilities include, among others: - independent work in the DNA lab (i.e. processing of samples, DNA extraction, Sanger-sequencing, sample storage). - independent processing of sequence data - comparative analyses, together with other team members - collaborative work on joint manuscripts - if possible, participation in field-work

Employment qualifications: - Diploma in biology or MSc degree in a relevant subject, e.g. evolutionary biology, entomology, ecology etc. - excellent command of English - profound knowledge of molecular systematics - ability to collaborate within and outside our research group - high motivation and ability to work under pressure - willingness to travel, e.g. for periodical stays at the Riedel lab in Karlsruhe, or abroad for field work

The following qualifications would be desirable: - valid driver's license - knowledge of Linux computer systems - basic command of R - basic knowledge of NGS sequencing and bioinformatics

What we are offering: - Salary is according to paygrade TV-L E13 (65%) in the German Public Service scheme granted the presence of employment qualifications. - opportunity to obtain a PhD. - The ZSM is one of the largest natural history research museums in Germany. The combination of classical museum work and various cutting-edge approaches at ZSM attracts researchers

and students of all levels, resulting in a vibrant atmosphere.

More information: <http://zsm-entomology.de/wiki/-Coleoptera> <http://www.smnk.de/sammlungen/-entomologie/kaefer/> This position is limited to a three-year period.

The ZSM advocates gender equality. Women are therefore encouraged to apply. Disabled people with largely equal qualifications will be favored.

Please send your (preferably electronic) application with the relevant documents (motivation letter, CV, two reference letters, copies of certificates, up to five relevant reprints) to Zoologische Staatssammlung, Dr. Michael Balke, Munchhausenstr. 21, 81247 München Or by Email: [Coleoptera-ZSM@zsm.mwn.de](mailto:Coleoptera-ZSM@zsm.mwn.de).

Application deadline: 15. March 2017. Only applications arriving until this date will be considered.

Notice: Application documents can only be returned if desired and expressly requested. Otherwise, all documents will be destroyed with the conclusion of the selection procedure.

Unfortunately, costs arising from the application process cannot be reimbursed.

Michael Balke ZSM Coleoptera <[Coleoptera-ZSM@zsm.mwn.de](mailto:Coleoptera-ZSM@zsm.mwn.de)>

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## NASA Glenn Cleveland Biomimicry Insect Flight

Ph.D. Fellowship in Biomimicry working with NASA's Glenn Research Center and the Cleveland Museum of Natural History on insect flight and application to aerospace design.

NASA's Glenn Research Center is proud to sponsor a Bio-inspired Research and Development (BIRD) Fellow for a PhD-seeking graduate student through a Biomimicry Fellowship in the University of Akron's Integrated Bioscience PhD Program in collaboration with the Cleveland Museum of Natural History, and Great Lakes Biomimicry (GLBio). The fellowship period begins in 2017 (applications will be reviewed until the position is filled) and is renewable annually based on performance assessments based on mutually agreed upon standards. The field of biomimicry offers application opportunities in a variety of disciplines including paleontology, entomology, anthropology, chemistry, chemical,

mechanical and aerospace engineering, polymer science, and biology.

We are looking for a highly motivated student who is interested in the field of biomimicry and its application to solve real world problems in the aerospace industry. The position will be sponsored by NASA's Glenn Research (GRC) in Cleveland, Ohio, and the successful applicant will interact with collaborating scientists and engineers at NASA and the Cleveland Museum of Natural History (CMNH). The degree program is through The University of Akron.

The focus area of interest to NASA involves the intersection between entomology and aerospace. The student will work with the Department of Invertebrate Zoology at the Cleveland Museum of Natural History to help understand the applications of extinct and extant insect species to aerospace. Specifically, the fellow will work to survey wing morphology and flight mechanics to populate a predictive database for modeling and aerospace design. The experience will include work with data mining and data analytics in addition to working with wind tunnels and developing proposals for long term aerospace concepts. This is a great opportunity for a student to gain industrial experience and make a difference while completing a graduate degree. If you are interested in learning lessons from nature and having an opportunity to apply those lessons to solve real world problems, please apply to this program. For more information about NASA GRC, please check our website at [www.nasa.gov/centers/glenn/home/index.html](http://www.nasa.gov/centers/glenn/home/index.html). About NASA's Glenn Research Center: NASA's Glenn Research Center in Cleveland, Ohio, researches, designs, develops and tests innovative technology for aeronautics and spaceflight. We design game-changing technology for spaceflight that enables further exploration of the universe. We create cutting-edge aeronautical technology that revolutionizes air travel. NASA's Glenn Research Center is one of four NASA research centers. Glenn is an essential component of NASA and an integral contributor to the region. Glenn: - Has a decades-long tradition of excellence in aeronautics and spaceflight - Makes key contributions in supporting NASA missions - Is a vital element of the economy of the region - Partners with local and national businesses - Collaborates with colleges and universities - Makes significant contributions to the research, design, development and testing of technology - Shares the NASA message at schools, fairs and events around a six-state region: -Ohio, Indiana, Michigan, Illinois, Wisconsin, Minnesota - Promotes science, technology, engineering and mathematics (STEM) education NASA Glenn's core competencies are 1.

Air-Breathing Propulsion 2. Communications Technology and Development 3. In-Space Propulsion and Cryo-

genic Fluids Management 4. Power, Energy Storage and Conversion 5. Materials and Structures for Extreme Environments 6. Physical Sciences and Biomedical Technologies in Space About the Cleveland Museum of Natural History: The Cleveland Museum of Natural History, incorporated in 1920, is one of the finest institutions of its kind in North America. It is noted for its collections, research, educational programs and exhibits. The collections encompass more than 5 million artifacts and specimens, and research of global significance focuses on 10 natural science disciplines. The Museum conserves biological diversity through the protection of more than 7,300 acres of natural areas. It promotes health education with local programs and distance learning that extends across the globe. Its GreenCityBlueLake Institute is a center of thought and practice for the design of green and sustainable cities.

Its website is: <http://www.cmnh.org>. To apply: <http://uabiomimicry.org/fellowships/> For questions, please contact: Peter H. Niewiarowski, Director of Biomimicry Fellowships, U of Akron or Gavin J Svenson, Ph.D.

Assistant Director of Science Curator and Head of Invertebrate Zoology

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This message has been arbitrarily truncated at 5000 characters. To read the entire message look it up at <http://life.biology.mcmaster.ca/~brian/evoldir.html>

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## Naturalis Netherlands PteropodEvolution

\*Two PhD positions are available to study pteropods (planktonic gastropods) and the impact of ocean acidification at Naturalis Biodiversity Center (Netherlands)\*

<http://www.naturalis.nl/nl/over-ons/organisatie/-werken-bij-ons/phd-student-pteropods-ocean-acidification/>

The closing date for applications is March 16, 2017.

The focus of Naturalis is biodiversity. Naturalis curates a collection of 37 million specimens; this is one of the world's largest natural history collections. We present the history of our planet and the diversity of life on Earth with permanent and temporary exhibitions, educational programmes and websites. Our research and education are maintained at a high academic level.

Two PhD positions are available within the Vidi project of Dr. Katja Peijnenburg to study planktonic gastropods in the Marine Biodiversity group at the Naturalis Biodiversity Center (Leiden, the Netherlands). PhD project 1 will focus on assessing the adaptive potential of pteropods using a population genomics approach. PhD project 2 will focus on quantifying calcification and vulnerability to ocean acidification of shelled pteropods using 3D morphometric techniques and field experiments.

Successful candidates should have a Master's degree with an interest in ecology, evolution, oceanography, marine biology, or a related field. Excellent command of the English language (written and verbal) is required. The ideal candidates will be highly motivated and organised, with a demonstrated capacity for multidisciplinary research. For PhD project 1, experience with next generation sequencing and data analyses is a distinct advantage. For PhD project 2, knowledge of morphometric methods and advanced statistics is a distinct advantage.

We offer a full-time contract for a period of one year, to be extended with three years after a successful first year evaluation, and a salary of circa euro 2.670,- gross per month. The successful candidates will be employed by Naturalis in Leiden, and the PhD theses will be defended at the University of Amsterdam. Naturalis Biodiversity Center promotes gender equality and wants to enhance the diversity of staff members.

Information on how to apply: <http://www.naturalis.nl/over-ons/organisatie/werken-bij-ons/phd-student-pteropods-ocean-acidification/>

Feel free to contact Katja Peijnenburg if you have questions about the positions. [Katja.Peijnenburg@naturalis.nl](mailto:Katja.Peijnenburg@naturalis.nl) <https://science.naturalis.nl/en/people/scientists/katja-peijnenburg/> [https://www.researchgate.net/job/884998\\_PhD\\_position\\_to\\_study\\_pteropods\\_and\\_the\\_impact\\_of\\_ocean\\_acidification](https://www.researchgate.net/job/884998_PhD_position_to_study_pteropods_and_the_impact_of_ocean_acidification)

"K.T.C.A.Peijnenburg@uva.nl"  
<K.T.C.A.Peijnenburg@uva.nl>

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## NorthDakotaStateU ConservationGenetics

CONSERVATION GENETICS PH.D. GRADUATE ASSISTANTSHIP

### NORTH DAKOTA STATE UNIVERSITY

Conservation Genetics Ph.D. Graduate Student Assistantship to conduct research on landscape genetics of northern leopard frogs. The project will analyze an existing dataset to evaluate gene flow among potentially isolated wetlands, as means of assessing biotic connectedness. Additional sampling and possible development of additional molecular markers will be pursued as warranted. This well-funded project is a collaboration between Craig Stockwell (NDSU) and David Mushet (USGS Northern Prairie Wildlife Research Center). Field work will take place in the upper Great Plains. This project will provide excellent networking opportunities with federal scientists from USGS and EPA.

Position to start as soon as Summer 2017.

Open until filled

Requirements: BS or MS in ecology, aquatic ecology, fisheries biology, conservation biology or related field; Experience analyzing population genetics data, quantitative skills, and ability to work independently and as part of a research team.

Preferred: M.S., experience with landscape-genetic landscape-resistance models, field research experience, experience using "R"

Salary: \$24,000/year + full tuition waiver

Contact: Craig Stockwell, Professor, Biological Sciences, 201 Stevens Hall, Box 6050, North Dakota State University, Fargo, ND 58108-6050; <http://www.ndsu.edu/stockwell.lab/> e-mail: [Craig.Stockwell@ndsu.edu](mailto:Craig.Stockwell@ndsu.edu)

Please send application materials to [Craig.Sockwell@ndsu.edu](mailto:Craig.Sockwell@ndsu.edu) and include the following: 1) cover letter, 2) curriculum vitae / resume, 3) all college-level transcripts and 4) names and contact information for three references.

### CONSERVATION GENETICS PH.D. GRADUATE ASSISTANTSHIP

### NORTH DAKOTA STATE UNIVERSITY

Conservation Genetics Ph.D. Graduate Student Assistantship to conduct research on landscape genetics of northern leopard frogs. The project will analyze an existing dataset to evaluate gene flow among isolated wetlands, as means of assessing biotic connectedness. Additional sampling and possible development of additional molecular markers will be pursued as warranted. This project is funded through an EPA grant and is a collaborative project between Craig Stockwell (NDSU) and David Mushet (USGS Northern Prairie Wildlife Research Center). Field work will take place in the

upper Great Plains.

Position to start as early as July 1, 2016

Requirements: BS or MS in ecology, aquatic ecology, fisheries biology, conservation biology or related field; Experience analyzing population genetics data, quantitative skills, and ability to work independently and as part of a research team.

Preferred: M.S., experience with amphibians, experience with landscape-genetic landscape-resistance models, field research experience.

Salary: \$22,000/year + full tuition waiver

Contact: Craig Stockwell, Professor, Biological Sciences, 201 Stevens Hall, Box 6050, North Dakota State University, Fargo, ND 58108-6050; [http://www.ndsu.edu/~stockwell\\_lab/](http://www.ndsu.edu/~stockwell_lab/) e-mail: Craig.Stockwell@ndsu.edu

Please send application materials to Craig.Stockwell@ndsu.edu and include the following: 1) cover letter, 2) curriculum vitae / resume, 3) all college-level transcripts and 4) names and contact information for three references.

Craig Stockwell Professor Department of Biological Sciences Stevens 201, NDSU Box 6050 North Dakota State University Fargo, ND 58108-6050 Phone 701-231-8449 [http://www.ndsu.edu/stockwell\\_lab/](http://www.ndsu.edu/stockwell_lab/) Craig Stockwell <craig.stockwell@ndsu.edu>

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## StockholmU EvolutionOfParasitoidHost

There is an open PhD-position in Ecology with a focus on host use in parasitoids, at Department of Ecology, Environment and Plant Sciences, Stockholm University. Please spread this information to prospective students.

### Description

The position will be associated with the project 'The ecology and evolution of indirect interactions in host-parasitoid systems', that is a multi-disciplinary project involving a research group with experience in Ecology, Behavioural Ecology, Insect Immunology and Population Genomics of host-parasitoid systems. The overall aim of the project is to understand the coevolution, and speciation process, of host-parasitoid systems in a geographic context, focusing both on evolution of resistance-virulence characters and on parasitoid host use. The studies are performed in a well-studied model system

involving a set of closely related leaf beetle species and their parasitoid. The specific aim of the PhD position is to explore the evolutionary mechanisms underlying geographic variation in host selection by parasitoids, the role of learning in parasitoids and the consequences of variation in host use on host-parasitoid population dynamics. The studies will involve collaborations with another PhD student working with the evolution of parasitoid virulence, and the main task includes behavioural experiments in the laboratory, but the work may also involve field experiments and population modelling.

Dead-line for applications: 3 March

For further information contact [peter.hamback@su.se](mailto:peter.hamback@su.se) or see <http://www.su.se/english/about/vacancies/-vacancies-new-list?rmpage=job&rmjob=2548&rmlang=UK>

[peter.hamback@su.se](mailto:peter.hamback@su.se)

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## StockholmU PlantInsectInteractions

Dear colleagues,

We are looking for a highly motivated PhD-student to join the long-term research on the interactions between plants, insects & microbes.

For more information see the project description (below) and the following link: <http://www.su.se/english/about/vacancies/vacancies-new-list?rmpage==job&rmjob=2550&rmlang=UK> and don't hesitate to contact me directly by email,

My best,

Ayco Tack [ayco.tack@su.se](mailto:ayco.tack@su.se)

Project description Plants interact with a large number of insects and microorganisms, including pests like herbivores and pathogens, and mutualists like parasitoids and mycorrhizal fungi. In both agricultural fields and natural communities these microbe and insect species commonly co-occur on the same plant individual. While we know how insects interact with insects, and microbes with microbes, interkingdom interactions among plant-associated microbes and insects have only rarely been investigated. To fill this gap, the current project combines experimental and molecular approaches to gain a predictive understanding of how direct and indirect interactions among insects and microbes structure terrestrial plant-based communities. The project can be subdivided into two modules. The student will first

explore the role of these interactions within a community context in a multi-factorial greenhouse experiment, focusing on the food webs surrounding the plant *Plantago lanceolata* and *Bistorta vivipara*. Next, the student will pinpoint the plant-mediated interactions between microbes and insects by probing the response of the plant - in terms of gene expression and defense-related phytohormonal pathways - to microbe, insect and simultaneous attack.

Ayco Tack Assistant professor Department of Ecology, Environment and Plant Sciences

Stockholm University SE-106 91 Stockholm, Sweden Visiting address: Svante Arrhenius Väg 20A, room N420 Phone: + 46-(0)8-163959 Mobile: + 46-(0)70-4942557 ayco.tack@su.se

[www.plantmicrobeinsect.com](http://www.plantmicrobeinsect.com) [www.su.se/profiles/atack](http://www.su.se/profiles/atack)  
Ayco Tack <ayco.tack@su.se>

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## TelAvivU EvolGeneticsFlowerColor

Dear colleagues,

I have a PhD position available to work on the genetic/molecular basis and evolution of flower colors in the Royal Irises. The position is funded for 3 years and located at the Botanical garden at the School of Plant Sciences, Tel Aviv University, Israel. Application deadline April 30. More information here: <http://labsapir.wixsite.com/labsapir/single-post/2016/07/18/PhDpostdoc-Flower-color-evolution-in-irises> Thanks and best wishes, Yuval

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– Yuval Sapir, PhD The Botanical Garden School of Plant Sciences & Food Security Tel-Aviv University, Tel Aviv, 69978 Israel Tl: +972(0)3-6407354 (lab); +972(0)54-7203140 (mobile)<http://botanic.tau.ac.il/http://labsapir.wix.com/labsapir> Stop population growth for a sustainable future<http://www.populationmatters.org/> yuval sapir <sapiryuval@gmail.com>

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## TelAvivU EvolutionaryFlowerColor 2

(now with an appropriate link) Dear colleagues,

I have a PhD position available to work on the genetic/molecular basis and evolution of flower colors in the Royal Irises. The position is funded for 3 years and located at the Botanical garden at the School of Plant Sciences, Tel Aviv University, Israel. Application deadline April 30. More information here: <http://tinyurl.com/tauIrisPhD> Thanks and best wishes, Yuval

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Yuval Sapir, PhD Director, The Botanical Garden Senior lecturer Dept. of Molecular Biology and Ecology of Plants Tel-Aviv University, Tel Aviv, 69978 Israel Tl: +972(0)3-6407354 (lab); +972(0)54-7203140 (mobile)<http://botanic.tau.ac.il/http://labsapir.wix.com/labsapir> Stop population growth for a sustainable future <http://www.populationmatters.org/> yuval sapir <sapiryuval@gmail.com>

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## TennesseeTechU ShrimpSpeciation

Masters Student Opportunity Speciation and genome structure in *Alpheus* snapping shrimp

An MS position is available through the Department of Biology at Tennessee Tech University in Cookeville, Tennessee; starting date is between August 2017 and January 2018. The applicant will work with a collaborative team that includes Dr. Carla Hurt from Tennessee Tech University, Dr. Kristin Hultgren from Seattle University, and Dr. Arthur Anker from Universidade Federal do Ceara. The successful applicant will investigate the evolution of genome size and chromosomal rearrangements and the contribution of genome size evolution to species diversification in the tropical snapping shrimp genus *Alpheus*. The student would optimize techniques for characterizing chromosomal structure and genome size data and interpret this information in a phylogenetic context. This project will be funded by the National Geographic Society.

We are looking for highly motivated candidates with a B.S. in Biology or closely related field and a strong academic record. A GPA of at least 3.5 in the highest degree earned is required. The successful candidate should demonstrate an interest in molecular genetics and systematics. The student will need to possess an aptitude for research in a molecular genetics laboratory as well as an ability to conduct field work; scuba diving experience is preferred (but not required). Previous experience working in a molecular laboratory is preferred but exceptional applicants without experience will be considered. Financial support (stipend and full tuition waiver) will be provided through a Teaching Assistantship and will be renewable annually contingent upon satisfactory performance.

Interested students are encouraged to e-mail me (churt@tntech.edu). Please include a short description of your academic background, research interests and your CV, along with contact information for three references. Screening of applicants will begin immediately.

Carla Hurt Assistant Professor Department of Biology Tennessee Technological University Phone: 931-372-3143 Email: churt@tntech.edu

“Hurt, Carla” <churt@tntech.edu>

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## Tours France InsectSocialEvolution

1 PhD position: The evolution of social life in insects

We invite applications for a 3-years PhD position at the Insect Biology Research Institute (IRBI) located at the University of Tours, France. The project aims at better understanding the evolution of social life in insects by focusing on the European earwig, a species in which family life is complex, temporary and facultative. The PhD student will investigate how parent-offspring interactions may improve resistance against pathogens, enhance food acquisition and limit the expression of social conflicts in this species. The scientific project includes standard laboratory setups, behavioral experiments, pathogen manipulation and life-history traits measurements (including immunity). Depending on the student interests, the project may also include chemical ecology, as well as quantitative/population genetics.

Our research institute offers an excellent, international, dynamic and interactive scientific environment (<http://irbi.univ-tours.fr/>) with state-of-the-art, newly equipped laboratories. Information on the scien-

tific work of our group can be found here: <http://joelmeunier.wixsite.com/researchpage>. Do not hesitate to contact Joël Meunier (see email below) for more detailed information.

Tours is a beautiful historic city located on the Loire Valley with many students and a rich social and cultural life (<http://www.tours-tourism.co.uk/>). Note that the university has a “welcome center” to help foreign PhD students setting up in Tours.

The position requires a Master degree in Biology (or a related field). The successful candidate should have a strong background in evolutionary biology and/or behavioral ecology. Good skills in biostatistics or a high motivation to improve the statistical knowledge (e.g. R language) are important. Moreover, the candidate is expected to be very motivated, energetic, independent and have a good team spirit. The position is funded by the French Ministry of Research. People from every nationality are encouraged to apply.

Interested candidates should send applications to Joël Meunier (joel.meunier@univ-tours.fr). The application should be sent as a single document (pdf format) containing a detailed motivation letter (max. 1.5 pages), a curriculum vitae (with the grades of Bachelor and Master classes), a summary of the Master thesis (max. 500 words and the expected date of completion if applicable) and the email of 2-3 potential referees. The deadline for applications is the 26th of March 2017 (included).

The starting date for the position is September 2017

Dr Joël Meunier | CNRS Researcher

Institut de Recherche sur la Biologie de l’Insecte (IRBI) - UMR 7261 CNRS / Université François-Rabelais de Tours Avenue Monge, Parc Grandmont 37200 Tours, FRANCE

Office: +33 (0)247 367 372 | Fax: +33 (0)247 366 966 <http://joelmeunier.wix.com/researchpage> <http://irbi.univ-tours.fr/> “jomeunier@univ-tours.fr”

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## TrentU PhD AmphibianAdaptation

PhD position or Post-Doctoral Fellowship investigating mechanisms underlying plasticity of amphibian responses to environmental stressors - Trent University

We are currently seeking a highly motivated PhD student or Post-Doctoral Fellow who will examine mechanisms governing the effects of environmental stressors on phe-

notypic and behavioural plasticity in amphibian models. Building on our longstanding research on amphibian responses to environmental stressors (including disease, predation risk, and contaminants), we aim to further establish a mechanistic link among ecological, physiological, and genome-level responses in amphibian tadpoles to natural or human-caused stressors. We are especially interested in building a bioinformatics approach to help identify the mechanisms involved in stressor-induced phenotypic and behavioural plasticity. Our preliminary work indicates differences in gene expression that are related to tadpole exposure to different stressors, and our next challenge is to establish the functional link between expressed genes and type of stressor. Our team has access to state-of-the-art facilities and equipment allowing us to address these cutting-edge research questions, and the successful candidate will have the opportunity to develop his/her own research interests within the scope of the broader program.

Applicants must have a strong academic record and graduate degree(s) in Biology, Physiology, Ecology, Genetics or a related field. Candidates with an interest in and/or knowledge of bioinformatics platforms/resources, experience in extracting genetic material or other relevant lab procedures, and conducting lab experiments with larval amphibians, will be highly sought. Candidates should demonstrate evidence of research potential (including scientific publications), a strong work ethic, and willingness to work in a large, dynamic, and collaborative research environment. The funding package is competitive and will include a foreign tuition waiver, if the successful applicant is an international PhD student.

The position will be closed as soon as a suitable candidate is found, so apply early! To apply, please submit: cover letter, unofficial transcripts, curriculum vitae, and names of three references to: Dennis Murray (dennismurray@trentu.ca; [www.dennismurray.ca](http://www.dennismurray.ca) and Leslie Kerr; lkerr@trentu.ca).

dennismurray@trentu.ca

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## TUM Germany Theoretical Population Genetics

We are looking for a PhD student in Theoretical Plant Population Genetics Title: “Genomic consequences of seed banking”

About us: The Population Genetics research group of Aurélien Tellier is established since 2012 on the campus Freising-Weihenstephan, in the department of Plant Sciences. The group works on developing theory for plant population genetics (info on: [www.popgen.wzw.tum.de](http://www.popgen.wzw.tum.de)). Project: The project will be based on developing novel and extend current population genetics models for species with seed banking. The project includes the development of mathematical (stochastics, birth and death processes) and statistical (Hidden Markov Model, HMM) tools based on coalescent models for the analysis of sequence data from wild tomato species. The project will consist in 1) extending the current coalescent model with seed banks (mathematical part, 30%), 2) developing a HMM model and tool to perform statistical inference of parameters (statistical part, 40%), and 3) analyze full genome data (Bioinformatics part, 30%). Mathematical skills are essential to build the coalescent model, and statistical knowledge (Likelihood, HMM) would be also advantageous. The student should be willing to learn some bioinformatics for applying his method to full genome datasets.

Qualifications: Equivalent of a master’s degree in mathematics, statistics or biology, and strong professional interests in theoretical evolutionary biology and/or bioinformatics. Team spirit, working independence, and knowledge of written and spoken English are necessary. The language in the lab is English.

We offer: The TU Munich is rated among the best in Germany by international standards. The Campus for Food and Life Sciences Weihenstephan hosts several research groups with relevance for the research projects: plant epigenetics and epigenomics (Prof. F. Johannes), plant evolution and biodiversity (Prof H Schaefer), statistical biology (Prof D Ankerst), and Mathematical Modelling (Prof J. Müller). The group is located into the newly build Hans Eisenmann Zentrum with state of the art facilities for computing and bioinformatics. The most recent relevant publications include: [1] Koopmann B., J. Müller, A. Tellier and D. ÁivkoviÁ (2017) Theor. Pop. Biol. 114:29-39 [2] Stam R., Scheikl D.,



and A. Tellier (2016) *Genome Biol. Evol.* 5: 1501-1515  
 [3] Böndel et al. (2015) *Mol. Biol. Evol.* 32: 2932-2943  
 [4] ÁivkoviĀ D., and Tellier A. (2012) *Molecular Ecology* 21: 5434-5446

The studentship is financed by the German Agency for Science (DFG) for 3 years, and salary is 65% TV-L E13. Funding covers research and conference costs. The PhD student would benefit from the wide range of training courses offered by the TUM graduate school ([www.gs.tum.de](http://www.gs.tum.de)). The TUM is interested in fostering career opportunities for women, therefore women are strongly encouraged to apply. Applicants with disabilities and more or less equal qualifications will be favoured.

Application: If you have interest please contact Aurélien Tellier ([tellier@wzw.tum.de](mailto:tellier@wzw.tum.de)). For applying, please send: 1) a CV, 2) a short statement of research interests and experience, and 3) contact information for two references (preferably everything in a single pdf file). Starting date is flexible in 2017, and deadline for application is 03/03/2017.

Prof. Dr. Aurélien Tellier Technische Universität München, Section of Population Genetics Liesel Beckmann Strasse 2, 85354 Freising, Germany email: [tellier@wzw.tum.de](mailto:tellier@wzw.tum.de)

Aurelien Tellier <[tellier@wzw.tum.de](mailto:tellier@wzw.tum.de)>

## TU Munich 2 PlantBreeding

The chair of plant breeding at the Technical University of Munich / TUM School of Life Sciences Weihenstephan invites applications for a PhD position TV-L E13 (65%), starting as soon as a suitable candidate is found. Research in the plant breeding group is focused on the development of molecular and statistical tools for plant breeding as well as on genome analysis in crop plants.

Project description: "FullThrottle" is a collaborative project combining physiology, biochemistry, molecular biology and genetics to investigate the factors affecting the rate and efficiency of C4 photosynthesis. Maize introgression lines will be used to identify and characterize QTL for photosynthesis-related traits and to investigate their relation to drought stress tolerance. Detailed analysis will focus on physiological parameters and transcript profiling in well-watered and drought stress conditions. The results will be integrated with those obtained by other partners in the project to provide a comprehensive

analysis of photosynthesis efficiency in maize. We are looking for a highly capable and motivated candidate to take on a challenging but potentially very rewarding research subject.

The successful applicant is expected to have:

- \* Diploma or Master's degree in biology, molecular biotechnology, plant physiology or related disciplines (above average grades)
- \* Background in genetics, molecular biology and biochemistry is advantageous
- \* Interest in photosynthesis and plant stress physiology
- \* Willingness to carry out both field and laboratory work
- \* Very good English (oral and written), German is an advantage
- \* Ability to work in a team and to collaborate with other research groups

We offer:

- \* An interdisciplinary working environment in a team of molecular and statistical geneticists
- \* Active exchange and collaboration with partners from academia and industry in a field of constant technical and methodological development
- \* Advanced education in molecular genetics, bioinformatics and plant breeding in courses and summer schools
- \* Employment contract with the German public service salary TV-L E13 (65%), for three years

The Technical University of Munich is committed to increasing the proportion of women in research and education and thus explicitly invites qualified female scientists to apply for this position. Preference will be given to disabled candidates with essentially the same qualifications.

Contact: Applications with the usual supporting information (letter of motivation, CV, certificates, transcripts, credentials, etc. in a single pdf file) should be submitted by Email to [jobs.z7x.wz@tum.de](mailto:jobs.z7x.wz@tum.de), subject matter: "PhD Position on Maximizing Photosynthetic Efficiency in Maize 17.2". Application will be open until the position is filled.

For more information please see: <http://www.plantbreeding.wzw.tum.de> For questions related to the position and further background information please contact Dr. Claudiu Niculaes, Plant Breeding, TUM, [claudiu.niculaes@tum.de](mailto:claudiu.niculaes@tum.de).

The chair of plant breeding at the Technical University of Munich / TUM School of Life Sciences Weihenstephan invites applications for a PhD position (TV-L E13, 75%) starting as soon as a suitable candidate is found. Research in the plant breeding group is focused on the development of molecular and statistical tools for plant breeding as well as on genome analysis in crop plants.

Researchtopics:

\* Contribution to the collaborative project “MAZE” ([www.europeanmaize.net](http://www.europeanmaize.net)) on genomic and functional diversity of maize \* Genetic and genomic analysis of cold tolerance at early stages of maize development \* Genomic and phenotypic characterization of a unique library of doubled- haploid lines grown in multi-environment trials to determine the genetic architecture of quantitative traits \* Development of statistical methods for quantitative trait loci (QTL) estimation and genomic prediction in genetic resources \* Investigation of multiple trait genomic prediction with a focus on genotype x environment interactions

The successful applicant is expected to have:

\* Master’s degree in (bio-) statistics, plant breeding or related disciplines (above average grades) \* Advanced knowledge in statistical software, preferably with R \* Background in (quantitative) genetics is a strong plus \* Very good English (oral and written), German of advantage \* Ability to work in a team and to collaborate with other research groups

We offer:

\* An interdisciplinary working environment in a team of plant breeders, statisticians, molecular geneticists and bioinformaticians \* Active exchange and collaboration with partners from academia and industry in a field of constant technical and methodological development

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## UBremen LifeHistoryEvolution

A PhD student position within the EU-funded Marie Skłodowska-Curie Innovative Training Network BINGO (Breeding Invertebrates for Next Generation Biocontrol) is available at the Population & Evolutionary Ecology Laboratory at Bremen University, Germany:

RP 4: Clutch size, sex ratio, and differential mortality in the *Bracon hebetor* / *B. brevicornis* species complex

The candidate will work on clutch size, sex ratio, and differential mortality in the *Bracon hebetor* / *B. brevicornis* species complex. Probably due to global warming, the

European corn borer recently became able to produce two generations per year instead of just one, thereby drastically increasing its destructive potential in some areas. Wasps of the genus *Bracon* are very promising additional biocontrol agents against this important pest. By quantifying and mapping genetic variation for important traits, such as clutch size or sex ratio produced, we will be able to select for the most suitable *Bracon* populations.

The main objectives of this project are (i) to analyse the natural variation and heritability in the above mentioned traits, (ii) to set up selection lines and to map genomic variation for understanding phenotype/genotype links (SNP) and (iii) to analyse the trade-offs involved in phenotype expression.

We seek a bright, highly motivated, and enthusiastic person able to work both as part of a team and independently. The ideal candidate shall have a master degree or equivalent in natural science, preferably with a good background in entomology, ecology, evolution, genetics and/or biological control. Good skills in statistical data analysis (R) are a plus, but training will be provided. The language in the lab is English, and a high standard of spoken and written English is required.

Candidates must be, at the time of recruitment by the host organisation, in the first four years (full-time equivalent) of their research careers and have not yet been awarded a doctoral degree. This is measured from the date when they obtained the degree which would formally entitle them to embark on a doctorate. Eligible candidates may be of any nationality but must not, at the time of recruitment have resided or carried out their main activity (work, studies, etc) in Germany for more than 12 months in the 3 last years immediately prior to the recruitment date.

The BINGO-ITN is funded by the EU Horizon 2020 programme and involves 12 partners from academia, non-profit organizations and biocontrol industry located in the Netherlands, Germany, France, Spain, Czech Republic, Austria, Switzerland, Greece and Portugal. BINGO’s approach is multidisciplinary, encompassing a broad range of scientific disciplines, including the application of state-of-the-art population genomics. The BINGO programme combines integrated training workshops and internship opportunities across the network, with career opportunities in academia, public or the private sectors. You will work in close cooperation with PhD students and researchers involved in related BINGO research projects. Secondments are planned to other BINGO participants For more information, please have a look at [www.bingo-itn.eu](http://www.bingo-itn.eu)

As a winner of the Total-E-Quality Science Award the

University of Bremen strives for increasing the number of females in science.

Handicapped applicants will be preferred in case of equal qualifications over other applicants.

The position is financed with TVL 13 1/1 (full position) for 20 month, conditional to the approval of the funding. Thereafter with TVL 13 1/2 for 16 month, with a 2 SWS teaching duty per semester, conditional to the approval of the funding.

To apply, please provide a letter of motivation and a detailed CV by indicating the job id A13/17 to:

Dr. Andra Thiel,

Population and Evolutionary Ecology

FB 02, Institute of Ecology

Leobener Strasse NW2

University of Bremen

D-28334 Bremen

or by mail: thiel@uni-bremen.de (CC to: info@bingo-itn.eu)

Add subject: BINGO-Application RP4

We will be considering applications until 17 February 2017. The envisaged starting date is 1 April 2017, the total duration of the position is 36 month.

Dr. Andra Thiel

Population and Evolutionary Ecology

FB 02, Institute of Ecology

University of Bremen

D-28334 Bremen

fon ++49-421-218-62937 fax ++49-421-218-62949

email: thiel@uni-bremen.de

<http://www.popecol.uni-bremen.de>  
bremen.de" <thiel@uni-bremen.de>

"thiel@uni-

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## UBristol Berkeley EvolMetabolism

The Evolution of Metabolisms that Shaped Life on Earth

Supervisors:

Dr. Patricia Sánchez-Baracaldo (Geographical Sciences, University of Bristol) - Main contact Email: p.sanchez-baracaldo@bristol.ac.uk; Tel: +44 (0) 117 954 6858

Prof. John Huelsenbeck (Dept. of Integrative Biology, University of California, Berkeley)

The bacterial metabolisms of photosynthesis and nitrogen fixation have shaped life on our planet by contributing to the cycling of carbon and nitrogen in the Earth's biosphere. While photosynthesis fixes carbon dioxide using different electron donors into carbohydrates, nitrogen fixation transforms atmospheric nitrogen into a bioavailable source such as ammonium. Geochemical and biological evidence suggests that photosynthesis (1-3) and nitrogen fixation (4,5) evolved shortly after life originated on our planet. Understanding how these metabolisms evolved through the bacterial domain will give insights into how these processes have shaped biogeochemical cycles. How can we study the evolution of photosynthesis and nitrogen fixation given that they evolved billions of years ago? The evolution of these processes must be studied indirectly, through the phylogenetic comparison of a wide diversity of bacterial lineages. Such an analysis can help elucidate the details of how these processes evolved and when they evolved. Lateral gene transfer the transmission of genes between different bacterial lineages has been used to explain the current distribution of these metabolisms on the bacterial tree of life. Alternative explanations might also be possible, such as the differential loss of genes involved in these metabolisms as bacterial lineages diversified.

Using the bacterial tree of life, this project aims to study how and when these fundamental metabolisms evolve. We will use large genomic data sets to study: (1) the evolution of the bacterial lineages and (2) the evolutionary patterns for photosynthesis and nitrogen fixation (both vertical and horizontal) across bacterial groups. The Ph.D. student funded by this grant will also have the unique opportunity to not only collect the appropriate data but also to develop new phylogenetic methods.

This student would be co-advised by Dr. Patricia Sánchez-Baracaldo (University of Bristol) who is an expert in the biological/geological data and Prof. John Huelsenbeck (University of California, Berkeley) who is an expert in the development of phylogenetic methods. This is a great opportunity for students interested in evolutionary biology, phylogenetic methods, bioinformatics, and the origin of life.

This is a four-year project funded by the University of Bristol (the host institution) with a stipend of 14,296 + fees for UK and EU students.

How to apply: Please make an online application for this project at <http://www.bris.ac.uk/pg-howtoapply>. Please select 'Geographical Sciences: Physical (PhD)' on the Programme Choice page and enter the title of the

studentship project 'The Evolution of Metabolisms that Shaped Life on Earth' when prompted in the Funding and Research Details sections of the form.

Applications deadline:: 17 February 2017. Interviews are expected to be held in early March 2017

Candidate requirements: At least a 2.1 (Hons) degree or equivalent in a relevant quantitative subject, e.g. microbiology, bioinformatics, population genomics, environmental biotechnology, marine biology, plant molecular biology, genetics, genomics, and computer science. For EU students, English Language IELTS scores of at least 6.5 (no less than 6.0 in any element). A Masters degree in a relevant subject would be desirable but not essential. Computer programming skills in a relevant language, e.g. C/C++, Python, R or Matlab would be an advantage. The award is available for UK or EU students only.

References:

1. Bell, E. A., Boehnke, P., Harrison, T. M. & Mao, W. L. Potentially biogenic carbon preserved in a 4.1 billion-year-old zircon. *P Natl Acad Sci USA* 112, 14518-14521, (2015).
2. Tice, M. M. & Lowe, D. R. Photosynthetic microbial mats in the 3,416-Myr- old ocean. *Nature* 431, 549-552, (2004).
3. Blankenship, R. E. Early evolution of photosynthesis. *Plant Physiol* 154, 434-438, (2010).
4. Thomazo, C., Ader, M. & Philippot, P. Extreme <sup>15</sup>N-enrichments in 2.72-Gyr- old sediments: evidence for a turning point in the nitrogen cycle. *Geobiology* 9, 107-120, (2011).
5. Weiss, M. C. et al. The physiology and habitat of the last universal common ancestor. *Nat Microbiol* 1, 16116, (2016).

John Huelsenbeck University of California, Berkeley Department of Integrative Biology 3060 VLSB # 3140 Berkeley, CA 94720-3140

E-mail: johnh@berkeley.edu Phone: (510) 502-5887

John Huelsenbeck <johnh@berkeley.edu>

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## UdoPorto Archaeogenetics

Invitation to join a research project: Ph.D. student in Genetics, Biology, Animal Science, Bioinformatics or related fields

We are looking for a highly motivated graduate student, who is interested in pursuing a PhD degree in the field of Archaeogenetics, Biology, Animal Science, Bioinformatics or related fields to join the team of a research

project entitled "ARCHAIC - The archaeogenetics of Iberian cattle: investigating their origins, evolution and improvement" (PTDC/CVT??LIV/2827/2014; POCI-01-0145-FEDER-016647).

The student will be engaged to ARCHAIC, an innovative project merging zooarchaeology and genetics - which is critical to capture the temporal and geographical dimensions of the history that shaped the genetic composition of cattle.

This cross-disciplinary project represents a great opportunity to get intensive training in the methods of ancient and modern DNA analyses, including DNA isolation from a variety of sources, preparation of genomic libraries, next-generation sequencing, quality control of DNA templates while completing a graduate degree. There will be a strong bioinformatics component to process and validate NGS data using appropriate pipelines for ancient DNA sequence data, to estimate genetic diversity and investigate demographic processes.

The invited student will interact with an international team of scientists at CIBIO/InBIO-University of Porto in the Campus of Vairao, Portugal, at LARC-National Laboratory of Archaeosciences in Lisbon, Portugal, and at foreign participating institutions namely the Archaeological Research Laboratory of Stockholm University.

Required qualifications

Research funds are available through the ARCHAIC project, but to try to obtain monthly stipends the invited graduate student is expected to apply to the next call for Ph.D. Fellowships of Fundacao para a Ciencia e a Tecnologia - FCT, Portugal, open from 1 to 31 March 2017 (5pm, Lisbon time) and should comply with the necessary requirements. For details please check the call website:

<http://www.fct.pt/apoios/bolsas/concursos/-individuais2017.phtml.en>

An advanced master degree in Genetics, Biology, Animal Science, Bioinformatics or any related field is required.

Candidates should demonstrate motivation for laboratory work and strong interest in molecular genetics and evolution.

Preference will be given to students with experience in molecular biology, namely in preparing libraries for next-generation sequencing and/or analysis of degraded samples.

Bioinformatics skills in 'Big-data' analytical approaches and in population genetics will be valued, as well as knowledge of programming languages like Unix and Python/Perl and of statistical analysis in R.

Good writing and communication competencies in En-

glish, along with excellent team working skills are highly desirable.

We are looking for a student who is able to work independently, to take own initiatives and to have a strong interest in producing high quality research and writing scientific publications.

Availability to carry out research work outside Portugal is also needed.

For more information about ARCHAIC, please check the project website:

<http://archaic.campus.ciencias.ulisboa.pt/Archaic/-home.html> To know more about our research group, please check:

<https://cibio.up.pt/people/details/cginja> The application should include the following information:

- 1) a letter of intent describing yourself, your research interests and motivation of why you want to do a PhD
- 2) a CV summarizing your education, experience, other qualifying activity, and a list of publications
- 3) a copy of your master degree and course grades
- 4) the names and contact information (address, e-mail address, and phone number) of two referees

You are welcome to submit your application no later than March 3, 2017. The application must be written in English and sent by email to the address below:

ARCHAIC@cibio.up.pt

For further information, please contact:

Catarina Ginja, PhD

Research Associate, IF2014 Fellow

<http://cibio.up.pt/people/details/cginja> CIBIO/InBIO - Laboratorio Associado

Centro de Investigacao em Biodiversidade e Recursos Geneticos

Universidade do Porto

Campus Agrario de Vairao

Rua Padre Armando Quintas no7

4485-661 Vairao, Portugal

E-mail: catarinaginja@cibio.up.pt

Tel.: +351 252 660 411

Research Associate, IF2014 Fellow <http://cibio.up.pt/people/details/cginja> CIBIO/InBIO - Laboratorio Associado Centro de Investigacao em Biodiversidade e Recursos Geneticos Universidade do Porto Campus Agrario de Vairao Rua Padre Armando Quintas no7 4485-661

Vairao, Portugal E-mail: catarinaginja@cibio.up.pt

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## UEastAnglia LeafMinerPopulationGenetics

PhD studentship: Population genetics and ecology of a leaf-mining pest

We are looking for a talented and motivated student to undertake a four-year BBSRC-funded iCASE PhD at the University of East Anglia in Norwich. Project details below. Interested applicants are encouraged to contact the primary supervisor, Dr Lewis Spurgin, via email ([l.spurgin@uea.ac.uk](mailto:l.spurgin@uea.ac.uk)). Applications can be made via the UEA website:

<https://www.uea.ac.uk/study/-/population-genetics-and-ecology-of-a-leaf-mining-pest-spurgin.u17icase1>  
Project summary

Pests and invasive species are excellent models for understanding population dynamics and evolutionary adaptation. Furthermore, an understanding of population ecology is essential for effective pest management. This studentship will use a combination of ecological field-work, molecular genetics and statistical modelling to understand the population dynamics of the mangold fly - an increasingly serious pest of sugar beet in the UK.

The student will carry out field work to map the range of the mangold fly and identify the ecological factors underpinning its distribution. They will then develop molecular tools for species identification, and use population genetic methods to infer patterns of migration and demography within and among farms. Finally, insects will be brought into state-of-the-art insect rearing facilities, where this species' life-history will be studied in relation to its crop host. Thus, the studentship has potential to gain new insights into population ecology, while directly helping the UK farming community at the same time.

The studentship will be supervised by Dr Lewis Spurgin, in collaboration with leading researchers at UEA (Profs Tracey Chapman and Matt Gage), the John Innes Centre (Dr Ian Bedford) and the British Beet Research

Organisation (BBRO; Mark Stevens). Together, the supervisors have decades of research experience in population genetics, ecology and pest management science. The student will receive bespoke training in field ecology, molecular genetics and statistical analysis, as well as broader training from UEA and the Norwich Biosciences DTP.

– Dr Lewis Spurgin BBSRC Future Leader Fellow School of Biological Sciences University of East Anglia Norwich Research Park NR4 7TJ, UK

Email: l.spurgin@uea.ac.uk Web: lewisspurgin.wordpress.com

L.Spurgin@uea.ac.uk

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## UHamburg 7 HybridSystematics

We invite applications for 7 PhD positions in our recently funded project:

HYBRIDS - chances and challenges of new genomic combinations is a collaborative research project with participating scientists from the University of Hamburg (UHH), the Bernhard-Nocht-Institute for Tropical Medicine (BNI) and the Climate Service Center Germany (GERICS). The consortium studies patterns and characteristics of hybridization events in nature. These studies are carried out at the level of genomes, the level of species and finally at the level of populations to understand the interplay between: hybrid genomics - hybrid performance - hybrid distribution

Hybrids, i.e. crosses between species, appear in nature much more frequently than until recently thought. Recent results suggest that hybridization events play a crucial, yet not very well understood, role in evolution. Hybridization effects are often used in breeding program and form one of the foundations of our agricultural system. However, hybrids are often also invasive species and represent a great challenge for many ecosystems. A dramatic increase of hybridization events can be expected due to the current climate change and the accompanying shift in the distribution of species. This calls for an interdisciplinary consortium working at different scales to study the patterns and characteristics of hybridization events.

The metropolis Hamburg is one of the most popular cities in Europe and harbors one of the largest universities in Germany. Apply now for a funded one-week stay in Hamburg during our Hamburg Biofuture Career

Days from the 3rd to the 7th of April 2017. This workshop offers the possibility to meet experts from industry, funding bodies, and academic publishers. Learn about career options in biology and get 1 out of 7 PhD. positions. Attached below you find the ads for the zoological projects, three botanical and more information on all individual projects can be found on our website:

<https://www.biologie.uni-hamburg.de/en/hybrids> Faculty/Departement Mathematics, Informatics, Natural Sciences/Biology Seminar/Institute Center of Natural History

Pending approval of external funding Universität Hamburg invites applications for a Research Associate for the project “Hybrids - Chances and challenges of novel genomic combinations”, sub-project P2 “Hybridisation between terrestrial snails as a result of climate-induced range shifts” in accordance with Section 28 subsection 3 of the Hamburg Higher Education Act (Hamburgisches Hochschulgesetz, HmbHG). The position commences on 1.7.2017.

It is remunerated at the salary level TV-L 13 and calls for 50 % of standard work hours per week\*.

The fixed-term nature of this contract is based upon Section 2 of the Academic Fixed-Term Labor Contract Act (Wissenschaftszeitvertragsgesetz, WissZeitVG). The term is fixed for a period of 3,4 years.

The University aims to increase the number of women in research and teaching and explicitly encourages qualified women to apply. Equally qualified female applicants will receive preference in accordance with the Hamburg Equality Act (Hamburgisches Gleichstellungsgesetz, HmbGleiG).

Responsibilities: Duties include academic services in the project named above. Research associates can also pursue independent research and further academic qualifications.

Specific Duties: The doctoral student will perform cutting-edge research in a research-driven environment with excellent technical facilities in the context of the new research project HYBRIDS - chances and challenges of novel genetic combinations. For a better understanding of the genetic basis of differentiation and hybridization processes, hybrid zones between differentially strongly isolated taxa of a land snail complex in the Southern Alps will be studied using newly established RAD markers and genomic cline analyses. The mapping and sampling of the populations also pertains to the duties. Requirements: A university degree in a relevant field. The candidate should be experienced with molecular biological methods and preferentially also with “next generation sequencing” techniques and

data analyses or a programming language (Perl, Python, Unix, R). The project requires analytical thinking, good team work ability and good English skills.

Selected applicants will be invited in week 14 (April 3-7, 2017) to an interview in the frame of the "Hamburg Biofuture Career Days 2017". Severely disabled applicants will receive preference over equally qualified non-disabled applicants. For further information, please contact Prof. Bernhard Hausdorf or consult our website at <https://www.biologie.uni-hamburg.de/en/hybrids>. Applications should include a cover letter, curriculum vitae, and copies of degree certificate(s). The application deadline is March 3,

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## UKentucky EvolutionInsecticideResistance

The Graduate Fellowship in Urban Entomology at the University of Kentucky is funded from the Kentucky Pest Management Association Scholarship Fund. The Kentucky Pest Management Association has a long history of supporting the educational programs in the Department of Entomology at the University of Kentucky. This fellowship will support graduate research in applied or fundamental aspects of urban/structural pest management. The recipient of this Fellowship will be expected to be open to participation in the extension Urban Entomology programs in the Department of Entomology.

Research supported by this fellowship may be in the following areas: - Population Genetics and Evolution of Insecticide Resistance in Bed Bugs - Ecology and Management of Bed Bugs in Urban Environments - Urban Arthropod Biology, Ecology, and Behavior - IPM in the Urban Environment

\*Stipend\*: The Fellowship includes a stipend of \$20,000, full tuition, and health benefits. In 2017, one Graduate Fellowship in Urban Entomology is available for a Ph.D. student entering the Graduate Program in Entomology starting in August 2017 will be awarded. The Fellowship is renewable for up to four years, depending on satisfactory performance.

\*Qualifications\*: B.S. or M.S. in entomology or the biological sciences with an academic record demonstrating outstanding accomplishments and interest in urban entomology.

\*Application Deadline\*: The deadline for applications for this Graduate Fellowship is March 15, 2017. Applicants must have applied to the graduate program in Entomology at the University of Kentucky by this date.

\*Application Procedure\*: To be considered for this Fellowship, please Email (rpalli@uky.edu) a letter that addresses your background and interests in one of the areas listed, transcripts, GRE scores and arrange to send two letters of recommendation to the same Email address. A selection committee that includes a member of the Kentucky Pest Management Educational Fund Committee will review applications and selects the winner. The selected candidate will be admitted into Entomology graduate program after going through the formal application process. The details on Entomology graduate program are available at <https://entomology.ca.uky.edu/-academics/graduate>. \*Additional Information\*: Subba Reddy Palli, Chair, Department of Entomology, University of Kentucky, Lexington, KY 40546 USA E-mail: rpalli@uky.edu PH: 859-257-7450

– Dr. Charles W. Fox Professor and Director of Graduate Studies Department of Entomology University of Kentucky Lexington, KY 40546-0091 phone: 859-257-7474 e-mail: cfox@uky.edu web: [www.uky.edu/~cfox](http://www.uky.edu/~cfox) Charles Fox <cfox@uky.edu>

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## UMeaU ForestGenetics

The Department of Ecology and Environmental Science (EMG), Umeå Plant Science Center (UPSC) and the Swedish Forest Research Institute (Skogforsk) jointly open a 5-year PhD position within the industrial graduate student research school in forest genetics and biotechnology at UPSC. Application deadline is 10th March, 2017.

Project description The future supply of biomass will come mostly from planted forests. In Sweden, almost all the regeneration material used in pine and spruce reforestation are supplied by tree breeding programs and seed orchards. It is thus critical that seed orchards function well, producing high seed yield and breeding gain but also a genetic base to support increased biomass production and resilience to future conditions. This project investigates: 1) how seed orchard design and

management practices affect the genetic composition and diversity of seed crops; and 2) how seed orchard establishment and seed deployment strategy affect pine and spruce forests' adaptation and productivity in their northern range.

This project is in close collaboration with Skogforsk. The position is for 5 years and defined as 80% research time at EMG, Umeå University, and 20% at Skogforsk.

**Qualifications** We seek a candidate with academic background in population genetics, forest genetics and breeding, or molecular ecology. Knowledge of genetic data analyses, bioinformatics, and experience of high-throughput sequencing techniques are strong merits. The candidate should be highly motivated, independent and collaborative, and have a very good command in both oral and written English. The position includes interactions with the Swedish forestry sector. Evaluation will be based on the individual letter, quality and relevance of master program and publication, the interview, and the candidate's performance in a literature essay given after the interview.

**Prerequisites for PhD studies** include 240 ECTS credits of higher education studies of which 60 ECTS credits should be on an advanced level (Master level), or an equivalent qualification from abroad. This position specifically requires 120 ECTS credits in a subject relevant for ecology.

**Application** The application should include: . A short letter (max 2 pages) describing your research interests and why you are interested in the position . CV, including academic achievements . Digital copies of Bachelor/Master thesis . publications . Certificates from higher education and other documentation that supports your application . Contact information to three reference persons.

Your application must be registered in Umeå University's e-recruitment system MyNetwork Pro (at <http://www.umu.se/om-universitetet/lediga-jobb/>) no later than 10th March 2017.

**Other information** The principle supervisors to this project are Prof. Xiao-Ru Wang ([xiao-ru.wang@umu.se](mailto:xiao-ru.wang@umu.se)) from EMG, and Prof. Bengt Andersson Gull ([bengt.anderssongull@skogforsk.se](mailto:bengt.anderssongull@skogforsk.se)) from Skogforsk.

**Salary:** According to agreements for PhD students at Umeå University.

The Department of Ecology and Environment Sciences, Umeå University, performs research and research education in ecology, environmental science and physical geography. The department has ~150 co-workers of

which ~30 are PhD students. ([www.emg.umu.se](http://www.emg.umu.se))

Skogforsk is funded by the forest industry and the state. The demand-driven applied research includes a wide variety of fields, such as forest technology, raw-material utilization, environmental impact and conservation, forest tree breeding, logistics, forest bioenergy and silviculture. The institute has about 120 employees, of which 80 are researchers. ([www.skogforsk.se](http://www.skogforsk.se))

Xiao-Ru Wang, PhD Dept. of Ecology and Environmental Science Umeå University SE-901 87 Umeå, Sweden [xiao-ru.wang@umu.se](mailto:xiao-ru.wang@umu.se)

Xiao-Ru Wang <[xiao-ru.wang@umu.se](mailto:xiao-ru.wang@umu.se)>

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## UmeåU PlantLandscapeGenetics

PhD student position (4 years) in Ecology with focus on landscape genetics of plant communities in river networks

The Department of Ecology and Environmental Science invites applicants for a PhD student position within the project "Network breakdown? The effect of fragmentation by dams on plant communities in river networks" funded by Formas. The position is planned to begin in spring 2017. Apply before March 17, 2017.

**Project description** This project integrates genomic methods and ecological modelling to assess the effect of landscapes on evolutionary processes. We use recent conceptual and methodological advances in genetics and spatial ecology to study patterns in gene flow and how this is influenced by landscape structure and obstruction of dispersal pathways by land-use activities. The project will use genetic markers to infer how dispersal of riverine plants has been affected by dams in regulated rivers. We will also evaluate the distribution of genetic diversity along the river course in selected plant species. We test (1) whether dams are barriers to plant dispersal, resulting in isolated populations with higher genetic differentiation between sites separated by dams than between populations in the same impoundment or among sites in free-flowing rivers, and (2) whether the downstream increase in genetic diversity of riverine plants documented in many species is absent or less pronounced in rivers fragmented by dams. The results of the project will help manage regulated rivers with the aim to conserve riverine plant communities.

**Qualifications** We seek a candidate with relevant academic background (genetics, ecology, or equivalent sub-



ject). Earlier experience of population genetic analyses, high throughput genotyping methods and knowledge of bioinformatics are merits. The candidate should be creative, show initiative, independence and good social skills, and have a very good command in both oral and written English. Evaluation will be based on the individual letter, quality and relevance of master program and publication, the interview, and the candidate's performance in a literature essay given after the interview.

Prerequisites for PhD studies include 240 ECTS credits of higher education studies of which 60 should be on an advanced level (Master level), or an equivalent qualification from abroad. This position specifically requires 120 ECTS credits in a subject relevant for ecology.

Application The application should include: . A short letter (max 2 pages) describing your research interests and why you are interested in the position . CV, including academic achievements . Digital copies of Bachelor/Master thesis . publications . Certificates from higher education and other documentation that supports your application . Contact information to three reference persons.

Your application must be registered in Umeå University's e-recruitment system MyNetwork Pro (at <http://www.umu.se/om-universitetet/lediga-jobb/>) no later than 17th March 2017.

Other information The PhD student will be advised by Xiao-Ru Wang (head supervisor) and Roland Jansson (assistant supervisor). Contact Roland Jansson, tel +4690-786 9573, e-mail [roland.jansson@umu.se](mailto:roland.jansson@umu.se), or Xiao-Ru Wang, tel+4690-786 9955, e-mail [xiao-ru.wang@umu.se](mailto:xiao-ru.wang@umu.se) for more information.

Salary: According to agreements for PhD students at Umeå University.

The Department of Ecology and Environment Science, Umeå University, performs research and research education in ecology, environmental science and physical geography. The department has ~150 co-workers of which ~30 are PhD students. ([www.emg.umu.se](http://www.emg.umu.se))

Xiao-Ru Wang, PhD Dept. of Ecology and Environmental Science Umeå University SE-901 87 Umeå, Sweden

Xiao-Ru Wang <[xiao-ru.wang@umu.se](mailto:xiao-ru.wang@umu.se)>

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## UNewBrunswick StJohn PopulationEcol

Ph. D. position with Jeff Houlihan's lab in the Department of Biological Sciences/The Canadian Rivers Institute, University of New Brunswick Saint John (UNB Saint John).

The Houlihan lab is looking for a Ph.D. student interested in fundamental questions in population and/or community ecology to begin in the fall of 2017 (although later start dates could be negotiated). We are including evolutionary biologists in our target audience because (1) they often bring the set of quantitative skills that we're looking for and (2) we would be happy to address evolutionary questions that have explicit ecological implications. We are seeking students with a wide range of interests - some examples of topics include (i) the relationship between diversity and stability, (ii) the relative importance of density dependent effects on population dynamics, and (iii) the stability of competitive hierarchies in nature but we are less concerned about the question than the approach. The approach would involve developing theoretical and/or statistical models that would then be tested on new data (see Houlihan et al. 2017 in *Oikos*) to assess the predictive ability of those models and how predictive ability changes over time and space.

The successful applicant will have strong quantitative skills, and more particularly, be somebody who is comfortable analyzing data and modeling in something like R or Python. Students will have an opportunity to improve their analytical and modeling skills, become better grounded in basic ecology theory, and improve writing, logical thinking and problem-solving abilities. We are interested in ecology, evolutionary biology, environmental science, computer science and/or mathematics students. Funding of at least \$21,000/year is guaranteed for 4 years and comes from TA'ships, RA'ships and scholarships.

The University of New Brunswick is a comprehensive university with campuses in Saint John and Fredericton, New Brunswick, Canada with approximately 10,000 students. The Houlihan lab is part of the Department of Biological Sciences and The Canadian Rivers Institute at the Saint John campus. This is a vibrant department with a focus on aquatic and marine biology and more than 50 graduate students. Saint John is a small

(pop - 68,000) attractive, coastal city in southern New Brunswick.

If you are interested in the position drop me a note at [jeffhoul@unb.ca](mailto:jeffhoul@unb.ca) and attach your cv, transcripts (unofficial or official) and 3 references with contact info.

Expiry date: July 1, 2017.

Jeff Houlahan <[jeffhoul@unb.ca](mailto:jeffhoul@unb.ca)>

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## UNorthDakota BisonGeneticsEvolution

The project studies the historic, current, and future status of bison herds from biological, archaeological, and cultural perspectives and includes the analysis of modern and ancient bison DNA.

U. North Dakota. AncientModernBisonGenetics.

The Laboratory of Human and Forensic Genetics at the University of North Dakota ([www.und.edu](http://www.und.edu)) is inviting applications from potential graduate students who pursue the MS degree. PhD candidates will be also considered.

A student will be engaged to a project on the historic, current and future status of bison herds from biological, archaeological, and cultural perspectives. It is a collaborative effort with Theodore Roosevelt National Park (THRO). This cross-disciplinary project represents an opportunity to get intensive training in the methods of ancient and modern DNA analyses including DNA isolation from a variety of tissues, next-generation and traditional sequencing, quality control of DNA templates, and bioinformatics. Genetic, phylogenetic, and demographic studies of extirpated and extant bison specimens will be used to generate important insights for management of bison at THRO and other locations throughout the Midwest.

Candidates should demonstrate motivation for hard laboratory work and strong interest in molecular genetics and evolution. Preference will be given to students with a proven record of molecular biology skills.

Additional experience in bioinformatics is a plus.

If you are interested you need to apply to the University of North Dakota Biology Graduate Program using the regular procedure that can be found in the UND Graduate School website: <http://graduateschool.und.edu/future-students/apply.cfm> The additional information

can be also found in the Biology Department website: <http://arts-sciences.und.edu/biology/graduate/-programs.cfm> The position starts in Summer or Fall 2017. To receive full consideration, applications and required materials should be received by the Biology Graduate Program by February 15, 2017.

Potential graduate students are strongly encouraged to make contact with Dr. Igor Ovchinnikov. Contact information: Dr. Igor Ovchinnikov Associate Professor Lab. of Human and Forensic Genetics Department of Biology University of North Dakota Email: [igor.ovtchinnikov@email.und.edu](mailto:igor.ovtchinnikov@email.und.edu) Thank you.

Igor Ovchinnikov

Dr. Igor Ovchinnikov Associate Professor Lab. of Human and Forensic Genetics Department of Biology Forensic Science Program University of North Dakota 10 Cornell Street Grand Forks, ND 58202 Phone (office): (701) 777-4471 Email: [igor.ovtchinnikov@email.und.edu](mailto:igor.ovtchinnikov@email.und.edu)

“Ovtchinnikov, Igor” <[igor.ovtchinnikov@email.und.edu](mailto:igor.ovtchinnikov@email.und.edu)>

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## UPittsburgh EvolutionaryEcol

PhD positions in Evolutionary Ecology

The Turcotte Lab at the University of Pittsburgh is looking for PhD students to experimentally test the dynamic interplay between rapid evolution and community ecology in the field. Using various plant and insect study systems and complementary approaches, including experimental evolution, modeling, and genetic analyses, we test cutting-edge hypotheses in Evolutionary Ecology. We are especially interested in testing how rapid phenotypic changes, both plastic and evolutionary, impact concurrent ecological dynamics and species interactions. The aim of the lab is to disentangle and quantify how ecological and evolutionary processes reciprocally impact each other and understand their importance in nature.

Please visit the lab webpage for more information: [www.martinturcotte.net](http://www.martinturcotte.net) The University of Pittsburgh is a leading research university and the—Department of Biological Sciences—is a dynamic and growing team of enthusiastic researchers and educators. The department also runs the—Pymatuning Lab of Ecology,—which is equipped with lab space and housing to facilitate field-based research in northwestern Pennsylvania.—The City of Pittsburgh is a vibrant and beautiful place to live. It is often voted the ‘Most Livable city in the U.S.’. All

graduate students in the department are provided with a competitive stipend and benefits for 5 years through a combination of fellowships, TAs, and research assistantships. Although funding from the lab itself is available, I expect all prospective students to apply for external funding.

Prospective students should email me (turcotte@pitt.edu) with a short paragraph stating why you are interested in the lab and describe your past research experience. Please include your C.V., any publications, and contact information for a few references.

Martin Turcotte, Ph.D. Assistant Professor, Department of Biological Sciences University of Pittsburgh

[www.martinturcotte.net](http://www.martinturcotte.net) turcotte@pitt.edu

204A Clapp Hall, 4249 Fifth Avenue Pittsburgh, PA 15260,—USA—

“TURCOTTE@pitt.edu” <TURCOTTE@pitt.edu>

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## Uppsala Two Positions Evolutionary Ecology

Uppsala University hereby invites applications for 2 Ph.D. positions in Animal Ecology at the Department of Ecology and Genetics, Evolutionary Biology Centre (EBC) with an application deadline of March 15.

Position 1: The Evolution of Adaptive Epigenetic Inheritance, in the lab of Dr. Martin Lind  
Position 2: Causes and Consequences of Variation in Mutation Rate, in the lab of Dr. David Berger

The two advertised positions are independent. Applicants that are interested in both positions should submit two separate applications.

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**POSITION 1 - The Evolution of Adaptive Epigenetic Inheritance**  
The belief that the genetic code is the sole basis for biological inheritance has been challenged by the discovery of trans-generational epigenetic inheritance, where environmentally induced phenotypes are inherited for several generations by factors that determine how DNA is read. However, the adaptive significance of a complementary inheritance system that is induced by the environment is enigmatic.

The applicant will investigate the evolution of adaptive epigenetic and trans-generational inheritance during

adaptation to new environments (high or fluctuating temperature) in the powerful laboratory *Caenorhabditis remanei* nematode model system. We will use a combination of experimental evolution, trans-generational phenotypic assays of life history traits (fitness, growth, development, lifespan) and gene expression approaches, including analyses of already existing lines. The project is supported by a grant from the Swedish research Council (VR).

The applicant will join the lab of Dr. Martin Lind, and be part of the well-equipped nematode lab, at the moment led by three PIs (Dr. Lind, Dr. Bolund, Dr. Maklakov) interested in life-history evolution, inheritance, ageing and sexual selection.

**Qualifications:** A relevant master degree or equivalent in evolutionary biology, genetics, ecology or a related field. We are looking for you who are motivated, highly reliable, driven and well-organised, and have a broad interest in evolutionary biology. It is desirable if you have experience of laboratory work and/or animal husbandry (of any organism). Because the holder of this position will interact closely with other lab members, we put emphasis on personal ability, independence and ability to collaborate. You should have the capacity to express yourself well in speech and writing in English.

#####

**POSITION 2: Causes and Consequences of Variation in Mutation Rate**  
Variation in mutation rate is a pivotal determinant of rates of adaptation and extinction and a causative agent in human health problems, including ageing, cancer, and genetic disease. Mutation rate has typically been treated as an invariable species-specific parameter but this view has recently been challenged by studies showing that mutation rate can vary with health, nutritional state, sex, and age. The evolutionary causes and consequences of this variation remain largely unexplored and the successful applicant will take an experimental approach to understand among-individual variation in mutation rate with the overarching aim to explore how this variation may influence evolution in novel environments.

The research will take advantage of the finished genome assembly of the seed beetle *Callosobruchus maculatus*, potentially combined with experiments on other available laboratory study systems such as butterflies, fruit flies and nematode worms. The successful candidate will employ experimental evolution and/or mutation accumulation approaches in combination with comparative analysis of quantitative genetic and genomic data.

The candidate will work in direct association with one PI (Dr. David Berger, main supervisor) and share lab

space with members of Prof. Göran Arnqvist's group, with whom interactions and collaborations are encouraged. Currently, the beetle lab consists of 10 members working on various aspects of life history evolution, sexual selection, and evolutionary genetics. The position is funded by the Swedish Research Council (VR).

Qualifications: We seek a highly motivated and enthusiastic person with a broad interest in evolutionary biology. Experience in quantitative/molecular/population genetics, or in life history- and sexual selection theory, is an advantage, but not a requirement. Experience of laboratory work or in using statistical software (e.g. R, SAS, Mathematica, Python) is also a merit. Because the holder of this position will interact closely with other lab members, we will put emphasis on both independence and ability to collaborate. The applicant is expected to be fluent in English.

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THE INFORMATION BELOW ALLPIES TO BOTH POSITIONS

WORKING PLACE: EBC hosts one of the world's largest aggregations of evolutionary biologists. The Department of Ecology and Genetics is an international environment with staff and students from all over the

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## UppsalaU EvolutionaryGenetics

Dear colleagues,

I have a PhD position available to work on genome structure evolution in birds-of-paradise. The position is fully funded (4 years) and located at the Department of Evolutionary Biology (EBC), Uppsala University, Sweden. Application deadline March 01. More information here: <https://uu.mynetworkglobal.com/en/what:job/-jobID:132812/where:4/> Thanks and best wishes, Alex

“alexander.suh@ebc.uu.se” <alexander.suh@ebc.uu.se>

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## UppsalaU Sweden Systematic Biology

PhD student in systematic biology, within mycology

A position as a PhD student working with the evolution of ectomycorrhizal fungi is available in Martin Ryberg's group at Uppsala University, Sweden. Deadline for application is February 28, and the full add and link to application system is available at: <http://-uu.se/en/about-uu/join-us/details/?positionId=130647> To be eligible for a PhD-student position the applicant must hold a master degree (or equivalent) in a relevant field. The ideal candidate is highly motivated with education/experience in mycology, bioinformatics, phylogenetics and/or molecular lab-work. Candidates must be fluent in English.

[martin.ryberg@ebc.uu.se](mailto:martin.ryberg@ebc.uu.se)

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## USalzburg BulbophyllumTraitEvolution

THREE-YEAR PHD POSITION IN PLANT EVOLUTIONARY BIOLOGY

A Ph.D. position in Plant Evolutionary Biology is available at the Dept. of Ecology and Evolution, Division of Plant Ecology, Diversity & Evolution, University of Salzburg, Austria, with Prof. Hans Peter Comes and Dr. Alexander Gamisch to study the tempo and mode of trait evolution and lineage diversification in a species-rich orchid (*Bulbophyllum*) clade endemic to Madagascar and adjacent islands.

The overall aim of this research project is to investigate the temporal stages of evolution in various trait complexes that likely had a major role in the group's radiation. Specifically, this involves (1) the completion of a time-calibrated and well-sampled multi-gene phylogeny of Madagascan *Bulbophyllum*; (2) the gathering of new datasets comprising variation in four suites of traits (i.e. macro-ecological habitat, photosynthetic pathway, flower morphology/shape and floral scent); and (3) the fitting of various macro-evolutionary models of lineage diversification, trait evolution, and trait-

dependent diversification to the trait data and/or the molecular phylogeny.

The successful candidate will closely co-operate with the project postdoc (Dr. Gamisch) and will be mostly responsible for (1) gathering and analysing data of the orchids' three-dimensional (3D) flower morphology, using X-ray micro-computed tomography and landmark-based geometric morphometrics (in co-operation with Prof. Dr. Jörg Schöneberger/Vienna); and (2) collecting and analysing floral scent samples by means of gas chromatography/mass spectroscopy (in co-operation with Prof. Dr. Stefan Dötterl/Salzburg). The candidate is further expected to assist in routine molecular work and in the comparative phylogenetic analyses, and also has the opportunity to participate in field work in Madagascar.

The ideal applicant has a genuine interest in plant evolution and a strong background in at least one of the following fields of research: a) floral morphometrics; b) chemical ecology/analytical chemistry; and/or c) molecular phylogenetics. Apart from short research stays at the University of Vienna, fieldwork in remote places of Madagascar is required. Accordingly, the successful candidate should be willing to travel and have physical fitness to perform field research under tropical rainforest conditions. An MSc, diploma degree or equivalent in Botany, Ecology, Genetics or Evolutionary Biology is required. Fluent English is a must and French as second language would be an advantage. German is not mandatory.

The position is starting April 1, 2017, with funding for three years by the Austrian Science Fund (FWF). The monthly gross salary is c. 2045 EUR paid 14 times a year. The University of Salzburg (<http://www.unisalzburg.at/>) offers excellent facilities, and a very pleasant working and living environment in one of the most beautiful landscapes in Austria.

Please send (if possible via email) a letter of application together with a full CV, a copy of your master/diploma certificate, and the addresses of two referees (all merged into a single pdf) to:

Prof. Hans Peter Comes

Department of Ecology and Evolution

division of Plant Ecology, Diversity & Evolution

Paris-Lodron-University Salzburg

Hellbrunnerstr. 34, A-5022 Salzburg

Austria

Tel.: ++ 43 (0) 662 8044-5505

Fax: ++43 (0) 8044-142

Email: [peter.comes@sbg.ac.at](mailto:peter.comes@sbg.ac.at)

UPDATE: We will be considering applications until 15 March 2017.

"[AlexanderGamisch@gmx.at](mailto:AlexanderGamisch@gmx.at)"  
<[AlexanderGamisch@gmx.at](mailto:AlexanderGamisch@gmx.at)>

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## USDA BatonRouge EvolutionBeeVirus

Graduate Assistantships on Pollinator Health The Healy <<http://entomology.lsu.edu/healy.html>> laboratory is currently seeking a graduate student (MS or PhD) interested in evaluating the epidemiology of deformed wing virus on honey bees. This project will involve working in a team at LSU with partners from the USDA Honey Bee Research laboratory in Baton Rouge. The goal of this study will be to evaluate different transmission dynamics of the virus to honey bees. Contact Kristen Healy ([KHealy@agcenter.lsu.edu](mailto:KHealy@agcenter.lsu.edu)).

The Swale <<http://entomology.lsu.edu/swale.html>> laboratory is currently seeking a PhD student to conduct physiology based studies evaluating the impacts of different stressors (pathogens, pesticides, mites, nutrition, climate) on honey bee health. This research will be in collaboration with partners from LSU and the USDA Honey Bee Research laboratory in Baton Rouge. Contact Dan Swale ([DSwale@agcenter.lsu.edu](mailto:DSwale@agcenter.lsu.edu)).

Project Leader - Honey bees (will be filled either at the Master's or PhD level)

POSITION DESCRIPTION: Funding is available for a project leader (Masters or PhD level) in the area of honey bee health and mortality. The successful applicant will coordinate and conduct research as part of a longitudinal study on honey bee health being conducted at the Louisiana State University, Department of Entomology. Objectives of this study are to understand the epidemiology of deformed wing virus to honey bees, to evaluate various stressors affecting the health of commercially managed honey bees, and to evaluate different extension-based methodologies to improve outcomes in managed honey bees. The successful applicant will be required to assist in field data collection in out-of-state study sites (approximately 12 sampling trips over 2 years), in California, South Dakota, and Mississippi. The successful candidate will work closely with the USDA-ARS Honey Bee Breeding, Genetics, and

Physiology Laboratory in Baton Rouge, who are collaborators in this project. Successful applicant is expected to assist with field and lab work, data management, manuscript writing, and giving presentations at annual meetings. Exploration of avenues for associated projects will be encouraged.

**QUALIFICATION REQUIREMENTS:** Experience working with honey bees is preferred. Advanced degree in Entomology or related discipline (Masters or PhD level) is required for this position.

**SALARY AND BENEFITS:** Salary will be commensurate with qualifications and experience. The LSU AgCenter has an attractive benefits package with a wide variety of benefit options. Benefits offered include retirement, multiple medical insurance options, supplemental insurances (dental, life, long-term disability, accident, vision, long-term care, etc.), Tax Saver Flexible Benefits Plan (saves tax dollars on some child care and medical expenses), university holidays (14 per year, typically includes a week off at Christmas), generous annual (vacation) and sick leave benefits, Employee Assistance Program, and possible educational leave and tuition exemption for coursework at campuses of the LSU System. Specific benefits depend on job category, percent effort and length of employment.

**DATE AVAILABLE AND DURATION:** Position is available this spring. Duration is approximately 3 years.

**APPLICATION DEADLINE:** February 24, 2017 or until a suitable candidate is identified.

**APPLICATION PROCEDURE:** Must apply online at <https://lsu.wd1.myworkdayjobs.com/LSU> by attaching cover letter with resume, transcripts, and two letters of recommendation. In lieu of attaching the letters online, they may be sent directly to contact listed below. (Paper, faxed or e-mailed application materials will not be accepted.) For more information contact: Kristen Healy (KHealy@agcenter.lsu.edu; (225) 578-7386).

Michael Simone-Finstrom Research Molecular Biologist USDA-ARS Honey Bee Breeding, Genetics, and Physiology Research < [http://www.ars.usda.gov/main/site\\_main.htm?modecode=60-50-05-00](http://www.ars.usda.gov/main/site_main.htm?modecode=60-50-05-00) > 1157 Ben Hur Rd Baton Rouge, LA, 70820

Phone: (225) 767-9293

“SimoneFinstrom, Michael - ARS”  
<Michael.SimoneFinstrom@ARS.USDA.GOV>

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## USouthBohemia CzechRepublic ProtistEvolution

Laboratory of Evolutionary Protistology at the University of South-Bohemia, Czech Republic, is looking for Ph.D. students with interest in evolution of single celled eukaryotes. Creativity and initiative are essential; the successful applicant will demonstrate dedication to leading this work while being part of a multidisciplinary team and will work with other specialists in the Programme including wet lab scientists, data analysts and statisticians, so teamwork and a collaborative ethos are required.

**Requirements -** Interest in molecular biology research - Master's degree (or being close to its completion) in molecular biology, biochemistry or in other related field of life sciences. - Hands-on experience with basic techniques of molecular biology and biochemistry such western blotting, PCR, cloning. - Good communication and interpersonal skills and fluency in spoken and written English.

Our laboratory is aimed at studying molecular evolution of microeukaryotes, mainly those that have been involved in complex plastid endosymbiosis. The main objects of our research are Chromerids *Chromera velia* and *Vitrella brassicaformis*, alveolate algae isolated from Australian stony corals and relatives to apicomplexan parasites.

We are interested in evolution of the heme biosynthetic pathway, particularly in origins of involved enzymes and their intracellular localizations. We focus mainly on algae that have passed through a process of secondary endosymbiosis.

**Other information:** The Institute of Parasitology is part of the Academy of Sciences of the Czech Republic. It was established in Prague in 1962, but was relocated to Aeske BudÁjovice in South Bohemia in 1985. It is the principal institution in the Czech Republic devoted exclusively to parasitological research. The Institute performs research on human and animal parasites at the organismal, cellular and molecular levels. Its mission is to acquire, advance, and disseminate knowledge of the biology and host relationships of parasitic protist and related eukaryotic microorganisms, helminths, and arthropod-borne infectious agents. The Institute pursues this goal through research, education and other activities at both the national and international levels.

The results obtained have contributed to the prevention and control of human and animal parasitic diseases and have an impact on agriculture.

The Institute is located in South Bohemia University Campus. To help students and researchers to develop their skills and networks, the Institute hosts a range of scientific seminars with internal and invited speakers, scientific group meetings and skills development workshops. Our Benefits include: Defined Contribution Pension Scheme, Healthcare scheme, Childcare Vouchers, Workplace Nursery and 25 days Annual Leave, increasing by one day per year up to a maximum of 30, plus Bank Holidays. We also have a cafe, dining facilities. Our thriving Sports and Social Club provides many opportunities to meet with people working across the campus. Also, Czech republic ranks in the top 10 best countries in the world for expats to live in (Expat Insider).

Our Institute welcomes applications from all candidates irrespective of age, disability, gender, gender identity, sexual orientation, race, religion or belief, or marital or civil partnership status.

Please send your CV and short statement of research background/interests by email to the head of the group Prof. Miroslav Obornik: [obornik@paru.cas.cz](mailto:obornik@paru.cas.cz)

Zoltán Füssy <[zoltan.fussy@gmail.com](mailto:zoltan.fussy@gmail.com)>

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## USouthernMississippi FishPopulationGenomics

A graduate assistant position (M.S. or Ph.D) is available in our laboratory to work on population genetics/genomics of reef fishes exploited in the Gulf of Mexico region. Current lab projects include exploitation of RAD-Tag sequencing data to generate linkage maps and/or analyze spatial genetic variation and population structure with application to the management of aquaculture programs and fisheries conservation.

The successful applicant will be provided a 12-month full-time Research Assistantship with a tuition waiver. Candidates should possess a Bachelor's degree in a relevant field (e.g. Biology, Ecology & evolutionary biology, Fisheries science, GPA > 3.5) when applying for this position. Skills in programming/script-writing and experience with molecular techniques are strong assets. The position is available starting fall 2017.

Interested individuals should send a CV, GRE scores, and unofficial transcripts to:

Eric Saillant, Ph.D Associate Professor Department of Coastal Sciences The University of Southern Mississippi Gulf Coast Research Laboratory 703 East Beach Drive Ocean Springs, MS, 39564 Tel. (1) 228-818-8007 Fax (1) 228-872-4204 E-mail: [eric.saillant@usm.edu](mailto:eric.saillant@usm.edu)

Eric Saillant <[eric.saillant@usm.edu](mailto:eric.saillant@usm.edu)>

AmherstCollege ResAssist EvolDiseaseGenomics ...	48	UCalifornia LosAngeles ResTech PlantEvolGenomics	63
CornellU FieldAssist PlantPollinatorEvolution .....	48	UCatolacadeChile 2 EvolutionaryBiol .....	63
DukeU Summer Undergrad .....	49	UdelosAndes Colombia EvolutionaryMicrobiology .	64
Germany Evo-BoGa PlantEvolution .....	50	UExeter EvolutionaryBiosciences .....	65
HunterCollege CUNY TeachingHumanEvolution ...	51	UExeter FieldAssist SpainWasps .....	66
MichiganStateU FishFacilityManager .....	52	UFlorida BeeEvolution .....	66
MichiganStateU GeneticsAdapationTechnician .....	53	UGeorgia TeachingEvolution .....	67
MichiganStateU ResLabTech NervousSystemEvol ..	53	UIllinois Chicago TeachingEcolEvolution .....	67
MNH Florida CuratorAmphibiansReptiles .....	54	UIllinois UC LabTech EvolutionaryImmunology ...	68
NHM UDenmark PopulationGenomics .....	55	UNebraska TeachingBiol .....	68
NorthCarolinaStateU EvolutionPlantDisease .....	56	UOulu EvolutionaryGenomics .....	69
Okinawa Shortterm TeachingEvolution .....	57	UPittsburgh ResTech EvolutionaryEcology .....	70
RutgersU EvolutionaryBiology .....	58	URochester LabTech EvolMolGenetics .....	70
Smithsonian PathogenEvolution .....	58	USydney 2 EvolutionaryBiology .....	71
Smithsonian ResAssist EvolutionBehavior .....	59	UZurich MorphologicalVariability .....	72
SouthAfrica ResearchManager StripedMouse .....	59	Worcester Mass ResAssoc DrosophilaMolEvol .....	72
UCalgary ComputationalBiol .....	61	ZFMK UBonn EvolutionaryGenomics .....	73
UCalifornia Berkeley ConservationBiol .....	62		

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### AmherstCollege ResAssist EvolDiseaseGenomics

#### RESEARCH ASSISTANT POSITION EVOLUTION- ARY ECOLOGY OF INFECTIOUS DISEASE

The Hood Lab (<https://www.amherst.edu/people/facstaff/mhood>) in the Biology Department at Amherst College is seeking to fill a full-time research assistant position. The position is for one year, and there is the possibility to reappointment for a second year. Ongoing projects address the evolutionary ecology of infectious disease in natural plant populations and evolutionary genomics of the pathogen's mating compatibility genes. Activities in this lab span a wide range of approaches, including molecular genetics, population biology, and greenhouse/field work. The research assistant will gain experience and participate in each of these activities as well as in general lab maintenance and operation. Start date will be as early as April, 2017.

Qualifications: Bachelor's degree in biology or related field, previous laboratory experience, and motivation to engage in biology research are expected.

To apply online, please visit our web site at <https://jobs.amherst.edu> and <https://apply.interfolio.com/40429> Amherst College is an equal opportunity employer and encourages women, persons of color, and persons with disabilities to apply. The College is committed to enriching its educational experience and its culture through the diversity of its faculty, administration, and

staff.

Michael E. Hood Associate Professor Biology Department Amherst College Amherst, MA USA 01002-5000 ph (413) 542-8538 email: [MHood@amherst.edu](mailto:MHood@amherst.edu) <https://www.amherst.edu/people/facstaff/mhood> Michael Hood <[mhood@amherst.edu](mailto:mhood@amherst.edu)>

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### CornellU FieldAssist PlantPollinatorEvolution

The Geber lab at Cornell University seeks a highly motivated, detail-oriented assistant for summer 2017 field research in the southern Sierra Nevada (May-July) and lab work in Ithaca, NY (July-August). We are studying four species of annual plants in the genus *Clarkia* and their specialist bee pollinators. Our research focuses on how pollinators may impact plant species evolution and coexistence.

Our research sites are located in the Kern River Canyon in Kern County, California. The lab rents a house on a property where other labs working in this system are also based in the summer. This field assistant would have a private bedroom, access to a shared bathroom and a communal kitchen, and wireless Internet access. Frequent trips are made into town (Lake Isabella and Kernville) for groceries and other supplies.

Successful applicants are expected to assist in data collection, data entry, and flower, seed, and bee collection



in the field; work in Ithaca will consist of sample processing and data analysis. The assistant will work a 39-hour workweek. Weather conditions in the Sierras can be very hot and dry (100+ degrees F) in the summer, so assistants should be prepared to work in hot conditions. Applicants must be able to hike up and steep hills for up to 1 mile at a time, stoop or kneel for extended periods of time, and work in proximity to bees and snakes. The work can be very physically demanding and tiring, and the research team typically collects data 7 days a week. A good sense of humor and a positive attitude are essential.

Qualifications: 1) Citizenship and availability: applicants must be US citizens and must be available to begin working in California as of May 1, 2017. The exact end date of the position in late August is flexible. 2) Education: some undergraduate education in biology, ecology, or related field, or equivalent experience 3) Experience: experience with and enthusiasm about working outdoors, and/or previous field research experience. Previous experience working with plants, bees, or insects is preferable but not required. 4) Tasks: perform repetitive tasks with attention to detail, daily hiking 5) Personality: interpersonal skills and willingness to live and work in close quarters with other researchers in a house.

Compensation: transportation to and from California, a private room with Internet access in the field house, and pay (\$13-\$15 an hour depending on experience) will be provided. Applicants will be responsible for securing their own housing in Ithaca for July and August.

The deadline for applications is March 1, 2017. Applicants should submit: 1) a short (1 page maximum) cover letter describing their qualifications as well as future academic and professional goals; 2) a resume or CV outlining previous work experience and relevant courses (completed or in progress), extracurricular activities; and 3) contact information for two references.

Cornell University is an affirmative action/equal opportunity employer. Cornell University and we in the Geber lab have a commitment to support equality of education and employment opportunity by affirming the value of diversity. We welcome and encourage scientists of all backgrounds to apply to work with us! <http://blogs.cornell.edu/geberlab/> Email to: Monica Geber, Professor of Ecology and Evolutionary Biology [mag9@cornell.edu](mailto:mag9@cornell.edu)

Katherine Eisen <[kee39@cornell.edu](mailto:kee39@cornell.edu)>

## DukeU Summer Undergrad

The Patek Lab in the Biology Department at Duke University is recruiting one high school and one undergraduate student researcher through the US Army Educational Outreach Program (AEOP) during the summer of 2017. The students will participate in projects examining fast, impulsive movements of animals in the natural environment. The focal systems for the project are catapult jumping in frog hopper insects and underwater foraging attacks in dragonfly larvae. Responsibilities of the student researchers may include collecting study organisms from local habitats, obtaining high-speed videos of animals, analyzing high-speed videos using computer software, performing statistical analyses and scientific writing. The details of responsibilities and tasks will be determined based on mutual interests of the students and the mentors. There are also possibilities for the students to develop individual projects under our mentorship.

We are looking for motivated, reliable students who are excited about having first-hand research experience at the intersection of biology and physics. Skills to perform the above-mentioned tasks are not required. We especially value students who are curious, hard-working and have an open mind about the possibilities of basic, scientific research. For more information about The Patek Lab, please visit our website: [www.thepateklab.org](http://www.thepateklab.org) DEADLINE: February 28, 2017, 11:59 pm. All applicants must submit two letters of recommendation, transcripts and must have maintained a cumulative GPA of at least 3.2 in their coursework. Applicants must also include a brief essay that explains their interest in this research and how it relates to their future goals.

Go to the below links and:

Click "Apply" at the bottom of the page

\* Fill out the forms

\* When you get to "Please select your 1st preference of URAP location.", Select "BDUN53 Duke University"

For high school students, please apply through the HSAP program:

<http://www.cvent.com/events/2017-high-school-research-apprenticeship-program-hsap-/event-summary-a0d910ce30ff4c848b66358e0e028871.aspx>

For undergraduate students, please apply through the

URAP program:

<http://www.cvent.com/events/2017-undergraduate-research-apprenticeship-program-urap-/event-summary-ccf8d39466294c8391d60121495cfcdf.aspx>

Chi-Yun Kuo Postdoctoral Associate Patek Lab, Duke University Personal website <https://pateklab.biology.duke.edu> 919-613-0994

Chi-Yun Kuo <chi.yun.kuo@duke.edu>

## Germany Evo-BoGa PlantEvolution

Dear Colleagues,

Please find below three job announcements within the Evo-BoGa project, an initiative of the Botanic Garden and Botanical Museum Berlin, the Botanic Garden of Heidelberg University, the Senckenberg Naturmuseum Frankfurt and the Goethe University Frankfurt. The project aims to establish a platform for the joint curation of living collections in Botanic Gardens in Germany and to perform research on the evolution of selected plant groups. We are looking for

- a full-time post-doctoral scientist (biology) performing phylogenetic analysis in the Cactaceae family including development of molecular markers using targeted sequence capture. The position also includes the development of strategies for the joint curation of living collections in Botanic Gardens. The position is located in Berlin.
- a part-time information scientist for the development of a data portal that allows Botanic Gardens to jointly curate their living collections while still using their own databases. The position is located in Berlin.
- a part-time scientist (biology, "Promotionsstelle") performing phylogenetic analysis in the Bromeliaceae family and developing tools for quick and reliable identification using DNA-based methods to support comprehensive data management in living collections also between institutions. The position is located in Frankfurt and Heidelberg.

A good command of the German language is expected from the applicants.

Kind regards,

Eva Häffner

Dr. Eva Häffner Freie Universität Berlin Science Policy Coordinator Botanischer Garten und Botanisches

Museum Berlin Königin-Luise-Str. 6-8 14195 Berlin Tel.: (030) 838 59964 Fax: (030) 838 4 59964 E-Mail: [e.haeffner@bgbm.org](mailto:e.haeffner@bgbm.org) [www.botanischer-garten-berlin.de](http://www.botanischer-garten-berlin.de) Stellenausschreibungen im Rahmen des BMBF-Projekts "Pflanzensammlungen Botanischer Gärten: Lebendige Ressourcen für die integrative Evolutionsforschung"

Für das Projekt "Pflanzensammlungen Botanischer Gärten: Lebendige Ressourcen für die integrative Evolutionsforschung" suchen wir Unterstützung. Das vom Bundesministerium für Bildung und Forschung im Rahmen des Programms "Universitäre Sammlungen" geförderte Verbundprojekt hat zum Ziel, Strategien für die Vernetzung von botanischen Lebendsammlungen untereinander und mit komplementären Sammlungstypen (Herbarien) zu entwickeln und insbesondere die Lebendsammlungen für die Evolutionsforschung nutzbar zu machen. Im Projektverbund soll exemplarisch an zwei Pflanzengruppen -Bromelien und Kakteen - integrative Evolutionsforschung betrieben sowie ein Datenbankportal zu Vernetzung von Lebendsammlungen entwickelt werden. Das Projekt wird koordiniert vom Botanischen Garten und Botanischen Museum an der Freien Universität Berlin, weitere Projektbeteiligte sind der Botanische Garten der Universität Heidelberg, das Senckenberg Forschungsinstitut und Naturmuseum Frankfurt, die Goethe-Universität Frankfurt, sowie verschiedene kooperierende Botanische Gärten in Deutschland.

Wissenschaftliche Mitarbeiterin / Wissenschaftlicher Mitarbeiter Ab sofort befristet bis zum 31.01.2020 Entgeltgruppe 13 TV-L FU mit 100% der Arbeitszeit

Aufgabengebiet: Phylogenetisch-evolutionsbiologische Analyse der Artendiversität ausgewählter Kakteengruppen: Dies beinhaltet die Sichtung und Beprobung der Lebendsammlungen in Botanischen Gärten, die Entwicklung neuer molekularer Marker mittels Targeted Sequence Capture, die molekulare Charakterisierung der Sammlungsobjekte anhand ausgewählter Marker des Kern- und Chloroplastengenoms, die Ermittlung von Chromosomenzahlen und Genomgrößen sowie die vergleichende Analyse der erhobenen Datensätze.

Erarbeitung von Strategien für eine institutionenübergreifende Entwicklung der Pflanzensammlungen als Ressource für Forschung und Artenschutz: Dies beinhaltet die übergreifende Auswertung der Lebendsammlungen mit Fokus auf die Modellgruppen, die Vorbereitung und und Koordination von Workshops mit den Kustod/innen des Verbands Botanischer Gärten sowie internationalen Partnern, die Auswertung, Publikation und Präsentation der Ergebnisse sowie die Unterstützung der Koordination des Verbundprojekts.

Einstellungsvoraussetzungen: Hochschulabschluss (Bachelor/Master) in Biologie oder einem vergleich-

baren Fachgebiet.

Erwünscht: Promotion in Systematischer Botanik oder einem verwandten Fachgebiet Erfahrung mit molekularbiologischen Methoden der Evolutionsforschung (molekulare Marker, NGS) Erfahrung im Projektmanagement Sehr gute Englischkenntnisse, ausgeprägte kommunikative Fähigkeiten und Freude an der Projektorganisation und der Arbeit im Team mit Partnern unterschiedlicher Organisationen und Disziplinen, Spanischkenntnisse.

Bereitschaft zu Dienstreisen innerhalb von Deutschland

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## HunterCollege CUNY TeachingHumanEvolution

Hunter College

### FACULTY VACANCY ANNOUNCEMENT

The Human Biology Program at Hunter College seeks a Lecturer in the field of human biology, with expertise in human adaptation, human variation, human behavioral ecology, biocultural evolution, evolutionary medicine, or a related field. The main duty of the appointee will be teaching multiple sections of the Human Biology Capstone course each semester, as well as related teaching functions, such as: advising Human Biology majors, and developing and participating in Human Biology Program events. The position includes service on programmatic, departmental, divisional, and college committees. Some evening or weekend responsibilities may be required. The successful candidate will be expected to participate in teaching development and scholarly activity. This position has a teaching load of 27 credits per academic year (nine 3-credit courses). Allocation for student advising will be counted towards the teaching load. This is a full-time (9 month) position and we anticipate a start date of Fall 2017. The position is "Certificate of Continuing Employment" eligible after 5 years.

### QUALIFICATIONS

A Ph.D. is required in anthropology, biology, human biology, psychology, or a related field. Also required are the

ability to teach successfully, demonstrated scholarship or achievement, and ability to cooperate with others for the good of the institution. We seek an individual with a strong commitment to interdisciplinary teaching and advising as well as an ability to work with diverse student populations. Three years of teaching experience is required. Ability to advise undergraduate students and develop and participate in programs designed to enhance the experience of Human Biology majors (major exploration events, research fairs, etc.) is required. The preferred candidate will have experience teaching small, interdisciplinary, and/or seminar-style courses. The preferred candidate will also have experience in undergraduate advising and/or mentoring. Experience in a college setting with diverse communities is preferred. Ability to assist students in placements in or applications to independent research internships, field schools, etc. will also be valuable. We also seek commitment to teaching initiatives, productive scholarship, and/or creative achievement and ability to cooperate with others for the good of the institution.

### COMPENSATION

Commensurate with experience.

CUNY offers faculty a competitive compensation and benefits package covering health insurance, pension and retirement benefits, paid parental leave, and savings programs. We also provide mentoring and support for research, scholarship, and publication as part of our commitment to ongoing faculty professional development.

### HOW TO APPLY

>From our job posting system, select "Apply Now", create or log in to a user account, and provide the requested information. If you are viewing this posting from outside our system, access the employment page on our web site and search for this vacancy using the Job ID or Title.

Candidates should submit the following items, combined into a single document, with your on-line application:

1. Cover letter describing your approach to teaching and your interest in undergraduate education, interdisciplinary studies, human biology, and student advisement.
2. Curriculum Vitae
3. Statement of Teaching Philosophy (comments on advising are welcomed)
4. Teaching Portfolio (including quantitative and qualitative teaching evaluations if available)
5. Names and email and postal addresses for at least three individuals familiar with their teaching and scholarship who can be contacted for recommendations. Inquires about the position can also be directed to [humbio.search@hunter.cuny.edu](mailto:humbio.search@hunter.cuny.edu).

### CLOSING DATE

Open until filled with review of applications to begin March 13, 2017.

#### JOB SEARCH CATEGORY

CUNY Job Posting: Faculty

#### EQUAL EMPLOYMENT OPPORTUNITY

CUNY encourages people with disabilities, minorities, veterans and women to apply. At CUNY, Italian Americans are also included among our protected groups. Applicants and employees will not be discriminated against on the basis of any legally protected category, including sexual orientation or gender identity. EEO/AA/Vet/Disability Employer.

Location: Hunter College

Job Title: Lecturer (Doctoral Schedule) - Human Biology Program (School of Arts & Sciences)

Job ID: 16359

Full/Part Time: Full-Time

Regular/Temporary: Regular APPLY HERE: <http://cuny.jobs/new-york-ny/lecturer-doctoral-schedule-human-biology-program-school-of-arts-sciences/3D1C642C094D4D758098BDB34CE83AE6/job/>

Human Biology Program <[humbio@hunter.cuny.edu](mailto:humbio@hunter.cuny.edu)>

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## MichiganStateU FishFacilityManager

#### Research Technician Position/Fish Facility Manager

The Braasch and Ganz Laboratories in the Department of Integrative Biology at Michigan State University (<https://integrativebiology.natsci.msu.edu/>) are looking to fill an immediate opening for the position of a Research Technician to manage the joint fish facility of the two groups.

This position is an opportunity to join an exciting and diverse group of biologists focused on understanding the genomic basis of vertebrate evolution, development and disease using zebrafish, medaka and other fish as model organisms. The successful applicant will be involved in exciting genetic developmental experiments to study vertebrate genome evolution and nervous system development in relation to human health and disease.

Minimum requirements: Knowledge equivalent to that which normally would be acquired by completing a four-year college degree program in biology or related field;

up to six months of related and progressively more responsible or expansive work experience with fish husbandry, including care of embryos, juveniles, and adult fish; experience maintaining large numbers of aquaria for freshwater fish; or an equivalent combination of education and experience.

Desired qualifications: Experience handling fish, feeding and food preparation, husbandry related to fish breeding, fish health control, and water quality management; must be absolutely dependable, with excellent organization and communication skills; long-term experience with fish husbandry or aquaculture; knowledge of zebrafish/medaka biology, development, and genetics; ability to take charge and oversee animal husbandry, stock management, and quarantine operations; experience with large-scale, centralized fish husbandry systems; a general familiarity with laboratory safety and campus animal care policy and procedures, experience in training and supervising assistants in fish care and colony maintenance; experience with use of various desktop computer software including database management (Microsoft Office, Dropbox, FileMaker Pro etc.); experience with molecular methods (e.g. DNA extraction, PCR, gel electrophoresis), immunohistochemistry, imaging, and microinjections; be willing and able to perform duties on some weekends and holidays on a rotating basis.

Job Summary: Primary responsibilities include maintaining a colony of zebrafish and medaka (up to 650 tanks and 10,000 fish total) including feeding and keeping tanks and the fish rooms clean and in good working order, fish health assessment and quarantine procedures, water quality management. Fish system and fish database management, ordering of supplies and materials for the fish facility, training undergraduate assistants and other lab members in fish husbandry, interaction with the MSU Animal Care and Environmental Health offices, and organization of fish import and export from and to stock centers and other institutions. Setup of genetic crosses and providing support for ongoing experiments by tissue sampling, genotyping, immunohistochemistry and imaging.

This is a full-time appointment, and offers excellent benefits (healthcare, dental, etc.). The initial appointment will be for a 6-month probationary period, after which yearly reappointments will be made for successful and productive candidates.

To apply please go to: <https://jobs.msu.edu/> - Position number: 4822

Closing date for applications is February 14, 2017.

— Dr. Ingo Braasch Fish Evo Devo Geno Lab Department of Integrative Biology College of Natural Science

Michigan State University East Lansing, MI - USA

braasch@msu.edu

“Braasch, Ingo” <braasch@msu.edu>

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## MichiganStateU GeneticsAdaptationTechnician

The Lowry Lab at Michigan State University is currently seeking to hire a field research technician. The technician will be hired through the University of Texas, but be stationed at the Kellogg Biological Station in Hickory Corners, MI. The research will be focused on a large collaborative project studying adaptation in the bioenergy feedstock switchgrass. The research will utilize new genetic mapping populations to identify genomic regions responsible for adaptation between northern upland and southern lowland ecotypes of switchgrass. These mapping populations have been planted at an unprecedented geographical scale, spanning ten common garden field sites distributed over 17 degrees of latitude, making them ideal for studies of regional adaptations. The technician will be primarily responsible for maintaining and gathering data from the switchgrass common garden located at MSU’s Kellogg Biological Station (KBS). The technician will also work in the laboratory of David Lowry on MSU’s main campus, especially during winter months. The research will often involve all-day physical activity outdoors. The technician will be expected to organize data collection efforts and coordinate these efforts with the larger team across the central United States. Applications for the position can be made through the following link: <https://utdirect.utexas.edu/apps/hr/jobs/nlogon/170215014481> – David B. Lowry Assistant Professor Plant Biology Department Michigan State University Plant Biology Laboratories Room 268 517-432-4882 <http://davidbryantlowry.wordpress.com/> “dlowry@msu.edu” <dlowry@msu.edu>

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## MichiganStateU ResLabTech NervousSystemEvol

Research Lab Technician

The Ganz Laboratory ([www.ganzlab.org](http://www.ganzlab.org)) at the Department of Integrative Biology, Michigan State University is looking to fill an immediate opening for the position of a Research Lab Technician. We are looking for an enthusiastic, highly motivated and responsible individual to join an exciting research team focused on understanding nervous system development and disease using zebrafish as model organism. The successful applicant will be involved in research using molecular, genomics and imaging techniques to understand how stem cells generate a diverse and complex nervous system during development, in the context of human disease and during regeneration.

Position summary: Our research focuses on understanding how the development and regeneration of the nervous system is regulated using zebrafish as a model organism. The ideal candidate will be expected to perform and document a variety of tasks in a timely, accurate and detailed manner, meet with the PI on a weekly basis and provide support to graduate students and postdocs in the lab. Primary duties may include, but are not limited to: perform experiments under supervision of laboratory head; provide support with molecular biology, developmental biology and imaging projects; ordering supplies and equipment; lab supply and equipment maintenance and organization; maintaining and documenting lab cleanliness and safety standards; managing lab databases (such as plasmid database, antibody database); equipment maintenance; supervising and training undergraduate students, staff and volunteers; conducting literature reviews on various topics related to developmental biology, neuroscience and genetics.

Minimum requirements: Knowledge equivalent to that which normally would be acquired by completing a four-year college degree program in Biology, Cell Biology, Molecular Biology, Developmental Biology, Neuroscience or related field of biological sciences; up to six months of related and progressively more responsible or expansive work experience in a biology research lab; experience with standard molecular biology techniques; or an equivalent combination of education and experience.

Desired qualifications: Master’s degree in Biology,

Molecular Biology, Developmental Biology, Neuroscience or related field; one to two years post degree experience working in a molecular biology/neuroscience lab; knowledge of zebrafish biology, development, and genetics; experience with microscopy work and imaging techniques; experience with next generation sequencing approaches; strong communication and interpersonal skills; strong time management skills; strong organizational skills; evidence of experience with project planning; evidence of enthusiasm to master new techniques; evidence of accurate performance and attention to detail; evidence of successful completion of prior research goals; evidence of accurate and detailed record keeping; experience with use of various desktop computer software (Microsoft Office, Dropbox, etc.).

This is a full-time appointment, and offers excellent benefits (healthcare, dental, etc.). The initial appointment will be for a 6-month probationary period, after which yearly reappointments will be made for successful and productive candidates.

To apply please go to: <https://jobs.msu.edu/> - Position number: 4909

Closing date for applications is February 28, 2017.

Dr. Julia Ganz Assistant Professor Department of Integrative Biology Michigan State University 293 Farm Lane East Lansing MI 48824 Giltner Hall 39 (office) Giltner Hall 40 (lab) Phone (Office): 517 432 0733 ganz@msu.edu [https://www.researchgate.net/profile/Julia\\_Ganz](https://www.researchgate.net/profile/Julia_Ganz) [www.ganzlab.org](http://www.ganzlab.org) "Ganz, Julia" <ganz@msu.edu>

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## MNH Florida Curator Amphibians Reptiles

Collections Manager of Amphibians & Reptiles

The Florida Museum of Natural History (FLMNH; <http://www.flmnh.ufl.edu>) at the University of Florida (<http://www.ufl.edu>) invites applications for a full-time collections manager of the herpetology collections, effective 1 July 2017.

This person will oversee and manage the curation of herpetological specimens, the accession of specimens into the collection, the maintenance of division records, reports, collections budget, and supplies, the processing of loans to and from the herpetology collection and provide assistance to visiting scientists and scholars. Day-to-day curation includes handling preserved skins

and skeletons as well as fluid-preserved scientific specimens (maximum ~12 lbs/jar). The collections manager will be responsible for loans, managing volunteers, maintenance and improvements of collections databases, and preparation of scientific specimens. It is expected that the collections manager will participate in on-going lab- and field-based research projects in cooperation with the curator(s) of herpetology at FLMNH. Participation in public education programs and exhibit planning within and outside the FLMNH will also be strongly encouraged. Coordination of tours and press visits within the Herpetology collection; preparation of appropriate educational outreach devices (i.e., website, educational programs, displays).

ADVERTISED SALARY: Commensurate with education and experience.

MINIMUM REQUIREMENTS: Bachelor's degree in a related field and five years of experience working with a collection of an appropriate discipline. Specific knowledge of the discipline for the collection area is required.

PREFERRED QUALIFICATIONS: Ph.D. preferred, with at least 2 years of experience in working with a systematic collection of amphibians and reptiles. Proficiency at using the scientific literature to identify such species, prepare and curate specimens in accordance with the standards of the discipline. Inclusive of:

A. Intimate knowledge of inner workings of a systematic herpetology collections and curatorial techniques. Among these are:

- (a) skills constructing and working with databases;
- (b) ability to extract and interpret field data;
- (c) knowledge of international, federal, and state regulations pertaining to scientific specimens;
- (d) skills in geocoding and mapping data;
- (e) knowledge of preservation techniques;

B. Sufficient knowledge of the systematics of amphibians and reptiles and associated literature is necessary for accurate sorting and identification of incoming material, catching earlier identification errors, ascertaining relative values of incoming material, and shelving of specimens.

C. Knowledge of computers and software, specifically Specify, GIS-related applications, Microsoft Word, and other technical software specific to research discipline for mapping localities.

D. Must be able to work independently so that day-to-day activities need not require constant monitoring by the immediate supervisor. In addition, the person in this position must have good organization skills.

E. Knowledge of standard field collecting techniques and procedures and how to secure proper permits.

F. Demonstrated ability for effective scientific writing, research, and communication with peers, students, and the general public. Knowledge and adherence to the rules and regulations associated with the collecting, shipping and accessioning of natural history specimens for a major museum and specimen repository and managing a database for the same.

**SPECIAL INSTRUCTIONS TO APPLICANTS:** In order to be considered for this position all applicants must submit (1) a CV, (2) names and contact info for 3 professional references, and (3) a statement of philosophy regarding the use and management of scientific collections (1 page maximum). This is a time-limited position.

For questions about this position, please contact FLMNH Associate Curator of Herpetology, Dr. David C. Blackburn. [dblackburn@flmnh.ufl.edu](mailto:dblackburn@flmnh.ufl.edu)

For further details on the position, please visit: <http://explore.jobs.ufl.edu/cw/en-us/job/501283/-collections-manager-ii> To be considered, all applications must be submitted on-line at <http://jobs.ufl.edu> (requisition # 501283).

For additional information and instructions guides on managing your job posting online, go to

<http://hr.ufl.edu/learn-grow/just-in-time-training/-myufl-toolkits/careers-at-uf/> “Blackburn, David” <[dblackburn@flmnh.ufl.edu](mailto:dblackburn@flmnh.ufl.edu)>

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## NHM UDenmark PopulationGenomics

Associate Professor of Population Genomics

\*The Natural History Museum of Denmark Faculty of Science\*\*University of Copenhagen\*

The Natural History Museum of Denmark invites applications for a 3-year Associate Professor position in the Science of population genomics, starting 1 July 2017 or as soon as possible thereafter.

\*Subject Area\*

The candidate is expected to lead original scientific research addressing fundamental questions in population genomics, with a particular focus on investigating human evolutionary history using ancient genomics. The

ideal candidate will have extensive expertise in the computational analysis of large-scale population genomic datasets, ideally with prior experience in the inference of demographic and selective processes using both modern and ancient human genomes. A strong record of peer-reviewed publications in human genetics and other relevant fields is expected.

Applicants are required to have university level teaching experience, documented teaching competencies and must be able to explain and reflect upon own teaching practice and portfolio. Formal pedagogical training or supervision equivalent to the University of Copenhagen teacher training programme for assistant professors is required.

\*Specific qualifications\*

Extensive expertise in the computational analysis of large-scale human population genomic datasets with particular emphasis on low coverage genomic datasets incl. inference of patterns of admixture (d-statistics, f3 statistics)

Proficiency in programming and statistical analysis (in particular R)

Experience in analyses of demographic history and inference of natural selection in human genomic data.

Duties include the applicant’s own research, development of the field, assessment tasks, grant applications, and research management such as supervision and training of research fellows and other staff. The successful applicant must also teach, supervise, prepare and participate in examinations, and fulfil other tasks requested by the Department.

\*Assessment of applicants\* will primarily consider their level of documented, original scientific production at an international level, including contributions to developments in their field, as well as their documented teaching qualifications. Managerial and out-reach qualifications of applicants including ability to attract external funding will also be considered.

Centre for GeoGenetics is a Centre of Excellence financed by the National Research Foundation. We are located at the Geological Museum, and there are currently more than 100 researchers working at the Centre. More information about the Centre for GeoGenetics at <http://geogenetics.ku.dk/> Further information on the Department is linked at <http://www.science.ku.dk/english/-about-the-faculty/organisation/>. Inquiries about the position can be made to center director Eske Willerslev at [ewillerslev@snm.ku.dk](mailto:ewillerslev@snm.ku.dk).

The position is open from 1 July 2017 or as soon as possible thereafter.

The University wishes our staff to reflect the diversity of society and thus welcomes applications from all qualified candidates regardless of personal background.

\*Terms of employment \*The position is covered by the Memorandum on Job Structure for Academic Staff.

Terms of appointment and payment accord to the agreement between the Ministry of Finance and The Danish Confederation of Professional Associations on Academics in the State.

Commencing salary is currently up to DKK \*449,720\* including annual supplement (+ pension up to DKK \*76,902\*).

Negotiation for salary supplement is possible.

The application including all attachments must be in English and submitted electronically by clicking APPLY NOW below.

\*Please include \*

- Curriculum vitae including information about external funding - Diplomas (Master and PhD degree or equivalent) - Research plan - description of current and future research plans - Description and documentation of teaching experience and qualifications - Complete publication list - Separate reprints of 5 particularly relevant papers

The deadline for applications is 12 February 2017, 23:59 GMT +1\*. \*

After the expiry of the deadline for applications, the authorized recruitment manager selects applicants for assessment on the advice of the Interview Committee.

You can read about the recruitment process at <http://employment.ku.dk/faculty/recruitment-process/> . Interviews/trial lectures will be held on 22 May 2017.

Please refer to the following no. in future communication in this case: 211-0468.

\*APPLY NOW <http://employment.ku.dk/all-vacancies/?show=877111> Part of the International Alliance of Research Universities (IARU), and

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## NorthCarolinaStateU EvolutionPlantDisease

This job announcement is for an open rank faculty member for our Emerging Plant Disease and Global Food Security cluster. We are looking for an evolutionary biologist with expertise in bioinformatics.

Cluster Hire in Data Science of Emerging Plant Diseases and Global Food Security, NC State University

As part of the Chancellor's Faculty Excellence Program, NC State University seeks an outstanding faculty at any rank to form a new interdisciplinary faculty cluster on "Emerging Plant Disease and Global Food Security". The Emerging Plant Disease and Global Food Security cluster will develop new knowledge on emerging plant disease biology using an expanding array of new technologies to gather, analyze, synthesize, and share knowledge about emerging infectious diseases of plants caused by agricultural crop pathogens and arthropod vectors of these pathogens using: novel biosurveillance methods, remote sensing, GPS and mapping systems.

The new faculty cluster in Emerging Disease Biology and Global Food Security seeks an outstanding interdisciplinary data scientist for an open rank tenure-track faculty position, conducting cross-cutting research in population genomics, epidemiology, and the evolution of emerging pests and pathogens of agricultural crops. Successful candidates will have demonstrated expertise in the development and use of molecular, bioinformatics, and geospatial tools to track sources of disease outbreaks at multiple levels of scale, from the genome and biome to ecosystems. Candidates will be expected to work closely with other biologists and modelers recruited as part of the cluster, and to interact with other clusters, including Bioinformatics, Geospatial Analytics, Genetic Engineering and Society, and Data-Driven Sciences. The position will be housed in the Bioinformatics Research Center, an interdisciplinary unit with faculty from Statistics, Biological Sciences, Computer Science, and other departments.

The Emerging Plant Disease and Global Food Security cluster provides a dynamic environment for teaching and research collaborations across disciplines. NC State's location in the Research Triangle provides rich opportunities for interactions with industry; other universities, including Duke University and the University of North



Carolina at Chapel Hill; and a number of government agencies. Opportunities for synergistic linkages with the Southeast Regional Climate Hub, USDA Center for Plant Health Science and Technology, and the Southern Region IPM Center are also highly anticipated.

The Chancellor's Faculty Excellence Program is bringing some of the best and brightest minds to join NC State University's interdisciplinary efforts to solve some of the globe's most significant problems. Guided by a strong strategic plan and an aggressive vision, the cluster hiring program is adding new faculty members in select fields to add more breadth and depth to NC State's already-strong efforts. The Chancellor's Faculty Excellence Program marks a major initiative of the university's strategic plan, "The Pathway to the Future." Explore more information about the Chancellor's Faculty Excellence Program and this cluster at <http://ncsu.edu/workthatmatters>. The candidate should have a doctorate in Statistics, Biostatistics, Evolutionary Biology, Mathematics, Computer Science, Plant or Microbial Sciences or other related discipline with both strong quantitative training and an applied focus as described. Candidates should have the ability to teach at a variety of levels and the capacity to mentor at the doctoral level. The candidates should have a strong capacity to teach at both the undergraduate and graduate levels and become part of the integrated core team developing the Global Food Security Graduate Certificate Program. The capacity to mentor doctoral students and postdoctoral fellows is expected. Priority will be given to candidates that have demonstrated interdisciplinary collaborations that cut across academic units.

Applicants must have a Ph.D. in Statistics, Biostatistics, Evolutionary Biology, Mathematics, Computer Science, or other related discipline with strong quantitative training and an applied focus as described. Candidates should have demonstrated ability or potential to attract extramural funding, and will be expected to take a leading role in developing new cross-cutting initiatives at NCSU, exploiting the traditional strengths in quantitative and biological sciences. For consideration, a curriculum vitae, cover letter, statement of research goals for the cluster and contact information for references are requested.

Materials for consideration will be accepted electronically via <http://jobs.ncsu.edu/postings/58983/>. A comprehensive review of applications will begin immediately and continue until the position is filled. Review of applications will begin February 28, 2017, and

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To read the entire message look it up at <http://life.biology-mcmaster.ca/~brian/evoldir.html>

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## Okinawa Shortterm Teaching Evolution

The Ecology and Evolution Unit at Okinawa Institute of Science and Technology Graduate University is looking for a lecturer to assist with teaching of a graduate-level introductory biology course while the regular instructor is abroad. This is an exciting opportunity for anyone who wants to extend his teaching experience with state-of-the-art technology, while working in an international, intellectually stimulating environment, and enjoying a summer on a subtropical Pacific island.

This course introduces fundamentals of biological science, particularly genetics and genomics, to a diverse body of students, primarily from the physical sciences and engineering. It relies on a combination of computational approaches to introduce fundamental biological processes and laboratory experiments that emphasize critical thinking and problem solving. As a result, this course also attracts biology students interested in becoming proficient with programming bioinformatics, or with next-generation sequencing technology.

Working jointly with the regular instructor, the lecturer will be responsible for adding or modifying course content, and for organizing the course into a largely online format, as well as teaching labs and tutorials. In addition, a previously developed teaching module that constitutes part of this course, should be prepared for peer-reviewed publication (<https://peerj.com/preprints/1356/>) by creating learning assessments in exchange for authorship.

### Requirements

- The ability to deliver lectures in English.
- Experience with Python, R, and Linux; experience with Jupyter notebooks a plus.
- Previous graduate-level work in bioinformatic data analysis.
- Hands-on experience in the molecular lab.
- The ability to travel to Okinawa in May.

### Details

- 6 contact hours per week.
- Salary: ¥2,000,000 (~\$18,000). Transportation costs and housing will be provided for the successful candidate.
- Course dates: May 8 - August 18, 2017.
- OIST will help with obtain-

ing a working visa, if necessary. - Application deadline: March 5, 2017, with Skype interviews to be held during the following week.

Applicants should include a cover letter that outlines motivations and previous teaching experience, as well as evidence of proficiency in programming/bioinformatics/lab work. A CV with references is also required.

Send applications, and questions to Alexander Mikheyev (alexander dot mikheyev at oist.jp)

Sasha Mikheyev <alexander.mikheyev@oist.jp>

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## RutgersU EvolutionaryBiology

Tenure-Track Position

Federated Department of Biological Sciences, Ecology and Evolution Section

Rutgers University-Newark

The Federated Department of Biological Sciences at Rutgers University-Newark seeks to hire an evolutionary biologist to fill a tenure-track vacancy in the Ecology and Evolution group effective September 2017 at the assistant professor level, although other ranks will be considered. We seek applications from researchers who use innovative approaches to address fundamental evolutionary questions firmly grounded in organismal biology.

We especially encourage applications from individuals working in one or more of the following areas:

systematics, population genomics, landscape genomics, functional morphology, biodiversity, and/or organismal diversification. This position builds on strengths in areas of organismal biology, ecology, evolution, systematics, and conservation biology.

Rutgers University-Newark is a diverse and vibrant community of scholars and the Department of Biological Sciences offers unique opportunities for collaboration, as we are a federated department with the New Jersey Institute of Technology. More information about the Department and the full posting for this vacancy can be found at <http://www.ncas.rutgers.edu/biology>. The successful candidate will have a Ph.D. and completed at least two years of postdoctoral work focused on evolutionary biology. The successful candidate will have the ability to collaborate with diverse colleagues and disciplines, a strong publication record, and a demonstrated ability to develop a vigorous, extramurally funded re-

search program. Evidence of or potential for excellence in teaching and mentoring and a commitment to fostering and supporting diversity will be considered. Rank and salary will be commensurate with qualifications and experience. Interested applicants should submit a Cover letter, Curriculum Vitae, Research Statement, Teaching statement, and the names and contact information of three references.

Please apply through the Rutgers University Human Resources Portal:

<https://jobs.rutgers.edu/ht/shibboleth> Review of applications will begin February 28, 2017. Rutgers University-Newark encourages applications from women, veterans, people with disabilities, and members of traditionally under-represented populations.

Jessica Ware <jware@amnh.org>

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## Smithsonian PathogenEvolution

The research component involves application of evolutionary genetic methods and can address evolutionary questions.

Deadline is 15 February 2017. Five year research position.

Secretary's Scholars Job Opportunity

Molecular Pathogen Scientist

Center for Conservation Genomics

Smithsonian Conservation Biology Institute

National Zoological Park

SALARY RANGE: Starting at \$77,490, commensurate with experience

OPEN PERIOD: 15 January - 15 February 2017

DUTY LOCATION: Washington, DC

The Center for Conservation Genomics (CCG), Smithsonian Conservation Biology Institute (SCBI), National Zoological Park, invites applications for the position of Molecular Pathogen Scientist. The successful candidate will be an exceptional scientist with a strong track record of published research involving the molecular analysis of animal pathogens, especially those of concern for animal health and conservation.

The selected candidate will be expected to build an outstanding research and clinical analysis program in

molecular pathogen science. The candidate should have experience in developing and applying  $\hat{A}^3$  next generation  $\hat{A}^2$  DNA lab analysis methods and bioinformatics, as applied to pathogen diagnostics, characterization and/or function. Knowledge of the biology of one or more groups of animal parasites or pathogens is also expected. The ability to communicate effectively with a wide variety of audiences, including the public, is essential. The successful candidate will be expected to participate in activities, such as exhibits programs and educational outreach, to be involved with professional associations and other organizations within the scientific community, and to compete successfully for extramural funding.

Full-time, 5-year temporary appointment with full Smithsonian benefits to be filled at the IS-12 level, equivalent to Federal GS-12. Proof of authorization to work in US required. The zoo's authorized salary for this position at this time is \$77,490 per annum. Qualified candidates who are referred to the hiring official will be asked to submit educational transcripts and proof of U.S. accreditation for foreign study.

#### KEY REQUIREMENTS:

- \* Pre-employment Background Investigation must be successfully completed.
- \* Must be able to travel and work independently as well as within a team environment.

Candidates may qualify for this position by demonstrating the experience outlined above, by completion of three full years of progressively higher level graduate education leading to a Ph.D. or equivalent doctoral degree related to the position, or by a combination of experience and education.

The Smithsonian Institution offers a competitive salary and a comprehensive package of benefits. This is not a Federal Position, but has similar requirements and benefits. For a complete description of benefits, please visit [www.sih.si.edu](http://www.sih.si.edu). Interested candidates should submit to [fleischerr@si.edu](mailto:fleischerr@si.edu) (1) their curriculum vitae, (2) a cover letter, and (3) research statements detailing their research interests and general experience for the position by 15 February 2017. Please include the position title in the subject line of your e-mail. CVs should include a description of your paid and non-paid work experience that is related to this job; starting and ending dates of job (month and year); and average number of hours worked per week. They should also include educational history (including degrees awarded), listings of publications, scientific and public presentations, grants received, and honors and awards.

To learn more about the CCG, SCBI and NZP please

visit <https://nationalzoo.si.edu/center-for-conservation-genomics> For more information, contact Robert Fleischer ([fleischerr@si.edu](mailto:fleischerr@si.edu)).

The Smithsonian Institution is an equal opportunity, affirmative action employer. Candidates of all backgrounds are encouraged to apply.

"Fleischer, Robert" <[FleischerR@si.edu](mailto:FleischerR@si.edu)>

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### Smithsonian ResAssist EvolutionBehavior

Hello,

We are hiring two research assistants to work on 1) cooperation in vampire bats, or 2) sensory ecology in bats, in Panama. See ad here:

<https://socialbat.org/interns/> Best Dr. Gerry Carter

Gerald G Carter Smithsonian Tropical Research Institute [socialbat.org](http://socialbat.org)

Gerald Carter <[ggc.bats@gmail.com](mailto:ggc.bats@gmail.com)>

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### SouthAfrica ResearchManager StripedMouse

Position as research manager at the striped mouse project in South Africa,

starting August / September 2017 for 1.5 to 3 years

We are looking for an extremely motivated and independent biology student with a master's degree to join the striped mouse project at least until November 2018 and for a maximum of 3 years as research manager. This position is suitable for somebody who would like to gain experience in field work and scientific management. Managers get free accommodation at the station, a compensation to cover their daily costs, and either free food (approx. May to October 2018) or a compensation to buy their own groceries (total compensation per month of approx. R4500). Travel costs can be refunded by up to an additional R 12 000 / year. As such, the position compensates for all arising costs but does not represent a real employment.

The research manager will work closely together with

the station manager and both managers will share responsibilities. However, each will have specific main duties, but should also be able to deal with all other duties (for example when the other manager is on leave, or when a new manager has to be trained). Our current research manager will leave the project end of November to start a PhD. The new research manager will be instructed by the present research manager and both will overlap for approximately three months.

Skills needed: The new manager must have experience in extended field work (people without this experience can apply to become a volunteer) and must have good knowledge of behavioural ecology or a similar field of research. Experiences in working with small mammals, radio-tracking, blood sampling, living at a remote location are of advantage.

Great opportunity: This is a great opportunity to spend 1-3 years in Africa, acquiring important skills in field biology and project management, while improving your CV. These skills will become valuable whether you later continue with a PhD or other jobs. It will be very hard and demanding, but also a once in a life time experience!

You must be hard-working, highly motivated, able to work independently, good in communicating with people, able to supervise others, and not afraid of snakes. You should love to live at a remote place in nature, without regular internet and cell-phone reception. Most importantly, you are fascinated by nature and science!

Job description: Five working days a week (Mo, Tue, Thu, Fr, Sat), with Wednesday being used for a shopping trip to town (not counted as working day) and Sundays being free. Included are four weeks of holiday for 12 months, which has to be taken outside the main breeding season (August to November) during periods when other students are present at the research station.

Shared duties

Striped mice:

- . Trapping
- . Observing
- . Radio-tracking, putting radio-collars on
- . Blood sampling
- . Collect data for specific research projects (to be determined. Examples would be collecting urine samples, data on basking, cognitive testing .)

Primary duties research manager / secondary duties station manager

- . Data:
  - o Weekly data entry

- o Weekly data check
- o Monthly data backup
- o Monthly data report
- o Training and supervision of field assistants
- o Training of students and postdocs
- o Support for students and postdocs
- o Management of transmitters
- o Management of field and laboratory supplies

Primary duties station manager / secondary duties research manager

- . Technical support research station:
  - o Water system incl. sewage system
  - o Solar system
  - o Gas bottles replacement
  - o House and furniture
  - o Running of the respirometry laboratory
  - o Management of the captive colony
  - o Management of the research station car
  - o Management of bank account and cash box
  - o Management of research station supplies

Compensation:

- . Free accommodation.
- . A monthly compensation of R 4 500, which is sufficient to pay all costs of living (approx. 3500/month). In months were SKRS organises communal lunches for all people at the research station (a specific project in 2018), the compensation will be reduced.
- . For travel costs, R12 000 per year can be refunded, but proof (receipts) must be presented for this. This refund is only payable after 12 months.
- . You will become an honorary researcher at the University of the Witwatersrand in the group of Prof. N. Pillay.
- . Scientific co-authorship will be possible if the manager contributes to the success of projects by not only collecting the majority of data, but also by data analysis and writing of the manuscript.

Responsibilities:

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## UCalgary Computational Biol

The University of Calgary invites applications for a full-time Professor faculty position with Tenure to join a dynamic group of investigators as part of the Biomedical Engineering (BME) Calgary Initiative. BME Calgary brings together researchers from multiple faculties across campus with external stakeholders, including government and industry participants, to benefit from a team-based approach for tackling current and future BME challenges in Alberta, Canada and worldwide. Biomedical Engineering at the University of Calgary involves more than 100 faculty members across six faculties, with current annual research funding exceeding \$45M. The university has made significant investments in Biomedical Engineering to date, including the allocation of four Tier 1 and five Tier 2 Canada Research Chairs. Engineering Solutions for Health: Biomedical Engineering is one of six strategic research priorities of the University of Calgary. A strong culture of collaboration and cross-disciplinary research excellence is enabled by significant research infrastructure located in multiple centers across campus. The university operates a multi-faculty Biomedical Engineering Graduate Program, hosts a Biomedical Engineering-related NSERC-CREATE training program, and delivers a Biomedical Engineering Specialization in conjunction with 6 engineering majors in the Schulich School of Engineering. Please visit our website (<http://www.ucalgary.ca/bme>) for more information.

The successful candidate will be placed in a joint position, depending on their background, in the Faculty of Science, and/or Schulich School of Engineering, and/or Cumming School of Medicine. Applicants must have earned a Ph.D. in biomedical engineering or equivalent. It is expected that the successful candidate will provide evidence of:

- Outstanding and innovative world-class research which has made a major impact in their field
- International recognition as a leader in their field
- Superior track record in attracting and supervising graduate students and postdoctoral fellows
- Strong service and/or leadership record
- Excellent teaching record

The applicant should propose an original, innovative research program of the highest quality. The successful candidate will be nominated for an NSERC Tier 1 Canada Research Chair, created by the Government of Canada to posi-

tion Canada as a world leader in research. This Chair will directly support the successful candidate's research program.

Exceptional candidates must have a research focus in Biomedical Engineering with particular interest in:

- Development of computational biology or bioinformatics algorithms, tools or software for the analysis of large multivariate datasets, including biosensor, imaging, human genome, transcriptome, epigenome, microbiome, or physiome
- Biological network behaviors, such as gene regulatory networks, protein interactions, and epigenetic effects, as approached through experimental, computational, and analytical methods.
- Big data/machine learning methods, analytics, visualization, software and modeling applied to emerging areas of biomedical engineering or biological science
- Development and application of precision diagnostic and therapeutic technology, through computational, genomic, and pervasive data sensing and collecting techniques

The successful candidate will join an established multidisciplinary and inter-Faculty team of biomedical engineers, scientists, clinicians, nurses and veterinarians whose fundamental research activities, support collaborative health-related research problems. The position provides an opportunity to establish a vigorous, sustainable, externally-funded research program, contribute to teaching and graduate student supervision, and participate in leadership of BME related research, education and service. This is an excellent opportunity to build and develop an innovative research program within a dynamic and collaborative environment. A competitive salary and an attractive start-up package will be provided.

The University of Calgary is committed to supporting Biomedical Engineering as a strategic research theme within the context of the Eyes High vision to become one of Canada's top 5 research universities. The successful candidate possesses the attributes and desire to lead research initiatives within this interdisciplinary area at the University of Calgary, to build on current strengths, to develop strategy for future growth and promote program development combined with both student engagement and experience.

The Schulich School of Engineering is committed to fostering diversity through cultivating an environment where people with a variety of backgrounds, genders, interests and talents feel welcome and included. In 2016, the Schulich School of Engineering was recognized with the KNOVO Award of Distinction to honour school's commitment to diversity and equity.

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## UCalifornia Berkeley ConservationBiol

See this job posting online: <https://aprecruit.berkeley.edu/apply/jpf01224> The Department of Environmental Science, Policy, and Management at the University of California, Berkeley invites applications for a pool of part-time, non-tenure track lecturer positions (including summer sessions) to teach courses in Environmental Science and related topics. Screening of applicants begins immediately and will continue as needed. Applicants will be typically selected from this pool for one semester; some appointments will begin in the spring 2017 semester. The number of positions varies from semester to semester, depending on the needs of the Department.

We are seeking outstanding lecturers who can teach/co-teach small, medium, or large lecture and/or laboratory courses, at both undergraduate and graduate levels. Potential course topics may include environmental science, environmental policy, ecology, forestry, insect biology, GIS/remote sensing, statistics and data analysis, range management, resource management, climate science, biodiversity, conservation biology, land use as well as courses that examine social, cultural, economic and political aspects of natural resources and the environment.

General Duties - The primary responsibilities for Lecturer positions include: - Delivering lectures and holding office hours - Planning and preparing lessons; researching and developing new topics, teaching materials and online resources - Supervising Graduate Student Instructors (GSIs), if applicable - Developing exams and projects and assigning grades - Maintaining accurate records and monitoring students' progress, as well as addressing any special student needs - Maintaining knowledge of, and implementing, college policies

Qualifications: A Master's degree or equivalent degree in an area related to Environmental Science is required by the time of application. Experience of at least 5 years in lieu of degree shall be considered.

Preferred Qualifications: A Ph.D. degree in an area related to Environmental Science is preferred. Preferred qualifications also include teaching experience

and strong professional references.

Salary: Commensurate with qualifications and experience (starting annual, full-time salary is \$52,099). Some credit will be given to prior college-level teaching experience (not including graduate student or summer session teaching).

To apply, please go to [aprecruit.berkeley.edu/apply/jpf01224](http://aprecruit.berkeley.edu/apply/jpf01224).

Interested individuals should submit a current CV, a statement of teaching (which should include past and/or potential contributions to diversity and inclusion [please also indicate subject areas of interest regarding teaching]), and the names and contact information of three referees. Letters of reference may be requested of finalists. Filenames should include the applicant's last and first names. It is optional to include a copy of transcript and evidence of teaching effectiveness. All letters will be treated as confidential per University of California policy and California state law. Please refer potential referees, including when letters are provided via a third party (i.e., dossier service or career center), to the UC Berkeley statement of confidentiality (<http://apo.berkeley.edu/evalltr.html>) prior to submitting their letters.

The posting will remain open until November 30, 2017 to accommodate future Department needs. Candidates who wish to remain in the pool after November 30, 2017 will need to reapply. Applicants can direct questions to [espm\\_recruitment@berkeley.edu](mailto:espm_recruitment@berkeley.edu). Additional information on the Department and campus can be found at <http://ourenvironment.berkeley.edu> and <http://berkeley.edu>. This is a non-tenured, temporary position: the appointments to the title of Lecturer are self-terminating (no further notice on non-reappointment will be forthcoming) and do not create an obligation on the part of the University either to extend or renew the appointment outlined above. Any reappointment will be preceded by an assessment.

We encourage applications from individuals who will contribute to diversity in higher education. The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age or protected veteran status. For the complete University of California nondiscrimination and affirmative action policy see: <http://policy.ucop.edu/doc/4000376/NondiscrimAffirmAct>. - Greg Biging (o) 510 642-1249 lab website < <http://gbiging.wix.com/lab> > Vice Chair of Instruction, ESPM, UC Berkeley



zapatalab@gmail.com

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To read the entire message look it up at <http://life.biology-mcmaster.ca/~brian/evodir.html>

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## UCalifornia LosAngeles ResTech PlantEvolGenomics

UCLA Plant Evolutionary Genomics Technician/Lab Manager. We are inviting applications for an enthusiastic and experienced biologist with a bachelor's (or Master's) degree to conduct genomic research on non-model plants, and to manage a laboratory with ongoing genomic and field studies related to evolutionary and conservation questions on oaks and other plants. The individual will join a diverse and stimulating scientific team and will be included in weekly lab meetings and social events. Working in the laboratory of Victoria Sork and Felipe Zapata, the technician and lab manager (classified as Staff Research Associate III) will be responsible for laboratory methods in support of research in plant evolutionary genomics (e.g., population genomics, phylogenomics), genome annotation, and gene expression studies. This work requires knowledge of molecular research tools and skills in high throughput genomic techniques. The technician will also provide data management for research in these areas. The necessary molecular techniques include: DNA and RNA extraction, PCR, library preparation for genotyping (e.g., RAD-seq, GBS, MSG), RNAseq, epigenetics, preliminary data analysis, and sequencing sample design. Knowledge of R or python scripting languages is a plus, but not necessary. Other duties include: oversee day-to-day management of laboratory including purchase of supplies and equipment; insure proper operation and maintenance of laboratory equipment; entering and managing electronic data files; supervise undergraduate research assistants; and training of students. This is full-time appointment with shared duties in the laboratories of Victoria Sork and Felipe Zapata. Any interested individuals should review the job listing for further details: <https://hr.mycareer.ucla.edu> and search for Job Requisition #25366 -Applications submitted through the link above will be reviewed as submitted. -Reviews will begin February 15, 2017 and continue until position is filled. -Desired start date is: March 1, 2017 If you have questions, please write Victoria Sork ([sorklab@gmail.com](mailto:sorklab@gmail.com)) or Felipe Zapata ([zapatalab@gmail.com](mailto:zapatalab@gmail.com))

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## UCatolicadeChile 2 EvolutionaryBiol

The Pontificia Universidad Católica de Chile invites applications to two tenure-track Assistant Professor positions, affiliated to the Department of Ecology at the Faculty of Biological Sciences.

\*Description of the Department of Ecology and the Positions \*

The Department of Ecology (DECOL) includes 20 researchers some of which have joint appointments with the Faculty of Physics, Engineering, and Political Sciences & Geography. The DECOL is a diverse department that includes among its members, researchers from Argentina, Australia, USA, France, México and Uruguay. They participate in both undergraduate (Licentiate in Biology and Marine Biology) and graduate teaching (PhD in Biological Sciences / Ecology). In terms of research, the DECOL has identified interdisciplinary science as one of its priorities and the analyses of the impact of Global Change upon biodiversity and sustainability as its major cross-cutting themes.

In general, we are searching for creative, productive and collaborative scientists whose work addresses fundamental questions in Ecology and/or Evolution that fit within the general profile of DECOL outlined above. However, for one of these positions priority will be given to applicants with the capacity to develop a research program in the area of Ecology and/or Evolution of marine organisms, specifically macroalgae.

\*Position Responsibilities: \*

The selected applicants should:

- 1) develop an independent research program, and lead research projects in the area of Ecology and/or Evolution with emphasis in any level of ecological integration (from molecules to ecosystems) and using experimental, correlational and/or theoretical approaches.
- 2) generate interactions with researchers within DECOL, and potentially, from other Departments of the Faculty of Biological Sciences and/or other Faculties within the University.
- 3) He/she should be prepared to teach courses at the undergraduate and graduate level and according to the needs of DECOL.

**\*Application requirements:\***

Applicants should have a PhD and Postdoctoral experience. At least one of these should be in Ecology or Evolution. The applicant should show capacity to carry out an independent research program and obtain competitive, extramural funding. Teaching experience at undergraduate and/or graduate level is desirable.

**\*Selection Criteria:\***

Academic trajectory and quality of the scientific production of the applicant

Experience in interdisciplinary work

Academic references

Potential for integration into the academic activities of DECOL and the Faculty of Biological Sciences.

**\*Application Process:\***

§TO APPLY, COMPLETE THE APPLICATION FORM \*AVAILABLE UPON REQUEST FROM: \*Prof. Xavier Figueroa, Academic Secretary of the Faculty of Biological Sciences. E- mail: secretaria.academica@bio.puc.cl

§Request at least three letters of recommendation that make reference to the trajectory and academic credentials of the candidate. These should be sent directly to the Academic Secretary of the Faculty of Biological Sciences at the following E- mail: secretaria.academica@bio.puc.cl

Applicants should send all application materials by E-mail to Prof. Xavier Figueroa, Academic Secretary, Faculty of Biological Sciences, Pontificia Universidad Católica de Chile, E- mail: secretaria.academica@bio.puc.cl

**\*Deadline for Applications: April 27, 2017 at 17:00. \***

– Sylvain Faugeron

UMI3614 Evolutionary Biology and Ecology of Algae  
Departamento de Ecología Facultad de Ciencias Biológicas Pontificia Universidad Católica de Chile Av. Bernardo O'Higgins 340 Santiago - Chile +56-223 54 26 47 sfaugeron@bio.puc.cl

Sylvain Faugeron <sfaugeron@bio.puc.cl>

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**UdelosAndes Colombia**  
**EvolutionaryMicrobiology**

The Department of Biological Sciences at the Universidad de los Andes (Bogotá, Colombia) seeks to fill full time positions in Microbiology at the Assistant or Associate Professor level. The applicant must possess a PhD, preferably with postdoctoral experience and a successful track record of scientific productivity.

Applicants with expertise in any area of microbiology are encouraged to apply, especially those with research interests in microbial ecology/evolution, environmental microbiology, medical microbiology, and biotechnology.

Starting on August 2017 (or at the latest January 2018), the successful candidate is expected to teach basic undergraduate courses in cell biology, bacteriology or virology. The candidate will also offer graduate-level courses in her/his area of expertise. Between 4-6 courses are expected to be taught every year, 2-3 during the first year at the University. The successful applicant will advise undergraduate, masters and doctoral students and is expected to develop collaborative research with colleagues or technology transfer with the external sector.

The Department of Biological Sciences at the Universidad de los Andes offers one of the top microbiology programs in Latin America, and hosts 27 full-time professors. Internationally recognized research programs include parasitology, bioremediation, microbial genomics, bioinformatics, mycology, human genetics, and molecular systematics. The Department hosts a central sequencing facility and high-performance computing infrastructure. The Biological Sciences faculty is young and growing rapidly.

Interested candidates should send a curriculum vitae, a description of her/his research program, and a brief teaching statement outlining experience and philosophy (preferably all collapsed as a single PDF) to the following email address: svde@uniandes.edu.co.

Deadline for receipt of material is April 21, 2017. Top candidates will then be asked to submit letters of recommendation and copies of recent publications. If you need additional information, do not hesitate to contact: Svetlana de Arteaga svde@uniandes.edu.co Departamentode Ciencias Biológicas Universidad de los Andes

juansanc@uniandes.edu.co



## UExeter EvolutionaryBiosciences

Job title Lecturer/Senior Lecturer in Biosciences Job reference P55930 Date posted 26/01/2017 Application closing date 02/03/2017 Location Cornwall Salary Appointments will be made within the Education and Research job family salary scale ranges as follows: Lecturer on Grade F, 33,943 to 41,709 p.a., and at for Senior Lecturer on Grade G, 41,709 to 55,998 p.a. depending on skills and experience.

Package Generous holiday allowances, flexible working, pension scheme and relocation package (if applicable).

Job category/type Academic Job description (Education and Research)

Applications: [https://jobs.exeter.ac.uk/hrpr\\_webrecruitment/wrd/run/-ETREC107GF.open?VACANCY\\_ID=357296Gonj&WVID=3817591jNg&LANG=USA](https://jobs.exeter.ac.uk/hrpr_webrecruitment/wrd/run/-ETREC107GF.open?VACANCY_ID=357296Gonj&WVID=3817591jNg&LANG=USA)  
(Multiple positions)

College of Life and Environmental Sciences

The University of Exeter is a Russell Group university that combines world-class research with very high levels of student satisfaction. Exeter is ranked 9th in the Times Good University Guide 2017 and 16th in the 2014 Research Excellence Framework (REF) with 98% of its research rates as being of international quality.

To further strengthen our activities in ecology, conservation or evolution we are seeking to appoint up to two Lecturers or Senior Lecturers (Education and Research) based at the Centre for Ecology and Conservation at our Penryn campus in Cornwall. Applicants should have particular strength in ecology, conservation or evolution. We are particularly interested in growing our teams that work on marine systems.

Applicants for Lecturer positions will hold a PhD or equivalent in Ecology, Conservation, Evolution and have an independent, internationally-recognised research programme in an active field of research related or complementary to existing strengths. Applicants will be able to demonstrate a strong record in attracting funding for their research, or demonstrable potential to attract such funding; teamwork skills to work in collaboration with existing group members; an active and supportive approach to inter-disciplinary and multi-disciplinary research that will help to foster interactions and links

both within the University and externally with external partners and industry; the attitude and ability to engage in continuous professional development; the aptitude to develop familiarity with a variety of strategies to promote and assess learning; and enthusiasm for delivering undergraduate programmes. We are also looking for people with experience in working with non-university partners and generating impact from research.

For appointment at Senior Lecturer level, in addition to the above, applicants must be qualified to PhD level and be able to demonstrate a strong potential for research leadership; with a track record in refereed publications and proven success in significant grant capture. We are also looking for candidates who have existing relationships with external organisations and funders/ and knowledge and experience of key sectors or business challenges. The successful applicants will also be expected to contribute to teaching at both undergraduate and graduate levels on a range of programmes and to support impact development if appropriate to their research.

We particularly welcome applications from candidates holding individual fellowships and may make additional appointments to suitably qualified candidates To view the Job Description and Person Specification document please click here.

Applicants are encouraged to contact Prof Brendan Godley, Director of the Centre for Ecology and Conservation (tel: 01326 371861, email: [B.J.Godley@exeter.ac.uk](mailto:B.J.Godley@exeter.ac.uk)) to discuss the post further. You may also wish to consult our web site at (<http://lifesciences.exeter.ac.uk/research/>) for further details of the College.

Interviews are expected to take place over two days on the 29 and 30 March 2017. Please state clearly whether you are applying for Lecturer (P55929) or Senior Lecturer (P55930) in your application.

The department is proud to have a Silver Athena SWAN award in recognition of their commitment and impact to providing equality of opportunity and advancing the representation of women in STEM/M subjects. All of the University of Exeter's STEM/M departments hold an Athena SWAN award.

The University of Exeter is an equal opportunity employer which is 'Positive about Disabled People'. Whilst all applicants will be judged on merit alone, we particularly welcome applications from groups currently underrepresented in the workforce.

Ben Longdon <[b.longdon2@exeter.ac.uk](mailto:b.longdon2@exeter.ac.uk)>

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## UExeter FieldAssist SpainWasps

FieldAssistant positions for study of behavioural ecology of paper wasps in Spain

FIELDASSISTANTS sought for 3 months starting early April 2017, to help with a study of paper wasp (*Polistes*) behavioural ecology being carried out by Professor Jeremy Field's research group in southern Spain. The work will involve helping a postdoctoral researcher to census and observe colonies as part of experiments to elucidate the basis of helping behaviour in these wasps, which live in small colonies of <20 individuals. The successful applicants must be prepared to work hard and have an interest in behavioural/evolutionary biology and enthusiasm for fieldwork. Successful applicants will obtain excellent experience of cutting-edge insect behavioural ecology. A driving licence and any ability to speak Spanish would be an advantage, but are not essential. Because the work involves recording colour marks on individual animals, the job would not be suitable for someone who is colour-blind. Prof Field's group has recently relocated to Exeter University (Cornwall campus) from University of Sussex (see <http://www.sussex.ac.uk/lifesci/fieldlab/> for the group's research).

Airfare (from the UK) and accommodation expenses will be provided, with the field assistants needing to pay for only their own food/personal expenses, which are relatively cheap in Spain. Successful applicants will also receive a 1000 contribution towards their expenses. Accommodation will be a room in a flat/house shared with the postdoctoral researcher and/or other members of the research group - including shower, cooking facilities, TV etc. Send a covering letter and CV, including contact details (email addresses/tel nos.) for the applicant and 2-3 referees who would be available to provide references during February/March 2017. Email as a single Word document to Dr Christelle Couchoux (c.couchoux@exeter.ac.uk) and cc Prof. Jeremy Field (j.p.field@exeter.ac.uk).

Applicants must be available for interview at Exeter University (Cornwall campus) or via Skype. Review of applications will begin on 15 February, and continue until positions are filled.

Informal enquiries: c.couchoux@exeter.ac.uk

Dr Christelle Couchoux Centre for Ecology & Conserva-

tion Daphnedu Maurier building University of Exeter  
Penryn campus Cornwall TR109FE UK

email: c.couchoux@exeter.ac.uk mobile: +44 7850 146 436

C.Couchoux@exeter.ac.uk

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## UFlorida BeeEvolution

Pollination Ecology position at University of Florida

This position is relevant to biologists studying the evolution, conservation, sociality, biogeography and biodiversity, host specificity, parasite and disease dynamics, development and genetics/genomics of bees. Evolutionary biologists interested in communicating science and working with public audiences, including agricultural stakeholders in Florida, are encouraged to apply.

WHERE: The Entomology and Nematology Department at the University of Florida is accepting applications for an Assistant Professorship focused on pollination ecology in natural areas and crop systems. This is a 12-month, tenure-accruing position that will be 60% research (Florida Agricultural Experiment Station), 25% Extension (UF/IFAS Extension Service), and 15% teaching (College of Agricultural and Life Sciences). The position is based in Gainesville, FL, USA.

WHAT: The primary focus within the research assignment is the pollination ecology and/or conservation of non-*Apis* bees. The Extension responsibilities will include developing and implementing an effective statewide Extension education program to support conservation efforts and stakeholders who rely on the pollination services that non-*Apis* bees provide. The teaching responsibilities will include developing an undergraduate/graduate course in pollinator ecology/conservation and participation in revolving topic seminars in the candidate's area of expertise. Please forward this announcement to all interested parties. More information about the position can be found at <http://explore.jobs.ufl.edu/cw/en-us/job/501323>. The University of Florida is an Equal Opportunity Institution.

Andrea Lucky, Ph.D.

alucky@ufl.edu

"Lucky, Andrea" <alucky@ufl.edu>

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## UGeorgia Teaching Evolution

### TWO LECTURER POSITIONS IN INTRODUCTORY BIOLOGY AT THE UNIVERSITY OF GEORGIA

The Department of Plant Biology and the Division of Biological Sciences at The University of Georgia invite applications for two full-time LECTURER positions in Introductory Biology. Successful applicants must be able to begin teaching the first week of August 2017. A Ph.D. or equivalent degree in a relevant field is required. Responsibilities include instruction of three large-enrollment sections of introductory biology for science majors each semester, focusing either on cellular/molecular biology or organismal biology/biodiversity (a two-semester introductory sequence). All levels of biological organization and fundamental themes of biology are addressed in this sequence. The successful candidates will join a vibrant, dynamic, and forward thinking group of faculty engaged in undergraduate biology instruction across life science departments, including several faculty who specialize in biology education research. The University of Georgia is also home to the SEER Center (Scientists Engaged in Education Research), which supports collaborations among scientists and educators across campus to improve undergraduate STEM instruction.

Please submit applications online at <http://facultyjobs.uga.edu/postings/1860>. Applications, as a single PDF file, should include a cover letter, CV, and a teaching statement. The teaching statement should address how the applicant incorporates the National Academy/AAAS "Vision and Change" core concepts and competencies in their teaching. Applicants will be asked to provide names and e-mail addresses of three references who will receive an online link for submitting letters. Review of applications will begin on March 13, 2017 and continue until the position is filled. Informal enquiries and questions may be addressed to the chair of the search committee, Lisa Donovan ([pbio-depthead@uga.edu](mailto:pbio-depthead@uga.edu)).

The University is an Equal Opportunity/Affirmative Action/Vet/Disability institution. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability, gender identity, sexual orientation or protected veteran status. The Franklin College of Arts and Sciences, its many units, and the University of Georgia are commit-

ted to increasing the diversity of its faculty and students, and sustaining a work and learning environment that is inclusive. Women, minorities and people with disabilities are encouraged to apply. Faculty members are expected to support the college's goals of creating and sustaining a diverse and inclusive learning environment. Georgia is well known for its quality of life and both outdoor and urban activities (<http://exploregorgia.org>). UGA is a land- and sea-grant institution located in Athens, 70 miles northeast of Atlanta, the state capital ([www.visitathensga.com](http://www.visitathensga.com); [www.uga.edu](http://www.uga.edu)).

Dorset Trapnell <[dorset@uga.edu](mailto:dorset@uga.edu)>

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## Uillinois Chicago Teaching Ecol Evolution

### CLINICAL ASSISTANT PROFESSOR (ECOLOGY AND EVOLUTION) POSITION AVAILABLE at the University of Illinois at Chicago

The Department of Biological Sciences at the University of Illinois at Chicago (UIC) invites applications for an open clinical-track position at the assistant professor level. Located in the heart of Chicago, UIC is one of the nation's leading research universities. Numerous opportunities exist for collaborative research in biological sciences across disciplines at UIC and with colleagues and institutions throughout the Chicago region.

Successful candidate will be expected to provide instruction for the General Ecology and Evolution Laboratory course, and additionally a second course in line with his/her expertise. Successful candidate must be comfortable training, supervising and coordinating graduate teaching assistants to undertake lab-based exercises (fieldtrips and experimental design) for Ecology and Evolution majors. Responsibilities also include coordination with field offices from Department of Natural Resources (Michigan, Indiana, and Illinois) to undertake student fieldtrips.

Candidates must have a Ph.D. degree and a demonstrated record of teaching accomplishments, and experience with training teaching assistants. Research background is a plus. To receive full consideration, candidates must complete an on-line application including the names and email addresses of three references and submit a CV, research and teaching statements, at <https://jobs.uic.edu/job-board/job-details?jobID=76324> by March 7, 2017. Final authorization of the

positions is subject to availability of state funding. Questions should be directed to Jacquelyn DeLaurentis at [jdelaur@uic.edu](mailto:jdelaur@uic.edu).

The University of Illinois at Chicago is an affirmative action/equal opportunity employer, dedicated to the goal of building a culturally diverse pluralistic faculty and staff committed to teaching in a multicultural environment. We strongly encourage applications from women, minorities, individuals with disabilities and covered veterans.

The University of Illinois may conduct background checks on all job candidates upon acceptance of a contingent offer. Background checks will be performed in compliance with the Fair Credit Reporting Act.

Jacquelyn DeLaurentis Human Resource Associate University of Illinois at Chicago Department of Biological Sciences 845 W Taylor St, Room 3238 (M/C 066) Chicago, IL 60607 (312) 996-2213| Fax:(312)413-3277 [jdelaur@uic.edu](mailto:jdelaur@uic.edu)

Jacquelyn DeLaurentis <[jdelaur@uic.edu](mailto:jdelaur@uic.edu)>

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## Uillinois UC LabTech EvolutionaryImmunology

Lab technician position in evolutionary immunology of human and non-human primates

The Brinkworth Evolutionary Immunology and Genomics lab at the University of Illinois Urbana-Champaign is seeking a laboratory technician. The position is responsible for the completion of cell experiments, including bacterial and parasitic infections of mammalian cells, maintenance of parasite and cell populations, molecular library construction and cell-based assays, as well as maintenance of the lab and its inventory. This is a year long academic hourly position to start in April/May, 2017, with the possibility of renewal, pending funding.

### Essential Qualifications

The successful candidate will have experience with clean, immunological technique

bacterial culture

infecting eukaryotic cells

the following molecular techniques to collect data on biological function and genetics: ELISA, PCR, nucleic

acid extraction

### Preferred Qualifications

The successful candidate will ideally have experience with

culturing micro-organisms

maintenance of eukaryotic cell culture

training in next generation sequencing analysis

FACS analysis

working in research teams

### Position Requirements and Qualifications

Required: Bachelor degree in Biology or a related field

Preferred: Bachelor degree in Microbiology, Parasitology or Immunology

The ideal candidate for this job is senior undergraduate/newly graduated undergraduate interested in infectious disease or human evolution, interested in expanding their lab experience before pursuing graduate education.

We are interested in individuals who can raise intracellular parasite/bacterial populations and infect eukaryotic cells in BSL2 conditions using clean technique. Candidates should have experience reading scientific literature in immunology, genomics, evolution and disease. Please visit the lab's website for more information [www.jfbrinkworth.com](http://www.jfbrinkworth.com) Individuals interested in this position should send a CV and cover letter along with the names and contact information of two references to Dr. Brinkworth at [jfbrinkw@illinois.edu](mailto:jfbrinkw@illinois.edu), by \*February 28th, 2017.\*

Jessica Brinkworth <[jfbrinkworth@gmail.com](mailto:jfbrinkworth@gmail.com)>

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## UNebraska TeachingBiol

The School of Biological Sciences at the University of Nebraska-Lincoln is seeking applications for an Assistant or Associate Professor of Practice in Biology. This is a non-tenure-track position with a renewable contract. The applicant will be expected to teach high-enrollment introductory biology courses as a primary assignment. The applicant will play an important instructional and leadership role in the sequence of introductory courses for all life sciences majors across the University of Nebraska-Lincoln. Areas of instructional expertise could include Cellular Biology/Genetics,

Physiology, Microbiology, Human Anatomy, or Ecology/Evolution. Additionally, prior experience could include instruction in large introductory lecture and laboratory classes and/or research on college science education. The applicant will benefit from interacting with the active community of Discipline-Based Educational Researchers across science departments at the University of Nebraska-Lincoln.

Minimum qualifications include a PhD in Biology, Biology Education, or related disciplines. Preferred qualifications include one semester post-doctoral teaching or research experience.

To learn more about the University of Nebraska and the School of Biological Sciences, visit <http://biosci.unl.edu>. Applicants should go to <http://employment.unl.edu>, search for requisition number F\_160254. Click "Apply to this Job" and complete the faculty form. Attach a letter of application, a Curriculum Vitae, a statement of teaching strategies/experience/interests, and a summary of research experience. Combine the statement of teaching and the summary of research into one document and attach as "Other Document." Arrange for three letters of reference to be sent to [biologysearch@unl.edu](mailto:biologysearch@unl.edu). Questions regarding the application process may be sent to [biologysearch@unl.edu](mailto:biologysearch@unl.edu). Review of applications will begin on March 6, 2017 and continue until the position is filled or the search is closed.

The University of Nebraska is committed to a pluralistic campus community through affirmative action, equal opportunity, work-life balance, and dual careers. See <http://www.unl.edu/equity/notice-nondiscrimination>. [kmontooth2@unl.edu](mailto:kmontooth2@unl.edu)

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## UOulu Evolutionary Genomics

### Tenure Track Position in Evolutionary Genomics

The University of Oulu is an international scientific community, with 16 000 students and approximately 3 000 employees. The strengths of the University are wide multidisciplinary study/research interests and modern research and study environment and good cooperation with international educational and research institutes. More information <http://www.oulu.fi/english/> The following position is open in the University of Oulu:

Tenure track position as Associate Professor in Evolutionary Genomics

Field and Location

The Faculty of Science of the University of Oulu announces a tenure-track opening for an Associate Professor in evolutionary genomics. The position is located at the Ecology and Genetics Research Unit whose research emphasis is in evolutionary biology and population genetics, with groups studying population genomics of plants, forest genetic resources and breeding, ecological genomics, conservation genetics, DNA barcoding, ancient DNA, animal behaviour and population and community ecology. It is considered an advantage if the applicant's research is multidisciplinary and is related to the research environment at the Ecology and Genetics Research Unit. The Unit has excellent laboratory facilities, including access to quantitative PCR, next generation sequencing (Ion Torrent) and Sanger sequencing equipment and direct access to clean (ancient-DNA) laboratories in the Center of Microscopy and Nanotechnology (<http://www.oulu.fi/cmmt/>); further facilities are available at the Biocenter Sequencing Center (<http://www.oulu.fi/biocenter/sequencing-center>), including an Illumina NextSeq 550. Botanical gardens of the University provide greenhouses and experimental field sites. The Oulanka (<http://www.oulu.fi-oulankaresearchstation>) and Krunni field stations offer support for field studies. The Unit has extensive national and international collaborative networks, for example, with the Finnish Natural Resource Institute (<https://www.luke.fi/en/>) and the Finnish Environmental Institute (<http://www.syke.fi/en-US>), which have offices at the University campus.

The successful applicant of this call will be placed at the level of Associate Professor in tenure track system (<http://www.oulu.fi/university/node/38379>) and is expected to qualify as Full Professor after one or two five-year fixed periods. To develop his/her research, the new Associate Professor will receive a starting grant from the Faculty of Science.

Job Responsibilities, Required Qualifications and Language Proficiency

The tenure track position holder is responsible for developing teaching and research in genetics, genomics and bioinformatics. The person nominated to the post is expected to develop co-operation with research groups acting at the University of Oulu, in other Finnish Universities, and with international parties. The required qualifications for the tenure track position in evolutionary genetics include an applicable doctoral degree, scientific research merit, and teaching skills required for the position. The main prerequisites for the position are active publication record, the ability to lead a research group and to acquire external research funding; experience of academic work in more than one country and a demonstrated ability for international co-operation

are considered valuable. The candidate should have familiarity with the field concerned, i.e. specialist competence in evolutionary genomics, as demonstrated by an outstanding international publication record.

When assessing the applicant's merits, issues taken into consideration include scientific publications and other research achievements, teaching experience and pedagogical training as well as the skills to develop new teaching material. In addition to this, the merits that will be taken into consideration are the applicant's activity in the scientific community, practical familiarity with the field concerned, and success in acquiring supplementary funding, scientific work abroad and other international activities.

The teaching language at the University of Oulu is mainly Finnish at undergraduate levels. Teaching in English is possible.

#### Salary

The salary will be based on the levels 6 - 7 of the demand level chart for teaching and research personnel of the salary system of Finnish Universities. In addition to the basic salary of the appropriate tenure track level, supplementary salary will be given for personal achievement and performance, the sum rising to a maximum of 46.3 % of the basic salary level for the post. The salary thus being roughly 4,000 - 5,300 euros per month.

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## UPittsburgh ResTech EvolutionaryEcology

Research Technician at the University of Pittsburgh

The Turcotte Lab is seeking a Research Technician to help conduct research exploring the rapid evolution of species interactions.

If you are interested please see the job ad here:

<http://www.pittsource.com/postings/132430> Mart

Martin Turcotte, Ph.D. Assistant Professor, Department of Biological Sciences University of Pittsburgh [www.martinturcotte.net](http://www.martinturcotte.net) turcotte@pitt.edu

204A Clapp Hall, 4249 Fifth Avenue Pittsburgh, PA 15260, USA (412) 383-3297

“Turcotte, Martin” <TURCOTTE@pitt.edu>

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## URochester LabTech EvolMolGenetics

Laboratory Technician IV in the evolutionary genomics laboratory of Dr. Amanda Larracuenta in the Department of Biology, University of Rochester.

Position Summary:

Research technician in a lab studying the evolutionary genomics of satellite DNA in *Drosophila* species.

The technician will work collaboratively with the lab group in experimental design, and independently execute and analyze molecular and genetic research under the supervision of the PI.

10% Manage and oversee day-to-day operations of the laboratory such as: ordering, stocking and maintaining lab supplies; keeping and updating laboratory records and inventory; training of new lab personnel and maintaining compliance with University and federal safety regulations.

50% Independently carry out experiments involving molecular biology and genetics techniques such as: DNA extractions, quantitative PCR, Southern, Northern and Western blot analysis, cytogenetics, molecular cloning (e.g. designing CRISPR constructs); *Drosophila* husbandry and genetics. The technician must be able to think critically, work independently, manage data and experimental materials, and carefully document all research activities in a well-organized lab notebook. The successful applicant will work well with researchers with a wide spectrum of expertise and education levels.

10% Research, record, and develop protocols independently with direction from the PI. Analyze data and prepare reports.

10% Aid in establishing and maintaining genetic crosses and scoring progeny. Some basic understanding of genetics is required and experience with *Drosophila* genetics is highly desired.

20% Supervision of undergraduates and lab employees, and helping graduate students troubleshoot problems that may arise with experimental protocols and lab equipment.

**Qualifications:**

The ideal applicant will have a B.A, B.S. or M.S. in biology with at least 1 year of laboratory experience in molecular and cell biology.

**Instructions**

Apply online, job ID 199816.  
[https://ps.its.rochester.edu/psp/-PSApplyOnline/EMPLOYEE/HRMS/c/-HRS\\_HRAM.HRS\\_APP\\_SCHJOB.GBL?Page=-HRS\\_APP\\_SCHJOB&Action=U&FOCUS=-Applicant&SiteId=1](https://ps.its.rochester.edu/psp/-PSApplyOnline/EMPLOYEE/HRMS/c/-HRS_HRAM.HRS_APP_SCHJOB.GBL?Page=-HRS_APP_SCHJOB&Action=U&FOCUS=-Applicant&SiteId=1) Larracunte Lab: <http://blogs.rochester.edu/larracunte> UofR E2G2: <http://blogs.rochester.edu/EEB/> UofR BIO: <http://www.rochester.edu/college/BIO/> The University of Rochester is an Equal Opportunity Employer, has a strong commitment to diversity, and actively encourages applications from candidates from groups underrepresented in higher education. EOE Minorities / Females / Protected Veterans / Disabled

Amanda M. Larracunte, PhD Assistant Professor University of Rochester Department of Biology 343 Hutchison Hall Rochester, NY 14627

E-mail: [alarracu@bio.Rochester.edu](mailto:alarracu@bio.Rochester.edu) Office: 585-273-1693 <http://blogs.rochester.edu/larracunte/> [alarracu@UR.Rochester.edu](mailto:alarracu@UR.Rochester.edu)

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## USydney 2 EvolutionaryBiology

**Lecturerin Evolutionary Biology (2 positions)**

School of Life and Environmental Sciences Faculty of Science Referenceno. 176/0117

- Teaching and research focused role as part of a collaborative and supportive team - Up to two positions available - Full-time fixed term for four years, remuneration package: \$117K p.a. which includes base salary, leave loading and up to 17% superannuation

The University of Sydney is Australia's first university and has an outstanding global reputation for academic and research excellence. We employ over 7600 permanent staff, supporting over 60,000 students.

Researchers from the life, earth and environmental sciences in the School of Life and Environmental Sciences have been brought together to address global challenges. The School has an outstanding reputation for world class research in numerous fields, including ecology and evolutionary biology. Our excellent life sciences research

and teaching are shaping new approaches required to address a range of increasingly important challenges faced by the world that span a range of disciplinary areas, including antibiotic-resistant bacteria, maintaining ecosystems, and food security.

Two positions are available as a Lecturer (Level B) in Evolutionary Biology, one focusing on evolutionary genetics, the other on molecular evolution. The successful candidates can start immediately and ideally before July 2017.

In this role you will: - conduct high-quality scientific research in the field of evolutionary genetics or molecular evolution - contribute to undergraduate and Honours teaching in evolutionary biology, including unit coordination and development and delivery of material - contribute to the intellectual life of the Ecology, Evolution, and Environment cluster within the School of Life and Environmental Sciences

To succeed in this position you will have: - a PhD in Evolutionary Biology or closely related discipline - demonstrated ability to conduct high-quality scientific research in the field of evolutionary biology and to lead research projects - demonstrated ability to communicate the results of research in reputable journals and at scientific meetings - an ability to develop and teach units of study at Junior, Intermediate, and Senior levels in evolutionary biology - an ability to initiate and supervise research projects for undergraduate and postgraduate students

All applications must be submitted via the University of Sydney careers website. Visit [sydney.edu.au/recruitment](http://sydney.edu.au/recruitment) and search by the reference number for more information and to apply.

Closing date: 27 February 2017 (11:30pm, Sydney time)

We are committed to diversity and social inclusion. We welcome applications from women (particularly for senior and non-traditional roles), Aboriginal and Torres Strait Islander people, people with a disability, people who identify as LGBTIQ, and people from culturally and linguistically diverse backgrounds.

© The University of Sydney

The University reserves the right not to proceed with any appointment.

[simon.ho@sydney.edu.au](mailto:simon.ho@sydney.edu.au)

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## UZurich MorphologicalVariability

The Faculty of Medicine at the University of Zurich invites applications for an Assistant Professorship in Morphological Variability

The position is available for up to six years at the Institute of Evolutionary Medicine (Director: Prof. Dr. Frank Ruhli). We are looking for a young and dynamic personality at an early stage in his/her career, flexible and willing to establish a highly visible research portfolio in a new area. Successful candidates will have demonstrated ability to independently conceive novel research projects and bring them to successful completion. Graduate studies in the field of biomedicine (MD and/or PhD), as well as documented expertise in human anatomy and morphology are a prerequisite for this position. We seek applicants with an internationally recognized scientific track record and a genuine interest to establish interdisciplinary research collaborations with translational prospects in Zurich. We expect strong interest for modern teaching methods and for promotion of junior scientists in their academic career. Key personality traits are excellent social skills and an open, integrative personality. Knowledge of the German Language is not mandatory, however to acquire some proficiency in German over time is expected. The University of Zurich is an equal opportunity employer. The Faculty of Medicine implements specific measures in the selection process to increase the proportion of women with a faculty position.

Please hand in your application for this position at <https://www.recruiting.med.uzh.ch/position/-9994240> by March 30st, 2017.

For additional information, please contact the president of the search committee, Prof. Dr. Anita Rauch: Tel. +41 44 556 33 00, [anita.rauch@medgen.uzh.ch](mailto:anita.rauch@medgen.uzh.ch).

Dr. phil. Caroline Krueger Leiterin Stab Berufenen Universitat Zurich Medizinische Fakultat, Dekanat Pestalozzistrasse 3/5 CH-8091 Zurich +41 44 634 10 67 Telefon [www.med.uzh.ch](http://www.med.uzh.ch) caroline.krueger@dekmed.uzh.ch Anwesend: Di, Do, Fr

“caroline.krueger@dekmed.uzh.ch”  
<caroline.krueger@dekmed.uzh.ch>

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## Worcester Mass ResAssoc DrosophilaMolEvol

The Findlay Lab in the Department of Biology at the College of the Holy Cross seeks a full-time Research Associate for an NSF-funded project on the impact of newly evolved genes on male reproduction in *Drosophila*. A primary responsibility of this position is to manage the laboratory on a day-to-day basis and assist in the training of undergraduate research students. However, the research associate will also have an independent research project relating to the function and evolution of a newly evolved gene(s).

The associate will be responsible for:

- training undergraduate research students in *Drosophila* husbandry and genetics and in basic molecular biology and cytology
- constructing transgenic fly lines through molecular cloning and fly crossing
- maintaining all lab fly stocks
- monitoring, aliquoting and ordering lab reagents
- developing experimental procedures and written protocols that are accessible to student researchers
- complying with lab safety regulations and interacting with the college's lab safety officer
- modeling and implementing appropriate data management practices
- assisting, on occasion, in the preparation of materials for teaching laboratories or outreach demonstrations
- preparation of media and reagents and maintenance of a well-organized, orderly lab
- contributing to the preparation of research publications and presentations

Required qualifications: At least two years of full-time, wet-lab experience. Hands-on experience with the husbandry and genetics of *Drosophila* fruit flies, as well as with common molecular biology protocols such as PCR, cloning, and nucleic acid isolation. Strong skills in data analysis and oral and written communication. Ability to teach undergraduates in a lab setting.

Preferred qualifications include an advanced degree (Master's or PhD) in genetics, cellular/molecular biology, or a related field; experience with immunofluorescence and confocal microscopy; experience with CRISPR/Cas9-mediated genome editing; experience with molecular evolution techniques and genome databases; and, experience mentoring undergraduate students.

Additional Information:

This is an Exempt level position. The College is an



Equal Employment Opportunity Employer and complies with all Federal and Massachusetts laws concerning Equal Opportunity and Affirmative Action in the workplace. Holy Cross is a member of the Higher Education Consortium of Central Massachusetts (HECCMA) and the Boston Consortium.

To review our Employee Benefit Options, please go to: <http://www.holycross.edu/human-resources/benefits> Application Instructions:

To apply for this position, please submit: a cover letter that describes your interest in the position and qualifications; a CV; and, the names and contact information of two references who can provide letters of recommendation upon completion of the search. In your cover letter, please include a brief reflection on how you might contribute to the College's commitment to diversity and inclusion (see <http://holycross.edu/diversity>). Furthermore, we encourage candidates to review the College's mission at <http://holycross.edu/mission>, and include any reflections on contributions you might make in that area.

To learn more about the Findlay Lab, see: <https://sites.google.com/a/holycross.edu/findlaylab/> Questions about the Findlay Lab can be directed to the PI, Geoff Findlay ( [gfindlay@holycross.edu](mailto:gfindlay@holycross.edu)). Questions about the application process should be directed to Deb Paquette in the HR department ([dpaquett@holycross.edu](mailto:dpaquett@holycross.edu)). To apply, visit: <https://holycross.interviewexchange.com/jobofferdetails.jsp?JOBID=3D80382> – Geoff Findlay, PhD Assistant Professor Department of Biology College of the Holy Cross (508) 793-2655 [gfindlay@holycross.edu](mailto:gfindlay@holycross.edu) <https://sites.google.com/a/holycross.edu/findlaylab/> “[gfindlay@holycross.edu](mailto:gfindlay@holycross.edu)” <[gfindlay@holycross.edu](mailto:gfindlay@holycross.edu)>

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## ZFMK UBonn Evolutionary Genomics

Tenure-track research position in Evolutionary Genomics

The Center of Molecular Biodiversity Research (<https://www.zfmk.de/en/zmb>) at the Zoological Research Museum Alexander Koenig (ZFMK) seeks enthusiastic, creative, and productive applicants for a full time tenure track position in the field of Evolutionary Genomics. The evolutionary analysis of rapidly expanding genomic datasets requires development and implementation of sophisticated laboratory techniques, rigorous computa-

tional approaches, and theoretical work. The successful applicant is expected to develop a strong, independent, externally funded research program for a better understanding of the evolution of zoological biodiversity, contributing to novel insights in evolution from analyses of complex genomic datasets. We are particularly interested in candidates performing comparative genomic research over a wide range of taxa and/or in candidates developing theoretical foundations of evolutionary genomics. We seek an innovative and accomplished scientist whose research program will complement and diversify existing departmental research areas including integrative taxonomy, phylogenomics, evolution and biodiversity research on animals.

**Assessment Criteria:** The ranking of eligible applicants will be based primarily on research expertise. Research expertise comprises genomics research merits as well as the applicant's potential to contribute to the future development of evolutionary genomics. In assessing research expertise, special weight will be given to large-scale comparative genomic studies, evolutionary studies, and research on non-model animals. Special weight will also be paid to scientific independence and the ability, or expected ability, to attract external funding. The planned research of the applicant shall complement ongoing research in the Center of Molecular Biodiversity Research. The candidate is expected to establish an international competitive research group, to successfully apply for research grants, to publish in international recognized journals, and to tightly collaborate with other research groups at the ZFMK.

**Required qualifications:** It is essential that the applicant has

a PhD in Evolution or Molecular Biology or a closely related field with strong emphasis on evolutionary genomics; experience in working with non-model organisms (animals); an internationally competitive publication record; experience analysing DNA sequence and genome data (computational skills); experience in staff management and student supervision; motivation to work in a team and take responsibility; excellent communication skills.

The ZFMK is a Zoological Research Museum of the Leibniz Association cooperating with the University of Bonn, funded by the Federal State of NRW and the federal government. The Center of Molecular Biodiversity Research has been established to foster molecular research spanning from genomics and speciation genetic research to developing high-throughput bar-coding applications.

We offer a highly motivating environment and ability to work independently. Salary and benefits are according to a public service position in Germany (E13, TVL-13).

An upgrade of salary and benefits to E14, TVL-14 is possible and will be subject of the tenure evaluation. The ZFMK advocates gender equality. Women are therefore strongly encouraged to apply. Equally qualified severely disabled applicants will be given preference. The contract will start as soon as possible and will initially be restricted to three years. A tenured position will be subject to personal performance reviewed by a commission. Please send your application by e-mail attachment,

including a detailed CV, a research plan, a list of successful grant applications, names of three potential referees and five publications, until March 15th 2017 to Mrs. Heike Lenz (e-mail: [h.lenz@leibniz-zfmk.de](mailto:h.lenz@leibniz-zfmk.de)). In case of questions concerning the position please contact Prof. Dr. Bernhard Misof, Head of the Center of Molecular Biodiversity Research (e-mail: [b.misof@leibniz-zfmk.de](mailto:b.misof@leibniz-zfmk.de)). For more information about the museum see <http://www.zfmk.de> Bernhard Misof <[bmisof@uni-bonn.de](mailto:bmisof@uni-bonn.de)>

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## Other

1000 genomes teaching tools .....	74	Phyloseminar TimVaughan Feb23 .....	81
Animal behaviour recordings .....	75	Restore evolution to Turkeys curriculum .....	81
CallForPapers MaleCompetitionSpeciation CurrentZool	75	Sanger sequencing genotyping facilities .....	82
CHTurner award AnimalBehavior .....	76	Scholarship For Cladistics course .....	82
Dartmouth Summer Undergraduate REU .....	76	Sequence Mutation Simulator .....	82
ESEB CongressAidGrant .....	77	Smithsonian VideoContest Conservation .....	82
ESEB OpportunitiesFund .....	77	SouthAfrica VolResAssist CooperativeBehaviour ..	83
EvoEd Cases User Survey .....	78	Spain VolResAssist StarlingPopulations .....	83
Evolution VideoContest .....	78	SSB ErnstMayr Award .....	84
Grant TreesForYouAndMe ApplicationsCloseMay1	79	SystematicsResearchFund DeadlineFeb15 .....	85
KansasStateU SummerREU .....	79	T H HuxleyCallForApplications .....	85
Minnesota ChicagoBotanicGarden ResearchIntern	79	UMinnesota REU Adaptation .....	85
PlantEvol .....	79	UTexas REU SwitchgrassGenetics .....	86
Minnesota SummerResInternships .....	80	Wageningen FieldAssist BirdEvolutionaryDynamics	87
MolluscEvolution StudentAwards .....	80		

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### 1000 genomes teaching tools

Does anyone have labs/exercises they can share for using 1000 genomes data sets as a teaching tool? I'm running an upper division evolution course and I'd like the stu-

dents to gain some familiarity with the human pop gen tools that are available. Any recommendations?

– Diane Ramos, PhD

Associate Professor Natural Sciences Department Daemen College 4380 Main St. Amherst, NY 14226

Duns Scotus 329 [dramos@daemen.edu](mailto:dramos@daemen.edu) 716.839.8560

“[dramos@daemen.edu](mailto:dramos@daemen.edu)” <[dramos@daemen.edu](mailto:dramos@daemen.edu)>

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## Animal behaviour recordings

Dear All,

I'm developing two courses on ethology and behavioural ecology, for undergrad and MSc level studies. I'm currently on the lookout for video recordings of animal behaviour which I could use at some of the early classes to introduce students to making and noting down behavioural observations and subsequently, developing ethograms. If you have any material which you think could be useful for such purpose - whether from experimental or observational studies or monitoring of any animal species - and would be willing to share, please contact me at zofia.prokop <at> uj.edu.pl <zofia.prokop@uj.edu.pl> - I will be hugely grateful.

Many thanks, Zofia

– Dr. Zofia Prokop Molecular and Behavioral Ecology Group Jagiellonian University Gronostajowa 7 30-387 Krakow, Poland tel. +48 12 664 5151 e-mail: zofia.prokop <at> uj.edu.pl <zofia.prokop@uj.edu.pl> \*Google Scholar profile < <http://scholar.google.co.nz/citations?user=58IKo7IAAAAJ&hl=en&oi=ao> >\*

Zofia Prokop <zofia.prokop@uj.edu.pl>

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## CallForPapers MaleCompetitionSpeciation CurrentZool

We are excited to solicit papers on male competition and speciation for a special column in an upcoming issue of Current Zoology. Please feel free to contact any of the guest editors with inquiries.

SPECIAL COLUMN: Male Competition and Speciation (<https://academic.oup.com/cz/pages/malecompetition>)

GUEST EDITORS: Alycia Lackey (alycia.reynolds@gmail.com), Michael Martin (mdmartin7@gmail.com), and Robin Tinghitella (Robin.Tinghitella@du.edu)

DESCRIPTION: Despite our long-standing pursuit to understand the evolution and maintenance of new

species, we still lack a clear understanding of mechanisms of speciation. Speciation remains an important focus due to its role in the evolution and maintenance of biodiversity; this is particularly critical given current and predicted global change and loss of biodiversity. Sexual selection is a powerful source of rapid evolutionary change, and there is a long-standing hypothesis that it can cause reproductive isolation (i.e., when male mating signals and female preferences for those signals diversify). However, this understanding of speciation by sexual selection is largely limited to sexual selection via female mate choice. Male competition for mates, Darwin's second mechanism of sexual selection, can also favor rapid and dramatic phenotypic and genotypic changes, yet it has been all but overlooked in speciation research.

This special column will address when and how male competition can generate or maintain population or species differences. The aims of this special column are to: 1) expand our current speciation framework to include the contribution of male competition to speciation by sexual selection 2) examine the importance of male competition at different stages of divergence (e.g., within populations, between diverging populations, between distinct species) 3) explore the diversity of mechanisms by which male competition drives divergence 4) motivate future work by identifying unanswered questions

TIMELINE: Deadline for title submission: April 1, 2017 (email to guest editor) Deadline for manuscript submission: June 10, 2017 Manuscript handling (paper reviewing + revision): August 30, 2017 Publication: 6th issue, 2017

A title should be sent to the guest editors and manuscripts should be submitted before the deadline. Manuscripts received after the deadline will be considered as submissions for regular issues.

Submitted papers should not have been published previously, nor will be under consideration for publication elsewhere. Submitted manuscripts are accepted with the understanding that they are subject to peer review and editorial revision. Publication is free of page charges.

An example special column: Here is a recent special column on sexual selection and speciation. Scroll down to "Editorial" and the "Articles" that follow. <https://academic.oup.com/cz/issue/58/3> Alycia R. Lackey Postdoctoral Researcher Whiteman Lab 2112 Biology Building Murray State University Murray, KY 42071 office: 270-809-3224 alyciarlackey.weebly.com

alycia.reynolds@gmail.com

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## CHTurner award AnimalBehavior

Have talented undergraduates interested in Animal Behavior? Encourage students to apply for the Charles H. Turner Award to present at the Animal Behavior Society meeting.—This year, the Animal Behavior Society meeting will be held in Toronto, Canada, June 12 - 16, 2017. —The deadline for the Turner Award is February 28, 2017. More information about the Turner Award and the Animal Behavior Society meeting can be found at the link below.—

What: Charles H. Turner Award Deadline: February 28, 2017 Where: Animal Behavior Society meeting held in Toronto, Canada.—link:—Animal Behavior Society

Animal Behavior Society

Delia S. Shelton, Ph.D IGB Leibniz Institute of Freshwater Ecology and Inland Fisheries/University of Windsor/Oregon State University NSF Postdoctoral Fellow  
“delsshel@indiana.edu” <delsshel@indiana.edu>

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## Dartmouth Summer Undergraduate REU

Research Experience for Undergraduates in Computational Biology - Dartmouth College - Summer 2017

The Zhaxybayeva lab in the Biology department at Dartmouth College (<http://www.dartmouth.edu/~ecglab/>) is pleased to announce an NSF Research Experience for Undergraduates (REU) position to study the evolutionary history of enigmatic, virus-like entities called Gene Transfer Agents (GTAs). As their name implies, GTAs are hypothesized to be used by bacteria as gene delivery systems. The Zhaxybayeva lab uses comparative genomics, phylogenetics, and mathematical modeling to learn more about this fascinating biological system. This internship is ideal for candidates with background in mathematics, statistics, computer science, or engineering interested in exploring how computational approaches are used in solving biological problems. The student is not expected to have prior experience working with biological systems. The student will work closely with Dr. Olga Zhaxybayeva and Dr. Shannon Soucy

and will learn the basics of genomic analyses, how to utilize high performance computing facilities, read primary scientific literature, and present scientific research. The candidate must be a citizen or permanent resident of the United States of America or its possessions, and enrolled as an undergraduate student in the Fall 2017. Individuals of underrepresented groups are encouraged to apply. The 9-week internship is tentatively expected to begin on June 21, 2017 and end on August 18, 2017. The candidate will receive \$4,500 stipend, and will be reimbursed for the costs of lodging and travel to Dartmouth College.

To apply, please e-mail the following application materials in a single PDF file to Shannon Soucy (Shannon.Soucy@dartmouth.edu) with the subject line “REU” no later than March 10, 2017: 1. A statement with the following information: a. Why you are interested in this position. b. Your future plans after graduation from college. c. Confirmation of your eligibility for the REU program. d. Dates you are available to start and end this position. e. The name and contact information of one person who will serve as your reference. Please arrange the letter of recommendation to be sent to Shannon.Soucy@dartmouth.edu directly by your reference. f. Your email address and phone number. 2. Curriculum Vitae (or resume). 3. Transcript (unofficial is acceptable).

Dartmouth College is an equal opportunity/affirmative action employer with a strong commitment to diversity and inclusion. We prohibit discrimination on the basis of race, color, religion, sex, age, national origin, sexual orientation, gender identity or expression, disability, veteran status, marital status, or any other legally protected status.

– Olga Zhaxybayeva, Ph.D. The Simons Foundation Investigator and Assistant Professor Department of Biological Sciences Dartmouth College 333 LSC 78 College Street Hanover, NH 03755 USA

Office: (603) 646-8616 Lab: (603) 646-9397 Email: [olgazh@dartmouth.edu](mailto:olgazh@dartmouth.edu) Web: <http://www.dartmouth.edu/~ecglab/>  
<http://dartmouth.edu/faculty-directory/olga-zhaxybayeva> “[Olga.Zhaxybayeva@dartmouth.edu](mailto:Olga.Zhaxybayeva@dartmouth.edu)”  
<[Olga.Zhaxybayeva@dartmouth.edu](mailto:Olga.Zhaxybayeva@dartmouth.edu)>

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## ESEB CongressAidGrant

\*\*\* ESEB Equal Opportunities Congress Attendance Aid Grants \*\*\*

The European Society for Evolutionary Biology is pleased to announce the call for application for the ESEB Equal Opportunities Congress Attendance Aid Grants 2017.

The grants are aimed to increase the attendance of women at ESEB congress. These stipends are financial aid for female scientists to help with the additional costs borne privately due to responsibilities for dependents when attending the ESEB congress. The stipend will contribute to covering expenses for care of dependents, but also for travel.

Deadline: Friday, 20 February 2017

### ELIGIBILITY

- Applicants must be ESEB members (for becoming a member of ESEB please visit <http://eseb.org/society/membership/>). - Applications can be submitted by scientists at any stages of their professional career (e.g., Masters and PhD students, postdocs, and lecturers). - Applicants must explain explicitly how their attendance will increase equal opportunities at the society - Applicants must present either an oral communication or a poster at the respective meeting to be eligible for the award. This will be verified before the reimbursement, but no proof that a poster or talk is accepted is necessary at the application stage. - Applicants must detail how they intend to use the grant. Eligible costs include, but are not limited to: childcare on site, childcare at home, extra care at home for dependents, extra travel costs for babysitter (grandparents) etc. - The stipend will be paid out as a flat rate of 250, - EUR (in certain cases up to 500, - EUR) after the congress when confirmation of attendance is provided.

### HOW TO APPLY

The application should be no more than 2 pages long and include:

- Name of the applicant - An explanation of how attendance to the meeting improves equal opportunities at ESEB - An explanation of how attendance to the meeting will further the attendant's professional goals - Budget - CV

Please submit the application as a single PDF-file by

email to Ute Friedrich <[office@eseb.org](mailto:office@eseb.org)> subject: EO congress grant> at the ESEB Office and take care to limit the size of attachments (total < 10 MB) in any one email.

Kind regards, Ute Friedrich

---

Dr. Ute Friedrich | ESEB Office Manager Postfach 910225 | 90260 Nuernberg | Germany | [office@eseb.org](mailto:office@eseb.org)

European Society for Evolutionary Biology | [www.eseb.org](http://www.eseb.org) ---

[office@eseb.org](mailto:office@eseb.org)

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## ESEB OpportunitiesFund

\*\* ESEB EQUAL OPPORTUNITIES FUND \*\*

The European Society for Evolutionary Biology is pleased to announce the open call for proposals for activities that increase knowledge and awareness of the problem, and possible solutions. Such proposals can include, but are not limited to, short workshops (for instance, on unconscious bias) and/or seminars (with invited speakers) at your home organization, data collection, publication activities and similar events. It must be clear from the proposal how the activity will improve our knowledge and awareness of unequal opportunities, or how the activity will improve equal opportunities directly, in the ESEB specifically, or Evolutionary Biology as a field in general. There are two calls per year, with the next upcoming deadline being the 31st of March 2017. More information about the Equal Opportunities Initiative is available at <http://eseb.org/prizes-funding/equal-opportunities-initiative/equal-opportunities-initiative-fund/>

\*ELIGIBILITY\* - The main applicant must be ESEB member (for becoming a member of ESEB, please visit <http://eseb.org/society/membership/>) - Applications can be submitted by scientists at any stage of a professional career (e.g., Masters and PhD students, postdocs, and lecturers). - Applicants must provide proof of support of the host institution where the activity should take place, if applicable (letter from head of department) - Applicants must explain explicitly how their activity will improve our knowledge, awareness of unequal opportunities, or how the activity will improve equal opportunities directly, in ESEB specifically, or Evolutionary Biology as a field in general. - Applicants must detail

which group of people, and how many, will benefit from this activity (for instance, 50 undergraduates, 10 graduate students, 15 faculty members) - Budgets should be reasonable (usually not exceeding 1000, - EUR, if more is required, please contact EO committee first), and, if applicable, detail costs per person (that benefit from this event).

#### \*HOW TO APPLY\*

The application should be no more than 3 pages long (excluding CV and support letter) and include:

- Name of the applicant(s) - A proposal of the activity - A short summary to be published on the website (100-150 words) - An justification of how the activity will improve our knowledge, awareness of unequal opportunities, or how the activity will improve equal opportunities directly, in ESEB specifically, or Evolutionary Biology as a field in general. - Which group of people will benefit (students, staff, general public), and how many - A detailed, justified budget (including cost per beneficiary)
- A time schedule - CVs of the applicants - A letter of support of the host institution's head of the department

Please submit the application as a single PDF-file by email to Ute Friedrich (office@eseb.org; Subject: EO Fund) at the ESEB Office and take care to limit the size of attachments (total < 10 MB) in any one email.

Successful applications must hand in a report about the activity and including details how funds were spent within 3 months after the event.

- ESEB Office Manager European Society for Evolutionary Biology Email: office@eseb.org Website: eseb.org office@eseb.org

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### EvoEd Cases User Survey

As part of an NSF-funded research project to improve the EvoEd Cases and broaden their impact, we are collecting survey data on how the cases are currently being used in classrooms. The survey can be found here: <https://goo.gl/77xVjX>. EvoEd Cases ([www.evo-ed.org](http://www.evo-ed.org)) provide compelling examples of the evolution of traits from the genetic level to protein function, cell biology, and macroecology. These cases can help students examine how genetic and evolutionary processes are interlinked across different biological scales. Any educator (K-16) who completes the survey will be eligible for a gift card drawing, provided they have used the

cases in their classroom. Participation is voluntary and responses will be de-identified prior to dissemination of the results. If you have any questions, you can contact the project director, Peter White, at [pwhite@msu.edu](mailto:pwhite@msu.edu).

Thank you!

Alexa R. Warwick, Ph.D. Evolution Education and Outreach Postdoc BEACON Center 567 Wilson Road, BPS 1450 Michigan State University East Lansing, MI 48824 Phone: 517-884-2566 Email: [awarwick@msu.edu](mailto:awarwick@msu.edu) Website: [arwarwick.weebly.com](http://arwarwick.weebly.com)

"[awarwick@msu.edu](mailto:awarwick@msu.edu)" <[awarwick@msu.edu](mailto:awarwick@msu.edu)>

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### Evolution VideoContest

#### 2017 Evolution Film Festival/Video Contest

Scientists and science educators of all stripes (students, postdocs, faculty, and full- or part-time science communicators) are invited to enter the Seventh Annual Evolution Video Competition, sponsored by the Duke Initiative for Science & Society, the Howard Hughes Medical Institute (HHMI), the Society for the Study of Evolution (SSE) and the BEACON Center for the Study of Evolution in Action.

To enter, please submit a video that explains a fun fact, key concept, compelling question, or exciting area of evolution research in **THREE MINUTES OR LESS**.

Entries may be related or unrelated to your own research, and should be suitable for use in a classroom (K-12, undergraduate, graduate?? your choice). Videos should be both informative and entertaining. (In other words, no taped lectures or narrated Powerpoint presentations!) Animations, music videos, and mini documentaries are all fair game.

The finalists will be screened at the 2017 Evolution meeting in Portland, OR. (You do not need to attend the conference in order to enter a video.)

First- and second-place winners will receive up to \$1,000 and \$500, respectively.

The deadline to submit your video(s) is FRIDAY, JUNE 2<sup>nd</sup> (11:59 PM, EST).

For more information (and to see entries from previous years) please visit [evolutionfilmfestival.org](http://evolutionfilmfestival.org) or contact Jory Weintraub ([jory@duke.edu](mailto:jory@duke.edu))

Jory Weintraub <[jory.weintraub@gmail.com](mailto:jory.weintraub@gmail.com)>

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## Grant TreesForYouAndMe ApplicationsCloseMay1

Applications are now open for the Trees for You and Me Grant offered by the American Association of Zoo Keepers. The grant is a forest-based carbon offset grant presented in conjunction with the American Association of Zoo Keepers and Polar Bears International.

Applicants do NOT have to be American Association of Zoo Keepers members. Funding is provided by American Association of Zoo Keepers chapters. Fundraising Deadlines is November 1, 2017. Last year, over \$15,000.00 were awarded between 2 applicants, both of whose projects were centered around reforesting areas to benefit local wildlife and offset atmospheric CO<sub>2</sub>.

More information, as well as the application, can be found here: <https://www.aazk.org/committee/trees-for-you-and-me/> Thanks for the consideration and best of luck to all applicants,

Hardy

Hardy Kern Animal Programs Specialist Columbus Zoo and Aquarium AAZK Social Media Team TFYM Grants Coordinator 412-337-4673

hardy.kern@columbuszoo.onmicrosoft.com

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## Kansas State U Summer REU

The deadline for the REU site program at Kansas State University "Ecology and Evolutionary Biology of Changing Environments: Integrating from Genomes to Biomes" is a little more than two weeks away. We invite applications for the 10-week summer program, which will provide a foundation in integrative research, scientific communication, and professional development in ecology and evolutionary biology. Each summer we have a diverse set of research projects addressing responses to changing environments and the underlying genetic, developmental, physiological, or ecological mechanisms. Over 30 faculty from the Division of Biology and Departments of Entomology, Plant Pathology, and Statistics are available to serve as mentors.

Summer2017 is the 22nd year for the Kansas State University Biology REU site. The program is hosted by the Ecological Genomics Institute, Konza Prairie Biological Station, and the Division of Biology at Kansas State University. The program covers costs of accommodations during the summer. Participants will also receive a generous stipend, food allowance, and travel allowance.

Participants are selected for research potential based on an application essay, application questionnaire, transcripts, and supporting letters of recommendation.

Complete information about the program is available by visiting <http://www.ksu.edu/reu>. Specific questions can be directed to the director of the program (Ted Morgan) at [biologyreu@ksu.edu](mailto:biologyreu@ksu.edu).

Application deadline is 15 February 2017.

Ted Morgan Division of Biology Kansas State University  
239D Chalmers Hall 785-532-6126 [ksu.edu/morganlab](mailto:tjmorgan@ksu.edu)  
[tjmorgan@ksu.edu](mailto:tjmorgan@ksu.edu)

[tjmorgan@ksu.edu](mailto:tjmorgan@ksu.edu)

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## Minnesota Chicago Botanic Garden Research Intern PlantEvol

12 Month Research Internship 2017

Are you interested in gaining field research experience and learning about the ecology and evolution of plants and plant-animal interactions in fragmented prairie? The Echinacea Project is offering several year-long research internships for graduates and soon-to-be graduates. This is a great opportunity for individuals who are considering graduate studies and are interested in gaining research experience. We have diverse potential projects for students with backgrounds or interests in plant ecology, pollination biology, evolution, statistics, conservation, and computer science. In the past, interns have completed projects on a variety of topics including pollination biology, prairie restoration, and plant-herbivore interactions. In the summer, you will survey natural plant populations, measure plant traits in experimental plots, hand-pollinate plants, observe & collect insects, and assist in all aspects of research. Summer housing in Minnesota (June - September) is provided and there is a stipend. During the academic year (October - May 2018), interns will develop independent research projects, gain quantitative and data management skills, and coordinate citizen scientists in our lab, which is based at the Chicago Botanic Garden.

**QUALIFICATIONS** No experience is necessary, but you must be enthusiastic and hard-working. Attention to detail, a good sense of humor, and a positive attitude are essential. Applicants must be available to begin in Minnesota in early to mid-June. We welcome and encourage scientists of all backgrounds, particularly those underrepresented in science, to apply to work with us!

**MORE INFORMATION** Information about our offerings for the 2017-2018 year are here: <http://echinaceaproject.org/opportunities/>. **APPLICATION DEADLINE** Review of applications for year-long positions will begin on March 2nd. Applications for summer REU positions are due on February 23rd.

The team and I are happy to answer any further questions.

— Stuart Wagenius, Ph.D. Conservation Scientist Division of Plant Science and Conservation Chicago Botanic Garden 1000 Lake Cook Road Glencoe, IL 60022 phone: 847 835 6978 fax: 847 835 6975 email: [echinaceaproject@gmail.com](mailto:echinaceaproject@gmail.com)

Echinacea angustifolia <[echinaceaproject@gmail.com](mailto:echinaceaproject@gmail.com)>

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## Minnesota SummerResInternships

### Summer Research Internships 2017

Are you interested in gaining field research experience and learning about the ecology and evolution of plants and plant-animal interactions in fragmented prairie? The Echinacea Project is offering several summer research internships for students and soon-to-be graduates. We have diverse potential projects for students with backgrounds or interests in plant ecology, pollination biology, evolution, statistics, conservation, and computer science. In the past, interns have completed projects on a variety of topics including pollination biology, prairie restoration, and plant-herbivore interactions. Housing in western Minnesota is provided and there is a stipend. Undergraduate students have the opportunity to do an independent project as an REU participant.

**QUALIFICATIONS** No experience is necessary, but you must be enthusiastic and hard-working. You will survey natural plant populations, measure plant traits in experimental plots, hand-pollinate plants, observe & collect insects, and assist in all aspects of research. Applicants must be available to begin in Minnesota in early June. The exact end date of the position in late August or early September is flexible. We welcome

and encourage scientists of all backgrounds, particularly those underrepresented in science, to apply to work with us!

**MORE INFORMATION** Information about our offerings for summer 2017 and the 2017-2018 year are here: <http://echinaceaproject.org/opportunities/>. **APPLICATION DEADLINE** Review of applications will begin on February 23rd for REU internships and on March 2nd for other internship positions.

The team and I are happy to answer any further questions.

Stuart Wagenius, Ph.D. Conservation Scientist Division of Plant Science and Conservation Chicago Botanic Garden 1000 Lake Cook Road Glencoe, IL 60022 phone: 847 835 6978 fax: 847 835 6975 email: [echinaceaproject@gmail.com](mailto:echinaceaproject@gmail.com)

Echinacea angustifolia <[echinaceaproject@gmail.com](mailto:echinaceaproject@gmail.com)>

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## MolluscEvolution StudentAwards

Dear all

Unitas Malacologica offers member-supported small grants for student research activities.

Any project, related to any kind of mollusc, anywhere, in any field of science, will be considered. There is no restriction on how the funds should be spent, though the funds should not be used to supplement the income of the awardee, and we do not support projects with direct commercial or industrial applications.

These awards are generally granted to PhD students who undertake a small, self contained project related to their dissertation research. Awards will be made up to a maximum of 1000 euro (= \$1080 USD). Usually two or three awards are granted each year, and the normal value is around 750 euro.

The next deadline for applications is 30 April 2017.

To apply - submit the application form, and a letter of recommendation, by email to [j.sigwart@qub.ac.uk](mailto:j.sigwart@qub.ac.uk)

The application form and links to reports from past award winners is available at [www.unitasmalacologica.org/projects.html](http://www.unitasmalacologica.org/projects.html) Please spread the word, and good luck to all applicants!

Cheers,

Julia



Dr Julia Sigwart Queen's University Belfast, Marine Laboratory <http://www.qub.ac.uk/qml/People/Sigwart> sabbatical address (2015-2018): University of California, Berkeley, Museum of Paleontology

Julia Sigwart <j.sigwart@qub.ac.uk>

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## Phyloseminar Tim Vaughan Feb23

Next on <http://phyloseminar.org/>: Joint Bayesian inference of bacterial ancestral recombination graphs Tim Vaughan Auckland University Thursday, February 23, 2017, 12:00 PM PST

Homologous recombination is a central feature of bacterial evolution, yet confounds traditional phylogenetic methods. In this seminar I will present a novel approach to inferring bacterial evolution based on the ClonalOrigin model (Didelot et al., Genetics, 2010). This method permits joint Bayesian inference of the entire bacterial recombination graph and associated model parameters. The method is implemented in the BEAST 2 phylogenetic inference package. It can be easily combined with a variety of substitution models accounting for site-to-site clock rate heterogeneity as well as parametric and non-parametric models of effective population size dynamics. I will also present work on summarizing posterior distributions over the space of tree-based recombination graphs which, together with the joint inference method, aims to bridge the technological gap between recombination-aware phylogenetic inference and traditional methods.

– Frederick “Erick” Matsen, Associate Member Fred Hutchinson Cancer Research Center <http://matsen.fredhutch.org/> ematsen@gmail.com

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## Restore evolution to Turkey's curriculum

Dear colleagues,

I would like to share with you the below letter from the President of the Ecology and Evolutionary Biology Society of Turkey (which was also published in Nature this week), calling for support for restoring evolutionary biology to the country's curriculum.

Best,  
Mehmet  
\*\*\*

The Turkish government has announced its draft primary and secondary school curricula, which now contain no mention of evolution. Turkey's Ecology and Evolutionary Biology Society (see [go.nature.com/2kgajpu](http://go.nature.com/2kgajpu)) urges stakeholders, the Turkish public and the international scientific community to support reinstatement of evolution in the curriculum (comment to [programdegerlendirme@meb.gov.tr](mailto:programdegerlendirme@meb.gov.tr)).

In the society's view, Turkey's proclaimed strategy to attain excellence in the life and medical sciences must be backed by a strong educational programme in evolutionary biology. A mechanistic understanding of evolutionary theory is crucial for addressing contemporary challenges such as biodiversity loss. Evolutionary principles have propelled advances in many fields, including agriculture, medicine, pharmacy and nanotechnology.

The society, of which I am president, is willing to assist the Turkish Ministry of National Education to restore and expand evolutionary biology in the curriculum to conform with international standards of biological education.

– Mehmet Somel METU Dept. Biology / ODTÜ Biyoloji Bölümü 06800 Ankara, Turkey Tel: +90-543-9799060; Office: +90-312-2106460 Email: [msomel@metu.edu.tr](mailto:msomel@metu.edu.tr) Web: <http://bio.metu.edu.tr/pp?un=3Dmsomel> aDNA Lab: <http://adna.bio.metu.edu.tr/> [somel.mehmet@googlemail.com](mailto:somel.mehmet@googlemail.com)

[www.transmittingscience.org](http://www.transmittingscience.org) Soledad De Esteban-Trivigno <soledad.esteban@transmittingscience.org>

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## Sanger sequencing genotyping facilities

Dear Evoldir,

Our regular sequencing and genotyping is closing temporarily and I am keen to find an alternative (in the UK). We have ready-to-run samples for sequencing (i.e. we have done the Big-Dye reaction and purified the products and dried them down) as well as microsatellites already amplified and ready to be genotyped. I was hoping Evoldir members might have recommendations of facilities that are reliable and cost-effective for both sequencing and genotyping.

Best wishes, Mark

– Dr. Mark A. Chapman M.Chapman@soton.ac.uk +44 (0)2380 594396

Centre for Biological Sciences University of Southampton Life Sciences Building 85 Highfield Campus Southampton SO17 1BJ

markchapman4774@gmail.com

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## Scholarship For Cladistics course

Dear list members,

I will appreciate if you could share following information, if you consider it appropriate. The course is open to any researcher, but the scholarships are only for PhD students:

Scholarships are available for the following course:

- QUANTITATIVE CLADISTICS AND USE OF TNT- October 2nd-6th, 2017, Barcelona (Spain). More info: <http://www.transmittingscience.org/-courses/phylogeny/quantitative-cladistics-use-tnt/>

Deadline for applications March 31st: <http://www.transmittingscience.org/funding/scholarships/>

With best regards,

Sole

Soledad De Esteban-Trivigno, PhD. Scientific Director Transmitting Science

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## Sequence Mutation Simulator

Colleagues,

I have an undergraduate computer science student who wants to do an independent project in which she develops a mutation simulator based on empirical mutation parameters.

I know there's a lot of evolutionary software out there that incorporates a simulation of mutation distributions, but I haven't found something that has mutated sequences as the output. I'm not any kind of computer coder, so I don't know how to look at a piece of software to tell whether some routine inside it might be a helpful starting point. If any of you can point us to an open-source program that she could crack open and tinker with, or even just something you've written for yourself, that would be much appreciated. I'd really like to avoid her re-inventing the wheel if it's already out there.

Send responses to me at dudycha [at] biol.sc.edu

Thanks,

Jeff –

Jeffrey L. Dudycha Professor Dept. of Biological Sciences University of South Carolina Columbia, SC 29208 dudycha [at] biol.sc.edu <http://www.biol.sc.edu/~dudycha> "dudycha@biol.sc.edu" <dudycha@biol.sc.edu>

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## Smithsonian VideoContest Conservation

STUDENT SHORT VIDEO COMPETITION - "CONSERVATION SUCCESS" - SMITHSONIAN EARTH OPTIMISM

Produce a two-minute video on a conservation/sustainability success story that you have been involved with or a story that needs to be highlighted. Visit following link for competition explanation, rules and submission instructions. <http://chuck.earthoptimism.si.edu/blogs/news/2017/->

[02/02/earth-optimism-summit-announces-student-video-competition/](#) PRIZE: Multiple winners will receive travel, lodging and registration to the 3 day Smithsonian Earth Optimism Summit in Washington DC on April 21-23. The GRAND PRIZE winner also receives \$1000!

This contest is open to undergraduate and graduate students. Deadline March 3 11:59 PM EDT.

WHAT IS EARTH OPTIMISM - The global conservation movement has reached a turning point. There are a growing number of examples of improvements in the health of species and ecosystems, along with benefits to human well-being, thanks to our conservation actions. Earth Optimism is a global initiative that celebrates focus change from apathy to action, from a sense of loss to one of hope, in the dialogue about conservation and sustainability.

The Earth Optimism Summit, April 21-23, 2017, is being hosted by the Smithsonian Institution in Washington DC, with partner events around the world. Over 100 speakers and more than 1000 delegates are being invited to present and discuss - quite simply - what is working in conservation. Thought leaders, scientists, artists, environmentalists, civic leaders, and other conservation-minded citizens will gather to share stories of conservation success and discuss solutions for addressing climate change and biodiversity sustainability. The power of media, including video shorts, is an important part of this storytelling celebration. Join us!

Earth Optimism Website: [earthoptimism.si.edu](http://earthoptimism.si.edu)

Send questions about the video contest to [EOSummit-Contest@si.edu](mailto:EOSummit-Contest@si.edu)

“CoyleB@si.edu” <[CoyleB@si.edu](mailto:CoyleB@si.edu)>

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### SouthAfrica VolResAssist CooperativeBehaviour

Volunteer Research Assistant position Causes of individual variation in cooperative investment in the Damaraland Mole-Rat

I am a PhD student at the University of Cambridge and I'm looking for a volunteer research assistant to carry out exciting experiments with captive Damaraland mole-rats, *Fukomys damarensis*. The study site is at the Kuruman River Reserve, in the South African Kalahari Desert.

My research, investigates the causes of individual variation in cooperative behaviour. I am particularly interested in whether and how varied social experiences throughout life can generate differences in development and behavioural profile. Further information about the experiments will be provided on interview.

I am looking for applicants available for a period of 6 to 12 months starting as soon as possible. Applicants should be hardworking, enthusiastic, physically fit, and prepared for long hours in the laboratory. Successful applicants will be responsible to run experiments and will be involved in data collection and management (behavioural observations and collection of blood, and urine samples). Other general tasks related to animal handling (hormone injections and implants) and husbandry and data handling will also be expected. Working weeks will not exceed 45 hours.

This position is particularly suited, but not exclusively, for people aiming to carry on their academic education or a management position in a research project. Successful applicants can expect to gain invaluable experience in animal handling procedures and conducting and managing experiments on a daily basis. They will be trained to work with the software ObserverXT and Microsoft Access.

Costs of food and accommodation while at the project will be covered.

If you are interested in this position send your CV and cover letter stating your availability to Philippe Vulliouid ([philippe.vulliouid@gmail.com](mailto:philippe.vulliouid@gmail.com)).

Shortlisted applicants will be invited for a Skype interview.

Deadline: 05/February/2017 (the position will remain open until filled)

[philippe.vulliouid@gmail.com](mailto:philippe.vulliouid@gmail.com)

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### Spain VolResAssist StarlingPopulations

Volunteer Research Assistant position. Starling camp

Between April and June 2017 we will run our yearly intensive research campaign in our starling colony, 50 kms from Madrid. Around 250 nest boxes are almost daily followed through the two sequential broods that most nests obtain. Field work includes capturing adult birds for measuring and sampling, follow-up of reproduction

(egg laying, hatching and fledging), ringing nestlings, setting-up of microchip readers to assess parental care..., as well as other activities related to the specific experiments running in each year.

The field site is a pleasant and undisturbed woodland, an hour from Madrid. Several researchers, PhDs and master students take part in the field work, but to be able to run it properly, we count with the help of a few volunteers every year. We provide free accommodation for volunteers in a nearby field station, transport to and from the field site, and a fantastic team-work atmosphere. We are happy to consider volunteers for any periods of time starting from a minimum of 2 months.

Please contact us asap if interested in taking part in the 2017 campaign, attaching your CV and a short personal statement of your interests, together with the emails of two academic or professional references that could support your application.

Raquel Monclús <raquel.monclus@gmail.com>

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## SSB ErnstMayr Award

The Ernst Mayr Award is given to the presenter of the outstanding student talk in the field of systematics at joint annual conference of the Society of Systematic Biologists (SSB), the Society for the Study of Evolution, and the American Society of Naturalists, held this year in Portland, OR USA June 23-27 (<http://www.evolutionmeetings.org/>).

The Ernst Mayr Award is SSB's premier award, and is judged by the quality and creativity of the research completed over the course of the student's Ph.D. program. The award consists of \$1000, a certificate of distinction, and a two-year subscription to the journal *Systematic Biology*.

Members of the Society who are students or have completed their Ph.D. within the last 15 months are eligible. Applicants may be from any country, but MUST be members of SSB, and are advised to join the Society as soon as possible to be considered. Previous Mayr Award winners are not eligible.

WEBSITE: <http://www.systbio.org/ernst-mayr-award.html> \*\* HOW TO BE CONSIDERED FOR THE ERNST MAYR AWARD \*\*

1. You MUST submit an abstract of your talk (limited to 300 words) to the Evolution Meeting website

(<http://evolutionmeetings.org>) at the time of registration. Instructions for registering as a potential Mayr award contender will be given on the meeting website.

2. Abstracts should clearly indicate methods used, conclusions, and the relevance to systematics. Presentations focusing on other areas of biology (ecology, behavior, genetics, populations or molecular biology, etc.) that lack a strong systematics emphasis are not eligible.

3. Applications for this award will be accepted only until the end of early registration (April 15, 2017) or EARLIER if all of the meeting talk slots fill. So REGISTER EARLY to ensure that you are considered for the award and are able to present at the meeting.

4. At the closing of early registration, you will be contacted by the SSB Awards Director to confirm your submission. Then, all abstracts will be sent to a panel of reviewers. A subset of applicants will be selected to present their talks in the Mayr symposium during the meeting. All applicants will be notified about selection decisions by approximately May 15. Applicants not selected for an award will be given a regular concurrent talk in another session at the meeting.

JUDGING – Based on the submitted abstracts, the Mayr Awards Committee (appointed by the Awards Chair) will select 10 talks for inclusion in the Mayr Award symposium. The Mayr symposium will be held at a single venue as a continuous session. Talks will be judged on creativity, depth and excellence of research, and on quality of presentation. Competitive students are expected to be in the final stages of their doctoral program, presenting results of a major body of work.

CO-AUTHORS – The talk may be co-authored. It is understood that the ideas, data and conclusions presented are primarily and substantially the work of the student presenter, and the intention is that the student presenter will be senior author on the published version of the paper. If a submission includes multiple authors, include a brief section below the abstract that outlines the contribution of each author to the research.

NOTIFICATION OF WINNER – The winner of the award will be announced at the SSB business meeting and again during the Super-Social at the conclusion of the Evolution Meetings, whereupon the winner will be given an award certificate (the check will be mailed). An announcement of the winner will also be published in *Systematic Biology* and placed on the SSB website.

CONTACT – Please email the SSB Awards Director, Tracy Heath at [ssb.awards.director@gmail.com](mailto:ssb.awards.director@gmail.com) if you have any questions.

Tracy Heath SSB-Awards Director

<ssb.awards.director@gmail.com>

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## Systematics Research Fund Deadline Feb 15

The Councils of the Linnean Society (<https://www.linnean.org/>) and the Systematics Association (<http://www.systass.org/>) jointly administer the Systematics Research Fund (SRF) that provides grants annually for small-scale research projects in the field of systematics.

Typical activities supported include contributions to fieldwork expenditure, the purchase of scientific equipment or expertise (e.g. buying time on analytical equipment), specimen preparation (including the cost of temporary technical assistance), and contributions to publication costs. However, please note that it is unable to fund the cost of article publication charges. Projects of a more general or educational nature will also be considered, provided that they include a strong systematics component. Typical activities not supported include attendance at scientific meetings and contributions to student maintenance or tuition fees. The fund does not provide payments for Bench Fees. Projects already substantially funded by other bodies may be disadvantaged.

Applications of all nationalities are welcome but applicants must be a member of the Systematics Association or Linnean Society of London.

Successful projects are selected by a panel of systematists who represent a wide range of conceptual interests and taxonomic groups. Generally, applications in the range of 500-1,000 are preferred, the value of any single award will not exceed 1500.

Deadline 15 February 2017

More information on SRF on the Systematics Association webpage: <http://www.systass.org/awards/srf.shtml>

Questions about the application procedure can also be sent to the SRF Administrator ([srf@systass.org](mailto:srf@systass.org))

Dr. Anne D. Jungblut Grants & Awards Secretary for SRF The Systematics Association

Anne Jungblut <[a.jungblut@nhm.ac.uk](mailto:a.jungblut@nhm.ac.uk)>

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## T H Huxley Call For Applications

The SSE Education Committee is pleased to announce the T. H. Huxley award, named in honor of Darwin's very public supporter, which recognizes and promotes the development of high quality evolution education resources.

If you have an interesting project or educational activity to share, consider applying for this award. Information on previous awards is available here: <http://bit.ly/-2kP2pPM>. Graduate students and postdoctoral fellows are encouraged to apply. This award provides funding for an SSE member to present evolution education resources at the National Association of Biology Teachers (<http://www.nabt.org/> < <http://www.nabt.org/-websites/institution/index.php?p=10> >) annual conference. This year's NABT conference will be held Nov. 9-12, 2017 in St. Louis, MO. The deadline for applying for the Huxley award is April 4. Apply here: <https://goo.gl/forms/41J0Zj3IDQI7RjV2> Questions? Contact Louise Mead ([lsmead@msu.edu](mailto:lsmead@msu.edu)), Phil Gibson ([jpgibson@ou.edu](mailto:jpgibson@ou.edu)), or Kristin Jenkins ([kristin.jenkins@bioquest.org](mailto:kristin.jenkins@bioquest.org))

– Kristin P. Jenkins, PhD Director

BioQUEST Curriculum Consortium [bioquest.org](http://bioquest.org) (608) 622.9394

Kristin Jenkins <[kristin.jenkins@bioquest.org](mailto:kristin.jenkins@bioquest.org)>

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## UMinnesota REU Adaptation

Ruth Shaw's Research Group in the Dept. of Ecology, Evolution & Behavior at the University of Minnesota is seeking applicants for an NSF Research Experience for Undergraduates (REU) position in summer 2017 to study the process of ongoing adaptation in experimental populations of partridge pea (*Chamaecrista fasciculata*) in prairie habitat. The student will work closely with Dr. Ruth Shaw and Dr. Mason Kulbaba to develop an independent project in the area of plant evolutionary genetics, with possibilities ranging from studies of heritability and phenotypic selection on plant traits to studies of pollination ecology and phenology. The stu-

dent will gain invaluable experience in performing field work and in conducting an independent research project, from hypothesis formulation through oral and written dissemination of results, as grounding for future work in inquiry-based scientific research. The student must be a U.S. citizen or permanent resident and enrolled as an undergraduate for Fall 2017. The ideal candidate should enjoy working outdoors and have an interest in learning about the evolution and ecology of plants in the Midwest prairies, and candidates planning to pursue a graduate career in evolution, ecology, or conservation biology are particularly well-suited for this position. The REU intern will receive a stipend of \$5,000 and room and board in the Twin Cities (with occasional overnight travel to field sites). Costs of travel to and from the Twin Cities will also be provided. The deadline to apply for this position is March 10, 2017, and the 10-week internship is expected to begin on Monday, June 5 and end on Friday, August 11. Please contact Mason Kulbaba (mkulbaba@umn.edu) for more information. The University of Minnesota provides equal access to and opportunity in its programs, facilities, and employment without regard to race, color, creed, religion, national origin, gender, age, marital status, disability, public assistance status, veteran status, sexual orientation, gender identity, or gender expression. Individuals of underrepresented groups are especially encouraged to apply. Please forward this advertisement to any interested and qualified undergraduates.

To apply, please e-mail the following application materials to Mason Kulbaba (mkulbaba@umn.edu) with the subject line "REU" no later than March 10, 2017: 1. a statement explaining the following: -why you are interested in this position -what are your future plans -dates you are available to start and end this position -confirm eligibility for the REU program -the name and contact information of the person who will serve as your reference -your e-mail address and phone number 2. resume 3. transcript (unofficial is acceptable) 4. 1 letter of recommendation (sent by your reference)

mkulbaba@umn.edu

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## UTexas REU SwitchgrassGenetics

Switchgrass (*Panicum virgatum*) is emerging as an important biofuel candidate in the United States. Our labs (see list of collaborators below) collectively study the ecology, genetics/genomics, physiology and agronomy/plant breeding of Switchgrass. We are seeking a talented and diverse group of undergraduate students interested in conducting a variety of research in Switchgrass biology across the US.

**Program description:** This program is an opportunity for undergraduate students to participate in mentored independent research on the biology of Switchgrass. The program is funded through the NSF Research Experience for Undergraduates (REU) program and is associated with our ongoing interdisciplinary work on the ecology, physiology, and genomic responses of switchgrass to future climate change. Summer students will be immersed in research and learn basic and applied biology through active participation in primarily field-based work. Working as part of our research team, they will contribute to group research projects, design short research projects, and present their work in an end-of-summer student symposium.

Each position is supported for 8-10 weeks beginning the first week of June. Students are awarded a \$4500 stipend, plus a housing and food allowance, and some funds to help defray the cost of traveling to the designated University.

**Who Should Apply:** Undergraduates that are not in their senior year (typically 1st to 3rd year students), who are either U.S. citizens or permanent residents studying in the U.S.

**Application process:** The application deadline is February 19, 2017. Applicants should submit a 1-page cover letter describing any relevant research experience, along with their motivation for joining our research group, and include a copy of their current transcript (unofficial transcript or screenshots are acceptable). Applicants should also ensure that two letters of recommendation are submitted on their behalf. Only applications that are complete will be considered. Applications and requests for further information should be directed to:

Dr. Brandon Campitelli e-mail: brandon.campitelli@utexas.edu Subject: Switchgrass REU 2017

For more information regarding this opportunity, and ongoing research, please visit our website: [https://sites.cns.utexas.edu/juenger\\_lab/summer-research-opportunities](https://sites.cns.utexas.edu/juenger_lab/summer-research-opportunities) Brandon E Campitelli <brandon.campitelli@utexas.edu>

## **Wageningen Field Assistants Bird Evolutionary Dynamics**

### **VOLUNTEER FIELD ASSISTANTS - AVIAN ECO-EVOLUTIONARY DYNAMICS**

NETHERLANDS INSTITUTE OF ECOLOGY (NIOO) - Wageningen - The Netherlands DEPARTMENT OF ANIMAL ECOLOGY - Prof Marcel Visser's group

PLEASE APPLY ONLY IF YOU CAN PARTICIPATE FOR A MINIMUM OF 2 MONTHS AND DO NOT REQUIRE A STIPEND.

We are looking for 2 field assistants for a study on the eco-evolutionary impacts of artificial light at night on Great tits (*Parus major*) in the Netherlands.

This is a project funded by a grant of the Dutch Science Academy NWO to Prof Marcel Visser and Dr Davide Dominoni to study the long-term eco-evolutionary effects of light at night on great tits, with a focus ON aspects such as ageing, senescence and timing of activities. The project is part of a long-term ecosystem study called Licht Op Natuur ([www.lichtopnatuur.org](http://www.lichtopnatuur.org)), which aims at understanding the ecological impacts of light pollution and their evolution over time, as well as the role of different light sources and colours in mediating such impacts for several taxa, from plants to reptiles to birds and mammals. This research facility consist of 8 different sites across the Netherlands where street lamps with different light colours have been installed and kept constantly on during the night from 2011 until now.

In spring 2017 we will conduct an intermittent light experiments to manipulate exposure to light at night and thus distinguish between direct and indirect effects of light on behavioural and physiological responses of great tits (mostly chick provisioning behavior). Bird will be radio-tagged with a novel tracking system that will allow fine-scale temporal and spatial recording of movements and activity patterns.

Field research assistants will participate in data collection during approximately a 3-month period, from start of April to end of June 2017. Assistant duties will include nest monitoring, focal behavioral observations,

radio-tracking, bird capture and processing, ringing, tagging, blood sampling and data entry. Thus, you will learn a great deal of field work skills in avian research, as well as experimental design, data collection and, depending on your motivation and goals, data analysis and scientific writing. What we could not offer, due to budget constraints on our grant (we cannot pay to hire staff), is a stipend. Thus, assistants will need to cover all their living expenses while in Wageningen. Student rooms normally range between 200 and 400 euros per month in a shared flat.

University graduates and undergraduates are encouraged to apply. Current students are encouraged to apply for academic credit for their work at their home institution, as well as to conduct their research thesis (BSc or MSc) with us. We are fully motivated to support students that want to pursue a thesis work or simply develop an own project that could lead to the publication of a scientific paper and reinforce their application to PhD programs. Assistants will be involved in all aspects of the project, including discussions of the conceptual framework of the project. We will assign you a desk in a students' office and you will be an integral part of our department. For those who will conduct their thesis with us, there is also the possibility to extend your stay beyond the field work season, until thesis completion.

Working days are relatively long although normal for relative field work standards (6-10 hours in the field, usually from 8 am to 6 pm max). The workweek will typically be 6 days, and free days are rotated among all team members. The work is not very physically demanding, although some walking and biking is required. For those who will drive (see below), you must expect between 1 and 2 hours of driving per day.

#### Qualifications:

- 1) Those with previous field experience (especially those who have bird-handling and/or behavioral observation experience) and a strong interest in bird behavior and ecology are highly preferred, but such skills are not absolutely necessary. I will personally train the assistants.
- 2) Applicants with a driving license are highly preferred.

Other important requirements include:

- 1) Willingness to work long hours in the field (7-10)
- 2) Commitment to data entry at the end of each working day in the field (this is essential to keep track of the breeding events and plan day by day work schedule)
- 3) Ability to work in a team with at least 3-4 other people
- 4) Understanding that data collection is shared among team members, thus if you have your own project

you will still be required to collect data for other students/postdocs

5) If you have a driving license, you will also be required to drive approximately 50-100 km per day to move between field sites

Application instructions: Deadline: Until the two posi-

tions are filled. Please send:

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This message has been arbitrarily truncated at 5000 characters. To read the entire message look it up at <http://life.biology.mcmaster.ca/~brian/evoldir.html>

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## PostDocs

AIMS Queensland EvolutionCoralReefOrganisms ..	89	ToulouseCNRS PlantsEvolutionaryEpigenetics ...	106
ArizonaStateU EvolBioinformaticsGenomics .....	89	TrentU AmphibianAdaptation .....	106
ArizonaStateU EvolutionaryBioinformatics .....	90	TU Dresden EvolutionaryBiology .....	107
Barcelona GenomicsMachineLearning .....	90	UArkansas BehavioralGenetics .....	107
BrownU PlantEvolution .....	91	UBirmingham AdaptiveEvolution .....	108
Budapest EvolutionPhysicsOfCancer 2 .....	92	UCalifornia Berkeley FungalPopGeneticsGenomics	109
CharlesU Prague EvolutionArabidopsis .....	93	UCambridge MicrobialEvolution .....	110
CIBIO Portugal ModellingHumanDiseases .....	93	UCopenhagen ComparativeGenomics BirdsInsect	110
CNRS Montpellier Virus Evolution .....	94	UExeter EvolutionInsectP450 .....	111
ColumbiaU ViralEvolution .....	95	UKentucky InsectEndosymbiontEvolution .....	112
CWilliamMary ButterflyPopGenetics .....	96	ULausanne GenomicsPlantMicrobeSymbioses ....	112
GeorgiaTech ExptEvolutionGenetics .....	96	ULEubeck SystemsBiol .....	113
Halifax PDF PhD FishGenomics .....	97	ULiverpool EvolutionaryGenetics .....	113
HarvardU MicrobeHostEvolution .....	98	UMarylandBaltimoreCounty EvolutionaryBiology	114
IISER-TVM Kerala India EcologyEvolution .....	99	UmeaU 5PDF and 5PhD Metagenomics .....	115
London 2 EvolutionOfInsectCognition .....	99	UMichigan EvolutionaryGenomics .....	115
London ChromatinEvolution .....	100	UOslo PopulationGenomics .....	116
MaxPlanck GenomicsMigration .....	101	UppsalaU OralMicrobiomeEvol .....	117
MaxPlanckInst Ploen Adaptation BiologicalClocks	102	UppsalaU OralMicrobiomeEvol 2 .....	118
NaplesU SelectionInPlants .....	103	UQuebec AT ForestPopulationGenetics .....	119
OviedoU Spain PopulationGenetics .....	103	USheffield Speciation .....	119
SanAntonio MalariaEvolutionaryGenetics .....	103	UYork UK LepsevolResponsesToEnvChange .....	120
SLU Sweden PlantSexChromosomeEvolution .....	104	Vienna ConservationCamels .....	120
StanfordU CommunityEcologyEvolution .....	105	Vienna StatisticalGenomics .....	121
StellenboschU SouthAfrica AntarcticPlantPhylogenomics .....	105		



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## AIMS Queensland EvolutionCoralReefOrganisms

Postdoctoral Fellowship Opportunities at the Australian Institute of Marine Science - Evolution of Coral Reef Organisms

Early career researchers are encouraged to apply for postdoctoral projects in the following areas:

- Genomic basis of environmental stress tolerance and resilience in corals - Drivers of recovery of coral populations and reefs after disturbance - Role of evolutionary rescue on coral reefs under current and future environmental scenarios - Effects of sediments on larval ecology of corals and sponges

The Australian Institute of Marine Science is Australia's tropical marine research agency. Since our establishment in 1972, our research into some of Australia's iconic marine ecosystems has guided their management and that of similar systems around the world. We do marine science that matters, providing world-class, large-scale and long-term research for governments, industry and the wider community to make informed decisions about the Great Barrier Reef, North-West Shelf and Arafura and Timor Seas. With our own research vessels, the National Sea Simulator and cutting edge laboratories at our locations in Townsville, Darwin and Perth, our researchers have the best tools and equipment to provide tomorrow's solutions today.

AIMS postdoctoral fellows receive extensive support, funding and mentoring.

Our staff enjoy competitive employment conditions. You will join a dynamic intellectual environment where innovation, communication and collaboration are in focus. Full access to AIMS' world-class facilities, coral reefs on our door-step and strong national and international collaborative relationships provide a unique opportunity to conduct pure and applied research that matters.

Interested in joining us?

Find out more at [www.aims.gov.au/employment](http://www.aims.gov.au/employment) . Dr Line K Bay Senior Research Scientist and Team Leader Reef Recovery, Adaptation and Restoration Australian Institute of Marine Science PMB No. 3, Townsville MC Queensland 4810, Australia

Phone: +61 07 47534179 Mobile: +61 0429185497  
E-mail: [l.bay@aims.gov.au](mailto:l.bay@aims.gov.au) Web address: [www.aims.gov.au](http://www.aims.gov.au) Line Bay <[L.Bay@aims.gov.au](mailto:L.Bay@aims.gov.au)>

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## ArizonaStateU EvolBioinformaticsGenomics

Postdoctoral Research Associates - Genomics/Bioinformatics

Two Postdoctoral Research Associate positions are available at the Biodesign Institute at Arizona State University (ASU). The Postdoctoral Research Associates will be part of the Cartwright lab (<https://cartwright.ht/>) located in the Biodesign Center for Personalized Diagnostics. The lab is focused on evolutionary research related to mutation and population variation, as well as developing statistical software to process large, genomic datasets to identify and study somatic and germline mutation patterns. Successful candidates will participate in three federally funded research programs: (1) analysis of mutation accumulation lines from the ciliate, *Tetrahymena thermophila*, (2) development of DeNovoGear, a general toolkit for the study of mutation rates from next-gen sequencing of related individuals and cells, and (3) development of phylogenomic methods to reconstruct phylogenies from whole-genome sequencing. Corresponding projects in the lab involve the study of somatic and germline mutations in humans, chimps, trees, bacteria, bees, mice, and cancer.

In particular, under guidance from Dr. Cartwright, the candidate is expected to:

- \* Work both independently and closely with other members of the lab
- \* Map and/or assemble next-generation sequencing data
- \* Adapt existing genomic techniques to non-model organisms
- \* Develop novel, high-throughput methodologies to identify de novo mutations by comparing related individuals and somatic samples.
- \* Present the results of research at meetings, in publications, etc.

Requirements

- \* PhD in bioinformatics, computational biology, biostatistics, genomics, molecular biology or related fields
- \* Proficiency in scientific computing and programming/scripting languages in UNIX platforms (e.g. Bash, Python, C/C++)
- \* Experience in statistical computing (e.g. R/Bioconductor and Biopython)

Desired Qualifications

- \* Experience in development/maintenance of scientific software
- \* Experience in next-generation sequencing data processing and analysis
- \* Experience in statisti-

cal analysis and method development \* Experience in high-performance parallel computing \* Experience in collecting and processing large-scale scientific data

#### Instructions to Apply

The position will remain open until filled. To apply, please send cover letter, CV, summary of past work, and the names and email addresses of three references to Dr. Cartwright at [cartwright@asu.edu](mailto:cartwright@asu.edu). Preference will be given to candidates who apply by \*February 20, 2017\*. Please put 'Postdoctoral Research Associate' in the subject line of your email.

The Cartwright Lab (<https://cartwrig.ht/>) offers a productive environment, in which researchers are given the freedom to explore new ways of solving scientific problems. There are opportunities to work with a large number of collaborators at both ASU and worldwide. We are located in the Valley of the Sun (Phoenix, AZ, USA), home to 4.5 million people, and short driving distances from numerous outdoor activities in the Sonoran Desert. Biking, hiking, mountain climbing, and bird watching are all popular activities in the area.

#### The Biodesign Institute Mission

The Biodesign Institute at ASU addresses today's critical global challenges in healthcare, sustainability and security by developing solutions inspired from natural systems and translating those solutions into commercially viable products and clinical practices.

Arizona State University is a VEVRAA Federal Contractor and Equal Opportunity/Affirmative Action Employer. All qualified applicants will be considered without regard to race, color, sex, religion, national origin, disability protected veteran status, or any other basis protected by law.

ASU's full nondiscrimination statement: <https://www.asu.edu/aad/manuals/acd/acd401.html> Title IX statement: <https://www.asu.edu/titleIX/> – Reed A. Cartwright, PhD Barrett Honors Faculty Assistant Professor of Genomics, Evolution, and Bioinformatics School of Life Sciences Human and Comparative Genomics Laboratory The Biodesign Institute Arizona State University

Availability: <http://links.asu.edu/CartwrightCalendar>  
Address: The Biodesign Institute, PO Box 875301, Tempe, AZ 85287-5301 USA Packages: The Biodesign Institute, 1001 S. McAllister Ave, Tempe, AZ 85287-5301 USA Office: Biodesign B-220C, 1-480-965-9949 Website: <http://cartwrig.ht/> "rcartwri@asu.edu" <rcartwri@asu.edu>

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## ArizonaStateU EvolutionaryBioinformatics

A postdoctoral position is available in Susanne Pfeifer's group at Arizona State University (ASU).

Research in the lab focuses on analyzing genomic variation to quantify evolutionary processes, utilizing a combination of large-scale data analysis and modeling. Research topics are open to discussion and mutual interest, though specific interests include the study of mutation and recombination rate variation in primates, as well as the study of adaptation during rapid environmental change (more detailed information may be found on the lab website: <http://spfeiferlab.org/>). Candidates should have a background in bioinformatics (ideally including experience with genomic data analysis), as well as strong quantitative and programming skills.

Informal inquiries as well as applications (including a short summary of research interests, CV, and contact information for two references) should be emailed to [susanne.pfeifer@asu.edu](mailto:susanne.pfeifer@asu.edu) prior to March, 31st. Start date is flexible.

The lab is located on the main (Tempe) campus of ASU, benefiting from close ties to several labs at the interface of bioinformatics, evolution, and genetics, including the Cartwright, Jensen, Stone, and Wilson Sayres groups.

Susanne Pfeifer, tenure-track Assistant Professor, School of Life Sciences, Arizona State University  
[spfeife1@asu.edu](mailto:spfeife1@asu.edu)

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## Barcelona GenomicsMachineLearning

We offer a 22 month postdoc to work in the machine learning area. The profile is ample, from identifying selective sweeps to genomic selection and individual interests can be discussed. Gross salary is about 30k euro / year. The details are below. Interested candidates please send a letter of motivation letter, CV and emails of contact persons.

Miguel Perez-Enciso ICREA professor Centre for

Research in Agricultural Genomics (CRAG) and Facultat de Veterinaria UAB Campus Universitat Autònoma Barcelona Bellaterra E-08193 Spain Tel: +34 935636600 ext 3346 Fax: +34 935636601 miguel.perez@uab.es <http://www.icrea.cat/Web/ScientificStaff/Miguel-Perez-Enciso-255> <http://bioinformatics.cragenomica.es/numgenomics/> Machine learning tools to combine sequence and biologically heterogeneous data

#### Research project

Big data are characterized not only by their size but also by their heterogeneity and noisiness. These features apply in particular to genomic data: their size has been increasing exponentially with the advent of new sequencing technologies, but also their complexity. We aim at combining several available sources of information, not only the phenotypes and sequence data, but also, e.g., annotation features or metabolic pathways. An important goal is not only to provide efficient predictors but also tools to biologically interpret the results. We will explore machine learning tools such as ensemble methods or deep learning to investigate two main problems (i) genomic prediction, and (ii) inference of selective sweeps.

#### Job description

We are looking for a PhD with a computational profile and an interest in biological applications.

#### Required

- Programming ability and experience in python.
- Quantitative and/or population genetics background

#### Valued

- Experience in machine learning area

We offer a 22 month year postdoc contract (extendable up to three years if funding is available).

#### Group description

The numerical genomics group (<http://bioinformatics.cragenomica.es/numgenomics/>) at Centre for Research in Agricultural Genomics (CRAG, [www.cragenomica.es](http://www.cragenomica.es)) is primarily interested in the use of high throughput sequencing technology (NGS) for population and statistical genomics. Topics of particular interest are studying the footprint of domestication and artificial selection and the use of sequence for genomic selection. CRAG was recently awarded a Severo Ochoa project for excellence centres in Spain.

#### Group leader

Miguel Perez-Enciso

ICREA professor

miguel.perez@uab.es

<https://bioinformatics.cragenomica.es/numgenomics/>  
<https://www.icrea.cat/Web/ScientificStaff/Miguel-Perez-Enciso-255/> Miguel Perez Enciso  
 <1136012@uab.cat>

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## BrownU PlantEvolution

The Leslie Lab in the Department of Ecology and Evolutionary Biology at Brown University is seeking a post-doctoral research associate with a background in the analysis of geospatial species data, species range distributions, and plant trait distributions. Potential projects will focus on the distribution of reproductive traits in conifers, particularly seed and seed cone features, and their relationship to phylogenetic structure and climate at a global scale. The successful candidate will be expected to integrate large geographic, phylogenetic, and trait data sets, and a strong background in computational approaches to analyzing the geographic distribution of species is preferred.

The Leslie Lab focuses on paleobotany, functional morphology, and patterns of character evolution in plants, particularly in conifers and other gymnosperms. Recent work in the lab combines large morphological data sets, particularly those focused on reproductive traits, with a comprehensive phylogenetic framework to understand plant reproductive evolution from a macroevolutionary and macroecological perspective.

The Ecology and Evolutionary Biology Department at Brown University in Providence, Rhode Island is a diverse community of scholars with broad interests in evolution and systematics, functional morphology and biomechanics, and population genetics. To apply, please send a research statement, a current CV, and contact information for three references to Andrew Leslie by email ([andrew\\_leslie@brown.edu](mailto:andrew_leslie@brown.edu)). The position start date is flexible, and the initial appointment will be for one year with an opportunity for extension. Applications will be reviewed starting immediately and accepted until the position is filled. Brown University is an EEO/AA employer.

Andrew Leslie <[andrew\\_leslie@brown.edu](mailto:andrew_leslie@brown.edu)>

## Budapest Evolution Physics of Cancer

### 2

A second and final announcement for a postdoctoral position to join the recently established Evolutionary Genomics Research Group funded in 2016 under a highly competitive 5 year grant from the Hungarian Academy of Sciences' "Momentum" program as well as an ERC Starting Grant starting in 2017.

#### Research Topic:

Cancer is a genetic disease fuelled by somatic evolution. Despite advances in the molecular biology of cancer associated genes and the recent surge in the amount of DNA sequences available for different cancers, our understanding of the evolutionary mechanisms that lead to cancer is limited and cancer mortality rates have changed little in the last few decades. Until we unravel cancer's basic principles, the battle against it can only progress in inches, rather than in miles.

To address the problems quantitatively, a new field called the "physics of cancer" has emerged. In the context of this emerging field the Evolutionary Genomics Research Group works to understand the evolutionary process that leads to the breakdown of the hierarchical organisation of healthy tissues and the emergence of tumours, using evolutionary models, computer simulations, and sequence analysis. We do this with the aim of developing models that can predict how cancers respond to treatment depending on their functional and genetic diversity and guide us toward developing novel treatment strategies and improving existing ones. In our most recent work (Derenyi & Szollosi 2017) we asked how tissues generate large numbers of cells while at the same time minimising the accumulation of mutations and the risk of cancer.

To answer the question we introduced a general model of hierarchically organised self-renewing tissue and derived the lower limit of lifetime divisional load of a tissue. We showed that hierarchically differentiating tissues can approach this limit, and that this depends on uneven divisional rates across the hierarchy. We are looking for a postdoctoral researcher to build on these results and work with us in exploring the evolutionary process that lead to breakdown of hierarchical organisation of healthy tissues. The questions that we want to answer include: Under what conditions do hierarchically differentiated tumours, i.e. "cancer stem cells", evolve? Which kind

of mutation lead to cancer and in what combination, e.g. do mutations that increase symmetric vs. asymmetric cell division rate drive tumour progression or vice versa?

Derenyi, I & Szollosi, GJ Hierarchical tissue organization as a general mechanism to limit the accumulation of somatic mutations. Nature Communications, in press (2017) <https://doi.org/10.1101/098129> Position Details:

The successful candidate will either have a PhD in Evolutionary or Computational Biology or come from a strong quantitative background such as Physics, Applied Mathematics or Statistics with the ambition to pursue research in Evolutionary Biology.

The position is for up to 2 years with the possibility of extension and a salary of up to 2,000 EUR per month conditional on experience (adjusting for cost of living this corresponds to approx. EUR 3,000 in Berlin, 3,300 in Vienna and 4,200 in Paris [numbeo.com] ).

The research group is lead by Dr. Gergely Szollosi ( <https://scholar.google.hu/citations?user=sPrYT-oAAAAJ> ) and Prof. Imre Derenyi ( <https://scholar.google.hu/citations?user=kDEAL-wAAAAJ> ).

The research group is hosted at Eotvos University's Institute of Physics. The Institute of Physics has been included in the Excellence Group of European Universities, and has achieved top placement in the number of citations, the number of ERC grants, the time available for PhD research and the gender balance of masters students in the CHE Excellence Ranking. The research group is associated to the Depts. of Biological Physics and Complex Systems composed of several interdisciplinary research groups including those of Prof. Imre Derenyi, Prof. Tamas Vicsek, and Prof. Istvan Csabai.

Please direct all enquiries to Dr. Gergely Szollosi (ssolo@elte.hu). First round of applications closes March 1st 2017. Please include a CV with list of publications referencing a google scholar profile and a motivation letter addressing the research topic described above.

Dr. Gergely J Szöllősi

MTA-ELTE „Lendület“ Evolutionary Genomics Research Group ERC "GENECLOCKS" Research Group head researcher <http://ssolo.web.elte.hu> Tel: 00 36 30 725 35 32

Gergely J Szöllősi <sszolo@gmail.com>

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## CharlesU Prague EvolutionArabidopsis

\*Postdoctoral Position in Ecological Genomics of Alpine Arabidopsis\*

\*Department of Botany, Faculty of Science, Charles University in Prague, Czech Republic\*

We are seeking a highly-motivated early-career researcher with good ecological and/or population genomic background to join a project focused on parallel adaptation of wild \*Arabidopsis\* populations towards high-alpine environments in European mountains. Using combination of genome resequencing, field experiments and phenotyping (incl. morphometrics, ecophysiology, metabolomics and RNAseq) we aim to reconstruct evolutionary triggers which lead to repeated formation of a distinct high alpine phenotype in two \*Arabidopsis\* species (see the Fig.). The selected candidate will be based in Prague with other members of the core team; the work in this project also involves fieldwork in the Alps and collaboration with other teams in Austria and the UK.

The main focus of the work will be

§coordination of a reciprocal transplant experiment in the Austrian Alps (since summer 2017)

§phenotyping of the plants (multivariate morphometrics, life-history trait screening)

§analyses of transcriptomic (RNAseq) profiles of the experimental plants

We offer

§work in an inspiring student-dominated environment of the new team of ecological genomics

§competitive salary for 2,5 years (~ 33,000 CZK monthly, i.e. 25% above the average Czech salary)

§possibility to (co-)supervise a Master or a PhD student

§a technician support for the wet lab work

§additional experience through an international collaboration with our partners at the University of Innsbruck, Austria (ecophysiology, metabolomics) and the John Innes Centre, UK (transcriptomics)

§work in the historical centre of the UNESCO heritage site of Prague city

We require

§strong motivation for an interdisciplinary research in border of ecology and genomics

§independence in running ecological experiments

§experience with fieldwork, optimally in alpine environment

Desirable but not required

§experience in statistical analysis of ecological data

§background in analysis of high-throughput sequencing data, optimally RNAseq

Please, send your CV, contact of the two referees and a short motivation letter to the project leader, Filip Kolář (filip.kolar@gmail.com). Review of applications will begin on \*March 15th 2017\* and will continue until the position has been filled. The position is available from \*May 2017\*.

– Filip Kolář Department of Botany Faculty of Science, Charles University Benatska 2, Prague CZ - 128 01

Institute of Botany, Academy of Sciences Zamek 1, Pruhonice CZ - 252 43 Czech Republic

Filip Kolar <filip.kolar@gmail.com>

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## CIBIO Portugal ModellingHumanDiseases

Postdoctoral Fellowship

Reference: ICETA 2017-04

Link to the call <http://www.eracareers.pt/-opportunities/index.aspx?task=global&jobId=88615>

Research field: Mathematical and statistical epidemiology

Applications are invited for a Postdoctoral Fellowship (Reference ICETA 2017-04) in the context of the project “Modelling and inference for population and ecosystem health” (IF/01346/2014), funded by FCT/MCTES (PIDDAC) and co-funded by FEDER through COMPETE (POFC), in ICETA:

Eligibility:

Candidates must hold PhD or equivalent qualification and research experience in mathematical or statistical modelling of natural systems.

**Work plan:**

Develop novel mathematical models for tuberculosis transmission. Shortening the gap between statistical epidemiology and mathematical epidemiology, the new models will accommodate inter-individual heterogeneity (observed and unobserved) and cohort selection for improved accuracy and predictability. These models will be informed by surveillance data and tested against monitored clinical trials and interventions. The post will involve developing innovative ways to analyse data and parameterize models, working closely with clinicians, and attending meetings to discuss research findings.

**Legislation and regulations:**

A fellowship contract will be celebrated according to the regulations defined by FCT “Regulations for Advanced Training and Qualification of Human Resources”, in accordance with Law 40/2004, of 18 August, as amended and republished by Decree-Law No. 202/2012 of 27 August, and as amended by Decree-Law No. 233/2012 of 29 October and by Law No. 12/2013, of 29 January, and Decree-Law No. 89/2013 of 9 July, to Fellowships Regulation of FCT ([www.fct.pt/apoios/bolsas/docs/-RegulamentoBolsasFCT2015.pdf](http://www.fct.pt/apoios/bolsas/docs/-RegulamentoBolsasFCT2015.pdf)), and to Fellowships Regulation of ICETA approved by FCT.

**Work place:**

The candidate will be affiliated to CIBIO-InBIO (Centro de Investigacao em Biodiversidade e Recursos Geneticos) do ICETA (Instituto de Ciencias, Tecnologias e Agro-Ambiente), and will spend periods at the Liverpool School of Tropical Medicine, United Kingdom, under joint supervision of Profs Gabriela Gomes, Rita Gaio and Raquel Duarte. There will be opportunity for interaction with the world renowned Liverpool Tuberculosis research community (LIV-TB), and collaboration with the World Health Organization (WHO).

**Duration of fellowship:**

The fellowship will have the duration of 6 months, starting on April 01, 2017.

**Monthly stipend:**

The fellowship stipend will be euro1.495/month, according to the regulations of the FCT Postdoctoral Fellowships in Portugal (<http://alfa.fct.mctes.pt/apoios/-bolsas/valores>), the payment will be do monthly by bank transfer.

**Selection procedures:**

Applications will be evaluated based on Curriculum Vitae (50%), motivation letter (30%) and references (20%). Selected candidates may be invited for an interview before final decisions are made.

Selection Jury: Prof. Gabriela Gomes (Chair) Prof. Rita Gaio Prof. Raquel Duarte Prof. Gertrude Thompson

**Notification of results:**

The results of this call will be made public in CIBIO-InBIO installations, and all candidates will be notified by email.

**Application period and documents:**

The call will be open from 16/02/2017 to 02/03/2017. Applications must include Curriculum Vitae (CV), motivation letter, copy of academic certificates and contact details of two references, sent to: [bolsas.cibio@cibio.up.pt](mailto:bolsas.cibio@cibio.up.pt)

CIBIO - Centro de Investigacao em Biodiversidade e Recursos Geneticos/ InBIO Laboratorio Associado, Universidade do Porto

Campus Agrario de Vairao

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e: [divulgacao@cibio.up.pt](mailto:divulgacao@cibio.up.pt)

w: <http://cibio.up.pt> | <http://inbio.pt>

f: <https://www.facebook.com/cibio.inbio> CIBIO-InBIO Divulgação

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## CNRS Montpellier Virus Evolution

**POSTDOCTORAL POSITION**

Virus Evolution / Codon Usage Bias / Cellular and Molecular Biology

A post doc position is available in Ignacio Bravo's group at the MIVEGEC (<http://www.mivegec.ird.fr/en/>) in Montpellier, France. The position starts from June (negotiable), associated with the ERC Consolidator Grant project CODOVIREVOL.

The objective of the project is to study the evolutionary mechanisms that generate phenotypic diversity in viruses causing chronic infections. The main focus is on codon usage bias, for which the fitness effects will be addressed at the molecular and cellular level, as well as in

an animal model. We will apply gene design, gene resurrection and experimental evolution to analyze genotypic changes by means of NGS and will monitor phenotypic changes through real-time cell monitoring techniques, comparative proteomics, and anatomopathological analysis of virus-induced lesions. The study model will be papillomaviruses, small dsDNA viruses. The results will have implications for the development of mathematical models of virus-host interactions and for the design of therapeutic vaccines to guide the immune response.

**SCIENTIFIC ACTIVITIES** - Experimental design and data analysis: strong background in evolutionary biology and experience in statistics and data analysis and interpretation. Current use of R and knowledge of a scripting language. - Cell biology: working in a BSL2 laboratory, maintenance of cultured cell lines, transfection with viral genes or oncogenes, real-time readings of cell growth (xCelligence), and analysis / interpretation of the results. - Protein biochemistry: preparation of protein extracts, western- blotting, immunoprecipitation, preparation for proteomic analysis, and interpretation of the results. - Molecular biology: design and realization of genetic constructs, transformation and maintenance of bacterial cultures, Sanger sequencing and NGS preparation, analysis/interpretation of the results. - Animal experimentation: experimental infection with viral DNA in rabbits, animal monitoring, blood sampling, taking biopsies, and tissue preparation for histopathology. - Technical training and supervision of students and post-doctoral fellows.

The list of activities is long and corresponds to almost all the activities that will be developed during the project. It is therefore unlikely, that the candidate will master all the techniques listed. Working in this project will involve learning new techniques and acquiring new skills. For this reason, initiative and autonomy will be essential, and candidates with a genuine interest in the project question are encouraged to apply.

**THE CONTEXT** The project will be developed in the research group led by Ignacio G. Bravo ([https://www.researchgate.net/profile/Ignacio\\_Bravo2/-publications](https://www.researchgate.net/profile/Ignacio_Bravo2/-publications)), within the Health Ecology and Evolution Laboratory at the MIVEGEC (<http://www.mivegec.ird.fr/en/>) in Montpellier, France. The MIVEGEC is a joint unit by the French National Centre for Scientific Research (CNRS), the Institute for Research and Development (IRD) and the Montpellier University. The host institution offers a vibrant scientific environment on the interface between evolutionary biology and infectious diseases. The evolutionary biology community in Montpellier is among the largest and richest ones in Europe.

THE POSITION Recruitment is initially for a period of 24 months, with the possibility of renewal for the duration of the project (until December 2020). The position will be available from June 2017. Remuneration will be fixed according to the CNRS salary scales (starting around 2,100 euro )

Please send a CV and a cover letter, as well as the details of two contacts for recommendation to Ignacio Bravo ([ignacio.bravo@ird.fr](mailto:ignacio.bravo@ird.fr)), before 24 March 2017.

Ignacio G. Bravo

Directeur de Recherche CNRS

Health, Ecology and Evolution Laboratory MIVEGEC UMR CNRS 5290, IRD 224, UM Montpellier, France

+33 467 41 5123 ignacio dot bravo {{at}} ird dot fr

research (as seen in PubMed): <http://www.ncbi.nlm.nih.gov/sites/entrez?cmd=3Dsearch&db=3Dpubmed&term=3Dbravo-ig%5Bau%5D> web MIVEGEC <http://www.mivegec.ird.fr/fr/> ORCID\_iD: [orcid.org/0000-0003-3389-3389](http://orcid.org/0000-0003-3389-3389)

“None but those who have experienced them can conceive the enticements of science” Frankenstein, Mary Shelley.

“ignacio.bravo@ird.fr” <[ignacio.bravo@ird.fr](mailto:ignacio.bravo@ird.fr)>

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## ColumbiaU ViralEvolution

Postdoctoral Research Scientist in viral evolution, genomics, and mathematical modeling, Columbia University Medical Center

The Rabadan Lab (<https://rabadan.c2b2.columbia.edu/>) is a multi-disciplinary team at the Columbia University Medical Center consisting of computational and evolutionary biologists, applied mathematicians, physicists, and physicians. As part of the Departments of Systems Biology and Biomedical Informatics, we collaborate with clinicians and public health researchers from around the world to explore the genetic underpinnings and epidemiology of infectious diseases and cancer. As part of the Center for Topology of Cancer Evolution and Heterogeneity, we are building a vibrant community of researchers who use insights and techniques from computational topology to solve pressing biomedical problems.

We are seeking a postdoctoral researcher who wants to work in a creative and collaborative environment on

new mathematical approaches for understanding viral evolution.

Candidate qualifications include:

- PhD in any quantitative science (preferably mathematics, computer science, physics, astrophysics, computational biology, statistics, or engineering) or in life sciences with strong focus on mathematical modeling, evolution, and/or computation - Expertise in high-throughput sequencing technologies is highly valued.
- Excellent organizational and communication skills are a must.

Application Process:

Please send the following to [st3090@cumc.columbia.edu](mailto:st3090@cumc.columbia.edu)

1. Cover letter, highlighting experience with quantitative methods for understanding biological data and evolutionary processes
2. CV
3. Names and contact information for three references

Columbia University is an affirmative action/equal opportunity employer and encourages applications from women and underrepresented minorities.

Sophie Thuault-Restituto, PhD Executive Director and Scientific Operation Manager,

Columbia University Center for Topology of Cancer Evolution and Heterogeneity Department of Biomedical Informatics 1130 St. Nicholas Ave ICRC Bldg 8th Floor New York, NY 10032 Tel: 646 341 2019

“Thuault-Restituto, Sophie”  
<[st3090@cumc.columbia.edu](mailto:st3090@cumc.columbia.edu)>

seminar course per academic year and arrange an environmental speaker series in the second year. A PhD in Biology or a closely related discipline is required by the time of appointment, August 10, 2017.

The position offers a competitive salary (\$45,000), research and travel funds (\$5000/year), and administrative support. The postdoctoral fellow will be mentored by two William & Mary faculty members with research interests in plant ecology and population genetics.

Review of applications begins April 1st, 2017 and will continue until an appointment is made. Start date is August 10th, 2017. To apply, please submit online a letter of application and a curriculum vitae as a single PDF document as well as the names and email address of three references at <http://jobs.wm.edu>. (Job # F0004L)

The College of William and Mary values diversity and invites applications from underrepresented groups who will enrich the research, teaching, and service missions of the university. The College is an Equal Opportunity/Affirmative Action employer and conducts background checks on applicants for employment.

If you have questions please email:

Joshua Puzey, Assistant Professor of Biology, [jrpuzey@wm.edu](mailto:jrpuzey@wm.edu) <http://puzeylab.weebly.com> Harmony Dagleish, Assistant Professor of Biology, [hjdagleish@wm.edu](mailto:hjdagleish@wm.edu) <http://wmpeople.wm.edu/site/page/hjdagleish/home> Joshua Puzey <[jrpuzey@gmail.com](mailto:jrpuzey@gmail.com)>

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## GeorgiaTech ExptEvolutionGenetics

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### CWilliamMary ButterflyPopGenetics

Postdoctoral Fellow: Andrew W. Mellon Postdoctoral Fellow @ The College of William and Mary

The Environmental Science and Policy program at the College of William & Mary seeks applications for a two-year postdoctoral scholar position in Environmental Science sponsored by the Andrew W. Mellon Foundation.

The postdoctoral scholar will research the decline of the monarch butterfly and the common milkweed plant using an interdisciplinary approach with techniques including population genetics, chemical ecology, GIS, and analysis of historical collections. The postdoctoral scholar will teach one upper-level primary literature focused

Postdoctoral associate- experimental evolution / microbial genetics / quantitative biology The Ratcliff lab at Georgia Tech (<http://ratcliffab.biology.gatech.edu/>) is seeking to hire a postdoctoral associate to work on the evolution of multicellularity.

The successful candidate will work as part of an interdisciplinary team to examine the evolutionary dynamics of adaptation in the 'snowflake yeast' model system. Specifically, we are interested in understanding how multicellular adaptation occurs prior to the origin of genetically-regulated development. The successful candidate will work closely with physicist Peter Yunker (<https://yunkerlab.gatech.edu/>) and mathematical biologist Eric Libby (<http://ericlibby.github.io/>) as we integrate synthetic biology and experimental evolution with mathematical and computational models.



This position will be renewed annually for three years. Salary is commensurate with experience. The successful candidate will ideally start in the spring or early summer of 2017.

Under guidance from Dr. Ratcliff, the candidate will be expected to: - Identify mutations in experimentally-evolved snowflake yeast using next gen sequencing and bioinformatic analysis (e.g., snp calling, bulked segregant analysis, etc.).

- Examine the function of these mutations by: i) Creating defined yeast strains via transformation.

ii) Examining multicellular phenotype and cellular behavior using confocal and high-throughput fluorescence microscopy and flow cytometry.

iii) Identifying the fitness consequences of key mutations.

- Use these experiments to help refine and parameterize physical models describing the growth of snowflake yeast (led by Dr. Yunker) and models examining their evolution (led by Dr. Libby).

- Disseminate this research by taking the lead on writing papers, giving talks at national and international meetings, and participating in scientific outreach projects.

Requirements - A PhD in evolutionary biology, molecular biology, genomics, biophysics, or related fields.

- Proficiency with scientific programming (preferably using Python or R) for both large-scale data analysis (e.g., bioinformatics) and constructing analysis pipelines (e.g., for large microscopy datasets).

- A record of scientific creativity and strong capacity for independent thought.

Desired qualifications - Experience with yeast transformation and molecular biology.

- Experience with bioinformatic analysis of next generation sequencing data.

- Familiarity with mathematical or computational modeling approaches would be helpful for collaboration, but it will not be a major responsibility of this position.

- Ability to make clear, elegant figures for papers and talks.

- Enthusiasm! We're a pretty excited bunch- science is more fun when you're really into it.

The position will remain open until filled. Applications will be considered as they arrive, so please don't hesitate to contact Dr.

Ratcliff if you are interested. To apply, please send you cover letter, CV, a brief summary of past work (or link to a description on your website), and the names

and email addresses of two to three references to Dr. Ratcliff at ratcliff@gatech.edu. Please include 'Postdoc application' in the subject line of your email.

Georgia Tech (in Atlanta, GA) is experiencing a renaissance in evolutionary microbiology. The successful candidate will be in a highly collaborative environment, with the opportunity for extensive interactions among faculty studying microbial evolution, including Sam Brown (<http://biosci.gatech.edu/people/sam-brown>), Frank Rosenzweig (<http://biosci.gatech.edu/people/frank-rosenzweig>), Brian Hammer (<http://www.hammerlab.biology.gatech.edu/>), Joshua Weitz (<http://ecothery.biology.gatech.edu/>), Peter Yunker (<https://yunkerlab.gatech.edu/>), Steve Diggle (<http://www.stevediggle.net/who-are-we.html>), Eric Gaucher (<http://www.gauchergroup.biology.gatech.edu/>), Frank Stewart (<http://marine-micro.biology.gatech.edu/>), Matthew Herron (<http://matthewherron.net>) and others. Atlanta itself is a good place to live - Midtown, Georgia Tech's neighborhood, was recently named one of the 5 best neighborhoods in the country by the APA - with lots of things to do and a reasonable cost of living.

William Ratcliff Assistant Professor, Biological Sciences

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This message has been arbitrarily truncated at 5000 characters. To read the entire message look it up at <http://life.biology.mcmaster.ca/~brian/evoldir.html>

## Halifax PDF PhD FishGenomics

NEW POSITIONS - Graduate Student and Postdoctoral Fellow Positions with Fisheries and Oceans Canada on fisheries genomics, Halifax NS Canada.

Positions: Graduate student positions and several postdoctoral fellow positions are available at Dalhousie University and Fisheries and Oceans Canada (Halifax, NS) working on the ecology, evolution, and conservation genomics of fishes and invertebrates. Species of primary interest are Atlantic salmon and Atlantic cod, but current projects include other anadromous fish and species of marine invertebrates as well. The lab's research is broadly concerned the application of genomic tools to inform marine management and conservation. See <http://www.bradburygeneticslab.com> The specific projects will involve using next generation sequencing approaches to resolve signatures of adaptation across genomes and pop-

ulations and the use of molecular tools in mixture analysis and individual assignment. Themes include fishery composition and migration patterns, adaptation to climate, invasive species, and the impact of escaped farmed salmon on natural populations. These multidisciplinary projects represent training in state of the art genomic tools and techniques while experiencing both university and government laboratory environments. Graduate students will have access to technical support both in the field and laboratory through DFO staff and expertise and be part of the Marine Gene Probe Laboratory (Dal).

Qualifications: Honours degree or equivalent in biology (for a MSc position) and a MSc or equivalent (for a PhD position), and strong interests in evolutionary ecology, molecular ecology, and conservation biology. PDF Candidates must have a Ph.D. in fisheries science, population genetics, genomics, oceanography or a related field.

Application: Please email (ibradbur@me.com) (1) a letter describing your interests in this position and your previous research experience, (2) a recent CV. Review of applications will continue throughout 2017.

Ian Bradbury <ibradbur@me.com>

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## HarvardU MicrobeHostEvolution

Postdoctoral position in experimental evolution of host-microbiome associations

Job description: We seek an outstanding individual for a postdoctoral associate position to contribute to an ongoing project at the Rowland Institute at Harvard University in the laboratory of Robert Brucker. We are looking for candidates that are excellent experimentalists with a strong background in microbiology to investigate the mechanisms of host-microbiome interactions. Using an insect model system *Nasonia*, we are experimentally evolving populations of host animals exposed to xenobiotic toxins as environmental stressors. We are observing host and microbiome adaptation as new phenotypes emerge. Experience analyzing large datasets with many variables- whole genome sequencing, transcriptomes, and metabolomics is preferred. Prospective applicants should have made significant contributions to their area of study, as evidenced by a strong publication record. We are seeking creative and highly motivated individuals who want to work in a dynamic, multi-disciplinary research environment.

We look for candidates with strong quantitative skills, proven time and project-management skills, ability to work in a small team environment and excellent writing and oral communication skills.

The position is for an annual renewal for 2 years. Salary is commensurate with experience. The position start date is in June of 2017. For questions about this position, please contact Robert Brucker at brucker@rowland.harvard.edu

Harvard University is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status, or any other characteristic protected by law.

Required qualification: Ph.D. or equivalent by the time of job start in biology, microbiology, ecology and evolution, statistics, or another appropriate field. Excellent experimental and organization skills.

Preferred qualifications:

- Experience in designing and executing experiments involving metagenomic, metatranscriptomic, and/or metabolomic profiling
- Experience with microbiome data analysis, elucidating host- microbiome interactions, and/or functional prediction of microbial systems using pathway analysis
- Fluency in standard bioinformatics tools, Python, Perl, and R
- Demonstrated ability to analyze high-dimensional biological datasets
- Excellent creativity, decision making, and troubleshooting skills
- Strong written and oral communication skills, as demonstrated through publications and presentations
- Experience with experimental evolution, disease ecology, ecological modeling or advanced statistics
- Evidence of intellectual leadership

To apply: email a CV, research statement cover letter and three letters of reference to brucker@rowland.harvard.edu Letters of reference can be uploaded directly by letter writers following instructions on the web page. Incomplete applications will not be considered.

Applications will be considered until the position is filled.

Robert Brucker <brucker@rowland.harvard.edu>

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## IISER-TVM Kerala India Ecology Evolution

A postdoctoral position is available under ICREEE ([www.vanasiri.in/eco-evo](http://www.vanasiri.in/eco-evo); IISER-TVM Centre for Research and Education in Ecology and Evolution). ICREEE consists of the research groups of Ullasa Kodandaramaiah ([www.vanasiri.in](http://www.vanasiri.in)) and Hema Somanathan ([www.iisertvm.ac.in/faculties/-hsomanathan/research\\_areas](http://www.iisertvm.ac.in/faculties/-hsomanathan/research_areas)). We invite applications for a postdoc with one of us, preferably on one of the research themes mentioned below, but applicants are also free to propose projects in other research areas within ecology and evolution.

Ullasa Kodandaramaiah:

Prey-predator interactions Life-history trait evolution  
Insect-plant coevolution Phenotypic plasticity

Hema Somanathan:

Plant-pollinator interactions Insect navigation Dispersal  
ecology

The postdoc will have the flexibility to design projects in discussion with Hema or Ullasa, and can involve undergraduate students & interns. The IISER-TVM Vithura campus is an excellent place for many kinds of studies in ecology and evolution. If interested in the position, please get in touch with one of us ([ullasa@iisertvm.ac.in](mailto:ullasa@iisertvm.ac.in), [hsomanathan@iisertvm.ac.in](mailto:hsomanathan@iisertvm.ac.in)) for discussions before sending in your formal application. There are of course several ongoing projects in both labs that a postdoc can be part of, but selection is based partly on the ability of the candidate to come up with good research questions.

DEADLINE: 15 March 2017

SALARY: Rs. 43,200 (Rs 36,000 + 20% Housing Rent Allowance)

DURATION: 1.5 years

SELECTION: The formal advertisement with details of how to apply are at [http://iisertvm.ac.in/-openings/read\\_opening/191](http://iisertvm.ac.in/-openings/read_opening/191) LIFE IN KERALA AND THIRUVANANTHAPURAM (TRIVANDRUM): The picturesque campus is in Vithura (<http://vanasiri.in/eco-evo/#facilities>), which is 40 km from the coastal city of Thiruvananthapuram. Some people prefer to live near the campus, but many commute from the city.

Thiruvananthapuram is the capital of Kerala, and has a rich cultural heritage. It is within a stone's throw away from world-famous beaches such as Kovalam and Varkala, and lovely backwater tourism areas such as Poovar. Several hill stations (e.g Ponnudi) and wildlife sanctuaries are close by. Being a major medical tourism destination, the city has excellent medical care facilities. The quality of school education is good and the medium of instruction is English, which is widely spoken in the state.

It is a relatively small city, and the cost of living tends to be considerably lower than in bigger Indian cities. A 2-bedroom apartment can be rented for Rs 8,000 - 10,000 per month. There are plenty of options for dining out - a meal at a decent local restaurant can start from Rs 50, but a good meal with a drink even in a five-star hotel need not cost more than Rs 1000. Costs for groceries and other daily needs can be looked up here ([www.kada.in](http://www.kada.in)). Taxis can be hired from Rs 10 per km (with a minimum fare of Rs 50).

"ullasa@iisertvm.ac.in" <[ullasa@iisertvm.ac.in](mailto:ullasa@iisertvm.ac.in)>

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## London 2 Evolution Of Insect Cognition

2 Postdoctoral Research Assistants (3 year posts) School of Biological Sciences, Royal Holloway University of London Location: Egham Salary: pounds 34,137 to pounds 40,317 per annum - including London Allowance Closing Date: Wednesday 15 March 2017 Interview Date: To be confirmed

Applications are invited for two Postdoctoral Research Assistant posts in the Department of Biological Sciences at Royal Holloway University of London, to join the research group of Dr. Elli Leadbeater (<http://ellileadbeater.wixsite.com/insectcognition>)

Position 1: Social network approaches to understanding honeybee behaviour and communication. Job reference: 0217-040

This is a full time, fixed-contract post, available for 3 years. The start date is flexible but must be before 15th May 2017, to coincide with our summer field season.

Honeybee colonies are microcosms of information flow, within which bees communicate with nestmates through a variety of signals and cues. We are interested in how these information-sharing systems interact, and how each contributes to colony fitness. The successful can-

didate will join a team of researchers working on an ERC-funded research project that focuses on the evolution of communication in honeybees, and will lead the social network-based axis of the project. You will be responsible for developing and piloting means to track social interactions in our honeybee observation hives, for designing experiments and building social networks, and for applying Network-Based Diffusion Analysis to identify information flow mechanisms. During the summer months, you will perform behavioural experiments on campus at RHUL, and during the winter you will be responsible for data analysis and manuscript preparation. You will work closely with other members of the research team, including our postdoctoral researchers, technicians and beekeeper, and external project partner Dr. Will Hoppitt (University of Leeds). All experimental work will be based at Royal Holloway, but the post holder will be expected to travel to other locations within the UK to undertake training as necessary.

The successful candidate will have a PhD in Biology (it is acceptable to be in the final phase of a PhD programme), with a strong publication record in peer-reviewed journals, and proven research expertise in Animal Behaviour. Experience of building and analysing social networks is essential, and experience of behavioural research involving live animals (especially insects) is highly desirable. The post holder is expected to be highly competent with R, and experience of using Matlab would also be an advantage. Most importantly, we are seeking an individual who has the drive to learn new techniques, the independence to take responsibility for one of the most important axes of our ERC-funded project, and the commitment to develop the project to its full potential.

Position 2: Linking learning and cognition to fitness in an insect model system. Job reference: 0217-040A

This is a full time, fixed-contract post, available for 3 years from 1st August 2017.

The evolution of animal cognition is a major theme within our research group, and the successful candidate will work on a Leverhulme Trust funded project that focuses on the fitness consequences of cognitive abilities in the bumblebee *Bombus terrestris*. The project will involve large-scale behavioural experiments in the laboratory, and subsequent assays of fitness-determining traits in the field (on campus). This project is an opportunity to compare the contribution of different cognitive traits to survival and fitness under different ecological circumstances, using a unique study system that can be tested in the laboratory but simultaneously allowed to forage naturally in the wild.

You will be responsible for the design, set-up and implementation of behavioural experiments with live bees

in our bumblebee research lab, in addition to data analysis, presentation and preparation for publication. You will work alongside the project's associated PhD student, and will collaborate closely with other members of the research team, including postdoctoral researchers, technicians, postgraduate students and undergraduates. You will also be heavily involved in the piloting of experimental techniques. All experimental work will be based at Royal Holloway and in the surrounding woodland and parkland.

The successful candidate will have a PhD in Biology (it is acceptable to be in the final phase of a PhD programme). A strong publication record in peer-reviewed journals is essential, and experience of presenting at international conferences is highly desirable. You will have extensive experience of lab or field-based research in the field of animal behaviour, and be able to demonstrate a good understanding of statistical approaches to data analysis in behavioural research. We are

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This message has been arbitrarily truncated at 5000 characters. To read the entire message look it up at <http://life.biology.mcmaster.ca/~brian/evoldir.html>

## London ChromatinEvolution

We are looking for a creative postdoctoral scientist to join a diverse computational/experimental research team that works at the intersection of molecular evolution, systems biology, and (more often than not) epigenetics; headed by Dr Tobias Warnecke.

Recent questions we have tackled include:

- Can RNA chaperones buffer deleterious mutations (Rudan et al. 2015 eLife 4:e04745) and how does buffering by chaperones affect the evolution and evolvability of their substrates?
- How does chromatin architecture affect DNA sequence evolution?
- Do different epigenetic marks all come with their own unique mutational burden? (Supek et al. 2014 PLoS Genet 10:e1004585)
- What is the difference between prokaryotic and eukaryotic chromatin and how did complex epigenetic regulation evolve?

You will aim to make a major contribution to our on-going research program, generating and/or analyzing protein-DNA interaction data from a number of non-model prokaryotes, understanding condition-dependent expression of chromatin proteins and their post-translational modification, with an emphasis on archaeal chromatin. In addition, you will develop and carry out your own line of research within the group's areas of interest and expertise

Candidates keen to mix wet (*E. coli*, archaea) and dry lab work are particularly encouraged to apply. You must have a PhD (or equivalent), a strong publication record, excellent communication skills, and a track record of addressing scientific problems in an innovative, thoughtful and systematic manner. Candidates with a mainly computational background should be proficient in at least one programming/scripting language (java, python, etc.) as well as R/matlab and, ideally, have experience in analysing data from high-throughput sequencing experiments (e.g. Chip-Seq, RNA-Seq). Candidates with an experimental background should have substantive experience in molecular techniques for the genetic manipulation of prokaryotes. Whatever your background, a keen interest in evolutionary processes is a must.

It's a fully funded 3-year postdoc position at the MRC London Institute of Medical Sciences/Imperial College London, with plenty of core support and a strong research environment, particularly when it comes to epigenetics.

<http://www.jobs.ac.uk/job/AXB023/postdoctoral-research-scientist/> If you want to know more, please contact me via email for an informal discussion about the post.

Thanks and all the best,

Toby

Tobias Warnecke Group Leader Molecular Systems Group MRC London Institute of Medical Sciences (LMS) & Imperial College London <http://molsys.csc.mrc.ac.uk>  
MRC London Institute of Medical Sciences (LMS) is the new name of the MRC Clinical Sciences Centre

"Warnecke, Tobias" <tobias.warnecke@lms.mrc.ac.uk>

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## MaxPlanck GenomicsMigration

**\*\* Postdoctoral Position - Genomics of Migration \*\***

The Max Planck Research Group Behavioural Genomics combines several biological disciplines including evolutionary genomics, bioinformatics, molecular biology, behavioural experiments and fieldwork, and utilises emergent technologies to identify the genetic basis of migratory traits.

Here we focus on identifying the genes and signaling pathways behind the components shaping the migratory phenotype in the blackcap, a well characterised migratory songbird species. We complement the sequencing approach with gene expression profiling and characterisation of chromatin modification to investigate the extent of phenotypic variation manifested by expression differences, either through slight genetic differences or epigenetic processes.

Our core project aims to understand: Which genes harbour coding variation with relevant consequences for migratory traits, and which signalling cascades are involved in shaping the migratory phenotype?

The ideal candidate holds a PhD in Biology with a strong background in bioinformatics and skills in programming (scripts and analysis pipelines). Experience in identification and characterizing of behaviorally regulated genes, expression profiling, avian neurobiology or genome editing are great assets. The successful candidate will participate in fundamental research questions on migratory genomics. As a central member of the group, the postdoc has good communication and organization skills and will take part in supervising students. I highly appreciate a creative postdoc who is motivated to contribute to and extends our research agenda with own ideas to understand the genetic architecture of migratory traits. The position will be offered for 2 years with the possibility of extension, starting date is negotiable.

The Max Planck Institute for Evolutionary Biology offers a stimulating and ambitious international working environment. Excellent infrastructure is available at all levels, including a new high-performance computer clusters and next-generation sequencing core facilities. The Institutes main fields of work include evolutionary ecology (Prof. Milinski), evolutionary genetics (Prof. Tautz) and evolutionary theory (Prof. Traulsen) and hosts a number of research groups providing ample opportuni-

ties for collaborations and interactions. The MPI in Plön further collaborates with the nearby Christian Albrechts University of Kiel and the GEOMAR (Helmholtz Centre for Ocean Research) in a joint International Max Planck Research School that attracts PhD students from abroad, which contributes to a multicultural working atmosphere. The city of Plön is surrounded by lakes, the Baltic Sea is nearby, offering plenty of opportunity for leisure and outdoor activities. The nearby ports of Kiel and Travemünde provide access to Scandinavia, the closest airports are Hamburg and Lübeck.

The Max Planck Society is committed to also employing handicapped individuals and especially encourages them to apply. The Max Planck Society seeks to increase the number of women in those areas where they are underrepresented and therefore explicitly encourages women to apply.

Applications should include 1) a cover letter outlining your motivation, specific interest in this project and your relevant experience, 2) a detailed curriculum vitae and copies of certificates, and 3) the contact details of three academic referees. Please send the above as a single PDF file to [liedvogel@evolbio.mpg.de](mailto:liedvogel@evolbio.mpg.de).

Review of applications will start on March 24th 2017 and will continue until the position is filled. Feel free to contact me for more information.

Contact details: Dr. Miriam Liedvogel, MPRG Behavioural Genomics, MPI for Evolutionary Biology, August-Thienemann-Str 2, 24306 Plön, Germany. Email: [liedvogel@evolbio.mpg.de](mailto:liedvogel@evolbio.mpg.de), [http://www.evolbio.mpg.de/-3004473/group\\_behaviouralgenomics](http://www.evolbio.mpg.de/-3004473/group_behaviouralgenomics), job advert as pdf: [http://www.evolbio.mpg.de/3157913/-2017\\_miggen\\_postdoc\\_mpi.pdf](http://www.evolbio.mpg.de/3157913/-2017_miggen_postdoc_mpi.pdf) Miriam Liedvogel <[liedvogel@evolbio.mpg.de](mailto:liedvogel@evolbio.mpg.de)>

## MaxPlanckInst Ploen Adaptation BiologicalClocks

Postdoc position - "Evolutionary adaptation and physiology of biological clocks"

Max Planck Institute for Evolutionary Biology, Ploen, Germany

The Max Planck Research Group "Biological Clocks" aims to uncover the yet unknown molecular basis of circalunar clocks, using the intertidal midge *Clunio marinus* (Diptera) as a model. *Clunio* times its life cycle to the rhythm of the tides by circalunar and circadian

clocks. As the tides differ along the coastline, the clocks of *Clunio* populations are genetically adapted to the local pattern of the tides. We study these adaptations using a combination of evolutionary genomics and molecular biology, behavioral experiments and ecological fieldwork. We have shown that this approach enables the identification of new clock molecules (Nature 540,6973).

*Clunio*'s circalunar clock can be set by moonlight, as well as mechanical cues and temperature cues associated with the tides. The postdoc will work with *Clunio* strains that are insensitive to mechanical and moonlight cues and use them to identify the receptors responsible for setting the circalunar clock.

The ideal candidate holds a PhD in Biology with a strong background in neurobiology, behavioral physiology or molecular biology. Experience in receptor physiology, immunohistochemistry, genome editing or cell culture are great assets. The postdoc will participate in the genomic work related to the project. As a central member of the group, the postdoc has good communication and organizational skills and will take part in supervising students. The position will be offered for 2 years with the possibility of extension. Starting date is May 2017 or as soon as possible thereafter.

The Max Planck Institute for Evolutionary Biology (<http://www.evolbio.mpg.de/2169/en>) offers a stimulating and ambitious international working environment. Excellent infrastructure is available at all levels. The MPI collaborates with the nearby Christian Albrechts University of Kiel (<http://www.mnf.uni-kiel.de/en/einrichtung/sektion-biologie-1>) and the GEOMAR (<http://www.geomar.de/en/>). The town of Plön is surrounded by lakes and the Baltic Sea is nearby, offering plenty of opportunity for leisure and outdoor activities. The nearby ports of Kiel and Travemünde provide access to Scandinavia, the closest airport is Hamburg.

The Max Planck Society is committed to also employing handicapped individuals and encourages them to apply. The Max Planck Society seeks to increase the number of women in those areas where they are underrepresented and therefore explicitly encourages women to apply.

Applications should include a cover letter describing your motivation to work on this project and your relevant experience, a detailed CV and copies of relevant certificates, and the contact details of three academic referees. Please send the above as a single PDF file to [kaiser@evolbio.mpg.de](mailto:kaiser@evolbio.mpg.de).

Review of applications will start on 21st March 2017 and will continue until the position is filled. Feel free to contact me for further information.

Dr. Tobias Kaiser

Max Planck Research Group “Biological Clocks” Max Planck Institute for Evolutionary Biology August-Thienemann-Str. 2 | 24306 Plön | Germany Phone +49-4522-763-224

<http://www.evolbio.mpg.de/biologicalclocks>

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### NaplesU SelectionInPlants

“A postdoctoral position studying pollinator mediated selection of wild populations of Brassica is available in the Department of Biology of University of Naples Federico II supervised by Dr. Giovanni Scopece. This position will involve field work aimed at documenting pollination dynamics and selection patterns of Brassica.

The ideal candidate will have a strong background in field experiments, pollination biology and natural selection studies through plant phenotyping. Funds are currently available to support this position for up to one year. The candidate must be younger than 35 years at the moment of application.

To apply, please send your CV and a brief statement of research interests to: [giovanni.scopece@unina.it](mailto:giovanni.scopece@unina.it)

Informal inquiries are also encouraged. Applications will be reviewed on an ongoing basis until the position is filled.”

“[giovanni.scopece@unina.it](mailto:giovanni.scopece@unina.it)”  
<[giovanni.scopece@unina.it](mailto:giovanni.scopece@unina.it)>

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### OviedoU Spain PopulationGenetics

Post-doc position: Population genetics of alpine grasshoppers

We are seeking a post-doc for a state-funded project on the population genetics of endemic grasshoppers of the Cantabrian Mountains, NW Spain. The post-doc fellow would be responsible for analysing ddRAD sequencing data and writing papers. Pending the doctoral degree homologation in a Spanish University, required for this contract, the position would start in July-August 2017 and would be funded for at least one year. Annual remuneration: euro 35.000 (net euro 2000 per month + 2 extra salaries).

The applicant must have a doctoral degree in a related field (e.g. Biology, Evolutionary Biology), relevant research experience on population genetics, bioinformatics skills, and ability in writing papers.

The post-doc fellow will join a team of researchers of the Spanish National Research Council and Oviedo University at the Research Unit of Biodiversity (Asturias, Spain), including Paola Laiolo, Juan Carlos Illera and José Ramón Obeso. To apply, please send a CV, a 1 page personal statement with relevant experience, and contact information for 2-3 references to Paola Laiolo [paola.laiolo@csic.es](mailto:paola.laiolo@csic.es). Applications should be sent before March 20th, with a decision by March 31st. For questions, please contact [paola.laiolo@csic.es](mailto:paola.laiolo@csic.es). Background information can be found at: <http://www.unioviado.es/-UMIB/> Paola Laiolo

Research Unit of Biodiversity (CSIC, UO, PA) Oviedo University - Campus Mieres Spain Tel. 0034 985458130 <http://www.unioviado.es/UMIB/es/> Paola Laiolo <[paola.laiolo@csic.es](mailto:paola.laiolo@csic.es)>

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### SanAntonio MalariaEvolutionaryGenetics

DEPARTMENT OF GENETICS, TEXAS BIOMEDICAL RESEARCH INSTITUTE, SAN ANTONIO, TEXAS <https://www.txbiomed.org/> Job #17-024POSTDOC- MALARIA PARASITE EVOLUTIONARY GENETICS I am searching for an enthusiastic postdoctoral researcher to work on adaptation in malaria parasites, *Plasmodium falciparum*. These parasites can be maintained in the laboratory, so are amenable to experimental and functional analysis, and CRISPR based gene editing is established in the laboratory. They are the target of aggressive ongoing control programs in malaria endemic areas, so are ideal organisms for studying ongoing selective events in nature. We have long-term collaborations with researchers in SE Asia, and collections of parasites spanning two decades. The successful candidate will develop projects involving genomic and/or transcriptomic analyses (with possibilities of proteomic and metabolomic work also) using both field collected parasites and experimental laboratory populations. This is an excellent opportunity for someone who would like to work on the evolutionary biology of an important human pathogen.

The successful applicant will join a vigorous infectious disease program at TBRI (including work on malaria,

schistosomiasis, ebola, HIV, Zika, hepatitis C and TB). The Genetics department at TBRI provides a stimulating environment with work on population genomics, quantitative genetics, metabolomics, and proteomics and has outstanding computational, sequencing and wet lab facilities. San Antonio is a vibrant, rapidly growing city with an interactive research community.

RELEVANT PUBLICATIONS - Nair, S., et al. A selective sweep driven by pyrimethamine treatment in Southeast Asian malaria parasites. *Mol Biol Evol* 2003; 20:1526-1536. - Nair, S., et al. Adaptive copy number evolution in malaria parasites. *PLoS Genet* 2008; 4:e1000243. PMC2570623 - Phyto, A.P et al. Emergence of artemisinin-resistant malaria on the western border of Thailand: A longitudinal study. *Lancet* 2012; 379:960- 1966. PMC3525980 - Cheeseman, I.H., et al. A major genome region underlying artemisinin resistance in malaria. *Science* 2012; 336:79-82. PMC3355473 - Anderson TJ, et al. Population parameters underlying an ongoing soft sweep in Southeast Asian malaria parasites. *Mol Biol Evol.* 2017 Jan; 34(1): 131-144. PMID: PMC5216669.

EDUCATION/EXPERIENCE/SKILLS: REQUIRED: Ph.D. in evolutionary biology, genetics, molecular biology, or a related discipline. Strong bioinformatic skills ideal. Ability to conduct both laboratory and computational work is an advantage. No experience of malaria parasite research necessary.

Apply online at <http://www.txbiomed.org/about/-employment>. Reference job #17-024. Application packets are accepted electronically or in hard copy. A completed application packet is a requirement for all positions. Applications will be reviewed until the position is filled.

Tim JC Anderson Texas Biomedical Research Institute  
PO Box 760549 San Antonio, TX 78245-0549

email: tanderso@TxBiomed.org

tanderso@txbiomed.org

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**SLU Sweden**  
**PlantSexChromosomeEvolution**

We are looking for a postdoc that will work with research on the genomics of sex determination and sex chromosome turnover in willows (*Salix*; Salicaceae). Species in this family can be dioecious with male and female flowers on separate individuals and among *Salix* species,

different sex determination mechanisms have evolved. The main task for the postdoc is to study sex determination mechanisms in willows to learn about the rate of sex chromosome turnover in the *Salix* genus. We are mainly working with the basket willow *Salix viminalis* for which we have several mapping populations, an association mapping population, a draft genome sequence assembly, RNAseq data from several individuals and tissues and genotyping-by-sequence data both from one mapping population and the association mapping population. The postdoc will have access to all these resources. Duties primarily will analyses of RNAseq data collected from developing flowers from both males and females. The work will involve sampling material in the field, lab work including RNA and DNA-extractions and bioinformatics analyses of RNAseq data. As there are many different ways to approach these questions, we are happy to tailor specific sub-projects to match the skills and interests of the successful candidate.

Qualifications: We are looking for a highly motivated candidate with a PhD degree in genetics, genomics, bioinformatics or in related subjects. Documented scientific qualifications within the research field are required. The candidate should have proven expertise in genomics and be used to handle large genomic datasets. Prior experience of working with computational statistical analyses of RNAseq data is thus highly desirable. Excellent proficiency in English is required, as English is the working language in the research group. Creativity and drive are personal characteristics that are desirable due to the knowledge-driven aspect of the project. The ranking of the candidates will be based on the proven scientific competence within the research area of the position.

Location: Department of Plant biology, Swedish University of Agricultural Sciences, Uppsala, Sweden

Type of employment: Postdoc stipend, 18 months

Employment: Full time (100 %)

How to apply: The application should include: 1) description of previous and current research interests (1-2 pages) 2) CV including list of publications 3) a copy of your PhD-degree diploma 4) names and contact details (address, email address and phone number) for at least two reference persons. The application should be written in English. The position will be open until filled, but review of applications will start March 10, 2017.

Starting date as soon as possible or as agreed upon.

For further information and to apply contact: Professor Pär Ingvarsson, [par.ingvarsson@slu.se](mailto:par.ingvarsson@slu.se)

The Swedish University of Agricultural Sciences (SLU) is



a research-intensive university that also offers unique degree programmes in for example rural development and natural resource management, environmental economics, animal science and landscape architecture. SLU has just over 3,000 employees, 5,000 students and has recently invested heavily in a modern, attractive environment on its campuses in Alnarp, UmeÅ and Uppsala.

Pär K. Ingvarsson Professor, Plant genomics and breeding Department of Plant Biology Uppsala BioCenter Swedish University of Agricultural Sciences PO-Box 7080 SE-750 07 Uppsala, Sweden

Pär Ingvarsson <par.ingvarsson@slu.se>

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### StanfordU CommunityEcologyEvolution

A postdoctoral fellow position is available in the Fukami Lab at Stanford University ([www.stanford.edu/~fukamit](http://www.stanford.edu/~fukamit)). The successful candidate will use nectar-inhabiting yeast and bacteria as a study system to ask broad questions about ecological and evolutionary community assembly. There will be opportunities to develop independent and collaborative research. Experience in one or more of the following fields is desirable: microbial metagenomics, chemical ecology, and pollination biology. Initial appointment will be for one year, with the possibility of extension for one or two additional years, contingent on performance. Start date is preferably June 2017, but flexible. To apply, please e-mail a single PDF including a cover letter, a CV, and the names and contact information of three references to Tadashi Fukami ([fukamit@stanford.edu](mailto:fukamit@stanford.edu)), with the subject line as "Postdoctoral application <your name>". Review of applications will begin on March 15, 2017 and continue until a suitable candidate is identified. Informal inquiries prior to application are welcome. Stanford University is an affirmative action and equal opportunity employer, committed to increasing the diversity of its workforce. It welcomes applications from women, members of minority groups, veterans, persons with disabilities, and others who would bring additional dimensions to the university's research and teaching mission.

[fukamit@gmail.com](mailto:fukamit@gmail.com)

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### StellenboschU SouthAfrica AntarcticPlantPhylogenomics

An exciting postdoctoral position to investigate Antarctic terrestrial plant phylogenomics is available at Stellenbosch University (<http://academic.sun.ac.za/cib/team/-academic/jleroux.asp>) and the University of Johannesburg (<http://www.molzoolab.co.za/>), South Africa; collaborative project. The successful applicant will be based at Stellenbosch University, but will be expected to spend some time at the University of Johannesburg. The envisaged research will address a major question in modern biology: how has plant life evolved and spread around the Antarctic region, both in the past and currently? This research forms part of an international collaboration: "A Functional Biogeography of the Antarctic (AFBA, see <http://antarcticbiogeography.org>)" as part of the Antarctic Circumnavigation Expedition (ACE). ACE involves 22 projects, 55 researchers and 19 countries and is the first project of the newly created Swiss Polar Institute.

The successful candidate will be responsible for plant phylogenomic research on selected taxa from the Antarctic and Southern Ocean Islands.

Using the latest phylogenomic and analytical approaches, the research aims to shed light on the history of plant life in the region, how it will respond to environmental change, and what can be done to secure its future.

Only candidates with demonstrable (i.e. published) skills in next generation sequencing data analyses with an emphasis on phylogenomics will be considered. Preference will be given to candidates with previous postdoctoral research experience and an excellent academic track record (i.e. publications in international journals). Successful candidates will be fully funded for 1 year, to be extended for an additional 1 to 2 years depending on satisfactory performance. An attractive annual bursary will be offered along with additional expenses for research, international travel and subsistence, and conference attendance.

Individuals from all nationalities are eligible.

To apply, please send a CV, contact details for at least two academic references, and a brief outline of research interests to Prof. Jaco Le Roux ([jleroux@sun.ac.za](mailto:jleroux@sun.ac.za)) and Prof. Bettine van Vuuren ([bettinevv@uj.ac.za](mailto:bettinevv@uj.ac.za)) by 28 February 2017. Informal inquiries are welcome. Review

of applications will begin immediately after the closing date, and short-listed candidates will be contacted to set up phone/Skype interviews. The envisaged start date for the project would be March/April 2017.

Arsalan Emami-Khoyi <arsalan@pobox.com>

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### ToulouseCNRS PlantsEvolutionaryEpigenetics

A postdoctoral research associate position is available in the laboratory of Benoit Pujol (<http://bit.ly/1svZZ6N>) at CNRS in Toulouse (France) to study evolutionary epigenetics in *Antirrhinum majus*, the snapdragon plant.

The postdoctoral associate will work as a member of the ERC-funded ANGI project and use experiments to understand the link between epigenetic variation and variation at ecologically relevant traits. Potential projects are flexible within the scope of the project. The successful candidate will be part of a team of scientists studying the evolutionary ecology and the adaptive potential of plant populations. There will be scope for collaboration on other projects underway in our team.

We are looking for a candidate with a strong background in epigenetics, experience with experimental work in plants. Previous work on *Antirrhinum majus* would be an advantage. French is not mandatory. A Ph.D. in evolutionary ecology, quantitative genetics, plant breeding or closely related field is required. We seek applicants with postdoctoral research experience. The initial appointment is for two years, with the potential for additional years of support conditional on performance. Position starting as early as April 2017.

To apply, please send (1) a brief cover letter explaining your interest in the position, (2) a CV, and (3) contact information (phone number and email) for three references to [benoit.pujol@univ-tlse3.fr](mailto:benoit.pujol@univ-tlse3.fr)

Closing date for application: February, 17th, 2017

SALARY: monthly salary after tax around 2000 euros

Benoit PUJOL Researcher in evolutionary ecology at CNRS, France Quantitative genetics in the wild and non genetic inheritance

Lab. Evolution & Diversite Biologique (EDB) Office 104, Bat. 4R1, Universite de Toulouse Paul Sabatier, 118 Route de Narbonne 31062 Toulouse Cedex 09 Mail: [benoit.pujol@univ-tlse3.fr](mailto:benoit.pujol@univ-tlse3.fr)

Benoit PUJOL <[benoit.pujol@univ-tlse3.fr](mailto:benoit.pujol@univ-tlse3.fr)>

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### TrentU AmphibianAdaptation

PhD position or Post-Doctoral Fellowship investigating mechanisms underlying the plasticity of amphibian responses to environmental stressors - Trent University

We are currently seeking a highly motivated PhD student or Post-Doctoral Fellow who will examine mechanisms governing the effects of environmental stressors on phenotypic and behavioural plasticity in amphibian models. Building on our longstanding research on amphibian responses to environmental stressors (including disease, predation risk, and contaminants), we aim to further establish a mechanistic link among ecological, physiological, and genome-level responses in amphibian tadpoles to natural or human-caused stressors. We are especially interested in building a bioinformatics approach to help identify the mechanisms involved in stressor-induced phenotypic and behavioural plasticity. Our preliminary work indicates differences in gene expression that are related to tadpole exposure to different stressors, and our next challenge is to establish the functional link between expressed genes and type of stressor. Our team has access to state-of-the-art facilities and equipment allowing us to address these cutting-edge research questions, and the successful candidate will have the opportunity to develop his/her own research interests within the scope of the broader program.

Applicants must have a strong academic record and graduate degree(s) in Biology, Physiology, Ecology, Genetics or a related field. Candidates with an interest in and/or knowledge of bioinformatics platforms/resources, experience in extracting genetic material or other relevant lab procedures, and conducting lab experiments with larval amphibians, will be highly sought. Candidates should demonstrate evidence of research potential (including scientific publications), a strong work ethic, and willingness to work in a large, dynamic, and collaborative research environment. The funding package is competitive and will include a foreign tuition waiver, if the successful applicant is an international PhD student.

The position will be closed as soon as a suitable candidate is found, so apply early! To apply, please submit: cover letter, unofficial transcripts, curriculum vitae, and names of three references to: Dennis Murray ([dennismurray@trentu.ca](mailto:dennismurray@trentu.ca)); [www.dennismurray.ca](http://www.dennismurray.ca) and Leslie Kerr; [lkerr@trentu.ca](mailto:lkerr@trentu.ca)).

Dennis Murray

CRC, Integrative Wildlife Conservation, Bioinformatics, and Ecological Modeling Trent University Peterborough, ON K9J 7B8

[www.dennismurray.ca](http://www.dennismurray.ca) dennismurray@trentu.ca

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## TU Dresden EvolutionaryBiology

Dear All,

20 positions for independent postdocs have been announced at TU Dresden, Germany, without restriction to the scientific area, alas evolutionary biologists and geneticists may apply.

The PhD should be no more than 6 yrs ago. deadline 31 March 2017. more info: <http://www.tu-dresden.de/-otpp> /Klaus

Klaus Reinhardt Professor of Applied Zoology Dept Biology, TU Dresden D-01062 Dresden, Germany <http://tu-dresden.de/bio/appzoo> private lab page: <http://tudaz.net> Klaus Reinhardt <k.reinhardt@sheffield.ac.uk>

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## UArkansas BehavioralGenetics

Westerman Lab Post Doctoral Fellow at The University of Arkansas

The Westerman Lab at the University of Arkansas is seeking a creative and motivated Post Doctoral Fellow to investigate the genetics and neurobiology of mate preference plasticity in butterflies, to begin as soon as late Spring 2017. The Westerman Lab studies mechanisms underlying behavioral diversity and plasticity, with a focus on sensory system development and visual learning in butterflies. Current research topics include the role of genetics and social environment in mate preference development, behavioral and developmental plasticity, the role of perception and sensory environment in ornament evolution, and sensory biases. The lab is an integrative animal behavior group, and integrate a wide range of techniques, including, but not limited to, controlled laboratory experiments, genomics, histology, and field ecology. The Research incorporates both

tropical butterflies and those native to Northwestern Arkansas, and takes advantage of multiple species-rich field sites within a 30-minute drive of campus. For more information, please visit the lab website at

<http://www.ericawesterman.org> . This position will be expected to work in close collaboration with Dr. Westerman on a comparative behavioral genomics project, as well as to develop independent research projects within the scope of the lab. In addition, this position will be expected to collaborate with fellow lab members, and will have the opportunity to mentor undergraduate and graduate students. Dr. Westerman is building collaborations within the Biology Department, as well as with faculty in both the Entomology and Psychological Sciences Departments at UARK. Postdocs in the lab will have the opportunity to work across discipline, and will be encouraged to initiate and develop innovative collaborative projects.

This technically integrative lab embraces creative approaches to studying animal behavior. Candidates with a strong background in neurobiology, genomics, and development are particularly encouraged to apply.

Funding is currently available to support this position for two years, with the possibility for extension depending on funding and project progress.

For full consideration, please apply by Feb 28, 2017

Minimum Qualifications:

- Ph.D. in biological sciences or a related field
- Demonstrated expertise in genomics, bioinformatics, neurobiology, or developmental biology techniques
- Experience with either multivariate statistics or statistical analysis of genomic data

- Demonstrated evidence of excellent writing skills

Preferred Qualifications:

- Experience in animal behavior experimental design
- Experience in live animal husbandry
- Experience in chemical ecology
- Experience in microscopy
- Experience using CRISPR/Cas9

For a complete position announcement and information regarding how to apply, visit <http://jobs.uark.edu/-postings/18400> . Applicants must submit a cover letter/letter of application, curriculum vitae, and a two-page description of research accomplishments and future plans uploaded to the 'Other Document' link. A list of three professional references (name, title, email address, and contact number) willing to provide letters

of reference will be requested during the application process.

For more information, please contact:

Dr. Erica Westerman

Assistant Professor

Department of Biological Sciences

University of Arkansas

ewesterm@uark.edu

The University of Arkansas is an equal opportunity, affirmative action institution. The university welcomes applications without regard to age, race/color, gender (including pregnancy), national origin, disability, religion, marital or parental status, protected veteran status, military service, genetic information, sexual orientation or gender identity. Persons must have proof of legal authority to work in the United States on the first day of employment. All applicant information is subject to public disclosure under the Arkansas Freedom of Information Act.

Erica Lynn Westerman <ewesterm@uark.edu>

## UBirmingham AdaptiveEvolution

dear community, \* \*

\*A 30-month postdoc position\*\*is open at the University of Birmingham in the Environmental Genomics Group\*\*for an evolutionary biologist. \*

the live link to the application on the University webpage is the following: [https://atsv7.wcn.co.uk/-search\\_engine/jobs.cgi?amNvZGU9MTYyMTM5MSZ2dF90ZW1w bGF0ZT03 Njcmb3du ZXI9NTAzM jUyM-SZvd2 5lcnR5cG U9ZmFpci ZicmFuZF 9pZD0wJn ZhY2Zpcm0 udmFjdG10 bGU9NTY3 NDMmcG9z dGluZ19j b2RlPTEx NyZyZXFza Wc9MTQ4ND U4NjM4My 04NDEzMD RhNjNiMm Q5MDU5YT JmNzQxOGI wOTY5ZTRl ZTI2YzBi OTNj=&jc ode21 391&vt.t emplate=7 67&owner= 5032521& owner-ty p eúr&b rand\\_id= 0&vacfirm .vactitle V743&p osting.c ode7& reqsig=1 484586383 -841304a6 3b2d9059 a2f7418b 0969e4ee 26c0b93c](https://atsv7.wcn.co.uk/-search_engine/jobs.cgi?amNvZGU9MTYyMTM5MSZ2dF90ZW1w bGF0ZT03 Njcmb3du ZXI9NTAzM jUyM-SZvd2 5lcnR5cG U9ZmFpci ZicmFuZF 9pZD0wJn ZhY2Zpcm0 udmFjdG10 bGU9NTY3 NDMmcG9z dGluZ19j b2RlPTEx NyZyZXFza Wc9MTQ4ND U4NjM4My 04NDEzMD RhNjNiMm Q5MDU5YT JmNzQxOGI wOTY5ZTRl ZTI2YzBi OTNj=&jc ode21 391&vt.t emplate=7 67&owner= 5032521& owner-ty p eúr&b rand_id= 0&vacfirm .vactitle V743&p osting.c ode7& reqsig=1 484586383 -841304a6 3b2d9059 a2f7418b 0969e4ee 26c0b93c)

\*Job description\*

One 30-month postdoctoral research fellowship in Experimental Evolutionary Ecology and Omics is available within the School of Biosciences in the Environmental

Genomics Group at the University of Birmingham, UK.

“Cracking the Code of Adaptive Evolution” (dCODE) is a multidisciplinary collaboration among seven investigators at the University of Birmingham who form a vibrant research community to advance the field of environmental omics. We pursue foundational science using natural populations of the ecologically relevant model species *Daphnia*. This project seeks to discover the relative contributions of phenotypic plasticity, the epigenome, and of molecular evolution to the process of adaptation, by experimenting on an historical *Daphnia* population that is “resurrected” from dormancy spanning 100 years of evolution.

The candidate will contribute to the planned research by (1) designing and conducting experiments to assess fitness changes leading to species persistence in presence of anthropogenic stress; (2) performing advanced statistical analyses to summarize fitness responses at species level; (3) linking fitness responses at species level with ecosystem services. Ability to code in R or similar software is required. The ideal candidate will: (i) understand theoretical underpinnings of evolutionary theories; (ii) have proven experience in conducting and analyzing experiments in the field of evolutionary ecology; (iii) have prior knowledge on how to link biodiversity and genetic diversity to ecosystem functioning and services; (iv) have prior experience with working in a multidisciplinary context.

The successful candidate will be responsible for all aspects related to laboratory experiments using *Daphnia*.

Applicants must hold a PhD-degree with substantial experience in experimental evolution design and analysis, statistics and biostatistics. Ability to perform ecological modeling and in combining experimental and omics data will be considered an advantage.

thanks, Luisa Orsini

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Dr Luisa Orsini Lecturer in BioSystems and Environmental Change Fellow of the Higher Education Academy Environmental Genomics Group, School of Biosciences, University of Birmingham Birmingham, B15 2TT, United Kingdom T: +44 (0)121 4145894 F: +44 (0)121 414 5925 Email: l.orsini[at]bham.ac.uk

<https://lorsini5.wixsite.com/luisaorsini> <http://www.birmingham.ac.uk/schools/biosciences/-staff/profile.aspx?ReferenceId=63090&Name=dr-luisa-orsini> <https://www.researchgate.net/profile/Luisa.Orsini> “Luisa Orsini (School of Biosciences)” <l.orsini@bham.ac.uk>

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**UCalifornia Berkeley**  
**FungalPopGeneticsGenomics**

UCBerkeley.FungalPopulationGeneticsGenomics

POSTDOCTORAL SCHOLAR - FUNGAL POPULATION GENETICS - DEPARTMENT OF PLANT & MICROBIAL BIOLOGY

Starting as early as June 2017

TO APPLY, VISIT: <https://aprecruit.berkeley.edu/apply/JPF01258>

Next Applicant Review, February 21, 2017

The Department of Plant & Microbial Biology at the University of California, Berkeley is seeking applicants for a postdoctoral scholar position in fungal statistical and population genetics with Drs. John Taylor and Rachel Brem. The fellow will join a new project focused on natural genetic variation in *Coccidioides*, the fungus responsible for San Joaquin Valley Fever. A collaborative grant that includes us and the lab of Anita Sil at UCSF will support the sequencing of a panel of *Coccidioides* isolates, and the association mapping of differences between strains in virulence and other disease-associated traits. We are looking for applicants with expertise and/or interest in genomics and statistical genetics to participate in this exciting project.

**BASIC QUALIFICATIONS** Candidates must have completed all degree requirements except the dissertation or be enrolled in an accredited PhD or equivalent degree program in genetics, genomics, or related field at the time of application. Prior experience in the study of fungi or microbes is not required.

**ADDITIONAL QUALIFICATIONS** Candidates must have a PhD or equivalent degree in genetics, genomics or related field by appointment start date.

**PREFERRED QUALIFICATIONS** We seek a postdoctoral researcher with wet- and dry-lab expertise in quantitative genetics, genomics, and/or molecular evolution. Experience in experimental preparation of Illumina sequencing libraries and computer scripting for population-genomic analyses is preferred. Successful applicants should be highly motivated and creative. They should demonstrate the ability to work independently and as a part of a team and have excellent written and verbal communication skills.

**APPOINTMENT** The anticipated start date for this appointment is June, 2017. The initial appointment is for 12 months, with renewal based on performance and funding. This is a full-time appointment.

**SALARY AND BENEFITS** Salary will be commensurate with qualifications and experience and based on UC Berkeley Postdoc salary scale. The annual salary range for this position is \$48,216 to \$56,400. Generous benefits are included (<http://vspa.berkeley.edu/postdocs>)

**TO APPLY, VISIT;** <https://aprecruit.berkeley.edu/apply/JPF01258>

Interested individuals should submit a one-page summary outlining your research interests, a current CV and the names and contact information of three references. Letters of reference may be requested of finalists. It is optional to include a statement addressing past and/or potential contributions to diversity through research, teaching, and/or service. This position will remain open until filled.

Questions regarding this recruitment can be directed to John Taylor ([jtaylor@berkeley.edu](mailto:jtaylor@berkeley.edu)) and Rachel Brem ([rbrem@berkeley.edu](mailto:rbrem@berkeley.edu)).

All letters will be treated as confidential per University of California policy and California state law. Please refer potential referees, including when letters are provided via a third party (i.e. dossier service or career center) to the UC Berkeley Statement of Confidentiality (<http://apo.berkeley.edu/evalltr.html>) prior to submitting their letters. The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age or protected veteran status. For the complete University of California nondiscrimination and affirmative action policy see: <http://policy.ucop.edu/doc/4000376-NondiscrimAffirmAct> The Department is interested in candidates who will contribute to diversity and equal opportunity in higher education through their research or teaching. The University of California, Berkeley has an excellent benefits package as well as a number of policies and programs in place to support employees as they balance work and family.

John Taylor Professor Plant and Microbial Biology 111 Koshland Hall University of California Berkeley, CA 94720-3102 [jtaylor@berkeley.edu](mailto:jtaylor@berkeley.edu) <http://-taylorlab.berkeley.edu/> Rachel Brem Associate Professor Director, Bioinformatics Core Buck Institute for Research on Aging 8001 Redwood Boulevard Novato, CA 94945 Phone: (415) 209-2093 Email: [rachelbrem@gmail.com](mailto:rachelbrem@gmail.com) Adjunct Associate Professor Depart-

ment of Plant and Microbial Biology University of California, Berkeley

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## UCambridge MicrobialEvolution

Applicants are invited for a postdoctoral research associate in Dr Chris Illingworth's Microbial Evolution research group in the Department of Genetics, University of Cambridge. One aspect of our recent research has focused on the development of mathematical models using population genetic methods to understand the within-host evolution of influenza virus. Other work has focused on evolutionary processes in other microbial organisms. We aim to recruit a bright and motivated individual to join the group, developing and applying new approaches for evaluating genome sequence datasets.

Funds for this post are available for 12 months, with the possibility of extension beyond this period.

The deadline for applications is 14th March 2017.

Essential requirements:

Have or about to be awarded a PhD in evolutionary biology or another relevant subject; high level of mathematical ability e.g. undergraduate degree in numerate subject; knowledge of a programming language such as R, Matlab, or C++; ability to work both independently and as part of a team; ability to communicate ideas effectively verbally and in writing to experts and non-experts alike; ability to think creatively and rapidly develop novel solutions, and enthusiasm for scientific research.

Desirable skills:

Expertise in population genetics; experience of working with next-generation sequence data; knowledge of virus evolution, and a record of publication in high quality scientific journals.

To apply online for this vacancy, please click on the 'Apply' button below. This will route you to the University's Web Recruitment System, where you will need to register an account (if you have not already) and log in before completing the online application form.

Applications should include a CV and a brief statement outlining key areas of expertise, and reasons why you would like to join the group. Informal enquiries can be addressed to Dr Chris Illingworth ([cjri2@cam.ac.uk](mailto:cjri2@cam.ac.uk)).

Once an offer of employment has been accepted, the successful candidate will be required to undergo a health assessment.

Please quote reference PC11439 on your application and in any correspondence about this vacancy.

The University values diversity and is committed to equality of opportunity.

The University has a responsibility to ensure that all employees are eligible to live and work in the UK.

Chris Illingworth <[cjri2@cam.ac.uk](mailto:cjri2@cam.ac.uk)>

## UCopenhagen ComparativeGenomics BirdsInsect

A 3-year post doc position on comparative genomics analysis is offered at The Centre for Social Evolution, Department of Biology, University of Copenhagen, Denmark. The position starts 1 September 2017 and will be associated with the 3-year research project "The interface between ecology, evolution and development based on large-scale genomics" from the Carlsberg Foundation.—

An important goal of eco-evo-devo is to address the genetic basis underlying life-history responses of organisms to their natural environment. The Bird genome 10K (B10K) and Global Ant Genome Alliance (GAGA) projects, which focus on birds and ants, representing two of the most successful animal lineages worldwide that occupy all the major ecological niches, provide an unprecedented opportunity to address this fundamental question. We have now completed the genome sequencing for over 300 bird species covering all families in the avian class. The GAGA consortium has been initiated last year and will generate the genomes for at least 300 ant species covering all ant genera in coming three years. By integrating these large-scale genomic data and other available ecological data and life-history traits information, this project aims to reveal the fundamental ways in which environmental factors have shaped the animal genome evolution and to understand the role of symbiogenesis as a force in animal evolution.—

The postdoc will independently carry out comparative

genomics studies for the B10K and GAGA projects, coordinate the analyses with collaborators and writing reports and scientific publications, as well as supervision of postgraduate students. The work will include the large-scale comparative genomics analyses with hundreds of genomes similar with the avian phylogenomic project papers we published in Science in 2014. It will entail a combination of cutting-edge genomic approaches and ecology and macroevolution knowledge. It will require high skill of project management including preparation reports and organization of project meetings.—

The successful candidate will become an integrated part of the research group of Guojie Zhang. The group works on comparative genomics and functional genomics on a broad spectrum of animal species. The project will be carried out at the Centre for Social Evolution, Section for Ecology and Evolution located in Copenhagen.

#### Qualifications

Applicants should hold a PhD degree within genomics, bioinformatics, computer science, molecular evolution or related fields. The position is open to both Danish and international applicants. Hands-on experience with large-scale genomics data analyses and working knowledge of programming languages and statistical software packages is essential and will be required. So is fluent spoken and written English as well as excellent communication and interpersonal skills. The main criterion for selection will be the research potential of the applicant; i.e. a good publication record will be a strong asset.—

#### Procedures and shortlisting

After the expiry of the deadline for applications, the authorized recruitment manager selects applicants for assessment on the advice of the Appointments Committee. All applicants are then immediately notified whether their application has been passed for assessment by an expert assessment committee. Selected applicants are notified of the composition of the committee and each applicant has the opportunity to comment on the part of the assessment that relates to the applicant him/herself. The final selection of the successful candidate will be made by the Head of Department, based on the recommendations of the assessment committee.

#### Salary and terms of employment

Terms of employment and payment are in accordance with the agreement between the Ministry of Finance and The Danish Confederation of Professional Associations (AC). For post docs the salary is based on seniority and is currently between DKK 32.350 and DKK 34.060 plus pension contribution a month and the possibility to negotiate further supplement.

The University of Copenhagen wishes to reflect the diversity of society and welcomes applications from all qualified candidates regardless of personal background.

Further information—

For further information on the project contact Assistant Prof. Guojie Zhang (Email: Guojie.Zhang@bio.ku.dk— Phone.: +45 91855431). See also—<http://socialevolution.ku.dk/home/>—or <http://zhanggj.cngb.org>—for information about the Centre for Social Evolution and its ongoing research.—

#### How to apply

Applications must be in English, submitted electronically and include:

§———— A cover letter describing motivation, project-related research experience and personal qualities

§———— Curriculum vitae

§———— Complete list of publications

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This message has been arbitrarily truncated at 5000 characters. To read the entire message look it up at <http://life.biology.mcmaster.ca/~brian/evoldir.html>

## UExeter EvolutionInsectP450

UExeter UK.InsectAdaptiveEvolution

Job title: Postdoctoral Research Fellow Job reference: R50321 Application closing date: 02/03/2017 Location: Cornwall Campus of University of Exeter Salary: pounds 33,943 to pounds 41,709 per annum depending on qualifications and experience Package: Generous holiday allowances, flexible working, pension scheme and relocation package (if applicable).

Applications are invited for a Postdoctoral Research Fellow to participate in a high profile and well-funded ERC funded project entitled 'Understanding and exploiting the P450 insect resistome'. The successful applicant will design and carry out experiments to investigate the evolution of insect resistance to xenobiotics. More specifically the project aims to characterise the genomic, transcriptomic and epigenetic changes underpinning the evolution of insect resistance to plant secondary metabolites and synthetic insecticides. A range of state-of-the-art molecular and bioinformatic approaches will be used

including analysis of next-gen sequencing data, PCR, QPCR, in vitro and in vivo expression of candidate genes and biochemical assays. The post-holder will also contribute to other activities in the Bass lab and act as the day-to-day line manager of a 0.6 FTE technician .

This post is available immediately until December 2020. The fellow will be based in the Bass lab and be part of a thriving group comprising several PhD students, post-doctoral research fellows (including a dedicated bioinformatician) and technicians.

The successful applicant will be able to develop research objectives, manuscripts, projects and proposals, and make presentations at conferences and other events.

Applicants will possess a relevant PhD or equivalent qualification/experience in a related field of study. The successful applicant will also be able to work collaboratively, supervise the work of others and act as team leader as required. Applicants should have experience in the majority of approaches detailed above.

For further information please contact Professor Chris Bass, e-mail [c.bass@ex.ac.uk](mailto:c.bass@ex.ac.uk). To apply go to [https://jobs.exeter.ac.uk/hrpr\\_webrecruitment/-wrd/run/ETREC107GF.open?VACANCY\\_ID=308939GyhP&WVID=3817591jNg&LANG=USA](https://jobs.exeter.ac.uk/hrpr_webrecruitment/-wrd/run/ETREC107GF.open?VACANCY_ID=308939GyhP&WVID=3817591jNg&LANG=USA) The University of Exeter is a Russell Group University in the top one percent of institutions globally. In the last few years we have invested strategically to deliver more than GBP 350 million worth of new facilities across our campuses with plans for significant further investment over the next three to five years.

Interviews are expected to take place on 14/3/17.

Professor Chris Bass Chair in Applied Entomology and ERC fellow Biosciences, College of Life and Environmental Sciences, University of Exeter, Penryn Campus, Treliiever Road, Penryn TR10 9FE UK Phone: 01326259084 Email: [c.bass@exeter.ac.uk](mailto:c.bass@exeter.ac.uk)

“Bass, Chris” <[C.Bass@exeter.ac.uk](mailto:C.Bass@exeter.ac.uk)>

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## UKentucky InsectEndosymbiontEvolution

The Endosymbiont Ecology lab in the Department of Entomology at the University of Kentucky ([entomology.ca.uky.edu/person/jennifer-white](http://entomology.ca.uky.edu/person/jennifer-white)) is seeking a post-doctoral research associate to investigate the influence of facultative bacterial symbionts on the evolu-

tion of insect (aphid) hosts under a selection regime. We seek someone with expertise in transcriptomics, qPCR validation, and DE analysis, particularly in non-model systems. The ideal candidate will have a PhD in Biology, Entomology, Bioinformatics or related field, a strong publication record, and excellent communication skills.

The salary for the position is \$47,500/year + benefits. Funds are committed to the position through Dec 2018; subsequent extension will be contingent on performance and funding availability. The position is open immediately, but start date is flexible.

The University of Kentucky is an equal opportunity employer located in Lexington, Kentucky, a mid-sized city of ~300,000 people. We are less than an hour from great hiking, camping and climbing in the Red River Gorge and Daniel Boone National Forest.

Inquiries regarding the position should be directed to me (Jen White) at [jenwhite.uk@gmail.com](mailto:jenwhite.uk@gmail.com). To apply, please send a statement of research interests, a current CV, and contact information for three references. Application review will start immediately and continue until the position is filled.

“jenawhite@uky.edu” <[jenawhite@uky.edu](mailto:jenawhite@uky.edu)>

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## ULausanne GenomicsPlantMicrobeSymbioses

Postdoctoral position - Epigenetic versus Genetic and Variation in plant microbe symbioses (Uni. Lausanne, Switzerland)

A postdoctoral position is available in the Sanders' group to study the role of epigenetic versus genetic variation in mycorrhizal fungi on plant growth. Our research indicates that variation in mycorrhizal fungi is associated with large differences in plant growth. We will study this in more detail to find out which aspects of genetic or epigenetic variation in these fungi causes high growth rates in plants (especially cassava).

It is intended that the results of this project will be combined with research in the field where our work is leading to real solutions to increase production of food in areas of the world where starvation is a major problem.

Candidates must be highly motivated, have a PhD (or expect to have very soon), and have knowledge in following fields: epigenetics; quantitative genetics. Sound knowledge of bioinformatics would be an advantage and



an interest in solving problems in an analytical way.

More information about our work can be found at <http://people.unil.ch/iansanders/> The project is part of a wider collaboration between the University of Lausanne, Dr Marco Pagni at the Vital-IT center of the SIB Swiss Institute of Bioinformatics and Prof. Alia Rodriguez at the National University of Colombia.

The position is available as soon as possible and is initially for 1 year. It is renewable for a maximum of 4 more years (depending on the number of years after receiving your PhD). Preference will be given to someone who obtained their PhD recently.

To apply send a CV and motivation letter in English, by email to [ian.sanders@unil.ch](mailto:ian.sanders@unil.ch). Please include the names of at least 2 people who I can contact for a reference. Applications must be received not later than 15th March 2017.

NOTE: Due to a lack of qualified candidates, this position is being re-advertised. If you have previously applied for this position then it is not necessary to send your application again.

Prof. Ian R. Sanders Dept. of Ecology & Evolution University of Lausanne Biophore Building 1015 Lausanne Switzerland Tel (direct): +41 21 692 4261 Tel (Secretary): +41 21 692 4260 Fax: +41 21 692 4265 Email: [ian.sanders@unil.ch](mailto:ian.sanders@unil.ch) [http://www.unil.ch/dee/page7238\\_en.html](http://www.unil.ch/dee/page7238_en.html) \*\*See my new website\*\* <http://people.unil.ch/iansanders/> Ian Sanders <[ian.sanders@unil.ch](mailto:ian.sanders@unil.ch)>

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## ULeubeck SystemsBiol

### PostDoc Position

What we are looking for Two postdoctoral positions are available in the team of “Medical Systems Biology”. We are looking for a highly motivated researcher with a great interest in Systems Biology, bioinformatics and biology and a track record for analysis of high-throughput data. You will contribute to an internationally competitive research group that is embedded within the Excellence Cluster 306 “Inflammation at Interfaces” which employs high-throughput assays, medical research, and epidemiological studies to unravel the molecular events leading to autoimmune diseases in the skin and in the gut. As such you will be dealing with forefront clinical data, mouse models and in vitro assays to develop models for the prediction, diagnosis and modelin of complex

diseases.

Required skills - PhD in the area of bioinformatics, computational biology, systems biology, Physics or a related field; - Experience in integration and analysis of multiple next- generation sequencing data sets; - Experience with common bioinformatics methods, tools, websites (e.g. NCBI, UCSC, Ensembl) and data resources (e.g. TCGA ENCODE); - Experience with retrieving, normalizing and analysing high- throughput datasets using R packages / Bioconductor, as well as in the visual presentation of biological data from high- throughput experiments; - Good communication skills, and the ability to conduct research independently. Please apply with you current Curriculum Vitae outlining your scientific interest, publications, future goals as well as 2 references.

The post is offered for a term of two years, with the possibility of prolongation and is paid according to TV-L E13.

Please send you application to [hauke.busch\(at\)uni-luebeck.de](mailto:hauke.busch(at)uni-luebeck.de)

To learn more about our group, please visit <https://www.systembiologie.uni-luebeck.de> Axel Künstner <[kunstner@evolbio.mpg.de](mailto:kunstner@evolbio.mpg.de)>

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## ULiverpool EvolutionaryGenetics

The Betancourt lab is seeking a postdoctoral researcher to work on a BBSRC-funded project investigating the impact of transposable elements on fitness, using *Drosophila* as a model. The project will use a variety of methods, including deep sequencing, population genomics, laboratory assays, and genetics.

The ideal applicant will have a PhD in a relevant field, experience with bioinformatics, will work as part of a team that includes a full-time research technician, and will also be encouraged to develop his/her own research interests. Dr. Betancourt’s group has tackled a wide variety of questions in evolutionary genetics, addressing the role of recombination and sex-linkage in evolution, and the spread of selfish elements in *Drosophila* (more information here: <http://www.flyevolution.net/>).

The Institute of Integrative Biology (IIB) at the University of Liverpool houses a large and active research faculty (see: <https://www.liverpool.ac.uk/-integrative-biology/about/>), and includes several active groups in evolutionary biology (see <https://www.liverpool.ac.uk/-integrative-biology/about/>).

[www.liverpool.ac.uk/integrative-biology/staff/evolution-ecology-and-behaviour/](http://www.liverpool.ac.uk/integrative-biology/staff/evolution-ecology-and-behaviour/)). IIB also houses several excellent core facilities, including a genomics centre (more here: <https://www.liverpool.ac.uk/integrative-biology/facilities-and-services/>).

The post is available for 3 years from the time of appointment. The official closing date for applications is March 23, 2017. To apply, search for job reference 005944 at <https://recruit.liverpool.ac.uk>; please include a cover letter, CV, and details for three references.

Informal enquires to [A.Betancourt@liverpool.ac.uk](mailto:A.Betancourt@liverpool.ac.uk) very welcome.

Cheers, Andrea

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## UMarylandBaltimoreCounty EvolutionaryBiology

Natural Sciences Pre-Professoriate Fellowship, 2017-2019 [apply.interfolio.com/39954](http://apply.interfolio.com/39954) The Department of Biological Sciences at the University of Maryland Baltimore County (UMBC) invites applications for the Natural Sciences Pre-Professoriate Fellowship. Candidates with research and teaching interests in all areas of Biological Sciences will be considered. The purpose of the Program is to support promising scholars who are committed to diversity in academia and prepare those scholars for a possible tenure track appointment at UMBC upon completion of the two-year appointment period. We are particularly interested in receiving applications from individuals who are members of groups that historically have been underrepresented in the professoriate.

UMBC is a national model for diversity and inclusive excellence in STEM through its Meyerhoff Scholar <http://meyerhoff.umbc.edu/> and Graduate Fellows programs (<http://meyerhoffgrad.umbc.edu/>), two of the most innovative and successful programs in promoting diversity and preparing students from underrepresented groups for careers in STEM. With many of the Meyerhoff scholars pursuing undergraduate and graduate studies in Biological Sciences, our faculty play a leading role in mentoring and developing the next generation of diverse professional workforce in STEM. The Department of Biological Sciences is a premier research-intensive department with thriving graduate and undergraduate programs (<http://biology.umbc.edu>). Our faculty are engaged in cutting-edge research, which attracts major federal, state, and private funding.

The fellow will be appointed as a Research Assistant Professor for a two-year term beginning August 17, 2017. The fellow will receive a starting stipend of \$50,000, health benefits, \$5,000 for conference travel and preparation of scholarly work, up to \$5,000 in instrument services, up to \$10,000 for supplies /consumables, lab space, office space with computer, library access, and other privileges at the university. During the two-year term of appointment, most the fellow's time will be devoted to pursuing research. In addition, the fellow will teach one course (one semester only) per year. Highly experienced research and teaching mentors will meet with the fellow regularly to provide guidance on developing a pedagogically sound teaching philosophy and plan, and improving the skills needed to pursue an academic research career, including proposal and manuscript writing, and technical presentation skills. The fellow will also benefit from professional development opportunities across the campus.

Candidates will be selected on the basis of scholarly promise and the potential to add to the diversity of the UMBC community. Applicants must have completed their doctoral degree when the term of appointment commences (August 17, 2017).

Application Instructions: to apply, please visit [apply.interfolio.com/39954](http://apply.interfolio.com/39954)

Deadline: Full consideration will be given to those applicants who submit all materials to [apply.interfolio.com/39954](http://apply.interfolio.com/39954) by MARCH 15, 2017. A complete submission will consist of:

- 1) Cover Letter
- 2) Curriculum Vitae
- 3) Three Letters of Reference
- 4) Statement of Proposed Research Plan (2-3 pages)
- 5) Personal Statement that details your demonstrated commitment to diversity efforts and the mission of UMBC, and why you should be selected for this position (1-3 pages)
- 6) Teaching Statement (1-2 pages)

Questions regarding the program may be addressed to: Dr. Phyllis Robinson, [probinso@umbc.edu](mailto:probinso@umbc.edu), however all application materials MUST be submitted through Interfolio.

The University of Maryland Baltimore County is an Equal Opportunity Employer/Affirmative Action. UMBC is the recipient of an NSF ADVANCE Institutional Transformation Award to increase the participation of women in academic careers.

[Apply.interfolio.com/39954](http://Apply.interfolio.com/39954)

Kevin Omland, PhD UMBC Presidential Research Professor 2016-2019 Department of Biological Sciences University of Maryland, Baltimore County 1000 Hilltop Circle Baltimore, MD 21250

Kevin Omland <omland@umbc.edu>

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## UmeaU 5PDF and 5PhD Metagenomics

The Department of Ecology and Environmental Science, Umeå University, Sweden, invites applicants for 5 postdoc and 5 PhD positions in ecology, biogeochemistry, paleolimnology, environmental genomics and modelling of northern lakes

In a five-year project, “Climate change induced regime shifts in Northern lake ecosystems” at Umeå University, Sweden, funded by the Knut and Alice Wallenberg Foundation, we are recruiting 5 postdocs (2- year fellowships) and 5 PhD students (4-year positions). Below we list each position with a short title indicating the focus of the position, the name of the primary advisor/mentor, application deadline, and a web link to the full text of the advertisement. The full advertisements are also appended as separate pdf files for all PhD positions and all postdoc fellowships, respectively.

Project description Effects of climate change on ecological communities are expected to be particularly strong at northern latitudes. The collaborative project “Climate change induced regime shifts in northern lake ecosystems” addresses two major, climate-dependent drivers of northern lakes: (i) altered thermal regimes, and (ii) increased input of terrestrial dissolved organic matter (tDOM). In a series of interconnected work packages we will use experimental, comparative, paleo-ecological, environmental genomics and modeling approaches to study the impact of temperature and tDOM on ecosystem processes ranging from primary production and greenhouse gas dynamics to fish production and food web dynamics. We expect responses to these drivers to be highly nonlinear.

PhD positions 1. Greenhouse gases in lakes (advisor Jan Karlsson, deadline 20 February 2017) <https://umu.mynetworkglobal.com/en/what:job/-jobID:133460/> 2. Effects of climate change on fish production (advisor Pär Byström, deadline 20 February 2017) <https://umu.mynetworkglobal.com/en/what:job/jobID:133528/> 3. Primary production

in lakes (advisor Ann-Kristin Bergström, deadline 20 February 2017) <https://umu.mynetworkglobal.com/en/what:job/jobID:133628/> 4. Modelling lake ecosystems (advisor Sebastian Diehl, deadline 9 March 2017) <https://umu.mynetworkglobal.com/en/what:job/-jobID:133564/> 5. Long term climate and environmental changes (advisor: Richard Bindler, deadline 20 February 2017) <https://umu.mynetworkglobal.com/en/what:job/jobID:133685/> Postdoctoral Fellowships 1. Climate impact on fish production and consumer resource interactions (mentor Pär Byström, deadline 27 February 2017) <http://www.umu.se/english/about-umu/news-events/grants/6-75-17> 2. Climate Impacts on Benthic Processes of Northern Lakes (mentor Ryan Sponseller, deadline 27 February 2017) <http://www.umu.se/english/about-umu/news-events/grants/6-77-17> 3. Climate impact on C cycling in lakes (mentor Jan Karlsson, deadline 27 February 2017) <http://www.umu.se/english/about-umu/news-events/grants/6-76-17> 4. Climate impact on methane cycling in lakes (mentors David Bastviken and Jan Karlsson, deadline 27 February 2017) <http://www.umu.se/english/about-umu/news-events/grants/6-78-17> 5. Environmental genomics in northern Swedish lakes (mentor Xia-Ru Wang, deadline 27 February 2017) <http://www.umu.se/english/about-umu/news-events/grants/6-79-17> Xiao-Ru Wang

Xiao-Ru Wang, PhD Dept. of Ecology and Environmental Science Umeå University SE-901 87 Umeå, Sweden xiao-ru.wang@umu.se

Xiao-Ru Wang <xiao-ru.wang@umu.se>

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## UMichigan EvolutionaryGenomics

Postdoctoral Position in Computational Evolutionary Genomics at University of Michigan

A postdoctoral position is available in the laboratory of Jianzhi “George” Zhang in a collaborative project with Dr. Joong-Ki Park on marine animal genomics that is funded by the Korean government. The postdoctoral fellow will analyze newly generated animal genomic and transcriptomic data to address various evolutionary questions. The position requires a motivated individual with an interest in evolution and experience in analyzing next-generation sequence data. Applicants should email CV and contact information of three references to jianzhi@umich.edu. The initial appointment will be for one year, but the appointment is renewable contingent

on satisfactory performance and availability of funding. For further information about the Zhang lab, see <http://www.umich.edu/~zhanglab/> . “jianzhi@umich.edu” <jianzhi@umich.edu>

## UOslo PopulationGenomics

Department of Biosciences

Researcher in population and landscape genomics

Position as research fellow available at Department of Biosciences, Section for Genetics and Evolutionary Biology (EVOGENE).

This researcher position will begin as soon as April 2017, but the start date can be flexible. Initial appointment is for two years.

Job description/ Project description:

The KauserudÅs Lab at the University of Oslo is seeking a motivated Researcher to be part of an ongoing collaborative project investigating the effect of forest fragmentation on the genetic variation of wood-decay fungi throughout Fennoscandia. The research programme FunGen, aims to enhance fundamental knowledge pertaining to the evolutionary processes responsible for generating and maintaining genetic diversity within populations of fungi in order to provide baseline information for improved forest management practices and conservation initiatives. This project is funded by the Research Council of Norway (NFR), under the programme Miljøforsk.

For further information please visit our webpage:

[http://www.mn.uio.no/ibv/english/research/sections/-evogene/projects/fun\\_gen/](http://www.mn.uio.no/ibv/english/research/sections/-evogene/projects/fun_gen/)

Depending on her/his specific expertise and qualifications, the selected candidate would be responsible for:

- the analysis of a RAD sequencing data set generated from several populations of a wood-decay fungal species. The corresponding genome has been sequenced in collaboration with the Joint Genome Institute. This data set is available and the postdoc/researcher will carry out the bio-informatics & population genomics analyses (Task1).
- both the wetlab and computational analysis of other polypore species sampled on a macro landscape-scale. In this subproject, the postdoc/researcher will work in close collaboration with other partners (NINA, NIBIO

and SLU) involved in the landscape analyses (Task 2).

The candidate will also have opportunities for implementing her/his scientific ideas in different subprojects.

Qualifications:

The Faculty of Mathematics and Natural Sciences has a strategic ambition of being a leading research faculty. Candidates for the fellowships will be selected in accordance with this, and expected to be in the upper segment of their class with respect to academic credentials.

The candidate must have obtained by the start date a PhD or other corresponding education equivalent to a Norwegian doctoral degree in ecology, population genetics, evolutionary genomics or bioinformatics. We seek a highly motivated and skilled person who is able to work independently, to take own initiatives and to have a strong interest in producing high quality research and writing scientific publications. Good writing and communication competencies along with excellent team working traits are highly desirable. The ideal candidate would have experience in preparing libraries for next-gen sequencing (RADseq/GBS), demonstrated bioinformatics skills in 'Big-data' analytical approaches and high expertise in population genetics analyses. The candidate should be familiar with programming languages like Unix and Python/Perl and have advanced statistical skills, preferably in R. Knowledge of the Norwegian language is not required.

A good command of English is required.

Salary:

Position code 1109, Salary NOK 486 100 - 567 100 per year ( pay grade 57 -65), depending on qualifications and seniority.

The application must include: \* Application letter \* CV (summarizing education, positions, pedagogical experience, administrative experience and other qualifying activity) \* Copies of educational certificates, transcript of records and letters of recommendation \* A complete list of publications and up to 5 academic works that the applicant wishes to be considered by the evaluation committee \* Names and contact details of 2-3 references (name, relation to candidate, e-mail and telephone number)

Please remember that all documents should be in English or a Scandinavian language.

In accordance with the University of Oslo's equal opportunities policy, we invite applications from all interested individuals regardless of gender or ethnicity.

UiO has an agreement for all employees, aiming to secure rights to research results a.o.

\* Region: \* Oslo  
 \* Job type: \* Contract  
 \* Working hours: \* Full-time  
 \* Working days: \* Day  
 \* Application deadline: \* 17 February, 2017  
 \* Location: \* Oslo  
 \* Reference number: \* 2017/1655  
 \* Company homepage: \* <http://www.mn.uio.no/ibv/> \*  
 Contacts: \* Sundy Maurice Telephone: +47 22845918  
 \* Questions regarding Easyruit, contact HR Officer  
 Torunn Standal Guttormsen Telephone: +47 22 85 42  
 72

Sundy Maurice Researcher Mycology Group Section for  
 Genetics and Evolutionary Biology University of Oslo  
 Norway sandym@ibv.uio.no

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 To read the entire message look it up at <http://life.biology-mcmaster.ca/~brian/evoldir.html>

## UppsalaU OralMicrobiomeEvol

Postdocin Evolutionary Biology/Metagenomics

Metagenomicsapproach to studying animal-environment  
 interactions through time and space

Apostdoctoral researcher position for a highly motivated  
 young scientist is available in the Primate Diversity and  
 Evolution Lab headed by Katerina Guschanski at the  
 Evolutionary Biology Centre of Uppsala University, Swe-  
 den.

Ourgroup is interested in understanding how evolution-  
 ary and ecological processes shape biological diversity.  
 To achieve this goal, we take a temporal approach, com-  
 paring time-spaced records of species diversity, presence  
 and abundance. Currently, we are expanding our ana-  
 lytical framework to the study of organism-environment  
 interactions by exploring changes in the oral microbiome  
 through time and space, with the aim to understand the  
 impact of environmental and population-level processes  
 on these dynamics. The current project will focus on  
 temporal and spatial changes in the oral microbiome,  
 diet, health, and host genomic profiles in a number of  
 mammalian species.

Forthis project, funded by the Swedish Research Coun-  
 cil FORMAS, we are looking for a creative and skilled  
 postdoctoral scientist to drive large-scale metagenomic  
 data analysis. The ideal candidate will have a solid  
 background in evolutionary genomics, experience with  
 metagenomic analyses, and demonstrated bioinformat-  
 ics skills to handle large-scale genomic data. Experience  
 with ancient DNA techniques, including sample extrac-  
 tion and NGS library preparation, will be an important  
 asset. A passion for science, good interpersonal skills,  
 and strong writing skills are prerequisites for the posi-  
 tion.

Merits: Weare looking for a candidate with an open-  
 minded, cooperative attitude, who can work both inde-  
 pendently and in a team, and is open to training junior  
 group members. This project is carried out in collab-  
 oration with a number of researchers in Sweden and  
 worldwide. Strong interpersonal skills and the ability to  
 communicate clearly across disciplines are required.

Eligibility/Qualification: Thesuccessful candidate must  
 have a Ph.D completed within 3 years of the applica-  
 tion deadline. Those applicants that received their PhD  
 earlier should be given the possibility, if special cir-  
 cumstances exist. Special circumstances are prolonged  
 periods of illness, parental leave, military service, union  
 duties and others of similar character. Proficiency in  
 English is a requirement. In ranking eligible candidates,  
 special importance will be given to scientific and inter-  
 personal skills.

Theenvironment: TheEvolutionary Biology Centre  
 (EBC, <http://www.ebc.uu.se/>) is one of the world's  
 leading research institutions in evolutionary biology and  
 part of Uppsala University - the oldest university in  
 Scandinavia. Uppsala University, ranked top among  
 European Universities in the subject of biology (CHE  
 European ranking), attracts approximately 40.000 stu-  
 dents from all over the world, creating an international  
 and stimulating research environment. The city of Upp-  
 sala is a vibrant college town, less than an hour's train  
 ride away from Stockholm (and even closer to Arlanda  
 International Airport), with beautiful and easy accessi-  
 ble surroundings.

Appointment: Thisis a two year position. Salary com-  
 mensurate to experience. Start date is negotiable, but  
 strong preference will be given to candidates that can  
 start by early Summer 2017.

Application: Theapplication should include (1) a cover  
 letter that clearly states the candidate's research in-  
 terests, qualification, and relevant experience (max. 2  
 A4 pages), (2) CV including a list of publications, (3)  
 copy of the doctoral degree, and (4) contact information  
 for three references. Please clearly indicate personal

circumstances (such as parental leave) that are relevant for the assessment of your eligibility.

Application deadline is February 28, 2017. For more information about the position please contact: Katerina Guschanski: katerina.guschanski@ebc.uu.se

For more information on ongoing research in our group, see: <http://www.ieg.uu.se/animal-ecology/-Research+groups/guschanski-lab> To apply, please follow the link to the central university application portal: <https://uu.mynetworkglobal.com/en/what:login/-jobID:134861> or press the “login and apply” button at the bottom of the ad on the Uppsala University webpage: <http://www.uu.se/en/about-uu/join-us/details/-?positionId=134861> Katerina Guschanski Assistant professor Evolutionary Biology Centre Department of Ecology and Genetics/Animal Ecology Uppsala University Norbyvägen 18D SE-75236 Uppsala, Sweden

Labpage:

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## UppsalaU OralMicrobiomeEvol 2

Postdoc in Evolutionary Biology/Metagenomics

This is an update to the previously posted position.

The application deadline has been extended to March 17, 2017.

Academic age restriction to 3 years after PhD has been removed. More senior researchers are welcome to apply (see below for application instructions).

A postdoctoral researcher position for a highly motivated young scientist is available in the Primate Diversity and Evolution Lab headed by Katerina Guschanski at the Evolutionary Biology Centre of Uppsala University, Sweden. The project is concerned with studying animal-environment interactions through time and space using a metagenomics approach.

Our group is interested in understanding how evolutionary and ecological processes shape biological diversity. To achieve this goal, we take a temporal approach, comparing time-spaced records of species diversity, presence

and abundance. Currently, we are expanding our analytical framework to the study of organism-environment interactions by exploring changes in the oral microbiome through time and space, with the aim to understand the impact of environmental and population-level processes on these dynamics. The current project will focus on temporal and spatial changes in the oral microbiome, diet, health, and host genomic profiles in a number of mammalian species.

For this project, funded by the Swedish Research Council FORMAS, we are looking for a creative and skilled postdoctoral scientist to drive large-scale metagenomic data analysis. The ideal candidate will have a solid background in evolutionary genomics, experience with metagenomic analyses, and demonstrated bioinformatics skills to handle large-scale genomic data. Experience with ancient DNA techniques, including sample extraction and NGS library preparation, will be an important asset. A passion for science, good interpersonal skills, and strong writing skills are prerequisites for the position.

**Merits:** We are looking for a candidate with an open-minded, cooperative attitude, who can work both independently and in a team, and is open to training junior group members. This project is carried out in collaboration with a number of researchers in Sweden and worldwide. Strong interpersonal skills and the ability to communicate clearly across disciplines are required.

**Eligibility/Qualification:** The successful candidate must have a Ph.D. Proficiency in English is a requirement. In ranking eligible candidates, special importance will be given to scientific and interpersonal skills.

**The environment:** The Evolutionary Biology Centre (EBC, <http://www.ebc.uu.se/>) is one of the world's leading research institutions in evolutionary biology and part of Uppsala University - the oldest university in Scandinavia. Uppsala University, ranked top among European Universities in the subject of biology (CHE European ranking), attracts approximately 40.000 students from all over the world, creating an international and stimulating research environment. The city of Uppsala is a vibrant college town, less than an hour's train ride away from Stockholm (and even closer to Arlanda International Airport), with beautiful and easy accessible surroundings.

**Appointment:** This is a two year position. Salary commensurate to experience. Start date is negotiable, but strong preference will be given to candidates who can start by early Summer 2017.

**Application:** The application should include (1) a cover letter that clearly states the candidate's research in-

terests, qualification, and relevant experience (max. 2 A4 pages), (2) CV including a list of publications, (3) copy of the doctoral degree, and (4) contact information for three references. Please clearly indicate personal circumstances (such as parental leave) that are relevant for the assessment of your eligibility.

Application deadline is March 17, 2017. For more information about the position please contact: Katerina Guschanski: katerina.guschanski@ebc.uu.se

For more information on ongoing research in our group, see: <http://www.ieg.uu.se/animal-ecology/-Research+groups/guschanski-lab> All applications are handled through the central university application portal. Please follow different links depending on your academic seniority.

If you completed your PhD within 3 years of the application deadline, please follow: <http://www.uu.se/en/about-uu/join-us/details/?positionId=134861> If you completed your PhD more than 3 years of the application deadline, please follow: <https://-uu.mynetworkglobal.com/en/what:job/jobID:138339/> Katerina Guschanski Assistant professor Evolutionary Biology Centre Department of Ecology and Genetics/Animal Ecology Uppsala University Norbyvägen 18D

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## UQuebec AT ForestPopulationGenetics

Postdoctoral position in forest genetics

The Institute of Forest Research at the University of Quebec in Abitibi-Témiscamingue (UQAT) is looking for a postdoctoral researcher in forest genetics, population biology, and ecology. The project investigates genetic variation in tree growth with an interest in linking climate, demography, functional traits, population genetics and ecosystem processes in forest tree species. The position will be based at the Institute of Forest Research <http://www.uqat.ca/programmes/irf/> in Rouyn-Noranda, Quebec, Canada. The position will collaborate closely the Center for Forest research network ([\[www.cef-cfr.ca/\]\(http://www.cef-cfr.ca/\)\) and the industrial Chair in sustainable forest management \(<http://chaireafd.uqat.ca/>\)](http://-</a></p>
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Desired qualifications include: a PhD in ecology and evolutionary biology, knowledge of modern genetic methods, knowledge of bioinformatics, programming skills in R, and strong writing and communication skills. Most of the work could be done in English but basic French would be an asset.

Initial appointment is for two years, and is potentially renewable. Salary starts at 48K with benefits.

To apply send a single PDF file containing a cover letter, CV, contact information for three references, and two relevant publications or manuscripts to Francine.tremblay@uqat.ca with “IFR Postdoc Position” in the subject line. Applications will be reviewed on a continuing basis until the position is filled.

Please contact Francine.tremblay@uqat.ca with any questions.

Francine Tremblay, Ph.D. Doyenne à la recherche et à la création Université du Québec en Abitibi-Témiscamingue 445 boul. de l'Université Rouyn-Noranda, Qc. J9X 5E4 tél. (819) 762-0971 poste 2128

“Tremblay, Francine” <Francine.Tremblay@uqat.ca>

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## USheffield Speciation

The Post-doctoral Research Associate will work with Professor Roger Butlin and Dr Anja Westram to advance a NERC-funded project on the routes to speciation in the coastal gastropod, *Littorina saxatilis*. The project is focused on the roles of divergent selection and incompatibility in speciation and requires a mix of skills including molecular ecology laboratory techniques, analysis of next generation sequence and genotype data, phenotypic (including behavioural) observations and field sampling with the help of collaborators. You will be expected to have a strong commitment to research in evolutionary genetics and a special interest in processes of speciation.

You should hold a PhD (or equivalent experience) in evolutionary genetics and have experience of research in evolutionary genetics. Experience in the handling of sequence and/ or expression data and experience of constructing bioinformatics pipelines is desirable.

The position is available from 1 May 2017, or as soon as possible thereafter, until 30 September 2019

For further details, and to apply, go to [www.shef.ac.uk/-jobs](http://www.shef.ac.uk/-jobs) - position reference UOS015526, closing date 30 March 2017

For more information, email [r.k.butlin@shef.ac.uk](mailto:r.k.butlin@shef.ac.uk) or [a.westram@shef.ac.uk](mailto:a.westram@shef.ac.uk)

– Roger K Butlin

Professor of Evolutionary Biology Guest Professor Animal and Plant Sciences Centre for Marine Evolutionary Biology The University of Sheffield Department of Marine Sciences Western Bank University of Gothenburg Sheffield S10 2TN Gothenburg UK Sweden

[r.k.butlin@shef.ac.uk](mailto:r.k.butlin@shef.ac.uk)

+44(0)114 2220097

Roger Butlin <[r.k.butlin@sheffield.ac.uk](mailto:r.k.butlin@sheffield.ac.uk)>

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## UYork UK LepsEvolResponsesToEnvChange

We are seeking a highly motivated Postdoctoral Research Associate to undertake research on UK butterflies and moths in order to understand the ecological and evolutionary responses of species to recent environmental change. You will compare present-day populations with museum specimens across a wide range of species, complemented by detailed lab and field studies of the speckled wood butterfly *Pararge aegeria*.

You will have experience of ecological fieldwork, insect rearing and the analysis of long-term ecological data. You will collaborate with other researchers on the project, who are developing genomic information and carrying out computer modelling. You will disseminate the results through written scientific papers and oral presentations, and also disseminate their implications for policy and conservation.

You will join an exciting NERC funded project, based in the research groups of Jane Hill, Chris Thomas, Kanchon Dasmahapatra and Calvin Dytham in the Department of Biology at York. The project will involve collaboration with the research groups of Ilik Saccheri and Greg Hurst at the University of Liverpool, Jon Bridle and Mark Beaumont at the University of Bristol, Ian Owens at the Natural History Museum, David Roy at the Centre for Ecology and Hydrology, James Bell at Rothamsted Research and Richard Fox and colleagues at the NGO Butterfly Conservation.

For informal enquiries please contact Professor Jane Hill on +44 (0)1904 328642 or email [jane.hill@york.ac.uk](mailto:jane.hill@york.ac.uk).

“[kanchon.dasmahapatra@york.ac.uk](mailto:kanchon.dasmahapatra@york.ac.uk)”

<[kanchon.dasmahapatra@york.ac.uk](mailto:kanchon.dasmahapatra@york.ac.uk)>

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## Vienna ConservationCamels

\*PHD/ POSTDOC, VETMEDUNI VIENNA, AUSTRIA\*

\*CHARACTERIZATION OF THE IMMUNOGENOME IN DOMESTIC, WILD AND EXTINCT OLD WORLD CAMELIDS\*

We encourage applications from highly motivated candidates for 1 PhD and 1 Postdoc position within the FWF (Austrian Science Foundations) funded bilateral project Austria - Czech Republic, between the Conservation Genetics Group (Pamela Burger lab < <https://www.vetmeduni.ac.at/en/research-institute-of-wildlife-ecology/forschung/schwerp/-genetik/population-genetics-and-conservation-genetics/> >), Research Institute of Wildlife Ecology, Vetmeduni Vienna and the Animal Genetics Lab (Petr Horin lab < <https://www.ceitec.eu/ceitec-vfu/animal-immunogenomics/rg26> >), University of Veterinary and Pharmaceutical Sciences, Brno.

TOPIC: Camels present a modified form of single-domain heavy-chain antibodies (IgG) that do not associate with light chains, while their V-regions are free to interact with antigens. We believe that evolution and domestication have shaped the genomic regions encoding the Major Histocompatibility Complex (MHC) class I, II and III molecules and the Natural Killer Cell Receptor (NKR) due to a combination of changes in pathogen pressure and intense artificial selection. We will study these complex genomic regions involved in immunity and resistance to disease, their diversity, (co-)evolution and selection in the three extant Old World camel species \**Camelus ferus*\*, \**Camelus bactrianus*\* and \**Camelus dromedarius*\* as well as in the extinct wild dromedary.

DURATION: 3 years; start: PhD - September 2017; PostDoc - flexible, latest Sept. 2017

LOCATION: The \*PhD position\* is part of the prestigious PhD programme < <https://www.vetmeduni.ac.at/en/studies/degree-programmes/-phd-programme/> > of the Vetmeduni Vienna and will be located at the Research Institute of Wildlife



Ecology < <https://www.vetmeduni.ac.at/en/research-institute-of-wildlife-ecology/> >, Vetmeduni Vienna, with frequent research stays at the Animal Genetics lab in Brno (CZ) as well as travels to the Palaeogenomic Core Facility, Ludwig-Maximilian University in Munich (DE) and the College of Veterinary Medicine, Cornell University (USA).

The \*Postdoc\* is associated with the Postdoc programme < <https://www.vetmeduni.ac.at/en/research/-young-scientists/> > of the Vetmeduni Vienna and will mainly be placed at the Research Institute of Wildlife Ecology < <https://www.vetmeduni.ac.at/en/research-institute-of-wildlife-ecology/> >, Vetmeduni Vienna, with frequent interactions with the bioinformatics support group at Brno University.

The Vetmeduni Vienna offers a module-based leadership programme with individual mentoring, career planning and coaching, covering a wide range of competencies.

**REQUIREMENTS:** The \*successful PhD candidate\* can show (i) a Master degree in Life Sciences (biology, genetics, etc.), Veterinary Medicine or related fields, (ii) broad experience in molecular genetics (wet lab) techniques including DNA/RNA extraction and (real-time) PCR, and (iii) principle knowledge of population genetics and statistics. Candidates with bioinformatics skills (command line, R environment, next generation sequencing data analysis) or experience in ancient DNA analysis will be favored.

The \*obligatory requirements for the Postdoc\* include (i) completed PhD or doctorate in Biological Sciences, Computational Biology, Statistical Genomics or related fields, (ii) prior experience with either population genetics, comparative genomics or statistical genetics, and (iii) good knowledge of NGS data analysis (denovo assembly, re-sequenced data) and genome-wide association studies. Candidates with good programming skills (Python, Perl, etc.) or experience in ancient DNA analysis will be preferred.

**APPLICATIONS:** Please send your complete application within the next three weeks as single pdf containing a 1-page (max.) motivation letter, CV including publications and names of 2 references to [pamela.burger@vetmeduni.ac.at](mailto:pamela.burger@vetmeduni.ac.at)

Special interview grants for Postdoc applicants: The top three candidates will be invited for an interview to Vienna, with 80% of travel/accommodation costs covered.

\*APPLICATION DEADLINE: Feb 22nd, 2017\*

We look forward to receiving your applications.

Dr.med.vet. Pamela Burger Forschungsinstitut für

Wildtierkunde und Ökologie Vetmeduni Vienna  
Savoyenstrasse 1 1160 Wien, Austria

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## Vienna Statistical Genomics

### THREE YEAR POSTDOC POSITION IN STATISTICAL GENOMICS

The postdoctoral position will be part of a joint project between the groups of Carolin Kosiol (University of St. Andrews / Vetmeduni Vienna, <https://www.vetmeduni.ac.at/en/population-genetics/-research/research-groups/kosiol-lab/>), Gergely Szöllösi (Etvös University Budapest, <http://solo.web.elte.hu/>), Asger Hobolth (Aarhus University, <http://www.daimi.au.dk/~asger/>). The recent sequencing of genomes of closely related species and of many individuals from the same species enables the study of speciation and the inference of the history of populations. Standard phylogenetic methods reduce entire populations to single points in genotypic space by modelling evolution as a process in which a single gene mutates along the branches of a phylogeny. Recently, we have developed new approaches that allow the inclusion of population genetics such as the Wright-Fisher model (Tataru et al, Syst Biol 2016; Hobolth, JTB 2015), that are polymorphism-aware phylogenetic models (PoMo, Schrepf et al., JTB 2016, DeMaio et al., Syst Biol 2015), and model gene duplication transfer and loss (DTL, Szöllösi et al., Syst Biol 2015; Scornavacca et al., Bioinformatics 2015) for species tree estimation. We envisage developing new theory and software to tackle the problem of species tree estimation and molecular dating genome-wide. Applications will include mammalian genomes to study the Cambrian explosion as well as contributions to international genome consortia.

The postdoc will be based in Vienna. Visits to Budapest and Aarhus for close collaboration are planned. The project is funded for three years by Wiener Technology and Science Fund (WWTF) through the “Maths and ..” Call (<http://www.wwtf.at/programmes/ma/>). It also includes a PhD student and a programmer position that will be advertised separately.

Candidates will be expected to have completed a PhD in Computational Biology, Mathematics, Statistics, Computer Science or a related field. Prior experience with either phylogeny, population genetics or comparative genomics is essential. Preferably the candidate will have experience in C or C++ and a scripting language such as Python or Perl.

The position will be hosted by the Institute of Population Genetics at the Vetmeduni Vienna. Vienna has developed into an international center in evolutionary bi-

ology (<http://www.evolvevienna.at>, <http://www.poggenvienna.at/>). In addition to a stimulating scientific environment, Vienna is also a quite liveable city with affordable housing, good public transport and an exciting cultural life.

Please send informal inquires and applications to Carolin Kosiol [ck202@st-andrews.ac.at](mailto:ck202@st-andrews.ac.at) or [carolin.kosiol@vetmeduni.ac.at](mailto:carolin.kosiol@vetmeduni.ac.at). Deadline for application is the 15th March.

Carolin Kosiol <[carolin.kosiol@vetmeduni.ac.at](mailto:carolin.kosiol@vetmeduni.ac.at)>

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## WorkshopsCourses

AuburnU BioinformaticsBootcamp Jun5-9 .....	122	Jun1 .....	136
Berlin DatavizWithPython Mar13-17 Deadline ...	123	Porto Portugal Metabarcoding May1-5 .....	136
Berlin Evolution In Cognition July15-19 .....	124	Portugal PopulationGenetics Mar13-17 .....	137
Berlin Metabarcoding Apr3-7 3 .....	125	Roscoff EcolEvolutionaryGenomics Jun5-16 .....	137
Berlin RStatsForBiologists Sep18-23 .....	126	SwissAlps SexualSelection Aug28-31 .....	138
Berlin TrinityRNAseq Jun12-16 .....	127	Switzerland EvolBiol Jun17-23 .....	139
Blossin InsectEvolutionaryImmunity Aug28-Sep1 .	129	UAlgarve Portugal FishPopGenomics May8-10 ...	139
Boston PlantStructureFunction Jul30-Aug12 .....	129	UBirmingham EnvironmentalGenomics Mar5-10 ..	140
Cordoba Argentina PhylogeneticComparative Aug1-4	130	UCalifornia Davis AppliedPhylogenetics Mar11-18	141
Curacao RCourse Jul17-21 .....	131	UFlorida Movement May8-12 .....	142
FreeOnline Biodiversity Feb27 .....	132	UK AdvancingInRforEvolutionaryBiol Apr24-28 ..	142
Glasgow ViralBioinformaticsAndGenomics Aug7-11	132	UK BioinformaticsUsingLinux Oct16-20 .....	143
Hungary EvolSexRoles Apr6-9 RegistrationCloses-	133	UK RADseqStacks May22-26 .....	144
ThisWeek .....	133	UK ShinyAppsForEvolutionaryBiol May15-19 ....	145
Konstanz AdaptiveEpigenomics Jul24-25 .....	134	UMichigan NextProf May2-5 .....	146
Mariensee Germany SNP DataManagement Apr4-6	135	WoodsHole MolecularEvolution Jul20-30 .....	146
NordU Norway NGSOfNonModelOrganisms May31-			

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### AuburnU BioinformaticsBootcamp Jun5-9

>From June 5-9, 2017 the College of Sciences and Mathematics at Auburn University will host the 4th Annual Bioinformatics Bootcamp a training workshop in genomics and computational biology for researchers interested in working with modern genomic data resources.

The Bootcamp is a week-long immersion experience in the command line, scripting, data handling and software skills required to process and analyze data from high-throughput sequencing experiments. Previous experience in bioinformatics is not required; interactive lectures and group data analysis activities will introduce participants to best practices in sequencing experiment design and analysis including widely used methods in genome and transcriptome assembly, annotation, differential expression and variant analysis.

Instructors include: Les Goertzen, Scott Santos, Ken Halanych, Laurie Stevison, Rita Graze, & Jamie Oaks

The 2017 Bootcamp will feature a keynote lecture by Dr. Nirav Merchant, Director of The Biocomputing Facility at The University of Arizona.

The Bootcamp registration fee is \$500. To apply, send a brief statement of interest and two-page CV (as a single pdf) to [bioinformatics@auburn.edu](mailto:bioinformatics@auburn.edu) by April 15, 2017. Additional information can be found at [auburn.edu/bioinformatics](http://auburn.edu/bioinformatics).

Kenneth M. Halanych Schneller Chair, Alumni Professor Curator of Marine Invertebrates Biological Sciences Department Life Sciences Bld. 101 Auburn University Auburn, AL 36849

<http://metazoan.auburn.edu/halanych/lab/index.html>  
Phone: (334)-844-3222 e-mail: [ken@auburn.edu](mailto:ken@auburn.edu)

Editor-In-Chief The Biological Bulletin <http://www.journals.uchicago.edu/toc/bbl/current> Kenneth Halanych <[ken@auburn.edu](mailto:ken@auburn.edu)>

## Berlin DatavizWithPython Mar13-17 Deadline

Dear all,

Next week (February 24th 2017) is the registration deadline for the Workshop on Data Manipulation and Visualization with Python.

This course will run from the 13th to 17th March 2017 at the Botanischer Garten und Botanisches Museum (BGBM) in Berlin (Germany) <http://www.physalia-courses.org/courses/course10/> [.http://www.physalia-courses.org/courses/course10/](http://www.physalia-courses.org/courses/course10/) Instructor:

Dr Martin Jones (Founder, Python for Biologists <http://pythonforbiologists.com>) <http://www.physalia-courses.org/instructors/t1/> Course overview:

One of the strengths of the Python language is the availability of mature, high-quality libraries for working with scientific data. Integration between the most popular libraries has led to the concept of a “scientific Python stack”: a collection of packages which are designed to work well together. In this workshop we will see how to leverage these libraries to efficiently work with and visualize large volumes of data.

Workshop format:

The workshop is delivered over ten half-day sessions. Each session consists of roughly a one hour lecture followed by two hours of practical exercises, with breaks at the organizer’s discretion. Each session uses examples and exercises that build on material from the previous one, so it’s important that students attend all sessions. The last two sessions will be kept free for students to work on their own datasets with the assistance of the instructor. A description of the sessions can be found at the bottom of this page.

Who should attend:

This workshop is aimed at researchers and technical workers who are dealing with large datasets and don’t know how to investigate them to make publishable graphics.

Requirements:

Students should have enough biological/bioinformatics background to appreciate the example datasets. They should also have some basic Python experience (the Introduction to Python course will fulfill these requirements). Students should be familiar with the use of lists, loops, functions and conditions in Python and have written at least a few small programs from scratch. Students will require the scientific Python stack to be installed on their laptops before attending; instructions for this will be sent out prior to the course.

Curriculum

Monday 13th - Classes from 09:30 to 17:30

Session 1 - Introduction and datasets

Jupyter (formerly iPython) is a programming environment that is rapidly becoming the de facto standard for scientific data analysis. In this session we’ll learn why Jupyter is so useful, covering its ability to mix notes and code, to render inline plots, charts and tables, to use custom styles and to create polished web pages. We’ll also take a look at the datasets that we’ll be investigating during the course and discuss the different types of data we encounter in bioinformatics work.

Session 2 - Introduction to pandas

In this session we introduce the first part of the scientific

Python stack: the pandas data manipulation package. We'll learn about Dataframes " the core data structure that much of the rest of the course will rely on " and how they allow us to quickly select, sort, filter and summarize large datasets. We'll also see how to extend existing Dataframes by writing functions to create new columns, as well as how to deal with common problems like missing or inconsistent values in datasets. We'll get our first look at data visualization by using pandas' built in plotting ability to investigate basic properties of our datasets.

Tuesday 14th - Classes from 09:30 to 17:30

Session 3- Grouping and pivoting with pandas

This session continues our look at pandas with advanced uses of Dataframes that allow us to answer more complicated questions. We'll look two very powerful tools: grouping, which allows us to aggregate information in datasets, and pivoting/stacking, which allows us to flexibly rearrange data (a key step in preparing datasets for visualization). In this session we'll also go into more detail about pandas indexing system.

Session 4- Advanced manipulation with pandas

In this final session on the pandas library we'll look at a few common types of data manipulation " binning data (very useful for working with time series), carrying out principal component analysis, and creating networks. We'll also cover some features of pandas designed for working with specific types of data like timestamps and ordered categories.

Wednesday 15th - Classes from 09:30 to 17:30

Session 5-Introduction to seaborn

This session introduces the seaborn charting library by showing how we can use it to investigate relationships between different variables in our datasets. Initially we concentrate on showing distributions

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## Berlin Evolution In Cognition July15-19

2nd Evolution in Cognition Workshop to be held as part of the

2017 Genetic and Evolutionary Computation Conference (GECCO-2017) July 15-19, Berlin, Germany

Organized by ACM SIGEVO <http://gecco-2017.sigevo.org> Webpage: <https://sites.google.com/-champlain.edu/eic2017/> Submission Deadline: March 31st, 2017

==== Topic =Evolution by natural selection has shaped life over billions of years leading to the emergence of complex organism capable of exceptional cognitive abilities. These natural evolutionary processes have inspired the development of Evolutionary Algorithms (EAs), which are optimization algorithms widely popular due to their efficiency and robustness. Beyond their ability to optimize, EAs have also proven to be creative and efficient at generating innovative solutions to novel problems. The combination of these two abilities makes them a tool of choice for the resolution of complex problems.

There is evidence that the principle of selection on variation is at play in the human brain, as proposed in Changeux's and Edelman's models of Neuronal Darwinism, and more recently properly reformulated in the theory of the Neuronal Replicators. Consequently, the idea of an interaction between evolutionary processes and cognition over physiological time scales has been gaining some traction. Since the development of human cognition requires years of maturation, it can be expected that artificial cognitive agents will also require months if not years of learning and adaptation. It is in this context that the optimizing and creative abilities of EAs could become an ideal framework that complement, aid in understanding, and facilitate the implementation of cognitive processes. Additionally, a better understanding of how evolution can be implemented as part of an artificial cognitive architecture can lead to new insights into cognition in humans and other animals.

The goals of the workshop are to depict the current state of the art of evolution in cognition and to sketch the main challenges and future directions. In particular, we aim at bringing together the different theoretical and empirical approaches that can potentially contribute

to the understanding of how evolution and cognition can act together in an algorithmic way in order to solve complex problems. In this workshop we welcome approaches that contribute to an improved understanding of evolution in cognition using robotic agents, in silico computation as well as mathematical models.

Keywords: Evolutionary Computation, Evolution, Cognition, Darwinian Neurodynamics, Neuronal Darwinism, robotics.

=== Invited speakers = - Prof. Eors Szathmary - Additional invited speakers will be announced in the near future.

=== Organizers = - Prof. Stephane Doncieux, University Pierre and Marie Curie, France - Dr. Joshua Auerbach, Champlain College, VT - Prof. Richard Duro, Universidade da Coruna, Spain - Dr. Harold P. de Vladar, iASK Institute of Advanced Studies K szeg, Hungary

=== Submissions and deadlines submissions: - Original: experimental work, position papers as well as overviews of author's recent work are all welcome. These submissions will be included in the proceedings and be presented during the workshop - Abstracts submitted as poster to GECCO 2017: the authors of selected abstracts will be given a talk. The abstract won't be included in the proceedings. - Hot-of-the-press: authors can submit a recently published work. Selected articles will be given a talk.

Submission: extended abstracts (2-4 pages) and long papers (8 pages) are accepted. They should follow ACM template and should be sent in electronic form (pdf) to eic\_ws@isir.upmc.fr:

- March, 31st, 2017: Papers Submission Deadline - April, 14th, 2017: Notification of Acceptance - April, 21th, 2016: Camera-Ready Paper Submission - July 15 or 16th, 2017: Workshop

GECCO is sponsored by the Association for Computing Machinery Special Interest Group on Genetic and Evolutionary Computation (SIGEVO). SIG Services: 2 Penn Plaza, Suite 701, New York, NY, 10121, USA, 1-800-342-6626 (USA and Canada) or +212-626-0500 (Global).

Stephane Doncieux, Josh Auerbach, Richard Duro and Harold P. de Vladar

Dr. Harold P. de Vladar Senior Researcher

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harold.vladar@parmenides-foundation.org

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This message has been arbitrarily truncated at 5000 characters. To read the entire message look it up at <http://life.biology.mcmaster.ca/~brian/evoldir.html>

### Berlin Metabarcoding Apr3-7 3

Dear all,

There are the last 2 places left for the "16S rRNA gene Metabarcoding" workshop, 3-7 April 2017 in Berlin (Germany). <https://www.physalia-courses.org/courses/course8/> Registration deadline: March 3rd, 2017

Instructor: Dr. Alexandre de Menezes (National University of Ireland Galway) <https://www.physalia-courses.org/instructors/t5/> Course overview

The 16S rRNA gene has become the standard marker for prokaryote phylogenetic analysis, and combined with high-throughput sequencing technologies it is widely used to infer the structure and composition of microbial communities. Due to the continuous improvements in sequencing technologies and bioinformatics tools, there is a wide choice of methods for sequencing and analysing 16S rRNA gene assemblies. This workshop is designed to give students the necessary background and practical experience of the strategies for the analysis of the diversity and structure of prokaryote communities, covering i) experimental design and primer choices; ii) wet-lab and library preparation options; iii) sequence quality control and analysis and iv) statistical analysis of microbial community data. The many sequencing and analysis options will be discussed, whereas a more in-depth tutorial using real sequence data will provide an opportunity for the student to practice 16S rRNA sequence analysis from raw sequence files to ecological interpretation. Course material, such as presentation slides and necessary model data, will be provided to the students.

Targeted audience and assumed background

This workshop is intended for students and researchers interested in microbial ecology but who are not yet very familiar with the techniques involved. Choosing the appropriate primers, library preparation kits, sequencing

methodologies and bioinformatics pipelines can be quite daunting to the uninitiated. This workshop will allow researchers interested more confidence in their methodology and analyses choices. The target audience include students of animal or plant microbiomes as well as those studying environmental microbial communities. It is assumed that the workshop attendees are interested in performing 16S rRNA metabarcoding using the Illumina MiSeq platform, although other sequencing technologies will be discussed during the workshop.

Knowledge of Linux and R or familiarity with working in the command line will be helpful, but for those new to the area detailed instructions will allow students to follow the workshop. Students will need to have a computer running either on Linux or a Linux virtual machine running on MacOX/Windows computers. Contact the instructor at [ademez@gmail.com](mailto:ademez@gmail.com) or <mailto:ademez@gmail.com> if in doubt about computational requirements.

#### Workshop structure

The workshop will consist of both lectures and practical classes. Background information will be provided to help workshop attendees choose the appropriate experimental design, primers, sequencing library preparation kits and to contextualise the bioinformatics and statistical analysis methods. Practical tutorials will be conducted on a step-by-step basis to guide the student from when receiving data from a sequence provider to obtaining plots and tables describing microbial community diversity, structure and relationships to environmental variables or host data.

#### Venue

Botanischer Garten und Botanisches Museum (BGBM) Berlin-Dahlem, Freie Universität Berlin, Königin-Luise-Straße 6-8, 14195 Berlin.

#### Session contents

Monday 3rd-Classes from 10:00 to 18:00

#### Session 1: the 16S rRNA gene

The use of the 16S rRNA gene as a marker for prokaryote phylogenetics will be discussed to introduce the students to the concept of conserved and hypervariable regions. The student will learn about the history of this molecular marker and why it is the choice for prokaryote diversity studies. The primer combinations used to target the different hypervariable regions will be discussed, as well as what is known regarding their advantages and disadvantages. The pros and cons of PCR-based 16S rRNA gene sequencing versus PCR-free shot-gun metagenomics will also be discussed.

This session will also include an overview of current se-

quencing technologies, and the Illumina MiSeq platform will be contrasted with other sequencing technologies (Ion Torrent, MinIon, PacBio and Moleculo).

Session 2: sequencing experimental design and initial hands-on exercises

Focusing on the MiSeq platform, experimental design considerations will be discussed and topics discussed will include sequence depth, replication, contamination and the use of appropriate controls and mock communities. Other topics that will be taught include: metadata collection, DNA extraction and RNA-cDNA sequencing. Demo sequence data will be used to check that the appropriate tools are installed correctly

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## Berlin RStatsForBiologists Sep18-23

### STATISTICS FOR BIOLOGISTS USING R

18-23 September 2017 in Berlin, Germany (<https://www.physalia-courses.org/courses/course13/>).

Instructor: Dr. Ken Aho (Idaho State University; <https://www.physalia-courses.org/instructors/t4/>).

#### Course overview

This course will demonstrate the extensive capabilities of the R environment, and seek to develop/broaden the competency of participants in the use of R statistical applications. The course will have two components presented in morning and afternoon sessions over five days. Component one (Monday Sept. 18, Tuesday Sept. 19) will emphasize R programming characteristics including data management, use of existing package functions, graphics, customized function writing, calling routines from compiled languages, and documentation. The second component (Wednesday Sept. 20 - Friday Sept. 22) will address implementation of statistical analyses with R, particularly linear models. The materials will be presented using biological examples, making frequent use of the library *asbio* (Applied Statistics and Statistical Pedagogy for Biologists).

#### Intended audience

This course is aimed at scientists, particularly biologists.

While no previous experience with R is required, participants should have at least a basic familiarity with statistical terms and concepts.

#### Venue

Potsdamer Straße 98a, 10785 Berlin.

#### Curriculum

Monday 18th - Classes from 09:30 to 17:30

**Session 1 - R basics** In this session we will briefly consider the history of R, including trends in usage and package development, the relationship of R to other languages and platforms, and the reliability of R base and user-contributed packages. We will then learn and conduct basic command line operations, including defining R programming options, saving work, mathematical functions, simple descriptive statistics functions, utilization of expressions and assignments, R-objects and classes, auxiliary R-packages, accessing and exploring internal R datasets, and getting help.

**Session 2 - R graphics** In this session we consider the properties, capabilities, and extensions of R graphics. Session topics will include discussion of the R graphical devices, learning how to alter parameters to make simple plots and multilayer complex plots (e.g., those containing multiple distinct graphs, multiple y and x-axes, unusual fonts, 3d graphics, etc.), lattice graphics, graphical packages (particularly ggplot) and the creation of publication-ready high resolution figures.

Tuesday 19th - Classes from 09:30 to 17:30

**Session 3 - Handling data in R** The session will address handling data in R. Topics will include properties of R data structures (i.e., vectors, matrices, dataframes, and arrays), command line data entry, importing/exporting delimited spreadsheets and other data, subsetting and querying data, testing and coercing objects, pattern matching, and functions for matrix/dataframe/array management and manipulation.

**Session 4 - Writing functions** The session will consider user-defined functions using several extended examples. Topics will include looping, graphical animation, the utilization and development of GUIs, and calling routines from compiled languages.

Wednesday 20th - Classes from 09:30 to 17:30

**Session 5 - Documentation of work in R and basic applications in statistics** This session will conclude topics in function writing by considering approaches for documenting workflow and function characteristics in R. The session will then turn to the topic of statistical analysis in earnest. Topics will include probability density functions, point estimation (including least squares,

maximum likelihood and MOM approaches), and intervallic estimators, including conventional confidence intervals on a priori sampling distribution assumptions, along with bootstrapping approaches and Bayesian credible intervals.

**Session 6 - General linear models I** We will begin this session by considering simple methods for making inferences concerning the difference in measures of population location parameters, e.g., t-tests and their non-parametric analogues. We will then introduce general linear models with simple and multiple regression. Emphasis will be given to model selection approaches.

Thursday 21st - Classes from 09:30 to 17:30

**Session 7 - General linear models II**

This session will continue exploration of general linear models by considering ANOVA approaches including one way ANOVAs with fixed and random effects, two way designs including factorial designs and blocked designs as fixed and mixed effect models. We will also consider methods for simultaneous inference for factor level comparisons.

**Session 8 - Generalized linear models, locally fitted models, and associated topics** This session will briefly consider R applications for specialized response variables and locally fitted models. Topics

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## Berlin TrinityRNAseq Jun12-16

Using the Trinity Framework for De novo Transcriptome Assembly, Annotation, and Downstream Expression Studies

June 12-16, 2017, Berlin (Germany)

<https://www.physalia-courses.org/courses/course11/>  
Instructors:

Brian Haas <http://www.physalia-courses.org/instructors/t12/> (Senior Computational Biologist at the Broad Institute)

Timothy Tickle <http://www.physalia-courses.org/instructors/t13/> (Senior Software Engineer at the Broad Institute)

## Course Overview:

RNA-Seq technology has been transformative in our ability to explore gene content and gene expression in all realms of biology, and de novo transcriptome assembly has enabled opportunities to expand transcriptome analysis to non-model organisms. This workshop provides an overview of modern applications of transcriptome sequencing and popular tools and algorithms for exploring transcript reconstruction and expression analysis in a genome-free manner, leveraging the Trinity software and analysis framework. Attendees will perform quality assessment of Illumina RNA-Seq data, assemble a transcriptome using Trinity, quantify transcript expression, leverage Bioconductor tools for differential expression analysis, and apply Trinotate to functionally annotate transcripts. Additional methods will be explored for characterizing the assembled transcriptome and revealing biological findings.

## Intended Audience:

This workshop is aimed primarily at biologist researchers that have basic bioinformatics skills and are pursuing RNA-Seq projects in non-model organisms. Attendees will gain skills needed to successfully approach transcriptome sequencing, de novo transcriptome assembly, expression analysis, and functional annotation as applied to organisms lacking a high quality reference genome sequence.

## Teaching format:

The workshop will be delivered over the course of four and a half days, with each session entailing lectures followed by practical hands-on sessions. Most all computing will be done on the cloud and attendees will use their own laptop computers with the Google Chrome web browser providing all the necessary interfaces to the cloud computing environment, including the linux command terminal.

## Assumed background for the participants:

Basic experience with Linux command-line execution and execution of bioinformatics tools would be helpful. We will begin the course with a review of basic linux commands and operations as a refresher. No programming or scripting knowledge is required.

## Venue:

Botanischer Garten und Botanisches Museum (BGBM) Berlin-Dahlem, Freie Universität Berlin, Königin-Luise-Straße 6-8, 14195 Berlin.

## Curriculum:

Day 1: Intro to the Trinity RNA-Seq workshop

\* Intro to RNA-Seq \* Intro to next-gen sequence analysis

\* Overview of unix and workshop setup o Practical: exploring the computational infrastructure \* Read quality assessment and trimming o Practical: using FASTQC and TRIMMOMATIC

Day 2: Trinity de novo assembly, expression quantitation, and assembly QC

\* Overview of Trinity de novo transcriptome assembly o Practical: assemble rna-seq data using Trinity \* Intro to expression quantification using RNA-Seq o Practical: quantify expression for Trinity assembly \* Initial data exploration: assembly quality, and QC samples and replicates o Practical: using IGV o Practical: replicate correlation matrix and PCA

Day 3: Differential expression analysis

\* Overview of statistical methods for differential expression (DE). o Practical: using Bioconductor tools for DE analysis. \* Transcript clustering and expression profiling o Practical: generating heatmaps and extracting transcript clusters.

Day 4: Functional annotation and Functional enrichment studies

\* Overview of methods for functional annotation o Practical: applying Trinotate to find coding regions in transcripts and predict biological function. \* Overview of functional enrichment analysis o Practical: applying Goseq to identify significantly enriched Gene Ontology categories among transcript clusters.

Day 5: Review and custom data analyses

## Further information:

There two packages available: 1) “only-course” costs 530 euros (VAT included), which includes refreshments and course material; 2) “all-inclusive” costs 795 euros (VAT included), which includes refreshments, course material, accommodation in double shared double rooms and meals (breakfast, lunch, dinner).

Application deadline is the 12th of May 2017 (8 places left; first come, first served)

— Carlo Pecoraro, Ph.D

Physalia-courses Coordinator

info@physalia-courses.org

<http://www.physalia-courses.org/>  
@physacourses

Twitter:

Carlo Pecoraro <info@physalia-courses.org>



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## Blossin Insect Evolutionary Immunity Aug28-Sep1

\*\*\*OUR WEBSITE IS WORKING PROPERLY AGAIN\*\*\*

We had a few issues with our website which are now resolved and all information on our workshop can be found via the following link: <http://rolffevolution.net/-ecological-immunology-workshop-2017/> Ecological Immunology Workshop 2017 on:

'Insect immunity: genomics, microbiome, applications'  
28th August to 1st September 2017 in Blossin (close to Berlin), Germany.

This workshop will bring together researchers interested in ecological immunology with a focus on insects, and with diverse scientific backgrounds ranging from molecular biology to ecology. The hallmark of these workshops, started in 2001, is the open atmosphere fostering free exchange by keeping it an affordable, small conference (100 participants). The format consists of eighteen invited speakers, contributed talks and a dedicated poster. Long breaks provide plenty of opportunity for informal exchange. Past workshops have initiated new collaborations and ideas focusing on frontier research that has not been published. The premises are basic but in a beautiful location conducive to the success of the meeting. We will be located at a lakeside, which at this time of the year offers great swimming and canoeing, and a small private bar at the harbour [<http://www.blossin.de>]. Registration fee includes accommodation and catering (all meals): <https://goo.gl/forms/Rtz3ngliH3ZnGvyD2>  
Important dates The deadline for abstract submission of oral and poster presentations is 28th February 2017 Registration closes at the latest on 31st March 2017 or when the maximum number or possible participants is reached, i.e. 100 persons. Final programme announcement is 31st July 2017.

Program and invited speakers

Genomics and functional work in the wild Seth Baribeau, University of Liverpool Nicole Gerardo, Emory University Brian Lazzaro, Cornell University Hinrich Schulenburg, University of Kiel Ann Tate, University of Texas Lumi Viljakainen, University of Oulu Chris Wheat, University of Stockholm

Host-symbiont interactions affecting host immunity

Nichole Broderick, University of Connecticut Ewa Chrostek, MPI Infection Biology Ellen Decaestecker, University of Leuven Abdelaziz Heddi, INSA-Lyon Martin Kaltenpoth, University of Mainz David Schneider, Stanford University

Applying ecological immunology Lena Bayer-Wilfert, University of Essex Astrid Groot, University of Amsterdam Dino McMahon, Free University Berlin Brian Weiss, Yale University Ken Wilson, University of Lancaster

We are looking forward to welcoming you at the Ecological Immunology Workshop 2017.

Kind regards,

Organizing Committee Jens Rolff, Free University of Berlin Oliver Otti, University of Bayreuth Paul Schmid-Hempel, ETH Zurich Magdalena Nagel, Free University of Berlin

If you have any questions concerning the meeting please do not hesitate to e-mail us: [oliver.otti@uni-bayreuth.de](mailto:oliver.otti@uni-bayreuth.de) (program) [magdalena.nagel@fu-berlin.de](mailto:magdalena.nagel@fu-berlin.de) (travel and registration)

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Oliver Otti <[oliver.otti@uni-bayreuth.de](mailto:oliver.otti@uni-bayreuth.de)>

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## Boston Plant Structure Function Jul30-Aug12

microMORPH& Arnold Arboretum Summer Course 2017 - Plant Anatomy: Development, Function, and Evolution

This two-week short course (July 30th - August 12th, 2017) will be taught by experts from around the world as an intense lecture, laboratory, and living collections learning experience. The course will be based at the Weld Hill Research Building at the Arnold Arboretum in Boston (Massachusetts), which offers a state-of-the-art microscopy laboratory for teaching and sits amid the 15,000+ living specimens of more than 2,200 species at the Arnold Arboretum.

This course will provide a working knowledge of tools and concepts that are central to understanding the anatomical basis for structural and functional diversity.

Topics include the anatomy of the primary plant body, anatomy throughout plant development, evolutionary trends in plant anatomy, and the anatomy and diversity of secondary/woody growth. Each day will consist of lecture and laboratory sessions, with ample opportunity to explore the Arnold Arboretum.

There are no course fees, and funds are available to help defray costs of participant travel.

**Course Instructors:** Pieter Baas (Naturalis Biodiversity Center), Pamela Diggle (University of Connecticut), William (Ned) Friedman (Harvard University), Peter Gasson (Royal Botanic Gardens, Kew), Cynthia Jones (University of Connecticut), Elisabeth Wheeler (North Carolina State University).

**Application Deadline:** Applications must be submitted by 11:30 pm April 15th, 2017. Application instructions are available on the course website: <http://projects.iq.harvard.edu/micromorph/-summer-course-2017> Eligibility: microMORPH summer short courses are open to postdoctoral researchers, graduate students, and undergraduates in their final year of study (who have been admitted to a graduate or professional program for the fall of 2017). Non-US-citizens are welcome to apply (but are responsible for obtaining the appropriate visa to be able to attend the course).

**How to Apply:** For full application instructions (including list of required documents) and to submit applications, please visit the microMORPH website (<http://projects.iq.harvard.edu/micromorph>).

**Questions or Comments?** Contact Becky Povilus at RCN-micromorph@gmail.com, and visit our website at <http://projects.iq.harvard.edu/micromorph>. Pamela Diggle

Professor Department of Ecology and Evolutionary Biology University of Connecticut

860-486-4788

[pamela.diggle@uconn.edu](mailto:pamela.diggle@uconn.edu)

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## Cordoba Argentina Phylogenetic Comparative Aug1-4

This is an announcement of a course on phylogenetic comparative methods to be taught in Córdoba, Argentina in August. The English version of the announcement can be found below the Spanish version of the ad. The announcement can also be viewed online at the following URL: <http://www.phytools.org/Cordoba2017/>

ad/ .

Curso de macroevolución y uso de métodos filogenéticos comparativos en R

Nos complace anunciar un nuevo curso intensivo, con modalidad de taller, destinado a estudiantes graduados / de posgrado, acerca del uso de métodos filogenéticos comparativos en R. Estos métodos tienen muchas y diversas aplicaciones en estudios macroevolutivos. El curso será gratuito, tendrá una duración de cuatro días, y se dictará en la Universidad Nacional de Córdoba, Argentina, entre los días 1 y 4 de agosto de 2017. Este curso estará parcialmente financiado por la National Science Foundation (Estados Unidos), y contará con el apoyo adicional de la University of Massachusetts Boston y de la Universidad Nacional de Córdoba. El financiamiento cubriría los costos de los pasajes de avión y del alojamiento de los alumnos que sean aceptados en el curso, si bien la totalidad de la cobertura podría sujetarse a cambios, dependiendo de la localización geográfica de los postulantes seleccionados.

El curso se encuentra destinado a estudiantes avanzados, estudiantes de doctorado en ciencias biológicas o carreras afines, investigadores y profesionales interesados en la temática. Recibiremos solicitudes de cualquier país; sin embargo anticipamos que los postulantes sudamericanos y de otros países latinoamericanos constituirán la mayoría de los estudiantes admitidos al programa. Los estudiantes provenientes de países más lejanos que resulten elegidos tendrán la posibilidad de recibir únicamente apoyo parcial para costear sus gastos del viaje. Además, es posible que los estudiantes provenientes de ciudades argentinas accesibles a Córdoba mediante bus (distancias menos de < 700 km) reciban únicamente apoyo financiero para el alojamiento. Para estudiantes argentinos, el curso se encontrará avalado por el Doctorado en Ciencias Biológicas de la Universidad Nacional de Córdoba y tendrá una duración de 32 horas.

Los temas que serán discutidos en el curso incluyen: una introducción al ambiente computacional de R, manipulación de árboles filogenéticos, mínimos cuadrados generalizados en un contexto filogenético, reconstrucción de estados ancestrales, modelos evolutivos de rasgos, análisis de diversificación filogenética, y visualización de filogenias y datos comparativos, entre otros. El curso estará a cargo de los instructores Dr. Liam Revell (University of Massachusetts Boston), Dr. Luke Harmon (University of Idaho), y Dr. Mike Alfaro (University of California, Los Angeles), contándose con la posible participación de instructores adicionales. El Dr. Santiago Benitez-Vieyra (Universidad Nacional de Córdoba - CONICET) y la Dra. Marina Strelin (Universidad

Nacional del Comahue - CONICET) serán los coordinadores de este curso.

El curso será dictado principalmente en inglés; sin embargo, algunos de los instructores, coordinadores, y ayudantes de enseñanza del curso hablan español fluido. Las discusiones, los ejercicios, y las actividades del curso se harán en español e inglés.

Los interesados en solicitar la admisión deberán enviar su currículum vitae y una descripción corta (1 página) de sus intereses científicos, experiencia, y razones por las cuales quieren tomar el curso. El proceso de admisión será competitivo, y se dará preferencia a estudiantes con conocimientos de filogenética y que estén desarrollando investigaciones relacionadas a los temas del curso. Se espera que todos los estudiantes tengan un nivel básico de inglés científico. En la solicitud debe indicarse el aeropuerto de viaje preferido (si aplica). Las solicitudes pueden estar escritas en inglés o en español y deben ser enviadas por email a [cordoba@phytools.org](mailto:cordoba@phytools.org) antes del 1 abril de 2017. Preguntas adicionales pueden ser dirigidas al Dr. Liam Revell ([liam.revell@umb.edu](mailto:liam.revell@umb.edu)) o a la Dra. Marina Strelin ([marina.strelin85@gmail.com](mailto:marina.strelin85@gmail.com)).

Intensive short course on macroevolution and phylogenetic comparative methods in R

We are pleased to announce a new graduate-level intensive short course on the use of R for phylogenetic comparative analysis and downstream implementation in macroevolutionary studies. The course will be four

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## Curacao RCourse Jul17-21

Dear evoldir members,

Please see below regarding an R course that some of you may be interested in:

A gentle introduction to R for the biological sciences July 17th-21st, 2017, Willemstad (Curacao) Delivered by Dr. Dan Warren <http://www.transmittingscience.org/courses/statistics/gentle-introduction-r-biological-sciences/>

This 5-day course will introduce students to the R statistical programming environment. The main learning objective of the course is to give students a basic skill set and familiarity with several of the most used packages in the biological sciences. It is intended primarily for users who have no experience in R, or who have performed a few basic functions but wish to develop their skills. This course is not aimed at students with extensive experience in R and it will not cover the theory behind the analyses implemented.

A typical day of the course will include step-by-step examination of pre-worked code examples as well as hands-on live-coding, so that students develop their skills through interacting with R directly. Students will learn to read in data, conduct common analyses, and produce publication-quality plots and reports. The students will also work independently on conducting analyses in order to produce a final project using available data provided by the course organisers.

Programme: Monday, July 17th, 2017. Intro to R. \* Introduction to the R statistical programming environment. \* Introduction to R Studio. \* Interacting with the console. \* Working with variables. \* Basic plots using qplot. \* Reading data files. \* Writing data files. \* Working with tables, data frames, and lists.

Tuesday, July 18th, 2017. Improving workflow and organization. \* Scripts. \* Commenting your code. \* Functions. \* Control flow. \* What to do when your code isn't working.

Wednesday, July 19th, 2017. Taking R to the next level. \* R packages. \* Project organization. \* Version control. \* R Markdown.

Thursday, July 20th, 2017. Making it pretty. \* Introduction to ggplot2. \* What's in a ggplot object. \* Basic plot types. \* Customizing your plot. \* Creating and using themes. \* Using extensions.

Friday, July 21st, 2017. Problem solving / final project. \* T-test and linear models. \* Looking for help online. \* Bringing it all together in a final project.

For more information, please visit <http://www.transmittingscience.org/courses/statistics/gentle-introduction-r-biological-sciences/> Contact: [courses.curacao@transmittingscience.org](mailto:courses.curacao@transmittingscience.org)

Haris Saslis, PhD Course Coordinator Transmitting Science [www.transmittingscience.org](http://www.transmittingscience.org) [haris.saslis@transmittingscience.org](mailto:haris.saslis@transmittingscience.org)

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## FreeOnline Biodiversity Feb27

Dear Evoldir members,

you or your students and postdocs or even family members and friends might be interested in a new free online course for anyone who wants to learn about biodiversity science or help protect biodiversity.

Prof. Owen Petchey and I (Susanne Schulmeister) have created a Massive Open Online Course (MOOC) called "Biodiversity and Global Change: Science & Action". It is produced by the University of Zurich in Switzerland and offered by Coursera.

The 42 short video lectures are about biodiversity, biodiversity science, global change including climate change, and conservation, and are taught by 24 scientists of the University of Zurich. So this course is also a good way to get informed about some of the research being done in the Department of Evolutionary Biology and Environmental Studies (IEU) of UZH.

Watching the videos and doing the assessments is free. This is called auditing the course. If you want to take part in the two assignments and get a certificate at the end of the course, there is a small fee.

The official launch of our MOOC is February 27. This is when the course material will become visible to enrolled participants and when we want the learners to start introducing themselves. The first session of the course begins March 6 and ends April 30 (though you could take it at a different pace).

It takes about 1-2 hours per week to watch the videos and to do the assessments and assignments. All videos and course materials are in English. Videos have subtitles in English and can be viewed at slower (or faster) speed if desired.

You can find more information and sign up for the course here: <https://www.coursera.org/learn/biodiversity/> – first register for Coursera, then enroll for the course.

Feel free to contact me via email to [susanne.schulmeister@ieu.uzh.ch](mailto:susanne.schulmeister@ieu.uzh.ch)

On a personal note: since my engagement with this project will end at the end of June, I am currently looking for future employment. I am interested in project management of research or eLearning (= online teaching) projects, mainly in my favorite topics biology, climate change, health (medical science), and nutrition and am

happy to act as consultant on MOOC projects. I am open to relocating to different parts of the world :-)

Cheers,

Susanne

Dr. Susanne Schulmeister University instructor and project manager University of Zurich Department of Evolutionary Biology and Environmental Studies

[susanne123@gmail.com](mailto:susanne123@gmail.com)

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## Glasgow ViralBioinformaticsAndGenomics Aug7-11

Training course on Viral Bioinformatics and Genomics MRC - University of Glasgow Centre for Virus Research, United Kingdom

Monday 7th - Friday 11th August 2017 Application deadline 30th April 2017 Cost 500

We will be running our Viral Bioinformatics and Genomics course again this year, from Monday 7th—August to Friday 11th—August. Applications for the course are now open, full details on the course and information on how to apply can be found at:—[www.bioinformatics.cvr.ac.uk](http://www.bioinformatics.cvr.ac.uk) The 5-day course consists of a series of lectures and practical exercises that directly address bioinformatics challenges posed by the current surge of sequence data, with a focus on viral data sets and analyses. We will enable participants to understand and deal with high-throughput sequence datasets and encourage the exchange of ideas among diagnosticians, virologists, bioinformaticians and evolutionary biologists.

The 2017 course will introduce participants to the power of the UNIX command-line and bash scripts, as well as a suite of bioinformatics tools covering the following topics:

- HTS sequencing technologies:—overview of the different HTS platforms and sample preparations.
- The power of Unix:—essential bash scripting.
- Reference assembly:—aligning sequence reads to a known reference and visualizing the alignment (e.g. bowtie2, BWA, Tanoti, Tablet, UGENE).
- Variant calling:—consensus sequence generation, low frequency variant calling and error correction (e.g. samtools, LoFreq, DiversiTools).
- De-novo assembly:—overlap layout and de Bruijn graphs approaches for sequence assembly, quality assessment

and merging contigs (e.g. ABySS, SPAdes, MIRA, IDBA-UD, QUAST, Mauve). - Metagenomic analyses:— sanitizing sequence datasets, assembling, annotating, visualizing (e.g. MetAMOS, Krona, DIAMOND, Kraken). - Genomics: scaffolding, improving and finishing the assembly, gene annotation (e.g. ICORN, Artemis, RATT). - Phylogenetic analysis: introduction to multiple sequence alignment and phylogenetic reconstruction (e.g. mafft, PhyML, FigTree).

The course will be held at the Centre for Virus Research, Garscube Campus, University of Glasgow, UK. The CVR has been designated an World Organisation for Animal Health (OIE) Collaborating Centre for Viral Genomics and Bioinformatics at the 82nd OIE General Session.—

[www.bioinformatics.cvr.ac.uk](http://www.bioinformatics.cvr.ac.uk) Dr. Richard Orton 117 Sir Michael Stoker Building MRC - University of Glasgow Centre for Virus Research 464 Bearsden Road Glasgow G61 1QH

E: Richard.Orton@glasgow.ac.uk T: 0141 330 4019

Richard Orton <Richard.Orton@glasgow.ac.uk>

## Hungary EvolSexRoles Apr6-9 RegistrationClosesThisWeek

Workshop on EVOLUTION OF SEX ROLES - 6-9 April 2017 - Tihany (Hungary)

Dear Colleagues

This week is the registration deadline for the Workshop on the EVOLUTION OF SEX ROLES, and we only have a small number of places left.

Please see further details at <http://www.congressline.hu/evolution2017/> Best wishes,

Tamas Szekely on behalf of organisers

From: Tamas Szekely Sent: 17 January 2017 09:50 To: 'evoldir@evol.biology.McMaster.CA' <evoldir@evol.biology.McMaster.CA> Subject: Workshop: Hungary. Sex role evolution. April 2017

**WORKSHOP INVITATION SEX-ROLE EVOLUTION: INTEGRATING NEURAL, BEHAVIOURAL AND PHYLOGENETIC APPROACHES**

We are glad to invite you to our Workshop that will take place between 6th April 2017 and 9th April 2017 in Tihany, Hungary. The event will start with wine-tasting

on Thursday 6 April, will include 2 full days for research talks by top scientists, post-docs and students, and an optional excursion on Sunday to a hot spa (Heviz) and/or the historic Festetics Palace in Keszthely.

Theoretical, experimental, phylogenetic, demographic and neuro-genomic studies of sexual selection, mating systems, pair-bonding, parenting and reproductive behaviours are rapidly advancing. The objectives of the workshop are to overview recent developments in sex roles and associated behaviours, and allow scientists and students to develop new ideas. The Workshop will take place at the guesthouse of the Hungarian Academy of Sciences at Lake Balaton. The guesthouse offers a great venue for up to 60 participants, see [www.blki.hu/vendeghaz/index.en.html](http://www.blki.hu/vendeghaz/index.en.html) Balaton is a major tourist destination in Central Europe (see <http://balaton.gotohungary.com/>), and the Workshop will be before the peak tourist season; so we'll have all the scenery, folklore and tradition without the crowd. Balaton is one of the best wine-growing regions in Hungary famous for white wines including the Szurkebarat and Juhfark.

The Workshop will focus on three main themes: (i) behavioural variations in sex roles and their ecological and demographic causes, (ii) phylogenetic analyses of sex role variations, and (iii) neuro-genomic regulation of sex roles.

In each theme there will be seminars by invited speakers and contributions by young scientists, post-docs and PhD students. We will also discuss the future of sex role research: what are the outstanding questions, what techniques will need to be developed, and how should the field as such develop. The combination of different research skills and variety of model organisms will provide outstanding opportunities to synthesize major research directions.

Confirmed invited speakers include:

1. Variations in sex roles

Professor Franjo Weissing

University of Groningen, Groningen

Dr Franziska Lemmel-Schadelin

University of Veterinarian Medicine, Vienna

Dr Lutz Fromhage

University of Jyvaskyla, Jyveskyla

Professor Wolfgang Goymann

Max Planck Institute, Radolfzell

Professor Jan Komdeur

University of Groningen, Groningen

## 2. Phylogenetic approach to sex roles

Dr Laszlo Garamszegi

Donana Biological Station, Sevilla

Dr Elina Immonen

University of Uppsala, Uppsala

Professor Jean-Michael Gaillard

CNRS-University of Lyon, Lyon

Dr Veronika Bokony

Hungarian Academy of Sciences, Budapest

## 3. Neuro-genomic regularion of sex roles

Dr Dora Zelena

Hungarian Academy of Sciences, Budapest

Dr Araxi Urrutia

University of Bath, Bath

Dr Clemens Kupper

Max Planck Institute, Seewiesen

Professor Hans Hofmann

University of Texas, Austin

Registration fee that includes the welcome wine-tasting on Thursday and the farewell dinner on Saturday will be 80 EUR for students and 125 EUR for non-students. Accommodation will be around 25 EUR per night in shared rooms, and 30-40 EUR per night in single rooms or apartments. Lunch and dinner will be around 10-15 EUR per meal.

Spaces are limited to 60 and we will give priority to students offering a talk. This will be an excellent training opportunity for young scientists, and we encourage senior scientists to bring along their students and post-docs. We recommend registering early, since spaces will rapidly fill up.

Application deadline: Friday, 17 February 2017. Registration will be available soon on the workshop website. For scientific details feel free contacting one of the organisers. For administrative questions and further information on the venue, please, contact Bea Golovanova, CongressLine Ltd. Address: Revay koz 2, H-1065 Budapest, Hungary. Phone: + 36 1 429 0146. E-mail: golob@congressline.hu

This will be a family-friendly event so do consider bringing along your family. CongressLine Ltd will be glad to accommodate individual requests so that you'll benefit from the off-season prices around Balaton.



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## Konstanz AdaptiveEpigenomics Jul24-25

We would like to welcome you to join a two-day interdisciplinary workshop on “Adaptive Epigenomics: Building a bridge between animal and human research” hosted Prof. Thomas Elbert and Prof. Axel Meyer and sponsored by the Hector Fellowship Academy. The workshop will be held in Konstanz, Germany, from July 24-25, 2017, and is organized by Dr. Amber Makowicz (post-doc research with Dr. Meyer), Daniela Conrad (PhD student with Dr. Elbert) and Maggie Sefton (PhD student with Dr. Meyer).

The goal of this 2-day workshop is to provide theoretical input on epigenetics as an evolutionary component and important mechanism in the development of (psycho)pathologies and evolutionary adaptations. In addition, providing explanations on the processing and statistical evaluation of epigenetic data, including hands-on exercises of small pseudo-datasets. The workshop shall furthermore represent a platform for the interdisciplinary exchange between biologists and psychologists using epigenetic approaches to investigate the biological underpinnings of (pathological) behavior and adaptation.

Confirmed speakers include:

- Dr. Tuncay Baubec is an SNF Professor in the Department of Molecular Mechanisms of Disease at the University of Zurich.
- Dr. Vanja Vukojevic is a postdoc in the Department of Molecular Neurosciences at the University of Basel.
- Dr. Bridgett vonHoldt is a professor in the Ecology and Evolutionary Biology Department at Princeton University.
- Dr. Robert Philibert runs the Psychiatric Genetics lab at the University of Iowa.
- Dr. Tomas Marques-Bonet leads the research group on comparative genomics at Universitat Pompeu Fabra.

We welcome any Masters and PhD students, postdocs, and any other young scientists in the fields of evolutionary biology and psychology to join us. Registration fees

include a social dinner on a boat on Lake Konstanz (July 24th), and farewell dinner at the Hotel St. Elisabeth in Hegne (July 25th). Registration deadline for earlier-bird rate (50 euro) is March 31st and for the normal rate (100 euro) is May 31st. Space is limited to 35 people, so please register as soon as possible.

Accommodations can be found at the Hotel St. Elisabeth, however, these rooms book rapidly and will require you to book well in advance ([www.st-elisabeth-hegne.de/en/hotel.html](http://www.st-elisabeth-hegne.de/en/hotel.html)). Other accommodations can be found in Konstanz with direct train connection to Hegne (~10-12 min ride).

Konstanz is a cozy town in the south of Germany, located near the border to Switzerland. With direct access to beautiful Lake Konstanz and its historical old town it is a favorite holiday destination for locals and international tourists. Furthermore, the University of Konstanz is one of the highest-ranking German universities. For many years, the University of Konstanz belongs to the German Universities Excellence Initiative, and is host to a large, international body of students from various fields.

Any questions in regards to the workshop can be found on our website (<http://adaptive-epigenomics.weebly.com/>) or emailed to [epigenetics-workshop@uni-konstanz.de](mailto:epigenetics-workshop@uni-konstanz.de) or directly to Amber Makowicz at [amber.makowicz@uni-konstanz.de](mailto:amber.makowicz@uni-konstanz.de)

Many thanks for your assistance.

Cheers, Amber – Amber M. Makowicz, Ph.D.

Hector Postdoctoral Fellow Room M821 Biology Department Lehrstuhl für Zoologie und Evolutionsbiologie, University Konstanz, Universitätsstraße 10, 78457 Konstanz, Germany +49 (0) 7531 884660

<http://meyerlab-konstanz.weebly.com/dr-amber-makowicz.html> Amber Makowicz  
<[amber.makowicz@uni-konstanz.de](mailto:amber.makowicz@uni-konstanz.de)> Amber Makowicz  
<[amber.makowicz@uni-konstanz.de](mailto:amber.makowicz@uni-konstanz.de)>

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## Mariensee Germany SNP DataManagement Apr4-6

Dear All

for those working with SNP data, I would like to draw your attention to a three day workshop from April 4-6,2017 on:

“SNP data management with TheSNPpit software package”

organized at the Institute of Farm Animal Genetics (FLI) in Mariensee near Hannover/Germany and run bei Helmut Lichtenberg and myself.

TheSNPpit is a high performance database system for managing large scale SNP data. (for detailed information see: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0164043> )

The workshop is targeted at people managing and analyzing SNP data from various species and SNP arrays from possibly millions of samples.

The workshop will cover everything from software installation to hands on use of TheSNPpit. Participants must bring their Linux laptops together with their own SNP data.

Accommodation will be available locally. There is no course fee, but participants will have to pay for their accommodation and meals.

For registration and questions get in touch by February 28, 2017.

Greetings

Eildert Groeneveld Institute of Farm Animal Genetics (FLI) Mariensee 31535 Neustadt Germany  
Tel : (+49)(0)5034 8715155 Fax : (+49)(0)5034 8715143 e-mail: [eildert.groeneveld@fli.de](mailto:eildert.groeneveld@fli.de) web:  
<http://vce.tzv.fal.de> “[eildert.groeneveld@fli.de](mailto:eildert.groeneveld@fli.de)”  
<[eildert.groeneveld@fli.de](mailto:eildert.groeneveld@fli.de)>

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NordU Norway  
NGSOofNonModelOrganisms  
May31-Jun1

Course: NordUNorway. HighThroughputSequencingOfNonModelOrganisms. May31-June1

High throughput sequencing (HTS) technologies are being applied to a wide range of important topics in biology. However, the analyses of non-model organisms, for which little previous sequence information is available, pose specific problems. This course will address the specific strengths and weaknesses of alternative HTS technologies, the computational resources needed for HTS, and how to analyze non-model species using HTS. The course consists of practical training in preparing and running fragment libraries, HTS bioinformatics training, and lecturing/seminars of HTS approaches specifically targeting non-model organisms.

A detailed course description is available here.

We will accept a maximum of 10 students. The closing date for applications is April 29.

If you have questions regarding the course, please contact Prof. Truls Moum at truls.b.moum@nord.no

“Alexander-Jueterbock@web.de” <Alexander-Jueterbock@web.de>

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## Porto Portugal Metabarcoding May1-5

Dear Colleagues,

We are please to announce that this year the seventh DNA Metabarcoding Spring School will held in Porto (Portugal) and will be organized in collaboration with Simon Jarman and the CBIO Research Center in Biodiversity and Genetic resources.

Please take care than this year the registration period will end by March the 15th, 2017.

<http://metabarcoding.org/spip.php?article85> Best regards

Eric Coissac

Dr Eric Coissac Associate professor Laboratoire d'Ecologie Alpine UMR UGA-USMB-CNRS 5553 Université Grenoble Alpes CS 40700 38058 Grenoble cedex 9 -France

The seventh DNA metabarcoding Spring School at Porto DNA metabarcoding is a rapidly evolving method for assessing biodiversity from environmental DNA and bulk samples. It has a wide range of applications: biodiversity

monitoring, animal diet assessment, reconstruction of paleo communities, among others. DNA metabarcoding uses molecular techniques such as PCR and next generation sequencing, and integrates skills in bioinformatics and biostatistics with classical ecological knowledge.

The DNA metabarcoding spring school is now in its seventh edition, and this year it is co-organized by the metabarcoding.org team and the CIBIO at Porto - Portugal

The DNA metabarcoding spring school will be held from May 1st to 5th, 2017

The school will be divided in two parts:

- Two days of lectures, May 1st and 2nd. - Three days of practicals

All the lectures and the practicals will be taught in English The number of participants in the lecture portion is not limited, but registration is mandatory.

The number of participants in the practical portion is limited to 24.

Candidates can apply for the school by sending an email to the following address :

porto2017@metabarcoding.org

The email must contain a brief curriculum vitae and a short letter of motivation. For applicants wishing to participate in the practical sessions, we request a more complete letter indicating how your research will benefit from DNA metabarcoding and what you are hoping to learn from this school. As part of the course, each participant in the practical portion will give a flash talk (5 minutes) about your research and how it is related to DNA metabarcoding.

Main lecturers

- Frédéric Boyer (LECA, CNRS, France) - Antony Chariton (Makerere University, Australia) - Eric Coissac (LECA, UGA, France) - Bruce Deagle (Australian Antarctic Division - Australia) - Simon Jarman (CIBIO, Portugal) - Pierre Taberlet (LECA, CNRS, France) - Lucie Zinger (EDB, CNRS, France)

Course Schedule

The lectures will cover different aspects of DNA metabarcoding. The bioinformatics practicals will introduce data analysis from raw sequences to basic ecological conclusions. The molecular ecology practical will present basic techniques for DNA extraction in the field and DNA amplification by PCR.

Venue

The meeting will be held at the Parque Biológico de Gaia (41°05'49.5"N 8°33'21.9"W):



<http://www.parquebiologico.pt/doc.php?id=141> This location has accommodation for all participants in rooms with 2,4 or 6 beds (c.a 20 euro per night and per person). The venue has a lecture hall and conference rooms to be used for the course. Breakfast and lunch will be available on site (16 euro per person per day for both) while dinner will be arranged at nearby local restaurants for approximately 20 euro per person per day. Vegetarian options will be available for all meals.

To get there:

For attendees arriving on the 31st April, the Porto DNA metabarcoding team will collect you from the airport. If you are arriving earlier in Porto, there are several public transport options. The most direct way to get to Porto is to fly to the Francisco Sa Carneiro International Airport:

<http://www.porto-airport.com/> Direct flight are available from more than fifty cities. This airport is serviced by a range of airlines including TAP, Ryanair and Easy-Jet.

Porto also has regular, low cost train connections to Lisbon and a range of other Portuguese destinations as well as Vigo and Madrid in Spain. More information can be found here:

<https://www.cp.pt/passageiros/en/train-times/-Stations/porto-campanha> Porto has an efficient Metro light rail service:

<http://en.metrodoporto.pt/> that can be used to travel from the airport or train stations to Santo Ovidio station, which is the closest one to the venue. From there a taxi or Uber will take you to the venue.

For some country Portugal requires a Schengen entry visa, arranged before travel.

Eric Coissac <eric.coissac@inria.fr>

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## Portugal PopulationGenetics Mar13-17

ANNOUNCEMENT / REMINDER

PGDH17 Population Genetics and Demographic History: model-based approaches

The GTPB is proud to announce that the above hands-on training course is open for applications

IMPORTANT DATES for this Course Deadline for applications: Mar 6th 2017 Course date: March 13th -

March 17th 2017

Candidates with adequate profile will be accepted in the next 72 hours after the application until we reach 20 participants.

Please check the course website for details: <http://gtpb.igc.gulbenkian.pt/bicourses/PGDH17/> Hoping that this course meets your interests,

Pedro Fernandes – Pedro Fernandes Instituto Gulbenkian de Ciência Apartado 14 2781-901 OEIRAS PORTUGAL Tel +351 21 4407912 <http://gtpb.igc.gulbenkian.pt> “Pedro L. Fernandes” <pfern@igc.gulbenkian.pt>

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## Roscoff EcolEvolutionaryGenomics Jun5-16

13<sup>th</sup> Summer course on marine ecological & evolutionary genomics at the Marine Biological Station of Roscoff (F)

First announcement

>From June 5<sup>th</sup> - June 16<sup>th</sup>, 2017

the 13<sup>th</sup> Summer Course on Marine Ecological & Evolutionary Genomics - MEEG 2017

takes place at the Station Biologique de Roscoff, Roscoff, France.

Aims:

Genomic knowledge is crucial for understanding the marine environment and for an efficient use of its resources. State of the art NGS methods have revolutionized the field, spawning applications in basic research, biotechnology and resource management. The course will focus on the latest developments in population genomics, including biodiversity, evolution, comparative and functional aspects through lectures, case studies and computer labs. It takes place at the Biological Station, a vibrant research community of 273 scientists and support personnel, located in the old town and fishing port of Roscoff, Brittany, France.

The course includes lectures, tutorials and computer based exercises on the following topics.

- Genomics - next generation sequencing, database searching, basic skills in data handling and bioinformatics
- Population genomics - diversity, structure, connectiv-

ity and gene flow, assignment, effective population size, population dynamics, adaptive variation, genotyping by sequencing

- Environmental genomics - environment-genome interactions, ecogenomics and metagenetics
- Functional genomics - genome structure, molecular evolution at the functional level, genomic architecture, functional networks
- Comparative genomics - whole genome comparisons, concatenated phylogenies, genome organization, annotating genomic information, co-evolution
- metagenomics

The course covers all aspects of life in the ocean.

Target group:

PhD students (at least in their second year) and junior postdocs with a solid knowledge in ecological and/or evolutionary genetics.

18 participants will be selected on the following criteria:

1. Relevance of the course for their PhD or post-doc project
2. Background and experience
3. We aim at training people with different research backgrounds; not more than one person per institute will be considered. We implement a gender policy.

The selected persons will be notified by Friday 14<sup>th</sup> April and will have to confirm attendance within 7 days. There is a waiting list in case of non-confirmations and cancellations.

Teaching staff :

Nicola Barson, NMBU, No

Sarah Bouchemousse, UniFr, Ch

Jonas Collen, SB-Roscoff, FR

Simon Creer, Univ. Bangor, UK

Yves Desdevises, OO-Banyuls, FR

Erica Leder, Univ. Turku, Fi

Daniel Vaultot, SB-Roscoff

Frederique Viard, SB-Roscoff, FR

Filip Volckaert, Univ. Leuven, BE

Mathias Wegner, AWI-Sylt, GE

Organizing committee

Jonas Collen, SB-Roscoff, FR

Damien Guiffant, SB-Roscoff, FR

Matthias Obst, Univ. Gothenburg, SE

Nic Blouin, Univ. Rhode Island, USA

Nathalie Turque, EMBRC-France, FR

Daniel Vaultot, SB-Roscoff, FR

Filip Volckaert, Univ. Leuven, BE

For information, a flyer and application please check <http://meeg2017.sciencesconf.org> . Application deadline is April 2 2017.

Filip Volckaert <filip.volckaert@kuleuven.be>

## SwissAlps SexualSelection Aug28-31

SIGNIFICANCE OF SEXUAL SELECTION FOR POPULATION FITNESS

WHEN ? 28-31 August 2017

WHERE? Fafferalp, Swiss Alps (CH)

MORE INFOS AND REGISTRATION <https://www.cuso.ch/activity/?p=1128&uid=3366> ORGANIZER Prof. Claus Wedekind, University of Lausanne (CH)

INVITED SPEAKERS Prof. David Berger, University of Uppsala (SE) Prof. Andrew P. Hendry, McGill University (CA) Prof. Hanna Kokko, University of Zürich (CH) Prof. John Pannell, University of Lausanne (CH) Prof. Jacek Radwan, University of Poznan (PL) Prof. Leigh Simmons, University of Western Australia (AU)

DESCRIPTION Sexual selection is expected to promote population fitness by enhancing the reproductive success of individuals of high genetic quality (i.e. of high breeding value for fitness), or by purging the genome of deleterious mutations, e.g. via mate preferences for condition- $\hat{A}$ 'dependent traits or dominance fights within sexes. The significance of such effects is not sufficiently understood yet. Estimates range from minor importance to the benefits of sexual selection even outweighing the costs of sex. We will discuss the problem in the context of current environmental changes and the potential of rapid evolution.

QUERIES [caroline.betto-colliard@unil.ch](mailto:caroline.betto-colliard@unil.ch)

Caroline Betto-Colliard <Caroline.Betto-Colliard@unil.ch>

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## Switzerland EvolBiol Jun17-23

Evolutionary Biology Workshop in the Alps: deadline extended until 20 February

The 2017 edition of the Evolutionary Biology Workshop in the Alps will take place on 17-23 June 2017 in Riederfurka, Switzerland (<https://biologie.cuso.ch/-index.php?id=1128>)

Target participants are PhD students in early stages of PhD and advanced Master students.

The main goals of this annual workshop, based on a concept developed by Stephen Stearns and John Maynard Smith, are to develop the following skills: - developing your scientific ideas through discussions in groups; - thinking critically and expressing oneself clearly; - turning a general idea into a research project; - writing a research proposal and defending it.

Faculty: Lynda Delph (Indiana University) Curt Lively (Indiana University) Noah Whiteman (University of California Berkeley) Sergio Rasmann (University of Neuchâtel) Tadeusz Kawecki (University of Lausanne)

It is you, the students, who will be in charge in this course. You will be divided in groups of 4-5 students. In those groups, you will work on your ideas. You, as a group, will decide what the important open questions in broadly defined evolutionary biology are, you will choose one, and attempt to develop a proposal for a research project that will address it. The faculty will visit the groups during the discussions to answer questions, provide coaching and give feedback on the projects, but they will generally take the back seat. Additionally, the faculty will give informal talks about their research and be available for informal discussions with individual students. At the end you will present your projects to other participants, and we will party.

The workshop will take place in Villa Cassel (<http://www.pronatura-aletsch.ch/home-en>), at 2000 m of altitude, in a 110 year old villa where Winston Churchill once stayed, amid the magnificent mountain landscape of a UNESCO World Heritage Site, and a walking distance from the largest glacier of the Alps. This isolated site will help you to concentrate on the course while giving you also the chance to enjoy the views and the alpine flora.

Fee: CHF 490.-

Participants will receive a course certificate for 3 ETCS credits.

To apply, send a single file (pdf or rtf) containing a short motivation letter including a brief summary of your research interest, a cv, and the name of your scientific advisor to Caroline Betto-Colliard <Caroline.Betto-Colliard@unil.ch>, with Cc to tadeusz.kawecki@unil.ch. Please put "Evolutionary workshop" in the subject. Application deadline has been extended until 20 February 2017.

"tadeusz.kawecki@unil.ch" <tadeusz.kawecki@unil.ch>

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## UAlgarve Portugal FishPopGenomics May8-10

Dear Colleagues,

We are please to announce the Euromarine Foresight Workshop on The Application of Population Genomics to Fisheries Management, at CCMAR, University of Algarve from the 8-10th May, Faro, Portugal

Please take care the registration period will end by March the 31st, 2017.

The workshop is designed to facilitate interaction and promote synergistic activities aimed at improved stock monitoring, prediction, and management to ensure sustainability in response to naturally- and anthropogenically-induced changes to the marine environment.

There are three main themes:

1. Fish stock delineation and management
2. Population genomics and fisheries
3. The future of fisheries management in the genomic era

Five top scientists will give keynote talks that will set the debate, followed by oral presentations given by the attendants. A discussion among all participants will be conducted by a pivot/rapporteur to produce a synthesis report.

Keynote speakers:

- Gary Carvalho (Univ. Bangor, UK)
- Stefano Mariani (Salford Univ., UK)
- Ian R. Bradbury (DFO, Canada)
- Jann T. Martinsohn (JRC, Italy)
- Shawn Narun (CRPN, USA)

You will find any additional information on:

WEBLINK:

[goo.gl/g1cLun](http://goo.gl/g1cLun)

And you can contact us by email:

[euromarine.ccmr@gmail.com](mailto:euromarine.ccmr@gmail.com)

Cheers,

Rita Castilho

Rita Castilho <[rita.castil@gmail.com](mailto:rita.castil@gmail.com)>

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## UBirmingham Environmental Genomics Mar5-10

NERC-MDIBL Environmental Genomics and Metabolomics Training Course 2017

A NERC funded short course to guide genomics and metabolomics research applied to environmental sciences

<http://www.birmingham.ac.uk/schools/biosciences/-conferences/mdibl-course/> Date: 5-10 March 2017

Location: The University of Birmingham, UK

Number of places: up to 50 Participation: Open to everyone. Priority is given to NERC-funded PhD students and early-career scientists. Confirmation for attendance will be announced February 23, 2017.

Bursaries: Four (4) bursaries are still available for the metabolomics track and two (2) remain for the genomics track, covering registration, travel and accommodations.

Costs for non-NERC funded researchers: Early bird 2105, standard 2340. Ten scholarships remain in the genomics track, where registration fees are waived.

Course leaders: Professor John Colbourne, Dr Joseph Shaw, and Dr Ben Brown will lead the genomics course. The metabolomics course will be lead by Professor Mark Viant and Dr Warwick Dunn and assisted by staff from the NERC Biomolecular Analysis Facility and Birmingham Metabolomics Training Facility.

Research Organizations involved: University of Birmingham (UK), BGI China National GeneBank (Shenzhen, China), Mount Desert Island Biological Laboratory (USA)

For this fourth annual training course in Environmental Genomics and Metabolomics, the curriculum is expanded to highlight a multi-omics (system biology) approach to research in environmental sciences. It trains

PhD students and early career postdoctoral scientists to investigate how gene function and metabolism are influenced by environmental conditions while accounting for variation that exists within and among natural populations. The course is built on the paradigm that this multidisciplinary research field encompassing ecology, evolution, toxicology, biostatistics and informatics will most effectively grow by training early career environmental scientists to properly design comprehensive, large-scale, Next Generation Sequencing and Metabolomics experiments enabled by drastically increased sample-throughput and lower costs. Most importantly, the challenges of manipulating and analysing population-level omics (big) data must be addressed.

The course provides a significant introduction and much hands-on training experience so that participants can initiate their own environmental omics study and network with others in the field to launch Environmental Scientist careers in academia and industry. Case studies using multi-omics data sets collected at the University of Birmingham will be provided so that you can gain practical experience of analysing and integrating multi-omics data.

Daphnia is used for training because of its growing use as a model system in the environmental sciences and for improving environmental health protection, yet the skills learned during the course will be applicable to all study systems with mature genomics and metabolomics resources.

Evening Lecture Series Distinguished visiting academics will provide keynote lectures on each day of the course to highlight environmental omic applications that draw on the expertise of our guest faculty.

Course Details The course will include ~1.5 days of generic environmental omics training and ~3.5 days of specialised genomics or metabolomics training (parallel tracks).

The combined sessions will include: \* Overviews of environmental genomics and metabolomics \* Practical experience of analysing and integrating multi-omics data \* Synthesis sessions to obtaining grant funding \* Question and answer sessions with a panel of experts

The genomics track includes: \* Library construction methods and QC \* Introduction to automation systems and sequence data workflow \* Software solutions for sequence workflows and their application in environmental research \* RNA-seq alignment \* Statistical considerations for analysing genome-scale data \* Practical experience in applying open-source analysis tools to visualise complex sequence data and explore genome sequence variation, analyse Tuxedo output and perform

gene set enrichment analysis \* Synthesis sessions to explore using the most appropriate model organism and maximising outputs from your sequence data

The metabolomics track includes: \* Experimental design \* Quality assurance and quality control in metabolomics \* Hands-on sample preparation \* Analytical technologies including mass spectrometry and NMR spectroscopy \* Data processing, including LC-MS and SIMS stitching procedures \* Univariate and multivariate data analysis approaches \* Metabolite identification

Please feel free to inquire with Dr [X] Catherine Winder or John Colbourne.

c.l.winder@bham.ac.uk J.K.Colbourne@bham.ac.uk

School of Biosciences, The University of Birmingham Birmingham, B15 2TT, United Kingdom



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## UCalifornia Davis AppliedPhylogenetics Mar11-18

[FINAL NOTICE] UC Davis WORKSHOP IN APPLIED PHYLOGENETICS at Bodega Marine Laboratory, Bodega Bay, California

March 11-18, 2017

Sponsored by the University of California, Davis and Bodega Marine Laboratory

website: <http://treethinkers.org/> Introduction Phylogenetic methods have revolutionized modern systematics and become indispensable tools in evolution, ecology and comparative biology, playing an increasingly important role in analyses of biological data at all levels of organization ranging from molecules to ecological communities. The estimation of phylogenetic trees is now a formalized statistical problem with general agreement on the central issues and questions. A nearly standard set of topics is now taught as part of the curriculum at many colleges and universities. On the other hand, application of phylogenetic methods to novel problems outside systematics is an area of special excitement, innovation, and controversy, and perspectives vary widely.

This Spring, for the seventeenth year, we will teach a workshop for graduate students interested in applying phylogenetic methods to diverse topics in biology. The one-week course is an intensive exploration of problems to which modern phylogenetic approaches are being applied and the most current statistical tools and approaches that are used to solve those problems. We cover a wide range of topics in comparative phylogenetics. The course starts with recent advances in phylogenetic inference, and then focuses on methods for making inferences from phylogenies.

The course will be held at the Bodega Marine Laboratory on the beautiful Northern California coast, which has on-site housing. The course format will involve equal parts of lecture and hands-on software training (with an emphasis on performing analyses using RevBayes: <http://revbayes.github.io/about.html>). One afternoon during the week will be left free for field trips to local natural areas.

Topics Covered \* Estimating, evaluating and interpreting phylogenetic trees \* Recent advances in Bayesian inference of phylogeny \* Model specification issues: model selection, adequacy and uncertainty \* Diagnosing MCMC performance \* Divergence-time estimation: relaxed clocks, fossil calibration \* Species-tree estimation and species delimitation \* Character evolution: ancestral-state estimation, rates of trait evolution \* Lineage diversification: detecting rate shifts, testing key-innovation hypotheses

Prerequisites Available housing limits course enrollment to ~30 students. Preference is given to doctoral candidates who are in the early to middle stages of their thesis research, and who have completed sufficient prerequisites (through previous coursework or research experience) to provide some familiarity with phylogenetic methods. Unfortunately, because of limits on class size, postdocs and faculty are generally discouraged from applying.

Admission and Fees Students will be admitted based on academic qualifications and appropriateness of research interests. The course fee is \$750. This includes room and board at BML for duration of the course (arriving March 11, leaving March 18) and return transportation from Davis to the Bodega Marine Labs.

Application Deadline Applications are due by January 31, 2017. Please send a completed application form and one letter of recommendation from your major advisor. Applications should be sent via email as PDFs to [mikeryanmay@gmail.com](mailto:mikeryanmay@gmail.com). Students will be notified via e-mail by February 4, 2017 of acceptance.

Application Forms and Information Visit the Bodega website for additional information and to download an

application form: <http://treethinkers.org/> Send all application materials to:

Mike May Department of Evolution and Ecology 5343 Storer Hall University of California Davis Davis, CA 95616 email: mikeryanmay@gmail.com email: mikeryanmay@gmail.com

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## UFlorida Movement May8-12

\* Venue: Fort Lauderdale REC, Davie, Florida

\* Contact: Mathieu Basille (basille@ufl.edu)

\* Instructors: Simona Picardi, David Bucklin & Mathieu Basille (UF WEC)

\* Guest lecturers: Anne Berger (Leibniz Institute for Zoo and Wildlife Research, Germany), Hamish Campbell (Charles Darwin University, Australia), Francesca Cagnacci (Fondazione Edmund Mach, Italy) & Ferdinando Urbano (Independent researcher, Italy)

\* Attendance: Reserved for Natural Resource managers (for a fee) and UF students (with tuition waiver). Limited seats are available on a first come - first served basis. Natural Resource managers, please register on Eventbrite.com [1].

\* More info on: <http://ase-research.org/training/-PostGIS.2017/> Recent technological progress has allowed ecologists to obtain a huge amount and diversity of animal movement data sets of increasing spatial and temporal resolution and size, together with complex associated information related to the environmental context, such as habitat types based on remote sensing, population density, and weather. Based on several years of experience on multiple species, this intensive five-day workshop is designed to teach participants how to handle, manage, store and retrieve movement data in a spatial database, and how to eventually feed them to analysis tools. In the first part of the course, participants will be exposed to basics of spatial databases for wildlife tracking data, using PostgreSQL/PostGIS, the reference free and open-source database system. The second part will focus on the integration of environmental data in the process. The third part will tackle the specifics of movement data, and how to connect the database to the R statistical environment for analysis. Step by step, using reproducible, hands-on exercises that will be released on-line, we will provide a complete and seamless procedure from raw data to final analysis that will enable participants to fully manage and inte-

grate complex animal movement data sets. Although the workshop is intended for a wide audience, basic knowledge of SQL, spatial databases and R are highly recommended to get the best experience.

Participants will have to bring their own laptop computers, with necessary software installed (instructions for open-source software will be provided).

Reference: Urbano, F. & Cagnacci, F. (ed.) (2014) Spatial Database for GPS Wildlife Tracking Data: A Practical Guide to Creating a Data Management System with PostgreSQL/PostGIS and R. Springer, 257 pp. DOI: 10.1007/978-3-319-03743-1

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Mathieu Basille

basille@ufl.edu | <http://ase-research.org/basille> +1 954-577-6314 | University of Florida FLREC

« Le tout est de tout dire, et je manque de mots Et je manque de temps, et je manque d'audace. » Paul Áluard

“basille@ufl.edu” <basille@ufl.edu>

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## UK AdvancingInRforEvolutionaryBiol Apr24-28

“Advancing in Statistical Modelling for evolutionary biologists and ecologists using R”

Delivered by Dr. Luc Bussiere and Dr. Ane Timenes Laugen

<http://www.prstatistics.com/course/advancing-statistical-modelling-using-r-advr06/> This course will run from 24th - 28th April 2017 at SCENE field station, Loch Lomond, Glasgow

Course only and all inclusive packages are available.

This course will provide an introduction to working with real-life data typical of those encountered in the field of evolutionary biology and ecology. The course will be delivered by Dr. Luc Bussiere—and Dr. Ane Timenes Laugen who are—both practicing academics in the field of ecology.—This five day course will consist of series of modules (each lasting roughly half a day) covering—model selection and simplification, generalised linear models, mixed effects models,— and non-linear models. Along the way you will gain in depth experience—in

data 'wrangling', data and model visualisation and plotting, as well as exploring and understanding model diagnostics.—Classes will comprises of a mixture of lectures and practicals designed to either build required skills for future modules or to perform a family of analyses that is frequently encountered in the biological literature.

Course content is as follows

Day 1 Course introduction - Techniques for data manipulation, aggregation, and visualisation; introduction to linear regression. Packages: {tidyr}, {dplyr}, {ggplot2}

Day 2 Linear models - Diagnostics, collinearity, scaling, plotting fitted values); fitting and interpreting interaction terms; model selection and simplification; general linear models and ANCOVA. - Packages: {stats}, {car}

Day 3 Generalized linear models - Logistic and Poisson regression; predicting using model objects and visualizing model fits. - Packages: {broom}, {visreg}, {ggplot2}

Day 4 Mixed effects models - Theory and practice of mixed effect models; visualising fixed and random effects. - Packages: {lme4}, {broom}, {ggplot2}, {sjPlot}

Day 5 Fitting nonlinear functions - Polynomial & Mechanistic models; brief introduction to more advanced topics & combining methods (e.g., generalised linear mixed effects, nonlinear mixed effects, and zero-inflated and zero-altered models). - Packages: {nlstools}. - Afternoon to discuss own data if time permits

Please email any inquiries to oliverhooker@prstatistics.com or visit our website [www.prstatistics.com](http://www.prstatistics.com) Please feel free to distribute this material anywhere you feel is suitable

Our other courses

1. STABLE ISOTOPE MIXING MODELS USING SIAR, SIBER AND MIXSIAR #SIMM 28th Feb - 3rd Mar 2017, Scotland, Dr. Andrew Parnell, Dr. Andrew Jackson <http://www.prstatistics.com/course/-stable-isotope-mixing-models-using-r-simm03/>
2. NETWORK ANALYSIS FOR ECOLOGISTS USING R #NTWA 6th - 10th March 2017, Scotland, Dr. Marco Scotti <http://www.prstatistics.com/course/-network-analysis-ecologists-ntwa01/>
3. ADVANCES IN MULTIVARIATE ANALYSIS OF SPATIAL ECOLOGICAL DATA USING R #MVSP 3rd - 7th April 2017, Scotland, Prof. Pierre Legendre, Dr. Olivier Gauthier <http://www.prstatistics.com/course/-advances-in-spatial-analysis-of-multivariate-ecological-data-theory-and-practice-mvsp02/>
4. ADVANCING IN STATISTICAL MODELLING FOR EVOLUTIONARY BIOLOGISTS AND ECOLOGISTS USING R #ADV R 17th - 21st April 2017, Scotland, Dr. Luc Bussiere, Dr.

Ane Timenes Laugen <http://www.prstatistics.com/course/advancing-statistical-modelling-using-r-advr06/>

5. CODING, DATA MANAGEMENT AND SHINY APPLICATIONS USING RSTUDIO FOR EVOLUTIONARY BIOLOGISTS AND ECOLOGISTS #CDSR 15th - 19th May, Scotland Dr. Aline Quadros <http://www.prstatistics.com/course/coding-data-management-and-shiny-applications-using-rstudio-for-evolutionary-biologists-and-ecologists-cdsr01/>

6. GEOMETRIC MORPHOMETRICS USING R #GMMR 5th - 9th June 2017, Scotland, Prof. Dean Adams, Prof. Michael Collyer, Dr. Antigoni Kaliontzopoulou <http://www.prstatistics.com/course/geometric-morphometrics-using-r-gmmr01/>

7. MULTIVARIATE ANALYSIS OF SPATIAL ECOLOGICAL DATA #MASE

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## UK BioinformaticsUsingLinux Oct16-20

Introductionto Bioinformatics using LINUX

<http://www.prstatistics.com/course/introduction-to-bioinformatics-using-linux-ibul02/> Instructor:Dr. Martin Jones

Thiscourse will run from 16th - 20th October at SCENE (the Scottish Centrefor Ecology and the Natural Environment), Loch Lomond National Park,Glasgow.

Courseoverview: Most high-throughput bioinformatics work these days takesplace on the Linux command line. The programs which do the majorityof the computational heavy lifting (genome assemblers, read mappers,and annotation tools) are designed to work best when used witha command-line interface. Because the command line can be an intimidatingenvironment, many biologists learn the bare minimum needed toget their analysis tools working. This means that they miss out on thepower of Linux to customize their environment and automate many partsof the bioinformatics workflow. This course will introduce the Linuxcommand line environment from scratch and teach students how to makethe most of its tools to achieve a high level of productivity when workingwith biological data.

Availability: 15 places total.

Course programme Monday 16th - Classes from 09:00 to 17:00 (approximately)

Session 1 - The design of Linux: how is it different from Windows/OSX and how is it best used? We'll then jump straight onto the command line and learn about the layout of the Linux filesystem and how to navigate it. We'll describe Linux's file permissions system (which often trips up beginners), how paths work, and how we actually run programs on the command line. We'll learn a few tricks for using the command line more efficiently, and how to deal with programs that are misbehaving. We'll finish this session by looking at the built-in help system and how to read and interpret manual pages.

Session 2 - System management We'll first look at a few command line tools for monitoring the status of the system and keeping track of what's happening to processor power, memory, and disk space. We'll go over the process of installing new software from the built-in repositories (which is easy) and from source code downloads (which is trickier). We'll also introduce some tools for benchmarking software (measuring the time/memory requirements of processing large datasets).

Tuesday 17th - Classes from 09:00 to 17:00 (approximately)

Session 3 - Manipulating tabular data Many data types we want to work with in bioinformatics are stored as tabular plain text files, and here we learn all about manipulating tabular data on the command line. We'll start with simple things like extracting columns, filtering and sorting, searching for text before moving on to more complex tasks like searching for duplicated values, summarizing large files, and combining simple tools into long commands.

Session 4 - Constructing pipelines In this session we will look at the various tools Linux has for constructing pipelines out of individual commands. Aliases, shell redirection, pipes, and shell scripting will all be introduced here. We'll also look at a couple of specific tools to help with running tools on multiple processors, and for monitoring the progress of long running tasks.

Wednesday 18th - Classes from 09:00 to 17:00 (approximately)

Session 5 - EMBOSS EMBOSS is a suite of bioinformatics command-line tools explicitly designed to work in the Linux paradigm. We'll get an overview of the different sequence data formats that we might expect to work with, and put what we learned about shell scripting to biological use by building a pipeline to compare codon usage across two collections of DNA sequences.

Session 6 - Using a Linux server Often in bioinformatics we'll be working on a Linux server rather than our own computer - typically because we need access to more computing power, or to specialized tools and datasets. In this session we'll learn how to connect to a Linux server and how to manage sessions. We'll also consider the various ways of moving data to and from a server from your own computer, and finish with a discussion of the considerations we have to make when working on a shared computer.

Thursday 19th - Classes from 09:00 to 17:00 (approximately)

Session 7 - Combining methods In the next two sessions - i.e. one full day - we'll put everything we have learned together and implement a workflow for next-gen sequence analysis. In this first session we'll carry out quality control on some paired-end Illumina data and map these reads to a reference genome. We'll then look at various approaches to automating this pipeline, allowing us to quickly do the same for a second dataset.

Session 8 - Combining methods The second part of the next-gen workflow is to call variants to identify

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## UK RADseq Stacks May 22-26

Hi evodir,

We will be holding our annual RADseq/Stacks workshop at the Earlham Institute (formerly TGAC) in Norwich, United Kingdom in May.

The course will be one week long, May 22-26, and will include a thorough introduction to UNIX and subsequently Stacks, including sessions on the RAD protocol as well as sessions analyzing several sets of RAD data (with/without a reference genome, including population genetics and phylogenetics subjects).

Instructors: Julian Catchen, Josie Paris and Konrad Paszkiewicz

The course is open to everyone with no prerequisites required. More details can be found here:

<http://www.earlham.ac.uk/population->



variation-genetics  
<J.R.Paris@exeter.ac.uk>

“J.R.Paris@exeter.ac.uk”

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## UK ShinyAppsForEvolutionaryBiol May15-19

Coding, data management, and Shiny applications using RStudio for evolutionary biologists and ecologists (CDSR01)

<http://www.prstatistics.com/course/coding-data-management-and-shiny-applications-using-rstudio-for-evolutionary-biologists-and-ecologists-cdsr01/> This course will run from the 15th - 19th May 2017 at SCENE field station, Loch Lomond, Scotland.

Course overview: The course will introduce programming logic using the R syntax. The participants will be able to solve problems involving heterogeneous biological datasets and the combined use of different statistical packages, so the advantages of learning programming skills can be demonstrated. The RMarkdown syntax will be used to illustrate the advantages of literate programming and the possibilities of code sharing and archiving. In the sequence, participants will learn how to design relational databases (RDB) which can be used to manage and analyse large biological datasets. They will learn the basics of the SQL language and how to use it with R with the package {RMySQL}. To finalise, they will use the Shiny tool (R Studio) to build interactive applications to analyse and display data depending on user inputs. Throughout the course we will emphasise data, code and analyses best practices that could foster reproducibility and transparency in science, and the long-term availability of scientific data. At the end of the course the participants are expected to be able to develop small, tailored applications, to read and analyse datasets using a variety of statistics tools.

Intended Audience: Researchers and postgraduate students working with in evolutionary biology and ecological data who want to have more autonomy and flexibility in their quantitative analyses, and need to access and analyse large datasets with R.

Monday 15th - Classes from 09:00 to 17:00 Module 1: Programming Logic R syntax (Variable types - operators - conditionals - loops - writing functions) Programming and commenting code with RMarkdown

Tuesday 16th - Classes from 09:00 to 17:00 Module 2: Data structures R syntax (arrays, lists, data frames,

matrices) Data wrangling with {dplyr} and {tidyr}; the {ff} package and data tables for large datasets (e.g. transcriptomics; whole-genome data) Best practices of data acquisition, organization and storage

Wednesday 17th - Classes from 09:00 to 17:00 Module 3: Relational databases Introduction to the SQL language and MySQL (open-source RDB freeware) Accessing and analysing large datasets using the package {RMySQL} As an example, we will combine DNA sequence datasets with IUCN Red List data illustrate the use of RDB to biological datasets.

Thursday 18th - Classes from 09:00 to 17:00 Module 4: Introduction to Shiny (R Studio) Shiny - Server and user interface commands As an example we will use Shiny to develop a small application where users can select different species and genes and run/visualize phylogenetic trees using {ape} running in the background.

Friday 19th - Classes from 09:00 to 16:00 Module 5: Wrapping-up Development and presentation of individual projects combining data wrangling skills and user inputs using Shiny (R Studio)

Teaching Format: The course will be highly practical, with a series of hands-on, step-by-step, problem-solving exercises, combining the different tools to solve ecological and evolutionary biology problems. The participants are invited to think of a problem that requires programming skills to be solved, and can bring their own data for a case-study. At the end of each day the participants will have time to work on their on projects and apply the skills learned on that day.

We offer two packages COURSE ONLY - Includes lunch and refreshments. ALL INCLUSIVE - Includes breakfast, lunch, dinner, refreshments, minibus to and from meeting point and accommodation. Accommodation is multiple occupancy (max 3 people) single sex en-suite rooms. Arrival Sunday 14th May and departure Friday 19th May PM.

Please send enquiries to [oliverhooker@prstatistics.com](mailto:oliverhooker@prstatistics.com) or visit [www.prstatistics.com](http://www.prstatistics.com) for more details.

Other relevant upcoming courses are as follows

1. ADVANCED PYTHON FOR BIOLOGISTS (February 2017) #APYB <http://www.prstatistics.com/course/advanced-python-biologists-apyb01/>
2. STABLE ISOTOPE MIXING MODELS USING SIAR, SIBER AND MIXSIAR USING R (February 2017) #SIMM <http://www.prstatistics.com/course/stable-isotope-mixing-models-using-r-simm03/>
3. NETWORK ANALYSIS FOR ECOLOGISTS USING R (March 2017) #NTWA

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## UMichigan NextProf May2-5

\*NextProf\*\* Science - Future Faculty Workshop \*

We would like to invite interested evolutionary biologists to the NextProf Future Faculty Workshop at the University of Michigan. \*NextProf Science \*will be held May 2-5, 2017 and is a workshop designed to encourage talented scientists and mathematicians with a demonstrated commitment to diversity to consider academia as a career. The workshop is aimed at helping participants develop strategies that will strengthen their ability to pursue academic careers. The workshop is targeted at scholars ready to make take the next step –postdoctoral fellows and very advanced doctoral students. Underrepresented minorities and women are especially encouraged to apply. Travel, lodging, and meals will be provided for those selected to participate. Deadline for submission of all application materials is February 15, 2017. Learn more at: [sites.lsa.umich.edu/nextprof-science](http://sites.lsa.umich.edu/nextprof-science).

Best wishes,

Gina Baucom

Regina S Baucom Assistant Professor 2059 Kraus Natural Science Building 830 North University Dept of EEB University of Michigan Ann Arbor, MI 48109 (734) 647-8490 <http://sites.lsa.umich.edu/baucom-lab> rsbaucom@umich.edu

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## WoodsHole MolecularEvolution Jul20-30

Convening for its 30th year at the Marine Biological Lab in Woods Hole, MA, the Workshop on Molecular Evolution will be held July 20-30, 2017. The Workshop is the premier program for integrating the methods, theory, and applications of molecular phylogenetics, statistical genetics, molecular evolution, and related disciplines. Students work closely with internationally-recognized

scientists, receiving (i) high-level instruction in the principles of molecular evolution and evolutionary genomics, (ii) advanced training in statistical methods best suited to modern datasets, and (iii) hands-on experience with the latest software tools (often from the authors of the programs they are using). The material is delivered via lectures, discussions, and bioinformatic exercises motivated by contemporary topics in molecular evolution. A hallmark of this workshop is the direct interaction between students and field-leading scientists. The workshop serves graduate students, postdocs, and established faculty from around the world seeking to apply the principles of molecular evolution to questions of both basic and applied biological sciences. A priority of this workshop is to foster an environment where students can learn from each other as well from the course faculty.

As the course progresses, participants learn how to use the following software to address questions concerning the origins, maintenance, and function of molecular variation: ASTRAL, BEAST2, BEST, BPP, FASTA, FigTree, GARLI, MIGRATE, MAFFT, MP-EST, RaxML, RevBayes, PAML, PAUP\*, Phybase, ipyrad and SVD Quartets. Students will have the opportunity to work with software on their own laptops as well as receive training on how to use the same programs on a high performance computer cluster.

Course instructors include Peter Beerli, Joseph Bielawski, Belinda Chang, Mario dos Reis, Casey Dunn, Deren Eaton, Scott Edwards, Tracy Heath, David Hillis, Mark Holder, John Huelsenbeck, Lacey Knowles, Laura Kubatko, Peter Larsen, Paul Lewis, Emily Jane McTavish, Conor Meehan, Nicholas Meyerson, William Pearson, David Swofford, David Weisrock, April Wright, and Anne Yoder.

Deadline for applications is April 7, 2017: <https://ws2.mbl.edu/studentapp/studentapp.asp?courseID=-3DMOLE> More information on the Workshop is available on the dedicated course website: [https://molevol.mbl.edu/index.php/Main\\_Page](https://molevol.mbl.edu/index.php/Main_Page) The dates for the Workshop are designed to allow students to segue directly into the Strategies and Techniques for Analyzing Microbial Population Structures (STAMPS) course, though please note that applications for STAMPS must be submitted and are evaluated separately from those for the Workshop on Molecular Evolution.

For further information, please contact Workshop co-Directors:

Anne Yoder ([anne.yoder@duke.edu](mailto:anne.yoder@duke.edu)) and Joseph Bielawski ([j.bielawski@dal.ca](mailto:j.bielawski@dal.ca))

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## Instructions

Instructions: To be added to the EvolDir mailing list please send an email message to Golding@McMaster.CA. At this time provide a binary six letter code that determines which messages will be mailed to you. These are listed in the same order as presented here — Conferences; Graduate Student Positions; Jobs; Other; Post-doctoral positions; WorkshopsCourses. For example to receive the listings that concern conferences and post-doctoral positions this would be 100010. Messages are categorized on the basis of their subject headings. If this subject heading is not successfully parsed, the message will be sent to me at Golding@McMaster.CA. In addition, if it originates from ‘blackballed’ addresses it will be sent to me at Golding@McMaster.CA. These messages will only be read and dealt with when I have time. The code 000000 has all channels turned off and hence gets only a once monthly notification of the availability of a monthly review pdf file.

To be removed from the EvolDir mailing list please send an email message to Golding@McMaster.CA. Note that ‘on vacation’, etc, style messages are automatically filtered and should not be transmitted to the list (I hope), but should you wish to avoid the e-mail’s your code can be temporarily changed to 000000.

To send messages to the EvolDir direct them to the email evoldir@evol.biology.McMaster.CA. Do not include encoded attachments and do not send it as Word files, as HTML files, as L<sup>A</sup>T<sub>E</sub>X files, Excel files, etc. . . . plain old ASCII will work great and can be read by everyone. Add a subject header that contains the correct category “Conference:, Graduate position:, Job:, Other:, Postdoc:, Workshop:” and then the message stands a better chance of being correctly parsed. Note that the colon is mandatory.

The message will be stored until the middle of the night (local time). At a predetermined time, the collected messages will be captured and then processed by programs and filters. If the message is caught by one of the filters (e.g. a subject header is not correctly formatted) the message will be send to me at Golding@McMaster.CA and processed later. In either case, please do not expect an instant response.

## Afterword

This program is an attempt to automatically process a broad variety of e-mail messages. Most preformatting is collapsed to save space. At the current time, many features may be incorrectly handled and some email messages may be positively mauled. Although this is being produced by L<sup>A</sup>T<sub>E</sub>X do not try to embed L<sup>A</sup>T<sub>E</sub>X or T<sub>E</sub>X in your message (or other formats) since my program will strip these from the message.