E v o l D i r

January 1, 2015

Month in Review

## 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.

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.

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

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### Conferences

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## Arizona EvolutionaryMedicine Mar19-21 TravelAwards

The International Society for Evolution, Medicine, & Public Health meeting March 19-21 in Arizona now has support for travel awards, thanks to the National Evolutionary Synthesis Center, the Triangle Center for Evolution and Medicine, and donations to the Foundation for Evolution, Medicine, & Public Health. Meeting details at <a href="http://evmedmeeting.org">http://evmedmeeting.org</a> Details below.

#### \*Student travel awards\*

Travel awards of \$500 to \$1,000 US dollars (possibly more depending on applications) each to students to defray a portion of the costs of lodging and travel to the ISEMPH inaugural meeting.

- -The applicant must be a student in good standing as an undergraduate, graduate student, postdoctoral fellow, veterinary student, medical student or medical resident, in a degree program at an accredited university.
- -\$5,000 of the available awards are committed for support of students from under-represented groups in science, including women, thanks to funding from the National Evolutionary Synthesis Center and Tri-CEM. If you would like to be considered for one of the awards for students from underrepresented groups, please indicate that in your statement.
- -Students presenting papers or posters at the conference are prioritized; followed by students who are co-authors of papers or posters to be presented at the conference. However, students who will not be presenting are still encouraged to apply and will be supported if possible. Travel distance and overall costs are also considered when making awards.

Submission Deadline: January 10, 2015 Notification:

January 31, 2015 Application information at <a href="http://evmedmeeting.org">http://evmedmeeting.org</a> \*Faculty travel awards\*

Funding is available from the National Evolutionary Synthesis Center (NESCent) and the Triangle Center for Evolutionary Medicine (TriCEM) to support travel by faculty from under-represented groups in science to the International Society for Evolution, Medicine, & Public Health meeting in Arizona March 19-21. Applicants must be from an under-represented group in science and be on the faculty at a Minority Serving Institution or Historically Black College or University.

Submission Deadline: January 8, 2015 Notification: January 15, 2015 Apply at <a href="http://goo.gl/forms/-T9tRztmVt4">http://goo.gl/forms/-T9tRztmVt4</a> rmnesse@gmail.com

## Bangalore DiamondbackMoth Mar23-27

The Seventh International Workshop on Management of the Diamondback Moth and Other Crucifer Insect Pests will be held during March 23-27, 2015 in Bangalore, India. Topics include ecology and behavior of diamondback moth and other crucifer pests; insect-plant interactions, host plant resistance and chemical ecology; resistance to chemical insectides and Bt, and pest management. The conference is sponsored by the University of Agricultural Sciences - Bangalore (India) in association with AVRDC-The World Vegetable Center (Taiwan) and Cornell University (USA). Information and online registration can be found at <a href="http://www.dbmworkshopindia.org/">http://www.dbmworkshopindia.org/</a>. The registration deadline is 31 December 2014.

heckel@ice.mpg.de

## Biddeford ME EcolEvolGenomics Jul12-15

Gordon Research Conference July 12-17 2015 at University of New England, Biddeford, ME (Applicants Now Being Accepted - See Link Below)

>From Genomes to Biomes: Using Biodiversity to Explore Biocomplexity.

>From genomes to biomes, from microbes to plants and animals, the 2015

Gordon Research Conference on Ecological and Evolutionary Genomics will highlight how genome-enabled approaches are helping to rapidly advance our understanding of the complicated relationship between genotype, phenotype and the environment. Topic areas such as population genomics, adaptation & speciation, symbiosis and interacting organisms, biodiversity & phylogenomics, community & ecosystem genomics, genetic and ecological networks, methods & non-model organisms, genomics & animal behavior, and applications of ecological and evolutionary genomics, will highlight how biodiversity can be used to illuminate complex biological relationships and inform ecological and evolutionary processes and molecular mechanisms of adaptation to changing environments. The conference will also feature emerging approaches and technologies to aid further exploration of the genomes from organisms that span the tree of life. Gordon Conferences are famous for fostering in depth interactions that yield new insights in a collegial atmosphere.

Co-chairs, Jack Werren (University of Rochester) and Michael Herman (Kansas State University) along with Vice-chairs Felicity Jones (Max Plank Institute, Tubingen) and Michael Pfrender (University of Notre Dame) invite you to join us on the ocean-side campus of the University of New England in Biddeford, Maine for a stimulating conference. We are assembling a diverse group of established and early career investigators to discuss their latest work.

Discussion leaders and symposium speakers for "Young Investigators: Advances in Eco and Evo Genomics" session will be chosen from among the registrants. The organizers are actively seeking funds to assist students and others attend the meeting. Applications for attendance will be accepted until the meeting is full, so don't delay!

Applications to attend are now open information be found can https://urldefense.proofpoint.com/v1/url?u=http:/-/www.grc.org/programs.aspx?id%3D13135&k=p4Ly7qpEBiYPBVenR9G2iQ%3D%3D%0A&r=-3MGxh45yTDyFoweh%2FgaW0tr9guz9xMBVcn3VV6%2BbNMo%3D9 TsigQXRzpRh4MGWa3KFFD44LeHrzeLRjerLo9vOkFMo%3D%0A&s(click the "For Attendees" link). Please plan on joining us in Biddeford in 2015!

Symposim Topic Areas & Speakers

1) Population Genomics, Adaptation & Speciation (Andy Clark, Asher Cutter, Josephine Pemberton,

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Elodie Ghedin)

- 2) Symbiosis & Interacting Organisms (Angela Douglas, Siv Anderrson, Takema Fukatsu, Wayne Potts)
- 3) Behavioral Ecology Meets Genomics (Laurent Keller, Todd Schlenke, Amy Toth)
- 4) Networks: From Genes to Ecosystems (Patricia Wittkopp, Cedric Feschotte, Alvaro Sanchez, Karoline Faust)
- 5) Young Investigators: Advances in Ecological and Evolutionary Genomics (To be selected from among registrants)
- 6) Applications of Ecological & Evolutionary Genomics (Sherry Flint- Garcia, Joseph Shaw, John Colbourne)
- 7) Advances in Computational and Genomic Approaches in Non-Model Organisms (Steven Salzberg, Wes Warren)
- 8) Biodiversity & Phylogenomics (Holly Bik, Casey Dunn, Davide Pisani)
- 9) Community & Ecosystem Genomics (Jack Gilbert, Blake Matthews, Jen Schweitzer)

"Werren, Jack" < werr@mail.rochester.edu>

# Cairns Australia ReproductiveConflict Aug

Dear colleagues, For those interested in conflict as it pertains to reproduction, I am pleased to announce a symposium that will be held at the Behaviour2015 conference in Cairns, Australia, in August 2015. Abstracts are due March 15 2015.

Please see below for details:

COSTS AND CONFLICTS IN REPRODUCTION Nikolai Tatarnic1, Leigh W Simmons2 1. Western Australian Museum, Welshpool, WA, Australia 2. Centre for Evolutionary Biology, The University of Western Australia, Perth, WA, Australia

Conflict between individuals is ubiquitous in nature, and stems from costs incurred by one or more players in an interaction when their optima do not align. Self-promotion and cost avoidance help to shape all manner of behavioural interactions X including those associated with reproduction. Conflict can manifest among members of the same sex (e.g., male-male sperm competition, queen/worker conflict), or between the sexes, where the

reproductive optima of females and males differ (sexual conflict). Additionally, when species with poor mate recognition systems occur sympatrically, interspecies interactions may also impose significant costs to one or both players (reproductive interference). This symposium aims to focus on different facets of antagonism in the context of reproduction, to gain insights into conflict and conflict resolution gleaned from different perspectives and across hierarchical levels (i.e., within sexes, between sexes, between populations, between species).

For further information, please contact Nik Tatarnic for details (nikolai.tatarnic@museum.wa.gov.au).

Nikolai Tatarnic (Nikolai Tatarnic (Museum Wa.gov. au)

# Cambridge EvolutionaryGenomics Mar17

We are pleased to announce details for the 2015 Evolutionary Genetics & Genomics Symposium (EGGS), a Genetics Society (http://www.genetics.org.uk/) sponsored sectional interest group.

The meeting will be taking place in Cambridge (UK) on Tuesday 17th March 2015. The meeting is free to attend and no registration is required. The meeting aims to bring together people working on various aspects of evolutionary genetics, and has previously attracted an international line up of speakers and attendees.

We have three invited speakers:

-Josephine Pemberton, University of Edinburgh http://pemberton.bio.ed.ac.uk/josephine-pemberton -Nathan Bailey, University of St Andrews http://www.flexiblephenotype.org/ -Aoife McLysaght, University of Dublin http://www.gen.tcd.ie/molevol/ Abstract registration is now open-please email your name, institution, position (student/postdoc/PI) and abstract by the 19th Feb 2015 to eggs.symp@gmail.com

Full details can be found on the meeting website: http://www.evolutionarygenetics.group.cam.ac.uk/eggs/bjl48@hermes.cam.ac.uk

## DurhamU EvolutionaryBehaviour Mar18-20

The Behaviour Ecology and Evolution Research (BEER) Centre at Durham University is delighted to be hosting the Association for the Study of Animal Behaviour's Postgraduate Workshop and Easter Conference 18-20 March 2015.

The Easter ASAB conferences expressly welcome submissions from students to present their research findings in spoken or poster presentations, with prizes!

The Conference (Thursday 19th - Friday 20th March) will be preceded on Wednesday 18th March by a Postgraduate Workshop, focussing on 'Careers Outside Academia'.

Please join us for our reception on Wednesday 18th March for BEER beer and The Trial of Chimpanzee Jack.

Plenary speakers: Dr Tristram Wyatt, University of Oxford, and Dr Paula Stockley, University of Liverpool.

Email: asab.2015@durham.ac.uk

Twitter: @asabeaster2015

Abstract and early bird registration deadline: 9 Feb 2015

Website: http://asabeaster2015.tk/ See you there!

Dr Joanna (Jo) M Setchell

Director of Research Reader in Evolutionary Anthropology Department of Anthropology Durham University, UK <a href="http://tinyurl.com/jo-setchell">http://tinyurl.com/jo-setchell</a> The Behaviour, Ecology and Evolution Research (BEER) Centre: <a href="http://www.dur.ac.uk/beer-centre">www.dur.ac.uk/beer-centre</a> are hosting ASAB Easter 2015: <a href="http://asabeaster2015.tk/">http://asabeaster2015.tk/</a>

Editor-in-Chief, International Journal of Primatology www.springer.com/10764 "SETCHELL J.M." <joanna.setchell@durham.ac.uk>

## Goettingen Germany GOEvolIV EvolutionaryBiol Feb18

Dear colleagues and friends,

we are happy and proud to announce the fourth GOEvol meeting on February 18th, 2015 at the University of Göttingen, Germany.

GOEvol is a local network of PhD students and postdocs working on various evolutionary questions in Göttingen. The major aim of the network is to provide a platform for exchange.

More information about GOEvol, a preliminary program for the upcoming meeting and the online registration are available on the GOEvol website:

http://goevol.uni-goettingen.de This year's meeting aims at building on the already established U4 network (http://www.u4network.eu/), a strategic partnership between Ghent University (Belgium), the University of Göttingen (Germany), the University of Groningen (Netherlands), and Uppsala University (Sweden). Our upcoming meeting will give an overview of evolutionary research at these four Universities followed by a discussion about shared teaching possibilities.

Please consider to present your data (contributed talk or poster) and specify your decision during the registration process.

Registration and abstract submission deadline is January, 16th 2015. The registration fee of 5 EUR will be paid at the registration desk.

Feel free to contact us if you have any queries or questions.

We are looking forward to welcome many of you at the GOEvol meeting 2015!

The GOEvol Team

Jens Bast

Juliane Germer

Lukas Geyrhofer

Ines Herlitze

Nico Posnien

Natascha Zhang

Digest:

What?

GOEvol IV Meeting

When?

February 18, 2015

Where?

Georg-August-University Göttingen

Ernst-Caspari-Haus (GZMB)

Justus-von-Liebig-Weg 11

37077 Göttingen

Germany

Information and registration:

http://goevol.uni-goettingen.de -

Nico Posnien

Georg-August-University Göttingen

Johann-Friedrich-Blumenbach Institute for Zoology and

Anthropology

Department of Developmental Biology

Ernst-Caspari-Haus (GZMB)

Justus-von-Liebig-Weg 11

37077 Göttingen

Germany

Phone: +49 (0) 55139 20817

E-mail: nposnie@gwdg.de

web: http://www.evolution.uni-goettingen.de/-posnienlab/index.html web: http://www.uni-goettingen.de/en/44993.html Nico Posnien

<nposnie@gwdg.de>

# Jacksonville Florida AmerSocMammalogists Jun12-16

Ninety-fifth meeting of the AMERICAN SOCIETY OF MAMMALOGISTS

12-16 June 2015

Jacksonville, FL, USA

We have an exciting meeting planned for this year! The scientific program will include simultaneous oral platform sessions, evenings highlighting poster presentations, as well as workshops, symposia and plenary speakers. A full social agenda is planned with a banquet, picnic, Run-for-Research, and a student mixer.

#### REGISTER FOR THE CONFERENCE

Registration: Early bird registration is now open for ASM 2015! Register online <a href="https://outreach.ksu.edu/etrakWebApp/login.aspx?ReturnUrl=%2fetrakWebApp%2f">https://outreach.ksu.edu/etrakWebApp/login.aspx?ReturnUrl=%2fetrakWebApp%2f</a>

Registration.aspx%3fMeetingCode%3d211503&MeetingCode!1503>now! Please keep in mind that your login password for conference registration is different than your society password used to login to online materials. If you do not remember your password from previous years, simply select <sup>3</sup>retrieve your forgotten password<sup>2</sup> and it will be sent to your e-mail quickly.

#### RESERVE YOUR HOTEL ROOM FOR ASM 2015

Venue: Reserve your hotel room for the 95th annual meeting in Jacksonville, FL, June 12-16, 2015. A block of rooms has been reserved for meeting participants at the Hyatt Regency Jacksonville Riverfront at a rate of \$129.00 plus applicable fees and taxes. Rates are the same whether there is 1 person in the room or up to 4 people in the room. Room block rates will be offered 3 days prior and 3 days following the dates of the conference.

Make your hotel reservations online < https://aws.passkey.com/g/20069480 > or contact the hotel directly at 904-588-1234. If you phone in your reservation, be sure to mention the group rate for the American Society of Mammalogists to receive the group rate!

Hotel reservations must be made and secured by May 17, 2015. Reservations received after the cut-off date will be accepted on a space-available basis at the group room rate.

Roommate finder: Looking for a roommate during the conference? If you need a roommate for the conference, please fill out the form and follow the directions you receive in the confirmation email once you register for the conference.

Travel and transportation information: Visit the meeting website < <a href="http://conferences.ksu.edu/-mammalogists">http://conferences.ksu.edu/-mammalogists</a> > for information about transportation options, international attendee travel, or to request a letter of invitation to accompany any documents as an international attendee.

For more information, visit the meeting website < http://conferences.ksu.edu/mammalogists > .

Contact: Tony Ballard, K-State Conference Services, Kansas State University

Tel: 785-532-2402

Email: tballard@k-state.edu

Cody Thompson < cwthomp@umich.edu>

### Lausanne ESEB Aug10-14 DeadlineJan10

Dear colleagues,

This e-mail to remind you that the deadline for abstract submission to the next ESEB meeting (August 10-14 2015, Lausanne) is January 10, 2015

You will find all necessary information on our website: www.unil.ch/eseb2015 We look forward welcoming you in Lausanne!

Nicolas Perrin

Nicolas Perrin < Nicolas.Perrin@unil.ch>

# Lausanne ESEB EvolutionaryEpigenetics Aug10-14 Deadline

Dear colleagues,

This is just to remind that abstract submission deadline for the XV ESEB meeting (10-14 august, Lausanne, Switzerland) is approaching. All people working on the ecological and evolutionary impact of epigenetics is very welcome to present their research at the symposium 22) Evolutionary Epigenetics: switching from models to the field". Deadline for abstract submission for talks and posters is January 10th, 2015 < http://www3.unil.ch/-wpmu/eseb2015/symposium-information/ >

We hope you can join us in Lausanne!

Best wishes, Conchita Alonso & Ovidiu Paun

Title: Evolutionary Epigenetics: switching from models to the field Organizer: Dr. Conchita Alonso <conalo@ebd.csic.es> Estación Biológica de Doñana, CSIC, Sevilla, Spain Co-organizer: Dr. Ovidiu Paun <ovidiu.paun@univie.ac.at> Department for Botany and Biodiversity Research, University of Vienna, Austria

Summary During the last two decades it has become increasingly clear that epigenetic mechanisms, that do not affect the nucleotide sequence of the genome but regulate gene expression, can cause new phenotypes (epilalleles). Frequently altered by environmental stimuli epigenetic marks can be transmitted from one generation of organisms to the next throughout the germline. Studies focused on model organisms have showed that cytosine DNA methylation is an important epigenetic mark, whose de novo formation and maintenance involves different enzymes, histone modification and RNAs. New developments are expected in the field of molecular epigenetics that will clarify some controversial issues such as the maintenance for multiple generations in absence of the environmental disruption and the potential genetic basis of epigenetic variation.

However, to unravel the role of epigenetics in adaptation and evolution it is now essential to analyze in a real-world context the magnitude of and environmental effects on epigenetic variance, the correlates with individual fitness, and the inheritance of epigenetic signals (Population Epigenetics), as well as their possible effects on speciation, diversification rate and appearance of evolutionary novelty (Macroevolutionary Epigenetics). This symposium seeks to join evolutionary ecologists, botanists and zoologists, and geneticists working with natural populations to contribute to this end.

INVITED SPEAKERS: Koen Verhoeven, Netherlands Institute of Ecology, Wageningen, The Netherlands. Annalisa Varriale, Laboratory of Molecular Evolution, Stazione Zoologica Anton Dohrn, Naples, Italy.

Dr. Conchita Alonso Phone: +34 954466700 Estación Biológica de Doñana, CSIC Fax: +34 954621125 Avda Américo Vespucio s/n e-mail: conalo@ebd.csic.es E-41092 Sevilla http://www.plant-animal.es SPAIN

Conchita Alonso < conalo@ebd.csic.es>

## Lausanne ESEB LocalAdaptation Aug10-14

Dear colleagues,

It is our pleasure to announce a Symposium on 'Genomics of local adaptation' (see Abstract below) that will take place during the next ESEB meeting, August 10th-14th 2015 in Lausanne, Switzerland (www.unil.ch/eseb2015). The Symposium is organized by Dr. Santiago C. González-Martínez (Madrid,

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Spain) and Prof. Martin Lascoux (Uppsala, Sweden) and the invited speakers are Prof. Outi Savolainen (Oulu, Finland; <a href="https://wiki.oulu.fi/display/PGG/Outi+Savolainen">https://wiki.oulu.fi/display/PGG/Outi+Savolainen</a>) and Prof. Thomas Mitchell-Olds (Durham, USA; <a href="http://sites.biology.duke.edu/mitchell-olds/">http://sites.biology.duke.edu/mitchell-olds/</a>). We hope to see you in Lausanne!

Deadline for Abstract submission is January 10th, 2015 Genomics of Local Adaptation

The study of how organisms adapt to different environments is one of the major challenges in evolutionary biology. Recent genome and transcriptome sequencing has allowed fast progress in our understanding of the genomic signatures of local adaptation, including the genetic architecture of fitness traits, and the identification of ecologically-relevant gene variation. Genome-wide molecular studies have addressed classical questions on local adaptation, such as the role of new mutation vs. standing variation or the geographical distribution of adaptive polymorphisms. They are also starting to produce the empirical information needed to assess the potential for evolutionary responses of keystone plants and animals in the face of impending climate change, a major societal concern, and to push forward the field from mostly descriptive studies towards the construction of prediction models. Recently, genome-wide studies have also produced detailed knowledge on covariance of allelic effects and adaptive gene networks. Nevertheless, ecological genomic studies of local adaptation also bring about new challenges related to sampling issues, the production of reliable genomic data in many individuals, the analysis of large and particularly complex datasets, and the understanding of the limitations associated with these analyses. This Symposium will welcome original research in model and non-model species as well as the presentation of novel methodological approaches.

Invited speakers: Outi Savolainen (University of Oulu, Finland) and Thomas Mitchell-Olds (Duke University, USA)

Santiago C. González-Martínez

INIA, Forest Research Centre Carretera de La Coruña km 7.5, 28040 Madrid, Spain Ph+34913471499 Fax+34913476767

e-mail: santiago.c.gonzalez.martinez.at.gmail.com web: sites.google.com/site/santiagocgonzalezmartinez (\*\*\*last update, 24/06/2014\*\*\*)

santiago.c.gonzalez.martinez@gmail.com

## Lausanne ESEB LociAdaptation Aug10-14 Deadline

Reminder about abstract submission deadline: 10 January 2015.

ESEB SYMPOSIUM ON GENES AND ALLELES UNDERLYING ADAPTATION

Dear Colleagues:

The abstract submission deadline (10 January 2015) for ESEB in Lausanne is approaching fast.

We would like to invite you to contribute to the ESEB symposium

'HOW TO IDENTIFY AND TEST THE LOCI AND ALLELES UNDERLYING ADAPTATION?'

which will take place at the 15th Congress of the European Society for Evolutionary Biology (ESEB), in Lausanne, Switzerland, 10 - 14 August 2015 (http://www3.unil.ch/wpmu/eseb2015/)

INVITED SPEAKERS: - Felicity Jones (Friedrich Miescher Laboratory, Max Planck Institute, Tübingen, Germany) - Alistair McGregor (Oxford Brookes University, Oxford, UK)

ORGANIZERS: - Paul Schmidt (University of Pennsylvania) - Thomas Flatt (University of Lausanne)

SYMPOSIUM DESCRIPTION: To understand the mechanisms underlying adaptation, causal molecular variants, genes and pathways must be identified, characterized and ultimately experimentally verified. To this end, various methods for outlier detection, QTL mapping, and association studies have provided a wealth of 'candidates' for phenotypes of interest, the response to artificial and natural selection, and adaptive differentiation within and among taxa. Recent advances in whole-genome sequencing allow an unprecedented, comprehensive evaluation of genotype-phenotype associations. However, one major issue with whole-genome screens is whether any given 'candidate' actually represents a true positive: population structure and demography, the number of independent chromosomes, statistical power, and other complications are known to generate false positives. Thus, one of the emerging challenges in evolutionary genomics is to unambiguously identify and empirically validate candidates identified in omics-level screens. The goal of our symposium is to

discuss and showcase how to best identify and validate candidate variants, genes, and pathways. Specifically, the symposium aims to (1) evaluate methods by which candidates are identified and investigated; (2) generate discussion regarding the significance of functional validation of identified candidates in quantitative, ecological and evolutionary genetics; and (3) present some of the best current research related to functional identification and validation.

WEBSITE (see symposium no. 18): http://www3.unil.ch/wpmu/eseb2015/symposium\_list/ The site for registration for the ESEB meeting and for abstract submission for this symposium is now open at: http://www3.unil.ch/wpmu/eseb2015/ DEADLINE for abstract submission for contributed talks and posters: 10 January 2015.

We are interested in receiving abstract submissions reporting studies that seek to identify AND validate ecologically and evolutionarily relevant phenotypic effects of candidate genes and alleles in the wild or the laboratory.

Abstracts will be evaluated by the symposium organizers and will be selected for either oral or poster presentation by early March. When submitting your abstract please state your preference (talk, poster) during the submission process. Submitted talks will be 17 min each, including discussion, plus 3 min to change rooms. The overall time window allotted to each symposium will be decided by the congress committee, depending on the number and quality of submissions.

We are looking forward to seeing you in beautiful Lausanne!

Paul & Thomas.

Paul S. Schmidt Department of Biology University of Pennsylvania Philadelphia PA 19104-6018 USA schmidtp@sas.upenn.edu

Thomas Flatt Department of Ecology and Evolution University of Lausanne UNIL Sorge, Biophore CH-1015 Lausanne Switzerland Thomas.Flatt@unil.ch Thomas.Flatt@unil.ch

> Lausanne ESEB **NextGenerationPhylodynamics** Aug10-14

low). We're looking forward to receive exciting abstracts (deadline Jan 10, 2015, http://www3.unil.ch/wpmu/eseb2015/abstract-submission/) from which we can put together a great symposium program. Please forward to anybody interested! Best wishes,

generation phylodynamics" at the ESEB 2015 conference

(August 10-14) in Lausanne, Switzerland (details be-

Alexei Drummond & Tanja Stadler

Next-generation phylodynamics Tanja Stadler http:/-/www.bsse.ethz.ch/cevo Alexei Drummond http://compevol.auckland.ac.nz/dr-alexei-drummond/ term phylodynamics was coined in the early 2000's to highlight host-pathogen systems in which evolutionary, epidemiological and immunological processes interact because they proceed on the same time scale. Such interaction is in particular observable for fast-evolving pathogens including RNA viruses and bacteria. When this is the case genomic sequence data sampled from pathogen populations contains a fingerprint of the processes that acted in the past 'namely the evolutionary, epidemiological and immunological dynamics. Recent advances in next-generation sequencing technology provide the required data for phylodynamic analysis using pathogen and host data. The development of phylodynamic inference methods relies on models that reconcile evolutionary, epidemiological and immunological dynamics. This then allows the quantification of fundamental parameters using genomic sequence data. This symposium aims to bring together scientists working on both theoretical and experimental aspects of phylodynamics. We envision a mix of people working on computational method development, experimental host-pathogen systems and empirical field studies to exchange the latest developments in the field of phylodynamics. Such a symposium will foster the identification of key future challenges to improve our understanding of the spread of pathogens in host populations.

Invited speakers: Oliver Pybus http://www.zoo.ox.ac.uk/people/view/pybus\_og.htm Katja Koelle http://sites.duke.edu/koelle/ Tanja Stadler ETH Zürich Department of Biosystems Science & Engineering Mattenstrasse 26 4058 Basel Switzerland

Email: tanja.stadler@bsse.ethz.ch Phone: +41 61 38 73410 Office: 7.54

http://www.bsse.ethz.ch/cevo Stadler Tanja <tanja.stadler@bsse.ethz.ch>

Dear colleagues.

we're happy to announce the symposium "Next-

## Lausanne ESEB SelfishElements Aug10-14

Dear colleagues,

We would like to invite you to the symposium "Evolutionary consequences of selfish genetic elements" at the upcoming ESEB 2015 conference at Lausanne, Switzerland, in August 2015. Abstract submission is open till the 10th of January, and can be found at <a href="http://www3.unil.ch/wpmu/eseb2015/">http://www3.unil.ch/wpmu/eseb2015/</a>. This symposium will focus on the evolutionary consequences of selfish genetic elements for their host species, bringing together researchers working on a wide variety of selfish genetic elements and examining their consequences on species, populations, individual phenotypes, and genomes. We aim to host talks and posters on a broad range of selfish elements, from endosymbionts to meiotic drive, B chromosomes, transposons and genome elimination.

Our two invited speakers are:

Gerry Wilkinson, University of Maryland <a href="http://www.life.umd.edu/faculty/wilkinson/">http://www.life.umd.edu/faculty/wilkinson/</a> Laura Ross, University of Edinburgh <a href="http://lauraross.bio.ed.ac.uk/">http://lauraross.bio.ed.ac.uk/</a> If you have any queries, please contact us:

Tom Price, University of Liverpool <a href="http://drthomasprice.wordpress.com/">http://drthomasprice.wordpress.com/</a> t.price@liverpool.ac.uk

Anna Lindholm, University of Zurich <a href="http://www.ieu.uzh.ch/staff/leaders/alindholm.html">http://www.ieu.uzh.ch/staff/leaders/alindholm.html</a> anna.lindholm@ieu.uzh.ch

T.Price@liverpool.ac.uk

# Lisbon Protolang

Call for papers

PROTOLANG 4 Ways to (proto) language conference series  $\,$ 

DATE AND LOCATION: 24-26 SEPTEMBER 2015, Rome Tre University SUBMISSION DEADLINE: 1 FEBRUARY 2015 WEBSITE: http://protolang.org/ CONTACT: protolanguage.2015@uniroma3.it

INVITED SPEAKERS: Michael C. Corballis (Univer-

sity of Auckland) Dan Dediu (Max Plank Institute for Psycholinguistics) Francesco DErrico (University of Bordeaux) Daniel Dor (Tel Aviv University) Ian Tattersall (American Museum of Natural History) Elisabetta Visalberghi (Institute of Cognitive Sciences and Technologies - CNR Rome)

#### INVITED SESSIONS:

HOLISTIC APPROACH ONTO MINDS IN OUR CLOSEST RELATIVES: WHAT DO THEY TELL ABOUT EVOLUTIONARY ORIGINS OF HUMAN COGNITION?

Organized by Professor Tetsuro Matsuzawa (Primate Research Institute of Kyoto University & President of The International Primatological Society)

LANGUAGE ORIGIN SOCIETY (LOS) SPECIAL SESSION Organized by Professor Bernard Bichakjian (Radboud University Nijmegen)

ONTOGENY AND LANGUAGE EVOLUTION Organizers: Andy Lock (Massey University, New Zealand) and Chris Sinha (Hunan University, China)

#### CALL FOR ABSTRACTS: We call for:

talks posters symposia

The list of conference areas includes: \* animal cognition \* animal communication \* anthropology (linguistic, social, cultural) \* cognitive science \* cognitive semiotics \* computational modelling \* general evolutionary theory \* genetics of language \* gesture studies \* linguistics \* neuroscience of language \* paleoanthropology \* philosophy of biology \* philosophy of language \* Pleistocene archaeology \* primatology \* psychology (evolutionary, comparative, developmental) \* speech physiology

#### SUBMISSION

Talks and posters:

Please submit an abstract of 400 words prepared for anonymous review to the EasyChair website: <a href="https://easychair.org/conferences/?conf=protolang4">https://easychair.org/conferences/?conf=protolang4</a> Submissions should be suitable for 30 minutes presentation (20 min for presentation and 10 min for discussion).

#### Symposia:

Please submit a proposal including: (a) Title of the symposium, (b) name and affiliation of the organizers, (c) a general description of the symposium (400 words), (d) abstract of each contributed talk (100-150 words)

Submissions should be suitable for a two-hour session and include 3 to 5 presentations. The organizers are responsible for submitting the full symposium program to the EasyChair website: <a href="https://easychair.org/conferences/?conf=protolang4">https://easychair.org/conferences/?conf=protolang4</a>. The organizers will also

act as chairs of their session.

Note: abstracts of talks, posters and symposia must be submitted in .doc (or .docx) or .txt, no PDF format will be accepted.

IMPORTANT DATES Submission deadline: 1 February 2015 Notifications of acceptance: 20 March 2015 Early registration deadline: 30 June 2015 Conference: 24-26 September 2015

ABOUT PROTOLANG The Protolang conference series creates an interdisciplinary platform for scholarly discussion on the origins of symbolic communication distinctive of human beings. The thematic focus of Protolang is on delineating the genetic, anatomical, neuro-cognitive, socio-cultural, semiotic, symbolic and ecological requirements for evolving (proto)language. Sign use, tools, cooperative breeding, pointing, vocalisation, intersubjectivity, bodily mimesis, planning and navigation are among many examples of such possible factors through which homining have gained a degree of specificity that is not found in other forms of animal communication and cognition. We aim at identifying the proximate and ultimate causes as well as the mechanisms by which these requirements evolved; evaluating the methodologies, research tools and simulation techniques; and enabling extended and vigorous exchange of ideas across disciplinary borders. We invite scholars from A(rcheology) to Z(oology), and all disciplines in between, to contribute data, experimental and theoretical research, and look forward to welcoming you at one of our conferences!

PERMANENT ORGANISING COMMITTEE Francesco Ferretti Nathalie Gontier Luke McCrohon Sylwester Orzechowski Natalie Uomini Slawomir Wacewicz Jordan Zlatev Przemyslaw Zywiczynski

LOCAL ORGANISING COMMITTEE Francesco Ferretti (Roma Tre University) - Chair Ines Adornetti (Roma Tre University - University of L'Aquila) Alessandra Chiera (University of Messina - Roma Tre University) Erica Cosentino (University of Calabria) Mauro Dorato (Roma Tre University) Serena Nicchiarelli (Roma Tre University)

appeelannouncements <appeelannouncements@fc.ul.pt>

Madison Wisconsin QuantGenetics Jun12-17 2016

Dear Colleagues:

This is to announce that the 5th International Conference on Quantitative Genetics (ICQG) will take place in Madison, Wisconsin, USA on June 12-17, 2016.

As with previous ICQG meetings (last one in Edinburgh in 2012 - http://www.icqg4.org.uk), we plan for ICQG 2016 to be a great meeting as well and your participation is a very important part of that success. Therefore, please mark your calendars!

We<sup>1</sup>ll be sending updated information regarding the organization of the meeting as it becomes available. A website will be available and we<sup>1</sup>ll share the URL soon.

Best regards,

ICQG Organizing Committee (Guilherme Rosa and Natalia de Leon ' local co-chairs)

Guilherme J. M. Rosa University of Wisconsin - Madison 436 Animal Science Building 1675 Observatory Dr. Madison, WI 53706 USA Phone: + 1 (608) 265-8617 Fax: + 1 (608) 263-9412 E-mail: grosa@wisc.edu Webpage: http://www.ansci.wisc.edu/Facultypages/rosa.html "Guilherme J. M. Rosa" <grosa@wisc.edu>

## Manhattan Kansas ArthropodGenomics Jun17-19

Please save the dates and plan to attend! Registration will open in January!

\*\_\*\_\*\_\* Ninth Annual Arthropod Genomics Symposium\*\_\*\_\*\_\* June 17, 2015 to June 19, 2015

Manhattan, Kansas, U.S.A.

Keynote Speaker: David A. OBrochta, Institute for Bioscience and Biotechnology Research & Department of Entomology, University of Maryland College Park

Featured Speakers (confirmed): +Michelle Cilia, USDA-ARS, Boyce Thompson Institute for Plant Research, Cornell University, USA +Martin J. Donnelly, Liverpool School of Tropical Medicine and the Wellcome Trust Sanger Institute, UK +Rosemary G. Gillespie, University of California, Berkeley, USA +Sijun Liu, Iowa State University, USA +Frank Lyko, German Cancer Research Center, Heidelberg, Germany +Duane McKenna, University of Memphis, USA +Armin P. Moczek, Indiana University, USA +Amanda J. Moehring, Western University, Ontario, Canada +Daniel E. Neafsey, Broad Institute of MIT and Harvard University, USA +Greg

Ragland, Kansas State University, USA +Anne-Nathalie Volkoff, INRA (UMR1333), Montpellier 1 University, France +Additional speakers will be announced soon!

The symposium focuses on new insights gleaned from analyzing arthropod genomes and is designed for scientists interested in genomic studies of Arthropods, both model organisms and those of agricultural or health relevance. The program will include platform presentations, a welcome reception, a gene annotation workshop and arthropod genomics-related poster sessions. A few poster abstract submissions will be selected for platform presentations. Postdoctoral, graduate, and undergraduate students are also encouraged to attend. Sessions conclude Friday evening, followed by an optional evening meal.

\*-\*-\*-\*-\* Pre-Symposium Workshop \*-\*-\*-\*-\*- INSECT GENETIC TECHNOLOGY RESEARCH COORDINATION NETWORK June 17, 2015 (Wednesday morning and afternoon) Robust protocols to manipulate genes and genomes have not yet been developed for most insects other than Drosophila melanogaster, and this shortfall is limiting research progress in many aspects of arthropod genomics. The NSF-RCN on Insect Genetic Technologies (IGTRCN: 2014-2019; igtrcn.org) seeks to remedy this problem by facilitating the communication of best practice and new techniques among arthropod genomicists.

This IGTRCN-sponsored workshop will comprise (1) talks that showcase the latest genetic technologies, and (2) discussion sessions for exchange of ideas and solutions for effective insect genetic engineering. Proposals from the workshop will be integrated into the IGTRCN program of hands-on practical workshops, fellowships, and the IGTRCN KnowledgeBase. Early-career researchers are particularly encouraged to present their research at this workshop.

POSTER ABSTRACT DEADLINES IN 2015: Friday, February 27 V If you DO wish your poster abstract to be considered for a General Session talk. Wednesday, May 20 - If you do NOT wish for your poster abstract to be considered for oral presentation during the General Session.

TENTATIVE PROGRAM for SYMPOSIUM & WORK-SHOP Wednesday, June 17 V Workshop: Insect Genetic Technology Research Coordination Network (IGT-RCN)

Wednesday evening, June 17, 7:30 pm - Arthropod Genomics Symposium begins with keynote presentation and welcome reception

Thursday, June 18 V Symposium Platform and Poster Sessions

Thursday evening, June 18, 7:00 to 9:00 pm - Gene Annotation Workshop

Friday, June 19 V Symposium Platform and Poster Sessions, tentatively concluding at 5:00 pm

Friday evening, June 19 V Optional dinner at Konza Prairie Biological Station with nature hikes, bison viewing, and opportunity to collect insects.

VENUE: The 2015 Symposium is being hosted by the Arthropod Genomics Center at Kansas State University in Manhattan, Kansas. Symposium sessions will be held at the K-State Alumni Center on campus.

HOTEL/DORM ROOMS: A block of rooms has been reserved at the Holiday Inn Manhattan at the Campus. Reservation deadline is May 20. Campus dormitory rooms will also be available.

REGISTRATION: Registration will open in January!

QUESTIONS: Contact Doris Merrill at dmerrill@ksu.edu.

If you would like to join the ArthropodNews listing to ensure receiving future notices, please send an e-mail with your name and e-mail address to dmerrill@ksu.edu.

PLEASE SHARE THIS ANNOUNCEMENT WITH COLLEAGUES AND STUDENTS!

SPONSORS: \*Arthropod Genomics Center, Kansas State University \*Eck Institute for Global Health, University of Notre Dame \*Institute for Genomic Biology, University of Illinois at Urbana-Champaign

2015 SYMPOSIUM ORGANIZING COMMITTEE: At Kansas State University: Susan J. Brown, Chair, Professor in the Division of Biology and Director, Arthropod Genomics Center Kristin Michel, Division of Biology Subbaratnam Muthukrishnan, Department of Biochemistry Yoonseong Park, Department of Entomology Gregory Ragland, Department of Entomology Anna Whitfield, Department of Plant Pathology



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## Montpellier EvolutionCancer Mar19

\*Evolution and Cancer Conference - Montpellier, March 19th 2015\*

Please join us at a one day conference on "Evolution and Cancer" at the Université de Montpellier 2. The conference is sponsored by the CNRS research consortium DarEvCan (http://www.darevcan.univ-montp2.fr/).

The objective of the conference is to foster discussion on evolutionary perspectives to understanding cancer emergence, progression and therapies. The conference will include speakers from the Centre for Evolution and Cancer (http://www.icr.ac.uk/news-features/latest-features/the-centre-for-evolution-and-cancer). The final programme and conference address will be posted in February.

\*If you wish to attend, then please register by email (please put "Registration DarEvCan" in the subject header) to mhochber@univ-montp2.fr - Registration will be open until February 15th.\* Scientific committee: Pr Eric Solary (Institut Gustave Roussy), Pr. Ula Hibner (Institut de Génétique Moléculaire de Montpellier) and Pr. Michael Hochberg (Institut de Sciences de l'Evolution) < https://www.researchgate.net/profile/-Michael\_Hochberg > < http://mike.hochberg.free.fr/>

Michael Hochberg <mhochber@univ-montp2.fr>

## Montpellier SMBE NGS Adaptation May26-29 DeadlineDec17

Dear Colleagues,

We would like to invite you to join us for the SMBE Satellite Meeting \*Investigating biological adaptation with NGS: data and models\*, which will be held from May 26-29, 2015 at 'Hameau de l'étoile', a conference center outside of Montpellier in the South of France. The registration deadline is December 17.

Selection will be based on abstracts. If you wish to participate in the conference, please send an email to smbeba2015@imag.fr with the subject line: 'SMBEBA 2015 pre-registration.' Please do not send attached files but rather an email containing the title of you presentation, the names of the authors, the preferred mode of communication (talk or poster), and the abstract.

10 PhD or postdoc presenters will be provided with free registration. To qualify for this, please include a short motivation statement in your email.

The conference website is here (http://smbeba2015.imag.fr); aims of the meeting and speakers are shown below.

We hope to see you there!

Michael Blum, Angela Hancock, Renaud Vitalis

Aim of the meetingNext Generation Sequencing (NGS) has been a driving force in the field of evolutionary biology, providing opportunities to reveal the genetic architecture of adaptive traits in a wide range of organisms. This exciting advance in technology has produced considerable impetus to develop methods and tools for data analysis and to extend theoretical foundations for modelling adaptive events. To produce a detailed understanding of adaptive processes, well-designed studies and sample collection, evolutionary models of adaptation, and statistical models to detect the genomic signatures of biological adaptation are all necessary. This workshop brings together evolutionary biologists along the empirical to theoretical continuum to exchange ideas and perspectives in a relaxed atmosphere. Keynote speakers

- \*Adaptation in humans\* Lluis Quintana-Murci < http://www.pasteur.fr/ip/easysite/pasteur/-en/research/labex/integrative-biology-of-emerging-infectious-diseases-ibeid-/principal-investigators/-quintana-murci > (Paris, France) John Novembre < http://genes.uchicago.edu/contents/faculty/john-novembre.html > (Chicago, USA)
- \*Adaptation in plants\* Jeffrey Ross-Ibarra < http://www.rilab.org/ > (UC Davies, USA) Tanja Slotte < http://tanjaslottelab.wordpress.com/ > (Stockholm, Sweden)
- \*Footprints of selection in molecular adaptation\*
  Nicolas Bierne < http://www.isem.univ-montp2.fr/recherche/equipes/genomique-integrative/personnel2/bierne-nicolas/ > (Montpellier, France) Joachim
  Hermisson < http://www.mabs.at/hermisson/ >
  (Vienna, Austria) Pleuni Pennings < http://pleunipennings.wordpress.com/ > (San Fransisco,
  USA)
- \*Genome divergence during ecological speciation\* Samuel Flaxman < http://www.colorado.edu/eeb/-

facultysites/flaxman/Home.html > (Boulder, USA)
Patrik Nosil < http://nosil-lab.group.shef.ac.uk/> (Cambridge, UK) Felicity Jones < http://www.fml.tuebingen.mpg.de/jones-group.html > (Tuebingen, Germany)

\*Statistical approaches to detect biological adaptation\*
Olivier François < http://membres-timc.imag.fr/Olivier.François/ > (Grenoble, France) Oscar Gaggiotti
< https://risweb.st-andrews.ac.uk/portal/en/persons/oscar-eduardo-gaggiotti%2843985656-390b-478e-b9a705fe88181e46%29.html > (St Andrews, Scotland)

#### Organizers

\*Chair:\* Michael Blum < http://membres-timc.imag.fr/-Michael.Blum/ > (Grenoble, France)

\*Organizing committee:\* Angela Hancock < http://www.mfpl.ac.at/vips/careers/vips-postdocs/-hancock-angela/ > (Vienna, Austria) Renaud Vitalis < http://smbeba2015.imag.fr/%20http://www1.montpellier.inra.fr/cbgp/?q=en/users/vitalis-renaud >

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## Paris MathModels Jul8-10 CallProposals

Dear friends and colleagues,

We remind you that \*Dec 12th\* is the deadline for proposals of symposia (details below) at the conference

\*Mathematical Models in Ecology and Evolution \*\*Paris (France)\*\* \*\*July 8-10\* 2015 http://www.biologie.ens.fr/mmee2015/ \*Michael Doebeli\* University of British Columbia, Canada \*Maria Servedio\* University of North Carolina, USA \*Eva Kisdi\* University of Helsinki, Finland \*Arne Traulsen\* Max Planck Institute, Plön, Germany \*Régis Ferrière\* Ecole Normale Supérieure Paris, France \*Joshua Plotkin\* University of Pennsylvania, USA.

The conference MMEE 2015 will host 6 thematic minisymposia with 6 speakers each: 2 invited speakers (approx. 25' talk) and 4 contributed speakers (approx. 15' talk).

If you consider participating in the conference we invite you also to propose a mini-symposium devoted to a particular subject. We ask you to provide a title of your symposium, along with a short introduction to the subject and a list of (2+2 spare) invited speakers. You can propose 1 or 2 (related) mini-symposia by email to info-mmee2015@list01.biologie.ens.fr Deadline Dec 12, 2014. Decision mid-January 2015.

Note: mini-symposia close to the following themes are especially appreciated: adaptive dynamics, epigenetics and information transfer, evolution of cooperation, modelling of speciation, individual-based models of phylogenies, microbial ecology, and adaptation in a changing environment.

Once the list of 6 mini-symposia is established, a call for contributions of 3 kinds will be sent: oral contributions within a mini-symposium (6\*4 = 24 slots), free oral contributions, posters (deadline April 2015).

Please feel free to share this call with interested colleagues and relevant emailing lists.

The organisers,

Amaury Lambert (UPMC, Collège de France) Guillaume Achaz (UPMC, Collège de France) Minus van Baalen (CNRS, ENS) Silvia De Monte (CNRS, ENS) Todd Parsons (UPMC, CNRS, Collège de France) Emmanuel Schertzer (UPMC, Collège de France)

PS. You may receive this e-mail because you subscribed to the newsletter of an earlier MMEE conference. If you do not wish to receive further announcements from MMEE2015, please send an e-mail to sympa@list01.biologie.ens.fr with "unsubscribe mmee2015 <your e-mail address>" in the subject line.

PS2. If you are not yet part of the MMEE list, you can check at <a href="http://www.biologie.ens.fr/mmee2015/-information.html">http://www.biologie.ens.fr/mmee2015/-information.html</a> how to receive regular information about the conference (no more than approx. 5 emails per year). You can also follow us on twitter using @MMEE2015Paris.

Amaury Lambert, professeur UPMC <a href="http://www.proba.jussieu.fr/pageperso/amaury">http://www.proba.jussieu.fr/pageperso/amaury</a> SMILE group <a href="http://www.proba.jussieu.fr/">http://www.proba.jussieu.fr/</a> SMILE group <a href="http://www.proba.jussieu.fr/">http://www.proba.jussieu.fr/</a> psb Amaury Lambert <a maury.lambert@upmc.fr>

#### StirlingU StudentsEvolBiol Sep

The 21st European Meeting for PhD Students in Evolutionary Biology will be held at Stirling University, Scotland, in September 2015. Registration will be opening early next year - please see our website <a href="http://empseb21.bio.ed.ac.uk">http://empseb21.bio.ed.ac.uk</a> for ongoing details or email president.empseb21@gmail.com if you have any queries or questions. EMPSEB is a fantastic resource for PhD students, providing opportunities for collaboration and networking with eminent and up-and-coming scientists in the field.

Thank you for the help, Kimberley Prior (EMPSEB President)

## StonyBrook NY Stickleback Jul26-31

The Eighth International Conference on Stickleback Behavior and Evolution will be held from Sunday, July 26 through Friday, July 31, 2015 at Stony Brook University in Stony Brook, New York, USA. Contributed papers and posters will be scheduled, and the invited speakers are John A. Baker (Clark University), Theo C. M. Bakker (University of Bonn), William A. Cresko (University of Oregon), David M. Kingsley (Stanford University), Nadia Aubin-Horth (University of Laval), Juha Merilä (University of Helsinki), and Katie Peichel (Fred Hutchinson Cancer Research Center). Please visit the Conference website at <a href="http://life.bio.sunysb.edu/ee/stickleback/index.html">http://life.bio.sunysb.edu/ee/stickleback/index.html</a> for further information. The website will begin to accept registration payments and reservations for housing on about February 1.

VENUE, ACTIVITIES, AND COSTS: Talks will be given in the Charles B. Wang Center theater, and the posters will be displayed throughout the Conference in the theater lobby. Early registration through April 22, 2015 will be US\$285, and late registration until July 1, 2015 will be US\$315. Registration includes attendance of all talks, breakfasts (5), morning (5) and afternoon (3) coffee breaks, and food at the welcoming reception,

poster session, and closing banquet, plus beverages at some social events.

HOUSING: The daily charge for dormitory housing (3 bedrooms per suite with shared bathroom and lounge) will be US\$73.50 for a private room and US \$60.00 per person for a room for two. Dormitory housing will be in the new Noble Dormitories about 15 minutes' walk from the Wang Center. Hotel rooms adjacent to the Wang Center will cost US \$140 plus tax per day. Information on off-campus hotels is provided on the Conference website. The Wang Center and Nobel Dormitories are about 15 minutes' walk from the rail road station. Lunches and most dinners will not be included in the registration fees, but meals will be available on or near campus. Dormitory housing will be available for at least two days before and after the Conference to allow participants to visit New York City or destinations on Long Island.

TRANSPORTATION: Stony Brook can be reached easily by air, automobile, or train. International flights come into John F. Kennedy (JFK) and Newark Liberty (EWR) international airports, which connect to Stony Brook by train. LaGuardia (LGA) and Long Island MacArthur (ISP) airports have only domestic flights and lack train service to Stony Brook. The Stony Brook station of the Long Island Railroad is on the edge of campus. The Conference website provides more details on transportation.

GRADUATE STUDENT SUPPORT: Thanks to the efforts of Katie Peichel and Matt Wund, we have received a generous award from the American Genetic Association to support Conference registration and housing for about 20 graduate students. The deadline for submission of applications for support is March 2, 2015. Guidelines for application for support are posted on the Conference website.

CONTACT: Please contact Mike Bell (mabell"at"life.bio.sunysb.edu) if you have colleagues who should be added to the Conference email list, if you would prefer not to receive future notices, or if you have any questions about the Conference.

- Mike Bell

Michael A. Bell, Professor Department of Ecology and Evolution Stony Brook University Stony Brook, NY 11794-5245, USA Office Phone: 1-631-632-8574 http://life.bio.sunysb.edu/ee/belllab/ "Michael A. Bell" <mabell@life.bio.sunysb.edu>

## UGrenoble SystemsBiology Apr13-15

Dear colleague,

Grenoble, at the heart of the French Alpes, will host an outstanding international scientific event in the field of systems biology: The conference /\*Perspectives in Environmental and Systems Biology \*/will bring together more than 150 scientists from all over the world, including biologists, physicians, health professionals, environmental scientists, and specialists in mathematical and computational modeling. The conference is organized by the Grenoble Federal Research Structure /Environmental and Systems Biology/ on the campus of the University Grenoble Alpes on \*April 13-15, 2015\*.

/\*Perspectives in Environmental and Systems Biology\*/ will emphasize the inter- and cross-disciplinary character of systems biology, and integrate contributions of various classical disciplines ranging from molecular and cellular biology to medicine and ecology, informatics and applied mathematics. It will discuss topics such as multi-scale approaches, the analysis of networks, computational modelling, systems biology in medicine, and synthetic biology. More than 25 distinguished scientists have already accepted to present their view of systems biology.

Retrieve the conference the program on dedicated website: www.beesy2015.com http://tk3.sbt02.com/sy/ev?3&5140-95&0&Y%2BUuHDKU8zt1AEVt%2B%2FJnOgdownload it directly < http://tk3.sbt02.com/sy/ev?3&5140-95&1&Y%2BUuHDKU8zt1AEVt%2B%2FJnOg

We cordially invite you to join this major event in Grenoble

The scientific committee Uwe Schlattner, President

\*Registration\*

For your registration, click here < http://tk3.sbt02.com/sy/ev?3&5140-95&2&Y%2BUuHDKU8zt1AEVt%2B%2FJnOg >

Preferential rate before December 31st, 2014: \*Student:\* 140 EUR - \*Regular:\* 280 EUR

/The price includes coffee breaks and lunches on April 13, 14 and 15. Participation at the Welcome Dinner requires separate registration./

\*Abstract Submission\*

All abstracts must be submitted electronically by February 28th, 2015

\*Travel award\*

The scientific committee will bestow travel awards for students and postdoctoral fellows for attending the conference as presenting author. Each travel award may be used for waiving registration fee and travel costs and will not exceed 500 EUR. Application can be made when submitting abstract. Advisors are expected to recommend their trainee by detailing his/her excellent achievements in a separate email to the scientific committee (kcucheval@knoe.fr < http://tk3.sbt02.com/sy/ev?3&5140-95&10&Y%2BUuHDKU8zt1AEVt%2B%2FJnOg

>)

Irene Till-Bottraud

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http://www2.ujf-grenoble.fr/leca/ Irène Till-Bottraud <Irene.Till@ujf-grenoble.fr>

## UGuelph BarcodeOfLife Aug18-21

Dear colleagues,

It is our pleasure to announce that the 6th International Barcode of Life Conference will be held at the University of Guelph, Canada, from August 18-21, 2015.

This biannual conference series showcases the latest scientific achievements and socio-economic implications of work conducted by the DNA barcode research community. The theme of the 6th Conference, Barcodes to Biomes, signals the ongoing expansion of our community's research agenda from studies on particular sets

of species in particular places to investigations of entire biotic assembles at local and global scales.

The conference features internationally renowned plenary speakers on topics ranging from evolution to ecology to conservation. The meeting also features diverse parallel sessions, a poster session, and social events that are included in registration. Eligible delegates may apply for a Travel Award as well as Student and Postdoctoral Prizes

The conference website can be accessed at:

http://dnabarcodes2015.org/ We hope to welcome you to Guelph in August!

Yours sincerely, Sarah Adamowicz, on behalf of the Conference Operating Committee

Sarah J. Adamowicz, Ph.D. Assistant Professor Biodiversity Institute of Ontario & Department of Integrative Biology University of Guelph 579 Gordon Street Guelph, Ontario N1G 2W1 Canada

Email: sadamowi@uoguelph.ca Phone: +1 519 824-4120 ext. 53055 Fax: +1 519 824-5703 http://www.dnabarcoding.ca/ http://www.barcodinglife.org/ http://www.uoguelph.ca/ib/people/faculty/-adamowicz.shtml sadamowi@uoguelph.ca

#### ULisbon ReticulateEvolution Jul12-18

CFA: Thematic Session on Reticulate Evolution Before and After the Modern Synthesis: Historical and Epistemological Perspectives and Wider Applications Beyond Traditional Fields Organized by Nathalie Gontier & Jan Sapp

University of Lisbon, 12 - 18th of July, 2015 Website <a href="http://iss-symbiosis.org/Symposia">http://iss-symbiosis.org/Symposia</a> Contact nlgontier@fc.ul.pt

INVITED SPEAKERS Eric Bapteste, Vitor G. Faria, Ricardo Guerrero, Frank Kressing, Caetano Souto-Maior, Élio Sucena, and Laura Weyrich

CALL FOR ABSTRACTS We welcome Senior and Junior Researchers to submit poster or regular talks (20 minutes) on themes and topics including:

1 History and/or philosophy of symbiosis, symbiogenesis, lateral gene transfer, virology Origin of key discoveries (including bacteria and bacterial communities, mitochondria, chloroplasts, plasmids, biofilms), key terminol-

ogy (holobionts, symbionts, symbiomes, superorganism, parasitism, mutualism, commensalism, hybridization). Or exemplification with case studies on the context of discovery of the dual nature of lichens, bacterial transformation, transduction, conjugation, jumping genes, bacteriophages, RNA and DNA viruses,...

2 Biographical sketches of pioneering scholars and the origin of pioneering research groups Origins of the International Symbiosis Society, the foundation of the Rockefeller Institute for Medical Sciences, Cold Spring Harbor Symposia Series, the Koch's Institute, Pasteur Institute, Russian Institutes, the Phage Group, Microbiology societies ...

3 Reticulate Evolution in light of the Modern and Extended Synthesis How does reticulate evolution facilitate adaptation, fitness, reproduction, speciation; How does reticulate evolution define new units and levels of evolution; Can reticulate evolution be included into a revised Neo- Darwinian Synthesis or does it imply a rupture with the standard evolutionary paradigm; How do lateral gene transfer, symbiosis, symbiogenesis and hybridization together with natural selection bring forth evolution, ...

4 Taxonomy and the origin of life How does reticulate evolution impact species taxomomy, and redraw the tree of life. (16S rRNA gene sequences, molecular phylogenetics, trees and networks, ...)

5 How does reticulate evolution impact the humanities, sociocultural and linguistic sciences (both historically and currently)? Jargon associated with reticulate evolution is increasingly used to designate micro- communities, language borrowing, culture contact. What is the role of metaphors, how do tools and modeling techniques cross-hybridize distinct disciplines, what is the relevance of reticulate evolution for understanding humans and hominid evolution?

6 How does reticulate evolution relate to the biomedical sciences (medicine, immunology, epidemiology of disease, eg current case studies on microbiomes and viriomes, vaccination therapy, genetic engineering)? And what are the ethical issues?

7 How does reticulate evolution impact agriculture, bioconservation ethics, biomedical sciences, bioengineering, exobiology, ...

ABSTRACT SUBMISSION If you would like to participate in the session, then submit your talk or poster abstract before April 1st, 2015 at <a href="http://iss-symbiosis.org/page-1805892">http://iss-symbiosis.org/page-1805892</a> Be sure to select the specific thematic session: "Reticulate Evolution Before and After the Modern Synthesis"

EvolDir January 1, 2015

#### REGISTRATION

You can register for the specific symposium or the full conference, and please note that becoming an ISS member reduces the registration fee. ISS will also provide a limited amount of travel awards to students. Registration procedures are detailed by the International Symbiosis Society at <a href="http://iss-symbiosis.org/">http://iss-symbiosis.org/</a>. appeelannouncements <a href="mailto:appeelannouncements@fc.ul.pt">appeelannouncements@fc.ul.pt</a>

## UMichigan SSB Standalone Meeting May20-22

\*Society of Systematic Biologists Stand-alone meeting  $2015^{\ast}$ 

Please join us for the upcoming stand-alone meeting of the Society of Systematic Biologists, May 20-22, 2015, to be held at the University of Michigan.

This meeting is being offered to complement the joint meeting of American Society of Naturalists (ASN), Society for the Study of Evolution (SSE), and the Society of Systematic Biologists (SSB) in June, by offering a setting and organizational structure conducive to one-on-one interactions and in depth discussions. In addition to attending panel discussions, hackathons, tutorials and workshops, participants are invited to give a lightening talk (i.e., 5 minute presentations: 4 minutes for the talk and one minute for questions).

Grants-in-aid will be made available for attending the meeting, and affordable housing will be available via dorm-rooms on the campus of the University of Michigan. Details about the schedule, grants, and registration will be available at <a href="http://ssb2015standalone.weebly.com/">http://ssb2015standalone.weebly.com/</a>. Note that attendance will be capped at 300 participants so register early (registration opens in January).

The workshop topics1 include:

- Macroevolutionary dynamics on phylogenies - - Open Access to phylogenetic data - - Comparative methods
- Biogeography - - Species-tree estimation from SNPs to sequences - - Interrogating transcriptomic data from processing to analysis - - Estimating divergence times - Phylodynamics

1Note that these workshops are in addition to a Symposium and Software School that will be offered as a pre-meeting workshop by Tandy Warnow (as described below).

Topics for debate:

- - The concept of "species" is outdated and hinders progress in ecology/evolution/systematics - - Molecular dates are reliable/molecular dates are unreliable - - Is more data better in phylogenetics - - Phylogenetic comparative methods are ultimately bound to fail because they cannot capture the complex evolutionary processes that shape phylogenies

2Panel discussions will involve two short presentations of opposing viewpoints on each topic followed by a debate with audience participation.

Pre-meeting workshop, May 18-19:

A Symposium and Software School focusing on New Methods for Phylogenomics and Metagenomics will be held on May 18-19, immediately preceding the standalone meeting at the University of Michigan. The symposium will cover new methods for multiple sequence alignments, genome-scale species tree estimation, phylogenetic network estimation, and metagenomic taxon identification. The software school will include hands-on tutorials in new methods, and taught by the developers of the software. No fee will be charged, and travel awards of up to \$500 per person are available. Please see <a href="http://tandy.cs.illinois.edu/symposium-2015.html">http://tandy.cs.illinois.edu/symposium-2015.html</a> for more information.

dewitt832@gmail.com

## Ventura California Speciation Mar15-20

Last call - GRC conference SPECIATION 2015 Dear colleagues,

A few places are still available for SPECIATION 2015, a new Gordon Research Conference (GRC) devoted entirely to speciation research, which will be held from March 15 to 20, 2015, at the Four Points Sheraton Harbor Resort in the beautiful coastal city of Ventura, California. The conference will be the world's largest on speciation research and will feature an unprecedented mosaic of interrelated talks by invited researchers, as detailed in the conference program appended below.

The GRC conferences on speciation, of which this will be the very first, will raise to a trans-Atlantic level a tradition of international conferences on speciation research that has been initiated by the European Research Networking Programme 'Frontiers of Speciation Research'. The two conferences that have been held

so far, SPECIATION 2010 and SPECIATION 2013, helped facilitate bridge-building between disparate approaches to speciation research and attracted more than 150 participants on each occasion.

SPECIATION 2015 will continue this tradition of scientific bridge-building and promote integrative perspectives that interface empirical insights with theoretical advances and bring together developments in ecology, systematics, and genetics. Reflecting the aims of the GRC conference series, and committed to a pluralistic perspective on the field, we have selected invited scientists based on their complementary expertise in different areas of speciation research. In this way, the conference will provide a platform for comparing and orchestrating different approaches to speciation research.

In addition to about 30 invited presentations, the conference will prominently feature a rich poster session, as well as selected poster introductions. The topics that will be covered at the conference include the biodiversity crisis, mechanisms of reproductive isolation, genetic constraints, ecological drivers, genomic signatures, behavioral mechanisms, species cohesion, hybrid zones, macro-ecological explanations, as well as integrative and synthetic perspectives on speciation. Each of a total of nine conference sessions will feature 3 or 4 invited presentations, with ample time for discussion.

Registration is open at <a href="http://www.grc.org/-programs.aspx?id=16902">http://www.grc.org/-programs.aspx?id=16902</a> until the few remaining open slots have been completely filled.

With many thanks and best wishes,

Åke Brännström & Ulf Dieckmann

Overview of invited presentations; for the full program see <a href="http://www.grc.org/programs.aspx?id=16902">http://www.grc.org/programs.aspx?id=16902</a>. Session 1: Biodiversity Crisis and Speciation Roger Butlin (University of Sheffield, United Kingdom) "Local Adaptation and Speciation" Michael Rosenzweig (University of Arizona) "Speciation Rates at the Paleontological Scale: Is Autonomous Regulation Important?"

Session 2: Mechanisms of Reproductive Isolation Loren Rieseberg (University of British Columbia, Canada) "Sexual Selection and Plant Speciation" Åke Brännström (Umeå University, Sweden) "Phenotypic Plasticity and Reproductive Isolation" Chris Jiggins (University of Cambridge, United Kingdom) "Multiple Mechanisms of Reproductive Isolation in Heliconius Butterflies" Leonie Moyle (Indiana University) "Postmating Sexual Selection and the Evolution of Reproductive Isolation: Tales from Two Kingdoms"

Session 3. Genetic Constraints Reinhard Buerger (University of Vienna, Austria) "On the Evolution of Assor-

tative Mating in Spatially Structured Populations" Sara Via (University of Maryland) "Genetic Constraints on Speciation-with-Gene-Flow?" Sergey Gavrilets (University of Tennessee) "Models of Speciation: Where Are We Now?"

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Session 4. Ecological Drivers Ulf Dieckmann (International Institute for Applied Systems Analysis, Austria) "Robust Adaptive Speciation" Rees Kassen (University of Ottawa, Canada) "Species Interactions and Diversification in a Model Adaptive Radiation" Michael Doebeli (University of British Columbia, Canada) "Two Little-Known Facts About Speciation Models, and an Empirical Example"

Session 5. Genomic Signatures Jeffrey Feder (University of Notre Dame) "Genomics, Ecological Adaptation, and Divergence: A Case Study Involving the Apple Maggot Fly" Anna Qvarnström (Uppsala University, Sweden) "Mechanisms of Speciation Driving Genome Divergence" Louis Bernatchez (Laval University, Canada) "Think Globally: Investigating Ecological Speciation by Means of an Integrative Biology Framework"

Session 6. Behavioral Mechanisms Erik Svensson (Lund University, Sweden) "Behaviour as a Facilitator or Constraint on Population Divergence and Speciation" Jenny Boughman (Michigan State University) "Sexual Selection and the Dynamic Process of Speciation" Glenn-Peter Saetre (University of Oslo, Norway)

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## Vienna SMBE Jul12-16 Registration

Dear evoldir community,

Registration for the 2015 meeting of the Society for Molecular Biology and Evolution (SMBE) in Vienna, Austria is now open.

Early bird registration closes March 1, 2015.

Join us in one of the most beautiful cities at the spectacular Imperial Palace (Hofburg) in the heart of Vienna!

A few meeting highlights:

- Posters will be on display throughout the entire meeting.

- 26 symposia on cutting edge topics suggested by SMBE members and one Open Symposium for which 5 featured speakers will be selected though the Local Organising Committee (LOC).
- Plenary speakers: Doris Bachtrog (UC Berkeley), Joe Felsenstein (Univ. of Washington), Johanna Schmitt (UC Davis) and Diethard Tautz (MPI for Evolutionary Biology).
- Heavily subsidized child care
- many awards (https://www.smbe.org/smbe/-AWARDS.aspx) Poster prize for postdocs and PhD students Fitch prize Young investigator travel awards Junior and mid career research awards Child Care

Travel Awards

- affordable accommodation (starting from 19,- /night. Also many double rooms are available for 60,- /night incl. breakfast)

Early bird registration will also benefit from up to 30% reduced registration fee and full consideration of submitted abstracts.

All details about registration, accommodation options and travel discounts are available at the conference website: www.smbe2015.at The Local Organising Committee is looking forward to welcome you to Vienna next summer!

julia.hosp@gmail.com

## **GradStudentPositions**

BrighamYoungU PlantEvoDevo21	Tuebingen EvolutionaryBiol3	5
Brigham Young U Plant Genome Evolution	UAuckland ConservationGenomics	
BristolU BivalvePhylogenetics	UBrimingham 2 TetrapodDiversification3	
CABI Switzerland InvasiveSpeciesBiodiversity 22	UCambridge EvolutionAvianTaste3	
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ImperialCollege London Evolution25	UEssex ArtificialSelection	
IntlMaxPlanckResSchool EvolutionaryBiol 26	UExeter Conservation3	
IowaStateU EvolutionaryBiology27	UGlasgow ComparativeGenomics3	9
IowaStateU MolEvol VisualPigments	UGlasgow MathBiol Evolution4	0
IUEM UWesternBrittany EvoDevoMolluscs 29	ULondon GutBacteriaPopulations4	
Lausanne SocialPolymorphismGenomics229	ULondon TheoryGeneEvolution4	
MaxPlanckInst Ornithology ParrotSexualSelection .30	UMontana Astrobiology24	.2
MaxPlanckInst Seewiesen ReproductiveFailure 30	UMontana PlantEvolution GeneticsGenomics4	.3
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#### BrighamYoungU PlantEvoDevo

Two PhD graduate student positions in the evolution of plant development are available beginning Fall 2015 in the Whipple lab, Department of Biology, Brigham Young University. Research interests in the Whipple lab center on the genetic basis of morphological diversity in plants, with a focus on both model and non-model systems (see whipplelab.byu.edu). Students will employ molecular, morphological and genetic approaches to address basic questions in the evolution of plant development. Specific research projects include comparative flower and inflorescence development in both grasses (Poaceae) and Gilia (Polemoniaceae).

Successful applicants will be highly motivated with a strong interest in plant development, and demonstrated experience with basic molecular biology techniques (PCR, cloning, sequence analysis, etc.).

Funding for this position is guaranteed through a combination of Teaching Assistantships from the Department of Biology, and Research Assistantships from external NSF research funds and will cover tuition and benefits in addition to a yearly stipend. Especially competitive applicants will be eligible for a University Graduate Research Award, which provides an enhanced stipend of \$30,000/year.

Interested applicants should send a CV, transcripts, GRE scores (if available) and a statement of research interests to Clinton Whipple (whipple@byu.edu). Applications will be screened starting immediately and continue until to Jan 1st 2015. International students with strong credentials are welcome and encouraged to apply.

All application materials and any questions should be directed to:

Clinton Whipple Assistant Professor Department of Biology Brigham Young University 4027 LSB Provo UT, 84602 USA

Email: whipple@byu.edu

Email correspondence is preferred.

whipple@byu.edu

### BrighamYoungU PlantGenomeEvolution

One PhD graduate student position in the evolution of plant genomes is available beginning Fall 2015 in the Udall lab, Department of Plant and Wildlife Science, Brigham Young University. Research interests in the Udall lab center on genome evolution of polyploid plants, with a focus on cotton and other plants (see <a href="http://udall-lab.byu.edu">http://udall-lab.byu.edu</a>). Students will employ molecular, structural, and genetic approaches to address basic questions in the evolution of plant development. Specific research projects include the evolution of genome structure as identified by optical mapping of species in the cotton genus.

Successful applicants will be highly motivated with a strong interest in bioinformatics, and demonstrated experience with basic molecular biology techniques (PCR, cloning, sequence analysis, etc.).

Funding for this position is guaranteed through a combination of Teaching Assistantships from the Department of Plant and Wildlife Science, and Research Assistantships from the National Science Foundation. Tuition and benefits will be included in the assistantships in addition to a yearly stipend. Especially competitive applicants will be eligible for a University Graduate Research Award, which provides an enhanced stipend of \$30,000/year.

Interested applicants should send a CV, transcripts, GRE scores (if available) and a statement of research interests to Joshua Udall (jaudall@byu.edu). Applications will be screened starting immediately and continue until to Jan 1st 2015. International students with strong credentials are welcome and encouraged to apply.

Joshua Udall (5133 LSB) Brigham Young University 701 E. University Parkway Plant and Wildlife Science Depart. Provo, UT 84602

Office: 801-422-9307 jaudall1@gmail.com

## BristolU BivalvePhylogenetics

We announce the availability of a NERC Doctoral Training Partnership opportunity (PhD studentship) held jointly between the British Antarctic Survey and Bristol University (through the GW4+ scheme <a href="http://www.bristol.ac.uk/gw4plusdtp/programme/">http://www.bristol.ac.uk/gw4plusdtp/programme/</a>), to commence in autumn 2015. Students are eligible for full funding if they are a UK citizen or EU national who has been resident in the UK for three years at the time the studentship commences. For further eligibility information see the following link: <a href="http://www.rcuk.ac.uk/RCUK-prod/assets/documents/documents/TermsConditionsTrainingGrants.pdf">http://www.rcuk.ac.uk/RCUK-prod/assets/documents/documents/TermsConditionsTrainingGrants.pdf</a> Resolving the evolutionary history of a Southern Ocean "hotspot" family: the philobryid bivalves

The Southern Ocean (SO) is a unique and isolated marine habitat, with over-deepened continental shelves, oceanography strongly influenced by the circum-Antarctic current and a low-temperature, stenothermal environment hosting a vast number of endemic and unusual species. The recent Census of Antarctic Marine increased the knowledge on known species and their biogeographic distributions but for most taxa, Southern Ocean diversity is still greatly underestimated. The Philobryidae (Bivalvia: Arcoida) are with 13 species one of the most speciose marine bivalve families in the SO, cover a depth range from the intertidal to the abyssal zone and have their global diversity hotspot in the SO. Previous genetic work on this family has been extremely limited.

Despite this diversity, the genetic relationships and shell morphology of this family are poorly known, possibly due to their small size (<1.5cm). This project will assess the evolutionary history of the Southern Ocean Philobryidae and how past climate change and continental drift has influenced their species diversification. Preliminary molecular work has identified a number of cryptic species within nominal species of the genera \*Adacnarca\* and \*Philobrya\* from different locations and depth in the Southern Ocean, suggesting that even described species require investigation in terms of species limits, using genetics and morphology. The British Antarctic Survey holds extensive collections of Southern Ocean philobryids, including representatives of all described Southern Ocean species. The student will link genetic and material property tools to (i) determine the phylogenetic relationships within Southern Hemisphere Phylobryidae, particularly focusing on Antarctic taxa, using multiple mitochondrial and nuclear loci and placing this into broader context within the superfamily Arcoidea, (ii) measure the patterns of divergence and radiation of Philobryidae within the Southern Ocean, (iii) examine morphological and material property variation between species, and (iv) conduct population genetic analysis of population history for selected philobryid species.

This studentship will include a genetic laboratory component, sequencing multiple nuclear and mitochondrial genetic loci to investigate phylogenetic relationships, and conducting ddRAD-seq and subsequent genomic analysis to investigate population structuring within selected taxa. They will also perform morphometric analysis, and conduct high resolution chemical and structural mapping using Electron Microprobe Analysis, Atomic force microscopy, and Electron Backscatter Diffraction, to characterise the shells. The analytical skills developed in this studentship are highly transferable to a wide range of jobs. The student will get a solid overview of marine ecology, genetics, bioinformatics, in-situ chemical and structural analysis. The student will be part of the vibrant Palaeobiology group at Bristol and the world leading Research Team at BAS.

Applicants should possess a degree (II.1 minimum)/higher degree in a relevant subject. Experience of invertebrate biology, appropriate molecular and data analysis techniques and polar marine ecosystems are advantageous.

The studentship is expected to last 3.5 years from October 2015, subject to NERC funding. To apply for this studentship, please send an expression of interest, CV and names and contact details for two referees to jennifer.jackson@bas.ac.uk by 3rd January 2015. Primary supervisors are Dr Katrin Linse of the British Antarctic Survey and Dr Daniela Schmidt of the University of Bristol, with Dr Jennifer Jackson of the British Antarctic Survey co-supervising. For more about the GW4+program, see <a href="http://www.bristol.ac.uk/gw4plusdtp/programme/">http://www.bristol.ac.uk/gw4plusdtp/programme/</a> jacksonjennifera@gmail.com

# CABI Switzerland InvasiveSpeciesBiodiversity

Woody invasive alien species in East Africa: assessing their impacts on biodiversity, ecosystem services and

#### rural livelihoods

In a recently approved international research project funded by the Swiss National Science Foundation (SNSF) and the Swiss Agency for Development and Cooperation (SDC), we aim to help mitigate the effects of woody invasive alien species (IAS) on biodiversity, ecosystem services and human well-being in case study areas in Ethiopia, Kenya and Tanzania. To achieve this goal, we will generate and share knowledge on invasion processes and on context-dependent effects of woody IAS. Also, we will elaborate sustainable control measures and develop and document Sustainable Land Management (SLM) strategies that mitigate the negative effects of woody IAS in East Africa.

Within this project, an exciting PhD position is available at CABI in Switzerland (cabi.org/about-cabi/cabicentres/Switzerland), which is the coordinator of this project. The PhD aims to improve our understanding of the positive and negative effects of key woody IAS on biodiversity, ecosystem services and rural livelihoods in three case study areas in East Africa. Specific goals of the study include: (1) measure effects of selected woody IAS at small scale, e.g. at the household or community level, and (2) compare IAS cover - effect response curves for multiple indicators of biodiversity, ES and rural livelihood. The results from this study will be combined with those from parallel studies assessing the current and potential future distribution and abundance of the woody IAS in the case study areas and at the national level, which will allow us to assess the impact of woody IAS across multiple spatial scales. The student will be based at the CABI Centre in Delémont, Switzerland, and registered at a Swiss University. Extended fieldwork will be conducted in the East Usambara mountains (Tanzania), the Baringo district (Kenya) and the Afar Region (Ethiopia).

#### Required competences

Master in natural science or related fields, preferably with a background in the ecology of biological invasions or ecosystem functioning

Good skills in statistical analysis

High social competences in interacting with stakeholders at different levels

Excellent skills in oral and written communications (English)

Great interest in working with an interdisciplinary and international team

Willingness to travel to remote sites and work in the field

Highly dedicated and motivated student What the

research project offers

Work in a strong international team

Training in inter- and transdisciplinary research

PhD salary according to Swiss National Science Foundation standards during 3 years

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Field expenses, travel allowances

Close collaboration with project partners, including the Centre for Development and Environment (CDE), Switzerland, the Centre of Excellence for Invasion Biology (CIB), South Africa, and partners in Tanzania, Kenya, and Ethiopia.

Application: Please send a CV, academic transcript, contact details for at least two academic references and a brief outline of research interests to Dr Urs Schaffner (u.schaffner@cabi.org) by 31 January 2015. Informal inquiries are welcome. Review of applications will begin immediately, and short-listed candidates will be interviewed. The envisaged start date for the PhD thesis is March 2015.

Urs Schaffner Head Ecosystems Management CABI Rue des Grillons 1 CH-2800 Delémont Switzerland

Telephone: +41 (0)32 421 4877 Fax: +41 (0)32 421 4871 Email: u.schaffner@cabi.org Visit us at www.cabi.org Our centre annual report 2012 is available at www.cabi.org/about-cabi/cabi-centres/switzerland u.schaffner@cabi.org

# Greifswald Germany 12 ClimateAdaptation

02-12-2014

Research Training Group RESPONSE: 12 open Ph.D. positions

The Research Training Group "Biological responses to novel and changing environments" RESPONSE" (RTG 2010), funded by the Deutsche Forschungsgemeinschaft (DFG), invites applications for 12 Ph.D. positions (salary scale TV-L E13, 65 %; including social benefits) for a three-year structured Ph.D. program. Start of the program and all respective Ph.D. positions will be April 1st, 2015. The RTG is based at the University of Greifswald, Germany (www.uni-greifswald.de).

#### Research Program

The ability to respond to novel and changing environ-

mental conditions, either by phenotypic plasticity, genetic adaptation, or range shifts, is pivotal to the longerterm survival of all organisms. Owing to increasing concerns about the consequences of human-induced global change, such responses have attracted increasing interest in recent years. RESPONSE focuses on the plastic and genetic capacities for in situ responses (cluster A) and on the factors limiting or facilitating dispersal to new habitats (cluster B). The RTG aims at deepening our understanding of the limits to population persistence, enabling more accurate predictions regarding the fate of populations under changing conditions. Our research program spans different levels of biological organization, ranging from molecular and physiological mechanisms to ecological population-level responses, and a wide variety of organisms including myxomycetes, plants (trees), and animals (snails, crustaceans, insects, spiders, bats). Please refer to www.uni-greifswald.de/RESPONSE [1] for further information, especially on the available individual research (= Ph.D.) projects and specific requirements. Note that all projects involve field work at least to some extent.

#### Teaching Concept

A teaching program accompanies the interdisciplinary research strategy. It covers different scientific topics and techniques relevant to the RTG as well as soft skills relevant to career development, and includes summer schools, journal clubs, practical courses, lectures, and individualized educational as well as mentoring programs. Each Ph.D. project involves visiting stays at different laboratories, partly abroad. The participation in the teaching program is mandatory.

#### Requirements

We invite applications from highly motivated candidates with above-average qualifications, passion for and experience in research, and the willingness to actively participate in the RTG. Successful applicants will (1) hold a M.Sc. degree (or equivalent) in Biology or another relevant discipline, (2) have a solid background in ecology and evolution, (3) experience with methods and / or organisms relevant to the RTG, (4) an excellent command of the English language, which will be the official language of the RTG, and (5) will be motivated to join an interdisciplinary research training environment.

#### Applications

To apply please submit an application form, a CV including copies of all degrees, a motivation letter, and two letters of recommendation. Forms (application form, recommendation letter) are available at www.uni-greifswald.de/RESPONSE [1]. The motivation letter should include your motivation to become a member of

RESPONSE, your preferred projects (list three), and a short explanation for your project choice. Applicants should submit the above mentioned documents, except the recommendation letters, as PDF files attached to a single email to the speaker of the RTG, Prof. Dr. Klaus Fischer (klaus.fischer@uni-greifswald.de), before January, 17th 2015. Recommendation letters should be sent by the referees directly to klaus.fischer@unigreifswald.de. The most promising candidates will be invited to Greifswald, and interviews will take place between February 16th and 19th, 2015. The University of Greifswald is an equal opportunity employer, and the RTG strongly encourages qualified disabled persons, women, and candidates with children to apply. Application expenses cannot be refunded by the state of Mecklenburg-Western Pomerania.

The official version of the advertisement is published at <a href="http://www.uni-greifswald.de/-informieren/stellenausschreibung/oeffentlich/-wissenschaftliches-personal/zoologisches-institut-und-museum-14ma45.html">http://www.uni-greifswald.de/-informieren/stellenausschreibung/oeffentlich/-wissenschaftliches-personal/zoologisches-institut-und-museum-14ma45.html</a> . Prof. Dr. Klaus Fischer Zoological Institute & Museum Greifswald University J.-S.-Bach-Str. 11/12 D-17489 Greifswald

Phone: +49-3834-864266 Fax: +49-3834-864252 Links:

[1] http://www.uni-greifswald.de/RESPONSE kfischer@uni-greifswald.de

## Hawkesbury Sydney EmergingModelGenomics

PhD fellowship (3 years, similar to http://education.gov.au/australian-postgraduate-awards but internationals welcome):

As part of a new lab focused on the genome bioinformatics of emerging model species from plants, animals (especially arthropods) and microbes, Im seeking an exceptional candidate to take up a PhD scholarship on one of two topics: i) informatic methods for emerging model species, ii) the genetics of ecological adaptations.

There is no fixed project descriptions (but see below) as Im a believer of the US model for post-QUALs PhD projects. Having said that, proposals that match my skills, research interests and current/future grants are more likely to receive support and lead to a successful graduation. Bonus points if the proposal can be readily

couched in biosecurity or climate adaptation outcomes.

International candidates are encouraged to apply as are candidates with strong molecular or evolutionary skills who wish to develop their informatics skills but bring something else on the table. Candidates are expected to give a broad outline of a proposed project (their own interest or pick one from below). Note that experiments ought to be feasible within the three years of the fellowship and double note that in Australia we have a strong commitment to work/life balance.

The following projects topics are of core interest (read: more likely to have a good research budget).

Bioinformatic methods for (eukaryotic) comparative genomics (suitable for a computer scientist or those interested in software engineering):

- 1) The development of novel informatics approaches for annotation using NGS experimental data. For example Trinity RNA-Seq or Just Annotate My Proteins. A particular challenge is the analysis and efficient interrogation of population variants.
- 2) New approaches to visualise and interact with spatially and temporarily distributed population genetic data (GeoGenetics) in the face of huge amounts of data. I'm most interested in interactive data analytics and browser-based technologies that will empower our collaborators.

Wet-lab and entomological projects (with NGS):

- 3) Insect gut microbes and nutrition: building a model for investigating ecosystem function.
- 4) The transcriptomic signals of stress response and cell death in the Mediterranean and Queensland fruit flies (Tephridae:Ceratitis and Tephridae:Bactrocera).
- 5) similarly, response to environmental pollutants in aquatic organisms (with J. Colbourne)
- and two topics which would suit those strong in evolutionary theory (with a blend of informatics and experimental work):
- 6) investigating the molecular basis of adaptations in Helicoverpa moths, Heliconius butterflies or Tephritid fruit flies
- 7) using whole genome (re)sequencing to understand the evolutionary trajectory of genes relating to environmental adaptation

We're heavily embedded in international communities/collaborations and therefore the successful candidate will be supported to travel nationally and internationally (e.g. UK, Panama, France, Germany, Austria, Greece, USA).

Note: It is a requirement of the fellowship funding body that you have the equivalent to the Australian first class Honours (i.e. at least 6 months of a research project), a Masters or equivalent research working experience. If English is not your native language, you will be required to pass an IELTS exam. Australian citizens who are eligible for an APA, are also welcome to apply and discuss their research project budget.

Closing Date: I will go through the applications montly, around the 25th of every month and the position will remain open until filled.

How to Apply: send a 2 to 3-page CV that includes two contact details for referees and 1 to 2-page Research Statement to alexie@butterflybase.org

The research environment:

The Hawkesbury Institute for the Environment (HIE) is a research only institution focused on environmental research. It is one of four Institutes at UWS dedicated to excellence in research. The HIE is dedicated to answering crucial questions about impacts of environmental change on terrestrial ecosystems. Offering comprehensive field and laboratory based facilities for research from genes to ecosystems, the Institute encourages collaborations between its three themes: Soil Biology & Genomics; Plants, Animals & Interactions; and Ecosystem Function & Integration (http://www.uws.edu.au/hie). The Institute has over 70 academic and support staff and is located on the Hawkesbury campus of the University of Western Sydney (UWS) in Richmond, NSW, Australia.

The institute is highly collaborative and diverse. Based on its location, candidates who enjoy being the beautiful Australian bush will particularly appreciate the setting. Having said that, two of our bioinformaticians live in inner Sydney and commute on a direct train. Sydney commuter trains are

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# ImperialCollege London Evolution

PHD STUDENTSHIPS IN EVOLUTION AND GENOMICS

EvolDir January 1, 2015

IMPERIAL COLLEGE LONDON and partner organisations

Science and Solutions for a Changing Planet (SSCP) is an exciting Doctoral Training Programme supported by the Natural Environmental Research Council and led by Imperial College London in association with 6 core partners and 27 partners from the business and policy world. Projects on evolution and genomics for the October 2015 start are listed below. For a full list with links to project descriptions and instructions on how to apply, visit:

http://www.imperial.ac.uk/grantham/postgraduate-training/science-and-solutions-for-a-changing-planet/studentship-opportunities/ ELIGIBILITY: To be eligible for a full award a student must have: - Settled status in the UK, meaning they have no restrictions on how long they can stay, - Been 'ordinarily resident' in the UK for 3 years prior to the start of the studentship. This means they must have been normally residing in the UK (apart from temporary or occasional absences) - Not been residing in the UK wholly or mainly for the purpose of full-time education. (This does not apply to UK or EU nationals).

IF YOU'RE NOT ELIGIBLE: We welcome queries from students who do not meet these eligibility criteria for discussion of alternative potential funding sources.

CONTACTS: For project-related queries and to apply, contact individual supervisors. For general queries about evolutionary PhD projects at Imperial College London, contact Prof. Tim Barraclough (t.barraclough@imperial.ac.uk).

CLOSING DATE for applications 19th January 2015. The positions are competitive-funded: each project will put forward their best student applicant, then a subset of projects (roughly one quarter) will be funded based on the quality of the students.

List of supervisors and projects in Evolution for 2015

Dr Ben Raymond (b.raymond@imperial.ac.uk) Assessing "evolution-proof" bacterial treatments in model systems: do anti-virulence drugs have better consequences for the evolution of resistance and virulence than antibiotics?

Dr David Orme (d.orme@imperial.ac.uk, Dr Robin Freeman and Dr Monika Böhm, ZSL) Monitoring species from space: objective assessments and dynamics of extinction risk

Dr James Rosindell (j.rosindell@imperial.ac.uk) Modelling of dispersal, speciation and extinction on islands

Dr Samraat Pawar (s.pawar@imperial.ac.uk) Biological Limits to Acclimation and Adaptation to Climate

change

Dr Sarah Knowles (s.knowles@imperial.ac.uk) Ecology and fitness effects of the gut microbiota in wild mice

Prof Alfried Vogler (a.vogler@imperial.ac.uk) Metagenomics and museum collections to characterize declining pollination webs

Dr Alan Paton (Royal Botanic Gardens Kew, Prof. Tim Barraclough, Life Sciences) Evolution of pollination syndromes in South African and Madagascan species of Plectranthus (Lamiaceae)

Dr Bente Klitgaard (Royal Botanic Gardens Kew, Prof. Tim Barraclough, Life Sciences) Neotropical plant evolution: Adding pieces to the jigsaw

Dr Jason Hodgson (j.hodgson@imperial.ac.uk) The relationship between tsetse flies, trypanosomiasis, and development in rural Africa

Dr Martin Bidartondo (m.bidartondo@imperial.ac.uk) The diversity, physiology and evolution of fungal symbiosis in land plants

Prof Tim Barraclough (t.barraclough@imperial.ac.uk) Modelling the dynamics, evolution and ecosystem functioning of microbial communities

Prof Vincent Savolainen (v.savolainen@imperial.ac.uk) Ecological genomics of the evolution of species on islands

Prof. Timothy G. Barraclough, Professor of Evolutionary Biology

Department of Life Sciences, Imperial College London, Silwood Park Campus, Ascot, Berkshire, SL5 7PY, UK E-mail: t.barraclough@imperial.ac.uk Telephone: +44 (0)207 594 2247 Fax: +44 (0)207 594 2339 Web-page: www.imperial.ac.uk/people/t.barraclough \*\* MSc course in Ecology, Evolution and Conservation \*\* http://www3.imperial.ac.uk/lifesciences/postgraduate/courselist/ecology t.barraclough@imperial.ac.uk

# IntlMaxPlanckResSchool EvolutionaryBiol

The International Max Planck Research School (IMPRS) for Organismal Biology offers several fully funded PhD positions. The IMPRS is based in southern Germany and is jointly organized by the Max Planck Institute for Ornithology in Seewiesen and Radolfzell and the University of Konstanz. Outstanding students of all nationalities with a deep commitment to basic research

in Organismal Biology are invited to apply. More than 25 internationally recognized research groups actively participate in the PhD program and offer challenging, cutting-edge PhD projects in the fields of Behavioral Biology, Ecology, Evolutionary Biology, Physiology, and Neurobiology.

The aim of the IMPRS is to provide first-class training and education for outstanding doctoral students from all over the world in a stimulating research environment. The competitive doctoral program provides its fellows with an excellent starting platform for a successful career in the fields of animal behaviour, ecology, evolution, physiology, and neurobiology.

For 2015, we offer the following PhD projects:

Evolutionary Genetics of the Embryo Mortality Puzzle in the Zebra Finch

Ecological genomics in urbanizing burrowing owls

Comparative Analysis of Sexual Selection in Parrots of the World

Early Sexual Development of the Chicken Brain

Collective Animal Behaviour

Computational Approaches to the Experimental Study of Animal Collectives

Two open PhD positions for own proposal elaboration within Organismal Biology

For a list of all available PhD projects visit <a href="http://www.orn.mpg.de/projects">http://www.orn.mpg.de/projects</a> .

#### Our Offer

All students accepted to the program will be supported by stipends or contracts. The program offers a dedicated teaching program, high quality research experience, and outstanding research facilities in an inspiring research and living environment. The working language is English. Each PhD student receives individual supervision and mentoring and is guided in her/his research work by a PhD advisory committee. The Max Planck Society and the University of Konstanz are equal opportunity employers.

#### Your application

Outstanding students of all nationalities with a deep commitment to basic research in Organismal Biology are invited to apply. Deadline for the application is January 15, 2015. Interviews with the applicants are scheduled for March 23-26, 2015. Candidates accepted into the program may start latest September 2015.

Qualification: Applicants should hold a MSc or equivalent degree in biology or a related discipline at the point of enrollment. Queries should be mailed to the program office: IMPRS@uni-konstanz.de

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Application: You can only apply via the three-tier electronical application process on the Institutes webpage. For more information visit <a href="https://www.orn.mpg.de/2383/-Application">www.orn.mpg.de/2383/-Application</a>. More information at <a href="https://www.orn.mpg.de/IMPRS">www.facebook.com/OrganismalBiology</a> Mäggi Hieber Ruiz <a href="mailto:maeggi.hieber@uni-konstanz.de">maeggi.hieber@uni-konstanz.de</a>>

## IowaStateU EvolutionaryBiology

The Department of Ecology, Evolution and Organismal Biology at Iowa State University has a strong and growing group of evolutionary biologists. We are actively recruiting highly motivated students as MS and PhD candidates in our program. The following faculty are seeking graduate students for the fall 2015:

Dean Adams: Evolution of the multivariate pheno-We strive to understand microevolutionary and macroevolutionary patterns of phenotypic diversification, and the historical and ecological processes responsible for them using a comparative evolutionary framework to examine patterns and processes across related species over evolutionary time. http://www.public.iastate.edu/~dcadams/ Anne Bronikowski: Integrative genomics of senescence in reptiles. We study senescence across multiple biological scales and use transcriptome sequencing, physiological assays, and mathematical modeling to understand molecular pathway evolution in reptiles and correlated evolution in cellular/organismal phenotypes and population demography. http://www.eeob.iastate.edu/faculty/BronikoA/homepage.html Tracy Heath: Statistical phylogenetics, computational biology, macroevolution, molecular evolution. Research involves integrative Bayesian modeling to understand evolutionary processes driving patterns of diversification in the tree of life. http://phyloworks.org< http://phyloworks.org/>

Matthew Hufford: Evolutionary Genomics of Wild and Domesticated Maize. Opportunities are available to study gene flow, adaptive introgression, and parallel adaptation to high altitude (e.g., in central Mexico and the Andes) in maize and its wild relatives. <a href="http://www.public.iastate.edu/~mhufford/HuffordLab/home.html">http://www.public.iastate.edu/~mhufford/HuffordLab/home.html</a>. John Nason: Evolution and ecology of plant-insect interactions. Research employs observational, experimental, and genetic approaches to understand how plant population size and reproductive traits

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are influenced by environmental gradients and how this variation, in turn, influences local- and geographicalscale dynamics in a pollination mutualism subject to parasitism. http://jnason.eeob.iastate.edu/ Kevin Roe: Systematics and conservation genetics of aquatic organisms. Current projects include 1) conservation genetics of endangered species including the endemic Iowa Pleistocene Snail, 2) molecular ecology of freshwater mussels (Unionoida, especially the role of hosts in maintaining gene flow or driving diversification, and 3) phylogenetic systematics and biogeography of molluscs, crustaceans and fishes. http://www.public.iastate.edu/~kjroe/-Jeanne Serb: Evolution of sensory systems in invertebrates. We take a comparative approach to examine the origin of, and links between, sensory signaling pathways. Research approach integrates transcriptomics, molecular biology, protein expression, and phylogenetics. http://serb.public.iastate.edu/ Amy Toth: Evolution, behavior, and genetics of social insects, with a focus on honey bees and paper wasps, including research on the impacts of nutrition, disease, and landscape on pollinator health. http://www.public.iastate.edu/~amytoth/-Toth\_lab/Home.html Nicole Valenzuela: Evolution of sex determination and chromosomes in turtles: Our research spans classic ecology and evolutionary biology to evo-devo, ecological & evolutionary genomics to understand 1) Why do organisms vary so remarkably in the ways they produce males and females? and 2) What are the causes and consequences of chromosome evolution? http://www.public.iastate.edu/~nvalenzu/ Jonathan Wendel: Molecular and genomic evolution of plants. We use genomic and systems biology approaches to study the mysterious and common phenomenon of polyploidy, with a special focus on the cotton genus. http://www.eeob.iastate.edu/faculty/-WendelJ/home.htm Interested students are encouraged to contact faculty directly with a letter of interest and CV. Research and teaching assistantships and a variety of fellowship opportunities are available. Students may apply to one of the interdepartmental graduate programs, such as Ecology and Evolutionary Biology (http://www.grad-college.iastate.edu/EEB/), Interdepartmental Genetics

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

# IowaStateU MolEvol VisualPigments

PhD Positions in Molecular Evolution of Visual Pigments

I am looking for enthusiastic, dynamic, and independent students broadly interested in studying the interface between visual ecology, physiology, and molecular evolution. Current projects combine elements of molecular biology, photobiology, next-generation sequencing, bioinformatics, and molecular evolution to address questions related to the evolution of visual system form and function in non-model molluscan study organisms, including scallops. This research requires good communication skills and the ability to work collaboratively as part of a team. More information on my research is available at my website (http://serb.public.iastate.edu/).

Qualifications: Ideal candidates would have a BS degree in Biology or related discipline and must be proficient in English. Preference will be given to students with a background in cell culture techniques. Candidates with additional knowledge of computer science and/or bioinformatics are encouraged to apply.

Funding for this position is guaranteed through a combination of Research Assistantships from external funds and Teaching Assistantships from the Department. Tuition and benefits are covered in addition to a yearly stipend. Especially competitive applicants will be eligible for University Graduate Research Fellowships, which provides an enhanced stipend.

Interested applicants should send a CV, transcripts, GRE scores (if available) and a statement of research interests to Dr. Jeanne Serb (serb<at>iastate.edu). Applications will be screened starting immediately. After screening, candidates will be required to apply to one of the interdepartmental Graduate Programs at ISU, such as Ecology and Evolutionary Biology (http://www.eeb.iastate.edu/homepage.html), Genetics and Genomics (http://www.genetics.iastate.edu/), or Neuroscience (http://www.neuroscience.iastate.edu/).

\*\*About Iowa State University and the Ames Community\*\* Iowa State University is classified as a Carnegie Foundation Doctoral/Research University-Extensive, a member of the Association of American Universities (AAU), and ranked by U.S. News and World Report as

one of the top public universities in the nation. Over 34,000 students are enrolled, and served by over 6,100 faculty and staff (see www.iastate.edu). Ames, Iowa is a progressive community of 60,000, located approximately 30 minutes north of Des Moines, and recently voted second best most livable small city in the nation (see www.amescvb.com). Iowa State University is an equal opportunity employer committed to excellence through diversity and strongly encourages applications from all qualified applicants, including women, underrepresented minorities, and veterans. ISU is responsive to the needs of dual career couples, is dedicated to work-life balance through an array of policies, and is an NSF ADVANCE institution.

Jeanne M. Serb Associate Professor

Ecology, Evolution and Organismal Biology 245 Bessey Hall Iowa State University Ames, IA 50011 USA

Tel: 515-294-7479 Fax: 515-294-1337 http://serb.public.iastate.edu</br>
http://serb.public.iastate.edu/

"Serb, Jeanne M [EEOBA]" <serb@iastate.edu>

## IUEM UWesternBrittany EvoDevoMolluscs

Masters placement/internship opportunity beginning early 2015

European University Institute of the Sea (IUEM), University of Western Brittany (UBO), France

Marine Biology research station, Natural History Museum of France (MNHN), Concarneau, France

Linking morphology and molecular responses of marine mollusc larvae to climate change

We are looking for a masters student to join the Nunes lab (IUEM), in collaboration with Stéphanie Auzoux-Bordenave (MNHN), to carry out a placement investigating how temperature and ocean acidification affect larval development, in terms of both morphology and underlying gene expression.

As a result of the changing global climate, marine organisms are increasingly subject to environmental stressors such as rising sea surface temperatures and ocean acidification. One group of organisms that may be at particular risk are calcifying mollusc larvae, as elevated atmospheric CO2 results in reduced carbonate availabil-

ity for biomineralization of their calcite shells; however, effects of environmental change are often taxa specific. Multispecies comparative approaches are therefore required to identify shared or divergent responses. This project will aim to link morphology (via analysis of larval growth and shell development, using transmitted and polarized light microscopy) with the underlying changes in gene expression (using Quantitative real-time PCR), as part of an investigation into the responses among four mollusc species (Crassostrea gigas, Pecten maximus, Venerupis philippanarum and Haliotis tuberculata).

The position will start in January/February 2015, and a stipend of 523 EUR per month will be available for the 5 month placement.

For more information contact Ewan Harney <br/>
<ewan.harney@univ-brest.fr> or Flavia Nunes <flavia.nunes@univ-brest.fr>

http://www.labexmer.eu/en/international/research-chairs/on-going-international-chair-in-evolutionary-marine-ecology http://concarneau.mnhn.fr/la-station-de-biologie-marine/le-personnel-de-la-station/stephanie-auzoux-bordenave Ewan Harney

UMR 6539 LEMAR

**IUEM** 

Rue Dumont d'Urville

Technopole Brest-Iroise

29280 Plouzané, France

+33 (0)2 98 49 87 43

Ewan Harney <ewan.harney@univ-brest.fr>

# Lausanne SocialPolymorphismGenomics2

PhD POSITION, ECOLOGICAL GENOMICS OF SO-CIAL POLYMORPHISM, LAUSANNE Applications are invited for a PhD position in the research group of Michel Chapuisat (Department of Ecology and Evolution, University of Lausanne). Our group studies social evolution, with a focus on the structure and evolution of ant societies. Please look at <a href="http://www.unil.ch/dee/page7000.html">http://www.unil.ch/dee/page7000.html</a> for information and references.

We have identified a social chromosome associated with variation in colony queen number in the Alpine silver ant Formica selvsi (Purcell et al. Cur. Biol. 2014). We plan to study the origin and maintenance of this polymorphism by combining genomic, behavioural and ecological approaches. The focus of the PhD research will depend on the skills and interests of the doctoral student. We seek candidates with training in evolutionary biology and genetics, and some specific expertise in fields that are relevant for the project (e.g. molecular ecology, genomics, bioinformatics, population genetics, behavioural ecology, evolutionary ecology).

Starting date is negotiable, from March 2015 onwards. The Department of Ecology and Evolution provides an excellent training environment for PhD students (see <a href="http://www.unil.ch/dee/">http://www.unil.ch/dee/</a>).

Informal enquiries and applications should be sent to Michel.Chapuisat@unil.ch. Applications should include a cover letter, complete CV with transcripts and publication list if any, and contact details of two referees, embedded in a single pdf file.

I will start reviewing the applications on December 19th, 2014, but will continue to consider incoming applications until the position is filled.

Michel Chapuisat < Michel. Chapuisat@unil.ch>

#### MaxPlanckInst Ornithology ParrotSexualSelection

PhD position "Comparative analysis of sexual selection in parrots of the world" at the Max Planck Institute for Ornithology

The department Behavioural Ecology & Evolutionary Genetics at the Max Planck Institute for Ornithology in Seewiesen is looking for a PhD student to study the link between sexual dimorphism and the complexity of courtship displays in parrots (Psittaciformes).

The candidate will first compile a data set containing information on a variety of behavioural, sexual, and life-history traits for all parrots of the world based on literature, existing data, and own observations. These data will then be analyzed using modern phylogenetic comparative methods to make inferences about the evolution of these traits. The practical work will take place at the Loro Parque Foundation on Tenerife, which keeps the largest parrot collection in the world and maintains an extensive long-term data base from veterinary stock control and breeding monitoring.

The position is funded for the duration of 3 years, with

a possible one-year extension. A Master's degree in biology or equivalent is required. A focus on behavioural or evolutionary ecology is preferred, but candidates with a background in comparative cognition, evolutionary genetics, or ecological physiology are also encouraged to apply. The project requires the ability to acquire in-depth knowledge of modern statistical methods in ecological meta-analysis and phylogenetic comparative analysis. We are looking for a person who is enthusiastic and highly motivated to work with captive birds. We expect the candidate to work in a reliable, structured and effective manner, and to have good oral and written communication skills. Preference will be given to applicants that previously have conducted behavioural work and developed skills in data analysis. Ability to communicate in Spanish is advantageous.

The successful candidate will join a vibrant, international group of researchers at an institute focused on research on birds and will have the opportunity to work in a multidisciplinary setting, in contact with professionals from an array of fields and institutions. Remuneration will be according to pay group 13/2 TVöD. We provide a supportive research and learning environment with excellent facilities. Working language is English. The candidate may have the opportunity to join the International Max Planck Research School for Organismal Biology.

Informal enquiries concerning the position can be made with Mihai Valcu (valcu@orn.mpg.de) or Bart Kempenaers (b.kempenaers@orn.mpg.de).

To apply, please send a CV, including a list of publications or an electronic copy of a thesis, a statement summarizing your qualifications and indicating why you are interested in the position, and names and contact details of 2-3 references to Carmen Dobus, cdobus@orn.mpg.de. Applications will be reviewed starting 5 January and will continue until the position is filled.

"Dobus, Carmen" <cdobus@orn.mpg.de>

## MaxPlanckInst Seewiesen ReproductiveFailure

PhD Position at MPI Ornithology: Evolutionary Genetics of the Embryo Mortality Puzzle in the Zebra Finch

A PhD position is available at the Max Planck Institute for Ornithology (MPIO) in Seewiesen (near Munich,

Germany) starting around September 2015 to study the quantitative and molecular genetics of embryo mortality in zebra finches.

It is one of the most fundamental puzzles in evolutionary biology why many animal species show high rates of reproductive failure despite the fact that natural selection should be acting against this in every single generation. For instance, in humans, it is estimated that two out of three fertilized eggs die before birth, and it is still not understood why such a wasteful system has evolved. The case of the zebra finch also represents such a puzzle, because we see high rates of embryo mortality that cannot be attributed to trivial phenomena like environmental effects or inbreeding. The project will combine the use of various genomic tools and QTL mapping with setting up specific experimental crosses to identify and characterize the genetic factors that lead to embryo mortality. In particular, we will attempt to understand better the evolution of incompatibility-causing loci and of selfish genetic elements.

We seek a highly motivated individual who shares our fascination with this topic and who has a background or strong interest in some of the following fields: evolutionary biology, quantitative genetics, molecular genetics and statistics. A Master's degree in biology or equivalent is required. The project primarily involves handling of extensive data sets of phenotypic and genetic data (breeding records of egg fates, pedigrees, SNPs, microsatellites, sequence data). Any prior knowledge in using R or Python or any experience in using bioinformatics tools in a Linux environment would be advantageous but can also be acquired at a later stage.

Initial appointment will be for three years with a possible extension for another year subject to research progress. Payment will be through a Max Planck PhD position (13/2 TVöD). We provide a supportive research and learning environment with excellent facilities. Working language is English. Knowledge of German is not required.

The successful candidate will become a member of the International Max Planck Research School (IMPRS) for Organismal Biology, a close cooperation between the Max Planck Institute for Ornithology and the Department of Biology of the University of Konstanz. Besides their own research, the IMPRS fellows attend laboratory courses and workshops focusing on statistics and transferable skills like scientific writing and project management. Talks by invited speakers during our annual IMPRS symposium, student retreats, and conference participation complete the individually tailored curriculum. Each PhD student receives individual supervision and mentoring and is guided in her/his research work

by a PhD advisory committee.

The Max Planck Society is an equal opportunity employer and encourages disabled persons to apply. The Society aims at increasing the number of women in fields where they are underrepresented, and therefore encourages them to apply.

To apply for this position, it is strongly recommended to do this via the webpage of the International Max Planck Research School for Organismal Biology (IMPRS-OB <a href="http://www.orn.mpg.de/2383/Application">http://www.orn.mpg.de/2383/Application</a>). Deadline of application is January 15th, 2015. Interviews with the applicants are scheduled for Mid-March.

Alternatively, you can send your application as a single file to our secretary Carmen Dobus (cdobus@orn.mpg.de). Here, the deadline is the same, but late applications may potentially be considered. This file should include a concise statement of research interests and work experiences relevant to the project, curriculum vitae and contact details for 2-3 academic references. In case of such direct application, we would expect the successful candidate to apply for becoming an IMPRS student in the following year.

For further information about the PhD project please contact Wolfgang Forstmeier (forstmeier@orn.mpg.de).

www.orn.mpg.de/forstmeier Max Planck Institute for Ornithology Eberhard-Gwinner-Str. 82319 Seewiesen, Germany

Carmen Dobus Secretary Prof. Dr. Bart Kempenaers Max Planck Institute for Ornithology Behavioural Ecology & Evolutionary Genetics Eberhard-Gwinner-Str. / Bldg. 7/8 82319 Seewiesen +49 8157 932 232 Fax: Germany Tel.: 8157 932 400 mobile:  $+49\ 172\ 24\ 22\ 160$  email: cdobus@orn.mpg.de website: http://www.orn.mpg.de/-2622/Department\_Kempenaers "Dobus, Carmen" <cdobus@orn.mpg.de>

#### McMasterU EvolutionaryGenomics

The Evans lab in the Biology Department at McMaster University is looking for highly motivated graduate students. We study evolutionary genomics of sex chromosomes and duplicated genes in a variety of natural systems (primates, rodents, amphibians). Our approaches typically involve analysis of next generation sequence data, and students may also engage in international fieldwork.

Our lab has close ties to the research groups of Brian Golding, Jonathan Dushoff, Ben Bolker, and Ian Dworkin, and co-supervision with these colleagues is possible if desired.

McMaster is located in Hamilton, Ontario, Canada and is a fantastic place to live with close proximity to numerous cultural and outdoor resources. More information about living in Hamilton is here: http://www.biology.mcmaster.ca/living-in-hamilton/uncategorised/living-in-hamilton For more information about graduate work in the Evans lab, please contact Ben Evans (evansb@mcmaster.ca) or visit http://benevanslab.wordpress.com/ Ben Evans Biology Department McMaster University Life Sciences Building room 328 1280 Main Street West Hamilton, Ontario L8S4K1 Canada phone (office/lab): 905-525-9140 x 26973/27261 fax: 905-522-6066 Lab Website: http://benevanslab.wordpress.com/ Ben Evans <evansbenj@gmail.com>

## MonashU MutationAdaptation

A PhD project is available at Monash Universitys School of Biological Sciences (Melbourne, Australia) to work with Damian Dowling and Tim Connallon. We are seeking highly motivated students who wish to carry out original research on the genetic basis of fitness variation and sexual dimorphism, broadly defined. Candidates should have a strong work ethic and a deep curiosity about evolutionary biology. Good lab and communication skills are essential, and quantitative (incl. computer programming) skills will be a plus.

Project overview: New mutations play a fundamental role in adaptive evolutionary change, yet the mutational architecture of phenotypic and fitness variation remains understudied. In this project, the student will address key unanswered questions in biology by examining the evolutionary dynamics and consequences of spontaneous mutations across the genome. The research will unravel the unique mutational properties of different genomic regions, as well as the prevalence and distribution of sex-specific mutational effects across the genome. The project will involve a combination of empirical research on Drosophila fruit flies, quantitative analyses of high throughput datasets (life history and transcriptomic), and theoretical modelling.

The successful candidate will apply for a scholarship package through Monash University, which provides a tax-free annual stipend (current rate of AUD\$25,392 p.a., equaling \$973 per fortnight) and full waiver of tuition fees for the duration of the doctoral program (for three years). The successful student can further supplement their annual income by contributing to the undergraduate teaching classes of Dowling and Connallon, by acting as laboratory class demonstrators and tutors. All research expenses will be fully covered, as well as costs associated with all postgraduate coursework and conference attendance.

Monash University is a member of Australias Group of Eight coalition, and is internationally recognized for excellence in research and teaching. The School of Biological Sciences (http://monash.edu/science/about/schools/biological-sciences/) is home to a collegial and interdisciplinary research environment, with strengths in evolutionary biology, genomics and ecology. Monash is located in Melbourne, a highly livable and multicultural city.

The successful applicant will be hosted within the lab groups of Dowling and Connallon, which currently consist of 12 researchers, and will offer a very interactive and vibrant environment for the successful candidate. Further information on the research programs of Dowling and Connallon, including recent publications, can be found at: damiandowlinglab.com and <a href="http://monash.edu/science/about/schools/biological-sciences/staff/timc.html">http://monash.edu/science/about/schools/biological-sciences/staff/timc.html</a> To apply, please send a CV, academic transcript, contact details for two academic references, and a brief outline of research interests to damian.dowling@monash.edu and tim.connallon@monash.edu

Informal inquiries are also welcome at the same addresses. Applicants must have completed a four-year undergraduate degree, or Bachelors degree with first-class honours, or a masters degree by May 31 2015. Review of applications will begin immediately, and short-listed candidates will be contacted to set up phone/Skype interviews.

tim.connallon@monash.edu

# ${\bf North Carolina State U} \\ {\bf Evolution ary Genetics}$

Genetics Graduate Program Now Accepting Applications for Fall 2015!

The Graduate Program in Genetics is \*still\* currently

accepting applications (until February 1, 2015) for M.S. and Ph.D. students for the Fall 2015 semester. This program was established in 1952, and is one of the longest running genetics graduate programs in the USA.

The graduate training faculty are a highly interactive group performing research in all aspects of genetics from molecules to populations. Our research encompasses behavioral genetics, biomedical genetics, computational genetics and bioinformatics, evolutionary, population and quantitative genetics, and molecular, cellular and developmental genetics.

Our faculty utilize a wide range of traditional and non-traditional model systems in their research. We consider graduate students to be professionals in training, and provide a well-rounded program of academic, research and professional training. Students are intimately involved in program activities have a strong voice in shaping the program. We provide broad and comprehensive graduate training in genetics and also flexible academic programs tailored to meet the background and career goals of the individual student.

For more information go to \*genetics.sciences.ncsu.edu < http://genetics.sciences.ncsu.edu/ >\* or email Trudy Mackay (trudy\_mackay@ncsu.edu) or Melissa Robbins (melissa\_robbins@ncsu.edu).

You may also contact us by phone at 919-515-2292. merobbi3@ncsu.edu

# NorthernArizonaU 2 EvolutionaryEcol

PhD/MS opportunities N.Ariz.U.: Evolutionary ecology/Forestry/Global Change Impacts

We anticipate making two offers of graduate positions (PhD and MS) working on a NSF Macrosystems Biology project at Northern Arizona University, "Collaborative research: Blending ecology and evolution using emerging technologies to determine species distributions with a non-native pathogen in a rapidly changing climate". This project will be a multi-university collaboration examining the interacting evolutionary and ecological responses of Southwestern White Pine (SWWP; Pinus strobiformis) to climate change and an invasive pathogen from local to regional scales. The project will be led by Dr. Kristen Waring in the School of Forestry at NAU.

The PhD will be based in the Biology de-

partment (http://nau.edu/CEFNS/NatSci/Biology/-Degrees-Programs/Graduate/) with Dr. Amy Whipple and will work on aspects of epigenetic adaptation to climate variation with the opportunity to further develop thesis foci along the lines of the student's interests. The MS will be based in the School of Forestry (http://nau.edu/cefns/forestry/) with Dr Kristen Waring and will be closely involved with establishment and early measurement of seedling common garden trials of trees from across the SWWP range planted in three different temperatures. Funding may be comprised of a mix of RA, fellowship and TA support and applicants are encouraged to also consider the Genes-to-Environment Program at NAU (http://nau.edu/Merriam-Powell/-Genes-to-Environment/). Anticipated start date for both positions is June 2015. A brief description of current and previous research projects in SWWP can be found at http://nau.edu/silviculture. Please contact us any time for more information Amy. Whipple@nau.edu (928)714-0409 and Kristen.Waring@nau.edu (928) 523-4920. Applications received by January 15th, 2015 will receive first consideration and faster evaluation.

Amy Vaughn Whipple <Amy.Whipple@nau.edu>

# OklahomaStateU PlantPhylogenetics

The Fishbein Lab, Oklahoma State University, Department of Botany (http://botany.okstate.edu), has openings for 1-2 graduate students with interests in phylogenetics, genomics, systematics, hybridization, plantinsect interactions, biogeography, or floristics. Although I welcome applicants with diverse interests and backgrounds, I am actively seeking a PhD student with an interest in systematics at the species level. In particular, this student will employ genome-scale datasets to evaluate sources of gene tree discordance, such as introgression and incomplete lineage sorting, in order to obtain a robust species-level phylogeny of a rapidly diversifying lineage, the milkweed genus Asclepias. The ideal candidate will have a strong background in phylogenetics, population genetics, or bioinformatics. This is a collaborative project with Shannon Straub at Hobart & William Smith Colleges. The student will receive training in botanical fieldwork, molecular systematic techniques including next generation sequencing, and bioinformatics including phylogenomic analysis.

Students with more general interests in the systematics

of plant groups, evolution of plant defenses, pollination and the evolution of floral morphology, or the biogeography and floristics of the southwestern US and Mexico are also encouraged to apply as MS or PhD students.

Applicants should contact me directly with a statement of interest and may apply online at <a href="http://gradcollege.okstate.edu/apply">http://gradcollege.okstate.edu/apply</a> Review of applications will begin in late January.

Mark Fishbein Botany, Oklahoma State University <a href="http://botany.okstate.edu/people\_research/Fishbein/http://milkweedgenome.org">http://botany.okstate.edu/people\_research/Fishbein/http://milkweedgenome.org</a> mark.fishbein@okstate.edu

mark.fishbein@okstate.edu

## PennStateU HymenopteraEvolutionSystematics

Graduate Fellowship Insect Systematics and Evolution Pennsylvania State University

The Deans Lab at the Frost Entomological Museum has an opening for a PhD student interested in the evolution of parasitoid Hymenoptera. The project includes the collection and analysis of molecular and morphological data, development and testing of semantic approaches to phenotype representation, and next generation monography. The student will be part of a highly integrative and energetic lab group, led by Drs. Andrew R. Deans, Heather M. Hines, and István Mikó. The student will also have myriad opportunities to participate in collecting expeditions and museum visits, both domestic and abroad.

PIs: http://deanslab.org/ (Deans; adeans@psu.edu) <= primary contact for more details see also recent pubs: http://deanslab.org/pubs/ http://bio.psu.edu/-directory/hmh19 (Hines; hmh19@psu.edu)

Frost Museum: https://sites.psu.edu/frost/ Grad program: http://ento.psu.edu/graduatestudents University: http://psu.edu Diversity Statement: The Frost Entomological Museum is committed to establishing and maintaining a diverse lab group, with a robust culture of acceptance and appreciation. Interested applicants are encouraged to apply, regardless of race, religion, age, sexual orientation, gender identification, or disability.

adeans@gmail.com

#### RiceUniv Ecological Speciation

The Egan Lab is looking for Ph.D. students to join our lab at Rice University.

Our lab is broadly interested in understanding the origin and maintenance of biodiversity, including integrative studies of ecology, evolution, and population genetics. Primary work in the lab focuses on plant-insect interactions, the evolution of ecological specialization, and speciation. This work is naturally interdisciplinary and we use a combination of ecological field experiments, common garden and greenhouse studies, behavioral observations, and molecular genetic techniques to thoroughly address these topics. Ph.D. students will develop their own independent projects, but will have the opportunity to collaborate on grant-funded projects dealing with speciation in insects and their parasitoids, the genetic basis of adaptation and speciation, and applied projects dealing with conservation and invasive species genetics.

The Department of BioSciences at Rice University is home to a vibrant community of faculty, postdoctoral, graduate, and undergraduate scholars in Ecology and Evolution, Biochemistry, Cell Biology, Genetics and Neuroscience. Our EEB program has particular strengths in species interactions, animal behavior, population and community ecology, conservation biology, evolutionary ecology, and evolutionary genetics and genomics.

We offer highly competitive financial support and light teaching requirements for graduate students. We are located in Houston, Texas, an exciting, diverse, and affordable city with world-class opportunities for dining, arts, and entertainment and access to diverse terrestrial and aquatic environments. Rice is located beside one of the country's largest medical research centers, providing additional opportunities in bioinformatics and genomics.

Completed applications should be received by January 10 to ensure full consideration. There is no application fee for US citizens and permanent residents. Prospective applicants are strongly encouraged to contact potential faculty advisors before applying. Complete information about the graduate program, including application instructions, may be found at <a href="http://biosciences.rice.edu">http://biosciences.rice.edu</a>. For more information, please contact Scott Egan (Please include a CV, GPA, and GRE scores):

Scott P. Egan, Assistant Professor of Ecology and Evo-

lutionary Biology Department of BioSciences, Rice University, Houston, Texas

Email: scott.p.egan@rice.edu Website: https://sites.google.com/site/scottpegan/ scott.p.egan@rice.edu

## Tuebingen EvolutionaryBiol

## SLU Alnarp PlantInsectInteractions2

A 4-year PhD position is available at SLU, Alnarp:

Plant Resistance Ecology: A new tool to engineer biological control of herbivores Several plant traits are important for plants' interactions with herbivores and parasitoids. One very important plant trait is resistance against herbivores. A general question to investigate is how herbivore-parasitoid interactions are affected when resistance in wild plants evolves, and when domestic plants are bred for increased resistance.

Horticultural plants are often dependent on biological control of herbivores provided by parasitoids. This ecosystem service may be affected if resistance increases or declines during plant breeding. Knowledge regarding such plant effects opens up novel opportunities to actively breed for improved biocontrol. Similarly, plant resistance evolution in natural populations may lead to altered trophic interactions which could affect the level of herbivory experienced by the plant.

The aim of this PhD project is to investigate how plant resistance against herbivores affects plant-herbivore-parasitoid interactions in wild and domesticated strawberry. The PhD student will have access to a large common garden with 100 wild plant genotypes (Fragaria vesca), and several domesticated varieties (Fragaria x ananassa, F. vesca, F. viridis, F. moschata), that differ in their resistance against herbivores.

The full ad can be downloaded here: http://www.slu.se/sv/om-slu/fristaende-sidor/aktuellt/lediga-tjanster/lasmer/?eng=1&Pid=1701 Johan

Johan A. Stenberg Associate Professor

Sveriges lantbruksuniversitet Swedish University of Agricultural Sciences

Department of Plant Protection Biology PO Box 102, SE-230 53 ALNARP Visiting address: Sundsvägen 14 Mobile: +46 70 622 00 42 johan.stenberg@slu.se, www.slu.se/stenberg Johan.Stenberg@slu.se PhD in Evolution and Ecology

Are you currently doing a Masters in natural sciences? Are you interested in a PhD in Evolution and Ecology? Looking for an exciting topic or a host for your own ideas? Do you want to work in a highly inspiring environment? Get to know the diversity of people and projects offered by the Evolution and Ecology Research School Tübingen!

Participate in the EVEREST PhD Fair in Tübingen, 06 - 10 May 2015

This is your chance to meet others like you, talk face-toface to potential supervisors and pave you personalised route to a PhD in the near future! The EVEREST PhD Fair includes a crash course in essentials in experimental design and statistics, offering you an opportunity to collect 1 ECTS credit for your ongoing studies.

Check us at www.everest.uni-tuebingen.de/PhDfair Best regards, Christine

Christine Hein <a href="mailto:christine.hein@uni-tuebingen.de">christine.hein@uni-tuebingen.de</a>

#### **UAuckland ConservationGenomics**

Conservation genomics: predicting the adaptive potential of the endangered New Zealand hihi (stitchbird; \*Notiomystis cincta\*)

A PhD scholarship, funded by a New Zealand Marsden Fund Grant, is available with Dr Anna Santure in the School of Biological Sciences, University of Auckland, New Zealand. This project is an exciting opportunity to use genomics and statistical genetics approaches to understand and predict the adaptive potential of the endangered New Zealand hihi (stitchbird; \*Notiomystis cincta\*).

Determining the adaptive potential of wild populations requires that we understand the genetic basis of traits that are important for survival and reproduction in these populations. In this project, we will characterise the genetic basis of morphological and life history traits in the reintroduced Tiritiri Matangi Island population of

EvolDir January 1, 2015

hihi, in order to understand the potential of the species to respond to changing environmental pressures, including anthropogenic climate change. Hihi are an ideal study system because, in addition to being a wonderful example of eccentric New Zealand wildlife, a reintroduced population of birds on Tiritiri Matangi Island has been intensively monitored since introduction and we have a wealth of data on morphological and life history traits, social and genetic relationships, DNA samples and environmental variables. The project student will be responsible for helping to develop a genomic toolkit for hihi, using this toolkit to determine the genetic basis of traits in the population using genetic linkage mapping and association, and investigating genetic trade-offs between traits that may constrain the adaptive potential of the species.

We are looking for a candidate with a strong background in statistics, bioinformatics, mathematics, computer programming or similar, as well as a passion for genetics, ecology and conservation biology.

The PhD position requires the applicant to be eligible for admission to the PhD programme at the University of Auckland (see <a href="https://www.auckland.ac.nz/en/for/future-postgraduates/how-to-apply-pg/apply-for-adoctorate/phd-entry-requirements.html">https://www.auckland.ac.nz/en/for/future-postgraduates/how-to-apply-pg/apply-for-adoctorate/phd-entry-requirements.html</a>; please note the English language proficiency requirements). Candidates should ideally have a GPA of 7 or above; international students are welcome to apply.

This project is a collaboration with Drs Patricia Brekke and John Ewen at the Institute of Zoology, Zoological Society of London, see <a href="http://www.hihiconservation.com">http://www.hihiconservation.com</a>. To apply for this position, please email Dr Anna Santure (a.santure@auckland.ac.nz) with your cv, names and details of two referees, your academic transcript, and a short statement of interest. I welcome informal enquiries.

The PhD scholarship is available from 1 March 2015 and covers tuition fees and provides an annual tax free allowance of NZD\$25,000 for three years. The closing date is 16 January 2015.

asanture@gmail.com

# UBrimingham 2 TetrapodDiversification

Two fully funded PhD studentships with a start date of 1st October 2015 are currently available with Dr Richard

Butler as part of an European Research Council (ERC) Starting Grant on Phanerozoic terrestrial tetrapod diversification. The studentships will each be fully funded for four years, with each having a research and training grant to support training, conference attendance, and computer hardware/software. Funding is potentially available to UK, EU and international candidates. The students will join a highly active palaeobiological research group at the University of Birmingham including additional ERC-funded postdoctoral researchers.

The deadline for applications is Friday 23rd January 2015.

More information is available at: <a href="http://www.archosauromorpha.com/opportunities">http://www.archosauromorpha.com/opportunities</a> Please contact Richard Butler for more details.

Dr. Richard J. Butler Birmingham Fellow Academic Keeper of the Lapworth Museum of Geology School of Geography, Earth and Environmental Sciences University of Birmingham Edgbaston Birmingham, B15 2TT +44 (0)121 414 5539

## UCambridge EvolutionAvianTaste

\*PhD on the function and evolution of avian taste with Hannah Rowland at the University of Cambridge. \*

\*Importance of the area of research concerned\*: Many animals depend upon their sense of taste to survive. But our understanding of the molecular basis of taste is mostly based on mammal studies. It is unclear to what extent other vertebrates, such as birds, use similar mechanisms. Genomics and behavioural studies on the avian sense of taste will address basic questions in evolutionary biology. Findings can be applied to create agricultural pest control measures and to formulate diets for the pet trade or for captive breeding programs.

\*Project summary\*: The molecular bases of bird olfaction and visionare well understood. In contrast, little is known about the taste sensitivity of birds, or the genetic basis of taste in any bird species. Because birds are adapted to a diverse range of habitats and dietary niches, they are an ideal study system for questions

to apply:

about the evolutionary ecology of taste. The candidate will investigate the evolutionary dynamics of avian taste receptor genes, differences in feeding behaviour and taste preferences across individuals and species, and the physiological processes underlying taste behaviour plasticity.

Contact Hannah at hr325@cam.ac.uk Hannah Rowland <hr325@cam.ac.uk>

# UCollege London

The genomic architecture of mitochondria Supervisors

Dr Nick Lane, Dr Francisco Ubeda, Prof. Andrew Pomiankowski and Prof. Vincent A.A. Jansen

MitochondriaGenomicArchitecture

Research Outline

Mitochondria transitioned from free-living bacteria to obligate symbionts of eukaryotic cells. In this process they gave up a good part of their genome (either lost or transferred to the nucleus of their host cell) and their reproductive independence (which is now controlled by the nucleus).

Little is known regarding this fundamental transition. We are interested in which scenarios favor the transfer of genes from bacteria engulfed by a cell to the nucleus, and the transfer of reproductive control to the host nucleus.

In the first place we will do this through studying models of the evolutionary dynamics of mitochondrial genes. By taking a gene eye-view we will be able to determine when the gene copies in the nuclear genome would outcompete the ones in the mitochondrial genome. We plan to test model predictions using model organism such as Chlamydomonas and Yeast.

This studentship is suitable for candidates with a background in biology or the quantitative or life sciences, and some experience, interest and exposure to the use of mathematical models. It is particularly suited for candidates who have already obtained a good MSc. This 4 year fully funded studentship is offered as part of the London NERC DTP are open to UK/EU residents (see the London NERC DTP website for details )

For more information, please send an email to nick.lane@ucl.ac.uk or vincent.jansen@rhul.ac.uk or see

UCollege London TetrapodEvolution

http://mathbio.bl.rhul.ac.uk/vacancies/vacancies How

This studentship is offered as part of the London NERC

Doctoral Training Programme. The London NERC

DTP offers 4 year fully funded PhD studentships, and

has a central admission. To apply, follow the instructions

on http://london-nerc-dtp.org/how-to-apply/ Send your application before the closing date of 11 Jan 2015.

"Jansen, Vincent" < Vincent.Jansen@rhul.ac.uk >

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We are currently accepting applications for a fullyfunded 4-year PhD studentship on morphological evolution and modularity in tetrapods in the Goswami lab at University College London

Further details about the lab at www.goswamilab.com Project Description:

Morphological variation is the foundation of evolutionary theory, but the basic influences on morphological variation are still poorly understood. Developmental interactions are often discussed as a major control on variation, but direct analysis of this hypothesis has been hindered by the lack of quantitative comparative data. Similarly, robust analyses analysing both extrinsic and intrinsic influences on morphological evolution are often limited by data availability.

Using advanced biological imaging techniques (CT- and laser scanning) combined with surface-based 3-D morphometrics, this study will build on existing work in mammals by providing the first broad comparative data on modularity and disparity of skulls, jaws and limbs for living and fossil tetrapods. The PhD studentship will focus on one of the major non-mammalian clades, such as lissamphibians or reptiles, clades with incredible diversity in reproductive strategies, ecology and morphology. This project will require extensive international travel for data collection, as well as running analyses and possibly writing new code in R. In combination with existing data from an ontogenetic sequence of Xenopus, and juvenile and adult neontological and paleontological specimens of mammals, this project will produce a robust analysis of the relationships among modularity, morphological disparity, evolutionary rates and how each of these responds to major life history and ecological transitions as well as large-scale biotic and environmental events.

In addition to training in biological imaging and quantitative analyses, there will be opportunities for international palaeontological fieldwork during the course of this project. This project is part of a larger European Research Council grant that will fund a total of 5 team members, including this studentship.

#### Research relating to this project:

A. Goswami, J.B. Smaers, C. Soligo, and P.D. Polly. 2014. The macroevolutionary consequences of phenotypic integration < http://media.wix.com/-ugd/6b49fb\_86e1fa2f88cd4fd1859b44a7e8b71318.pdf >. Philosophical Transactions of the Royal Society of London, B, 369: 20130254.

A. Goswami and P.D. Polly. 2010. The influence of modularity on cranial morphological disparity in Carnivora and Primates (Mammalia) < https://docs.google.com/fileview?id=-0B5qBRdl6ZwRjNDY2MDcyYmEtMWVjOS00ZTFlLWEen >. PLoSOne, 5(3):e9517.

A. Goswami, V. Weisbecker, and M. R. Sánchez-Villagra. 2009. Developmental modularity and the marsupial-placental dichotomy < https://sites.google.com/site/anjgoswami/GoswamietalJEZb2009.pdf?attredirects=0 >. Journal of Experimental Zoology B, 312B: 186-195.

A. Goswami. 2006. Cranial modularity shifts during mammalian evolution < https://sites.google.com/site/anjgoswami/Goswami-MammalianCranialModularityAm.pdf?attredirects=0 >. American Naturalist, 168:170-180.

To Apply for this PhD studentship:

a) Apply online via the UCL Admissions site:http://www.ucl.ac.uk/prospective-dents/graduate/research/application(the button is at the bottom of the page).

Enter Keyword: Genetics; Department: Division of Biosciences; Programme Group: Postgraduate Research

Select Division of Biosciences and Research Degree in Genetics, Evolution & Environment and detail Dr. Goswami as the prospective supervisor in the appropriate places in the application form. Please also include/upload a copy of your CV and a covering letter.

b) In addition, please send a copy of your CV together with the covering letter directly to Dr. Anjali Goswami at a.goswami@ucl.ac.uk. The application deadline is January 30 and interviews will be conducted in mid February. For any issues with the UCL application system, please contact Manu Davies, manu.davies@ucl.ac.uk

Funding Notes:

Funding will cover full fees and stipend (stipend, with London allowance, approximately  $\hat{A}\pounds15,900$ ) for EU students only. Non-EU students may apply only if additional sources of funding to cover international student fees have been obtained by the application deadline.

"Goswami, Anjali" <a.goswami@ucl.ac.uk> "Goswami, Anjali" <a.goswami@ucl.ac.uk>

#### UEssex Artificial Selection

The PhD Student will use artificial selection to increase a trait value of interest in complex communities of microorganisms. Artificial selection allows us to force a link between the fitness of communities and a desired trait value. This link can counteract natural selection and ensures the proliferation of the desired community type. The trait can be a biochemical character such as chlorophyll concentration or a service such as the rate of degradation of a pollutant. The student will use high-throughput methods including microtiter plate assaying and cell-sorting flow-cytometry to characterize the communities and apply selection. This will be used to test the factors that affect the rate and final amount of change in a trait value under selection.

Lead supervisor: Dr Etienne Low-Décarie

Apply by using the University of Essex graduate application process at: <a href="https://www.essex.ac.uk/pgapply/enter.aspx">https://www.essex.ac.uk/pgapply/enter.aspx</a> Keywords: algae, evolution, adaptation, experimental, chlorophyll, ecological interactions, biodiversity, meta-community

elowde@essex.ac.uk

#### **UExeter Conservation**

The Centre for Ecology & Conservation at the University of Exeter's Penryn Campus is offering a range of Scholarships to students wishing to undertake a Masters degree. Our portfolio of programmes includes:

MSc Evolutionary and Behavioural Ecology MSc Applied Ecology MSc Conservation and Biodiversity MSc Conservation Science and Policy

We are offering the following awards that include some with a specific geographic focus and others that are open to all applicants:

Award Value Description

Conservation, Ecology and Evolution Masters Distinction Scholarships  $\pounds 5{,}000$ 

The Conservation, Ecology and Evolution Masters Distinction Scholarships are available for top performing students enrolling on the MSc Conservation and Biodiversity, MSc Conservation Science and Policy, MSc Evolutionary and Behavioural Ecology or MSc Applied Ecology.

Masters Distinction Scholarships £5,000

Masters Distinction Scholarships are available for top performing students who accept a place to study an eligible taught Masters programme.

Africa Masters Excellence Awards £2,000

The Africa Masters Excellence Awards are available for top performing applicants who are resident of an African country and who accept a place to study an eligible taught Masters programme.

China Masters Excellence Awards £2,000

The China Masters Excellence Awards are available for top performing applicants who are resident of China and who accept a place to study an eligible taught Masters programme.

US Masters Excellence Awards £2,000

The US Masters Excellence Awards are available for top performing applicants who are resident of the US and who accept a place to study an eligible taught Masters programme.

The application deadline for all of the awards is 30 April 2015. For additional information see: http://biosciences.exeter.ac.uk/cec/postgraduate/ Prof DJ

Hosken University of Exeter, Cornwall Tremough, Penryn TR10 9FE UK

01326 371843 D.J.Hosken@exeter.ac.uk http://biosciences.exeter.ac.uk/staff/index.php?web\_id=-david\_hosken DJ Hosken < D.J.Hosken@exeter.ac.uk>

#### UGlasgow ComparativeGenomics

A competitive fully-funded PhD studentship will be available to study comparative ecological genomics of freshwater fishes with Kathryn Elmer and Colin Adams through the University of Glasgow College of Medical, Veterinary and Life Sciences Doctoral Training Programme (CMVLS-DTP).

Details available http://are at: www.gla.ac.uk/colleges/mvls/graduateschool/researchopportunities/researchopportunities/mvlsdoctoraltrainingprogramme/ See the project entitled "Comparative ecological genomics of environmental heterogeneity" under the section "Food Security (Crop Science and Animal Health)". Note that the application is to the CMVLS-DTP and not to the project, but the project will be available to the successful candidates. This Doctoral Training Programme aims to deliver high quality, collaborative research and training for PhD students within the Biosciences.

The competition is open to all UK students and EU nationals who reside in the UK.

Deadline for applications is Friday 16 January 2015

Dr. Kathryn Elmer is interested in the genetic basis of biodiversity and ecological diversification and is based in the Evolutionary Analysis Group. Prof. Colin Adams studies fish biology and ecology and is Director of the Scottish Centre for Ecology and the Natural Environment (SCENE). Both faculty are based in the Institute of Biodiversity, Animal Health & Comparative Medicine, University of Glasgow, Scotland. <a href="http://www.gla.ac.uk/researchinstitutes/bahcm/staff/kathrynelmer/">http://www.gla.ac.uk/researchinstitutes/bahcm/staff/colinadams/</a> Please see the website for details on the CMVLS-DTP and feel free to contact Kathryn Elmer with informal inquiries in advance of the deadline.

Kathryn Elmer < Kathryn. Elmer @glasgow.ac.uk >

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## **UGlasgow MathBiol Evolution**

PhD Opportunity in pure mathematics, interacting closely with biology, exploring molecular evolutionary patterns through topological methods in data analysis.

Project Title: Convergence, connectivity, and continuity - Topological perspectives for mining novel biological information from omics data

Fully funded PhD opportunity at the University of Glasgow, Scotland, UK starting autumn 2015, up to 4 years in the research team of Liam Watson (Maths) and Kathryn Elmer (Evolutionary Biology)

This interdisciplinary Lord Kelvin-Adam Smith studentship funded by the University of Glasgow is based in Maths & Stats (College of Science & Engineering) with on-going interaction with the Evolutionary Analysis Group, Institute of Biodiversity, Animal Health & Comparative Medicine (College of Medical, Veterinary & Life Sciences).

The ideal candidate will have a strong background in mathematics and a diverse interest and some experience in the experimental and biological sciences (molecular biology, evolution). Additionally, the desire to engage with existing techniques in statistics and computer programming will be an asset. Applicants must hold a First Class degree (or equivalent) in a relevant discipline and demonstrate exceptional aptitude for interdisciplinarity. Informal inquiries to the PIs in advance of the deadline are welcome; please include a CV, recent academic transcript, and a statement of interest.

Project: The challenges posed by big data are the new reality across scientific disciplines. For example, recent advances in high throughput DNA sequencing technology for genomics have revolutionised our ability to quantifying how genes are expressed at cellular, biological, and evolutionary scales. However, the tools for analysing the resultant big data from such transcriptomics studies have not kept pace for biological and evolutionary perspectives on gene expression and coexpressed gene networks. The current project aims to advance the field by applying ideas from topology V a branch of mathematics that is specifically adapted to treat qualitative properties such as connectivity. Since the expression of genes in an organism are co-dependent, co-varying and continuous, treating data from a topological viewpoint can reveal new relationships by V

perhaps paradoxically V deliberately ignoring structure from conventional modes of traditional analysis. This project will bridge mathematics and biology to adapt and develop new ways to analyse patterns in complex data, specifically transcriptome-wide gene expression in evolutionary, molecular, and biodiversity context.

Details on the project and application process are available at the University of Glasgow, Postgraduate Research, Scholarships webpage http://www.gla.ac.uk/-services/postgraduateresearch/scholarships/-kelvinsmith/recruitingscholarshipprojects/ Deadline: 31 January 2015

Prestigious and competitive interdisciplinary PhD programme open to all nationalities.

Interested candidates are encouraged to contact the PIs in advance of the deadline with a CV, recent academic transcript, and a statement of interest.

Kathryn Elmer < Kathryn. Elmer @glasgow.ac.uk >

## ULondon GutBacteriaPopulations

What structures populations of bacteria in the gut?

Supervisors

Prof. Vincent A.A. Jansen (Royal Holloway), Dr John Pinney (Imperial College), and Prof. Michael Stumpf (Imperial College)

Research Outline

This studentship aims to understand how populations of bacteria interact within a population of hosts that carry these bacteria. We want to know how populations of gut bacteria interact, and what forces structure such bacterial populations. This will be investigated through modelling these populations and investigating the population dynamics and evolution in these models.

This work is important because foodborne zoonotic bacteria, such as Salmonella and Campylobacter, are important cause of foodborne illness. One way to reduce the incidence of foodborne is to reduce the abundance of the pathogenic strains in the populations of their animal hosts such as cattle and poultry. To do this successfully, we need to know what shapes the community of bacterial strains in the host population.

Many different strains of bacteria are found in host populations, and we do not really know what makes some of these strains abundant and others much less so. To

reduce the numbers of pathogenic bacteria in animal hosts, finding out how such populations are structured and organised is very important. This will be done through making mathematical or computer models of the bacterial populations in their hosts.

The studentship will be held at the School of Biological Sciences, Royal Holloway University of London, UK, and supervised by a team of supervisors from Royal Holloway and Imperial College London. We are looking for either a biology graduate with strong interest in evolutionary theory and modelling, or an economics / mathematics /computer science graduate with strong interest in biology and evolution. This studentship is part of the BBSRC Doctoral training partnership jointly awarded to Imperial College and Royal Holloway. Studentships are fully funded and normally for a duration of four years (unless a relevant MSc has already been obtained). The applicant will need to fulfill the UK research council's residency criteria.

If you are interested in doing a PhD in mathematical modelling in this could be an opportunity to expand your skills in working with two of the UK's leading groups in mathematical biology.

For more information, please send an email to vincent.jansen@rhul.ac.uk or see <a href="http://-mathbio.bl.rhul.ac.uk/vacancies">http://-mathbio.bl.rhul.ac.uk/vacancies</a> How to apply:

Download and complete the application form available here

Send the completed application form to SBSstudentships@rhul.ac.uk together with a) an up to date CV b) copies of any relevant academic transcripts

Arrange for two referees to send a reference (in any format) direct to SBS studentships@rhul.ac.uk before the closing date of 31st Jan 2015, including your name in the subject field of the email.

"Jansen, Vincent" < Vincent.Jansen@rhul.ac.uk>

## ULondon TheoryGeneEvolution

Theory of Gene Evolution

Supervisors

Dr Francisco Ubeda and Prof. Vincent A.A. Jansen

Research Outline

Natural selection explains the adaptation of individuals but genes within individuals may act as Trojan horses sabotaging adaptive processes as long as they gain an evolutionary advantage. Evolutionary theory provides a unique insight into the role of genes within maladaptive processes.

We invite applications for a PhD studentship in the evolutionary theory group at the School of Biological Sciences, Royal Holloway University of London, UK. We are looking for either a biology graduate with strong interest in evolutionary theory and modelling, or an economics / mathematics /computer science graduate with strong interest in biology and evolution.

Current research in our labs involves the use of mathematical models - population genetics, game theory, kin selection, theoretical epidemiology and ecology- to understand evolutionary processes within the individual and between individuals in a wide range of organisms from viruses to humans. Our groups are well connected with theoretical and empirical biologists within the London area and beyond.

This project is suitable for candidates with some background or experience in mathematical modeling or simulation at undergraduate level. We are looking for candidates, either with a background in the life sciences, and experience in mathematical or simulation modeling, or for candidates with a background in a quantitative subject (e.g. mathematics, computer science, physics) and an affinity for research in ecology and evolution.

If you are an EU national interested in the genes eye view of evolution in general, and human evolution in particular, and you are careful thinker consider applying to the funded PhD opportunity we offer.

For more information, please send an email to f.ubeda@rhul.ac.uk or vincent.jansen@rhul.ac.uk or see http://mathbio.bl.rhul.ac.uk/vacancies/vacancies How to apply:

Download and complete the application form available here Send the completed application form to SBSstudentships@rhul.ac.uk together with a) an up to date CV b) copies of any relevant academic transcripts Arrange for two referees to send a reference (in any format) direct to SBS studentships@rhul.ac.uk before the closing date of 31st Jan 2015, including your name in the subject field of the email.

"Jansen, Vincent" < Vincent.Jansen@rhul.ac.uk>

#### UMontana Astrobiology2

New graduate student positions at the NASA Astrobiology Institute at the University of Montana (admitting for Fall 2015)

#### Overview:

The NASA Astrobiology Institute (NAI) at the University of Montana is seeking outstanding graduate students interested in pursuing research related to the evolution of biological complexity. Research assistantships (NIH scale) are available to work on projects led by Scott Miller, Matt Herron and Margie Kinnersley. NAI students will join the robust and collaborative Evolutionary Genetics and Genomics Group, a diverse set of UM faculty using genetic and genomic approaches to investigate evolutionary processes in plants, animals, and microbes. Funding is also available for short- or long-term travel to the UM-NAI partner labs of Vaughan Cooper (U New Hampshire), Shelley Copley (U Colorado, Boulder), Gavin Sherlock (Stanford U), and Paul Sniegowski (U Pennsylvania). Students will also have the opportunity to interact with Montana NAI team leader Frank Rosenzweig, Montana NAI co-Investigator John Mc-Cutcheon, as well as with theoretical biologists Eric Smith (Santa Fe Institute) and Phil Gerrish (U New Mexico), who will be summer scholars-in-residence at Montana and Pennsylvania, respectively.

#### Program Description:

It is now widely recognized that not just competitive, but also cooperative interactions are fundamental features of biological systems ranging from enzymes to organelles, cells and societies of cells and organisms. The Montana NAI consists of eight projects organized around five questions related to how such interactions influenced major transitions in the history of Life: (1) How do enzymes and metabolic networks evolve? (2) How did the eukaryotic cell come to be, specifically the cell that contained a mitochondrion? (3) How do symbioses arise? (4) How does multicellularity evolve? and (5) How do pleiotropy, epistasis and mutation rate constrain the evolution of novel traits? A unifying theme underlying these questions is: how do cooperative vs. competitive interactions play out in driving major transitions that occur when independently replicating entities combine into a larger, more complex whole?

#### Project Descriptions:

Consequences of recA duplication for recombination, genome stability and fitness (PI Scott Miller; Scott.Miller@mso.umt.edu; www.cas.umt.edu/dbs/labs/miller/):

Despite the importance of homologous recombination during the proliferation of biological diversity, we still have a poor understanding of the balance of its creative, stabilizing and destabilizing contributions to organismal fitness and genome evolution. Addressing this issue hinges on understanding the regulation of the expression and activity of the recombinase A (recA) gene family, an ancient gene family that plays a central role in HRmediated processes in all three domains of life. We will use the extraordinary genetic variation exhibited by duplicated recA gene copies in the genomes of the cyanobacterium Acaryochloris as a model to address both the impact of recA copy number on recombination and fitness and whether Acaryochloris RecA paralogs have specialized for different sub-functions. With the recent development of genetic tools for these organisms that enables us to manipulate recA copy number, the Acaryochloris system presents a unique opportunity to gain novel insights on the fitness consequences that emerge from the interplay between HR-mediated maintenance of genome stability, selectively favored gene duplications and non-adaptive genomic rearrangements.

The evolution of complexity via multicellularity and cell differentiation (PI Matt Herron; matthew.herron@mso.umt.edu; rosenzweig.dbs.umt.edu/people/matthew-herron/):

How and why organismal complexity increases are central questions in evolutionary biology. Although the vast majority of life forms remain simple, both the maximum and the average levels of complexity have increased from the origin of life to the present day. Large increases in organismal complexity resulted from a series of events in which existing individuals combined to become parts of a new kind of individual with components specialized for various roles. Such events are known as major transitions and include the emergence of cellular life from groups of interacting molecular replicators, of eukaryotes from two prokaryotes, of multicellular organisms from unicells, and of eusocial 'superorganisms' from individual animals. Among such transitions, the evolution of multicellular organisms from single-celled ancestors set the stage for unprecedented increases in complexity, especially in land plants and animals. We have used the unicellular green alga Chlamydomonas reinhardtii to experimentally generate de novo origins of simple (undifferentiated) multicellularity in two separate experiments. Using these newly-evolved, multicellular Chlamydomonas, we plan to ascertain the genetic bases

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## UMontana PlantEvolution GeneticsGenomics

The Fishman Lab at the University of Montana is recruiting PhD (or MS, possibly) students to pursue studies of adaptation and speciation using the genus \*Mimulus\* (monkeyflowers) as a model system.

I am particularly interested in recruiting an outstanding student to develop integrative research on yellow monkeyflower adaptation to geothermal habitats in Yellowstone National Park. A newly funded project (2015-2018) will investigate diverse traits that allow plants to live in this extreme environment and contribute to their reproductive isolation from nearby nonthermal populations. This novel system provides many research opportunities for a student prepared to integrate physiological, genetic, and genomic approaches to understanding adaptation and speciation (as well as the necessity of fieldwork in one of the most amazing places on Earth!). Other active research areas in the lab include the genetic basis of parallel divergence in life history, mating system and flowering time, the evolution of postmating and postzygotic species barriers, the role of chromosomal rearrangements in speciation, and selfish centromere evolution. In addition, students are encouraged to develop new research areas within the broad framework of plant evolution. \*Mimulus\* is a model system for evolutionary genomics, with tremendous biological diversity, excellent genome resources, and a collaborative research community. For more information on our current research, see the lab web page at: http://www.cas.umt.edu/dbs/labs/fishman/. The Fishman Lab is part of a highly interactive and productive group of six labs (J. Good, J. McCutcheon, S. Miller, F. Rosenzweig, and D. Emlen labs) at UMontana with diverse organismal foci but shared enthusiasm for evolutionary questions addressed with genomic tools. The Organismal Biology and Ecology Program at UM has faculty research strengths in evolutionary genomics, physiology, and ecology, excellent training for students, and outstanding access to natural areas for both research and recreation. We offer competive student-support packages (mix of RA)

and TA) with opportunities for additional research and travel funding. The University of Montana-Missoula is the state university systems liberal arts campus, fostering a rich cultural community, and Missoula was named a top-10 college town by Livability.com in 2013.

Please contact Lila Fishman (lila.fishman@mso.umt.edu) directly, attaching a CV, if you are interested in applying. The Organismal Biology & Ecology graduate application target date (http://cas.umt.edu/dbs/grad-programs/obe/apply.php for more info on program requirements) has passed, but we will be considering applications through January 15th, 2015.

Lila Fishman Associate Professor Division of Biological Sciences University of Montana Missoula, MT 59812

lilafishman@gmail.com

## UNebraska EvolutionaryGenetics

Graduate positions in Evolutionary Genetics

University of Nebraska

The School of Biological Sciences at the University of Nebraska has a recently expanded evolutionary genetics group, and we are seeking highly motivated students to join our graduate program in Fall 2015. Our group is especially strong in the areas of functional evolutionary genetics and genomics.

Faculty doing research in evolutionary genetics at UNL include:

Colin Meiklejohn (http://biosci.unl.edu/colin-meiklejohn)

Kristi Montooth (http://biosci.unl.edu/kristimontooth)

Etsuko Moriyama (http://bioinfolab.unl.edu/emlab/-index.html)

Jeffrey Mower (http://mowerlab.unl.edu/)

Jay F. Storz (http://storzlab.unl.edu/)

Anthony J. Zera (http://biosci-labs.unl.edu/zera/-index.html)

We offer generous graduate student support, an extremely collegial and interactive environment for doing science, excellent biotech and computational facilities, and access to the Cedar Point Biological Station. Lincoln, Nebraska is a great midwestern college town with a high quality of life, a thriving arts scene, and over 130

miles of bike trails (http://lincoln.ne.gov/city/parks/-parksfacilities/trails/).

For more information about the department, see: <a href="http://biosci.unl.edu/">http://biosci.unl.edu/</a> For a full listing of all faculty in the School of Biological Sciences, see:

http://biosci.unl.edu/current-faculty Interested students are encouraged to contact faculty directly with a letter of interest and CV. Deadline for applications is 15 December. For more information, see: http://biosci.unl.edu/graduate Colin Meiklejohn <meiklejohn2@unl.edu>

#### **UNewHampshire Genomics**

The MacManes Labat The University of New Hampshire is in search of a talented PhD student to work on a project aimed at understanding the genomic underpinnings of parental care in the Rock Dove. This work, done in collaboration with the Calisi Lab at Barnard College (Columbia University), will combine cutting edge techniques in neuroendocrinology with the analysis of high throughput sequencing data. Though this student will focus on genomics, receiving extensive training in bioinformatics, there will be opportunity for an extended visit to the Calisi lab to learn techniques in neuroendocrinology. I especially encourage students with diverse and non-traditional backgrounds to apply. The successful candidate may have an undergraduate degree in Biology, Computer Science, Statistics, Mathematics, or other disciplines. Applications are be submitted to the UNH graduate school (http://www.gradschool.unh.edu/apply.php, Deadline January 15). Interested students are strongly encouraged to contact me at matthew.macmanes@unh.edu.

Here is the link to the announcement: http://genomebio.org/grad-student-wanted/ Matthew Mac-Manes, Ph.D. University of New Hampshire I Assistant Professor of Genome Enabled Biology Department of Molecular, Cellular, & Biomedical Sciences Durham, NH 03824 Phone: 603-862-4052 I Twitter:@PeroMHC| Web:genomebio.org Office: 189 Rudman Hall | Laboratory: 145 Rudman Hall

Matthew MacManes <macmanes@gmail.com>

#### UNottingham PestsToParadise

"From pests to paradise: control and conservation of molluscan biodiversity".

BBSRC DTP-funded PhD position

Dr. Angus Davison, University of Nottingham

Snails and slugs are a major crop pest, with a few introduced species causing worldwide problems. Yet, they are difficult to identify and we have little idea of how this biodiversity has come about, hindering appropriate control and conservation efforts. This project will use next generation sequencing methods to investigate the evolution and speciation of snails, especially with respect to characters under natural selection (e.g. shell colour and banding), and including methods that may help identify invasive or cryptic species, or species of conservation concern.

Building upon the work of a recent BBSRC-funded PhD student (Richards et al 2013), who investigated the diversity within colour polymorphic Cepaea, this new project will investigate the degree of parallelism and convergence between Cepaea and other species. Ultimately, the precise project will be determined by the interests of the student, but the overall aim is that he/she will begin to determine if the same modes of speciation and evolution are involved in widely divergent species. The conclusions will have implications for both control and conservation of molluscan biodiversity.

Although much of the work will be lab-based, with a related bioinformatics element, field collection will be a necessary component, including probable work in East Asia or the Caribbean region.

The closing date for applications for this fully funded scheme is Sunday 21 December 2014. It is advisable to make an informal enquiry with Dr Angus Davison (angus.davison@nottingham.ac.uk) prior to making a formal application.

Successful candidates will be offered four years PhD training. Part of the first year will consist of lab rotations, with the remaining time focused on the main research project. Funding requirements mean that the project is advertised under the "Agricultural and Food Security" banner. Funding available to UK residents (fees + stipend) and EU citizens (fees only).

http://www.nottingham.ac.uk/graduateschool/-

bbsrc-doctoral-training-programme-in-biosciences/-prospective-students/available-projects/lifesciences/-from-pests-to-paradise-control-and-conservation-of-molluscan-biodiversity.aspx http://onlinelibrary.wiley.com/doi/10.1111/mec.12262/full Dr. Angus Davison Reader in Evolutionary Genetics School of Life Sciences Life Sciences Building University Park University of Nottingham NG7 2RD

0115 8230322 angus.davison@nottingham.ac.uk www.angusdavison.org Angus.Davison@nottingham.ac.uk

## UOtago NewZealand NicheVariation

Travis Ingram's research group at the University of Otago in Dunedin, New Zealand, is seeking a PhD student with interests in niche theory, evolution and freshwater ecology.

The three-year PhD studentship will be funded by a grant from the Royal Society of New Zealand's Marsden Fund between 2015-2017. The project will address the causes and consequences of individual niche specialisation in multiple ecological dimensions. Our study system will be a metacommunity of wetland ponds containing native (common bully, Gobiomorphus cotidianus) and introduced (perch, Perca fluviatilis) fish species. We will measure the extent of individual specialization in diet and habitat use in these populations, and use experiments in ponds and mesocosms to investigate the ecological causes and consequences of multidimensional niche variation.

The successful student will be expected to lead multiple field seasons, to help to shape the project to reflect their interests and expertise, and to take the lead on publishing and presenting the results. Quantitative skills (including matrix algebra and multilevel statistical modeling) or experience with freshwater fish biology and food web ecology would be assets. PhD programs are short in New Zealand (3-4 years), so it is important that the student is capable of planning and beginning research soon after arrival, and evidence of previous research experience is essential (e.g. a Masters or a BSc Honours thesis). The start date is negotiable but preferably during the austral winter (between June-August 2015).

The scholarship is fully funded by the Marsden grant for three years, and includes a NZ\$25,000 annual stipend, associated student fees, and funds for conference travel, with opportunities to apply for additional research and travel funding. Dunedin is a coastal city of 120,000 in the south part of New Zealand's beautiful South Island. The University of Otago is an internationally successful research university, and the Department of Zoology is a busy and productive department with particular strengths in freshwater ecology and evolutionary genetics and numerous opportunities for collaboration.

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If interested, please email the following to Dr. Travis Ingram at <travis.ingram@otago.ac.nz> - a cover letter summarizing your research experience and interests - a current curriculum vitae - a copy of your university transcripts (unofficial transcripts are ok) - names and email addresses of two individuals willing to write letters of recommendation on your behalf (please do not have referees send letters at this point)

Informal enquiries prior to application are welcome, as are enquiries from students interested in other projects that fall broadly within our research interests. These include but are not limited to macroevolutionary studies of trait diversification and eco-evolutionary studies of food web interactions: for descriptions of our research and publications see our website at <a href="http://www.otago.ac.nz/ecoevotago/">http://www.otago.ac.nz/ecoevotago/</a>. Students wishing to develop other projects would either need to apply for a scholarship through the University of Otago's Graduate School (typically requiring an A average including a MSc/BSc Hons thesis) or have access to alternative funding sources.

Applications will be assessed on an ongoing basis until the position is filled; for full consideration, submit materials by 15 January, 2015.

travis.ingram@otago.ac.nz

## UOttawa FungalPopulationGenomics

Two Graduate Student Positions (MSc or PhD) in Comparative and Population Genomics of Symbiotic and Pathogenic Fungi - Corradi Lab

The Corradi Lab is currently seeking two talented graduate students (MSc or PhD level). Students will be supervised by Dr. Nicolas Corradi within a CIFAR (Canadian Institute for Advanced Research) - affiliated laboratory located in the Department of Biology of the University of Ottawa, Canada. Lab Website: <a href="http://mysite.science.uottawa.ca/ncorradi/index.html">http://mysite.science.uottawa.ca/ncorradi/index.html</a> The candidates are expected to contribute to some of the

ongoing large-scale projects that focus on the Comparative and Population Genomics of two evolutionary unrelated groups of fungi: the Arbuscular Mycorrhizal Fungi (AMF) and the Microsporidia. Enquiries about specific projects can be sent to Dr. Nicolas Corradi (ncorradi@uottawa.ca).

Applicants are expected to have some background in comparative genomics or populations genetics/genomics. Prior experience in either Population Genetics, Environmental Genomics, Metagenomics, genome annotation, Environmental Sampling and Strain cultivation (AMF spores), Fungal taxonomy and programming will be seen as an asset for the final selection of the candidate. Basic knowledge of Linux is required. The lab is bilingual (English and French). For Non-Canadian candidates, Fluency in French is desired.

A complete application package includes 1) a CV, 2) a short description of past research accomplishments and future goals, and 3) the names and e-mail addresses of at least 2 references. Evaluation of applications starts immediately and suitable candidates are expected to join the lab before September of 2015.

The University of Ottawa is a large, research-intensive university, hosting over 40.000 students and located in the downtown core area of Canada's capital city (http://www.science.uottawa.ca/fac/welcome.html). Ottawa is a vibrant, multicultural city with a very high quality of life (http://www.ottawatourism.ca/fr/)

Applications can be sent to Dr. Nicolas Corradi (ncorradi@uottawa.ca).

Representative publications:

- Parisot N. \*, Pelin A. \* et al. 2014.. Microsporidian genomes harbour a diverse array of transposable elements that demonstrate an ancestry of horizontal exchange with metazoa. Genome Biology and Evolution. 6 (9): 2289-2300. \*Contributed equally.
- Riley R. et al. 2014. Extreme Diversification of the MATA-HMG Gene Family in the Plant Associated Arbuscular Mycorrhizal Fungi. New Phytologist. 201: 254-268
- James T.Y et al. 2013. Shared signatures of parasitism and phylogenomics unite the Cryptomycota and Microsporidia. Current Biology. 23 (16), 1548-1553
- Tisserant E. et al. The arbuscular mycorrhizal Glomus genome provides insights into the evolution of the oldest plant symbiosis. Proceedings of the National Academy of Sciences USA. 110 (50), 20117-20122R576-R577
- Pombert J.F. \*, Selman M.\* et al. 2012. Gain and loss of multiple functionally- related horizontally transferred genes in the reduced genomes of two microsporidian par-

- asites. Proceedings of the National Academy of Sciences USA 109(31):12638-43
- Selman M. et al. 2011. Acquisition of an animal gene by two microsporidia. 2011. Current Biology 21: R576-R577

Nicolas Corradi (ncorradi@uottawa.ca)

#### UOxford EvolutionHumanBehaviour

A fully funded doctoral scholarship in evolutionary/biological anthropology is available at the University of Oxford, to study the evolution of human social and cultural behaviour.

The specific focus of the project will be determined by the interests of the student. A number of directions at the interface of biology and anthropology are possible, ranging from comparative studies of social behaviour across species to field-based data collection and analysis.

The student will be supervised by Dr. Laura Fortunato; co-supervision will be arranged where possible, and depending on the focus of the project. Details on areas of ongoing research are at:

www.santafe.edu/~fortunato/research/ The ideal candidate will have training in anthropology, biology or related subjects, an excellent academic record, and quantitative/computational skills. The student will be based at the Institute of Cognitive ad Evolutionary Anthropology at the University of Oxford, to begin in October 2015.

The formal deadline for applications is 2015-01-23. The scholarship is open to applicants of any nationality, but who have been ordinarily resident in the UK for at least five years before the start of the course.

Potential applicants who meet the eligibility criteria are strongly encouraged to make an initial informal enquiry, as detailed here:

www.santafe.edu/~fortunato/opportunities/ — Laura Fortunato || Associate Professor of Evolutionary Anthropology | University of Oxford || Research Fellow |
Santa Fe Institute ||

laura.fortunato@anthro.ox.ac.uk

## UPotsdam 4PhDgrants ClimateChangeAdaptation

Graduate position: UPots-dam\_4PhDgrants\_ClimateChangeAdaptation Evolutionary adaptive responses to rapid climate change

Our research project within the University Focus Area Functional Ecology and Evolution aims to uncover the genomic and ecological basis of local adaptations in vertebrates, invertebrates and plants in response to different climatic conditions. The results of our investigations should lead to more informed and realistic predictions about the effects of human-mediated climate change on future biodiversity patterns.

The comprehensive experimental design uses both temporal and spatial climatic transects to study representative species ranging from invertebrates to vertebrates and plant species. We combine ecological phenotyping and genome sequencing of target organisms across space and time with paleogenomic analyses of selected species across the Pleistocene-Holocene boundary. We strive to support conclusions based on genomic data and modeling with a range of ecological common garden, competition and climate change experiments to identify the genomic basis of adaptation to rapid climatic change

\* Evolutionary adaptive responses to rapid climate change in plants We are looking for a highly motivated doctoral researcher to study the evolutionary adaptive responses to rapid climate change in plants within this interdisciplinary research framework. This project includes (i) a sampling of plant species along a latitudinal gradient from mid-to Northern Europe, (ii) common garden and greenhouse experiments as well as crossing experiments using a population genetic approach, and (iii) molecular and statistical analyses of genomic and phenotypic response data. Applicants should have a deep interest in plant evolutionary ecology and hold a Master degree (or equivalent) in the relevant research fields (e.g. plant population genetics). Applicants are expected to have relevant laboratory experience, and an interest in the design and analysis of ecological experiments. This position requires strong communication skills and a very good command of written and spoken English. For questions regarding this position, please contact Prof. Jasmin Joshi (jjoshi@uni-potsdam.de) or Prof. Michael Lenhard (michael.lenhard@uni-potsdam.de).

- \* Evolutionary adaptive responses to rapid climate change in invertebrates We are looking for a highly motivated doctoral researcher to study the evolutionary adaptive responses to rapid climate change in invertebrates within this interdisciplinary research framework. The candidate will collect genetic/genomic data from planktonic rotifers along the latitudinal gradient from mid-to Northern Europe to (i) analyze genetic differentiation within a model species, (ii) unravel population structure and (iii) identify putative candidate loci cosegregating with geographical proximity and/or ecological parameters. In parallel, stock cultures of representative genotypes will be established in the laboratory for ecological experiments to test for local/regional adaptation. This project will thus combine modern genetic techniques with eco-evolutionary experiments. Applicants should hold a Master degree (or equivalent) in biology or a related field. Applicants are expected to have a sound knowledge and practical experience in molecular genetics and/or aquatic ecology, and an interest in the design and analysis of ecological experiments. This position requires strong communication skills and a very good command of written and spoken English. For questions regarding this position, please contact PD Dr. Guntram Weithoff (weithoff@uni-potsdam.de), Prof. Ursula Gaedke (gaedke@uni-potsdam.de) or Prof. Ralph Tiedemann (tiedemann@uni-potsdam.de).
- \* Evolutionary adaptive responses to rapid climate change in microtine mammals We are looking for a highly motivated doctoral researcher to study the evolutionary adaptive responses to rapid climate change in small vertebrates within this interdisciplinary research framework. The candidate will collect genetic/genomic data from microtine rodent species along the latitudinal gradient from mid-to Northern Europe to (i) analyze genomic differentiation within a model species, (ii) unravel population structure and (iii) identify putative candidate loci co-segregating with geographical proximity and/or ecological parameters. In parallel, adaptations to day length and daylight changes in life history parameters, and flexibility in responses to day length will be studied in colony-housed populations from different origins along the gradient. This project will thus combine modern genetic techniques with eco-evolutionary experiments. Applicants should hold a Master degree (or equivalent) in biology or a related field. Applicants are expected to have a sound knowledge and practical experience in molecular genetics and/or terrestrial ecology,

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mcmaster.ca/~brian/evoldir.html

#### UppsalaU Sweden Mycology

Even if the position is not primarily Evolutionary it will require skills used in evolutionary research, it will be encouraged that evolutionary topics are pursued, and it will be based at the Evolutionary Biology Centre at Uppsala University which has a strong evolutionary profile.

PhD-student in Systematic Biology at the Department of Organismal Biology

Uppsala University is an international research university focused on the development of science and education. Our most important assets are all the individuals who with their curiosity and their dedication makes Uppsala University one of Sweden's most exciting work places. Uppsala University has 41.000 students, 6,500 employees and a turnover of SEK 5,900 million.

Project description: The PhD position is part of an externally founded project to investigate the environmental factors that control the production of edible mushrooms in western Africa. Mushrooms are an important part of the diet for many people in West Africa and selling mushrooms give an opportunity of monetary income. Many edible mushrooms are ectomycorrhizal, i.e. form a symbiotic relation with trees, and there are calculations indicating that the potential value of mushroom production is higher than the value of timber production in many forests.

The project will include inventories of mushrooms and collection of climate data for sample sites in ectomycorrhizal forests in Benin. Species determination using morphology and molecular methods will be an important part of the project. Except the goal to predict mushroom production from climate data, there will be studies of fungal diversity and etnomycology. The exact questions of the PhD-work will be developed in collaboration with other project participants and there are also opportunities to pursue studies outside the main project. The project will be done in close collaboration with scientists and students at the University of Parakou.

Qualifications: To be admitted as a PhD-student a MSc in biology or higher, or corresponding qualifications are

required.

Application: The application should include a letter briefly describing the applicant and the applicants research interests (one page). The application should also include a CV, contact information to at least two references, copies of certificates of exams and grade, copy of bachelor thesis or similar work, and other documents the applicant wish to adduce.

Contact: Martin Ryberg, e-post: martin.ryberg@ebc.uu.se. You are welcome with your application no later than January 19, 2015, UFV-PA 2014/3879. To apply follow the link below

http://www.uu.se/en/about-uu/join-us/details/-?positionId=3D49790# The position may include up to 20% teaching/administrative work, which will then prolong the position accordingly. The salary will follow the local guidelines.

martin.ryberg@ebc.uu.se

#### URhodeIsland EvolutionEducation

The Science Education And Society (SEAS) research program (http://seasprogram.net) is recruiting graduate students as RAs and TAs (Masters and PhD) to be a part of many exciting projects related to science education. We are a new lab housed in the College of the Environment and Life Sciences (CELS) at the University of Rhode Island (http://web.uri.edu/celsgradprograms/bes/). We pursue broad questions relating to educational psychology, identity constructs and social belonging among K-PhD students (especially URMs), with an interest in how our findings can inform curriculum development and general campus climate. We seek students who have a strong disciplinary background in biology and are primarily interested in pursuing a career relating to science education research. Our program collaborates closely with the College of Education, the Department of Sociology and Anthropology and the Department of Cell and Molecular Biology. Students have the option of pursuing courses and collaborations with these departments and others in line with their research interests. Students interested in PhD or Masters course of study are strongly encouraged to contact me (Dr. Bryan M. Dewsbury) directly by email (dewsbury@mail.uri.edu) with a CV and an introductory letter indicating why you might be a good fit for this program. The university deadline for application is January 15th, 2015, so interested students should

contact me well in advance of that deadline. Thanks in advance.

Bryan Dewsbury, PhD Assistant Professor Department of Biology University of Rhode Island 120 Flagg Road, Kingston, RI, 02881 Phone - (401) 874 2248 Fax - (401) 874 4256 Office: CBLS 483 Lab: Woodward Hall 112 <a href="http://web.uri.edu/bio/bryan-dewsbury/">http://web.uri.edu/bio/bryan-dewsbury/</a> @BMDewsbury

Bryan Dewsbury <br/> <br/> dewsbury@gmail.com>

## USheffield Paleogenomics

Short name: USheffield. Paleogenomics

Fully funded for a minimum of 3.5 years phd studentship is available at the University of Sheffield, department of Animal and Plant Sciences in collaboration with the University of York, Archeology department.

Studentships are available to UK and EU students who meet the UK residency requirements.

Title: Developing novell OMICs tools to identify the origin of ancient bio samples using ancient DNA

Supervisors: Eran Elhaik, The University of Sheffield, Animal and Plant Sciences; Matthew Collins, University of York, Dept of Archeology; Michael Baird, DNA Diagnostics Center

#### Job Description:

What percentage of our DNA came from the Vikings or Ancient Romans? How migration waves affected the environment? These and other questions can now be approached using ancient DNA and novel bioinformatics tools. Coupling Ancient DNA, which is one of the most exciting emerging fields in genetics, with tools, such as the Geographical Population Structure (GPS), which that can find one's village of origin using our DNA (http://www.iflscience.com/health-and-medicine/dna-gps-maps-where-your-ances tors-lived), we can make historical and evolutionary inferences.

The successful candidate will do some of the work in the ancient DNA lab in the University of York and in one of the world leading companies in DNA tests, located in Ohio (USA). The candidate will gain most valuable experience both in "wet lab" techniques and bioinformatics.

#### Requirements:

We are seeking an outstanding graduate students who

is self-motivated and can work independently, with an enthusiasm for a mix of field, lab and computer based work. Because major parts of the project involve NGS data analyses, modelling, and programming, we are interested in applicants with strong mathematical, biostatistical, and/or computational skills, interested in paleo-genomics and in developing expertise in bioinformatics, genomics, and biodiversity while developing ties with a major US DNA diagnostics company. This is a very multidisciplinary project which provides multiple learning opportunities in various exciting and emerging fields. We place a strong emphasis on quantitative, analytical, and computational techniques, such as genomic modelling, bioinformatics, and a range of OMICs technologies. The successful candidates will spend about 6 months working in the Ancient DNA lab in York, learning how to sequence and assemble ancient genomes, and another 3 months in the US training with a DNA diagnosis company.

#### To apply:

Follow the instructions here:

http://www.nature.com/naturejobs/science/jobs/-472179 Eran Elhaik, Ph.D.

http://www.eranelhaiklab.org/bioinformatics.group.shef.ac.uk Department of Animal & Plant Sciences,

Alfred Denny Building

University of Sheffield,

Western Bank

Sheffield, S10 2TN, UK

Phone: 0114 222 2704 Fax: 0114 222 0002

Email: e.elhaik@sheffield.ac.uk

## **UStAndrews** ComputationalBiology

PhD Studentship, Robustness and Fragility of Microbial Metabolic Networks

A PhD studentship in computational systems biology is available at the University of St Andrews in Scotland.

Understanding the robustness and fragility of microbial metabolic networks will have impacts across bioscience, in particular for understanding how pathogens might respond to anti-infective drugs which target the enzymes essential to the pathogen's metabolism, and how microbes might respond to synthetic biology modifications which co-opt or otherwise interact with the organism's metabolism.

This studentship will apply computational systems biology, bioinformatics, and network analysis to assess the robustness and fragility of microbial metabolic networks. You will use data on the interaction between proteins and small organic molecules to decipher metabolic networks, where enzyme-catalysed reactions link together substrates and products to form pathways and cycles. You will work with bioinformatics data to trace to both the variation of networks across different species and also the networks evolution; you will apply simulations of metabolisms evolution to work backwards in time and suggest plausible evolutionary trajectories.

Ultimately, you will develop predictions of perturbations that disrupt metabolic networks, and those which would have little effect. You will categorise the architecture and robustness or fragility of metabolic systems across both biological species and time. Likely future applications include the use of synthetic biology to exquisitely design interventions that will affect a pathogen's metabolism without risk to the host or environment.

You will obtain training in bioinformatics, systems biology, modelling, and machine learning, as well as a working knowledge of microbial metabolic networks.

You will be jointly supervised by Dr V Anne Smith (Biology) and Dr John Mitchell (Chemistry). Both groups work in computational systems biology and machine learning, with Dr Smiths research concentrating on network analysis and Dr Mitchells on enzymes and computational chemistry. For more information on their research please visit: Dr V Anne Smiths research pages: http://biology.st-andrews.ac.uk/vannesmithlab/ Dr John Mitchells research pages: http://chemistry.standrews.ac.uk/staff/jbom/group/ EASTBIO - the BB-SRC East of Scotland Bioscience Doctoral Training Partnership - is a partnership between the Universities of Aberdeen, Dundee, Edinburgh and St Andrews; the Scottish Universities Life Sciences Alliance (SULSA); and the Scottish Universities Physics Alliance (SUPA). A fully funded EASTBIO PhD studentship (fees and stipend at the standard rate) is available for Autumn 2015 for candidates with a strong academic record and that satisfy BBSRC studentship eligibility requirements (see http://www.eastscotbiodtp.ac.uk/how-apply-0 if you are unsure - typically UK citizenship required).

If you are interested, please first make an initial informal enquiry, including a covering letter explaining your interest in the studentship and a CV, to anne.smith@st-andrews.ac.uk.

Formal applications should follow to the University following the procedure available at: <a href="http://www.eastscotbiodtp.ac.uk/how-apply-0">http://www.eastscotbiodtp.ac.uk/how-apply-0</a> using the forms provided and via the link to St Andrews University.

Complete applications must have been received by the University by 16 January 2015.

Dr V Anne Smith School of Biology Sir Harold Mitchell Building University of St Andrews St Andrews, Fife KY16 9TH United Kingdom +44 (0)1334-463368 anne.smith@st-andrews.ac.uk biology.st-andrews.ac.uk/vannesmithlab/

V Anne Smith <vas1@st-andrews.ac.uk>

## UTexas ElPaso MolEcol PopGenomics

PhD Student opportunity, Molecular Ecology / Population Genomics, University of Texas at El Paso

University of Texas at El Paso: PhD opportunity in Ecology and Evolutionary Biology (EEB): A NSF-funded graduate student position is available to study the "Molecular Ecology and Local Adaptation in a Dominant Arctic Tundra Sedge (Eriophorum vaginatum)" in the Plant Evolution Lab of Asst Prof Michael Moody at the University of Texas at El Paso. The position will be funded through 3 yrs starting Fall 2015.

Project: Local adaptation of plant populations into ecotypes is a potentially crucial limitation on range expansion in the face of a rapidly changing climate. A 30-year reciprocal transplant experiment with the tussock-forming sedge, Eriophorum vaginatum, revealed local ecotypic specialization as well as adaptational lag. This project will: 1) investigate the genetic factors that lead to local adaptation using genetic markers and 2) examine natural disturbance as a mechanism for genotypes from warmer climates to establish in tussock tundra of northern regions by seeding a recent burn site and identifying genotype success utilizing molecular markers. This research aims to provide students with a multidisciplinary training as part of a collaborative team that also includes Drs. Ned Fetcher (Wilkes University) and Jim Tang (Marine Biological Laboratory; MBL).

Qualifications: Candidates with background in Molecular Ecology and Evolutionary Theory are strongly encouraged. Preference will be given to students with some background in Next Generation Sequencing (NGS) methods, particularly RADseq and the requisite bioin-

formatics tools. Further preferred skills include excellent English writing and verbal communication, the ability to work in a team, and comfort in both the field and lab. At least two trips to northern Alaska will be required (one trip June-July 2015). Basic skills with Linux systems and R will also be useful.

The UTEP EEB program (http://science.utep.edu/eeb/) has a focus on global climate change and bio-diversity with a growing group of arctic research faculty. The Department of Biological Sciences (http://science.utep.edu/biology/index.php) has extensive state of the art research facilities including newly developed NGS capabilities and a close affiliation with the Bioinformatics program and their computing systems.

Students interested in pursuing graduate research in my lab should email me at mlmoody@utep.edu. Please include the following information: a summary of your educational and research experience, future research interests, copy of transcripts. Formal applications for the UTEP Graduate Program can be found at: https://apply.embark.com/grad/UTEP/22/ and for the EEB program at: http://science.utep.edu/biology/index.php/2014-04-22-20-30-52/2014-04-22-20-55-16/online-application-for-department-of-biological-sciences Applications due: April 1, 2014

Michael L. Moody, PhD Assistant Professor University of Texas at El Paso Biological Sciences 500 West University Ave. El Paso, TX 79968 Office: 915-747-5087 mlmoody@utep.edu

## VirginiaCommonwealthU TurtleHybridization

The Dyer (http://dyerlab.bio.vcu.edu/) and Vonesh (https://wp.vcu.edu/voneshlab/) labs at Virginia Commonwealth University have an opening beginning fall 2015 for a Master's student interested in examining the issue of hybridization amongst Northern Red-Bellied Cooter (Pseudemys ruberventris) and Eastern River Cooter (Pseudemys concinna) populations in Virginia.

The student will be use morphometric and genetic analyses, with both existing and field collected datasets, in addressing this question. The student is expected to begin the collection of field data beginning May 25, 2015, with a provided stipend, until the commencement of the fall semester on August 19, 2015. Position dependent upon anticipated funding for research and applicant

applying for and being awarded a graduate teaching assistantship in the MS Biology program.

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Preferences: - B.S. in Biology, Ecology, or related field - Ability to perform fieldwork in difficult conditions including being able to lift 50lbs without strain - Background knowledge of boats and their engines - G.P.A exceeding 3.5 with GRE scores at or above the 70th percentile

#### To apply:

Please submit the following to Dr. Rodney Dyer (rjdyer@vcu.edu): - CV including both G.P.A and GRE scores, - Statement of research interests, - Names and contact information of 3 professional references

Rodney J. Dyer, PhD Department of Biology Virginia Commonwealth University <a href="http://dyerlab.bio.vcu.edu">http://dyerlab.bio.vcu.edu</a> rjdyer@vcu.edu

## WesternWashingtonU EvolutionaryBiol

The Biology Department at Western Washington University has openings for graduate students starting Fall 2015. Faculty members in the department offer a wide range of expertise, from molecular biology to ecology. Graduate students are eligible for teaching assistantships, which fund the majority of tuition and provide a stipend of \$12,116 per year. WWU is located in Bellingham, WA, a coastal city north of Seattle at the base of Mt. Baker in the northwestern part of the state.

#### Potential advisors

Marion Brodhagen: Microbiology, molecular biology, and chemical ecology. Our lab studies the plant pathogenic fungus Aspergillus and aflatoxin, a potent toxin produced by this fungus. Our current projects involve the ability of certain plant secondary metabolites to stop growth and/or toxin production by Aspergillus. Future research directions will include investigations of the molecular mechanisms by which these plant compounds alter fungal metabolism. We also are interested in the role of Aspergillus in colonization of plastics labeled biodegradable, in agricultural settings. Aspergillus is a key colonizer of such plastics but its ability to break down polymers is unclear, as is the extent of toxin formation during plastic colonization.

Dave Hooper: Plant Community and Ecosystem Ecol-

ogy. I will be accepting one graduate student in fall 2015. My local research is currently focused on assessing ecosystem services associated with different scenarios of riparian restoration in Whatcom County. Student work would combine GIS analyses of ecosystem services and field work, particularly on nutrient retention, to validate modeling results. I also have opportunities focused on analyzing large data sets to understand aspects of biodiversity loss and assembly of plant communities.

Robin Kodner: Marine Microbial Metagenomics. The Kodner lab does interdisciplinary work integrating marine microbial ecology with comparative genomics and bioinformatics for metagenomes. I am recruiting for one student for work on bioinformatics projects. Some experience with sequence analysis and programming required.

Ben Miner: Students in my laboratory focus on how marine organisms alter their morphology and behavior in response to different environmental conditions, typically biotic conditions. Current projects in my lab include research on wasting disease in sea stars, predator-induced hatching plasticity in marine animals, context-dependent inducible offenses and defenses in marine organisms.

Craig Moyer: My interests are marine microbiology and geomicrobiology focusing on molecular approaches for exploring microbial diversity, community structure and ecological interactions. Presently, my lab and I are focused on the study of iron-oxidizing Zetaproteobacteria acting as the ecosystem engineers in microbial mats found at strong redox boundaries, including seep, spring and vent habitats. We are also examining the evolutionary divergence of surface and deep subsurface Zetaproteobacteria in hydrothermal systems.

Merrill Peterson: Ecology and Evolution of Insects. The primary focus of our lab is on insect diversification and diversity. Potential graduate student projects include: 1) experimental investigation of the mechanistic basis of sperm precedence in hybridizing Chrysochus beetles, 2) analyses of the factors influencing insect species richness in rapidly-declining natural habitats in the region (e.g., lowland prairies, coastal dunes), and 3) using a database of the regions moth collections to document community-wide responses to climate change.

Lynn Pillitteri: Plant Molecular and Developmental Biology. A potential graduate project in my lab would be aimed at understanding the molecular mechanisms driving cell type differentiation in the model organism, Arabidopsis thaliana.

Dietmar Schwarz: Ecological and Evolutionary Genetics and Genomics, Evolutionary Ecology. Schwarz's lab offers opportunities to study speciation, hybridization, and adaptation in host specific insects (apple maggot flies and relatives) on a USDA supported project. Students may also have the opportunity to collaborate with Alejandro Acevedo-Gutierrez on non-invasive molecular studies of seal foraging ecology.

Anu Singh-Cundy: Plant Physiology. We study plant reproduction at the physiological, cellular, and molecular levels. Current projects are focused on understanding the role of HD-AGPs, which are proteins that promote pollen tube growth, in members of the Solanaceae and also in Arabidopsis.

More information can be found at: <a href="http://www.biol.wwu.edu/biology/gradprog\_brochure.shtml">http://www.biol.wwu.edu/biology/gradprog\_brochure.shtml</a> or by contacting Dr. Ben Miner, Graduate Program Advisor, at benjamin.miner at www.edu

Benjamin Miner <Benjamin.Miner@wwu.edu>

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## 23andMe ComputationalBiologist

Computational Biologist - Research & Development 23andMe Mountain View, CA, United States

Do you wish that your work had a more direct impact on people? Are you excited about the potential of human genetics to make a real difference in the world? At 23andMe, we believe that genetics is on the cusp of huge advances, and that our unique database of hundreds of thousands of genotypes and almost two hundred million phenotype data points gives us an incredible opportunity to advance not only biomedical research, but our understanding of ourselves.

We are looking for a colleague with extensive training and experience in computational biology to join our highly productive, world-class research team. This person will be involved in the analysis of human genetic data and the development of product features that depend on a mix of computational skills, statistical knowledge, creativity, and biological insight. The scope and breadth of our vision means that most of the necessary techniques have yet to be developed anywhere in the world. This person is also expected to participate in the communication and public relations efforts of the company.

#### QUALIFICATIONS:

- PhD in Computational Biology or related field (eg, Genetics, Computer Science, Engineering, Physics, Math, Bioinformatics) - Strong bioinformatics and biostatistics background - Background in algorithm development -

Proficiency with scripting languages (eg, Python, R, bash) - Enthusiasm for working in a highly collaborative environment

#### ALSO VALUABLE:

- Evolutionary or population genetics research experience
- Demonstrated record of developing and distributing tools for the analysis and visualization of genomics data
- Experience with C/C++

Experience mentoring other scientists and familiarity with epidemiological principles are highly desirable.

Apply online: 23andme.com/careers/ob790fwb/

#### ABOUT US

23andMe is the leading personal genetics company. We are dedicated to helping individuals understand their own genetic information through DNA analysis technologies and web-based interactive tools. Our mission is to personalize health care by making and supporting meaningful discoveries through genetic research. Combining web development, computer science, genetics, social media, and informatics, 23andMe is at the forefront of a new era in personal genetics.

Kasia Bryc <kbryc@23andme.com>

## AmherstCollege EvolutionDisease ResAssist

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AmherstCollege.EvolutionDisease.ResAssist

## RESEARCH ASSISTANT POSITION EVOLUTIONARY 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. 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 February 1, 2015.

Qualifications: Bachelors 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 <a href="https://-jobs.amherst.edu">https://-jobs.amherst.edu</a> 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 http://www.amherst.edu/~mhood/ Michael Hood <mhood@amherst.edu>

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## AuburnU Bioinformatics Genomics Phylogenetics

Positions in Bioinformatics, Functional Genomics and Theoretical Phylogenetics

Department of Biological Sciences, College of Sciences and Mathematics Auburn University

The Department of Biological Sciences at Auburn University invites applications for tenure-track faculty positions (9-month) beginning August 2015. We are conducting a cluster hire with the aim of significantly enhancing departmental strengths in basic and applied computational approaches designed to address biological problems in Bioinformatics, Functional Genomics, and Theoretical Phylogenetics. Hires will be at the rank of Assistant Professor, with Associate and Full Professor ranks considered for exceptional candidates in Bioinformatics.

These positions will contribute to existing departmental expertise in empirical and analytical biology and capitalize on ongoing improvements in high-performance computing capability at Auburn. This hiring effort is the first of a multi-year initiative to strengthen computational biology capabilities in our four core research areas: Ecological Processes, Evolutionary Genetics and Systematics, Functional Adaptations, and Host-Microbial Interactions. Applicants with the desired subdiscipline expertise in any core area and using any research model will be given consideration.

Successful candidates are expected to establish an extramurally funded, internationally recognized research program that trains undergraduate and graduate students. Instructional responsibilities include development of graduate and/or undergraduate courses in the specialty area.

Applicants must have a Ph.D. in Life Sciences, Computational Biology, or a related discipline, and must possess excellent written and interpersonal communication skills. Qualifications include postdoctoral or professional experience, a strong record of publication, teaching experience, and potential for funding; experience with next generation sequencing data is highly desirable. Candidates selected for these positions must be able to meet eligibility requirements to work in the United States at the time the appointment is scheduled to begin, and continue working legally for the proposed

term of employment.

Review of applications will begin December 15, 2014 and will continue until suitable candidates are found. Applicants should submit (electronically) a cover letter emphasizing specific qualifications, a curriculum vitae, a description of research interests, a statement of teaching philosophy/experience, and names and contact information of at least 3 references. To apply online for the bioinformatics position please visit: http://aufacultypositions.peopleadmin.com/postings/752. To apply for the functional genomics or theoretical phylogenetics please visit http://aufacultypositions.peopleadmin.com/postings/772. Eligible applicants are strongly encouraged to apply for all appropriate positions. More information can be found at: www.auburn.edu/biology.

Auburn University is an EEO/Vet/Disability employer. Kenneth Halanych <ken@auburn.edu>

## CNRSFrance 9 ModellingBiologicalSystems

Dear colleagues,

The Centre National de Recherche Scientifique (CNRS) is the largest research institution in Europe and will have 9 positions open in the domain of bioinformatics and modelling in biological sciences in 2015 (commission CID51). These positions are of two types.

Five junior tenured positions: two for any CNRS laboratory in any pertinent domain in bioinformatics and modelling in biological sciences, two specifically for laboratories of the INS2I institute (CNRS computer science institute), and one for laboratories of the INSMI (CNRS mathematics institute). There is a pre-selection on this contest and only some candidates will be selected for an audition.

Four senior positions for any CNRS laboratory in any pertinent domain in bioinformatics and modelling in biological sciences. Note that there will be no pre-selection on the senior positions and (by law) all candidates will be auditioned independently of the committee perception on the application. The positions are open to CNRS researchers and outsiders.

Candidates wishing to apply to different positions should send an adapted application for each of them.

The web site of the CID51 (http://cid51.imag.fr) pro-

vides advices and a FAQ on how to present your application. As a rule, candidates should contact the labs they wish to apply to before the application.

Recommendation letters should be sent directly to the CNRS. The call is open since December 1st and will remain open until January 6th 2015. http://gestionoffres.dsi.cnrs.fr/fo/offres/default-fr.php mblum <michael.blum@imag.fr>

#### CornellU ChairComputBiology

Professor/Department Chair Department of Biological Statistics and Computational Biology College of Agriculture and Life Sciences Cornell University, Ithaca, NY

The College of Agriculture and Life Sciences at Cornell University is seeking a new Chair for its Department of Biological Statistics and Computational Biology. Candidates will be expected to have an internationally recognized record of research and funding consistent with an appointment at the rank of full professor at Cornell. In particular, we are seeking applications from individuals with an outstanding record bridging statistical and computational methods development and biological discovery. The selected candidate will be expected to have a PhD in a subject related to the department's mission and to provide leadership for a talented group of faculty in an exciting and fast developing research area.

Outstanding applicants in all areas of computational biology will be considered, but research areas of special interest include comparative and population genomics; functional genomics; gene regulation; dynamical behavior at the sub-cellular and cellular levels; and networks in biological systems. The department currently has 8 faculty, with strengths in population genetics, computational genomics, quantitative genetics, statistical machine learning, and high-dimension statistics. Please go to <a href="http://bscb.cornell.edu/">http://bscb.cornell.edu/</a> for information on the position and for background about computational genomics at Cornell.

Required Qualifications: To ensure full consideration, applications should be received by February 15, 2015, but they will be accepted until the position is filled. Applicants should submit a cover letter, curriculum vitae and a research statement and should arrange to have three reference letters submitted, at <a href="https://academicjobsonline.org/ajo/jobs/5211">https://academicjobsonline.org/ajo/jobs/5211</a>. Find us online

at <a href="http://hr.cornell.edu/jobs">http://hr.cornell.edu/jobs</a> Cornell is a community of scholars, known for intellectual rigor and engaged in deep and broad research, teaching tomorrow's thought leaders to think otherwise, care for others, and create and disseminate knowledge with a public purpose.

Diversity and inclusion are a part of Cornell University?s heritage. We are a recognized employer and educator valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.

cfa1@cornell.edu

## DrexelU LabTech AvianPhylogenetics

Position Title: Lab Technician, Full Time Position

Requisition Number: 6427

Job Overview: The Weckstein lab at the Academy of Natural Sciences of Drexel University and Department of Biodiversity, Earth, and Environmental Sciences seeks a lab technician to assist the PI, students, and postdocs with their research. Current lab projects focus on three main areas: 1) avian phylogenetics, comparative biology and evolutionary history, 2) biodiversity surveys of birds and their parasites and pathogens, and 3) co-evolutionary history of birds and their parasites. These projects involve both active field collecting of bird and associated parasite specimens and analysis of DNA sequence data to reconstruct the evolutionary histories of birds and their parasites. Specimens housed in natural history collections such as the Academy of Natural Sciences are a critical resource for our research program.

The lab has its own microscopy equipment and access to a shared molecular genetics laboratory at the Academy of Natural Sciences (the Laboratory of Molecular Systematics and Evolution).

Qualifications: - Minimum requirements are Bachelor's Degree and experience in a molecular genetics wet lab. - A graduate degree and prior experience with systematics and evolutionary biology, and the molecular laboratory methods used in these fields (DNA extraction, DNA quantification [Qubit, qPCR], PCR, DNA sequencing, and next gen library prep is preferred]. - Experience with next-generation computational pipelines, and computational tools including R, Python, Perl, etc. would also be desirable. - Must have an interest in natural history and evolutionary biology. - Must be detail oriented and organized.

Essential Functions: Responsibilities will involve: (1) ordering supplies and equipment; (2) collecting, processing, and analyzing molecular data for a variety of research projects on birds and their parasites; (3) conducting population genetic, phylogenetic, and phylogeographic analyses on large datasets; (4) assisting with data management and specimen organization from lab projects; (5) assisting with preparation for field expeditions; (6) depositing relevant data from the project into an online MySQL database; (7) training and overseeing the work of students and postdocs in the lab.

Responsibilities may also include working with parasite collections at the microscope.

Supplemental Posting Information Applications will be accepted until a qualified person is found. Please submit a cover letter, curriculum vitae, and list of references to apply for the position.

This position is supported fully or partially by external funding and continuation of the position is contingent on receipt of those external funds.

Drexel University is an Equal Opportunity/Affirmative Action employer, welcomes individuals from diverse backgrounds and perspectives, and believes that an inclusive and respectful environment enriches the University community and the educational and employment experience of its members. The University prohibits discrimination against individuals on the basis of race, color, national origin, religion, sex, sexual orientation, disability, age, status as a veteran or special disabled veteran, gender identity or expression, genetic information, pregnancy, childbirth or related medical conditions and any other prohibited characteristic. Please visit our website to view all University Policies and Workplace Postings.

Background investigations are required for all new hires as a condition of employment, after the job offer is made. Employment will be contingent upon the University's acceptance of the results of the background investigation.

Documents that must be associated with this posting: Cover Letter Curriculum Vitae List of References

Please Apply via: www.drexeljobs.com/applicants/-Central?quickFindy187 Jason D. Weckstein, Ph.D. Associate Professor, Department of Biodiversity, Earth & Environmental Science, Drexel University; Associate Curator of Ornithology, Academy of Natural Sciences of Drexel University

Mailing Address: Academy of Natural Sciences of Drexel University Ornithology Department 1900 Benjamin Franklin Parkway Philadelphia, PA 19103

Cell Phone: (217) 714-3022 Office Phone: (215)-299-1023 Fax: (215)-299-1079 Email: jweckstein[at]drexel.edu

Web Page: http://fieldmuseum.org/users/jason-weckstein Southern Amazonian Birds and Their Symbionts Web Page: http://fieldmuseum.org/explore/amazonian-bird-parasites/southern-amazonian-birds-and-their-symbionts Amazonian Bird Expeditions Site: http://expeditions.fieldmuseum.org/amazonian-birds-0

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## JamesCookU EvolutionaryBiol

Lecturer/Senior Lecturer - Zoology/Ecology Ref. No. 14283 - Townsville

The College of Marine and Environmental Sciences has an enviable international research reputation, and is a leading Australian University in the ISI field of Ecology and Environment. We are seeking to appoint a Lecturer in the Terrestrial Ecosystems and Climate change group, to contribute to and complement our current teaching and research profile. The appointee will have a strong interest in teaching and research in the tropics. He/she will have demonstrated experience and success in tertiary teaching, student supervision and research. The appointee will be required to teach in appropriate areas of zoology, ecology and/or quantitative biology, including their area of special expertise. Preference may be given to applicants with interests in one or more of the following: terrestrial vertebrate ecology, ornithology, mammalogy, wildlife biology, plant-animal interactions, conservation, quantitative methods, and/or terrestrial invertebrate biology.

The Terrestrial Ecosystems and Climate change group is one of the top disciplines in James Cook University for winning competitive research grants, and belongs to JCU's flagship research College. JCU is an excellent base for research in tropical zoology and ecology because: it has excellent infrastructure; there is ready access to a wide array of environments (rainforest, savannah, streams, wetlands, mountains and islands); there is a rich intellectual environment in the region, including

CSIRO (on campus), Wet Tropics Management Authority, Australian Institute of Marine Science, Great Barrier Reef Marine Park Authority, several government departments and successful cognate disciplines of JCU; and it has the all the attributes of a western-style university in a safe political and healthy environment.

Employment Type: Appointment will be full-time on a continuing basis.

Salary: Lecturer - Academic Level B - \$84,700 - \$99,942 per annum; Senior Lecturer - Academic Level C - \$102,988 - \$118,228 per annum. Level of appointment and commencing salary will be in accordance with qualifications and experience. Benefits include a generous superannuation scheme with 17% employer contributions, five weeks annual recreation leave, flexible working arrangements and attractive options for salary packaging.

Applications close on 11 January 2015.

Prospective applicants may wish to contact the Head of the Terrestrial Ecosystems & Climate Change Group, Prof. Simon Robson, at simon.robson@jcu.edu.au

Applications must be lodged electronically using the online facility located at <a href="http://www.jcu.edu.au/jobs/">http://www.jcu.edu.au/jobs/</a> Prof. Simon Robson

Head, Terrestrial Ecosystems & Climate Change

Director, Centre for Tropical Biodiversity & Climate Change

College of Marine & Environmental Sciences

James Cook University, Townsville QLD 4811 AUS-TRALIA Ph: (07) 4781 4345 Fax:(07) 4781 5511 Email:simon.robson@jcu.edu.au

Web: http://www.jcu.edu.au/mtb/ Web: https://research.jcu.edu.au/research/ctbcc Web: http://research.jcu.edu.au/portfolio/simon.robson Location: DB28.204 (Building 28; Room 204) JCU CRICOS Provider Code: 00117J ABN 4625321195

"Robson, Simon" <simon.robson@jcu.edu.au>

## Kellogg MSU LabTech MicrobialEvolution

Subject: Job: Lab tech in microbial ecology lab, Kellogg Biological Station, MSU

JOB ANNOUNCEMENT: RESEARCH TECHNOLO-GIST II Evans Lab, Kellogg Biological Station, Michigan

#### State University

A laboratory technician position is available at Kellogg Biological Station, Michigan State University. The Evans Lab (www.saraheevanslab.weebly.com) is interested in how microbes respond to climate change and how these responses influence ecosystem processes. To investigate these questions, we use molecular techniques, physiological assays, modeling, and field climate manipulations. The successful candidate will assist in laboratory analyses, including characterization of microbial communities with molecular techniques, measurements of microbial function and biogeochemical assays.

Minimum requirements: A 4-year college degree (or equivalent experience) in microbiology, molecular biology or ecology, or related field, as well as experience working in a laboratory setting, and familiarity with basic computer applications (e.g. Excel) and general molecular lab techniques (e.g. pipetting).

Desired qualifications: Experience in a lab setting, as well as technical expertise in any or all of the following methods: DNA and RNA extraction, experience with gene profiling or metagenomic/ metatranscriptomic protocols and data analysis, extracellular enzyme assays, microbial cultivation, chemical analysis of plant and microbial biomass, and microbial functional assays (BIOLOG, CUE). A successful candidate will also be organized and efficient, familiar with word processing and data management, and independently motivated.

Responsibilities include: analysis of samples to characterize microbial community and biogeochemical properties of soil, plant, and gut samples in the laboratory (60%), ordering supplies, properly setting up and running instruments (10%), organization, development and recording of protocols (10%), data entry, management, and preliminary analysis (10%), contributing to positive lab culture, including participating in lab meetings and maintaining an organized lab environment (10%).

This is a benefited position, level 10 pay grade level.

Apply at www.jobs.msu.edu. Click Support staff, posting #0502.

\*\*Posting currently closes on December 2\*\* If this reaches you after this deadline, email to see if still accepting applications

MSU is an affirmative action, equal opportunity employer. MSU is committed to achieving excellence through cultural diversity. The university actively encourages applications and/or nominations of women, persons of color, veterans, and persons with disabilities.

Sarah Evans <evanssar@gmail.com>

## LudwigMaximiliansU Munich AvianFieldTrainees

 $\label{thm:total} TITLE: Ludwig Maximilians University Munich\_Avian Field Trainees$ 

DESCRIPTION: EXPERIENCED FIELD ASSISTANTS needed for monitoring and catching breeding passerines at the Ludwig Maximilians University, Munich. Website: http://www.tierischesmeunchen.bio.lmu.de Location: Munich, Bayern, Germany.

Job description: The field assistants will help collecting breeding and behavioural data on urban Great Tits (Parus major) from the beginning of April 2015 to the end of June 2015. The aim of the research is to assess the effects of key urban environmental traits - i.e. light, noise, and temperature - on the local avifauna. Assistants will work closely with a large, international team consisting of a post-doc, Master and Bachelor students, as well as one other assistant. Field work is physically demanding, and involves cycling with a ladder outdoors in the city in all weather conditions. The breeding season is intense and with typically only 1 day off per week. Duties include behavioural observations, nest monitoring, bird handling (banding, measuring), data entry and data management.

Qualifications/Experience: Candidates must have experience with independent bird handling (preferably with small passerines), including ringing and measuring. Candidates should have a BSc in Biology or a related field. Ideal candidates are highly motivated, well organized and able to work independently, while at the same time able to function well in a big group. A financial compensation and housing will be provided. German knowledge is beneficial.

Applications: Review of the applications will begin Mid-January and continue until the positions are filled. To apply, please send (1) a statement of relevant experience, (2) a short resume or CV, and (3) contact information for two references to Philipp Sprau (EM: p.sprau AT lmu.de).

Dr. Philipp Sprau Ludwig Maximilians Universität München Großhaderner Strasse 2, Raum B02.026 82152 Martinsried Tel.: +49 (0)89 2180 74 214 Tel. Mobil: +49 (0)151 2181 6746 Homepage: www.tierischesmuenchen.bio.lmu.de &

Max Planck Institut für Ornithologie Eberhard-Gwinner-Strasse, Haus 8 (Raum 8/1.04) 82319 Seewiesen (Starnberg) Tel.: +49 (0) 8157 932 347 Fax: +49 (0) 8157 932 400

"Sprau, Philipp" <psprau@orn.mpg.de>

#### MaxPlanck CollectiveBehavior

\*Job offers from Feb 2015\*

The Department of Collective Behavior at the Max Planck Institute for Ornithology seeks to appoint up to four Max Planck Principal Investigators in the field of Collective Behavior, broadly defined. Ideal candidates should have a research program that integrates experimental and theoretical studies on invertebrates and/or vertebrates - research on birds is not a requirement. Collective behavior naturally spans scales, encompassing areas ranging from the organization and evolution of the neural decision-making circuits that give rise to individual behavior, to coordinated communication among cells, or animals, to the dynamics of information exchange among sophisticated organisms and the emergence of complex societies. Successful applicants are expected to establish and lead an internationally recognized research program.\* Your profile\* Applicants must hold a Ph.D. in biology, biophysics, applied mathematics, computer science or a related field. The primary criterion for selection will be that candidates exhibit outstanding research promise, and are conducting ambitious, interdisciplinary research. Candidates who pursue research with a highly quantitative experimental component are particularly encouraged to apply.

#### \*Our offer\*

Successful candidates will be offered a Max Planck Research Lab for an initial period of 5 years, with the possibility of extension up to a further 4 years after successful evaluation and considering labor law-related and financial requirements. This includes a Principal Investigator position with a salary up to level E15 based on the German Federal Salary Scale as well as support for a research group (consumables, travel funds, technical support staff, and where possible support for excellent Ph.D. students/postdoctoral fellows). Principal Investigators are also expected to apply for third party funds. Max Planck Institutes focus on excellence in scientific research and are supported by the Max Planck Society. Principal Investigators are expected to become faculty of the International Max Planck Research School of

Organismal Biology, a competitive doctoral training program in the fields of behavior, ecology, evolution, physiology and neurobiology, which has a faculty of more than 30 leading researchers and 64 Ph.D. international student fellows. Although the principal focus will be leading a research group, candidates are also expected to contribute to the innovative teaching objectives of the department. The language of the Max Planck Institutes is English and consequently applicants must be fluent in this language; knowledge of German is not necessary. We seek candidates from all nationalities (the visa application process will be supported by the Institute). Principal Investigators will benefit from the Institute's interdisciplinary environment and scientific exchange with existing research groups at the Max Planck Institute and University of Konstanz as well as excellent infrastructure, including a guesthouse for visiting academics, and speedboat and plane for field research. The necessary administrative support will be provided.

#### \*Location\*\*\*

The new Department of Collective Behavior is located on the campus of the University of Konstanz in the historic city of Konstanz, by Lake Constance and overlooking the Alps in southern Germany. It is approximately 50 minutes (by train or car) from Zurich International Airport and closely affiliated with the nearby Max Planck Department of Migration and Immuno-Ecology in Radolfzell.

#### \*Your application\*

Applications, including a CV, a description of past research activities (2 pages) and a vision statement for the future research program (2 further pages) should be sent, in PDF format, to Iain D. Couzin (icouzin@orn.mpg.de), Director, with subject line "Max Planck Principal Investigator Application". In addition, applicants should arrange to have three letters of recommendation sent separately to Daniel Piechowski (dpiechowski@orn.mpg.de), Science Coordinator. Review of applications will begin immediately and continue until the positions are filled. The Max Planck Society is committed to increasing the number of individuals with disabilities in its workforce and therefore encourages applications from such qualified individuals. Furthermore, 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. All Max Planck Institutes are certified family-friendly institutions, and we offer extensive support to help researchers balance professional and home life, including assistance with childcare and support of the elderly, and flexibility in how employees arrange working hours. For details see

http://www.mpg.de/equal\_opportunities For further information regarding these positions please contact Iain D. Couzin (icouzin@orn.mpg.de), Director.

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## MaxPlanck Seewiesen AvianFieldTrainees

\*FIELD\*\*TRAINEES\* needed in fulltime for monitoring and catching breeding passerines at the \*Max Planck Institute for Ornithology\*\*, in the research group 'Evolutionary Ecology of Variation'\*.

Website: http://www.orn.mpg.de/159079/-Research\_Group\_Dingemanse Location: Seewiesen, Bayern, Germany.

\*\_Job description:\_\*

The field Trainees will help collect breeding and behavioural data on Great Tits (/Parus major/) fromapproximately end of Marchtomid/end of July2015. The research focuses primarily on identifying how natural and sexual selection act on animal personalities and behavioural plasticity. Trainees will work closely with aninternational team consisting of several post-docs, PhD and Master students, as well as other assistants. Field workis physically demanding, and involves walking over hilly terrain for long daysoutdoors in all weather conditions. The breeding season is intense and with typically only 1 day off per week. Duties include behavioural observations, nest monitoring, bird handling and data entry.

\*\_Qualifications\_\*\*\_/Experience\_\*\*\_:\_\*

Candidatespreferably study Biology or a related field. Having experience handling birds (preferably small passerines), including ringing and measuring, is a plus but not a requirement. Ideal candidates are highly motivated, well organized, ableto work both independently and as part of a group. Applicants must have a valid driver's license and be experienced in operating vehicles with manual transmission.

Non-EU candidates are not eligible for this position (UK and Swiss citizens are eligible). A small financial

compensation and housing in shared accommodation will be provided. Accepted trainees should be vaccinated against Tick Borne Encephalitis (TBE or FSME) before arriving in Seewiesen. Applicants should also be aware that Lyme disease (carried by ticks) is prevalent in the area and should inform themselves about this disease beforehand.

In an effort to employ more people with disabilities, the Max-Planck-Society specifically encourages people with disabilities to apply for the position.

Applications: Review of the applications will begin mid-January and continue until the positions are filled\*.\*To apply, please send (1) a statement of relevant experience, (2) a short resume or CV,and(3) contact information two references to Alexia Mouchet (eMail:amouchet@orn.mpg.de).

amouchet <amouchet@orn.mpg.de>

## OregonStateU 5 GenomicsSystemsBiology

Feel free to contact me about any of these jobs. Great opportunity to work in a wonderful environment here at OSU!

Dee Denver (denver@cgrb.oregonstate.edu)

FIVE FACULTY POSITIONS IN SYSTEMS BIOL-OGY, GENOMICS, AND INFORMATICS AT ORE-GON STATE UNIVERSITY Oregon State University is searching for five collaboratively-minded faculty with an enthusiasm for research and teaching at the interface between the life or environmental sciences and the quantitative or physical sciences. Appointees will be expected to develop independent and collaborative grant-funded research programs, at levels of scale from the molecular to the ecological. The research, teaching, and extension programs of the appointees are expected to integrate student success, and diversity and inclusion, as core values. This search is part of a large cohort of new faculty hires at OSU focused on interdisciplinary research, on advancement of diversity, and on advancing and equalizing student success. Women and minority candidates are strongly encouraged to apply.

To review the full position announcements, qualifications and detailed application information for any of these positions, go to <a href="http://oregonstate.edu/jobs">http://oregonstate.edu/jobs</a> and select the relevant posting number.

COMPLEX SYSTEMS IN THE LIFE AND ENVIRON-MENTAL SCIENCES Two assistant professor (9 month) positions are available in any domain where the life or environmental sciences intersect with the quantitative or physical sciences. Complex systems in the life and environmental sciences span numerous levels of scale from metabolites, macromolecules, cells, tissues, and organisms, to populations, communities and ecosystems. Increasingly, understanding these systems requires interdisciplinary collaborative research at the intersection with quantitative or physical sciences. Each appointment will reside jointly in a life or environmental sciences unit, and in a physical or quantitative sciences unit, depending on the appointee?s expertise and interest. Posting #0013430; Closes February 6, 2015. Contact: Brett Tyler (brett.tyler@oregonstate.edu).

QUANTITATIVE SYSTEMS BIOLOGIST Assistant Professor (9 month) position in the Department of Integrative Biology (70%) and the Departments of Mathematics or Statistics (30%). The appointee will use and develop mathematical or statistical approaches to tackle problems in systems biology in the broad sense. Research focus can be at any level of biological organization, but must involve strong quantitative approaches and integrating large data sets. Candidate will teach in the general biology curriculum and will teach courses aimed at improving the quantitative skills of biology students. Posting #0013398. Closes January 25, 2015. Contact: Tara Bevandich (Tara.Bevandich@science.oregonstate.edu; 541-737-5336).

MARINE EVOLUTIONARY SYSTEMS BIOLOGIST Assistant Professor (9 month) position in the Department of Integrative Biology. The appointee will conduct research, develop an active, grant-supported research program that applies systems biology approaches to evolutionary questions in marine organisms. Research focus can be at any level of biological organization, but must involve strong quantitative approaches and cutting-edge technologies. Appointee will teach courses in genetics and evolution. Posting #0013400. Closes January 25, 2015. Contact: Tara Bevandich (Tara.Bevandich@science.oregonstate.edu or 541-737-5336).

GENOMICS AND BIOINFORMATICS OF CROP PLANTS Assistant Professor (9 month) position in the Department of Horticulture. The appointee will develop a comprehensive program in research (both independent and collaborative), teaching and outreach in applied genomics and bioinformatics of plants, with a focus on discovery of new knowledge and/or creative solutions to problems related to economically important staple and specialty crops of Oregon. The research discoveries

and impacts are to be communicated to peers, practitioners and citizens. Posting #0013285; Closes January 25, 2015. Contact: Bill Braunworth (541-737-1317 or bill.braunworth@oregonstate.edu).

 Dee R. Denver Director Molecular and Cellular Biology Program Associate Professor Department of Integrative Biology Oregon State University

MCB website: http://www.mcb.oregonstate.edu/-Lab website: http://denverlab.cgrb.oregonstate.edu/denvedee@cgrb.oregonstate.edu/

#### Ottawa InvertebrateCurator

The Canadian National Collection of Insects, Arachnids, and Nematodes is seeking to fill Research Scientist positions to conduct taxonomic research on terrestrial arthropods, including one of the following: groups of importance as beneficial biocontrol agents against pests in Canada or against potential threats (invasive species) to Canadian agriculture (braconid wasps, soil mites or predatory mites); groups that may threaten Canadian agriculture (cutworm moths, leaf beetles, leaf hoppers or plant hoppers); or groups of importance to the health of soils in Canadian agricultural systems (soil mites). Preference will be given to Canadian citizens, but non-Canadians are encouraged to apply in the event that a qualified Canadian citizen cannot be found to fill a certain position.

For more info: https://emploisfp-psjobs.cfp-psc.gc.ca/psrs-srfp/applicant/page1800poster=-256504&toggleLanguage=en&psrsMode=-1&noBackBtn=true Research Scientist - Insect/Mite Taxonomist

Organization Name: Agriculture and Agri-Food Canada - Science and Technology Branch Location: Ottawa (Ontario) Classification: SE - RES - 01, SE - RES - 02, SE - RES - 03, SE - RES - 04 or SE - RES - 05 Salary: \$53,161 to \$133,410 (Salary is commensurate with qualifications) Closing Date: January 12, 2015 - 23:59, Pacific Time Useful Information < http://jobsemplois.gc.ca/centres/psrs-srfp/date-eng.htm > Reference Number: AGR14J-010860-000024 Selection Process Number: 14-AGR-NCR-EA-ST-333 Vacancies: 5 Employment Tenure: Indeterminate and/or Term Web site: For further information on the department, please visit Agriculture and Agri-Food Canada < http://http/-www.agr.gc.ca/index\_e.php >

Sophie.Cardinal@AGR.GC.CA

## PaceU NewYorkCity EvolutionaryBiology

https://chroniclevitae.com/jobs/0000862494-01 The Dyson College of Arts and Sciences, Pace University, invites applications for an anticipated full-time tenure track position at the rank of Assistant Professor in the Department of Biology to begin September, 2015. The position is located on the New York City campus in downtown Manhattan.

Applicants should have an earned PhD or equivalent in Biology or related field, a strong commitment to undergraduate teaching and research, and clear evidence of experience using molecular tools to address biological/ecological questions. The successful candidate will teach the second semester of the undergraduate General Biology course and other courses in the ecological and environmental sciences, which may include plant ecology or molecular ecology. Applicants will also be expected to develop an externally funded research program involving undergraduate students.

For full consideration applicants should submit a letter of interest, curriculum vitae, statement of teaching philosophy, and statement of research interests along with the names of three references to: weaton@pace.edu.

Review of applications will begin immediately and will continue until the position is filled. Applications received by January 15th will receive full consideration.

Pace University is an Equal Opportunity, Affirmative Action employer. Minorities, women, veterans and individuals with disabilities are encouraged to apply. - See more at: https://chroniclevitae.com/jobs/0000862494-01#sthash.YnFyvTxA.dpuf "Crispo, Erika" <ecrispo@pace.edu>

#### Senckenberg BiodiversityInformatics

Senckenberg Gesellschaft für Naturforschung (Senckenberg) is a research institute of the Leibniz-Association and dedicated to Geobiodiversity research. Senckenberg

houses the largest research collection in Germany and one of the largest worldwide. Making the collections and relevant data online available and developing analyzing tools for this "Big Data" resource is an essential issue for the SGN. To coordinate these efforts in house and with other large research collections, in the course of a new digitisation program we offer a

Postdoctoral position "Coordinator Biodiversity Informatics" m/f Ref. #7.3 (fulltime)

Your tasks: Coordinate collection digitization within Senckenberg and with other institutions Coordinate the Senckenberg-wide biodiversity informatics working group Develop a common strategy for the Senckenberg biodiversity databases Improve the integration of Senckenberg data into the global science networks Develop coordinated funding applications with partner institutions

Your profile: PhD in biology/bioinformatics/informatics Experience in biodiversity informatics and especially collection databases, ideally spanning from scientific collections to relevant analyzing tools Interests in methods of digitizing and imaging; scientific collections Experience in international cooperations, project coordination and acquisition of third party funding Good skills in written and oral English

Salary and benefits are in accordance with a public service position in Germany (TV-H E13-14, 100%). The contract shall start January/February/March, 1st 2015 and will initially be limited to a 2-year term. The position can be turned into a permanent position depending on performance and funding. The Senckenberg Research Institute supports equal opportunity of men and women and therefore strongly invites women to apply. Equally qualified handicapped applicants will be given preference. The type of handicap should not prevent work needed to conduct the research. The duty station will be Frankfurt am Main, Germany. The employer is the Senckenberg Gesellschaft für Naturforschung.

Please send your application before January, 31st 2015 preferably by e-mail (attachment in a single pdf document), mentioning the reference of this position (Ref. #7.3) and including a letter outlining your suitability for the post, a detailed CV, contact details of two references and, if available, publications to the address below.

Dr. Johannes Heilmann Administrative Director c/o Senckenberg Gesellschaft für Naturforschung Senckenberganlage 25 60325 Frankfurt am Main recruiting@senckenberg.de

For scientific enquiries please contact Prof. Dr. Thomas Hickler, Thomas.Hickler@senckenberg.de.

In addition please indicate in your application how our job advertisement came to your attention.

Link: http://www.senckenberg.de/-files/content/stellenausschreibungen/7-3\_stellenausschreibung\_postdoc\_biodiversity\_informatics\_r

Mit freundlichen Grüßen /Best Regards

Stefanie Ulrich Team Recruiting

SENCKENBERG Gesellschaft für Naturforschung Service & Administration - Personal und Soziales/Personnel and Social Affairs Senckenberganlage 25 60325 Frankfurt/Main

Telefon/Phone: 0049 (0)69 / 7542 -

Leiterin Personal/Head of Personnel - 1319 Elsen, Carina

Team Personalbeschaffung/Team Recruiting - 1313 Ulrich, Stefanie - 1205 di-Biase, Maria - 1478 Kurt, Sibel - 1310 Treuberg, Sascha

Fax: 0049 (0)69 / 7542-1467 Mail: recruiting@senckenberg.de Homepage: www.senckenberg.de SENCKENBERG Gesellschaft für Naturforschung Rechtsfähiger Verein gemäß Â§22 BGB Senckenberganlage 25 60325 Frankfurt am Main Direktorium: Prof. Dr. Dr. h.c. Volker Mosbrugger, Prof. Dr. Andreas Mulch, Dr. Johannes Heilmann, Prof. Dr. Katrin Böhning-Gaese, Prof. Dr. Uwe Fritz, PD Dr. Ingrid Kröncke Präsidentin: Dr. h. c. Beate Heraeus Aufsichtsbehörde: Magistrat der Stadt Frankfurt am Main (Ordnungsamt) P Before printing, think about the environment

recruiting@senckenberg.de

# ${\bf Texas Tech U} \\ {\bf Mammalian Functional Genomics}$

ASSISTANT PROFESSOR IN MAMMALIAN FUNCTIONAL GENOMICS: DEPARTMENT OF BIOLOGICAL SCIENCES, TEXAS TECH UNIVERSITY, LUBBOCK, TEXAS 79409

The Department of Biological Sciences at Texas Tech University is recruiting a 9-month tenure-track Assistant Professor in the field of Mammalian Functional Genomics. We seek a dynamic, motivated scientist to lead an innovative research program that uses genomic approaches to address core questions of biological function in mammals. The successful candidate will demonstrate an ability to integrate approaches that may include

but are not limited to comparative genomics, systems modeling, GWAS, or other complementary analyses to study the biology of the genome within the context of the whole organism. We welcome applicants who will study how genomic variation (including structural, gene expression and epigenetic changes) affects phenotypic outcome among individuals within a population. The successful candidate will be expected to supervise an independent research program that will attract extramural funding, provide research training for graduate and undergraduate students, teach and develop undergraduate and graduate courses in the fields of Genomics and/or Bioinformatics, and contribute to our curriculum in organismal biology. A PhD and postdoctoral experience in Biology or a related field is required.

The successful candidate will also hold a joint appointment (3-month) as Curator of the Genetic Resources Collection (GRC) in the Natural Science Research Laboratory (NSRL), Museum of Texas Tech University and will be expected to have prior curatorial experience in the care and management of museum collections. Ultimately, the hire will be expected to perform standard curatorial duties, participate in growing and enhancing the collection by directing field research, pursue funding opportunities to support the collections, and develop a research program that utilizes the GRC.

Application materials should consist of a 1) a curriculum vitae, 2) three representative publications, 3) statements of research interests teaching interests, and curatorial experience including evidence of contribution to or involvement in advancing genetic resource collections, and 4) three letters of recommendation. To apply, please go to: <a href="http://www.texastech.edu/careers">http://www.texastech.edu/careers</a> and search position 2465BR.

Candidates who have very strong records of scholarship supported by extramural funding and who have the proven capacity or clear potential to bring externally sponsored research to Texas Tech University are encouraged to apply. Service duties include program-building, as well as commitment to extra-curricular activities. Service to the department, college, and university is expected.

Application review will begin on January 10, 2015 and continue until the position is filled. Questions can be addressed to David Ray (david.a.ray@ttu.edu). For further information on the department and graduate and undergraduate programs, see <a href="http://www.biol.ttu.edu">http://www.biol.ttu.edu</a>. For further information on the NSRL, see <a href="http://www.nsrl.ttu.edu/">http://www.nsrl.ttu.edu/</a>. For further information on the Museum of Texas Tech University, see <a href="http://www.depts.ttu.edu/museumttu/">http://www.depts.ttu.edu/museumttu/</a> As an Equal Employment Opportunity/Affirmative Action employer, Texas

EvolDir January 1, 2015

Tech University is dedicated to the goal of building a culturally diverse faculty committed to teaching and working in a multicultural environment. We actively encourage applications from all those who can contribute, through their research, teaching, and/or service, to the diversity and excellence of the academic community at Texas Tech University. The university welcomes applications from minorities, women, veterans, persons with disabilities, and dual-career couples.

david.4.ray@gmail.com

#### **UExeter QuantGenetics**

College of Life and Environmental Sciences Biosciences Associate Research Fellow (Ref.47897) Salary £ 25,513

The College wishes to recruit an Associate Research Fellow to support the work of Dr Alastair Wilson and Dr Andrew Young. This BBSRC funded post is available from Feb 1st and funding is in place for up to 3 years. The successful applicant will work on a project studying the evolution of the stress response in guppies Poecilia reticulata.

Taking a quantitative genetic approach, the project will test the hypothesis that (maladaptive) chronic stress responses persist in populations because of i) trade-offs with (adaptive) acute stress response pathways, and/or ii) conflict between mothers and offspring over who pays the price for stress exposure. The post will include responsibility for conducting lab-based behavioural and endocrine experiments in guppies to test this hypothesis. The research fellow will also be responsible for analysing data using quantitative genetic models, and for writing up results for publication. The successful applicant will be able to communicate complex information, relating to research progress and outcomes, orally, in writing and electronically.

Applicants will possess (or be nearing completion of) a PhD or equivalent qualification in a related field of study, and will be able to demonstrate a strong interest in evolutionary biology, a proven track record of publication and well developed statistical skills. Strong communication skills are also essential. Knowledge of animal behaviour, endocrine physiology and/or quantitative genetics is highly desirable. Previous experience of working with vertebrates, especially fish, would be advantageous.

The starting salary will be from £25,513 on Grade E,

depending on qualifications and experience.

For further information please contact Alastair Wilson, e-mail a.wilson@ex.ac.uk or telephone (01326) 255131.

The closing date for completed applications is Jan 5th. Interviews are expected to take place in late January.

To apply online please visit www.exeter.ac.uk/jobs and search for the post P47897

Many thanks for your help.

Best wishes,

Lizzie Burston Employee Services Administrator- Recruitment e.burston@exeter.ac.uk

ee University of Exeter, HR Services, Northcote House, The Queens Drive, Exeter, EX4 4 QJ ,,01392 722212 @UoE\_Jobs

"Burston, Lizzie" < E.Burston@exeter.ac.uk >

#### UGhent PlantAdaptation

For more information: https://www.ugent.be/en/-work/vacancies/professorial-staff/3-assistant-profes sors-within-the-tenure-track-system-predominantly-undertaking-research-again st-the-account-of-the-special-research-fund

Closing data for applications: 31 January 2015.!

Job position at the Department of Biology (WE11). Contact: prof. A. Huysseune, vakgroepvoorzitter (tel. +32 (0) 9 264 52 29 of e-mail: ann.huysseune@ugent.be).

It is expected that based on his/her expertise, the assistant professor will develop an ambitious, multidisciplinary research program in collaboration with one or more research groups within the Biology Department, with other departments of the Faculty of Sciences and/or other Faculties of Ghent University.

Specific requirements:

- . candidates should hold a degree of Doctor in Sciences, Biology or from a discipline assessed as being equivalent by the selection committee, or of an officially recognized equivalent diploma;
- . candidates should have conducted excellent scientific research within an international context in the discipline Global Change Biology, with a focus on protists, algae, fungi or land plants, as evidenced by, among others, invited contributions at international conferences;

. candidates should maintain an active national and international network involved in collaborative research on Global Change Biology.

Dries Bonte < Dries.Bonte@UGent.be>

#### UIllinois ResearchProgrammer

Senior Research Programmer or Research Programmer School of Integrative Biology and the School of Molecular and Cellular Biology University of Illinois at Urbana-Champaign Revised and Extended

The School of Integrative Biology and the School of Molecular and Cellular Biology, University of Illinois at Urbana-Champaign, seek a full-time academic professional, non-tenure track (Senior) Research Programmer in the Office of Information Technology (OIT). The primary function of the position is to engage in the activities of the office to facilitate the use of information technology in education and research in the biological sciences. A Senior Research Programmer is also expected to initiate projects, serve as a resource to assist the Schools? faculty and staff in accomplishing academic and general office goals, and provide a leadership role in the information technology group by training and mentoring Research Programmers in the unit.

Research Programmer The responsibilities of the Research Programmer position include: support the information technology needs of faculty, staff and students through consultation, research and hands-on support; monitor and service network backbone devices to maintain security and high availability; plan hardware refresh of devices; support bioinformatics research, providing administration for faculty sponsored servers, software creation and configuration; provide system administration for UNIX, Windows and Macintosh servers; develop and support IT resources needed to enhance the Schools' ability to fulfill their mission; respond to potential and actual security breaches; and act as a liaison to campus groups as necessary.

Required Qualifications: - Bachelor's degree required, preferably in Computer Science - A minimum of two years of experience in the computing field - Demonstrated expertise in information technology consulting - Working knowledge of at least 2 of the following: server administration, programming, web design, web application development, data storage practices, backup administration, e-mail system management, authentication and authorization techniques, firewall configuration

Preferred Qualifications: - Experience with Unix, Windows and Macintosh environments from a system administration and end-user perspective - Basic knowledge of bioinformatics software and techniques - Working knowledge of wireless and wired networking hardware and protocols; information technology security principles and practices; consumer- and server-grade hardware and software platforms - Familiarity with at least two programming language (e.g. Ruby, Lua, Python, Perl, C++) and common software development practices - Ability to compile and deploy applications from source code - Familiarity with a range of common desktop applications.

Senior Research Programmer The responsibilities of the Senior Research Programmer include: support the information technology needs of faculty, staff and students through consultation, research and hands-on support; assist OIT Director with development and execution of long-range planning, through in-depth analyses of the Schools' IT needs and advanced knowledge and experience with IT platforms; develop and support IT resources needed to enhance the Schools' ability to fulfill their mission; support bioinformatics research, providing administration for faculty sponsored servers, software creation and configuration; develop and support web applications for research and education; provide system administration for UNIX, Windows and Macintosh servers; respond to potential and actual security breaches; act as liaison to school and campus groups as needed; design web applications to present biological data and assist research; collaborate with faculty and staff to deploy and support educational software; train and mentor Research Programmers, UG students, employees in school units who need assistance with data; work independently and as part of a team; and may supervise undergraduate student workers.

Required Qualifications: - Bachelor's degree required, preferably in Computer Science - At least 4 years of experience in the computing field - A strong record of successfully directing and completing IT projects - Indepth knowledge of at least 2 of the following: server administration, programming, web design, web application development, data storage practices, backup administration, e-mail system management, authentication and authorization techniques, firewall configuration

Preferred Qualifications: - Advanced experience with Unix, Windows and Macintosh environments from a system administration and end-user perspective - Demonstrated expertise in information technology consulting - Ability to compile and deploy applications from source code

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EvolDir January 1, 2015

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## UManitoba MolecularPopulationGenetics

Assistant Professor Department of Biological Sciences, University of Manitoba

The Department of Biological Sciences at the University of Manitoba invites applications for a full-time probationary (tenure-track) appointment in molecular population genetics and genomics at the rank of Assistant Professor to begin July 1, 2015. The ideal candidate will have a strong publication record in areas such as rapid adaptation and speciation, landscape genetics, population and conservation genomics, the dynamics of species hybridization or evolutionary responses to climate change, habitat alteration or species invasions, and have excellent skills in bioinformatics. The successful applicant must hold a PhD. Post-doctoral or employment experience in a relevant area would be an asset. Applicants should demonstrate their ability to establish an active, independent externally funded research program and promote research synergies within the department and across campus. This position includes responsibilities for teaching, research, and service. Teaching experience would be a strong asset; the position entails graduate and undergraduate instruction in introductory biology and higher-level courses in areas appropriate to the candidate's expertise (e.g. population or conservation genetics and genomics, or molecular ecology and evolution).

This is an exciting opportunity to join a dynamic and integrative Biological Sciences department. The department has 38 full-time faculty including a CRC Tier 2 Chair, over 80 graduate students and over 200 Major and Honours students, and enjoys research strengths across the spectrum of biology and its sub-disciplines (www.umanitoba.ca/science/biologicalsciences).

The department is located on the Fort Garry Campus of the University of Manitoba in Winnipeg, a city with a rich cultural environment and abundant outdoor recreational venues (www.winnipeg.ca). The Faculty of Science offers excellent opportunities for research, collaboration, and teaching in a broad range of biological systems, and access to outstanding resources compris-

ing a comprehensive range of microscopy and imaging, laser-capture microdissection, GC-MS, next-generation sequencing, high-performance computing, culturing, analytical, molecular and cell biology, animal and plant-rearing, and biological-collection facilities.

Applications, in a single pdf file, should include: a covering letter outlining specific interests in the position, a CV, a 2-page research plan with short and long-term goals, a 1-page statement of teaching experience and philosophy, and the name and contact information of 3 academic referees. Applications must be sent electronically by January 5, 2015 to:

Dr. Judy Anderson, Head, Department of Biological Sciences Email: Judy\_Anderson@umanitoba.ca Please refer to Position Number: 18796

The University of Manitoba is committed to creating a diverse and inclusive workplace. Applications are encouraged from qualified applicants including members of visible minorities, Aboriginal peoples, people with disabilities, people of all sexual orientations and genders. All qualified candidates are encouraged to apply; however, Canadian citizens and permanent residents will be given priority.

Application materials, including letters of reference, will be handled in accordance with the "Freedom of Information and Protection of Privacy Act" (Manitoba). Please note that CVs will be provided to participating members of the search committee and department.

For more information on this and other opportunities, please visit: umanitoba.ca/employment

Dr. Judy Anderson Head, Department of Biological Sciences Judy\_Anderson@umanitoba.ca

## UMontana GenomicsResearchScientist

Genomics Research Scientist Division of Biological Sciences University of Montana, Missoula

The Division of Biological Sciences at the University of Montana invites applications for a research scientist with expertise in the design and analysis of genomic experiments. This is a full time research professional position affiliated with the new Genomics Research and Training Core Facility. The primary responsibilities of the candidate will be to engage in collaborative research with Core users, including the analysis of next-generation

sequencing experiments, development and maintenance of bioinformatic workflows, teaching of bioinformatic techniques, and ongoing development of computational resources affiliated with the Core. This position will also work closely with the current Core laboratory manager to advise Core users on the design of genomic experiments.

The successful candidate will possess a strong foundation in bioinformatics and genome sciences, proficiency in one or more programming languages (Perl, Python, C++, Java), and a demonstrated track record of analyzing large next-generation sequencing datasets (e.g., whole genome sequencing, RNA-seq, reduced representation enrichment). A Ph.D. by the time of appointment is required. Some experience writing grant applications is desired.

The University of Montana is home to a diverse and highly interactive collection of faculty with expertise in evolution, genetics, genomics, conservation, ecology, and wildlife biology and a strong emphasis on the study of non-model systems and natural populations. Candidates whose research interests and background complement these existing strengths are especially encouraged to apply. UM is located in Missoula, a charming city in the northern Rocky Mountains that offers an outstanding quality of life.

To apply, please visit: <a href="http://bit.ly/1102grsbs">http://bit.ly/1102grsbs</a> Candidates must apply online, and will be asked to upload the following application materials: a cover letter describing your interests and qualifications, a CV, transcripts, and the names and contact information for three references. This position is available immediately. Review of applications will begin on January 5 and the position will remain open until filled. Please direct questions pertaining to this announcement to John McCutcheon, search committee chair (john.mccutcheon@umontana.edu)

ADA/EOE/AA/Veterans Preference Employer. Finalists must submit to a criminal background check

john.mccutcheon@mso.umt.edu

## UMuenster MolecularEvolutionaryBiology

The Faculty of Biology at the University of Muenster, Germany, seeks to appoint an outstanding evolutionary biologist to fill a professorship and invites applications for a Full Professor of Molecular Evolutionary Biology (W3 salary scale, starting date: October 1st, 2015)

Candidates should have an excellent track record of research in Molecular Evolutionary Biology and should have worked on genotypic and phenotypic adaptation using experimental and molecular biological techniques and/ or theoretical methods. She/he should focus on the molecular and genetic causes of evolutionary processes. The candidate is expected to contribute to teaching at both the BSc and MSc level and for prospective teachers, such as: including introductory lectures, practical courses and/or field trips in evolutionary genetics, population genetics/genomics, molecular evolution and molecular ecology. Applicants must hold a doctorate and have a postdoctoral track record of independent academic research and teaching (German Habilitation, Junior-Professor or equivalent experience). Applicants from abroad are expected to teach introductory lecture courses in German within 2 years after recruitment. The position comes with substantial funding, including an annual budget, scientific and technical posts. The professorship will join the Institute for Evolution and Biodiversity (IEB, www.uni- muenster.de/evolution), which has been established in 2005, was fully refurbished in 2008 and is equipped with state-of- the-art shared labs and computer facilities. The successful candidate will contribute to existing research networks, for example the Muenster Graduate School of Evolution. The University of Muenster is an equal opportunity employer and is committed to increasing the proportion of women academics. Consequently, we actively encourage applications by women. Female candidates with equivalent qualifications and academic achievements will be preferentially considered within the framework of the legal possibilities. We also welcome applications from candidates with severe disabilities. Disabled candidates with equivalent qualifications will be preferentially considered.

Applicants should send two pdf files via e-mail, each containing the family name of the applicant and the keyword "molecular evolution": one containing their CV, a list of publications and grants received, and a research plan, and a second one with copies of transcripts and degree certificates by February 5th, 2015 to

Prof. Dr. Wolf-Michael Weber, Dean of the Faculty of Biology University of Muenster Schlossgarten 3, 48149 Muenster, Germany dekanat.bio@uni-muenster.de

joachim.kurtz@uni-muenster.de

EvolDir January 1, 2015

## UNevada Reno EvolutionaryPhysiology

The Department of Biology at the University of Nevada Reno invites applications for a tenure-track Assistant Professor position in Organismal Animal Physiology to begin on July 1, 2015. We seek an organismal physiologist preferably working with vertebrates in any area of animal physiology, including but not limited to evolutionary and comparative physiology, endocrinology, immunology, and neurophysiology. An important criterion for selection will be the candidates ability to enhance one or more existing research strengths in the department. The successful candidate will be expected to develop an innovative, externally funded, research program, and will contribute to teaching Comparative Animal Physiology and other courses as needed, as well as developing new courses in his/her areas of expertise.

UNR offers a highly collaborative research environment with excellent core facilities in proteomics, genomics, flow cytometry, single cell molecular expression, microscopy, bioinformatics, and high-performance computing. A shared instrumentation laboratory offers extensive instrumentation for structure elucidation, including NMR, GC-MS and LC-MS.

The Biology department is rapidly growing with five new faculty recruited within the last two years in the areas of neuroscience, evolutionary and functional genomics, and bioinformatics. Two concurrent searches are for tenure-track positions in Disease Ecology and Metabolomics (http://jobs.sciencecareers.org/-job/351113/assistant-professors-animal-physiology-metabolomics-disease-ecology/).

Currently the department is home to 23 tenure-track faculty, 7 lecturers, as well as a number of extramurally funded research faculty. Extramural funding is approximately \$4,000,000/yr. The faculty participate in interdisciplinary (multi-departmental) graduate programs in molecular and cellular biology (CMB), ecology, evolution and conservation biology (EECB), and a new neuroscience graduate program. See <a href="http://www.unr.edu/biology">http://www.unr.edu/biology</a> for a listing of the departments research clusters. The faculty also has close ties to the University of Nevada School of Medicine and over \$60 million of NIH funds have recently been targeted for biomedical research development on campus.

Reno is located in the Sierra Nevada mountains near Lake Tahoe (3 hours from the San Francisco Bay Area), and has been rated one of the best small cities in the US for outdoor recreation and overall quality of life.

Applicants should see the full description and apply at: https://www.unrsearch.com/postings/16412. For questions, contact Dr. Vladimir Pravosudov (Search Chair) at vpravosu@unr.edu

The University of Nevada, Reno is committed to Equal Employment Opportunity/Affirmative Action in recruitment of its students and employees and does not discriminate on the basis of race, color, religion, sex, age, creed, national origin, veteran status, physical or mental disability, and sexual orientation, or genetic information, gender identity, or gender expression. The University of Nevada, Reno employs only United States citizens and aliens lawfully authorized to work in the United States. Women, under-represented groups, individuals with disabilities, and veterans are encouraged to apply. anneleonard@unr.edu

## **UOregon EvolutionaryBiology**

Clark Honors College, University of Oregon Asst./Assoc./Full Professor of Evolutionary Sciences

- 1. Position: The Robert D. Clark Honors College (CHC) at the University of Oregon (UO) invites applications for a tenure-track position in evolutionary sciences. This position may carry the rank of Assistant Professor, Associate Professor, or Full Professor and a salary commensurate with experience. Start date September 16, 2015. The position is a full-time, nine-month academic year appointment.
- 2. Essential Functions: We are particularly interested in individuals whose research interests include evolution, genetics, statistics, quantitative analysis, and historical science, and whose teaching interests would add breadth to our Honors College science curriculum. The successful candidate will have a research affiliation with UO's research centers, institutes (such as the Institute of Ecology and Evolution) and/or with their disciplinary department(s), and will have teaching and service responsibilities primarily within the Clark Honors College, including shared responsibility for its introductory science curriculum. Clark Honors College courses in all fields are taught in a seminar format. Candidates should

show evidence of excellence in teaching and mentoring undergraduates, as well as an outstanding research program.

- 3. Minimum and Preferred Qualifications: Ph.D. in physics, biology or related natural science field. Evidence of superior scholarship and teaching. Commitment to teaching state of the art courses with up-to-date approaches. Preference will be given to those with experience working in an Honors College or in a competitive liberal arts college. Candidates who promote and enhance diversity are encouraged to apply. About science in the CHC: The CHC functions as a liberal arts college of about 800 undergraduate students and 20 arts and sciences faculty within the larger University of Oregon community. The mission of the CHC is to provide high-achieving students the best of both an intensive small college experience and a major research university education, and to foster lively conversation across the arts and sciences. Our curriculum currently requires at least one course in science taught in the Honors College format, with a heavy emphasis on science literacy and critical thinking, writing, and speaking. Roughly 1/3 of our students are in science majors or minors, and all complete a research thesis in the course of the CHC curriculum.
- 4. Description of the University and Community: The CHC at the University of Oregon (UO) is a highly competitive, small liberal arts college of approximately 800 students featuring small classes and close interaction between students and faculty. It emphasizes interdisciplinary scholarship and independent research in a tight-knit, dynamic community. The University of Oregon is located in Eugene, Oregon, home to more than 155,000 people and Oregon's third largest city. Within only a few hours' drive are ocean beaches, lakes, rivers, forests, high desert, and the Cascade and Coast mountain ranges. The Willamette River runs through the heart of the city and joins the McKenzie River north of town. Mild winters, long growing seasons, and few drastic weather changes are characteristic. Eugene has a high percentage of professionals, including doctors, lawyers, architects, and educators, and is home to the Hult Center for the Performing Arts, which regularly hosts the Oregon Bach Festival, the Eugene Symphony, the Eugene Ballet, and the Eugene Opera, among other cultural offerings.
- 5. Application Procedure and Closing Dates: Application review begins on January 1, 2015. Applications submitted by that date will be ensured consideration. The position will remain open, and qualified candidates in the pool will remain active, until the position is filled. The finalist for this position must successfully complete a criminal background check. Submit the application

materials to: https://academicjobsonline.org/ajo/jobs/-5151.

The successful candidate will support and enhance a diverse learning and working environment. A complete application must include the following:

- 1. A cover letter demonstrating how you meet the qualifications and addressing your interest in the position.
  2. A current CV including a publication list, research and teaching statements. 3. Three letters of reference.
  4. Submission of 1-3 selected reprints is encouraged, as well as evidence of effective teaching.
- 6. AAEO Statement: The University of Oregon is an equal opportunity, affirmative action institution committed to cultural diversity and compliance with the ADA. The University encourages all qualified individuals to apply, and does not discriminate on the basis of any protected status, including veteran and disability status.

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## UOtago EvolutionaryEcol

Lecturers/Senior Lecturers - Behavioural and/or Evolutionary Ecology-1402226

## DEPARTMENT OF ZOOLOGY, UNIVERSITY OF OTAGO

Applications are invited from behavioural and/or evolutionary ecologists to teach at undergraduate and post-graduate levels, and to develop a strong research programme in their area of expertise. At least one appointee is expected to have research expertise in behavioural ecology.

The Department of Zoology has a strong reputation in whole-organism biology, with research strengths in areas including conservation biology, genetics, evolutionary parasitology, environmental physiology, wildlife management, neurobiology and statistical modelling, as well as in molecular, population, community, behavioural and quantitative ecology. Applicants are encouraged to identify the manner in which they could complement existing strengths in the Department.

Up to two positions will be offered as confirmationpath (tenure track) positions at the level of Lecturer

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(equivalent to Assistant Professor in the North American system). An appointment at Senior Lecturer Level may also be considered.

The successful candidates are expected to take up duties between 1 July and 1 December 2015.

Specific enquiries may be directed to Associate Professor Gerry Closs gerry.closs@otago.ac.nz +64 3 479 7972

Applications quoting reference number 1402226 close on 15 February 2015.

Further Information: http://www.otago.ac.nz/zoology/Graham Wallis office +64 3 479 7984 Department of Zoology fax +64 3 479 7584 University of Otago home +64 3 476 1314 PO Box 56, Dunedin 9054 courier 340 Great King St Aotearoa-New Zealand email g.wallis@otago.ac.nz

Professor in Genetics http://www.otago.ac.nz/zoology/-staff/otago008937.html graham.wallis@otago.ac.nz

faculty and students in a wide range of the Biological Sciences and Biotechnology. Benefits include health insurance, retirement plan and tuition waivers in the UPR system for immediate family members.

#### How to Apply

Please send Curriculum Vitae, statement of research, statement of teaching interests, and three letters of reference via e-mail to brendam.soto@upr.edu. For further information please contact Dr. Matias J. Cafaro (matias.cafaro@upr.edu), Department of Biology, University of Puerto Rico, Mayagüez Campus, Call Box 9000, Mayagüez, Puerto Rico 00681-9000.

The University of Puerto Rico is an Equal Opportunity Employer

"Matias J Cafaro (UPR)" <matias.cafaro@upr.edu>

## UPuertoRico Mayaguez EvolutionaryEntomology

University of Puerto Rico-Mayaguez Campus Entomology - Assistant Professor Tenure-Track Position Deadline January 16, 2015

A Ph.D. degree in Biology, Entomology or related field is required. Preferred qualifications are a strong background in evolution, morphology and taxonomy of tropical insects. Candidates should be willing to teach undergraduate and graduate courses according to departmental needs including, but not limited to, Morphology and Taxonomy of Insects, and demonstrate the ability to design and develop courses in their area of specialty.

Successful candidates will be expected to develop an active, externally funded research program with undergraduate and graduate students, and collaborate with other faculty. The appointment will consist of teaching and research. External funds, when obtained, will allow eligibility for release time during the academic year. Candidates with good communication skills in both English and Spanish will be preferred. UPRM is a Land-Grant, Sea-Grant, and Space-Grant institution; interaction with faculty and researchers in these fields is encouraged. Puerto Rico represents a suitable setting to develop research in tropical systems, and the University of Puerto Rico stimulates collaboration with active

#### USFishWildlife Washington Geneticist

Interdisciplinary Geneticist Department: Department Of The Interior Agency: Interior, US Fish and Wildlife Service Number of Job Opportunities & Location(s): 1 vacancies - Longview, Washington Salary: \$69,497.00 to \$90,344.00 / Per Year Series and Grade: GS-0440-12 Closing date: Friday, January 9, 2015 Position Information: Permanent - Full-Time Who May Apply: United States Citizens For details, please see: http://www.usajobs.gov/GetJob/ViewDetails/-386980400 Thanks!

Christian Smith

Christian Smith Abernathy Fish Technology Center 1440 Abernathy Creek Road Longview, WA, 98632 phone: 360.425.6072 x339

"Smith, Christian" <christian\_smith@fws.gov>

#### **UTubingen Paleogenetics**

The Department of Geosciences within the Faculty of Science at the University of Tübingen, Germany, invites applications for the position of a

\*Tenured position (Akademischer Rat A13) in Archaeoand Paleogenetics, University of Tuebingen\*

to be filled in as early as possible. The future holder of the position represents the field of Archaeo- and Paleo-geneticsin research and education. The research agenda may focus, among others on, genetic analysis of historical pathogens, ancient human population genetics or genetic analysis of Pleistocene mega fauna. Active participation in the newly established Senckenberg Center for Human Evolution and Palaeoenvironment is expected. Teaching obligations cover participation in the BSc and MScprogramsof Archaeological Sciences for a total of 9 hours per week.

Formal requirement for the appointment is an excellent doctoral thesis and teaching experience. Appointment requirements for the professorship are governed by Baden Württemberg's Higher Education Act (LHG Baden-Württemberg, §52).

The Akademischer Rat/Rätin will be appointed as a civil servant.

The University of Tübingen is committed to strengthening the proportion of women in research and teaching, and strongly encourages applications of qualified female scientists.

Applicants with disabilities who possess equivalent qualifications will be given preferential treatment.

Applications including a motivation letter, a curriculum vitae, a list of publications and teaching experience, and a concept of intended research and teaching, including intended collaborations with the current department for Archaeogenetics, should be sent by e-mail to the Dean of the Faculty of Science, University of Tübingen, Germany (dekanat@mnf.uni-tuebingen.de) until 15^th of January, 2015.

Johannes Krause Dr. rer. nat. Professor für Archäo- und Paläogenetik Institut fur Naturwissenschaftliche Archäologie (INA) Eberhard-Karls Universität Tübingen Rümelinstr. 23 72070 Tübingen Tel: +49 (0) 7071 29 74 089

Johannes Krause < johannes.krause@uni-tuebingen.de>

## UWashington Bothell EvolutionBehavior

University of Washington Bothell Biological Sciences Division School of Science, Technology, Engineering and Mathematics Assistant Professor in Animal Behavior

The Division of Biological sciences in the School of Science, Technology, Engineering, and Mathematics (STEM) at the University of Washington Bothell (UWB) invites applications for one tenure-track position in animal behavior at the rank of assistant professor. The successful candidate will develop a research program investigating animal behavior and its physiological basis. S/he will join our faculty on a full-time basis for a nine-month academic year appointment beginning September 16, 2015. All university faculty engage in teaching, research and service.

#### Duties and Responsibilities

We seek an educator who is committed to excellence in teaching. The successful candidate will teach upper division courses in animal behavior as well as contribute to a neuroscience minor and will teach accompanying labs. An active research program which reflects a commitment to involving undergraduates in field and/or laboratory settings is fundamental to this position. The successful candidate will be expected to apply for extramural funding to support this research program. Service includes contributing to the continuing development of the biology degree program and participating in departmental, school, and university committee work.

#### Required Qualifications

The candidate must have a doctorate, or foreign equivalent, in Biology, Neuroscience, or related field with an emphasis on animal behavior. Postdoctoral research experience is required. The candidate must demonstrate a plan for establishing a funded research program that is focused on animal behavior and is amenable to undergraduate participation. Applicants must have demonstrated excellence in mentoring undergraduate students in research.

The candidate must also have documented excellence in teaching at the undergraduate level. Successful applicants will teach upper division animal behavior and neuroscience courses. She or he must be able to develop and teach accompanying labs. The applicant must demonstrate an ability and commitment to support and enhance the learning of diverse populations, including students not traditionally represented in science.

The division of Biological Sciences is a vibrant and growing community composed of eight full-time faculty. Our biology major is rapidly growing and we expect to graduate approximately 100 biology majors in 2015. All of our students participate in research, either within a faculty member's research program, through an internship, or in a research course. The UW Bothell campus has a new STEM teaching building, a large greenhouse, and a 57 acre restored wetland, all of which contribute to our mission of high quality undergraduate education and research. We believe students learn biology best by engaging in the scientific process, and we are committed to teaching practices that foster learning in students from a variety of backgrounds, including students from backgrounds traditionally underrepresented in science.

The School of STEM offers ten undergraduate degrees and two graduate degrees within its four Divisions of Biological Sciences, Computing and Software Systems, Engineering and Mathematics, and Physical Sciences. Our undergraduate degrees in Chemistry, Computer Engineering and Mechanical Engineering will begin in Autumn 2014. We also offer master's degrees in Computer Science and Software Engineering and Cyber Security Engineering, and we plan to offer a master's degree in Electrical Engineering beginning Winter 2015. Our 74,000 square-foot Discovery Hall teaching and laboratory facility, which includes eleven new science and engineering laboratories, opened in Summer 2014.

Ranked as the 'best in the state' by Money magazine, the University of Washington Bothell opens the door to an internationally and nationally-ranked university experience that inspires innovation and creativity. UW Bothell is the 4th fastest growing public university in the nation and the fastest growing campus in the Pacific Northwest. With a mission that values both access and excellence along with service to the state and region, 64% of incoming students are underrepresented minority or first generation; 91 percent of our students are from 'Washington State.' The Bothell campus of the University of Washington, located approximately 20 miles northeast of Seattle, serves nearly 5,000 traditional and non-traditional students and offers degrees through the Schools of Business, Interdisciplinary Arts and Sciences and Science, Technology, Engineering, and Mathematics (STEM), Educational Studies, and Nursing and Health Studies. Since its opening in 1990, UWB has offered creative, interdisciplinary curricula, and a dynamic community of multicultural teaching.

How to apply: For more information about UW Bothell go to <a href="http://www.uwb.edu">http://www.uwb.edu</a> or



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# $egin{aligned} \mathbf{XavierU} \\ \mathbf{WoodBoringBeetleSystematics} \end{aligned}$

(Apologies for cross-postings)

USDA APHIS PPQ CPHST Otis Laboratory (Buzzards Bay, MA, USA) & Xavier University

Research Associate - Rearing and Identification of Woodboring Beetles Intercepted in US Ports of Entry

The Xavier University Department of Biology and USDA APHIS PPQ CPHST Otis Laboratory (Dr. Ann Ray, Dr. Scott Myers, & Dr. Hannah Nadel) seek applications for a research associate to work on a project rearing, identifying, and cataloging immature wood-boring beetles intercepted at US ports.

#### Required qualifications:

1. M.S. or Ph.D. in entomology, or a closely related field 2. Excellent organizational and interpersonal skills 3. Excellent written and oral communication 4. Broad background in entomology with experience in insect identification and statistical analysis 5. Experience with molecular methods, including extraction of DNA/RNA, PCR, and sequencing. Experience with phylogenetics/bioinformatics is desired. 6. Experience in databasing, barcoding, and macrophotography is desired

The successful candidate will work with USDA and other taxonomists to identify specimens by morphological and molecular diagnostic methods, and will maintain and analyze detailed project records. Obtaining and rearing insects requires planning and conducting activities under specifications of a permit related to shipping intercepted insects from ports, and rearing insects in host wood or artificial diets. Identification of insects includes activities associated with curating and keying specimens, photographing specimens, extracting and amplifying DNA, and entering and matching barcode sequences in genetic databases.

We are particularly interested in recruiting candidates with experience creating databases and electronic diagnostic tools. We welcome new ideas and innovative

perspectives to expand this project. There will be opportunities to travel to work with collaborators, and to communicate results of research at national/ international meetings.

This position is funded through a cooperative agreement between Xavier University and USDA APHIS PPQ CPHST Otis Laboratory, and all work will be conducted at the USDA quarantine facility at Buzzards Bay, Massachusetts.

Appointment is for one year, with funding for the second year anticipated (pending release of funds). It is also possible that funding for this project will be renewed for additional years. The position is full-time and includes benefits through Xavier University. The successful candidate will be expected to complete required safety training, and will be subject to background check(s). Candidates must be eligible to work in the US and must be eligible for a driver's license. Xavier University and the USDA are equal opportunity employers.

This job requires fine motor skills, and the ability to

lift up to 20 pounds regularly. The successful candidate must regularly stand, stoop, bend, and crouch. Much of the candidate's work will take place in close quarters and enclosed spaces inside a quarantine facility. The candidate will occasionally be exposed to chemicals in a laboratory setting, and will be required to operate a motor vehicle.

To apply, email a cover letter, CV, and the contact information for three references to Ann Ray. Review of applications will begin immediately, and we desire a start date as soon as possible.

For additional information contact Ann Ray Phone: 513-745-2054 Email: raya6(at)xavier.edu (replace "at" with @)

Ann M. Ray, Ph.D. Assistant Professor Department of Biology, Xavier University 104 Albers Hall, 3800 Victory Pkwy. Cincinnati, OH 45207 USA Ph. 513-745-2054; Fax: 513-745-1079 raya6@xavier.edu

Adjunct Curator of Zoology Cincinnati Museum Center "Ray, Ann" <raya6@xavier.edu>

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#### AmericanGeneticAssoc Awards

The American Genetic Association (AGA) announces a new funding opportunity in Evolutionary, Ecological, or Conservation Genomics (EECG) for graduate and post-doctoral researchers who are at a critical point in their research, where additional funds would allow them to conclude their research project and prepare it for publication.

These EECG Research Awards are open to any graduate student or postdoctoral fellow who is a member of the American Genetic Association at the time of application - visit <a href="http://www.theaga.org/">http://www.theaga.org/</a> for membership details. This program is not intended to fund an entire research project or to initiate new research projects. Awards will generally range from \$5,000 to \$10,000, awarded to the PI or institution (no overhead is provided).

Awardees are expected to submit at least one paper derived from the support to the AGA Journal of Heredity. Accepted papers will be eligible for an additional \$2000 through the Stephen J O'Brien Award, if the first author is a student and the paper is regarded as particularly high quality by the AGA publications committee. In addition, papers arising from the EECG awards will receive priority consideration to be highlighted on the cover of the Journal, will be made freely available immediately on publication, and the first author will receive an additional year of AGA membership, including a subscription to Journal of Heredity.

Application deadline is 1 February 2015, and awards will be announced by 15 April. Instructions for preparing applications can be found at <a href="http://www.theaga.org/">http://www.theaga.org/</a> Timeline: Release of RFP: Dec 1, 2014 Deadline for submission: Feb 1, 2015 Awards announced: April 15, 2015 Funds distributed: by May 31, 2015

Contact: agajoh@oregonstate.edu

AGAJOH@oregonstate.edu

the heart of New York City working at the American Museum of Natural History?

The Research Experiences for Undergraduates (REU) program, funded by the U.S. National Science Foundation, offers paid summer internships for qualified undergraduate students to conduct research projects with AMNH scientists in evolutionary biology and systematics, linked to specific individual research projects. Included in the program are a general orientation to the Museum and a series of weekly meetings at which students discuss their research, present informal progress reports, and participate in discussions and seminars as well as graduate and research career opportunities. At the conclusion of the internships, students deliver oral presentations of their work and prepare publication quality research papers.

Successful applicants will receive a stipend and dormitory housing on a nearby university campus, or an equivalent housing stipend, will be provided together with a subsistence allowance. Based on need, travel costs to and from New York City are also covered.

The program is open to all students who are U. S. citizens or permanent residents who will be returning to a degree-granting undergraduate program. Students from community colleges and primarily undergraduate institutions are especially encouraged to apply.

A description of the potential projects and more information may be found here: http://www.amnh.org/-our-research/richard-gilder-graduate-school/academics-and-research/fellowship-and-grant-opportunities/-undergraduate-fellowships Susan Perkins, Ph.D. Associate Curator & Professor Sackler Institute for Comparative Genomics and Division of Invertebrate Zoology American Museum of Natural History Central Park West at 79th Street New York, New York 10024

p: 212-313-7646 f: 212-313-7819 http://malaria.amnh.org http://genomics.amnh.org Twitter: @NYCuratrix Blog: Parasite of the Day - http://dailyparasite.blogspot.com Susan Perkins <perkins@amnh.org>

# ${\bf AMNH~NewYork}\\ {\bf UndergradSummerResearch}$

Do you know an exceptional undergraduate student who would like to spend a fun and engaging summer in

# **ASN Workshop CallProposals**

Call for Proposals for Workshops to be Supported by the American Society of Naturalists

The Workshop Committee of the American Society of Naturalists invites nominations for ASN sponsorship of

workshops. The ASN sponsors workshops for graduate students that provide training in modeling, data analysis, or other professional and research-related skills. ASN anticipates supporting 1-4 workshops per year at a rate of \$1000-2000 each, which can be used towards workshop expenses or deferment of student fees. The application should include descriptions of the workshop (including tangible benefits to participants), venue, procedures for selecting participants, anticipated number of participants, and a budget that includes plans for use of ASN funds. Applications should be submitted as a pdf on or before January 31, 2015 to adler@math.utah.edu with the phrase 'ASN Workshop Sponsorship' in the subject line. Inquiries should be directed to Fred Adler at the same address.

adler@math.utah.edu

### AvianPaternity data

Dear EvolDir users,

(sorry for repost, some users pointed out no contact information)

I'm currently assembling a database for a meta-analysis looking at the performance of extra-pair young in versus within-pair young in birds. I would appreciate your help in getting the data that was not published (e.g. due to lack of significant results, low statistical power etc). The types of data I would require include mainly differences between the extra-pair and within-pair young in any phenotypic traits (morphology, physiology, genetics, sex-ratio, life-history etc). The form of these differences should ideally be means in respective groups (withinpair and extra-pair young) and respective sample sizes but if for some reasons original means are not available any form of sigificance testing is acceptable. Of course - I would gladly accept original data if only you could share them with me - that would make calculation of relevant effect sizes the easiest.

The data of particular interest are differences measured in several consecutive breeding seasons (accompanied by indication of geographical location and year ID) or measures taken in differing conditions (e.g. different experimental treatments, different climatic regimes etc.)

Please contact me if you find my explanations unclear, I'll be happy to explain everything in more detail if needed.

Best regards Szymon Drobniak

Jagiellonian University, Institute of Environmental Sciences szymek.drobniak@uj.edu.pl

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geralttee@gmail.com

### CEBA FrenchGuiana CallProposals

Subject: Annual call for proposals CEBA 2015, French Guiana

The CEnter for the study of Biodiversity in Amazonia (CEBA) is a Laboratory of Excellence based in French Guiana aimed at fostering knowledge on terrestrial biodiversity. The Labex CEBA aims to coordinate research capacity in France on the topic of Amazonian terrestrial biodiversity, and to reinforce collaborations with South American and other international partners. Details are available at <a href="http://www.labex-ceba.fr">http://www.labex-ceba.fr</a> The Labex CEBA opens an annual competitive call for proposals to encourage innovative research on biodiversity in French Guiana. Projects will be evaluated by the Scientific Board and by external referees.

The submission deadline is January 23th, 2015.

To access the call for proposals form:

http://www.labex-ceba.fr/en/appel-a-projets-annuelceba/ Amaia IRIBAR-PELOZUELO

Chargée de coordination scientifique CEBA

Laboratoire Evolution et Diversité Biologique UMR 5174 Université Paul Sabatier, bât 4R1, bureau 124 118 route de Narbonne, 31062 Toulouse Cedex 9 - France

tél: +33 (0)5 61 55 64 95 fax: +33 (0)5 61 55 73 27

link: <a href="www.labex-ceba.fr">www.labex-ceba.fr</a> Amaia Iribar-Pelozuelo <a href="mailto:amaya.pelozuelo@univ-tlse3.fr">amaya.pelozuelo@univ-tlse3.fr</a>

# ESEB JMaynardSmithPrize CallNominations

\*John Maynard Smith Prize 2015: Call for Nominations\*

Every year the European Society for Evolutionary Biology (ESEB) distinguishes an outstanding young evolutionary biologist with a prize named after John Maynard Smith (1920 - 2004), eminent scientist, great mentor, au-

thor of many books on evolution, and a former President of ESEB.

#### Nomination:

The prize is open to any field of evolutionary biology. The candidates for the 2015 prize must have begun their PhD study after January 1, 2008. The nomination of the candidate may be by a colleague or self-nominated. The nominations should be sent as a single PDF file to Ute Friedrich at the ESEB office <office@eseb.org>. The nomination should include a brief justification, the candidate's CV and list of publications (indicating three most significant papers), a short description of future research plans, and a letter from the candidate approving the nomination. A letter of reference from another colleague (or two in case of self-nomination) should be sent directly to Ute Friedrich.

Nominations should arrive no later than January 15, 2015. Please take care to limit the size of attachments (total < 10 MB) in any one email.

The nomination committee, chaired by ESEB Vice President Dieter Ebert, will evaluate the nominations and inform the winner approximately by the end of February 2015.

The prize winner is expected to attend the ESEB congress in Lausanne, Switzerland (10-14 August, 2015), where he or she will deliver the John Maynard Smith Lecture. The Society will cover registration, accommodation, and travel expenses (economy fare). The JMS Prize comes with a monetary prize of 2500 euro and the possibility of a Junior Fellowship of generally 3 months at the Institute of Advanced Study (Wissenschaftskolleg) in Berlin, Germany. For more information on the Wissenschaftskolleg see <a href="https://www.wiko-berlin.de/en/">www.wiko-berlin.de/en/</a>. Previous winners of the JMS Prize are listed on the ESEB web site: <a href="https://www.eseb.org">www.eseb.org</a>. Sincerely, Ute Friedrich ESEB Office Manager

– Email: office@eseb.org ESEB website: www.eseb.org office@eseb.org

#### ESEB OutreachFund DeadlineMar15

\*\*ESEB Outreach Fund\*\*

The European Society for Evolutionary Biology (ESEB) welcomes applications to the ESEB Outreach Fund for projects that promote evolution-related activities. The goal of this initiative is to improve public knowledge about evolution globally.

Applications for funding will be accepted for educational initiatives that promote evolution, development of evolutionary material (books, films, web sites) intended for a general audience, public outreach seminars, public exhibitions, etc. While most projects will be financed for a sum between 1000-1500 Euros, exceptions can be made if a strong argument is provided for additional funds.

The application form can be found on www.eseb.org (click on the "Outreach Fund" link). Applications will be accepted twice yearly (deadlines March 15, September 15) and should be submitted by email to Ute Friedrich (office@eseb.org Subject: Outreach).

< http://www.eseb.org >

Dr. Ute Friedrich ESEB Office Manager Email: office@eseb.org European Society for Evolutionary Biology - www.eseb.org

office@eseb.org

# FrenchGuiana VolFieldAssist WaspEvolution

OPPORTUNITY: VOLUNTEER FIELD ASSISTANT REQUIRED (Spring 2015)THREE MONTHS IN FRENCH GUIANA (South America) WORKING ON THE EVOLUTION OF WASP SOCIAL BEHAVIOUR \* The Sumner Lab (University of Bristol, UK) is looking for a volunteer field assistant to work on an exciting new project in French Guiana (South America)

- \* Must be free from mid-February through May 2015
- \* We will be radio-tagging wasps (Polistes canadensis)

to test fascinating ideas in evolutionary biology. For a bit of background about these remarkable animals, have a look at Sumner et al. (2007), which can be found at <a href="http://tinyurl.com/strangewasps">http://tinyurl.com/strangewasps</a> \* An excellent opportunity to gain tropical fieldwork experience in a famous model organism - particularly for those seeking experience before applying for postgrad projects

The successful candidate will typically:

Have a good degree in a biological subject

Have a proven interest in ecology/evolution

See www.tinyurl.com/field2015. Applicants should email patrick.c.kennedy@live.co.uk with a covering letter explaining why you want to work on the project, your CV, and the contact details of 2 referees.

Patrick KennedyPhD studentBehavioural Ecology, University of Bristol

patrick.c.kennedy@live.co.uk

### GBIF EbbeNielsenChallenge

The GBIF Secretariat has launched the inaugural GBIF Ebbe Nielsen Challenge, hoping to inspire innovative applications of open-access biodiversity data by scientists, informaticians, data modelers, cartographers and other experts.

#### Background

For the past 12 years, GBIF has awarded the Ebbe Nielsen Prize to recognize outstanding contributions to biodiversity informatics while honouring the legacy of Ebbe Nielsen, one of the principal founders of GBIF, who tragically died just before it came into being.

The Science Committee, working with the Secretariat, has revamped the award for 2015 as the GBIF Ebbe Nielsen Challenge. This open incentive competition seeks to encourage innovative uses of the more than half a billion species occurrence records mobilized through GBIF's international network. These creative applications of GBIF-mediated data may come in any form and variety "from new analytical research and richer policy-relevant visualizations to improvements to processes around data digitization, quality and access" or something else entirely.

For more background on the challenge please visit <a href="http://www.gbif.org/page/62262">http://www.gbif.org/page/62262</a> Challenge

A jury composed of experts from the biodiversity in-

formatics community will judge the Round One entries collected through this ChallengePost website on their innovation, functionality and applicability, before selecting three to six finalists to compete for a ¿20,000 First Prize later in 2015.

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To view the rules and to learn how to enter the challenge, please visit <a href="http://gbif.challengepost.com/">http://gbif.challengepost.com/</a> Rod Page Chair, GBIF Science Committee

rdmpage@gmail.com

#### Gould Award Nominations

#### Gould Award announcement

The Society for the Study of Evolutions Committee for the Stephen J. Gould Award for the Improvement for the Understanding of Evolution is soliciting nominations for the Award for 2015. With this annual award the Society for the Study of Evolution recognizes, promotes, and rewards individuals who have increased public understanding of evolutionary biology and its place in modern science. The award will include a cash prize of \$5,000 and the expectation that the recipient will present the Public Outreach Seminar at the Evolution Meeting (expenses for travel/lodging and registration would be covered by the SSE). The awardee should be a leader in evolutionary thought and in public outreach who can deliver an inspiring lecture for both professionals and the broader public at the 2015 meetings of the Society in San Paolo, Brazil. Nominations should include the CV of the nominee along with a 1-2 page letter describing why this individual is worthy of the award. Please send nominations via e-mail to the Chair of the Committee, Steve Palumbi, at spalumbi@stanford.edu. Please submit names of nominees by December 18. All nominations will be treated confidentially and will be evaluated by members of the Committee and the Council for the Society. An awardee will be announced in early February.

Stephen R. Palumbi Harold A Miller Director, Hopkins Marine Station Jane and Marshall Steel Professor of Biology Stanford University

Steve Palumbi <spalumbi@stanford.edu>

EvolDir January 1, 2015

## Madrid StarlingPopBiol Volunteers

Volunteers seeked: Starling Camp 2015

Between April and June 2015 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.

http://www.behavecol.es/en/opportunities/starling-camp-2015~10 Please contact us asap if interested in taking part in the 2015 campaign, attaching your CV and a short personal statement of your interests.

Diego Gil (diego.gil@csic.es) Museo Nacional de Ciencias Naturales, Madrid, Spain.

Diego Gil Departamento de Ecología Evolutiva Museo Nacional de Ciencias Naturales (CSIC) José Gutiérrez Abascal, 2 28006 Madrid Spain

Tel: 00 34 91 411 13 28, ext. 1141 Fax: 00 34 91 564 50 78

web site: <a href="www.behavecol.es">www.behavecol.es</a> Diego Gil <a href="mailto:diego.gil@csic.es">diego.gil@csic.es</a>>

## OmennPrize EvolutionAndMedicine DeadlineJan21

The Evolution, Medicine, & Public Health Foundation invites nominations for the Omenn Prize of \$5000 to be

awarded in March 2015 for the best article published in 2014 in any scientific journal on a topic related to evolution in the context of medicine and public health. Full information at <a href="http://evmedreview.com/?p=2374">http://evmedreview.com/?p=2374</a> The prize, provided by the generosity of Gilbert S Omenn, will be awarded to the first author of the winning article. Authors are encouraged to nominate their own articles, but nominations of articles by others are also welcome. Nominations, including a brief statement in the body of the email (max. 250 words), a copy of the article (if distribution is permitted) or abstract and article link, must be submitted by 21 January, 2015 at 5 PM US Eastern Standard Time. All applications should be sent to OmennPrize@evolutionarymedicine.org

Any relevant peer-reviewed article published online or in print in 2014 is eligible, but the prize is intended for work that uses evolutionary principles to advance understanding of a disease or disease process. The prize committee will give priority to articles with implications for human health, but many basic science or theoretical articles have such implications.

The Prize Committee for this year is chaired by Sarah Tishkoff, and its members are Joe Alcock, Noah Rosenberg, and Alison Galvani. Papers by committee members, their students and lab group members are not eligible, and articles by their co-authors or close associates are subject to special conditions. The winner will be invited to present a talk at the March 19-21 meeting of the International Society for Evolution and Medicine in Tempe Arizona. <a href="http://evolutionmeeting.org">http://evolutionmeeting.org</a> Randolph Nesse President, The Foundation for Evolution, Medicine, & Public Health <a href="http://randolphnesse.com">http://randolphnesse.com</a> rmnesse@gmail.com

### Phyloseminar PeterRalph Jan28

Next on http://phyloseminar.org/:

Peter Ralph University of Southern California An empirical view of the population pedigree

Wednesday, January 28, 2015, 10:00 AM PST

Often, the summary statistics of population genetics are framed in the setting of Kingman's coalescent or related models. These statistics can be alternatively thought of as descriptive statistics of the realized population pedigree-with-recombination, in a way that has become much more useful in the era of whole-genome sequencing. For instance, pairwise number of nucleotide differences

is proportional to "effective population size", which is sometimes more usefully thought of as an estimate of the average length of the path through the pedigree to the most recent common ancestor at a randomly chosen locus (with an explicit standard error). Another example is the pairwise distribution of long tracts of IBD, which provides an estimate of a functional of the entire distribution of such paths.

Frederick "Erick" Matsen, Assistant Member
 Fred Hutchinson Cancer Research Center <a href="http://-matsen.fhcrc.org/">http://-matsen.fhcrc.org/</a> matsen@fhcrc.org

# REUSummerProgram UniversityKentucky

Research Experience for Undergraduates University of Kentucky Summer 2015 Suburban Ecology And Invasive Species

- 10 wk summer program, 26 May - 31 July 2015 for 10 students – Intensive research projects available on plants, insects, herps, and birds, in terrestrial or aquatic habitats – Mini-course and weekend field trips to areas of interest – \$5000 stipend, housing & an allowance for food provided – Applications due February 15, 2015

For more information and to apply, please visit: <a href="http://darwin.uky.edu/~erec/reu/">http://darwin.uky.edu/~erec/reu/</a> Or contact David Westneat (david.westneat@uky.edu)

– Jeremy Van Cleve

Assistant Professor Department of Biology University of Kentucky Webpage: <a href="http://vancleve.theoretical.bio">http://vancleve.theoretical.bio</a> vancleve@santafe.edu

#### RISE opportunities

Please spread the word about this program to undergraduates in your field:

RISE is a summer internship program for undergraduate students from the United States, Canada and the UK in the fields of biology, chemistry, physics, earth sciences and engineering. RISE offers unique opportunities for Bachelor students to work with research groups at universities and top research institutions across Germany for a period of 2 to 3 months during the summer. RISE interns are matched with doctoral students whom they assist and who serve as their mentors. The working language will be English. All scholarship holders receive stipends from the DAAD to help cover living expenses, while partner universities & research institutes provide housing assistance.

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Deadline for application is January 15th 2015.

For detailed information go to: https://www.daad.de/-rise/en/ Poster for US, Canada: https://www.daad.de/-imperia/md/content/rise/rise\_poster\_2015\_us.pdf

Poster for UK: https://www.daad.de/imperia/-md/content/rise/rise\_poster\_2015\_uk.pdf patrick.strutzenberger@univie.ac.at

### RutgersU GrantsSeminar Dec12

\*Drs. Peter \*and\* Rosemary Grant\* will present their work on the\* Evolution of Darwin's Finches\* for the 5th Annual Wilhoft Lecture in Ecology and Evolution.

\*When\* Friday, December 12 at 4PM  $\,$ 

\*Where\* Rutgers University Newark NJ Campus 195 University Ave Boyden Hall Room 100

These emeritus professors at the Department of Ecology and Evolutionary Biology in Princeton University, were subject of the Pulitzer Prize-winning book in 1995, \*The Beak of the Finch by \*\*Jonathan Weiner\*, where they discuss their 20 years of fascinating research into evolution, ecology and behavior among Darwin's Finches of the Galápagos Islands.

This year they published their own compilation of this incredible long-term research in the book entitle: "40 years of Evolution, Darwin's Finches on the Daphne major island".

Please register at the following link so we can have an approximate number of the attendance: https://www.eventbrite.com/e/annual-wilhoft-lecture-in-ecology-and-evolution-evolution-of-darwins-finches-by-drs-peter-and-tickets-14584381277 Dominic Evangelista <dominicev@gmail.com>

The published paper on the iPhone app is here: http://www.g3journal.org/content/4/5/779.full noor@duke.edu

### Software MareyMap RecombRates

#### Dear all,

We are happy to anounce that a new version of MareyMap (a tool to estimate recombination rates with genetic and physical maps\*) is available.

In the new version (v1.2), some bugs have been corrected, some functions improved, the code has been updated and it now works with the latest R versions. MareyMap v1.2 is referenced on the CRAN.

To find more information and to download the MareyMap package: <a href="https://lbbe.univ-lyon1.fr/-MareyMap-.html">https://lbbe.univ-lyon1.fr/-MareyMap-.html</a> With best regards,

Gabriel Marais Aurélie Siberchicot Laurent Guéguen

\* Rezvoy C, Charif D, Guéguen L, Marais GAB (2007) MareyMap: an R-based tool with graphical interface for estimating recombination rates. Bioinformatics 23:2188-9. http://www.ncbi.nlm.nih.gov/pubmed/17586550 MARAIS GABRIEL < Gabriel.Marais@univ-lyon1.fr>

# Software TeachingEvolution

Some very talented developers have created mobile apps to help with teaching transmission genetics and evolutionary genetics for our Duke and Coursera classes, but these apps are likely broadly useful for other classes. The basic versions are free, and run on both iOS (iPhone/iPad/ iPod Touch) and Android devices. Additionally, for those without smartphones, the new Android app can also be run on PCs.

One of the most useful features is a "problem generator" that will make an infinite number of problems for either the professor to use on tests or for students to practice (including Hardy-Weinberg, 3-point cross mapping, heritability, and population growth). Additionally, the evolutionary simulator ("AlleleFreak") is very elegant at demonstrating single locus allele frequency changes under any combination of selection, genetic drift, and inbreeding.

For more information and download links, see: https://dl.dropboxusercontent.com/u/20038531/genevol.html

## TriCEM NESCent TravelSupport

TriCEM-NESCent Travel Support: The Inaugural Meeting of the International Society for Evolution Medicine and Public Health

Funding is available from the National Evolutionary Synthesis Center (NESCent) and the Triangle Center for Evolutionary Medicine (TriCEM) to support students and faculty from under-represented groups in science (including women). Criteria for the Student Travel Award:

Student applicants must be in good standing as an undergraduate, graduate student, postdoctoral fellow, veterinary student, medical student or medical resident, in a degree program at an accredited university and from an under-represented group in science

Criteria for the MSI and HBCU Faculty Travel Award:

Applicants must be from an under-represented group in science and faculty at a Minority Serving Institution or Historically Black College or University.

Students and faculty presenting papers or posters at the conference are prioritized, followed by those who are co-authors of papers or posters to be presented at the conference. However, students and minority faculty who will not be presenting are still encouraged to apply and will be supported if possible. Travel distance and overall costs are also considered when making awards.

Submission Deadline: January 8, 2015 Notification: January 15, 2015

Apply at <a href="http://goo.gl/forms/T9tRztmVt4">http://goo.gl/forms/T9tRztmVt4</a> Craig R. McClain, Ph.D. Assistant Director of Science National Evolutionary Synthesis Center 2024 W. Main St. Suite A200, Box 104403 Durham, NC 27705 919-668-4590, cmcclain@nescent.org Chief Editor for Deep-Sea News: <a href="http://deepseanews.com/">http://deepseanews.com/</a> Science of the South: <a href="http://www.scienceofthesouth.com/">http://www.scienceofthesouth.com/</a> Research Homepage: <a href="http://craigmcclain.com/">http://craigmcclain.com/</a> "Craig McClain, Ph.D." <<a href="mailto:cm171@duke.edu">cm171@duke.edu</a>>

# ${\bf UKentucky} \ {\bf REUSummerProgram}$

Research Experience for Undergraduates University of Kentucky Summer 2015 Suburban Ecology And Invasive Species

- 10 wk summer program, 26 May V 31 July 2015 for 10 students – Intensive research projects available on

plants, insects, herps, and birds, in terrestrial or aquatic habitats – Mini-course and weekend field trips to areas of interest – \$5000 stipend, housing & an allowance for food provided – Applications due February 15, 2015

For more information and to apply, please visit: <a href="http://darwin.uky.edu/~erec/reu/">http://darwin.uky.edu/~erec/reu/</a> Or contact David Westneat (david.westneat@uky.edu)

Jeremy Van Cleve

Assistant Professor Department of Biology University of Kentucky Webpage: http://vancleve.theoretical.bio Bio 325 Ecology in Summer Session 2

jeremy.vancleve@gmail.com

# **PostDocs**

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# Austin TX CancerEvolutionaryGenomics

RUNNING TITLE: St. David's Healthcare, Austin TX: Cancer Evolutionary Genomics

POSITION TITLE: Postdoctoral Researcher

POSITION SUMMARY: The Center for Computational Neuroscience at the NeuroTexas Institute (St. David's Healthcare, Austin TX) seeks a highly motivated individual interested cancer genomics and evolution. Our research group is particularly interested in applying techniques from molecular population genetics to identify genes under strong selection in Glioblastoma multiforme and other brain tumors, and in identifying associations between these genes and clinical variables such as tumor recurrence and patient survival times. There are also opportunities to collaborate on developing simulation-based and analytical models of tumor progression and evolution.

NeuroTexas Institute is a highly multidisciplinary clinical, research and educational institute affiliated with St. Davids HealthCare in Austin, TX. The Institute enjoys an open and highly productive relationship with the adjacent University of Texas at Austin. This particular research is part of an ongoing collaboration with UT-Austin faculty, and there are opportunities for conducting novel DNA/RNA sequencing studies of tumors specimens collected at the Institute (including an ongoing tumor deep sequencing pilot study).

This is a one-year appointment starting in January 1, 2015 (or as soon as the position is filled), with the possibility of renewal in the second year and beyond. Candidates must have completed their PhDs in computational biology, systems biology, evolutionary biology, statistics, computer science, applied mathematics, and/or related fields. The candidate is expected to be proficient in scripting and statistical analysis (R and Python are preferred). Previous experience with next generation sequence data and genomics tools such as GATK, samtools, etc. is highly desirable.

Interested individuals should send their CV, a cover

letter, and the names and contact information of at least 3 references to:

Max Shpak NeuroTexas Institute at St. David's Healthcare 1015 E. 32nd St Austin TX 78705 <a href="mailto:shpak.max@gmail.com">shpak.max@gmail.com</a>

Max Shpak, Ph.D. NeuroTexas Institute St. David's Medical Center 1015 East 32nd Street, Suite 404 Austin, TX 78705 (512) 544-8077

Max Shpak <shpak.max@gmail.com>

### Barcelona Chordate EvoDevo Genomics

University of Barcelona Department of Genetics

Our group in the field of Evo-Devo and Genomics of Chordates is looking for postdoctoral candidates to apply to any of the four recently open National calls (attention, some of the deadlines are imminent).

Candidates need to have a highly competitive CV to successfully apply for the fellowship. Experience in Molecular Genetics, Transgenesis and Developmental Biology and (or) Background in Bioinformatics, and Comparative Genomics will be positively considered.

Our main research interest is to understand the impact of gene losses on the evolutionary diversification of mechanisms of development in chordates, focusing on Wnt, Fgf signaling, and heart development. Our main subject of study is Oikopleura dioica, a new emergent urochordate model within our own phylum, with the smallest metazoan genome size known so far, and with an outstanding amount of gene losses (Denoeud et al., Science, 2010; Marti-Solans et al., Genesis 2014).

Interested candidates, please send an email to Cristian Cañestro (canestro@ub.edu), including a brief letter of interest and a CV together in ONE single pdf file.

Postdoctoral Fellowship Universitat de Barcelona (deadline 15-01-2015) http://portaldogc.gencat.cat/-utilsEADOP/PDF/6768/1387684.pdf Postdoctoral Fellowship Juan de la Cierva - In-

(deadline 29-01-2015) http://corporación www.idi.mineco.gob.es/portal/site/MICINN/menuitem.dbc68b34d11ccbd5d52ffeb801432ea0/-

Postdoctoral Fellowship Juan Cierva de la Formación (deadline 10-02-2015) http://www.idi.mineco.gob.es/portal/site/MICINN/menuitem.dbc68b34d11ccbd5d52ffeb801432ea0/-

Postdoctoral Fellowship Beatriu de Pinos Modal-(05-02-2015)http://www10.gencat.cat/agaur\_web/AppJava/english/a\_beca.jsp?categoria=postdoctorals&id\_beca!025

Interested candidates for future Marie Curie or EMBO calls or predocs feel free to contact too.

Cristian Cañestro and Ricard Albalat

Departament de Genètica Facultat de Barcelona, Universitat de Barcelona Av. Diagonal 643, 08023, Barcelona, Spain canestro@ub.edu

Cristian Cañestro <oikocris@gmail.com>

# Barcelona **LivestockPopulationGenomics**

\*Two year Postdoc opportunity in\*

\*Statistical and Population Genomics\*

\*Miguel Pérez-Enciso (\*miguel.perez@uab.es\*)\*

\*Centre for Research in Agricultural Genomics (CRAG)\*

\*Campus UAB, 08193 Bellaterra, Barcelona, Spain\*

\*\*

#### \*JOB DESCRIPTION\*

A two year postdoc position is available within the recently funded project aNext generation tools to exploit genome diversity in domestic species'. Two research topics are possible, or a mixture of both:

1- Use of sequence data in genomic selection. We will investigate by simulation, but using real sequence data, what are the potential advantages of sequence over high density genotyping under realistic genetic architectures.

2- To develop a population genetics model that mimic domestication and breed structure in livestock. Focusing in the pig species and using genomewide sequence 

that can be used as neutral model to test for selection.

#### \*THE RESEARCH TEAM\*

?vgnextoid'59f818608d6410VgnVCM1000001d04140aRCRD&cgnPexPharreinst656icfes16VpnVexPt060000MiguelOaRCRD Pérez-Enciso (ICREA professor, http://www.icrea.cat/Web/ScientificForm.aspx?key=255; http://scholar.google.com/citations?user=Lpl\_dcAAAAJ&hl=es), in cooperation with S.E. Ramos-Onsins. Recent related publications include:

> Pérez-Enciso M. et al. On genetic differentiation between domesticpigs and Tibetan wild boars. Nature Genetics (correspondence), accepted.

> Nevado, N., et al. 2014. Re-sequencing studies of nonmodel organisms using closely-related reference genomes: optimal experimental designs and bioinformatics approaches for population genomics. Mol. Ecol. 23: 1764-1779.

> Pérez-Enciso, M. 2014. Genomic relationships computed from either next generation sequence or array SNP data. J. Anim. Breed. Genet. 131:85-96.

> Ramírez O, et al. 2014. Genome data from a sixteenth century pig illuminate modern breed relationships. Heredity doi: 10.1038/hdy.2014.81

> Groenen et al. 2012. Analyses of pig genomes provide insight into porcine demography and evolution. Nature 491:393-8.

> The research will be developed in the recently built Centre for Research in Agricultural Genomics (www.cragenomica.es), based on campus of Universitat Autonoma of Barcelona (www.uab.es), Spain.

#### \*SALARY AND CONDITIONS\*

Annual gross salary is 29k euro, the contract is available for one year and extendable to an additional year. The position is available starting May 2015 or as agreed. Candidates interested in the position should email me (miguel.perez@uab.es) their CV and names of two persons who can provide references.

Miguel Perez-Enciso ICREA professor Centre for Research in Agricultural Genomics (CRAG) and Facultat de Veterinaria UAB Campus Universitat Autonoma Barcelona Bellaterra E-08193 Spain Tel:  $+34\ 935636600\ \text{ext}\ 3346\ \text{Fax:}\ +34\ 935636601$ miguel.perez@uab.es http://www.icrea.cat/Web/- ScientificStaff/Miguel-Perez-Enciso-255 http://bioinformatics.cragenomica.es/numgenomics/http://scholar.google.es/citations?user=Lpl\_-dcAAAAJ&hl=eshttp://orcid.org/0000-0003-3524-995X miguel <miguel.perez@uab.cat>

## BroadInst MalariaComputBiol

Title: Postdoctoral Associate, Malaria Computational Biology

Group: Malaria Genome Sequencing and Analysis (Neaf-sey)

#### OVERALL RESPONSIBILITY

We are seeking a Postdoctoral Associate to contribute to our research program in the genomics of malaria biology and disease. The successful candidate will work collaboratively with other group members to develop innovative approaches for computational genomic analyses relevant to a range of malaria projects, exploiting large genomic datasets to understand mechanisms of disease evolution, transmission, population dynamics, drug and immune evasion, and host-pathogen interactions.

Ideal applicants will have a PhD in a relevant field, with strong background in computational biology and bioinformatics, ideally in the context of malaria or other infectious disease, and with demonstrated expertise in computational analysis of large genomic datasets. The successful candidate will join a diverse group that combines the expertise of malaria biologists, computational biologists, and programmers. They will be expected to develop a research program that is original but fits within the general priorities of the team, taking into account the relevant literature, own experience, and advice from the team leader and other scientists as appropriate.

#### CHARACTERISTIC DUTIES

- Perform bioinformatic analyses to extract biological meaning from large scale sequencing data, genotyping data, and transcription data for malaria parasites
- Research and identify proper approaches for interrogating data using primary literature
- Work collaboratively with wet lab scientists at the Broad and elsewhere to make data accessible and interpretable
- Learn, use and extend existing tools and pipelines for data analysis within the group

http://- - Perform other duties as necessitated by the positionhttp://- or as assigned

#### SUPERVISION EXERCISED

None

#### QUALIFICATIONS

PhD in relevant field, with strong background in computational biology and bioinformatics ideally in the context of malaria or other infectious diseases.

#### Proficiency in:

- Managing and processing next-generation sequencing data (BLAST, alignment, etc.)
- Next generation sequence data analysis (BWA, samtools, GATK, etc.)
- Genome biology
- Malaria biology
- Statistical tools (R, Matlab, etc.)
- Unix/Linux operating system
- Programming skills, such as Perl or Python
- General abilities required: multi-task, work independently, collaborative skills, adapt to changing priorities, work in face paced environment, highly developed analytical and problem solving skills, oral and written communications skills, data presentation skills
- EOE/Minorities/Females/Protected Veterans/Disabilities

To apply for the job, applicants should use this link: <a href="https://www2.apply2jobs.com/-BroadInstitute/ProfExt/index.cfm?fuseaction=-mExternal.showJob&RID=1648&CurrentPage=1">https://www2.apply2jobs.com/-BroadInstitute/ProfExt/index.cfm?fuseaction=-mExternal.showJob&RID=1648&CurrentPage=1</a> The job location is The Broad Institute of MIT and Harvard in Cambridge, Massachusetts. This is a full-time, permanent position, eligible for benefits.

Please contact Steve Downing, Senior Recruiter (downing@broadinstitute.org) for further information.

Kendall Clites Recruiting Coordinator The Broad Institute of MIT and Harvard 617-714-7247

Kendall Clites <kclites@broadinstitute.org>

## CIRAD Montpellier ComparativeGenomics

A bioinformatics post-doctoral position is available for 18 months, at CIRAD in Montpellier, starting in January 2015.

Keywords: comparative genomics, phylogeny, data integration, functional conservation.

Context: This position is proposed by the "Biomass For the Future" project, funded by the French program "Investissement d'Avenir". This project aims to develop new dedicated varieties and cropping systems for sustainable production of lignocellulosic biomass, working on sorghum and miscanthus, and using maize as a model. Full project website available here: http://www.biomassforthefuture.org/en/project/presentation The postdoc fellow will be hosted at CIRAD, in the Data Integration bioinformatics team of the AGAP research unit: http://umr-agap.cirad.fr/en/equipesscientifiques/integration-de-donnees/contexte-et-enjeu Position description: We need a bioinformatician with strong experience in comparative genomics. The main objective is to provide reliable prediction of functional conservation between maize, miscanthus and sorghum The main idea is to study systematically gene families, and to integrate several heterogeneous data: phylogeny, synteny, expression levels, and so on. This work implies both methodological developments and careful biological data analyses. This position implies many collaborations with scientists working on information systems about, phylogeny and gene families, syntenic regions, ancestral gene content and order reconstruction. The candidate will also interact with different members of the Institute of Computational Biology (http://www.ibc-montpellier.fr). We need someone proficient in programming (at least one of the language: Java, Python, Perl, C++...). and easy with standard comparative genomic tools (e.g. HMMer, MAFFT, PhyML, SynMap, AGORA). Web programming proficiency (PHP, Javascriptâ), database management, and statistical notions would be appreciated.

If you have any questions, please contact: jean-francois.dufayard@cirad.fr

Jean-François Dufayard

CIRAD-BIOS UMR Amélioration Génétique et Adapta-

tion des Plantes méditerranéennes et tropicales Equipe "Intégration des données"

TA A-108/03 Avenue Agropolis 34398 Montpellier Cedex 5 France

Tel: (33) 4 67 61 56 31 Fax: (33) 4 67 61 56 05 e-mail: jean-francois.dufayard@cirad.fr http://sites.google.com/site/jeanfrancois.dufayard/Home Jean-François Dufayard < jean-francois.dufayard@cirad.fr>

# ${\bf Clemson U} \\ {\bf Streptococcus Pop Genetics} \\$

Vince Richards lab in the Department of Biological Sciences at Clemson University is accepting applications for a post-doctoral position available January 2015. The post-doc's primary responsibility will be a USDA project investigating genetic population structure and transmission dynamics of the zoonotic pathogen Streptococcus agalactiae. This bacteria is an important pathogen that infects multiple species including humans, livestock, and aquaculture. Towards a better understanding of the evolution and transmission dynamics of S. agalactiae both within and across host species, this project leverages comparative genomic approaches to a global collection of hundreds of S. agalactiae strains isolated from a diverse range of host species. Other responsibilities include contributing to the ongoing research within the laboratory.

The candidate should have a strong publication record, a background in population and evolutionary genetics, experience analyzing next-generation sequence data, and be well versed in Linux/bash. Strong communication and writing skills are essential. The position is available for 1.5 years, with the possibility of extension. Applicants should contact Vince Richards directly at vpricha@clemson.edu. Please provide a cover letter, CV, PDFs of representative publications, and contact information for three references.

Clemson University is ranked 20th among national public universities by U.S. News & World Report and is located on Lake Hartwell near the Blue Ridge mountains in beautiful Upstate South Carolina.

Vincent P Richards, Ph.D. Assistant Professor of Microbial Genomics Department of Biological Sciences Clemson University Clemson, SC 29634 email: vpricha@clemson.edu Lab website: http://www.vprichards-lab.com Vincent Paul Richards <vpricha@clemson.edu>

### CornellU ComputationalGenetics

The Williams and Clark labs at Cornell University have an opening for a postdoctoral fellow in computational genetics and genomics. Key research topics center on analyses of identity by descent (IBD) sharing within and between populations, and include potential development of novel methods to detect IBD segments. In addition to this general topic area, candidates with distinct but related research interests are encouraged to apply.

The Clark and Williams labs are in the Biological Statistics and Computational Biology Department at Cornell University, and maintain close connections to neighboring genetics and genomics labs on campus. Postdocs will benefit from a collaborative environment with many opportunities to interact with the vibrant genetics community at Cornell.

Initial appointment is for two years with the possibility of extension and includes competitive salary and benefits. Start date is flexible and can be immediate.

#### Qualifications:

Candidates are expected to have a Ph.D. in computational biology, computer science, statistics, genetics, applied mathematics, or related disciplines. Strong quantitative and programming experience (ideally in C or C++) are essential skills.

Informal inquiries and applications are welcome via email sent to both alw289 <at> cornell.edu and ac347 <at> cornell.edu. To apply, email a CV, one page statement of research interests and experience, and email addresses for at least two references. Applications will be reviewed immediately and continue until the positions are filled.

http://williamslab.bscb.cornell.edu/ http://mbg.cornell.edu/research/faculty/clark-lab — Amy L. Williams, Ph.D. Meinig Family Assistant Professor in Life Science and Technology Department of Biological Statistics and Computational Biology 102G Weill Hall | Ithaca, NY 14853 | (607) 255-0633 http://williamslab.bscb.cornell.edu/ | Twitter: @amythewilliams

Amy Williams <alw289@cornell.edu>

#### CornellU StatisticalGenomics

Post Doctoral Position in Statistical Genomics - Cornell University

Purpose and responsibilities: The position is within the Department of Plant Breeding and Genetics at Cornell. This postdoc will be hired to complete work on a project to implement genomic prediction and selection in wheat and maize.

The position will have responsibility for improving and developing models for genomic prediction, the prediction of future performance of breeding materials based on genome-wide genotypes. Areas for method development for prediction include using IBD relationships among chromosomal segments to improve predictions within bi-parental populations or across populations divided by sub-population structure; methods to design training populations given that some phenotypic data has been collected but additional data is desired; methods to design training populations that account for the fact that genomic relationships are estimated with error; and improving prediction when a population is admixed. Areas for method development for selection include identifying and selecting for greater recombination in genomic regions where such recombination is low; maintaining diversity during genomic selection; selecting on traits to improve stability in the presence of genotype by environment interaction.

This postdoc will coordinate with project partners at CIMMYT and with local projects that are developing databases for breeding data management.

Anticipated Division of Time Prediction model development: -75% Coordination with collaborators - 25% Term is one year renewable for up to 2 years.

Qualifications Ph.D. in statistics or applied mathematics with experience in predictive modeling or Ph.D. in plant or animal breeding with emphasis on statistics; or in statistical or computational areas of genetics.

Specific skills and technical/administrative training required: High-dimensional data analysis One or more programming languages Scientific writing Interpersonal communication

Preferred Experience: Experience in plant breeding practice, analysis of plant breeding data, statistical genetics, and crop physiology. Knowledge of databases / database programming

Apply online at: http://cornellu.taleo.net/-careersection/jobdetail.ftl?job=3D25889&lang=-3Den#.VH4zS9hH7j4.link Contacts for Applications Jean-Luc Jannink: jj332@cornell.edu

kec24@cornell.edu

## EawagETH Switzerland UVictoria Canada 2 DefensiveSymbiosis

Two Postdoc Positions in Genetics of Defensive Symbioses

We are seeking two enthusiastic postdocs to work on a collaborative project funded by the Swiss National Science Foundation's Sinergia program and entitled: "Defensive symbiosis in insects - linking molecular mechanisms with ecology and evolution". This project is a collaboration between the labs of Christoph Vorburger at Eawag and ETH Zürich in Switzerland (www.evec.ethz.ch), Bruno Lemaitre at EPFL in Lausanne, Switzerland (http://lemaitrelab.epfl.ch/), and Steve Perlman at the University of Victoria in British Columbia, Canada (http://web.uvic.ca/~stevep/). One position will be based in Christoph Vorburger's lab and will focus on defensive symbioses between aphids and bacteria, and the second position will be based in Steve Perlman's lab and will focus on bacterial symbionts that protect Drosophila against parasitic nematodes. There will be opportunities for exchange visits to collaborate with the other participating labs.

The ideal candidates will have a strong interest in host-parasite coevolution, strong quantitative and communication skills, including a strong record of publication, excellent molecular laboratory skills and experience in generating and analyzing next-generation sequencing data. A PhD is required. The expected starting date is 1 April 2015, but can be negotiated. Funds are available for up to three years.

To apply for the position in Christoph Vorburger's lab in Switzerland, submit an application online via the following link:

https://apply.refline.ch/673277/0317/pub/1/-index.html To apply for the position in Steve Perlman's lab in British Columbia, submit an application via email to stevep@uvic.ca with the subject heading: Sinergia defensive symbiosis postdoc

In order to apply, please include a cover letter explaining your motivation, research interests and relevant experience, a curriculum vitae, publication list, and the names and contact details of three academic references as a single PDF file. If you are interested in either position, please apply to both and indicate that in your cover letter.

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Deadline for applications is 31 December 2014

For enquiries about this position please contact Christoph Vorburger (+41 58 765 51 96; christoph.vorburger@eawag.ch) or Steve Perlman (stevep@uvic.ca).

Steve Perlman <stevep@uvic.ca>

# FredHutchinsonCancerResearchCenter ComputationalBiology

Full posting: https://careers-fhcrc.icims.com/jobs/-4875/post-doctoral-research-fellow%2c-computational-biology/job FH computational biology faculty: http://research.fhcrc.org/computational-biology/en/-member-track-faculty.html –

The Computational Biology Program of Fred Hutchinson Cancer Research Center in Seattle, Washington invites applications for the 2-year Mahan Postdoctoral fellowship. The fellowship will provide an exceptional individual with an early start on their career as an independent scientist by providing two years of salary and other support to complete their proposed research project in the laboratory of a Fred Hutch Computational Biologist mentor who is at the assistant or associate rank.

Faculty of any discipline or rank from the Fred Hutch, UW, or any other institute may be proposed as comentors. The fellowship must begin in the lab of the primary Fred Hutch mentor but it may move to another location as long as it benefits the science or career growth opportunities. The project must be focused on learning about biology, must involve a computational or mathematical component, and may include an experimental component. A laboratory trained scientist may satisfy the computational and mathematical requirement by including a training component in their proposal. Computationally strong candidates may include a laboratory training component as well. The research direction should reflect the interests and ideas of the applicant, although the final research proposal may be jointly designed; for more detail on fellowship rules and for a list of potential mentors, please refer to

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the Computational Biology Recruitment Page.

Fred Hutchinson Cancer Research Center, home of three Nobel laureates, is an independent, nonprofit research institution dedicated to the development and advancement of biomedical research to eliminate cancer and other potentially fatal diseases. Recognized internationally for its pioneering work in bone-marrow transplantation, the Centers five scientific divisions collaborate to form a unique environment for conducting basic and applied science. The Hutchinson Center, in collaboration with its clinical and research partners, the University of Washington and Seattle Childrens, is the only National Cancer Institute-designated comprehensive cancer center in the Pacific Northwest.

Frederick "Erick" Matsen, Assistant Member Fred Hutchinson Cancer Research Center http:/-/matsen.fhcrc.org/ Erick Matsen <matsen@fhcrc.org>

# Hawkesbury Sydney MicrobialGenomeBioinformatics

The Soil Biology and Genomics Theme of the Hawkesbury Institute for the Environment < <a href="http://www.uws.edu.au/hie">http://www.uws.edu.au/hie</a> is seeking an exceptional researchers to work on genome bioinformatics of soil metagenomics.

Post-Doctoral position (3 years fixed term; Academic Level A; AUD \$79,454 to \$84,295 p.a. plus 17% Superannuation and Leave Loading):

The Research Fellow in Bioinformatics will focus on research related to the development of bioinformatics tools for the analysis of microbial genomic, metagenomics, and meta-transcriptomic data generated using next-generation sequencing platforms. The successful applicant will be expected to initiate and successfully progress research projects in the broad area of bioinformatics that is relevant to the Soil Biology & Genomics research theme. The appointee will also have the opportunity to undertake further training in the latest bioinformatics tools and approaches through collaboration with overseas collaborators working in this area of research. He or she will have responsibility to progress research to completion and the publication of high-impact international journal publications.

Closing Date: 25 January 2015

How to Apply: Go to the web site <a href="http://-uws.nga.net.au/cp">http://-uws.nga.net.au/cp</a> and scroll to the job reference

1615/14.

The research environment:

The Hawkesbury Institute for the Environment (HIE) is a research only institution focused on environmental research. It is one of four Institutes at UWS dedicated to excellence in research. The HIE is dedicated to answering crucial questions about impacts of environmental change on terrestrial ecosystems. Offering comprehensive field and laboratory based facilities for research from genes to ecosystems, the Institute encourages collaborations between its three themes: Soil Biology & Genomics; Plants, Animals & Interactions; and Ecosystem Function & Integration (http://www.uws.edu.au/hie). The Institute has over 70 academic and support staff and is located on the Hawkesbury campus of the University of Western Sydney (UWS) in Richmond, NSW, Australia.

Based on its location, candidates who enjoy being the beautiful Australian bush will particularly appreciate the setting. Having said that, two of our bioinformaticians live in inner Sydney and commute on a direct train. Sydney commuter trains are famous for being rather work-friendly.

many thanks and a happy new year!

- Dr. Alexie Papanicolaou alexie@butterflybase.org 1) CSIRO Land & Water Flagship, GPO Box 1700, Canberra 2601, ACT, Australia 2) Hawkesbury Institute for the Environment, University of Western Sydney, Richmond NSW 2753, Australia

Alexie Papanicolaou <alexie@butterflybase.org>

# IndianaU ReproductionContributions

NIH T32 Postdoctoral Position at Indiana University

The NICHD T32 training grant entitled, "Common Themes in Reproductive Diversity" is accepting applications for 1-2 postdoctoral traineeships. This T32 offers broadly integrative training in the areas of sexual reproduction and development with a focus on behavior of humans and other animals. We address key questions in genetic, epigenetic, environmental, and parental contributions to reproductive and social behavior, as well as origins and expression of differences among the sexes, and sex and immunity in health and disease. Indiana University's excellent support for research and its globally recognized strengths in human sexual and

reproductive health, gender studies, animal behavior, endocrinology, and evolution of development ensure the highest quality training.

Applications are welcomed from prospective trainees working on human and non-human systems. A PhD in psychology, anthropology, gender studies, biology, neuroscience, chemistry, or a related field is required. Access and interaction with faculty of different specializations is built into the training experience. Candidates must identify member(s) of the training faculty < <a href="http://www.indiana.edu/~reprodiv/faculty.php">http://www.indiana.edu/~reprodiv/faculty.php</a> > who are willing to serve as primary mentors and establish a training plan prior to applying. <a href="http://www.indiana.edu/~reprodiv/groups.php">http://www.indiana.edu/~reprodiv/groups.php</a> All materials (including letters from references) should be submitted by 15 January 2015. Later applications will be considered if the position remains open.

Traineeships include a competitive salary based on the current NIH pay scale, commensurate with experience, and modest funds to support research and travel. The successful applicant will help foster collaborations among faculty and serve as a professional model for predoctoral trainees.

To apply follow this link <a href="http://www.indiana.edu/-animal/funding/ctrd\_postdoc/">http://www.indiana.edu/-animal/funding/ctrd\_postdoc/</a> If you have specific questions about the process, please contact Ellen Ketterson (ketterso@indiana.edu) who will answer your questions or forward your inquiry to the appropriate person Minority applicants or applicants with disabilities are highly encouraged to apply. Trainees must be citizens, noncitizen nationals, or permanent residents of the US. Indiana University is an Equal Opportunity / Affirmative Action Employer.

"Summers, Linda Rae" lisummer@indiana.edu>

# ISTAustria EcologicalGenetics

A postdoctoral position is available, for field research into the population genetics of Antirrhinum (snapdragon). The project focusses on a hybrid zone in the Pyrenees, between subspecies that differ in flower colour: plants in the hybrid population have been genotyped for major genes that determine flower pattern, and for large numbers of SNPs that allow the pedigree to be determined over multiple generations. The aim is to find why the subspecies remain distinct, and how they diverged from each other, and more generally, to use this long-term study to understand the interplay between

selection and population structure in nature.

This is a joint project between Nick Barton at the Institute of Science and Technology, Austria (http://ist.ac.at/research/research-groups/barton-group/), and Enrico Coen, at the John Innes Institute in Norwich (http://rico-coen.jic.ac.uk). The postdoc would be based at IST; she/he would be involved in fieldwork and analysis of genetic data.

The Institute of Science and Technology is a new multidisciplinary research institute, located in the Wienerwald, just outside Vienna (www.ist.ac.at). There are close links with other population genetics groups in the Vienna area (www.univie.ac.at/evolvienna/).

The position will be available for two years in the first instance, but with the possibility of extension; the salary scale starts at 49K p.a. Applicants should have a Ph.D. in a relevant area, with good quantitative skills, and an interest in evolutionary biology. For further details, please contact nick.barton@ist.ac.at. Applications should be sent by January 24th, and should include a CV, a statement of research interests, and names of referees.

Nick Barton

IST Austria Am Campus 1 Klosterneuburg 3400 'phone: (43)2243 9000 3001 www.ist-austria.ac.at

# Lausanne SocialPolymorphismGenomics

POSTDOCTORAL POSITION, ECOLOGICAL GENOMICS OF SOCIAL POLYMORPHISM, LAUSANNE

Applications are invited for a Postdoctoral position in the research group of Michel Chapuisat (Department of Ecology and Evolution, University of Lausanne). Our group studies social evolution, with a focus on the structure and evolution of ant societies. Please look at <a href="http://www.unil.ch/dee/page7000.html">http://www.unil.ch/dee/page7000.html</a> for information and references.

We have identified a social chromosome associated with variation in colony queen number in the Alpine silver ant Formica selysi (Purcell et al. Cur. Biol. 2014). We plan to study the origin and maintenance of this polymorphism by combining genomic, behavioural and ecological approaches. The focus will depend on the interest and background of the postdoc, and there will

be scope to accommodate personal ideas or projects. The ideal candidate should have a solid background in evolutionary biology and genomics. Experience in one or more of the following areas would be an asset: population genomics, comparative genomics, genotyping-by-sequencing, transcriptomics, evolutionary ecology, experimental behavioural ecology.

Starting date is negotiable, from March 2015 onwards. The Department of Ecology and Evolution is large and thriving, and provides excellent facilities for research and training (see <a href="http://www.unil.ch/dee/">http://www.unil.ch/dee/</a>).

Informal enquiries and applications should be sent to Michel.Chapuisat@unil.ch. Applications should include a cover letter with a statement of research interests and qualifications for the position, complete CV with publication list, and contact details of three referees, embedded in a single pdf file.

I will start reviewing the applications on December 19th, 2014, but will continue to consider incoming applications until the position is filled.

Michel Chapuisat < Michel. Chapuisat@unil.ch>

# MasseyU ComputationalBiology

Postdoctoral Fellow Bioinformatics/Computational Biology (A402-14JK), Massey University, New Zealand

Institute of Veterinary, Animal and Biomedical Sciences, College of Sciences IVABS are seeking a postdoctoral researcher with experience in genomics, computational biology, and bioinformatics to work within a multidisciplinary group on zoonotic diseases.

Location: Palmerston North Term: Fixed Term of 3 Years Grade: Postdoctoral Fellow Salary: TBA Applications close: 11:45 p.m. on 30 January 2015

Please go to http://massey-careers.massey.ac.nz/A402-14JK/postdoctoral-fellow-bioinformatics-computational-biology to apply.

Position overview The Institute of Veterinary, Animal, and Biomedical Sciences at Massey University has a three-year fixed-term vacancy for a Bioinformatics Post-doctoral Fellow. As the successful candidate, you will have the opportunity to work with globally renowned researchers in the University's Infectious Disease Research Centre (IDReC). Ideally, you will have experience in genomics, computational biology, and bioinformatics of infectious diseases, although expertise in other related

areas of biology would be considered. You will have the opportunity to work within a multidisciplinary group including other bioinformaticians, statisticians, molecular epidemiologists, microbiologists and veterinarians with expertise in veterinary public health and epidemiology. The position will be based in the Molecular Epidemiology and Public Health Laboratory (mEpiLab) of the Hopkirk Research Institute, Palmerston North. Your primary responsibility will be contributing to a range of studies from whole-genome analyses to the molecular epidemiology of zoonotic bacteria, including Salmonella, pathogenic Escherichia coli, and Campylobacter. Epidemiology of zoonotic viruses and protozoa are also studied in the group. As the successful applicant, you will be able to work with minimal supervision, but also work collaboratively, have sound organisational and communication skills, and be attentive to detail. The position would suit someone seeking further research experience while transitioning to become an independent researcher in infectious disease bioinformatics and computational biology. Please direct enquiries to Prof Nigel French: N.P.French@massev.ac.nz or Dr David Hayman: D.T.S.Hayman@massey.ac.nz

#### Job description

Purpose statement The primary responsibility will be contributing to a range of studies from whole-genome analyses to the molecular epidemiology of zoonotic bacteria, viruses and protozoa.

Responsible to Prof Nigel French via the Head of Institute

Key accountabilities 1) Specific project activities - The job requires using bioinformatic and computational biology techniques for a range of different projects within the mEpiLab and in the broader IDReC groups. 2) Other research and affiliated activities - Participate in activities as assigned. Assist in the design of new research projects in related areas and secure finances to conduct the projects. Participate fully in the broader mEpiLab research and teaching community, including assistance with graduate student supervision. 3) Other duties - Other reasonable duties as specified by the Institute Head and through the line management of the Group Leader. University adherence to OSH requirements and animal and human ethics.

Person specification

Qualifications - Biological, medical, or veterinary degree with training and expertise in bioinformatics and/or computational biology is essential. - Doctoral degree is essential.

Experience - Proven ability to write scientific papers is essential. - Appropriate analytical research experience

and publications are essential. - Evidence of an ability to work well with students and staff from differing academic and cultural backgrounds and across multiple institutions is essential.

Personal attributes and behaviours - Ability to work effectively as a member of a team and independently. - Able to maintain a professional approach with both staff and students while under pressure

Patrick J Biggs PhD Senior Lecturer in Computational Biology mEpiLab | Infectious Disease Research Centre (IDReC) Institute of Veterinary, Animal and Biomedical Sciences Massey University | Palmerston North | New Zealand Tel: +64 6 3569099 ex 84597 | Fax: +64 6 3505626

P.Biggs@massey.ac.nz

## MasseyU MolecularEpidemiology

Postdoctoral Fellow in Molecular Epidemiology (A401-14JK), Massey University, New Zealand

Institute of Veterinary, Animal and Biomedical Sciences, College of Sciences IVABS are seeking a postdoctoral researcher with experience in molecular epidemiology to work within a multidisciplinary group on zoonotic diseases.

Location: Palmerston North Term: Fixed Term of 3 Years Grade: Postdoctoral Fellow Salary: TBA Applications close: 11:45 p.m. on 30 January 2015

Please go to http://massey-careers.massey.ac.nz/A401-14JK/postdoctoral-fellow-in-molecular-epidemiology to apply.

Position overview The Institute of Veterinary, Animal, and Biomedical Sciences at Massey University has a three-year fixed-term vacancy for a Molecular Epidemiology Postdoctoral Fellow. As the successful candidate, you will have the opportunity to work with globally renowned researchers in the University's Infectious Disease Research Centre (IDReC). Ideally, you will have experience in infectious disease molecular epidemiology and evolutionary genetics of infectious disease, although expertise in other areas of biology would be considered. You will have the opportunity to work within a multidisciplinary group including bioinformaticians, statisticians, microbiologists and veterinarians with expertise in veterinary public health and epidemiology. The position will be based in the Molecular Epidemi-

ology and Public Health Laboratory (mEpiLab) of the Hopkirk Research Institute, Palmerston North. Your primary responsibility will be contributing to a range of studies from whole-genome analyses to the molecular epidemiology of zoonotic bacteria, including Salmonella, pathogenic Escherichia coli, and Campylobacter. Epidemiology of zoonotic viruses and protozoa are also studied in the group. As the successful applicant, you will be able to work with minimal supervision, but also work collaboratively, have sound organisational and communication skills, and be attentive to detail. The position would suit someone seeking further research experience while transitioning to become an independent researcher in infectious disease bioinformatics and computational biology. Please direct enquiries to Prof Nigel French: N.P.French@massey.ac.nz or Dr David Hayman: D.T.S.Hayman@massey.ac.nz

Job description

Purpose statement The primary responsibilities will be contributing to a range of ongoing studies on the molecular epidemiology of zoonotic bacteria, viruses and protozoa. Responsible to Prof Nigel French

Key accountabilities 1) Specific project activities - The job requires using molecular epidemiologic techniques for a range of different projects within the mEpiLab and in the broader IDReC groups. 2) Other research and affiliated activities - Participate in activities as assigned. Assist in the design of new research projects in related areas and secure finances to conduct the projects. Participate fully in the broader mEpiLab research and teaching community, including with graduate student supervision. 3) Other duties - Other reasonable duties as specified by the Institute Head and through the line management of the Group Leader. University adherence to OSH requirements and animal and human ethics.

Person specification

Qualifications - Biological, medical, or veterinary degree with training and expertise in epidemiology and microand molecular biology is essential. - Doctoral degree is essential.

Experience - Proven ability to write scientific papers is essential. - Appropriate analytical research experience and publications are essential. - Evidence of an ability to work well with students and staff from differing academic and cultural backgrounds and across multiple institutions is essential.

Personal attributes and behaviours - Ability to work effectively as a member of a team and independently. - Able to maintain a professional approach with both staff and students while under pressure

EvolDir January 1, 2015

Patrick J Biggs PhD Senior Lecturer in Computational Biology mEpiLab | Infectious Disease Research Centre (IDReC) Institute of Veterinary, Animal and Biomedical Sciences Massey University | Palmerston North | New Zealand

Tel: +64 6 3569099 ex 84597 | Fax: +64 6 3505626 P.Biggs@massey.ac.nz

## MichiganStateU Evolution

\*BEACON Center for the Study of Evolution in Action\*
\*BEACON Distinguished Postdoctoral Fellows Program\*

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BEACON is an NSF Science and Technology Center headquartered at Michigan State University with partners at North Carolina A&T State University, University of Idaho, University of Texas at Austin, and University of Washington. BEACON brings together biologists, computer scientists, and engineers to study evolutionary dynamics using biological and computational techniques and to apply evolutionary principles to engineering problems. We seek outstanding post-doctoral scholars to pursue interdisciplinary research on evolution in action with BEACON faculty members, in the fields of biology, computer science, and/or engineering.

Applicants will propose a research project within the scope of BEACONs mission and must have two BEACON faculty sponsors who will serve as research mentors should the fellowship be awarded. One sponsor must be MSU faculty; the other sponsor may be from any of the five BEACON institutions. Preference is given for interdisciplinary research. The post-doc fellow will be based at Michigan State University in East Lansing. Please see our website (http://www.beacon-center.org) for information about BEACON mission, participants and ongoing research projects.

Applicants must submit the following, in a single PDF, to BEACON Managing Director Danielle Whittaker via email (djwhitta@msu.edu):

1.CV

- 2.A two-page description of their research plan
- 3.A one-page summary of their doctoral research
- 4.Letters of support from two BEACON sponsors (one must be from MSU)

5. Two additional letters of recommendation

Fellowships last two years and include a salary of \$50,000/year and modest funds to support research and travel. The successful applicant will help foster collaborations among faculty and disciplines and serve as a professional model for pre-doctoral trainees.

A Ph.D. in biology, computer science, engineering or related fields is required. Current MSU graduate students or postdocs are not eligible for this fellowship. US citizens or permanent residents only. Minority applicants are especially encouraged to apply. MSU is an Equal Opportunity/Affirmative Action Employer.

The deadline for applications is January 15, 2015.

Danielle J. Whittaker, Ph.D. Managing Director BEA-CON Center for the Study of Evolution in Action 567 Wilson Road, Room 1441E Michigan State University East Lansing, MI 48824 (517) 884-2561 djwhitta@msu.edu <a href="http://beacon-center.org">http://beacon-center.org</a> "Danielle J. Whittaker" <a href="https://diwhitta@msu.edu">djwhitta@msu.edu</a>

# ${f OregonStateU}$ ${f DiseaseResistanceGenes}$

What: postdoc to test candidate genes for disease resistance in Biomphalaria snails

Where: Oregon State University, Corvallis, OR

PI: Michael Blouin

Description: A position as a postdoctoral scholar is available to start immediately in Michael Blouin's lab at Oregon State University, Department of Integrative Biology. Candidate must be within 5 years of PhD to qualify for the postdoctoral scholar position at OSU. The aim of this project is to identify genes in the snail Biomphalaria glabrata, that convey resistance to Schistosoma mansoni, a major parasite of humans that is transmitted by this snail host. We have already found major QTL correlated with infection risk in laboratory populations of snails and have annotated nearby candidate genes. Thus, the major task for this position is to functionally assess candidate genes for their role in resistance. The main approach to this goal will be gene knockdowns using RNAi, but may also include transgenics, neutralizing antibodies, immunohistochemistry, or proteomics. Once causal gene(s) are identified, future work may include probing their mechanisms of action, including how they interact with parasite-derived molecules. The longterm purpose of this research is to find ways to block transmission of schistosomiasis via interference with the snail host. The candidate will be encouraged to develop his/her own ideas to approach this goal. Biomphalaria and Schistosoma form a well-studied model host-parasite system with numerous available molecular and genomic resources and established laboratory protocols. The successful candidate will hold a PhD in biology or a related science and be able to document substantial expertise in molecular/cellular biology. Strongly desired qualifications include experience with RNAi and/or alternative gene knockdown/knockout techniques, especially in an invertebrate system. Other desirable qualifications include experience in microscopy and immunohistochemistry techniques, a background in protein biochemistry, and training in immunology. Strong computational and quantitative skills would be useful too. We are looking for a highly motivated and enthusiastic candidate with excellent writing and communication skills.

Position will be open until a suitable candidate is found. Ability to start soon would be highly desirable. This project is funded by NIH grant AI109134 to Michael S. Blouin.

To Apply: For more information or to apply, contact Mike at blouinm@science.oregonstate.edu and include "Snail postdoc position" in the title of your email. To apply, include a curricula vitae that includes the names of at least three professional references, their email addresses and telephone contact numbers. Include a cover letter indicating how your qualifications and experience have prepared you for this position, and what interests you about coming to Oregon State University to work on this project.

blouinm@science.oregonstate.edu

# Paris Evolutionary Ecology

Post-doc position in Evolutionary Ecology/Community Ecology/Theoretical Ecology

"Adaptation and Resilience of Spatial Ecological Networks to human-induced changes"

Anthropogenic environmental changes increasingly threaten biodiversity and ecosystem services, thus kindling a societal demand for predictions that ecology as a science has yet to answer. Available models are poorly suited to predicting the ecological effects of such changes because they ignore variation in species' niche

due to ecological interactions and evolution. Without understanding the functioning of ecological networks and how they are shaped by evolution, it is indeed difficult to predict how changes of the environment will cascade through ecosystems and make species traits evolve. Understanding the dynamics of ecological networks is a dual goal, both for fundamental research and for building informed programs on sustainable ecosystem services and species conservation. Accounting for species interactions and evolution to understand the consequences of global changes is the critical question we want to tackle through the post doc we propose here.

In this context, the post-doctoral fellow will develop models linking the coevolution of traits to the structure of ecological networks (both trophic and mutualistic networks). Such models will especially account for spatial aspects, i.e. heterogeneous landscapes and dispersal of individuals among habitat patches, and will focus on the structure of ecological communities emerging from evolutionary processes acting at the landscape scale. Modelling will be based on adaptive dynamics and/or theoretical quantitative genetics methods.

#### Application Process

This job is supported by a larger ANR project ARSENIC (2015-2019) involving a network of 8 different labs, most of them in France. More precisely, this position will involve collaborations between the Ecology, Evolution & Paleontology lab in Lille and of the Institute of Ecology and Environmental Sciences in Paris.

The post-doctoral fellow will work at IEES Paris (Institute of Ecology and Environmental Sciences of Paris). IEES is a new laboratory that merges different aspects of ecology, such as evolutionary ecology, community ecology and functional ecology. The post-doc fellow would be part of the team "Ecology and Evolution of Interaction Networks" (team leader: Nicolas Loeuille).

The post-doctoral position will particularly focus on the theoretical developments proposed above. We welcome applications from candidates with a PhD in ecology, evolutionary biology or applied mathematics, with good skills in ecological modelling, theoretical ecology and evolutionary ecology. Skills in game theory, adaptive dynamics or quantitative genetics modelling will be particularly appreciated.

The position is funded for two years. Salary depends on experience (eg, about 2200 euro two years after PhD). Applications will be considered until the position is filled.

To apply, send a CV and a letter expressing why the project interests you to Nicolas Loeuille (nicolas.loeuille@upmc.fr) and François Mas-

sol (francois.massol@univ-lille1.fr), and have two researchers you collaborated with send us reference letters.

Francois Massol <francois.massol@univ-lille1.fr>

### PennStateU DiseaseDynamics

Post doc at Penn State and related position at Georgetown U

The laboratories of Drs David Hughes, Ephraim Hanks and Matt Ferrari are seeking a Postdoctoral Scholar. This position is in collaboration with the lab of Dr Shweta Bansal at Georgetown University, another position is available at Georgetown University, and funded by the NSF-NIH-USDA-BBSRC Ecology and Evolution of Infectious Disease (EEID) Program. The position is available in the Centre for Infectious Disease Dynamics (www.cidd.psu.edu), The Pennsylvania State University, University Park Campus.

The Postdoctoral Scholar position at Penn State involves the development of mathematical models to understand the transmission of diverse agents inside ant colonies. These agents range from beneficial agents such as food to agnostic agents like beads to detrimental agents such as parasites. The position is a mixture of both theoretical work and empirical work (with ant colonies in a lab setting). Possibilities for both field work and molecular work exist. We are seeking expertise in compartmental models of disease spread and statistical and agent-based models of animal behavior. Candidates should demonstrate a track record of publication; have strong organizational, written, and oral communication skills; and be able to work both independently and as part of a collaborative team. For further information, please feel free to contact Dr Hughes (dph14@psu.edu; +1 814- 863-6073). Interested applicants should submit a curriculum vitae, a 1-2 page statement of research interests that explicitly describes professional qualifications for this position, and contact information for three referees. Review of applications will begin immediately, and continue until a suitable candidate is found.

David Hughes: Hughes, is a behavioral ecologist who has studied social insects and their diseases in 11 countries on 5 continents. He has worked with diverse diseases as well as the behavior of healthy and infected ants under field (rain- and temperate forests) and laboratory conditions. <a href="https://www.hugheslab.com">www.hugheslab.com</a> Ephraim Hanks: Hanks is a spatial statistician and has worked extensively in the modeling of animal movement and connectivity. He

has studied the spatial spread of disease in black spruce and mule deer, and the spatial properties of random walk models on networks. http://sites.psu.edu/hanks/

Matt Ferrari: Ferrari is a computational epidemiologist and statistician who has worked extensively on the analysis of time-series surveillance data to predict epidemic dynamics and evaluate management interventions. http://theferrarilab.com/ Shweta Bansal: Bansal is a network epidemiologist and has worked extensively on the effects of immunity on network structure and disease dynamics. She is studying infectious disease-related network structure in several wildlife populations including Australian bottlenose dolphins and Mojave Desert tortoises. Bansal is based in Georgetown University which is 3.5hrs drive away.http://bansallab.com/ David Hughes <dph14@psu.edu>

## PennStateU EvolutionaryGenomics

The Assis lab (\*http://www.personal.psu.edu/rua15/-index.html\*) at Penn State is recruiting a highly motivated postdoctoral scholar. The position requires a Ph.D. degree in biology, genetics, bioinformatics, or a related field.

Our lab uses computational approaches to study the origin of genotypic and phenotypic innovation. We are broadly interested in a number of problems in evolutionary genomics. One current focus of our research is on gene duplication, which is a major contributor of new gene functions. Potential projects related to gene duplication include examining the role of natural selection in the origin of new functions, elucidating the genic and functional targets of natural selection, comparing functions that arise under different evolutionary scenarios, and applying mathematical models to study gene expression evolution. There are also opportunities to study the origin and evolution of small RNAs, enhancers, and other noncoding functional elements in the genome.

The above lists only serve as examples, and candidates interested in alternative research projects in evolution-arygenomics are encouraged to apply. Because our lab is solely computational, candidates should have knowledge of at least one programming language and experience using a Unix or Linux environment.

If you are interested in joining the lab, please email Raquel Assis (\*rassis@psu.edu\*) a current CV, copies of three representative publications, and a description

of your research interests.

In addition, Penn State requires all applicants to register and complete the application form at the Penn State employment website at <a href="https://app2.ohr.psu.edu/Jobs/External/EVMS2\_External/currentap1.cfm#54408">https://app2.ohr.psu.edu/Jobs/External/EVMS2\_External/currentap1.cfm#54408</a> . A complete application will include a current CV, a cover letter describing your research interests, copies of three representative publications, and contact information for three references. Review of applications will begin immediately and continue until the position is filled. This is a fixed-term appointment funded for one year from date of hire with possibility of re-funding.

CAMPUS SECURITY CRIME STATISTICS: For more about safety at Penn State, and to review the Annual Security Report which contains information about crime statistics and other safety and security matters, please go to <a href="http://www.police.psu.edu/clery/">http://www.police.psu.edu/clery/</a>, which will also provide you with detail on how to request a hard copy of the Annual Security Report.

Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to minorities, women, veterans, disabled individuals, and other protected groups.

rassis7@gmail.com

# SLU Alnarp PlantInsectInteractions

A 2-year postdoc position is available at SLU, Alnarp:

Plant Resistance Ecology: A new tool to engineer pollination In strawberries herbivore-damaged plants deter pollinators, leading to reduced pollination success. However, wild plant genotypes, as well as domesticated varieties, differ in their resistance against herbivores.

The aim of this postdoc project is to investigate whether pollination success is improved when wild strawberries evolve stronger resistance, and during plant breeding for improved resistance in domesticated varieties. The postdoc will have access to a large common garden with 100 wild plant genotypes (Fragaria vesca), and several domesticated varieties (Fragaria x ananassa, F. vesca, F. viridis, F. moschata), that differ in their resistance against herbivores.

The full ad can be downloaded here: http://www.slu.se/sv/om-slu/fristaende-sidor/aktuellt/lediga-tjanster/lasmer/?eng=1&Pid=1700 Johan

Johan A. Stenberg Associate Professor

Sveriges lantbruksuniversitet Swedish University of Agricultural Sciences

Department of Plant Protection Biology PO Box 102, SE-230 53 ALNARP Visiting address: Sundsvägen 14 Mobile: +46 70 622 00 42 johan.stenberg@slu.se, www.slu.se/stenberg Johan A Stenberg <Johan.Stenberg@slu.se>

#### SwanseaU DomesiticationEvolution

One Research Fellow position at the Biosciences Department in Swansea University to study the genetic and epigenetic basis of fish domestication (salary scale: £32,277 to £37,394 per annum (pro rata if part time) together with USS pension benefits).

Swansea University is one of the top 30 Universities in the UK and the Biosciences Department has ranked 8 in the UK in the recently published Research Excellence Framework (REF), with 93.8% of the research outputs considered as being world leading (4\*) or of international excellence (3\*).

We are looking for 1 Postdoctoral Research Fellow to work on an exciting project that will use a multidisciplinary, cutting-edge approach to bridge, for the first time, the behavioural, genetic and environmental (epigenetic) components of fish undergoing domestication and disentangle the role of domestication in disease resistance. See details on how to apply in the link below:

http://www.swansea.ac.uk/the-university/-work-at-swansea/jobs/details.php?nPostingID=-1869&nPostingTargetID=3426&option=-52&sort=DESC&respnr=1&ID=-QHUFK026203F3VBQB7VLO8NXD&LOV4=-7814&JOBADLG=UK&Resultsperpage=20&lg=-UK&mask=suext The Research Fellow position is available for 42 months starting approximately April 2015. Applicants are expected to match the following criteria:

- Have a PhD in a relevant field (e.g. Biology, Ecology, Genetics).
- Not be awarded their first PhD less than 2 years to the starting date of the position.
- Have published, confirmed accepted or in press, at least 5 papers in ISI accredited peer-reviewed journals by the starting date of the position.

Desirable criteria are: experience working on fish be-

haviour, genetics/genomics background, experience pro- David A Liberles <tuf77157@temple.edu> gramming in R/Python

Informal enquiries can be directed to

Sonia Consuegra (s.consuegra@swansea.ac.uk)- Carlos Garcia de Leaniz (c.garciadeleaniz@swanea.ac.uk)

Dr. Sonia Consuegra

Dept Biosciences

College of Science

Swansea University

Singleton Park SA2 8PP

Swansea

Tel. +44 (0) 1792 602931

Email. S.Consuegra@swansea.ac.uk

http://www.swansea.ac.uk/staff/science/biosciences/s.consuegra https://www.researchgate.net/profile/Sofia\_Consuegra "CONSUEGRA <s.consuegra@swansea.ac.uk>

# TempleU ComputMolEvolution

Postdoctoral Research Associate: Computational Molecular Evolution

Temple University

Two postdoctoral research positions on different projects in computational molecular evolution are available in the research groups of David Liberles. The Liberles Group (http://sites.temple.edu/liberles/) is now at Temple University in the Biology Department, with affiliations to several new research institutes, including the Center for Computational Genetics and Genomics and the Institute for Genomics and Evolutionary Medicine.

The research projects involve the construction of mechanistic models for various molecular evolutionary processes, and their implementation in a phylogenetic context. Skills in computer programming, mathematics and statistics and knowledge of phylogenetic methods and evolutionary biology are all desirable. Training will be provided where necessary for strong candidates.

To apply, please send a cover letter that describes your background, motivation, and interests as well as a full CV to daliberles@temple.edu. International applicants are encouraged to apply and will be given full consideration.

#### Texas BiomedInst Malaria

EMPLOYMENT OPPORTUNITY December 3, 2014 14-113ÂÂ ÂÂÂ ÂPOSTDOCTORALÂ SCIENTISTÂ -GENETICS

Searching for an enthusiastic postdoctoral researcher to work on single cell genomics of the malaria parasites, Plasmodium falciparum and Plasmodium vivax. Plasmodium parasites are of huge medical importance, causing ~700,000 deaths per year and millions of infections. However, we know little about how genetic diversity of parasites within an infection partitions between individual parasite genomes, or how this impacts disease pathogenesis and treatment. This work will explore this "black box" in malaria research. It will be a cross-disciplinary project which combines fluorescence activated cell sorting, single genome sequencing and statistical genetics approaches to ask key questions about within-host variation of malaria infections in Malawi and Thailand. The postdoctoral scientist will report to Dr. Ian Cheeseman.

RELEVANT PUBLICATIONS Nair S, Nkhoma SC, Serre D, Zimmerman PA, Gorena K, Daniel BJ, Nosten F, Anderson TJ, Cheeseman IH. Single-cell genomics for dissection of complex malaria infections. Genome Res 2014; Jun; 24(6):1028-38. PMCID: PMC4032849 Nkhoma SC, Nair S, Cheeseman IH, Rohr-Allegrini C, Singlam S, Nosten F, Anderson TJ: Close kinship within multiple-genotype malaria parasite infections. Proc Biol Sci 2012; 279(1738):2589-2598. PMCID: PMC3350702.

EDUCATION/EXPERIENCE/SKILLS:Â REQUIRED: Ph.D. in genetics, parasitology, molecular biology or a related discipline. The applicant is expected to work closely with the PI on this project, though there will be opportunities to pursue independent research projects. Preferred: Applicants with strong laboratory skills and experience in flow cytometry, cell culture or molecular biology, though training will be available in the approaches used in this project.

POTENTIAL HAZARDS:Â This position may involve exposure to cryogenics, bulk cleaning products, and infectious materials (BSL-2). Participation in a medical monitoring and surveillance program is required. Â Safety training and protective clothing, equipment and supplies will be provided.

OTHER: This is a full-time salaried (exempt) position. Texas Biomedical Research Institute business hours are Monday through Friday - 8:00 a.m. to 5:00 p.m.

Apply online at <a href="http://www.txbiomed.org/about/employment">http://www.txbiomed.org/about/employment</a>. Application packets are accepted electronically or in hard copy. A completed application packet is a requirement for all positions. Incomplete applications will not be accepted. EOE

Ian Cheeseman <ianc@txbiomedgenetics.org>

#### UBern 2ShortTerm GreatTits

I have two short-term post-doc positions to fill starting January 2015 until end of July 2015. A functional field situation with all required equipment for an experiment with great tits in spring 2015 is available. The positions are short-term due to my retirement by the end of July 2015. Please send applications with CV and references to Prof. Heinz Richner (heinz.richner@iee.unibe.ch). For past work, please visit evolution.unibe.ch

Many thanks Heinz Richner

- link to my lab < http://evolution.iee.unibe.ch/ >
heinz.richner@iee.unibe.ch

# UBerne 1PDF 2PhD GenomicDiversity

The CMPG lab (http://cmpg.iee.unibe.ch) at the University of Berne is opening 2 new PhD and 1 post-doc positions in January 2015.

The postdoc position is available for 1 year to model the pattern of genomic diversity created during range expansions. A computer simulation framework will be developed to 1) detect typical signatures of range expansions at the molecular level and 2) to co-estimate the distribution of fitness effects and the past history of populations from their patterns of genomic diversity.

The first PhD position is in evolutionary theory under the main supervision of Dr. Stephan Peischl. It will consist in studying the interactions between ecology, demography and selection at range margins. The second PhD position is in human population genomics, and will be mainly supervised by Prof. Laurent Excoffier. It will consist in improving methods to detect selection at the gene network level and after range expansions in humans.

The two PhD positions are available for 3 years.

We are looking for highly motivated individuals with a good background in population genomics, statistics, and advanced computational skills, and with strong oral and written communication abilities.

The CMPG lab is hosted by the Institute of Ecology and Evolution at the University of Berne, and it offers a very international and stimulating research environment. It is also affiliated to the Swiss Institute of Bioinformatics (SIB) which offers ample potential for interactions. Berne is ideally located in the middle of Switzerland and Europe, and provides rich cultural and outdoor activities.

The gross salary of the post-doc candidate would be around 80,000 CHF per year and those of PhD students around 32,000 CHF, per year. All three positions are expected to start in January 2015.

For any position, please send an application letter stating your motivation for the position, a CV, and contact information of two references to laurent.excoffier@iee.unibe.ch (for Post-Doc and PhD 2 positions) or stephan.peischl@iee.unibe.ch (for PhD 1). The positions remain open until filled.

See the web page <a href="http://www.cmpg.iee.unibe.ch/content/jobs">http://www.cmpg.iee.unibe.ch/content/jobs</a> for a copy of this information and links with more details on these positions.

Stephan Peischl Post-doc CMPG Institute of Ecology and Evolution University of Bern Baltzerstrasse 6 CH-3012 Bern Switzerland Phone: +41 31 631 30 36 Fax: +41 31 631 48 88 Email: stephan.peischl@iee.unibe.ch stephan.peischl@iee.unibe.ch

Canadians and permanent residents of Canada will be given priority.

"Keeling, Patrick" <pkeeling@mail.ubc.ca>

# UBritishColumbia SingleCellPhylogenomics

Research Associate Position in Single Cell Phylogenomics

University of British Columbia

Vancouver, Canada

The Department of Botany seeks a well-trained highly motivated and enthusiastic individual interested in exploring the evolutionary biology of complex microbial life and their organelles using single cell genomics methods coupled with phylogenomic analyses as a Research Associate.

The applicant must have a PhD or equivalent and at least three additional years of research experience. Expertise in eukaryotic biodiversity and evolutionary history, and the application of single cell genomics methods (genomic and transcriptomic datasets) and phylogenic analyses are essential. The applicant must have excellent written and oral communication skills and be highly organised. Basic molecular biology and analyses techniques are also highly desirable. The candidate must have a proven record of publication in significant journals in the field. [If there are particular duties and/or experience the applicants should have, please add them here. These will be used to prove why other applicants do not meet the criteria.]

The position is available starting May 15 2015 for an initial period of one year with a possibility for extension subject to a satisfactory performance and funding. To apply, please send a cover letter outlining research experience and interest, a curriculum vitae and the names and contact information for 3 referees to Patrick Keeling, Department of Botany, University of British Columbia, 3529-6270 University Boulevard, Vancouver, B. C. V6T 1Z4, Canada. Emailpkeeling@mail.ubc.ca. Fax (604) 822-6089. Closing date is Friday, January 23, 2015.

UBC hires on the basis of merit and is strongly committed to equity and diversity within its community. We especially welcome applications from visible minority group members, women, Aboriginal persons, persons with disabilities, persons of minority sexual orientations and gender identities, and others with the skills and knowledge to productively engage with diverse communities.

# UCalifornia Davis EvolutionaryGenomics

A postdoctoral position is available at the University of California - Davis to study the molecular mechanisms, phylogenetic patterns, and functional consequences of transcriptome evolution in Drosophila. The project is based on the integration of RNA-seq, ChIP-seq, transgenic manipulation of gene expression and DNA-protein binding, and quantitative phylogenetic analysis to understand the roles of gene cooption, gene duplication, and de novo gene origin in the evolution of tissue-specific regulatory circuits. This work involves a collaboration between the labs of Artyom Kopp (developmental genetics and evo-devo), David Begun (evolutionary and population genomics), and Brian Moore (phylogenetic and comparative analysis). Additional aspects of this project may range from cell type specification to the evolution of enhancer sequences. Postdocs will be encouraged to develop independent research reflecting their own interests, within the broad field of developmental and evolutionary genomics.

Candidates should have demonstrated expertise in experimental molecular genetics and genomics, with an emphasis on RNA-seq and ChIP-seq analysis, genome annotation, and comparative genomics. Some experience in developmental biology and transgenic methods is also desirable. Initial appointment is for one year, extendable by mutual agreement. Our labs and the entire department provide a very supportive atmosphere. The broader research environment at UC - Davis offers postdoctoral fellows chances for collaboration with leading experts in fields ranging from cell and developmental biology to evolutionary genomics and phylogenetics. Northern California, where Davis is located, provides outstanding recreational opportunities. Interested applicants should contact Artyom Kopp (akopp@ucdavis.edu) with a CV, a brief statement of research interests and experience, and the names of three references.

Artyom Kopp Department of Ecology and Evolution University of California - Davis One Shields Ave Davis CA 95616 office (530) 752-8657 lab (530) 752-8328 fax (530) 752-9014 akopp@ucdavis.edu http://kopplab.ucdavis.edu/ Artyom Kopp

<akopp@ucdavis.edu>

## UCalifornia Davis FrugivoreForagingBehavior

A postdoctoral position is available on an NSF-funded project investigating the relationship be-tween cognition and foraging efficiency in a Neotropical frugivore guild.

The position is funded by and will be based at the Smithsonian Tropical Research Institute (STRI) in Panama, but the successful applicant will be expected to spend time each year at the University of California, Davis in the laboratory of Dr. Meg Crofoot.

The research will involve (1) GPS-tracking the movements of six large-bodied, frugivorous mammal species on Barro Colorado Island, Panama during an ecologically simple period when only one major fruit source is available, mapping the spatial distribution of this keystone fruit tree species via remote sensing, and collecting data on individual travel routes, patch visit durations, and fruit intake rates to estimate the relative foraging efficiency of each species, and (2) analyzing observed animal movement patterns to evaluate what frugivores know about the distribution of resources in their habitat and how they encode and integrate that information. The applicant will work as part of a collaborative team with Dr. Crofoot and project collaborators Roland Kays (North Carolina Museum of Natural Science), Ben Hirsch (STRI) and Damien Caillaud (Dian Fossey Gorilla Fund). S/he will be expected to supervise and mentor graduate and undergraduate students, and to participate in all aspects of the research project from field work and data collection to managing and analyzing data to writing manuscripts and grant proposals, and will be asked to contribute to the development of research approaches and directions.

Eligibility: a Ph.D. in ecology, animal behavior or a related field with expertise in movement ecology or animal foraging behavior. Experience with field-based animal research and movement modelling is necessary. Proficiency in (or the burning desire to learn) R and/or C/C++, the ability to communicate in Spanish, and experience with animal capture, GPS-tracking and GIS software are highly desirable.

The position will begin May 2015 and, subject to performance and funding, will last up to two years, with an initial appointment of 12 months and a possible renewal

for another 12 months. Salary will be commensurate with experience, and additional funding to defray the costs of professional travel is available. STRI in Panama is home to a lively and diverse academic community, and hosts 100s of visiting scientists from around the world each year (http://www.stri.si.edu/). The field station on Barro Colorado Island is well-equipped, accessible and family-friendly.

To apply for this position, send a single pdf file containing: a CV, a 1-page statement of research and professional goals, one representative publication and the names and contact information for three references to Dr. Crofoot at crofootm@si.edu. Please include 'Frugivore Cognition Post-doc' in the subject header. Informal inquiries are welcome at the same address. Review of applications will begin Jan 20th, and continue until the position is filled.

The Smithsonian Tropical Research Institute is an equal opportunity employer, and veterans and minorities are especially encouraged to apply. U.S. citizenship is not a requirement and Panamanian candidates are particularly welcome.

Damien Caillaud <a href="mailto:cdcaillaud@gorillafund.org">cdcaillaud@gorillafund.org</a>

# UCalifornia SanFrancisco PopGenetics

Postdoctoral Positions in Bioinformatics, Population Genetics, and/or Statistical Genetics

We are seeking highly motivated individuals interested in pursuing an academic career in Bioinformatics, Population Genetics, and/or Statistical Genetics. The Burchard and Hernandez Laboratories are located on the new and vibrant Mission Bay Campus of UCSF. Research in the Burchard lab is focused on identifying genetic contributions to asthma and asthma-related traits in diverse human populations. Research in the Hernandez lab is focused on studying the effects of natural selection and demography on patterns of genetic variation. Potential joint projects between the Burchard and Hernandez labs include the analysis of 1.500 wholegenome sequences of high and low drug responders in Latino and African American children with asthma, and the development of methods to leverage evolutionary signatures of natural selection to gain insight into the genetics of complex disease. Applications from individuals with a background in studying organisms other than

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humans are equally encourag ed.

#### Required Qualifications

- PhD in the area of Bioinformatics, Population Genetics, and/or Statistical Genetics - Experience in the analysis of next-generation sequencing data, including the manipulation of large-scale genomic data and effective utilization of computer clusters - Demonstrated knowledge and programming experience in UNIX, R, PYTHON and/or PERL - Excellent written and verbal communication skills, and the ability to manage multiple projects and multiple PIs - Highly motivated and committed to biomedical research

UCSF is an Equal Opportunity/Affirmative Action Employer. Both the Burchard and Hernandez Labs are committed to increasing diversity in the sciences. Applications from women and minorities are encouraged.

For more information, please visit: <a href="http://pharm.ucsf.edu/burchard">http://pharm.ucsf.edu/burchard</a> and <a href="http://dbts.ucsf.edu/bernandez\_lab/">http://dbts.ucsf.edu/bernandez\_lab/</a>. To apply, please send CV and short research statement (1pg) as a single PDF to Esteban Burchard, MD, MPH at Esteban.Burchard@ucsf.edu and Ryan Hernandez, PhD at Ryan.Hernandez@ucsf.edu.

Ryan.Hernandez@ucsf.edu

at Rio Claro, State of São Paulo, Brazil, during the execution of the project; 6) fluent English and personal interest to learn Portuguese; 7) exclusive dedication to the project. The selected candidate should work on the specific project "Diversification of \*Brachycephalus \*(Anura: Brachycephalidae): evolutionary patterns and processes".

To apply, please send a CV, a statement of the academic background and research interests and two recommendation letters to anfibioslagamar@gmail.com. The deadline for applications is January 18, 2015. The successful applicants will be contacted by e-mail to an interview, if necessary. The result will be disclosed by e-mail until January 25, 2015.

Célio F. B. Haddad

Professor

Department of Zoology

Universidade Estadual Paulista (UNESP)

Rio Claro, SP, Brazil

Célio Fernando Baptista Haddad <anfibioslagamar@gmail.com>

# UEstadualPaulista Brazil AmphibianEvolution

The lab of Célio F. B. Haddad has an opening for a postdoctoral position in biology of amphibians. The lab is located within the Department of Zoology at Universidade Estadual Paulista, State of São Paulo, Brazil, and maintains close interactions with an exceptionally large and diverse group of labs that work on amphibians over the world.

Haddad's lab is seeking a postdoctoral fellow to develop a project with \*Brachycephalus\*, an endemic genus of tiny frogs from the Atlantic Forest of Brazil. The fellowship will be provided by FAPESP (more information in www.fapesp.br/270). Start date should be immediate.

Candidates should have experience with these amphibians and some required qualifications: 1) Ph.D. in Zoology or related field, obtained no more than one year ago; 2) experience with amphibians, including publications with the target taxonomic group; 3) skills to work with GIS and molecular evolutionary analysis; 4) availability to plan and to do fieldwork; 5) availability to live

# UHelsinki GenomicsPlasticity

The Department of Biosciences, University of Helsinki invites applications for a

 $2\ \mathrm{YEAR}$  POST DOCTORAL RESEARCHER POSITION

in the research group of Dr Arild Husby.

Our lab is part of the Department of Biosciences with its vibrant and collaborative research community of experimental, computational, and theoretical labs that all share a common interested in Evolutionary Biology. Cutting edge infrastructure is available at all levels, including high-performance computer clusters, a next-gen sequencing facility, as well as molecular labs. We collaborate with research groups at Norwegian University of Science and Technology, Uppsala University, Stockholm University, and the University of Bielefeld among others.

The main goal of the post doc project is to examine the genetics of phenotypic plasticity in life history traits using quantitative genetic and genomic approaches. The postdocs main responsibility will be to analyse existing data and lead hypothesis-driven genomic analyses in an evolutionary context. This includes large-scale Ilumina genotype data. In addition the candidate will also be involved in some field/lab work to collect additional data to examine DNA methylation patterns. Specific projects within the scheme of the lab are flexible and can be tailored to skills and interest of the successful candidate. Part of the work will be performed in collaboration with the lab of Henrik Jensen, NTNU (http://www.ntnu.edu/employees/henrik.jensen).

The successful candidate should have PhD / postdoctoral experience within the fields of evolutionary genetics/genomics or evolutionary biology and a strong interest in the use of large genetic datasets to address important questions in evolutionary biology. Excellent written and verbal communication skills in English are required and you must also demonstrate ability to work as part of a team. Experience with R is a plus.

The position will have a probationary period of four months. The starting date is flexible, however, at the earliest 1st March 2015.

The salary will be based on level 5 of the demands level chart for teaching and research personnel in the salary system of Finnish universities. In addition, the appointee will be paid a salary component based on personal work performance. The total minimum salary at the beginning of the employment is 3127,54 euro/month.

To apply, please send, in a single pdf file, your CV with publications included, contact details of three references, and a letter (max 2 pages) with a description of your research interests and, in particular, why you would be a suitable candidate for the project. The applications are to be addressed to Arild Husby and submitted to the Registry of the University of Helsinki, hy-kirjaamo@helsinki.fi by 1st January 2015 at 15.45 local Helsinki time.

For more information about this position, please contact Arild Husby (arild.husby@helsinki.fi) or please visit our website: blogs.helsinki.fi/husby

Arild Husby, Assistant Professor Department of Biosciences (Biocenter 3, office 5415), University of Helsinki PO box 65, FI-00014 Helsinki, Finland

web: http://blogs.helsinki.fi/husby/ mail: ar-ild.husby@helsinki.fi office phone: +358294157691 arild.husby@helsinki.fi

# ${\bf UIllinois} \\ {\bf Computational Genomic Medicine}$

Job Title: Postdoctoral Researcher in Computational Genomic Medicine

Description: We are seeking a postdoctoral researcher in the Computational Genomic Medicine theme within the Institute of Genomic Biology at the University of Illinois at Urbana-Champaign. The appointed person will take the lead on analyzing genomic data from multiple interrelated projects with the potential to yield multiple high-impact papers. The individual will be directly supervised by faculty members Derek Wildman and Monica Uddin.

This is a 12-month, 100% time academic professional appointment with regular University benefits, renewable annually based on performance.

Job Functions: - Develop and implement statistically robust, systems biology approaches to analyzing gene expression and comparative and evolutionary genomic data. - Develop and implement statistical analyses of genomic data integrated across multiple levels (i.e. miRNA expression, gene expression and DNA sequence variation). - Analyze next generation sequencing data and compile the results from multiple species for evolutionary analysis. - Proficient in PERL, Python, R, and MySQL analysis programs. - Draft manuscripts in part (i.e. methods, results) or whole, as the project requires. - Provide oral and written progress updates to PIs and other lab members.

Qualifications: PhD attained within the last 5 years in genomics, computer science, biostatistics or a related field required. Familiarity with analyzing genomic data (including gene expression microarray, methylation analysis, next generation and exome sequencing) as well as expertise in comparative evolutionary genetic and genomic analysis preferred. Experience with and facility using R, Bioconductor required; knowledge of SAS a bonus. Strong written and oral communication skills a must.

Contact: Please send CV, two representative publications and contact information for two professional letters of reference, collated in a single PDF file to cgmhire@igb.illinois.edu

Amy Weckle Senior Research Specialist Laboratory of Dr. Derek Wildman Computational Genomic Medicine Institute for Genomic Biology University of Illinois, Urbana-Champaign 1206 West Gregory Drive MC195 Urbana, IL 61801 ph (desk): 217-300-2101 Ph (lab): 217-333-2430

"Weckle, Amy Lorraine" <aweckle@illinois.edu>

#### **UIllinois Genomics**

#### Carl R. Woese Postdoctoral Fellowship Program

As a faculty member of the University of Illinois for nearly 50 years and a founding member of the Institute for Genomic Biology, we honor the legacy of Carl R. Woese with the establishment of the Woese Fellowship. Woese Fellows will be truly exceptional young scholars who have completed their Ph.D. within the last several years, and are at the forefront of their field in evolution and the emergence of life, or other rapidly developing areas of quantitative biology and genomics. The closing date for all positions is February 1, 2015. Visit http://go.illinois.edu/woesefellow to apply.

fuller@life.illinois.edu

# $\begin{array}{c} {\bf ULausanne} \\ {\bf Evolutionary Pop Dynamics} \end{array}$

Postdoc position in Behavioural Ecology and Experimental Population Dynamics of Common Lizards (Zootoca vivipara)

at the University of Lausanne, Switzerland.

A 20-month postdoc position in behavioural ecology and experimental population dynamics is available in the research group of Prof. Patrick S. Fitze (University of Lausanne, Department of Ecology and Evolution www.unil.ch/dee). The position is part of an SNF-funded project aimed at studying the link between experimental population dynamics, sexual selection and coloration in the common lizard (Zootoca vivipara). It will investigate trans-generational survival selection in Rock-Paper-Scissors games.

The project will involve both field and laboratory work. Applied methodologies will include the analyses of behaviour, colouration, and population dynamics. Field-

work will be conducted over several months (5-8 month: March to October) per year in Jaca, in the Spanish Pyrenees.

Our international laboratory has a wide range of research interests, ranging from behavioural analyses, to the study of experimental population dynamics, population genetics and phylogenetics. Please browse our group website for further details: http://www.unil.ch/dee/page81903.html. We are seeking an enthusiastic, highly motivated and creative candidate with keen interest in evolutionary biology, and the capacity to work independently and as a team member. Applicants must have a PhD in biological sciences with expertise in statistics (knowledge of the R statistical package is an advantage). Good English writing and organisational skills are essential. The ideal candidate will have prior experience in experimental design, behavioural and colorimetric analyses, experimental population dynamics, and reptile handling, as well as good communication skills. Moreover, he is interested in coloration and colour polymorphisms and has previous experience with lizards. The working language of the laboratory is English. Knowledge of French and/or Spanish is useful, but not essential.

Applications should be sent by email to Prof. Patrick S. Fitze (Patrick.Fitze@unil.ch). The application should consist of a single pdf-file, including a CV, a letter outlining motivation and research interests (max. 1 A4 page), the names of three referees (including e-mail address and phone number), and a summary of the candidates PhD or postdoc project (max. 2 A4 pages). Relevant, publications should be included at the end of the file. The deadline for application is January 15th 2015. Preferred starting date is March 1st 2015. Short listed candidates will be invited to Lausanne for interview at the end of January/ start of February 2015. The salary of the successful candidate will be determined in accordance with the guidelines of the Swiss National Science Foundation (www.snf.ch).

The successful candidate will join a bustling research department consisting of 22 research groups with diverse study interests, ranging from evolutionary biology and ecology to applied ecology and conservation biology <a href="http://www.unil.ch/dee/page6757.html">http://www.unil.ch/dee/page6757.html</a> For additional information, please do not hesitate to contact:

Patrick S. Fitze Assistant Professor SNF

Department of Ecology and Evolution (DEE) Biophore, University of Lausanne room: 4309 1015 Lausanne phone: + 41 (0) 216924270 Switzerland Fax: + 41 (0) 216924165

http://www.unil.ch/dee/page81901.html Patrick Fitze <Patrick.Fitze@unil.ch>

## ULiverpool InsectEvolution

#### Hi

I'd be grateful if you are able to post the following post-doc advert:

Post-doctoral research associate in tropical insect evolution at University of Liverpool £32 277, start April 2015. Closing date 16 Jan 2015

http://www.liv.ac.uk/working/jobvacancies/currentvacancies/research/r-587233/ Many thanks

Kate Parr

Kate Parr Lecturer in Ecology School of Environmental Sciences University of Liverpool Liverpool L69 3GP

Tel: +44 151 795 4640

Website < http://www.funkyant.weebly.com/ > Twitter < https://twitter.com/FunkyAnt > Google Scholar < http://scholar.google.co.uk/citations?user=-Gq5Y7n8AAAAJ&hl=en >

"Parr, Kate" < Kate. Parr@liverpool.ac.uk >

# UMassachusetts Amherst EvolutionaryBiol

#### DARWIN FELLOW

The Graduate Program in Organismic and Evolutionary Biology at University of Massachusetts Amherst announces a two-year POSTDOCTORAL FELLOW-SHIP/LECTURESHIP. OEB draws together more than 80 faculty from the Five Colleges (University of Massachusetts Amherst and Smith, Hampshire, Mount Holyoke and Amherst Colleges), offering unique training and research opportunities in the fields of ecology, organismic and evolutionary biology. Our research/lecture position provides recent PhD's an opportunity for independent research with an OEB faculty sponsor, as well as experience mentoring graduate students and teaching a one-semester undergraduate biology course. The successful candidate will have a recent PhD in a field relevant to ecology, organismic or evolutionary biology and

proven teaching skills. Position subject to availability of funds.

То apply online, please to http://umass.interviewexchange.com/jobofferdetails.jsp?JOBID=3D55696 and submit a CV, statements of research and teaching interests, and arrange for 3 letters of reference and a letter of support from your proposed OEB faculty sponsor. A list of OEB faculty and additional information is available at http://www.bio.umass.edu/oeb/ . Applicants should apply by the priority deadline of January 26, 2015 in order to ensure consideration. The position is expected to start in August 2015. Questions about this search may be sent to: oeb@bio.umass.edu

The University of Massachusetts Amherst is an Affirmative Action/Equal Opportunity Employer of women, minorities, protected veterans and individuals with disabilities and encourages applications from these and other protected group members

awhiteley@eco.umass.edu

# UMemphis BeetlePhylogenomics

A postdoctoral research fellowship is available in the lab of Dr. Duane McKenna (University of Memphis) to participate in a variety of highly collaborative projects related to the phylogeny and evolution of beetles and beetle genomes.

The successful candidate will work with collaborators to establish a bioinformatic pipeline for the NSF-funded 1K Weevils Project (anchored phylogenomics, comparative genomics), analyze beetle data in association with the 1KITE Beetle Subproject (phylogenomics, transcriptomes), and contribute to beetle genome and comparative genomics projects in the McKenna Lab, e.g., in collaboration with the Insect 5000 Genomes Project. These are primarily bioinformatics, phylogenomics, and comparative genomics projects involving extensive analysis of genome- and transcriptome-scale data sets. The position is based at the University of Memphis, but includes opportunities for travel to work with collaborators. The initial appointment is for one year, renewable for one additional year provided the first year review shows satisfactory progress. The position offers a competitive salary plus benefits. Start date is flexible, though interested individuals are encouraged to apply immediately. Review of applications will begin on February 6, 2015; however applicants will be considered

until the position is filled.

Required Qualifications: - A Ph.D. in computational biology, evolutionary genetics/genomics, phylogenomics, bioinformatics, or a related field. Advanced ABD's may be considered if degree completion is imminent - Experience with manipulating and analyzing genomic and transcriptomic NGS sequence data - A strong record of prior publication in genome-scale data analysis, including bioinformatics pipeline construction, phylogenomics, and/or genome structure and evolution - Strong communication and interpersonal skills, including a proven ability to work both independently and as part of a team

Desired Qualifications: (Ideal applicant; applicants without these skills will be considered) - Proficiency in computer programming - Experience working with arthropods (especially insects) - Experience with standard molecular laboratory techniques - Experience with the analysis of traditional molecular phylogenetic data sets

The successful applicant will be expected to work/collaborate with another postdoc and with graduate students in the McKenna Lab.

To apply, submit a cover letter stating your research accomplishments and interests, qualifications relevant to the position (especially in reference to the required and desired qualifications listed above), a curriculum vitae, two representative publications, and the names and contact information for three references (submit at: <a href="http://workforum.memphis.edu/postings/8680">http://workforum.memphis.edu/postings/8680</a>). Inquiries about the position may be directed to Duane McKenna (dmckenna@memphis.edu).

Duane D. McKenna Ph.D. Assistant Professor Department of Biological Sciences Associate, Program in Bioinformatics Associate, W. Harry Feinstone Center for Genomic Research University of Memphis 3774 Walker Avenue Memphis, TN 38152

phone: (901) 678-1386 email: dmckenna@memphis.edu website: https://umdrive.memphis.edu/dmckenna/public/index.html "Duane McKenna (dmckenna)" <dmckenna@memphis.edu>

#### UMinnesota PlantMicrobeEvolution

We seek two postdoctoral research associates to join us in a project on the evolution of plant and microbial species in Minnesota prairies under climate change. Postdocs will investigate the capacity of plant-microbe associations to adapt or acclimate to rapidly changing environment, and to evaluate the current geographic scale of local adaptation. We anticipate that one postdoc will focus on plant genetic variation and questions of local adaptation and adaptive capacity, while the second will focus on plant-associated microbial communities and the potential for microbes to either constrain or accelerate adaptation of plant hosts to changing environment. Postdocs in these positions will be working with a collaborative group of faculty (PI: Ruth Shaw, co-PIs Georgiana May, Donald Wyse), graduate and undergraduate students as well as volunteers. Training opportunities include teaching in graduate seminars, developing citizen-science programs, conservation planning, or interaction with governmental and non-governmental agencies. To apply, please submit a cover letter of application, CV, and names and contact information for three references.

Applicants primarily interested in plant genetic variation should apply at: employment.umn.edu/applicants/Central?quickFind6037 (Ruth Shaw, shawx016@umn.edu).

Applicants primarily interested in microbial symbionts of plants should apply at: employment.umn.edu/applicants/Central?quickFind6041 (Georgiana May, gmay@umn.edu).

Georgiana May <gmay@umn.edu>

## UMontana Astrobiology

\*Postdoctoral Research Associate, NASA Astrobiology Institute, Division of Biological Sciences\*

\*Project Description:\*

A postdoctoral position is available with Dr. Matthew Herron in the NASA Astrobiology Institute at the University of Montana. Our group uses experimental evolution to explore fundamental questions in the evolution of multicellular development. Applicants should have a Ph.D. in biology or a related field and a track record of high-quality publications. Additional desirable qualifications include experience with experimental microbial evolution, molecular biology and next-generation data analysis, and the model green alga Chlamydomonas reinhardtii. The successful candidate will join the NASA Astrobiology Institute (NAI) at the University of Montana, whose overarching goal of which is to understand the evolution of biological complexity and the roles that cooper-

ative and competitive interactions have played in major evolutionary transitions. Funding will be available for travel to the UM-NAI partner labs of Vaughan Cooper (U New Hampshire), Shelley Copley (U Colorado, Boulder), Gavin Sherlock (Stanford U), and Paul Sniegowski (U Pennsylvania). Postdocs will interact with Principal Investigator Frank Rosenzweig, and Montana NAI co-Investigators John McCutcheon, Scott Miller and Margie Kinnersley, as well as with theoretical biologists Eric Smith (Santa Fe Institute) and Phil Gerrish (U New Mexico), who will be summer scholars-in-residence at Montana and Pennsylvania, respectively. Montana NAI co-Is are also part of the robust and collaborative Evolutionary Genetics and Genomics Group, a diverse group of UM faculty using genetic and genomic approaches to investigate evolutionary processes in plants, animals, and microbes.

#### \*Project Description:\*

The evolution of complexity via multicellularity and cell differentiation

How and why organismal complexity increases are central questions in evolutionary biology. Although the vast majority of life forms remain simple, both the maximum and the average levels of complexity have increased from the origin of life to the present day. Large increases in organismal complexity resulted from a series of events in which existing individuals combined to become parts of a new kind of individual with components specialized for various roles. Such events are known as major transitions and include the emergence of cellular life from groups of interacting molecular replicators, of eukaryotes from two prokaryotes, of multicellular organisms from unicells, and of eusocial 'superorganisms' from individual animals. Among such transitions, the evolution of multicellular organisms from single-celled ancestors set the stage for unprecedented increases in complexity, especially in land plants and animals. We have used the unicellular green alga Chlamydomonas reinhardtii to experimentally generate de novo origins of simple (undifferentiated) multicellularity in two separate experiments. Using these newly-evolved, multicellular Chlamydomonas, we plan to ascertain the genetic bases underlying the evolution of multicellularity, evaluate the role of genetic assimilation in the evolution of multicellularity, and observe the evolution of multicellular development in real time.

The successful applicant will be expected to take primary responsibility for executing the evolution experiments described for this project, and for coordinating sequencing efforts. Evidence of excellent oral and written communication skills and organizational abilities is required, in addition to a strong interest in evolution,

and a willingness to learn new techniques. The post-doctoral associate will be expected to attend weekly lab meetings, supervise undergraduate students working on this project, present research at national and regional conferences, and to take a lead role in the data analysis and background research required for timely publication of research results.

The postdoctoral position will be based at the University of Montana in beautiful Missoula, MT (halfway between Yellowstone and Glacier National Parks). Salary plus benefits are available for three years, contingent on funding and satisfactory performance in the first year. Salary is fixed at NIH scale for entry-level postdoctoral fellows.

#### \*HOW TO APPLY\*

Applications can be submitted online at https:/-/university-montana-hr.silkroad.com/epostings/-index.cfm [search posting 1122].

For full consideration, applications must be submitted online by February 1, 2015. Applications received after February 1 may be considered, as the position is open until filled.

Questions regarding the search or online application process should be directed to Marcie Briggs, Recruitment Manager, at the University of Montana via email at marcie.briggs@umontana.edu.

\*Criminal Background Investigation\* is required prior to Offer of

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# UMontana ExperimentalEvolution

Postdoctoral Research Associate, Rosenzweig Lab, DBS Job Description

A postdoctoral position is available in the Rosenzweig Lab in the Division of Biological Sciences at the University of Montana. The project, led by Matthew Herron, uses experimental evolution to explore fundamental questions in the evolution of multicellular development. Applicants should have a Ph.D. in biology or a related field and a track record of high-quality publications. Additional desirable qualifications include experience

with experimental microbial evolution, molecular biology and next-generation data analysis, and the model green alga Chlamydomonas reinhardtii. The successful candidate will join a multi-institutional collaboration, funded by the John Templeton Foundation, whose focus is on the origin and evolution of multicellular complexity. Research partners include Michael Travisano, Mark Borrello, and Will Soto at U Minnesota; and Will Ratcliff at Georgia Tech. Funding will be available for travel to annual meetings of the research partners at U Minnesota. At U Montana, the successful candidate will join the robust and collaborative Evolutionary Genetics and Genomics Group, a diverse group of UM faculty using genetic and genomic approaches to investigate evolutionary processes in plants, animals, and microbes.

Project Description: Experimental evolution of multicellularity The evolution of multicellularity was transformative in the diversity of life; virtually all life visible to the naked eye is multicellular. Life on earth would be dramatically different, and morphologically depauperate, if multicellularity had not evolved. The central question in this proposal is: Why is the evolution of multicellularity so repeatable? We have used the unicellular green alga-Chlamydomonas reinhardtii to experimentally generate de novo origins of simple (undifferentiated) multicellularity in two separate experiments. The first is described in Ratcliff, W.C., Herron, M.D., Howell, K., Pentz, J.T., Rosenzweig, F. and Travisano, M. 2013. Nature Communications, 4: 2742. Current research focuses on the evolution of multicellularity in response to filter-feeding predators. Results from these experiments will be compared with those from similar experiments using other experimental organisms to address the following questions: How readily does multicellularity evolve? What is the tempo and mode in the first steps in the evolutionary transition to multicellularity? Does evolutionary ancestry substantially impact multicellular adaptability?

The successful applicant will be expected to take primary responsibility for executing the evolution experiments described for this project, and for coordinating sequencing efforts. Evidence of excellent oral and written communication skills and organizational abilities is required, in addition to a strong interest in evolution, and a willingness to learn new techniques. The post-doctoral associate will be expected to attend weekly lab meetings, supervise undergraduate students working on this project, present research at national and regional conferences, and to take a lead role in the data analysis and background research required for timely publication of research results.

The postdoctoral position will be based at the University of Montana in beautiful Missoula, MT (halfway between Yellowstone and Glacier National Parks). Salary plus benefits are available for two years, contingent on funding and satisfactory performance in the first year. Salary is fixed at NIH scale for entry-level postdoctoral fellows.

HOW TO APPLY For full consideration, applications must be submitted online by February 1, 2015. Applications received after February 1 may be considered, as the position is open until filled. Applications may be submitted online at <a href="https://university-montana-hr.silkroad.com/epostings/index.cfm">https://university-montana-hr.silkroad.com/epostings/index.cfm</a> [posting 1123]

Matthew D. Herron, PhD Division of Biological Sciences University of Montana X.princeps@gmail.com http://www.eebweb.arizona.edu/grads/mherron/xprinceps@gmail.com

From evoldir@evol.biology.mcmaster.ca Dec 21 02:09:07 2014 Return-Path: Sun <evoldir@evol.biology.mcmaster.ca> X-Spam-Checker-Version: SpamAssassin 3.3.2 (2011-06-06on helix.biology.mcmaster.ca X-Spam-Level: X-Spam-Status: No. score=-100.0 required=5.0 tests=SHORTCIRCUIT. USER\_IN\_WHITELIST shortcircuit=ham autolearn=disabled version=3.3.2 X-Original-To: brian@helix.biology.mcmaster.ca Delivered-To: brian@helix.biology.mcmaster.ca mex.rhpcs.mcmaster.ca Received: from (mex.rhpcs.McMaster.CA [130.113.48.249]) helix.biology.mcmaster.ca (Postfix) with ESMTP id 9F397424A9 for <br/> <br/> drian@helix.biology.mcmaster.ca>; Sun, 21 Dec 2014 02:09:07 -0500 Received: from pinegw02.uts.mcmaster.ca (pinegw02.UTS.McMaster.CA [130.113.128.25])

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# UNevadaReno BioinformaticsGenomics

POSTDOCTORAL POSITION IN BIOINFORMATICS AND GENOME EVOLUTION AT THE UNIVERSITY OF NEVADA, RENO

The Alvarez-Ponce lab at the University of Nevada, Reno, is seeking a postdoctoral researcher to work on molecular evolution. Research in the lab focuses on the evolution of molecular pathways and networks (e.g., protein-protein interaction networks, metabolic pathways/networks, signal transduction pathways/networks, etc.), comparative genomics, and the adaptation of genomes to different temperatures.

More information about the lab can be found at www.genomeevol.wordpress.com The initial appointment will be for 24 months, with the possibility of extension depending on performance and funds availability.

The successful candidate will have: - A PhD in Biology, Computer Science or a related field. - A strong interest in Molecular Evolution. - Experience with bioinformatics analyses, including programming in any scripting language (e.g. PERL or Python). - Evidence of excellence in research and high productivity. - Good communication and interpersonal skills.

Experience in as many as possible of the following areas would be a plus: - Network analyses. - Molecular evolution analyses, and in particular natural selection analyses. - Computer simulations. - Protein structure analysis, and homology modeling. - Next Generation Sequencing.

Candidates should e-mail the following information to Dr. David Alvarez-Ponce (dap@unr.edu) as a single PDF: - An application letter, addressing the applicants motivation for the position, and how their experience and skills fulfill the requirements listed above. - A full CV. - Contact information for 2 or 3 potential referees.

The University of Nevada, Reno is a Tier I institution offering a highly productive research environment, including outstanding core facilities in genomics and bioinformatics. The Biology Department has a growing and highly interactive evolutionary genomics research community. Reno is located in the Sierra Nevada mountains near Lake Tahoe, and has been recently rated as one of the best small cities in the US for outdoor recreation and overall quality of life.

Please circulate this post among suitable candidates.

– David Alvarez-Ponce, PhD Assistant Professor Department of Biology University of Nevada, Reno Max Fleischmann Agriculture Building, office 140B Tel.: (775) 682-5735 www.genomeevol.wordpress.com david.alvarez.ponce@gmail.com

### Uppsala Adaptation

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The genetic mechanisms of adaptation: Post-doc position in the Division of Computational Genetics, Department of Clinical Sciences, SLU, Uppsala, Sweden

A Post-doc position is available in a project where we study the genetic mechanisms of adaptation. In the project we do in-depth analyses of data from mainly two model systems: i) A long-term selection experiment in domestic chicken and ii) Large collections of natural Arabidopsis thaliana accessions. The focus in the project is to develop and use new quantitative-, population-, and evolutionary genetics approaches to analyze already available data. Depending on the background, competence and interests of the applicant, the project can be focused either on the development of new genetics theory, statistical methods, computational algorithms and bioinformatics tools, analyses of empirical data using methods developed by others working on the project, or a combination of the two.

Examples of earlier work in this project include:

Opinion articles 1. Carlborg, Ã. and Haley, C. Epistasis: too often neglected in complex traits studies? Nature Reviews Genetics 2004 5: 618-625. 2. Le Rouzic, A. and Carlborg, Ã. Evolutionary potential of hidden genetic variation. Trends in Ecology and Evolution 2008 23:33-37. 3. Nelson, R.M., Pettersson, M.E., Carlborg, Ã. A century after Fisher: time for a new paradigm in quantitative genetics. Trends Genet. 2013 29:669-76.

Original publications 1. Carlborg, A., Jacobsson, L., Ähgren, P., Siegel, P., Andersson, L. Epistasis and the release of genetic variation during long-term selection. Nature Genetics 2006 38:418-20. 2. Alvarez-Castro, J. and Carlborg, A. A general model for functional and statistical epistasis and its application in QTL analysis. Genetics 2007 176: 1151-1167 3. Alvarez-Castro, J., le Rouzic, A. and Carlborg, A. How to perform meaningful estimates of genetic effects. PLOS Genetics 2008 May 2; 4(5):e1000062 4. Le Rouzic, A., Alvarez-Castro, J. and Carlborg, A. Dissection of the genetic architecture of body weight in chicken reveals the impact of epistasis on domestication traits. Genetics 2008 179:1591-1599. 5. Johansson, A.M., Pettersson, M.E., Siegel, P.B. and Carlborg, A. Genome- wide effects of long-term divergent selection. PLoS Genet. 2010 6(11):e1001188. 6. Pettersson, M.E., Besnier, F., Siegel, P. and Carlborg, A. 2011. Replication and explorations of high-order

gree. PLOS Genetics, Jul;7(7):e1002180. 7. Shen, X., Pettersson, M., Rönneg Ard, L. and Carlborg, A. Inheritance beyond plain heritability: variance-controlling genes in Arabidopsis thaliana. PLoS Genetics 2012 8(8):e1002839. Epub 2012 Aug 2. 8. Nelson, R.M., Pettersson, M.P., LI, X., Carlborg, A. 2013. Variance heterogeneity in Saccharomyces cerevisiae expression data: trans- regulation and epistasis. PLoS One. 2013 8:e79507. 9. Shen, X., De Jonge, J., Forsberg, S., Pettersson, M., Sheng, Z., Hennig, L., and Carlborg, A. Natural CMT2 variation is associated with genome-wide methylation changes and temperature seasonality. PLoS Genet. 2014 10(12): e1004842 10. Lachowiec, J., Shen, X., Queitsch, C. and Carlborg, A. Highly epistatic genetic architecture of root length in Arabidopsis thaliana. BIORXIV/2014/008789

To be suitable for the post, we believe that you have a thorough theoretical background in quantitative-, population- or evolutionary genetics and an interest in using this knowledge to improve our understanding of the genetic mechanisms contributing to adaptation via analyses of empirical data. You have probably also have experience in performing quantitative-, population- or evolutionary genetics analyses in empirical data. As we use R as a common platform for all our work, previous experience in R-programming is an advantage.

The post is available immediately and we are now looking for candidates are available to start the post by April 1, 2015 at the latest. Forms for funding or employment Employment as Post-doctoral researcher student for 1 year with possibility of extension 1+2 years.

If you have questions about the post, us or our work, please contact Arjan Carlborg (Orjan.Carlborg@slu.se)

We are looking forward to hearing from you!

Orjan.Carlborg@slu.se

# USheffield SheepGenomics

A postdoctoral research associate position is available to work with Professor Jon Slate at the University of Sheffield. The position is funded by the Natural Environment Research Council (NERC) to carry out molecular quantitative genetic studies in Soay sheep. The main aim of the project is to carry out analyses on single nucleotide polymorphism (SNP) data to perform genomic prediction of individual phenotypes for a wide variety

epistasis using a large Advanced Intercross Line pedi- of life history and morphological traits. The project will seek to compare the efficacy of genomic prediction compared to traditional quantitative genetic approaches, and to examine genetic responses to natural selection. The project is part of a collaboration with Professor Josephine Pemberton and her group at the University of Edinburgh. The Soav sheep dataset is one of the best ecological genetic datasets in the world (for example publications see Gratten et al. 2008 Science 319:318-320; Johnston et al. 2013 Nature 502:93-95; Berenos et al. 2014 Molecular Ecology 23: 3434-3451) and so this is a great opportunity for a talented and ambitious postdoc who enjoys data analysis. The PI welcomes informal queries from potential candidates (j.slate@sheffield.ac.uk

> The position involves a large amount of analysis and handling of high density SNP chip data (already generated), and therefore expertise in evolutionary genetics, quantitative genetics or bioinformatics is essential. Applications from those who have a PhD in related disciplines (statistics, computer science, mathematics, physics, etc) and pre-existing experience in evolutionary research are also welcomed.

> The post is available for up to 3 years, and is available from February 2015 or as soon as possible afterwards. The starting salary is £29,552 - £35,526 per annum, depending on experience and qualification. More information is available at http://www.sheffield.ac.uk/jobs/, under job reference number UOS009837.

j.slate@sheffield.ac.uk

# **UWisconsin Madison PopulusGenomics**

Postdoctoral Position: Populus Genomics-Phenomics University of Wisconsin-Madison

A Postdoctoral Associate position will be available summer 2015 to work with Dr. Rick Lindroth and colleagues on a project exploring aspen (Populus tremuloides) genomics. Research will be focused on the WisAsp gene mapping population (~500 replicated aspen genotypes) near Madison, Wisconsin. Our particular interest is in identifying the genomic components underlying phenotypic traits (e.g., secondary chemistry, phenology, growth) that govern the interactions of aspen with herbivorous insect communities. Genotyping of the WisAsp population is currently underway, with the aim of geno-

typing each tree at a minimum of 40,000 SNPs. Current work is a collaborative effort with Dr. Pelle Ingvarsson (Umea Plant Science Centre, Sweden).

The Postdoctoral Associate will help direct a team of scientists working on the WisAsp system. Primary responsibilities will be to coordinate and conduct genetic/genomic studies (e.g, genome-wide association and RNAseq studies) of aspen traits, censuses of insect biodiversity and foliar damage, and plant chemical analyses. The Associate will be expected to mentor students and provide intellectual input into the project.

For more information about the Lindroth Research Group, visit: <a href="http://entomology.wisc.edu/~lindroth/">http://entomology.wisc.edu/~lindroth/</a> Qualifications include demonstrated expertise in plant genetics/genomics. Strong interpersonal/teamwork, laboratory, statistical and writing skills are essential. Experience with insect identification and/or techniques (e.g., HPLC) for chemical analysis of plant tissues is preferred.

Salary and benefits: commensurate with experience. Excellent family medical/dental health plans available at modest cost.

Inquiries and application: General inquiries about the position should be addressed to Dr. Rick Lindroth (contact info below). To apply, send a single pdf document including a letter detailing fit to the position, c.v., names/addresses of three references, and representative reprints to:

Dr. Rick Lindroth

lindroth@wisc.edu

Dept. of Entomology 1630 Linden Dr. University of Wisconsin-Madison Madison, WI 53706 (608)263-6277

UW - Madison is an equal opportunity employer

Richard L. Lindroth, Ph.D. Professor and Associate Dean for Research 608-262-6792 (Deans office) 608-263-6277 (Lab office) 146 Agriculture Hall 1450 Linden Drive University of Wisconsin-Madison Madison, WI 53706 U.S.A.

http://labs.russell.wisc.edu/lindroth/ Rick Lindroth lindroth@wisc.edu>

## VIB-UGent EvolutionarySystemsBiology

## POSTDOCTORAL POSITION IN EVOLUTIONARY SYSTEMS BIOLOGY

The VIB/UGent Department of Plant Systems Biology (PSB, www.psb.vib-ugent.be) is a world-leading plant science institute with the mission to integrate genetics, genomics and computational biology to unravel the biology of plants and to further explore the potential of plants to build a sustainable world. The Evolutionary Systems Biology lab at PSB (http://www.psb.vib-ugent.be/esb) is looking for a talented and highly motivated postdoc to work on modeling the evolution of transcriptional systems from a mechanistic perspective (3 year position, extendable to 4 years, available immediately).

#### Project description

The goal of the Evolutionary Systems Biology lab is to understand how biological systems work and how they evolve. In this project, we will use fine-grained, sequence-based genotype-phenotype mapping models in combination with population-based evolutionary algorithms to study the evolution of molecular systems through gen(om)e duplication under stabilizing, directional and fluctuating selection. We will in particular study the mechanisms by which duplicates in gene regulatory networks may diverge, and the impact of duplications on the origin of emergent system properties such as robustness and evolvability. The framework to be developed will also be instrumental in investigating the impact of neutral versus adaptive evolutionary mechanisms on the origin of complexity in gene regulatory networks, an issue that has thus far remained understudied from a mechanistic modeling perspective.

#### Profile

- You have a PhD in Computational Biology, Mathematics, Physics, Engineering, Biological Engineering or Computer Science. - You have a strong interest in molecular evolution; experience in the use of mathematical techniques to model the evolution of biological systems is a major plus. - You have a passionate interest in pursuing fundamental research in a stimulating and competitive field of science. - You have an outstanding publication record in peer-reviewed international journals. - You found a good balance between working

in a team and working independently. - Experience in guiding MSc or PhD students is a plus. - You are fluent in English (spoken and written) and at least one programming language. - You are meticulous, well organized, responsible and self- critical. - You take pride in delivering high-quality work. - You can think outside the box.

#### We offer:

- An exciting work environment in a top research institute. - The opportunity to be part of a young, dynamic, interdisciplinary and international team. - An attractive salary that will be based on previous experience and skills.

Please e-mail your CV, a letter of motivation and the contact details of three referees to Prof. Dr. Ir. Steven Maere (steven.maere@psb.vib-ugent.be). More info about the lab can be found at <a href="http://www.psb.vib-ugent.be/esb/">http://www.psb.vib-ugent.be/esb/</a>. The position is available immediately. Applications are accepted until the position is filled.

Prof. Dr. Ir. Steven Maere Evolutionary Systems Biology lab Dept. of Plant Systems Biology VIB/Ghent University Technologiepark 927 B-9052 Gent, Belgium tel +32 9 3313805 http://www.psb.ugent.be/esb/steven.maere@psb.vib-ugent.be

in African countries (likely Uganda, Burkina Faso, Mali, but others are possible), and will be extremely organised with the ability to work independently, troubleshoot problems, and plan own work to a high standard, both at Sanger and in the field.

The fellow will also join the 1000 Anopheles genomes project, which you can read about here

http://www.malariagen.net/content/large-public-dataset-gives-unprecedented-view-african-mosquito-genomevariation More about my group here

http://www.sanger.ac.uk/research/faculty/-mlawniczak/ http://www.sanger.ac.uk/research/-projects/vectorparasite/ Job description and online application:

https://jobs.sanger.ac.uk/wd/plsql/-wd\_portal.show\_job?p\_web\_site\_id=-1764&p\_web\_page\_id=203598&p\_vacancy=postdoctoral-fellow-malaria-group-wellcome-trust-sanger-institute&p\_lang=DEFAULT For further information, please contact me at mara@sanger.ac.uk

Thank you, Mara Lawniczak

 ${\it Mara Lawniczak < mara@sanger.ac.uk >}$ 

## WellcomeTrustSangerInst AnophelesGenomics

This is the final week to apply for a postdoc position that integrates field work and genomics in Anopheles mosquitoes. Applications submitted before Friday (Dec 19) will be considered.

I am seeking a postdoctoral fellow to join the Malaria Programme at the Wellcome Trust Sanger Institute and lead our field-based effort to carry out large-scale genetic analyses of vector/parasite interactions. The fellow will be required to coordinate and manage very large-scale collection and rearing of wild mosquito larvae to adults in field based insectaries, followed by P. falciparum infection and preservation for genome sequencing. The postdoc will be trained on bioinformatic analyses of the data, and carry out functional testing in the lab on genes of interest.

Considerable scope to incorporate microbial genetics into the project exists, and candidates from this background will also be considered. The ideal applicant will be interested and able to spend several months at a time

#### YaleU 2 HumanPrimateEvolution

(1)

\*Postdoctoral Associate to research reproductive ecology and life history transitions in indigenous peoples at Yale Anthropology\*

Department of Anthropology Yale

The Department of Anthropology at Yale University and the Yale Institute for Biospheric Studies invite applications for a full-time, two-year Postdoctoral Associate position in biological anthropology during academic years 2015-17. The postdoctoral position will be part of the Chaco Area Reproductive Ecology Program (http://valeggia.wordpress.com/the-chaco-area-reproductive-ecology-program/) directed by Dr. Claudia Valeggia.

The successful applicant will work on a research project concerning human life history transitions from evolutionary and biocultural perspectives. Further topics of research may include maternal health, child growth and development, evolutionary medicine, the biodemography of aging, and the nutritional and epidemiological transitions in Latin American indigenous peoples. The work will include some laboratory and field project management responsibilities, including trips to the field site in northern Argentina.

A Ph.D. degree in anthropology, demography, human biology, public health or related fields is required as are extensive quantitative skills. Experience in qualitative data analysis and knowledge of written and spoken Spanish are highly desirable. Applicants must have a demonstrated record of publication in peer-reviewed journals and/or successful grant writing.

The position will remain open until filled, but applicants are advised to submit their applications by February 15, 2015 for primary consideration. Some interviews will take place at the AAPA Meetings (St. Louis, Missouri, March 25-29).

Please email the following documents to both of these email addresses:

carepostdoc@gmail.com and claudia.valeggia@yale.edu

- 1. A cover letter indicating your interest in the position.
- 2. A CV with names and email addresses of three referees.
- 3. A 1-2 page research experience and future goals statement.
- 4. pdf samples of publications (submitted, in press, or published). Yale University is an Equal Opportunity/Affirmative Action Employer.

(2)

\*Post-Doctoral Associate to research primate socioendocrinology and genetics at Yale Anthropology \*

The Department of Anthropology and the School of Forestry & Environmental Studies at Yale University invite applications for a full-time, two-year Postdoctoral Associate position in biological anthropology and/or primatology during academic years 2015-17. The postdoctoral position is offered within the Owl Monkey Project directed by Dr. Eduardo Fernandez-Duque

(owlmonkeyproject.wordpress.com).

The successful applicant will collaborate on research projects related to the socio-endocrinology and genetics of captive and wild owl monkey populations. The applicant will participate in the analyses of hormonal samples collected as part of an ongoing NSF project on the energetics of biparental care in owl monkeys. The applicant will also be responsible for data analysis and manuscript preparation using data from multi-year behavioral and demographic datasets. The position will include some field work in Argentina and/or in one of two captive colonies of owl monkeys where research is conducted.

A Ph.D. degree in animal behavior, biological/evolutionary anthropology, ecology, conservation, or related field is required. The position will remain open until filled, but applicants are advised to submit their applications by February 15, 2015 for primary consideration since some interviews will take place at the AAPA Meetings (St. Louis, Missouri, March 25-29). Applicants must have a demonstrated record of publication in peer-reviewed journals and/or successful grant writing.

Please email the following documents to both of these email addresses:

owlmonkey<br/>project@gmail.com and eduardo.fernandezduque@yale.edu:

- 1. A cover letter indicating your interest in the position.
- 2. A CV with names and email addresses of three referees.
- 3. A 1-2 page research experience and future goals statement.
- 4. pdf samples of publications (submitted, in press, or published).

Yale University is an Equal Opportunity/Affirmative Action Employer.

Ben Finkel <br/> <benjfinkel@gmail.com> Ben Finkel <br/> <benjfinkel@gmail.com>

## WorkshopsCourses

Barcelona Morphometrics Apr7-10 2	NESCent PopulationGeneticsRHackathon Applications
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## Barcelona Morphometrics Apr7-10 2

Dear Colleagues,

There are still some places left for the course "Integration and Modularity with Geometric Morphometrics -4th edition"; April 7-10, 2015. INSTRUCTOR: Prof. Chris Klingenberg (University of Manchester, UK). End of registration with reduced fee: January 15.

Course webpage: http://www.transmittingscience.org/-courses/gm/modularity-and-gm/ Program:

- 1. Brief review of geometric morphometrics: Procrustes fit, shape space, covariance matrices, etc.
- 2. PCA for characterizing patterns of integration.
- 3. Partial least squares and integration.
- 4. Practice: patterns of integration.
- 5. Indices of integration.
- 6. Modularity: concepts and analysis.
- 7. Modularity hypotheses: where do they come from?
- 8. Practice: Indices, allometry and comparisons.
- 9. Comparing patterns of integration.
- 10. Developmental integration and modularity.
- 11. Evolutionary integration and modularity.
- 12. Practice: integration & modularity.
- 13. Allometry as a factor of integration.
- 14. Multilevel analyses of integration and modularity.
- 15. Presentations of group work.

The aim of the workshop is to provide participants with

an overview of morphometric approaches to studying morphological integration and modularity. The concepts of integration and modularity will be introduced and discussed in different contexts (e.g. development, individual variation, evolutionary change). The theoretical basis and application of different methods for analyzing integration and modularity in geometric morphometric data will be presented. Lectures will be combined with hands-on demonstrations of the analyses. Participants are encouraged to bring their own morphometric data for analysis and discussion in the workshop.

This course will be held in the Sabadell facilities of the Institut Català de Paleontologia (Barcelona, Spain) and is co-organized by Transmitting Science and the Institut Catalá de Paleontologia M. Crusafont. Place are limited and will be covered by strict registration order.

Please feel free to distribute this information between your colleagues if you consider it appropriate. With best regards

Dr. Soledad De Esteban-Trivigno courses@transmittingscience.org Transmitting Science <a href="http://www.transmittingscience.org/">http://www.transmittingscience.org/</a> >

soled ad. esteban @transmitting science.org

## BodegaBay AppliedPhylogenetics Mar7-14

UC Davis

#### WORKSHOP IN APPLIED PHYLOGENETICS

at Bodega Marine Laboratory, Bodega Bay, California March 7-14, 2015

Sponsored by the

University of California, Davis and Bodega Marine Laboratory

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 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 sixteenth consecutive 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 Northern California coast, which has on-site housing. The course format will involve equal parts of lecture, discussion, and hands-on software training. 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 \* Character evolution: ancestral-state estimation, rates of trait evolution \* Lineage diversification: detecting rate shifts, testing key innovation hypotheses

Instructors for the 2015 workshop \* Jonathan Eisen \* Rich Glor \* Tracy Heath \* Sebastian Hohna \* John Huelsenbeck \* Michael Landis \* Sarah Longo \* Mike May \* Brian Moore \* Samantha Price \* Bruce Rannala \* Bob Thomson \* Peter Wainwright

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 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 7, leaving March 14) and return transportation from Davis to the Bodega Marine Labs.

Application Deadline Applications are due by January 10, 2015. 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. Students will be notified via e-mail by January 13, 2015 of acceptance.

Application Forms and Information Visit the Bodega website for additional information and to download an application form.

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

brianmoore@ucdavis.edu

## BodegaBay AppliedPhylogenetics Mar7-14 2

[SECOND NOTICE]

UC Davis

#### WORKSHOP IN APPLIED PHYLOGENETICS

at Bodega Marine Laboratory, Bodega Bay, California March 7V14, 2015

Sponsored by the

University of California, Davis and Bodega Marine Laboratory

#### 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 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.

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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

"Brian R. Moore" <br/> <bri> du>

## ImperialCollegeLondon Hackout2 Feb10-13

Dear colleagues,

it is my pleasure to announce that registration for "Hackout 2: GRINDER" is now open. This hackathon will be dedicated to the development of Graphical Resources for Infectious Disease Epidemiology, using the R as well as Javascript libraries for interactive graphics.

This event, funded by the Medical Research Council, will be hosted at the MRC Centre for Outbreak Analysis and Modelling, Imperial College London, and take place on 10-13th February 2015.

For more information, including guidelines for registering, check out the dedicated website: <a href="http://sites.google.com/site/hackout2/">http://sites.google.com/site/hackout2/</a> All the best

Thibaut

ps: please feel free to circulate this announcement where appropriate

Dr Thibaut Jombart MRC Centre for Outbreak Analysis and Modelling Department of Infectious Disease Epidemiology Imperial College - School of Public Health Norfolk Place, London W2 1PG, UK Tel. : 0044 (0)20 7594 3658 http://sites.google.com/site/thibautjombart/ http://sites.google.com/site/therepiproject/ http://adegenet.r-forge.r-project.org/ Twitter: @thibautjombart

"Jombart, Thibaut" <t.jombart@imperial.ac.uk>

16-18 04107 Leipzig Germany Phone 1: +49 341 97-16684 Phone 2: +49 341 97-16653 Fax: +49 341 97-16679

Katja Nowick <katja@bioinf.uni-leipzig.de>

## Leipzig EvolBiolProgramming Mar17-Apr2

Course on Programming for Evolutionary Biology

When: March 17th - April 2nd 2015

Location: Leipzig, Germany

Application deadline: January 15th 2015

Detailed information about the course content and how to apply: <a href="http://evop.bioinf.uni-leipzig.de/">http://evop.bioinf.uni-leipzig.de/</a> "Nothing in Biology Makes Sense Except in the Light of Evolution" (Dobzhansky, 1973). Today, evolutionary biology often involves the analysis of an unprecedented amount of information and supports many other disciplines, such as medicine (evolutionary medicine), behavioral biology (evolutionary psychology), ecology, and information transfer. Scientists have to analyze large datasets, which requires computational programming skills to design and apply own ideas into customized algorithms.

In this intensive 17 days course, students will learn how to survive in a Linux environment, get hands-on experience in two widely used programming languages (Perl and R), and statistical data analysis. The classes will be given by experts in the field and consist of lectures and exercises with the computer. The aim of the course is to provide the students with the necessary background and skills to perform computational analyses with a focus on solving research questions related to genomics and evolution. The philosophy of the course will be "learning by doing", which means that the computational skills will be taught using examples and real data from evolutionary biology for the exercises. During the course, students will also propose projects of their own interest and perform them as final projects in small groups under the supervision of a teaching assistant. This summer school is open for students from all countries and targeted toward PhD students and postdocs of evolutionary biology or related research fields with no or little programming experience who want to become proficient in computational evolutionary biology in a couple of weeks.

The course takes place at the University of Leipzig.

– Dr. Katja Nowick

Group Leader "TFome and Transcriptome Evolution" www.nowick-lab.info Universität Leipzig Härtelstrasse

## Lipari Italy ComputBiology Jul19-25

Computational Dynamic Analysis of Biological Processes <a href="http://lipari.cs.unict.it/LipariSchool/Bio">http://lipari.cs.unict.it/LipariSchool/Bio</a> July 19 - July 25, 2015 Lipari Island, Italy

Aim and scope:

Processes is one of the most challenging research areas in modern life science. Topics such as Disease Dynamics, Drug Resistance, Immune System Analysis, Emerging Mutations, Microbiome Analysis, and Biological Networks Evolution involve intriguing and still unsolved problems. On the other hand, the availability of Next Generation Sequencing and other High-throughput techniques provide a strong support for scientists working in this field. Our main and special guest lectures will address the scope focusing on algorithms, computational models, biomedical and biotechnological results on this field. From the enclosed bibliography, it appears that the selected themes have received much attention in the scholarly literature ranging from Nature and Science to Bioinformatics Journals.

Speakers

Peer Bork Network Dynamics European Molecular Biology Laboratory (EMBL), Heidelberg, GERMANY

Carlos Bustamante Genomics of Plant Biology Stanford University, California, USA

Jeff Gore Evolutionary Game-Theoretic Models MIT, Massachussets, USA

Stephen Quake NGS and Cancer Dynamics Stanford University, California, USA

Guest speakers

Eric Jonasch Molecular Determinants of Renal Cell Carcinoma Ontogeny and Progression MD Anderson Cancer Center, Houston, Texas, USA

Michael Levitt Stanford University, California, USA

Gene Myers Max Planck Institute for Molecular Cell Biology and Genetics, Germany

Participants will be arranged in a comfortable hotel at very special rates. The conference room (in the same hotel) is air-conditioned and equipped with all conference materials. Special areas are reserved to students for the afternoon coursework and study. The island of Lipari can be easily reached from Milazzo, Palermo, Naples, Messina and Reggio Calabria by ferry or hydrofoil (50 minutes from Milazzo). Two kinds of participants are welcome. Students: Participants who are expected to do afternoon courseworks and take a final exam (The grades will be given following the ECTS grading scale). The course will involve a total of 24 hours of teaching. According to our university rules passing the final exam gives right to an equivalent of 6 ECTS credits in any Ph.D. program. Auditors: participants who are not interested in taking the final exam. Registration fee is 470 Euros. The fee covers the course material, bus+hydrofoil Catania airport-Lipari-Catania airport. social event. Late registration is 570 Euros.

Applications can be submitted from November 1, 2014 up to May 29, 2015. Late registrations will be accepted until July 14th. Admission notification will start on March 2nd, according to registration time. Applicants must include a short curriculum vitae.

The official language is English.

School Directors Prof. Alfredo Ferro (University of Catania) Prof. Raffaele Giancarlo (University of Palermo) Prof. Concettina Guerra (Georgia Institute of Technology) Prof. Michael Levitt (Stanford University)

Dr. Rosalba Giugno (co-director, University of Catania) Prof. Alfredo Pulvirenti (co-director, University of Catania)

People interested in receiving further information about the school can contact:

Lipari School Organization Prof. Alfredo Ferro – Lipari School secretary Università degli Studi di Catania - Dipartimento di Matematica e Informatica Città Universitaria - Viale A.Doria, 6 - 95125 Catania - ITALY Tel: +39 095 7383071 Fax: +39 095 7337032 / +39 095 330094 E-mail: liparischool@dmi.unict.it

Alfredo Ferro < liparischool@dmi.unict.it>

## LMU Munich MSc Geobiology Paleobiology

\*Applications invited for the Master's program "Geobiology and Paleobiology" (MGAP) at the Ludwig-Maximilians-Universität (LMU) Munich (Germany)\*

The Master's program "Geobiology and Paleobiology" (MGAP) is a consecutive, research-focussed, two-year Master of Science program at the Faculty of Geosciences of the Ludwig-Maximilians-Universität (LMU) Munich, in collaboration with researchers of the Bavarian Natural History Collections and the GeoBio-Center @ LMU. MGAP aims to provide students with a comprehensive introduction into the interdisciplinary research fields of geobiology and paleobiology to prepare them for careers in science and beyond.

The MGAP program is based on interdisciplinary, research-oriented courses that address patterns and processes of evolutionary and environmental geobiology and paleobiology, supported by courses in complementary areas e.g., bioinformatics and statistics.

The module-based curriculum provides an integrative approach facilitated by experts in different areas of expertise. Students will learn and acquire routines with a wide range of scientific methods such as modern techniques in molecular biology, fieldwork, collection management, comparative morphology, phylogeny, bioinformatics, statistics and (paleo-) biodiversity assessments. Students will learn independent scientific work in individual and intensively supervised research projects at early stages of the curriculum.

A mentoring program offers further guidance and support throughout the studies.

\*MGAP in brief\*

- International Master's program in Geobiology and Paleobiology (Master of Science, M.Sc.) at the LMU Munich
- 2 years, 4 semesters, start in October (winter semester)
- All courses taught in English
- Courses are combined in Modules
- Course total: 120 credit points (ECTS)

More information is available on the program's website: \$<\$ http://www.mgap.geo.uni-muenchen.de>

For the winter semester 2015-2016 (courses start mid-October), application dates are as follows:

- 1. January 31, 2015 for international students (non-EU students and EU students (non-German)), applications are possible now: < http://www.mgap.geo.uni-muenchen.de/admission >
- 2. February 15 to May 31, 2015 for EU students (including German students).

All applications have to be submitted via an online submission portal: <a href="https://www.efv.verwaltung.uni-muenchen.de/mageopal">https://www.efv.verwaltung.uni-muenchen.de/mageopal</a>> The Department of Earth-

and Environmental Sciences (Division of Palaeontology & Geobiology) of the Ludwig-Maximilians-Universität Munich offers an excellent multidisciplinary research and learning environment, one of its particular strength being the close interaction between Geosciences, the Biological Faculty, and the Bavarian Natural History collections (< http://www.snsb.de >) in the framework of the GeoBioCenter@ LMU (< http://www.geobiocenter.uni-muenchen.de >).

The LMU Munich is the leading research university in Germany, with a more than 500-year-long tradition, and builds upon its success in the Excellence Initiative, a Germany-wide competition promoting top-level university research. LMU Munich also has been successful in the "Qualitätspakt Lehre" initiative by the German Federal Ministry of Education and Research (BMBF) to promote innovative teaching and learning. Munich has also been repeatedly voted Germany's most livable city.

woerheide@lmu.de

# $\begin{array}{c} \textbf{NESCent} \\ \textbf{PopulationGeneticsRHackathon} \\ \textbf{Applications} \end{array}$

# Population Genetics in R Hackathon - Open Call for Participation #

Do you develop population genetics methods or algorithms in R? Are you a researcher wrestling with analyzing population genetics data in R? Have you run into difficulties with passing data or metadata from one R package to another? Have you run into problems with large datasets? Have you found documentation on building workflows from packages for population genetics analysis difficult to come by? Do you have expertise and ideas to share and energy to spend on overcoming these challenges? Do you enjoy collaborating with likeminded others to do so? If you answered some (or all) of these questions with yes, then the following event may be for you.

#### ## Synopsis

NESCent is sponsoring a hackathon to be held at NESCent in Durham, North Carolina, on March 16-20, 2015, with the objective to help foster an interoperating ecosystem of scalable tools and resources for population genetics data analysis in the popular R platform. The event is designed to target interoperability, scalability,

and workflow building challenges among the many population genetics R packages that already exist. The gathering provides an opportunity for a diverse group of population genetics researchers, method developers, and people with other relevant areas of expertise to collaborate on code, documentation, use-cases, and other resources that will aid their communities.

Full details and additional background are available at the following website: http://informatics.nescent.org/wiki/R\_PopGen\_Hackathon ## How to participate

Applications to participate in the hackathon are now being accepted. To apply, please fill out the following form: http://goo.gl/forms/siwNo1P3ti Deadline for receiving your application is December 11, 2014. Support for travel, food and lodging costs are available to successful applicants who indicate need. We particularly welcome applications from women and members of other groups underrepresented in science and in software engineering.

Our plan is to begin sending out acceptance letters December 15, 2014, and if your application is successful, we will need you to confirm attendance within 2 days of receiving notice, so please ensure you can receive and send email during the week of December 15.

Sincerely, The organizing team: Thibaut Jombart, Hilmar Lapp, St?phanie Manel, Emmanuel Paradis, Bastian Pfeifer, and Greg Warnes

– Hilmar Lapp -:- informatics.nescent.org/wiki -:- lappland.io

hlapp@nescent.org

#### ULeicester Ensembl Feb5

Where: University of Leicester, UK What: Ensembl Browser Workshop When: 5th February 2015

The Ensembl project provides one of the most comprehensive and integrated resources of genomic data, mainly vertebrate, which can be accessed via a web browser (www.ensembl.org) and through BioMart, FTP, Perl APIs, REST API, and MySQL queries. This one-day workshop offers a comprehensive practical introduction to the use of the Ensembl browser and some of its tools such as BioMart, BLAST/BLAT, and VEP. It will consist of lectures, live demos and hands-on exercises. An introduction to the Ensembl Genomes project, which focus on Plants, Bacteria, Metazoa (non-vertebrate), Protists and Fungi will also be included in this work-

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shop. The workshop will be delivered by Dr Denise Carvalho-Silva from the Ensembl Outreach team. It is most suitable for wet-lab biologists or bioinformaticians who need access to whole genome data in their research.

Places will be allocated on a first-come-first-served basis. More details and registration can be found at (http://goo.gl/ebNHLr). Please email me directly if you have any queries. Best wishes, Kate

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## ULeicester NGS data analysis Jan7-9

Where: University of Leicester, UK What: Next Generation Sequencing Data analysis. When: 7th-9th January 2015

A few places are still remaining and are available for external applicants. Places will be allocated on a firstcome-first-served basis.

Next Generation Sequencing methods are becoming ubiquitous in all areas of biology. This three day workshop aims to enable wet-lab biologists to understand and implement basic pipelines for analysis of NGS data. Topics covered will include:

\* An overview of NGS technology \* A brief introduction to library preparation \* Common file formats \* Quality Control \* Genome Assembly \* Mapping \* Variant Calling

The workshop will consist of a mixture of short talks and practical work. Participants are required to have some basic knowledge of Unix to enable them to follow the practical work.

Further details and the registration form are available on the University of Leicester Bioinformatics and Biostatistics Analysis Support Hub (http://goo.gl/SKq27X). Please email me directly if you have any queries.

Best wishes,

Kate

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## Yosemite Symbiosis Jan31 Registration

Dear Colleagues,

The Fifth annual Symbiosis Workshop will take place on May 1-3, 2015 at the Sierra Nevada Research Station, Yosemite National Park.

This has become a great venue for a diversity of symbiosis researchers, so we hope to continue to attract a diverse group

Keynote speaker 2015: Dr. Ellen L. Simms from the University of California, Berkeley.

Information about our meeting:

Why: Our goal is to better integrate scientists that focus on symbiosis research. We plan to continue annual workshops at Yosemite as this site is both beautiful and secluded. This will be our 5th annual meeting and we are now attracting scientists from all over the country and overseas.

Who: The meeting is small by design (~50 participants) and we seek to focus on scientists interested in both cooperation and symbiosis. In the past we have covered a range of symbiosis topics from ecology and evolution to molecular mechanisms in different model and non-model systems. We would like to make room for a diverse group of people so we will initially accept up to 3 lab members per group (including the PI) on a first come first served basis.

When: The talks and formal meeting will be held May 2-3, 2015, though we make accommodation arrangements available for attendees to arrive on Friday the 1st to provide opportunities to enjoy the park. Since time at the conference is limited, we ask attendees to submit an abstract and a preference (talk versus poster). Priority will be given to those presenting. Abstract and early bird registration are due on January 31st, 2015.

Where: SNRS has a set of cabins in Wawona and all within a short walk of the conference room. Costs: See details in the registration page. We will only be able to accept credit card payments this year.

Link to meeting information: http://www.sachslab.com/symbiosis-2015.php=0ARegistration link: http://snri.ucmerced.edu/symbiosis=0APlease direct any questions to the organizers:

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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 LATEX 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 formated) 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 preformating 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  $\LaTeX$  do not try to embed  $\LaTeX$  or  $\LaTeX$  in your message (or other formats) since my program will strip these from the message.